SELF STUDY REPORT FOR

CENTRAL AGRICULTURAL UNIVERSITY, IMPHAL

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SELF STUDY REPORT FOR UNIVERSITYACCREDITATION

SUBMITTED TO

NATIONAL AGRICULTURAL EDUCATION ACCREDITATION BOARD (NAEAB)

INDIAN COUNCIL OF AGRICULTURAL RESEARCH, NEW DELHI

SUBMITTED BY

CENTRAL AGRICULTURAL UNIVERSITY
LAMPHELPAT, IMPHAL

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6.6.1. UNIVERSITY GOVERNANCE

The organogram of the university is given below

6.6.1.1. Vision, Mission and Goals: Whether the University has published vision document and has developed the plan of implementation with time frame and proposed financial arrangement? Whether the University has planned, developed, implemented, and evaluated intentional and purposeful programs/services that may facilitate students and other stakeholders of the University provide one paragraph for each.

Yes, the University has published vision document entitled "CAU Vision 2030". The **Mandate** of the University as stipulated in the Act are:

- To impart education in different branches of agriculture and allied sciences as it may deem fit,
- To further the advancement of learning and prosecution of research in agriculture and allied sciences,
- To undertake programmes of extension education in the states under its area of jurisdiction and
- To undertake such other activities as it may determine from time to time.

Keeping the mandate in view, the **Mission** of the university is to be a Centre of Excellence in Teaching, Research and Extension Education in the field of Agriculture and Allied Sciences.

To fulfil the mission, the university has set the following **Goals**:

- To produce globally competitive graduates and postgraduates in agriculture and allied sciences.
- To develop sustainable and profitable farming systems for enhancing productivity, production and profitability in agriculture and allied sectors.
- To educate the extension functionaries for effective dissemination of agro-technologies to the farmers, entrepreneurs and agro-industries.

- To be an important link in the chain for transforming agriculture and allied vocations into profitable enterprises and ensuring food and nutritional security to the people of NEH region.

To meet the goals, the University has laid down the following **objectives**:

- To establish and develop excellent constituent colleges that offer undergraduate and postgraduate education in various states of the NEH Region under the area of jurisdiction of the university in the fields of agriculture, agricultural engineering, food technology, fisheries, home science, horticulture, forestry and veterinary sciences and animal husbandry.
- To impart quality education so as to produce globally competitive graduates and post-graduates in different areas of agriculture and allied sciences including interdisciplinary areas, who are confident and capable of working as scientists, entrepreneurs, managers, agro-industrial workers and progressive farmers.
- To establish research stations and specialized research laboratories for taking up basic and applied research by the scientists and postgraduate students.
- To develop and demonstrate alternative farming systems which help the farmers to improve their productivity and profitability while preserving and improving the environment.
- To establish transfer of technology centres including Krishi Vigyan Kendras (Farm Science Centres) for developing effective extension methodologies and training the trainers in information dissemination.
- To popularize improved farming systems, technologies and equipment on pilot basis as a model for other extension agencies.
- To offer short-term refresher and vocational courses and training programmes to the officials of state government departments, farmers, entrepreneurs and agro-industrial houses.
- To have collaborations in the field of teaching, research, transfer of technology and developmental activities with the development departments of the state as well as national and international institutions including industrial and business houses.
- To provide consultancy services to progressive farmers, agro-industries and others involved in agriculture and allied sectors.
- To act as documentation and information centre on agricultural education, research, extension methodology and rural development.

In order to achieve the goal, the University has put in place elaborate plans effecting all the three wings of the University viz Teaching Research and extension, the detail of which are provided in the vision document of the University. The University also has a PME cell with a view to monitor and course correction of various programs and activities started/conducted by the University to be in line with the University's vision. In order to increase the agricultural literacy of the north east region, 6 new colleges were started one each in the state of Sikkim, Meghalaya, Nagaland, Mizoram, Manipur & Arunachal Pradesh. Since the last accreditation, new programs in UG, PG & Ph.ds were also started to cater to the academic needs of the region. The University has also signed MoU's with number of academic & research institutions, industries, NGO's etc for fulfilling the mission and goals of academic excellence and delivery of scientific innovation-based technologies and other information to stake holders.

Fig 1.: CAU Headquarters and its 13 constituent colleges located in six states of North East India

University Headquarters at Lamphelpat, Imphal, Manipur

College of Agriculture, Iroisemba, Imphal, Manipur

College of Veterinary Sciences & Animal Husbandry, Selesih, Aizawl, Mizoram

College of Fisheries, Lembuchera, Tripura

College of Horticulture & Forestry, Pasighat, Arunachal Pradesh

College of Community Science, Tura, Meghalaya

College of Agricultural Engineering & Post Harvest Technology, Ranipool, Gangtok, Sikkim	**College of Post Graduate Studies in Agricultural Sciences , Umiam , Barapani, Meghalaya**
College of Food Technology , Lamphelpat, Imphal, Manipur	**College of Agriculture, Pasighat, Arunachal Pradesh**
College of Agriculture, Kyrdemkulai, Meghalaya	**College of Horticulture, Bermiok, Sikkim**
College of Horticulture, Thenzawl, Mizoram	**College of Veterinary Sciences & Animal Husbandry, Jalukie, Nagaland**

6.6.1.2. Statutes and Regulations: Provide list of Statutes and Regulations published in the gazette notification and being implemented by the University for administration and planning.

Documents enclosed as ANNEXURE-A

SL. NO.	ACT/STATUTES/ORDINANCE	GAZETTE NOTIFICATION
1	CENTRAL AGRICULTURAL UNIVERSITY ACT, 1992	EXTRAORDINARY PART-II SECTION-1 28TH DECEMBER, 1992
2	CENTRAL AGRICULTURAL UNIVERSITY STATUTES	EXTRAORDINARY PART-II SECTION-1 28TH DECEMBER, 1992
3	CENTRAL AGRICULTURAL UNIVERSITY (AMENDMENT) ACT, 2016	EXTRAORDINARY PART-II SECTION-1 22ND AUGUST, 2016
4	CENTRAL AGRICULTURAL UNIVERSITY ORDINANCE A) NO. 1 OF 2005 B) NO. 2 OF 2005 C) NO. 3 OF 2005	WEEKLY PART-III SECTION-4 18-24 FEBRUARY 2006
4	CENTRAL AGRICULTURAL UNIVERSITY ORDINANCE D) NO. 1 OF 2007 E) NO. 2 OF 2007 F) NO. 3 OF 2007 G) NO. 4 OF 2007	WEEKLY PART-III SECTION-4 22-28 MARCH 2008

6.6.1.3. University Statutory officers and their selection process: Provide list of the statutory officers sanctioned in the Act, present position, their mode of appointment (selection/nomination), joining date, tenure. Please provide the reason of those statutory officers who have not been appointed so for.

List of Statutory Officers of the University:

1. Vice Chancellor
2. Directors
3. Deans
4. Registrar
5. Comptroller

Present Position:

1) CAU HEADQUARTERS

1. Dr. Anupam Mishra, Vice Chancellor, CAU, Imphal, Manipur. Joined on 17.10.2020
2. Dr. S. Basanta Singh, Director of Instruction, CAU Hqs. Imphal, Manipur. Joined on 05.02.2018
3. Dr. S. Basanta Singh, i/c Director of Research, CAU Hqs. Imphal, Manipur. Joined on17.10.2020
4. Prof. Ph. Ranjit Sharma, i/c Director of Extension Education, CAU Hqs. Imphal, Manipur. Joined on 02.05.2021
5. Prof. K. Mamocha Singh, i/c Registrar, CAU Hqs. Imphal, Manipur. Joined on 02.05.2016
6. Shri M.C. Jublani, i/c Comptroller, CAU Hqs. Imphal, Manipur. Joined on 15.04.2021

2) DEANS OF CONSTITUENT COLLEGES

1. Dr. B.N. Hazarika, Dean, College of Horticulture and Forestry, Pasighat, Arunachal Pradesh. Joined on 11.02.2019.
2. Dr. B.N. Hazarika, i/c Dean, College of Agriculture, Pasighat, Arunachal Pradesh. Joined on 11.02.2019.
3. Dr. L. Hmar, Dean, College of Veterinary Sciences & Animal Husbandry, Selesih, Mizoram. Joined on 18.01.2019.
4. Dr. P.P. Dhabral, Dean, College of Agril. Engg. & PHT, Ranipool, Sikkim. Joined on 28.12.2017.
5. Dr. P.P. Dhabral, i/c Dean, College of Horticulture, Bermiok, Sikkim. Joined on 01.04.2019.
6. Dr. Indira Sarangthem, Dean College of Agriculture, Imphal, Manipur. Joined on 14.05.2019
7. Dr. U.K. Behera, Dean College of Agriculture, Kyrdemkulai, Meghalaya. Joined on 18.01.2018.
8. Prof Puspita Das, i/c Dean, College of Community Sciences, Tura, Meghalaya. Joined on 01.10.2017.
9. Prof R.K.Saha, i/c Dean, College of Fisheries, Lembucherra, Tripura. Joined on 12/5/2021
10. Dr. Wricha Tyagi, i/c, Dean, College of Post graduate Studies in Agricultural Sciences, Barapani, Meghalaya. Joined on 03.03.2021.
11. Dr. Ng. Joykumar Singh, i/c Dean, College of Food Technology, Imphal, Manipur Joined on 28.10.2020.
12. Dr. AK. Sangwan, i/c Dean, College of Veterinary Sciences & Animal Husbandry, Jalukie, Nagaland. Joined on 01.06.2020.
13. Dr. Lalrinsangpuii, i/c Dean, College of Horticulture, Thenzawl, Mizoram. Joined on 17.07.2020.

Mode of appointment:

1. Vice Chancellor shall be appointed by the Visitor from a panel of not less than three persons who shall be recommended by a committee constituted under clause 2 of the statutes from amongst persons of eminence in education in general and agricultural sciences in particular. Vice Chancellor shall hold office for a period of five years and shall not be eligible for reappointment, provided that notwithstanding the expiry of his term of office, the Chancellor shall continue to hold office until his successor enters upon his office.
2. Dean: Dean of the college shall be appointed by the Board on the recommendation of the Selection Committee constituted for the purpose as per the clause 18 of the statutes. Dean shall hold office for a term of five years and shall be eligible for re-appointment, provided that a Dean on attaining the age of sixty-five years shall cease to hold office.
3. Director Instruction/Research/ Extension Education: Directors shall be appointed by the Board on the recommendation of a Selection Committee constituted for the purpose. Directors shall hold office for a term of five years and shall be eligible for reappointment.
4. Registrar: Registrar shall be appointed by the Board on the recommendation of a duly constituted Selection Committee under clause 18 of the Statutes and he shall be a whole-time salaried officer of the University. He shall be responsible to the Vice Chancellor for performance of his duties. Shall be appointed for a period of five years and shall be eligible for reappointment and shall retire on attaining the age of 62 years.
5. Comptroller: Comptroller shall be appointed by the Board on the recommendation of a duly constituted Selection Committee under clause 18 of the Statutes and he shall be a whole-time salaried officer of the University. Appointment shall be for term of five years and shall retire on

attaining the age of 62 years. May also be appointed on deputation for a specific period not exceeding five years.

Reason of those statutory officers who have not been appointed so far: Due to superannuation of the regular directors/ deans, advertisements were already made for appointment of these vacant posts. However, due to the prevailing pandemic, interviews could not be conducted. Interviews for these posts will be conducted as soon as the situation improves.

6.6.1.4. Decentralization of power: Decentralized systems are those in which central entities play a lesser role in any or both of fiscal and administrative dimensions in the agricultural universities. The information on financial autonomy and sanctioning power to the Dean and other officers of the University shall be provided. Whether the necessary administrative powers have been delegated to the Statutory officers of the University? Provide the list.

- University follows standard decentralization of power as per act and statute of the University which is given in section 6.6.1.2.

6.6.1.5. Supporting Units: Whether the University has established Maintenance cell, SC/ST Cell and Health facility and what is the present mode of functioning of these units to support the student, staff and University infrastructure?

- **Health Facility:** Each constituent college has well equipped medical unit for regular health check-up of staff and students. These 24X7 hours medical facilities are available in all campuses with well qualified resident medical officers assisted by compounder cum dresser, trained nurses and attendants. Ambulance services are also provided for the students and staffs for emergencies and effective health care management. The centre is also the place for conducting Students' counselling as and when required under the guidance of the clinical psychologist.

Medical facilities available in the colleges

- **SC/ST Cell:** Each constituent college has a special SC/ST Cell where a committee is looking after the needs of the students belonging to the SC/ST. Review meetings are conducted on monthly basis. The committee also looks after the availability/dispersal of scholarships to these students in addition to other needs of the students. Grievance boxes are placed in strategic location for addressing the grievances of students, faculty and staff of the University. At the University level a liaison officer is appointed for looking after the grievances of the students, faculty and staff of the University.
- **Maintenance Cell:** Not Applicable

6.6.1.6. Technology Support: Information on Classroom technology (e.g., technology in rooms, computer labs), online learning tools, internet/Wi-Fi connectivity, student systems (e.g., online enrolment), business applications, computer help (e.g., setup for email, firewalls) and password resets being implemented at the University level. A brief note shall be provided.

- Under IDP of NAHEP sanctioned by ICAR, the university has established smart classrooms in 6 constituent colleges of the University. Through these classrooms all the constituent colleges are interlinked and common classes on same topics are being conducted for maintaining uniformity and academic standards. 6 Language laboratories and 6 incubation centres are also established under the IDP-NAHEP project in six constituent colleges of the University. All the constituent colleges have well established computer laboratories equipped with internet and computing facilities. The campus of the constituent colleges is provided wi-fi facilities with strong security, firewalls, antivirus software etc. All the faculty and staff of the University are provided an e-mail with the university domain and password resets are implemented in the University. For academic purposes, the University also follows the Academic Management System developed by ICAR for student's enrolment.

Smart Classrooms at constituent colleges of the University

Computer Laboratory facilities at constituent colleges

Language Laboratory facilities at constituent colleges

6.6.1.7. Institutional Data Base and Website Update: Whether the institutional extensive database of general and specific programs in partnering with peer universities, research institutions and government agencies are available in order to facilitate a wide variety of intellectual interactions and exchanges? Mention periodicity of Website updating.

- There is no partnering with peer university or research institutions or government agencies in terms of university database but the CAU technologies database are shared to the general public and is available for access from publications page.
- The website is updated on daily basis.

6.6.1.8. Interdepartmental Linkages: Provide information on whether the University is currently adopting decentralized, participatory, adaptive and multifarious demand-supply side extension research-academics approach; involving public, private and third sector (civil society) in research and extension programmes and strengthening capacity of framers, researchers and extension workers. Provide a note on interdepartmental linkages the University is currently having in practice. Is the University cultivating the collaborative culture within subject and across subjects?

Ongoing Projects under Directorate of Extension Education, CAU, Imphal implemented by diff. colleges and KVKs:

1. RKVY projects (RABI-Incubation Centres) in 3 colleges viz, college of Fisheries, Tripura; College of Horticulture& Forestry, Pasighat, College of Veterinary Sciences & Animal Husbandry, Aizawl.
2. Farmers; FIRST Programme sponsored by ICAR through ATARI Zone VII at CoA, Imphal
3. Fodder Project under NEH component funded by ICAR-IGFRI, Jhanshi
4. Front Line Demonstration (FLD) Project under NEH component funded by ICAR- Directorate of Rapeseed Mustard Research (DRMR), Bhartpur.
5. Weaver project at CoVSc & AH, Aizawl, Mizoram sponsored by DIC, New Delhi.
6. M4agri project sponsored by DIC, New Delhi running in 6 colleges viz., CoVSc & AH, Aizawl, CoF, Tripura, CoA, Imphal, CPGSAS, Barapani, CoHF, Pasighat, Arunachal Pradesh, COAE & PHT, Sikkim
7. Implementation of CIFT Affordable Technology Menu (ATM) suitable for OFTs/FLDs/Trainings by KVKs/Colleges on Fish processing and value addition under TSP component funded by ICAR-central Institute of Fisheries Technology (CIFT), Cochin.
8. Project entitled 'Developing a package of practice for brood stock management, breeding and marketing of different varieties of Japanese koi carp (*Cyprinus carpiovar koi*, Linnaeus 1758) for improving economic status of rural women in Manipur sponsored by DST, Ministry of Science& Technology.
9. Project on Biocontrol under NEH component sponsored by ICAR-National Bureau of Agricultural Insect Resources (NBRIR), Bengaluru.
10. Project entitled "Van Dhan Yojana- Entrepreneurship and Skill Development program (PMVDY-ESDP)" in the state of Arunachal Pradesh, Manipur, Mizoram, Meghalaya, Sikkim and Tripura through MTTC & VTCs with the help of KVKs and Colleges of CAU sponsored by TRIFED, New Delhi.
11. Project entitled "Backyard Biofloc Based Fish Farming in Manipur" under NEH component sponsored by ICAR- National Institute of Biotic Stress management, Raipur.
12. Project entitled "Integrated Farming System Demonstrations for sustained Economic and Livelihood" in Manipur sponsored by NEC, Shillong through ICAR-ATARI Zone- VII and to be implemented DEE, CAU, Imphal by involving the 8 KVKs of Manipur viz., Bishnupur (3 Villages),

Chandel (1 Villages), Kangpokpi (1 village), Noney (3 village) & Ukhrul (2 Village) – Administrative approval/Sanction received but fund not yet received (yet to implement)

13. Setting of Greenhouse/Polyhouse at NEC Model farm sponsored by IIVR, NEH component.
14. NEC Model Farm – construction and Infrast4ructures status and will be looked after by the committee.
15. Centre of Excellence- Integrated Bee Development Centre project IBDC Projects at CoA, Imphal
16. Centre of Excellence- Integrated Bee Development Centre Project sponsored by National Bee Board, New Delhi at CoHF, Pasighat, Arunachal Pradesh.
17. TSP (Tribal Sub Plan) funded by ICAR- Education Division, New Delhi

Ongoing Projects under Directorate of Instruction, CAU, Imphal implemented in six constituent colleges of the University.

The ICAR National Agricultural Higher Education project funded by World Bank was granted to Central Agricultural University, Imphal on 10th of December, 2019 with project cost of Rs 2456.04 Lakhs on the sub project - Institutional development plan (IDP) on "*Enhancing professional competence of students to address the emerging challenges in agriculture and allied sectors*". The vision of the project is for developing human resources equipped with knowledge base and capability of utilizing the agricultural resources in a sustained manner for overall wellbeing of society and the environment and the mission is to produce competent agri-preneurs with appropriate technical and managerial skills to support sustainable agricultural productivity in the changing climate scenario. The expected outcome of the project is i) Equipment of the students with skills for starting and to handle businesses based on agriculture ii) Enhance the capability of the faculty to address newer challenges in agriculture as a profession iii) Increase the effective usage of the resources within the University by modernizing the communication and information exchange channels.

6.6.1.9. Monitoring Mechanism: Whether the University is following comprehensive curriculum monitoring mechanism including teachers' self-reflection, surveys on teaching effectiveness, lesson observation, assignment inspection, examination papers review, appraisal system, and curriculum evaluation.

- Yes, the University is following comprehensive curriculum monitoring mechanism. The University follows the syllabus of 5thDeans recommendations in toto which has a provision of 5% modification. In each constituent college, the cell of the Assistant Registrar (academics) looks after all the curriculum-based activities of the college. In addition, specific committees are formed for maintaining the academic standards like Examination Committee, Answer Script Scrutiny Committee, Answer Script Moderation Committee etc. The Deans of the constituent colleges regularly conducts meetings for assessment of the teaching effectiveness. At Headquarter level, the Director of Instruction regularly conducts review meetings in online mode for evaluation of teaching performances for all the degree programmes.

6.6.1.10. Institute Quality Assurance Cell:

The university does not have cell named as "Institute Quality Assurance Cell", however it has established a Prioritization, Monitoring and Evaluation cell to maintain the quality of the institute. The details is given below.

- The Prioritization, Monitoring and Evaluation cell was established during the year 2019. It was revamped in 2021.
- The vision, mission and other details of the PME cell are detailed below.

Vision

To become catalyst the realization of vision of the University.

Mission

1. To be a central point for setting up of priorities in teaching, research and extension activities of the University
2. To be an agency for evaluation at regular intervals the activities undertaken as per priorities set by the University and where necessary, provide guidelines for course correction in activities being undertaken.

Objectives

1. To be a repository of all the activities of the University in terms of teaching, research and Extension.
2. To be a monitoring agency in conduction of activities as per the mandate of the University.

Functions

1. Creation of repository of the reports: the cell will create a repository of all the reports of the University- from all research units and the colleges. This will be starting point for creating of other activities. Reports will be collected for a period 2015 to 2020.
2. Creation of data base about the research projects: a database of all the research projects will be prepared. The database will include the research activities being undertaken- number of trials allotted, number of trails in operation. Fund and staff position.
3. Priority setting: A priority setting exercise of the University- at the Unit level (college and project level) as well as at the University levels. Preparation of monitoring indicators for the priority areas and evaluation.
4. Monitoring activities: the cell would like to take monitoring activities based on the priorities set as per the mandate of the University or as directed by concerned authorities so that different academic and research activities are aligned in line with the programme objectives priorities and methodologies.
5. University patenting apparatus- PME will undertake activities in patent filing and follow up activities. The cell will be positioning itself as a single window clearance cell for all patenting activities of the University.
6. Revamping of the University website with links to college and unit level websites.
7. Any other activities as may be assigned by the competent authority.

Supplementary functions

1. Preparation of roaster of external experts- In consultation with the colleges, a comprehensive list of experts in various disciplines will be prepared. The experts list will include names from both within and outside the country. The expert services may be taken up for strengthening of the University programmes of teaching, research and extension and in other activities like selection of staff or their career advancement.
2. Industrial linkages- the cell will help establish linkages with industry, industry experts and other stakeholder groups for transmission of the knowledge gained by the University to the society and to fine tune the activities of the universities to become more society relevant.
3. Evaluation of teacher and scientists- periodical assessment of staff is an important aspect of the evaluation of the activities of the staff of the university. The cell will undertake such activities through preparation of proformas for evaluation, evaluation guidelines and such other infra as may be needed for such activities.
4. Development of propriety software-Most of the PME cell activities are data base in nature, therefore Microsoft Excel is sufficient. However, the PME cell has project management aspects, MS project is an appropriate tool which will also can be used. As such under the NAHEP, the University is

linking all the Campuses to become part of Virtual Office. Hence, any specific need for software will be obtained from govt/private sources

6.6.1.11. Collaboration with Academic Institutions and Industry: What type and how much collaboration are currently in place with academic institutions and industry? Does the University have some more proposal for the future collaboration? Give details with road map.

- The university has signed MoU with the following 20 institutes for strengthening the academic, research and extension activities of the university.

1.	**Indian Veterinary Research Institute (Deemed University), Izatnagar, Uttar Pradesh**
2.	ICAR- National Research for Orchids, Pakyong, East Sikkim
3.	Assam Agricultural University, Jorhat, Assam
4.	Indira Gandhi Krishi Vishwavidyalaya, Raipur, Chhattisgarh
5.	Agriculture Skill Council of India (ASCI), Government of India, Gurgaon, Haryana
6.	CCS National Institute of Agricultural Marketing, Government of India, Jaipur, Rajasthan
7.	Tuljaram Chaturchand College, Baramati (Pune), Maharashtra
8.	Central Potato Research Station, Shimla, Himachal Pradesh
9.	ICAR-Central Institute of Fisheries Technology, Kochi, Kerala
10.	The ICFAI University, Tripura
11.	Sam Higginbottom University of Agriculture, Technology and Sciences, Allahabad, Uttar Pradesh
12.	Western Sydney University, Australia
13.	Indian Institute of Governance and Leadership (IIGL), New Delhi
14.	ICAR-Central Institute of Fisheries Education, Mumbai
15.	ICAR-Research Complex for NEH Region, Umiam, Meghalaya
16.	Sikkim Manipal University, Tadong, Gangtok
17.	ICAR- National Bureau of Agricultural Insect Resources, Bengaluru, Karnataka
18.	ICAR- National Academy of Agricultural research Management (NAARM), Hyderabad and NAHEP, New Delhi
19.	National Cooperative Development Corporation (NCDC), New Delhi
20.	ICAR- National Dairy Research Institute, Karnal, Haryana

The University has also signed MOU with 11 nos Institutes/industries/NGOs for strengthening of agriculture related skill development programs for unemployed youth belonging to SC/ST/OBC/PwD/Women/EWS of society across the six states of North East India.

1.	**Agricultural Skill Council of India (ASCI), Gurgaon, Haryana- to impart training at the level of UGC-NSQF**
2	TRIFED, New Delhi- to identify areas of Cooperation for development and promotion of tribal products in the region.
3.	ICAR-NAARM, Hyderabad to build capacity in agricultural research education and extension education systems and provide policy advocacy for the National Agricultural Research and Education system (NARES).
4.	EFAARMS Solution Pvt. Ltd., Bangalore- to provide one stop shop for Farmers and entire farming community of the NEH region.
5.	ICAR- IGFRI, Jhansi – provides training & inputs of folder crops.
6.	The sustainable Environment Resource Institute (Innovior) New Delhi- to promote new technology innovation/new product design & manufacture etc.

7.	AYURVET Ltd., New Delhi – to undertake advanced research in herbal/medicinal plant cultivation, development on herbal drugs, hydroponics, vermicompost etc
8.	Indigrams Labs Foundation, New Delhi- to set up Agri-start up business and entrepreneurship.
9.	RKVY, New Delhi- to establish business incubation centres entrepreneurship development etc.
10.	Green Biotech Solution, Imphal- for commercialization of fish feed technology developed by CoF, Tripura, CAU Imphal.
11.	National Research Development Corporation (NRDC), GOI

6.6.2. ACADEMIC SUPPORT

The Directorate of Instruction was established in 2005 in accordance with the Central Agricultural University Act, 1992 (No.40 Of 1992) wherein the Director of Instruction is responsible for planning, co-ordination and supervision for all educational programmes in the various faculties of the University. The Directorate strives for quality improvement of education hence its various functions includes planning and academic coordination for teaching, quality of education, policy matters and system regarding resident instruction, overseeing the examination and evaluation, development and enforcement of curricula, development of educational technology and teachers' training programme to develop competence and qualified human resource, HRD of faculty, collaboration with national and international universities/institutes for academic excellence etc. Falling in line with the policies of the University and ICAR, the curricula and syllabi are revised periodically. Revision of syllabus and introduction of new courses are done based on the emerging needs. Special coaching programme are arranged in all the constituent colleges to facilitate good performance of students in the annual NET/JRF/GATE/ARS and other national level examinations.

Staff position of the Directorate

1.	**Director of Instruction**	**01**
2.	Deputy Director of Instruction	02
3.	Computer Operator	01
4.	Head Assistant	01
5.	Assistant	01
6.	Account Assistant	01
7.	UDC	01
8.	Stenographer	01
9.	LDC	03
10.	Driver	01
11.	MTS	04
12.	Clerk-cum-typist (contractual)	01
	Total Strength	**18**
IDP- NAHEP Project staff		
1.	System Analyst	01
2.	SRF	01
3.	Office Secretary cum Accountant	01
	Total Strength	**03**

6.6.2.1. Academic Council: Provide the composition and date of Academic Council Meetings held in last five years along with ATRs.

- Composition: As per provision laid down in Clause 14(1) of the Amended Statutes of the Central Agricultural University Act, 1992, the Academic Council shall consist of the following members:

(i) Vice Chancellor	-	Ex-officio Chairman
(ii) All the Deans of the Constituent Colleges	-	Members
(iii) Director of Research	-	Members
(iv) Director of Extension Education	-	Members
(v) Director of Instruction	-	Members
(vi) A Librarian to be nominated by the Vice-Chancellor on rotational basis	-	Members
(vii) 2(two) eminent Scientists to be co-opted from outside the University to be nominated by the Vice-Chancellor	-	Members
(viii) 7(seven) Heads of the Departments, at least one from each faculty to be nominated by the Vice-Chancellor	-	Members
(ix) 1(one) nominee of the North Eastern Council with specialization in Agricultural Sciences	-	Members
(x) Registrar	-	Ex-officio Chairman

Academic Council Meeting held in last 5(five years):

SL. No.	Year	No. of Meeting	Date
01	2016	15th Meeting	02.09.2016
02	2017	16th Meeting	05.06.2017
03	2018	17th Meeting	17.05.2018
04	2019	18th Meeting	08.01.2019
05	2019	19th Meeting	27.06.2019
06	2020	20th Meeting	08.06.2020
07	2020	21st Meeting	13.11.2020
08	2020	22nd Meeting	15.12.2020
09	2021	23rd Meeting	27.04.2021

ATRs of 15th to 23rd Meeting of Academic Council are enclosed as ***ANNEXURE – B***

6.6.2.2. Innovation and Best Practices: An innovative practice could be a pathway created to further the interest of the student and the institution, for internal quality assurance, inclusive practices and stakeholder relationships. What are the innovative efforts of an institution that help in its academic excellence?

- The University is offering 3 types of awards for promotion of excellence in teaching, students research and extension activities (i) CAU Best Thesis award (for PG theses) (ii) CAU Best Faculty award (iii) CAU Best Extension Professional Award.
- 6 incubation centres specific to students are established in six constituent colleges of the University under IDP-NAHEP funded by ICAR for inculcating Entrepreneurship Development skills of the students.
- Competitions/Hackathons are organized within students with cash prize to encourage the students for development of entrepreneurial skills.
- The Prioritization, Monitoring and Evaluation cell (PME) was established during the year 2019. The main objectives of the PME Cell is (i) To be a repository of all the activities of the University in terms of teaching, research and Extension and (ii) To be a monitoring agency in conduction of activities as per the mandate of University.

- The Resource Management Cell (RMC) was established during the year 2020 with the objective (i) To strengthen the institutional mechanism to protect/ manage innovations/ intellectual properties (IPs) generated in CAU, Imphal (ii) To augment capacity building through training to innovators/ faculty members/ scientists in IPRs and technology transfer/commercialization dimensions (ii) To explore and support appropriate technologies/ innovations with future potential for technological leadership (iv) To provide financial support for taking up promising innovations or technologies (v) To enhance revenue generation through custom hiring of services and available infrastructure, machinery and other resources of the University (vi) To encourage the faculty and scientists for taking up consultancy services.
- The Public Relations & Media Management (PRMM) Cell, CAU, Imphal was established by the University in 2020 to look after the media, publicity and information of the University. The cell aims to bring this university to the top through brand building and promotion. The cell looks after all communications and publicity – internal and external and also serve as the official spokesperson of the university. The role of PRMM cell is to manage relations with external stakeholders through several media relation activities. It accomplishes this through engagement with the print media, electronic media, website and other social media platform. The cell also manages internal communication by highlighting events, happenings, and achievements of the administration faculty students scientists and others. PRMM cell will highlight all the important happenings as well as events in the university by sharing with the external world.
- Uniform common end term theory examination for undergraduate students were held from 2018 onwards for common faculties for fair assessment/evaluation of the students belonging to same disciplines which also brought a conducive atmosphere amongst the faculties/students.
- Startup & Idea seeding workshops are organised in constituent colleges.
- A total of 7 nos. of National training on Entrepreneurship development , 11 motivational talks, 8 interaction programs with entrepreneurs, 30 communication skills and personality development programs, 9 Innovation and leadership development programs , 3 nos. of training on networking & negotiation skills, 32 value chain development workshop in agri-entrepreuner, 6 gender analysis skill program for agriculture & allied sector, 5 Business management skill training program, 6 workshops on startup, 9 environment related workshops, 5 faculty development trainings, 3 social issues , 9 out of box initiatives (student innovative ideas competitions, ex-tempore speech, poetry recitation, poster making competitions etc) were conducted from 2019 till date under the IDP-NAHEP sanctioned by ICAR.

6.6.2.3. Library: Write about the University library (in one page) mentioning its space for stocking and reading, automation, library staff, library committee meetings, library management system, text books availability, subscription of research journals, periodicals, e-journals and other necessary state-of-the-art software/ programme, timing etc.

- There is no University Library as University headquarters has no teaching departments. All thirteen constituent colleges of the University is having digitally interlinked well equipped library facilities which provides its services to scholars, teachers and staff of the college. Library has e-resources including KOHA Online Library, IP-based academic e-journals, e-books and other e-literature, *etc.* In addition, library is receiving newsletters, annual reports, bulletins *etc.* from different organization. The Library provides circulation and reference services. All the in-house operations of the Library are fully computerized using the networked version of the software LibSys – 4 with OPAC facilities. The Library also has access to CeRA and India Agri Stat Consortium. Photocopying facility is also available in the Library. The details for library facilities for each constituent colleges are provided in the Self Study Report for accreditation of Colleges.

Library facilities at constituent colleges of the University

6.6.2.4. Centre for Excellence/Advance Studies/ Centre for Advanced Faculty Training: Clearly mention about the name, number, year of establishment, funding agency and outcome of Centre for Excellence/Advance Studies/Centre for Advanced Faculty Training.

Sl. No.	Name	Year of establishment	Funding agency	Outcome of Centre for Excellence
1.	**Centre of Excellence-** Integrated Bee Keeping Development	2017	National Bee Board, New Delhi	1. Establishment of bee disease diagnostic laboratory. 2. Organisation of awareness/workshops /training/ demonstration for scientific beekeeping & one State Level Seminar organized. 3. Establishment of extracting and processing unit for honey and other honey bee products.

	Centre (IBKDC), College of Agriculture, Imphal.			4. Provision for supply of honey bees to orchardists and management of native pollinators for pollination management of 10 units having 50 colonies in each, hives and equipment etc. 5. Establishment of honey and other beehive products testing laboratory. 6. Establishment of queen bee multiplication centre.
2.	**Centre of Excellence-** Integrated Bee Keeping Development Centre (IBKDC) at College of Horticulture and Forestry, Pasighat, Arunachal Pradesh.	2017	National Bee Board, New Delhi	1. Establishment of queen bee multiplication Centre 2. Establishment of bee disease diagnostic laboratory 3. Establishment of extracting and processing unit for honey and other honey bee products 4. Establishment of equipment manufacturing unit 5. Development of quality nucleus bee stock of *A. cerana.* 6. Provision for supply of honeybees to orchardists and management of native pollinator for pollination management 7. Establishment of bee flora nurseries 8. Monitoring the population dynamics of pollinators in ecological landscapes 9. Establishment of Honey and other bee hive products testing laboratory
10.	**DBT Unit of Excellence:** Understanding phosphorus deficiency and iron toxicity tolerance in rice under acidic soils of North East Hill region at College of Post Graduate Studies in Agricultural Sciences, Barapani, Meghalaya	2016	Department of Biotechnology, GOI	1. Availability of soil plots for screening of low phosphorus deficiency 2. Set of superior breeding lines performing better in acidic soil conditions 3. New members of OsGLK family identified for role in low phosphorus response. 4. No of personnel trained: 1 Ph.D., 2 JRF, Students are trained during 6 months period (4 with fellowship from DBT and 3 without fellowship) 5. One 7 days training on “genomic tools in crop improvement” conducted: 10 assistant professors level personal were trained 6. 3 publications: 2 papers>7 NAAS rating and 1 book chapter in Wiley & Sons Ltd, Oxford, UK (ISBN: 9781119633112)
7.	**Centre of Excellence on Fisheries and Aquaculture Biotechnology (CoE-FAB)**	2012	Department of Biotechnology, Govt. of India	1. Establishment of a referral Bar-coded fish museum 2. Establishment of Central laboratory with state of art facilities including Sequencer, Nutrient Auto Analyzer, Epiflurrosecence Microscope etc. 3. Establishment of Carp-Eco Hatchery

	at College of Fisheries, Lembucherra, Tripura			4. Establishment of Wet laboratory with 50 FRP tanks and 120 glass aquaria 5. Confirmed identification of 240 species based on classical taxonomy utilizing exhaustive sets of morphometric and meiristic characteristics molecular sequencing of 166 identified species 6. Establishment of a cold room 7. Brood stock development and package of mass seed production of indigenous fish species including Pengba (*Osteobrama belangeri*), Reba (*Cirrhinusreba*) and Pabda (*Ompokbimaculatus*) 8. Development of an *in situ*- hatchery for carps 9. Development of carp feeds utilizing local ingredients namely tapioca (*Manihot esculenta*), taro (*Colocasia esculenta*) and wolffia meal 10. Live wolffia based seed rearing of rohu (*Labeorohita*) and pengba (*Osteobrama belangeri*)
8.	**Centre of Excellence on Fisheries and Aquaculture Biotechnology (CoE-FAB) Phase II** at College of Fisheries, Lembucherra, Tripura	2019	Department of Biotechnology, Govt. of India	
9.	Advanced Animal Disease Diagnosis and Monitoring Consortium (ADMaC)	2014-2020	Department of Biotechnology, Govt. of India	1. Establishment of advanced level laboratory for diagnosis of endemic and transboundary diseases of domestic and wild animals including avian species. 2. More than 3000 specimens were tested for different bacterial, viral, parasitic and fungal diseases of livestock, poultry and wild animals of entire North eastern region. 3. Regular training programs conducted for the field veterinarians, para-vets and post graduate students including faculty members. 4. Human resources in the form of trained post graduate and doctorate students, field veterinarians, para-veterinarians, research fellows were developed to cater the services in the region. 5. The laboratory is catering service for diagnosis of infectious diseases of livestock and poultry.
10.	Star College Scheme	2020-2023	Department of Biotechnology, Govt. of India	1. Practical laboratories were equipped with basic and advanced equipment for BVSc&AH students. 2. The quality of undergraduate (BVSc&AH) course curricula is improved by introducing various new generation laboratory techniques in their practical courses. 3. Short term training, outreach program, invited lectures by eminent personalities are introduced for better understanding of the students. 4. Short term research work is introduced to improve the skill of the students in future research activities. 5. Short term training on handling and application of state of art instruments and laboratory techniques are introduced to improve their basic knowledge.

6.6.2.5. Incubation Centre/Start up units/ Venture capital: Provide the list of incubation Centre(s) start up units/ venture capital set up by the University for the promotion of technologies generated at the University.

- Three RABI-Incubation Centre in 3 colleges viz, college of Fisheries, Tripura; College of Horticulture & Forestr4y, Pasighat, College of Veterinary Sciences & Animal Husbandry, Aizawl.
- The University also established 6 nos. of Multi-technology Testing Centres (MTTC) and 6 nos. of Vocational Training Centres (VTC) in 6 campuses of the University. The MTTC is responsible for identification of location specific technologies developed in different campuses of the Universities. VTC provides 3 months - 1 year vocational trainings for increasing the entrepreneurship and other self employment courses for the educated youth and the unemployed youth of the region.
- The University also established 12 starts up in 3 states, *viz.,* Tripura, Arunachal Pradesh and Mizoram developed under RKVY-RAFTAR project.
- Six incubation centres have been initiated under IDP-NAHEP project in 6 constituent colleges of CAU, Imphal for Under Graduate students

Incubation Centres established in the constituent colleges under IDP-NAHEP

6.6.2.6. Technology Enabled Learning Resources: Technology allows for personalizing learning, building capacity of teachers and driving decisions based on real-time data. What kind of infrastructure, digital content, teacher training and data systems have been created in this regard. What are monitoring and evaluation frameworks to maintain and sustain these facilities?

- The University is using Zoom & Google meet platforms for online classes and interactions/faculty development programs. Under IDP- NAHEP, smart classrooms are developed which is used for conducting online classes and faculty trainings. These training programs/ classes are interlinked with other constituent colleges of the University.

Interactive class in progress with help of Smart/Virtual classroom facility

6.6.2.7. Integrated Learning Systems (Experiential Learning): How many these units have been sanctioned by the ICAR? Mention the functional condition of each unit. Provide data regarding year wise profit sharing with the students from each unit.

- NIL. (No unit of Integrated Learning Systems (Experiential Learning) has been sanctioned by the ICAR).

6.6.2.8. Academic Industry Interface: Mention the important channels for knowledge transfer between University and firms. How the university has been benefited in last five years in terms of resource mobilization, research funding, knowledge transfer and others.

- The knowledge from the university is transferred through different workshops, training programmes, meetings like interface meetings etc. to the farm and academic communities. In addition to that CAU comes out with a number of publications for academic, research and farm communities. The list of publication is given below:

1.	CAU Newsletter - Quarterly
2.	CAU Farm Magazine- Quarterly
3.	CAU Kishan Diary/Nirdeshika- Yearly
4.	Desk Calendar- yearly
5.	Desk Calendar- yearly
6.	Table top Calendar- yearly
7.	RAF- Souvenir- yearly
8.	RAF- related publication- yearly
9.	Annual Action Plan- Extension Education
10.	Annual Report – Extension Education
11.	Training manual/Guide book/books/Success Stories etc.
12.	Other publications: Short Video clippings/CAU Technology Book/leaflets/booklets/Digital Album/Tel. directory etc.

6.6.2.9. National Ranking (ICAR/MHRD): Mention about the rank of the University in last five years in the NIRF from ICAR/MHRD.

Sl No.	NIRF	YEAR	Ranking Status
1.	ICAR Ranking of Agricultural Universities	2017	13th rank
2.	ICAR Ranking of Agricultural Universities	2018	25th rank
3.	NIRF by MHRD in Overall category	2019	151-200th rank
4.	ICAR Ranking of Agricultural Universities	2019	25th rank

6.6.3. RESEARCH SUPPORT

6.6.3.1. Research Council: Mention the present composition of the research council and provide the dates of meetings in last five year in tabular form.

- **Composition of the research council:**

  The research council comprises of one Chairman, two External Experts and 4-5 members, all the Deans of the constituent colleges of the University, Chairman and member of College Research Advisory Committee, Director of ICAR RC for NEH Region, all the Joint Directors of different centres (6) of ICAR, RC for NEH region. Director Research acts as Ex-Officio Secretary and Hon'ble VC acts as Ex-officio Chairman of the council.

- **Dates of meetings (Research Council) in last five year in tabular form:**

Sl.No.	Number	Date	Venue
1	6th	17/10/2015	College of Veterinary sciences & Animal Husbandry, CAU, Selesih, Aizawl, Mizoram
2	7th	26/10/2016 To	College of Agriculture, CAU, Iroisemba, Imphal

		27/10/2016	
3	8th	22/11/2017 To 23/11/2017	College of Agriculture, CAU, Iroisemba, Imphal
4	9th	28/07/2018 To 29/07/2018	College of Agriculture, CAU, Iroisemba, Imphal
5	10th	27/05/2019 To 28/05/2019	College of Post Graduate Studies, CAU, Lembucherra, Agartala, Tripura

6.6.3.2. Directorate of Research: Give brief information about the present establishment of the Directorate of Research, staff pattern, research coordination mechanism, research and seed production Centres and contribution in academic programmes.

- **Brief Introduction:**

The Directorate of Research, CAU, Imphal was established with its mandatory responsibility to supervise, co-ordinate and monitor all the research activities under the University. The research projects conducted by the constituent colleges of CAU are monitored and evaluated at regular interval for smooth functioning and fruitful results. The Research Review Meetings of all internally and externally funded projects are conducted for all the constituent colleges quarterly i.e., every three months. The Quarterly Research Review Meetings are held at the constituent college by the concerned Dean and Chairman, CRAC along with the Members of CRAC. Half yearly Research Review Meeting is conducted by the Director of Research, CAU, Imphal as Chairman along with the concerned Dean and Members of CRAC of the constituent college. Further, the Research Council Meeting is held yearly and detailed research review is done by the Hon'ble Vice-Chancellor and Chairman, CAU, Research Council along with all the Members of the Research Council including Co-opted Members.

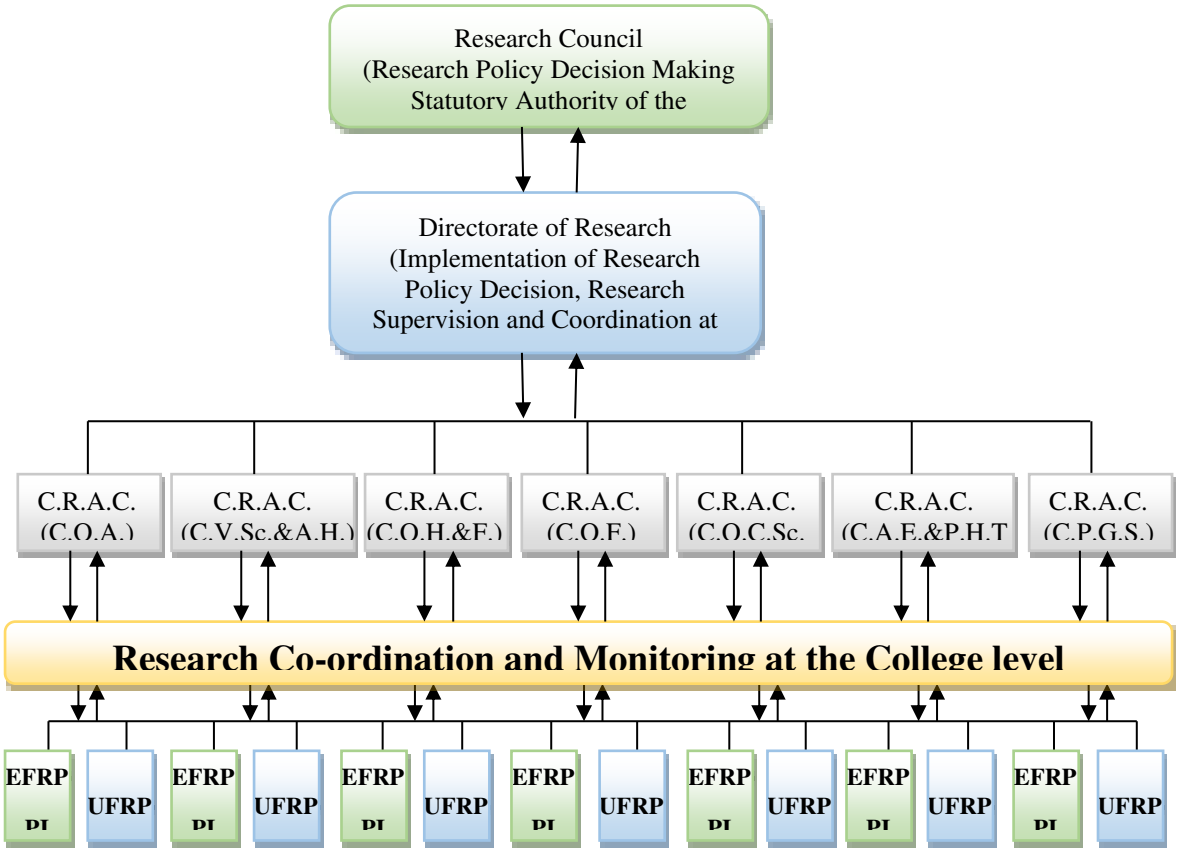
The University has implemented 71 numbers of externally funded projects and 44 are ongoing. Besides 7 numbers of Intramural Research Projects have been implemented and 58 are undergoing. 34 numbers of AICRPs are also implementing in different campuses of the University out of which 20 are regular centres. The University is implementing ICAR seed project for production and timely supply of quality seeds/planting materials to the farmers of NEH region

- **Staff pattern:**

Sl.No.	Designation	Number
1	Director of Research	1
2	Deputy Director of Research	2
3	OSD	1
4	PS/PA	1
5	Head Assistant	1
6	Computer Operator	1
7	Stenographer	2
8	Account Assistant	1
9	LDC	4
10	Driver	1
11	MTS	6
12	Fishery Consultant	1
13	Labour (Daily wages)	2
	Total	24

Research coordination mechanism:

In order to facilitate research administration and linkages between researchers and research managers in the university, a time tested research management and linkage system was developed in the university as depicted in the flow diagram given below (Fig. 1):



N.B.: C.R.A.C. = College Research Advisory Committee, E.F.R.P. = Externally Funded Research Project, U.F.R.P. = University Funded Research Project, P.I. = Principal Investigator

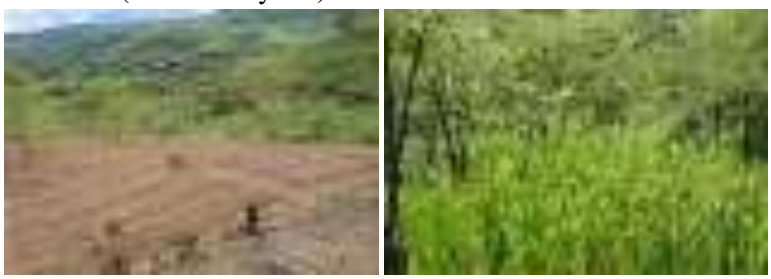
- **Research and seed production Centres**

1. Horticulture Research Farm, Andro, Manipur.
2. Central Agricultural University Research Farm, Andro, Manipur.
3. Central Farm, Lamphelpat, Manipur.

Contribution in academic programme: The Directorate along with Director of Instruction annually set the research priorities which are implemented by the PG and PhD students.

6.6.3.3. Technology Developed and its Adoption: Provide the list of approved technologies developed in last five years along with their adoption and coverage in the jurisdiction of the University.

Technologies developed in the field of agriculture and allied sciences for NEH Region from IRP & EFRP conducted under Central Agricultural University, Imphal

Sl. No.	Technologies developed
A	**Agriculture**
1.	Developed CAU-R1 (*Tamphaphou*), a semi glutinous medium duration (130-135 days) high yielding (6-7 tonnes/ha)rice variety for wetland rice ecosystem of Manipur and similar situations of NEH Region. The variety has been found to be drought tolerant during flowering time and submergence tolerant during tillering stage for a period of about 15 days under water.
2.	Developed CAU-R2 (*Tomthinphou*), a promising variety for upland paddy extra early (90-95 days) semi dwarf non lodging high yielding (2-3 tonnes/ha) for *jhum* fields of Manipur and similar situations of NEH Region. A total of 223 rice land races/genotypes collected from the NEH states and promising rice breeding lines for hill rice eco-system along with CAU-R2 were included in the study. Out of these genotypes, CAU-R2 recorded the highest yield of 3.0 tonnes/ha while the best local check varieties *Phouoibi* and *Mohar* yielded only 2.1 tonnes/ha (30% more yield). 
3.	DevelopedCAU-R3 (*Mangalphou*), a very early (95-100 days) high yielding rice variety (4-4.5 tonnes/ha) as contingency rice crop for wetland rice ecosystem of Manipur and similar situations of NEH Region. The variety is recommended for pre-*kharif* cultivation and as a contingency crop for solving untimely sowing of *rabi* crop due to growing of medium and long duration variety in HYV area and frequent natural calamity like flood or drought to make up the farmers' lost.
4.	DevelopedCAU-R4 (*Enotphou*), a talllodging tolerant high yielding (3.5-4 tonnes/ha) long duration (140-145 days) rice variety suitable for low lying semi-deep water rice ecosystem of Manipur and similar situations of NEH Region. The variety is recommended for low lying semi-deep water conditions as well as for the fields under paddy-cum-fish farming where water depth generally goes upto 50 to 100 cm.

5. Developed CAU-GS1a promising groundnut variety.
The variety has an average plant height of 45-50 cm and matures in 130-135 days. The variety is resistant to late leaf spot diseases, green leaves at maturity which can be used as fodder with 45% oil content (in pipeline to be released).

Plot showing resistance to late leaf spot in comparison with other varieties in adjacent plots

6. Developed CAU-RM 1 (Indian mustard) is a promising line developed from a cross between [NRCIJ47 X NRCIJ36 (4-8-2)] and BPR-547-2 through pedigree method of breeding. This promising line attained average plant height of 150cm and early maturing with mean seed yield of about 1945 kg ha-1 when tested under Ludhiana, Navgaon, New Delhi, Hisar, Abohar and Chatha Centres during 2017. It has 40.5% oil content and 794 kg ha-1 total oil yield. It is tolerant to white rust and suitable under rainfed rice fallow conditions of Manipur state.

7. CAU-Toria 1 is a promising toria line developed through composite breeding programme with base variety M-27 and TS-36 and maintained by mass selection. This promising line attains an average plant height of 80 cm and maturing early (100 days duration) with average seed yield of about 1327 kg ha-1 (range from 649 to 2985 depending on soil fertility and crop management). The seed contains 42% oil with total oil output of 557 kg ha-1 It is tolerant to white rust but moderately susceptible to Alternaria blight.

8. Improved line CAUS 105 (IET27496) of paddy, which is a high yielding improved pure line derived from a cross between Shahsarang and Priya. It carries PsTol1 gene, hence suitable for phosphorus deficient acidic soil conditions. It is suitable under low fertilizer input and organic cultivation practices. It possesses resistance to leaf and neck blast.

With better phosphorus use efficiency and superior yield than local and zonal check varieties under station trials, AICRP trials and Meghalaya state govt trials, CAUS 105 (IET27496) has the potential to enhance rice productivity in valley and mid-hill lowland ecosystems by at least 10%. With amylose content suitable to local

	palate, it will have higher acceptability. With low inorganic input requirement, it is a suitable component for organic farming systems.
9.	Improved line CAUS 107(IET28210) of paddy, which is a high yielding improved pure line derived from a cross between Shahsarang and CAUR-1. It has semi-glutinous endosperm. The line has high zinc content (28 ppm) in unpolished grain and is suitable for phosphorus deficient acidic soil conditions. It is suitable under low fertilizer input and organic cultivation practices. The line possesses resistance to leaf and neck blast. With a high Zn content of 28ppm, and rice being the staple food in NEH region, the line has potential for enhancing nutritional status of the population. Based on station trials, multi locational AICRIP trials and Meghalaya state govt. trials, CAUS 107 (IET28210) has the potential to enhance rice productivity in valley and mid-hill lowland ecosystems by at least 10%. With amylose content suitable to local palate, it will have higher acceptability. With low inorganic input requirement, it is a suitable component for organic farming systems.
10.	Developed Liquid formulation of microbial consortium (CAU *Jhum* Bioenhancer) for application to mixed crops of *jhum* fields of North East India. Liquid formulation of microbial consortium (CAU *Jhum* Bioenhancer) was developed for application to mixed crops of *jhum* fields of North East India and tested in four *jhum* fields at Lengpui village, Mizoram. The effect of combined application of CAU *Jhum* Bioenhancer and rock phosphate on growth of *jhum* rice against the traditional *jhum* practice were compared.
11.	Influence of mulching on production potential and economic of rain-fed rice-based cropping system: Surface mulching of paddy straw of 7.5 q ha^{-1} after harvest of paddy, the subsequent *rabi* crops like broad bean, field pea, lathyrus, wheat and oats would help in improving production efficiency of rice-based cropping sequence in acidic soils of Manipur. This technology would also help in conservation of residual soil moisture during the *rabi* season which increased yield of the *rabi* crops up to 20-30% and was more pronounced in oat and field pea. **Fig. 1** Rice field **Fig.** 2 Brad bean var. Local (a)With mulching(b) Without mulching **Fig. 3** Pea var. HUDP-15 (a) Without mulching (b) With

12.	Biofortified Enriched Compost (BEC) for pulse promotion in acid soil is developed which is a biofortified enriched compost product prepared from organic residues, biofortified with: phosphate solubilising bacterium- *Bacillus altitudinis* which ensure P mineralization in the rhizosphere zone for early P nutrition to the seedling in acid soil condition and *Rhizobium* which enhances N_2-fixation. The compost contains 2.3% N, 1.7% P and 1.3% K. BEC compost as seed treatment and line application @ 2.5 t ha^{-1} in line at the time of seed sowing along with 50% of the recommended dose of NPK fertilizers (50%RDF) increases in yield of lentil and peas in acidic soils under rice fallow
13.	Phosphorous recommendation for promising varieties of lentil The experiment was laid out in factorial randomized block design with 3 replications. The treatment consisted of four levels of phosphorus (0, 20, 40 and 60 kg P_2O_5 ha) and three varieties (PL 4, HUL 57 and DPL62) for enhancing productivity and quality.
14.	Zinc fertilization for better growth and yield of tomato Zinc (Zn) is an important plant micronutrient which helps in the formation of tryptophan, a precursor of IAA responsible for growth stimulation and plays a vital role in synthesis of carbonic anhydrase enzyme which helps in transport of CO_2in photosynthesis. Soil contains zinc in the range 5–770 ppm with an average of 64 ppm. Application of zinc @ 10 kg ha^{-1} in the form of zinc sulphate is recommended for obtaining satisfactory yield of tomato and for improving the quality of fruits and zinc content in the fruits. Zinc Treatment tomato
15.	Developed microbial formulation for disease management on the basis of available local strains of *Trichoderma*.
16.	Optimum sowing time and integrated nutrient management for enhancing the yield of local glutinous maize: Apply 75% recommended nitrogen through urea and 25% nitrogen through farm yard manure (32.90 qha^{-1}) gives for getting highest yield in glutinous maize.
17.	Enhancing water use efficiency in rainfed rapeseed-mustard: In general, rapeseed-mustard are grown under rainfed conditions. In such situation, moisture conservation is essential for obtaining higher yield. Agricultural hydrogel is reported to ameliorate water availability for plants by enhancing water holding capacity of soil. Soil application of hydrogel @ 2.5 kg/ha accompanied with foliar spray of salicylic acid @ 100 ppm at flower initiation and siliquae formation stage was found effective in increasing seed yield of rapeseed-mustard under rainfed conditions. Hydrogel @ 2.5 kg/ha incorporated with foliar spray of salicylic acid @ 100 ppm at flower initiation and siliquae formation stage showed sustainable higher yield advantage of 39 % of rapeseed-mustard under rainfed conditions
18.	*Um Comb*: A Liquid Consortial Bio formulation of fungal antagonists, entomopathogens and plant growth promoters which is an eco-friendly liquid consortia formulation of compatible fungal antagonist, two entomopathogens, one nemato pathogenic and bacterial biocontrol agent cum plant growth enhancer. This bio-pesticide can be used for Seed treatment, Soil drenching, Root dip treatment, Soil application by enriched compost and Foliar spray. It also enhanced yield in the targeted crops with enhanced defence metabolites
19.	Standardized scientific cultivation of underutilized marshy land crop arrowhead (*Sagittaria sagittifolia*) for earning more farm income.

	Arrowhead (*Sagittaria sagittifolia*) is an attractive unexplored semi-aquatic plant with arrow shaped leaves and edible tubers belonging to the family Alismataceae and genus, *Sagittaria*. By cultivation of this underutilized crop, a farmer can earn an income of Rs 3.6 lakhs per hectare easily from swampy and marshy land. The plant can be grown well on all types of swampy and marshy land, soils with any reaction and texture even under poor management condition, if the water level does not exceed 50 cm during the peak rainy season of July to September as sole crop or intercropped with rice.
20.	Use of rice husk ash in controlling insects in stored soybean seeds The process starts with drying of the freshly threshed seeds spread thinly on a concrete floor or polythene sheet or gunny bags or tin sheets, etc., for 5 days under the hot sun. It should be cooled down and stored in polythene bags or metal container. The seeds are mixed with rice husk ash at the ratio 250 g kg^{-1} seed before storing in the storage containers. A thick layer of ash is spread on the top of the seed so that the seeds are not exposed to open air and the bags should be tide it strongly. This technique could be used for black gram, maize and pea too.
21.	Mass production of Trichoderma at low cost using agricultural waste: Low cost production technology of *Trichoderma* spp. from locally available resources and it is useful in organic disease management.
22.	Insect trap with indigenous ash hen's feather and methyl eugenol for the control of fruit fly (Bacteroceradorsalis) Developed indigenous pheromone trap that is made by cutting 1/3rd of the empty mineral bottles from the top. The bottom portion of the bottle is filled with plain water up to 4 inches. A bottle cap filled with 2 ml of methyl eugeno l/3 g of hen's feather ash is allowed to float on the water in the bottle. The top portion of the bottle is placed in inverted position in order to prevent the escape of the trapped flies. The trap is placed in the field by tying over a bamboo stick fixed in the soil and maintained the trap at the height of one feet above the crop canopy.
23.	Integrated pest management in rainfed rice production system: Developed an IPM module for effective management of major insect pests of rice in the NEH region CAU Selection – 1, a variety resistance to gallmidge and blast used in IPM treatment, Imphal

24. Standardized homemade herbal feed additive to improve performance of pigs and poultry with total replacement of antibiotics
Plant extract of Indian pennywort (*Centella asiatica*) with potential antibacterial activities and effectiveness as feed additive and/or growth promoter in pigs as replacement of traditional antibiotics.

25. High value Manipuri poultry breed Kaunayen; best suited for local environment as sport activity

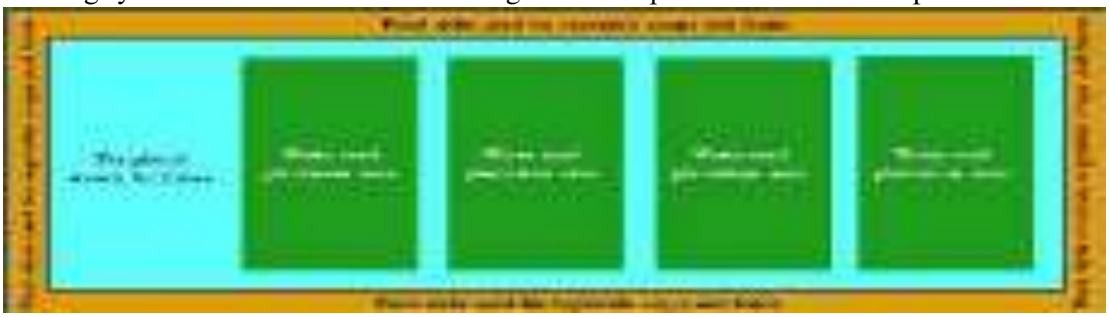
26. Process for preparing a novel herbal formulation for the treatment of piglet diarrhoea. It is a formulation of unripe methanolic fruit-pulp extract of *Aegle marmelos.* It is comparatively as efficacious as standard therapy i.e. loperamide and the recurrence of infection is negligible. The formulation is effective in the treatment of diarrhoea with less toxicity in different species of livestock

27. Adoption of local pig of Mizoram "Zovawk" as recognized breed of India.
The local pig '*Zovawk*' from Mizoram has been registered with ICAR-NBAGR, Karnal (Accession No. INDIA-PIG-2700-ZOVAWK-09007).

Production performance: Traits/Characters	**Average**	**Range**
Individual weight at birth (Kg)	0.540	0.470 - 0.610
Individual weight at weaning (Kg)	3.12	2.00 - 4.25
Litter size at birth	7.03	2 - 12
Litter size at weaning	5.2	3 - 8
Adult body weight (Kg) a. Male b. Female	 54 58.5	 45 - 63 46.5 - 70.5
Age at first mating (Days) c. Male d. Female	 240 199	 220 - 300 180 - 235
Body weight at first farrowing (Kg)	40.45	33.5 - 47.4
Age at first furrowing (Days)	314.9	294 - 350
Dressing %	69	64 - 74
FCR	5.14	4.15 - 5.64

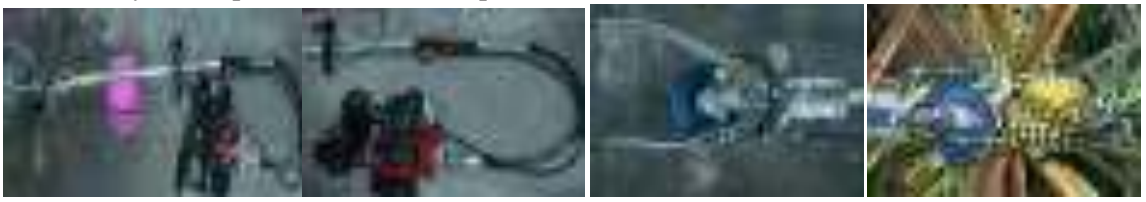
28. Utilization of palm oil sludge (POS) as pig feed. Palm Oil Sludge is a good source of energy and contains substantial amount of crude protein. Processed, dried and grinded POS is incorporated in the pig's diet. POS can be fed upto 30% replacement of maize in the diet of growing- finishing pigs without any adverse effect on the growth performance, hemato- biochemical parameter and carcass triats.

29. Rapid detection of piglet diarrhea associated *eae*A gene using polymerase spiral reaction (PSR). Under this technique, a single pair of oligonucleotides primers is being used and the entire technique is performed under

	isothermal condition and the result is visible under naked eye within one hour: Positive sample: Colour changes from orange to green Negative sample: Colour remain orange. The sensitivity and specificity of the technique are as per the existing technique, viz., real time PCR are better than the conventional PCR.
30.	Development of isothermal LAMP assay for detection of intimin gene (*eae*) in *E. coli* associated with piglet diarrhea. Under this technique, a single pair of oligonucleotides primers is being used for detection of *eaeA* gene by LAMP assay and the entire technique is performed under isothermal condition and the result is visible under naked eye within one hour. SYBR Green with Positive sample: Colour changes from orange to fluorescent green HNB dye with Positive sample: Colour changes from purple to blue
31.	Farming system model 'Water reed-fish-veg-fruit' as a profitable livelihood option:  Lay out of the plot for Water reed-fish-vegetable farming system
32.	Incorporation of silver barb Barbonymusgonionotus (Bleeker) in feed-based seasonal carp polyculture pond system. The main objective of the technology is to enhance fish productivity and farmers' income, especially from feed-based fish culture in seasonal water bodies with effective culture period of 5-6 months. The present technology has been developed to incorporate silver barb into seasonal grow-out culture of Indian and Amur common carp through multi-year trials. Silver barb has remarkably higher demand and fetch 10-20% higher market price compared to *Catla catla* and Cirrhinus mrigala, and 50- 60% *Hypopthalmicthys molitrix* (silver carp) and *Ctenopharyngodon idella* (grass carp) of 100-150 g sizes. Due to remarkably low prices of silver carp and grass carp, particularly in Tripura at sizes less than 500g, these two species have been eliminated from the culture system.
33.	Developed dietary pyridoxine using Aswagandha roots and bamboo (*Melocanna baccifera*) leaves ethanolic extract for preventing/ameliorating low pH stress in fish. Low pH and waterborne iron elicit stress responses in fish and even adversely changes the architecture of gill tissues. Fish were found to be highly susceptible to various infections (bacterial/fungal) under stresses. Dietary pyridoxine, *Aswagandha* roots and bamboo leaves extracts were found to make fish resistant to such stress effects. Pyridoxine is able to make fish tolerant to low pH stress effect for at least 5 days.

34.	Bamboo leaf extract based dietery formulation against multiple stresses in fish Feeding trials revealed that the fish fed withthe formulated feed containing Bamboo Leaves Alcoholic (BLAL) extract is having no toxicity effect on fish and based on the haemato-immuno-biochemical parameters of blood it was could concluded that the feeding for about 7 days gives best response. The efficacy of BLAL extract to enhance the resistance of fish against low pH, fungal infection (*Saprolegnia parasitica*) and bacterial infection (*Aeromonas hydrophila*) weretested.
35.	Developed CAUi-Brshti: A Low Cost In-situ Hatchery for Carp Seed Production. A Low Cost In-situ Hatchery for Carp Seed Production: A major highlight of this design is the in-built system that enables the operator to adjust water temperature naturally. In the inevitable event of surface water in the small pond getting overheated in summer, the rotatable inlet allows the operator to let in cooler water from the metaliminion of the pond. **CAUi-Brshti**
36.	Developed protocol for preparing protein concentrate from rubber seed kernel with 60% crude protein for utilization in preparing aquafeed. Method for 100% detoxification of rubber seed kernel in terms of cyanogenic glycoside content has been standardized. Protein concentrate of 60% CP has been developed. Detoxified and dexoiled rubber seed can replace 68.67% of MOC and can be incorporated up to 30% in feed. Rubber seed can be used to replace Fish meal up to 35% in feed without compromising the growth and survivability. Protein concentrates can be utilized for replacing other conventional protein sources like fish meal and mustard oil cakes. **Detoxified Rubber Seed Cake in Aqua Feed**
37.	Organic piscicides for killing weed fishes in aquaculture pond Developed an extract from *Millettia pachycarpa* (Benth.) of NE region for killing weed fishes. An extract from the bark of *Millettia pachycarpa* (Benth.) has shown effective pesticidal activities against tested fish (*Oreochromis niloticus* and *Channa punctatus*).
38.	Developed two row manual rice transplanter The equipment is used for transplanting two rows at a time in narrow terraces where other 4 or 8 row developed manual transplanter is not suitable due to narrow width of terraces. The transplanting is done in rows therefore subsequent weeding by cono-weeder is possible. The working width is 200 mm, work rate is about 100 sqm/h. Two persons are required to smooth working of the machine. The top surface of the field after puddling should be smooth, flat and free from crop/wee residues.

39.	Developed improved harnessing system of domesticated Mithun for utilization in agriculture For efficient use of domesticated mithun, improved yoke and single animal adjustable collar harness were developed for ploughing operations. For double mithuns, the effective field capacity and field efficiency were found to be 0.036 ha/h and 75%, respectively. The speed and draft were 2.39 km/h and 26 kg, respectively at 80mm depth of ploughing.
40.	Developed Power operated hold-on type paddy thresher The thresher has a threshing and cleaning efficiency of 98.21% and 95.4%, respectively. The capacity of the thresher was found to be about 200 kg grain h^{-1}
41.	Filtration units for streams for reducing the sediment loads in natural pond/tanks Developed a low cost filtration unit to filter the natural streams (specifically during monsoon season) are tapped and guided to fill the natural ponds or artificial tanks
42.	Developed of portable manual mulch laying machine for hill terraces The portable manual mulch laying machine was fabricated with two furrow openers made up of MS flat were attached to the machine for soil inversion on plastic mulch sheet from two ends along its length. A plastic sheet roll carrier and a handle for manual pulling of the machine are other important machine attachments.
43.	Solar biomass hybrid dryer for large cardamom drying The solar biomass hybrid dryer is suitable for small scale large cardamom farmers in rural areas of the countries. The solar-biomass hybrid dryer is capable of attaining a maximum temperature a maximum temperature of 66.6°C in solar mode and 70°C in the gasifier mode of operation. The large cardamom having an initial moisture content of 82.3% could be dried to a moisture content of 10% within 20 hours. The average solar collector efficiency of developed solar- biomass hybrid dryer for drying of large cardamom is 35.39%.
44.	Development of self-propelled zero till planter for multi-crop: buckwheat, peas and rapeseed-mustard The planter is powered by a 1.0 kW petrol engine. The power to the disk type furrow opener, transport wheel and seed metering mechanism was given through a gear box fitted with worm and pinion to reduce the engine speed. The laboratory test of the prototype resulted the forward speed of 2.0 km/h, seed rate (pea) was 20.78 kg/ha and row spacing 150 cm. However, field test indicated that higher power engine is required. The cost of the prototype is about Rs 30,000/- and operating cost is Rs 3500/- per ha.

45.	Development of self-propelled crop residue mulcher cum weeder The mulcher is powered by 1.0 kW vertical engine. The impact type cutting principle is used in the self-propelled crop residue mulcher cum weeder. The size of the blade was 115 mm and working width 400 mm. However, both these parameters are adjustable according to the requirement. The working rates: 350 sq. m/h.
46.	Developed farmer friendly ginger & turmeric washer cum peeler. A versatile medium-scale manually operated low cost ginger/turmeric washer cum peeler having an effective capacity of more than 60 – 70 kg/h which is about 7-8 folds increase as compared to the traditional method.
47.	Pineapple peeler-cum-corer-cum slicer The tool reduces the drudgery in peeling and slicing of pineapple. The tool can perform multiple operations simultaneously i.e. peeling, coring and slicing of pineapple thereby saving the unit operation time by more than double folds.
48.	Designed and developed Motor Operated Pineapple Harvester. Normally pineapple is harvested in the field by cutting the stock with the help of dao (long knife) and collected by hand manually and kept in the basket. This method of harvesting of pineapple causes injuries to the hands and also backache. This drudgery to the operator could be reduced by the newly developed pineapple harvester. 1. Harvesting of the pineapple fruits by cutting action of stock with help of blade. 2. Picking up of the thorny pineapple fruit with the help of fingers provided just above the cutting blade. 3. Field capacity (number of fruits harvested) is almost double as compared to the manually harvested with sickle/dao (traditional method). About 250-300 pineapple fruits can be harvested in an hour using the newly developed harvester as compared to the traditional method. 
49.	Pony driven cart for agricultural farm A “Pony Cart” has been developed with the dual objective of taming the ponies and also to harness them to carry loads as per the load carrying capacity of the animal. The latter was tested from the studies of various

	physiological and biochemical parameters of the ponies, which are good indicators of stress/metabolic crisis.
50.	Makhana harvester A manually operated *Makhana* (Euryale *ferox* Salisb.) harvesting technology under the water surface consists of a high resolution camera fixed near to the cutting blade and telescopic aluminum pipe of variable length. The makhana harvester is provided with a water proof borescope camera fixed close to the cutting blade. The android camera having external diameter of 5.5-7.0 mm built-in with 6 adjustable white LED lights and photo control switch having a focal distance of 4 cm to infinite and water proof level of IP67, resolution of HD: 640*480 is connected to android mobile through OTG cable of 1500 mm long.
51.	Osmo-dehydrated Pineapple products osmo-dehydrated Rings and Titbits The pineapple can be converted into value added products and stored for long time for at least upto 5-6 months. The mass/volume of raw pineapple can be reduced by several folds from the point of transportability and marketability.
52.	Developed Jackfruit chips –a low cost value added processed products from Jackfruit
53.	Developed Jackfruit squash - a value added products
54.	Developed Jackfruit papad- a value added products

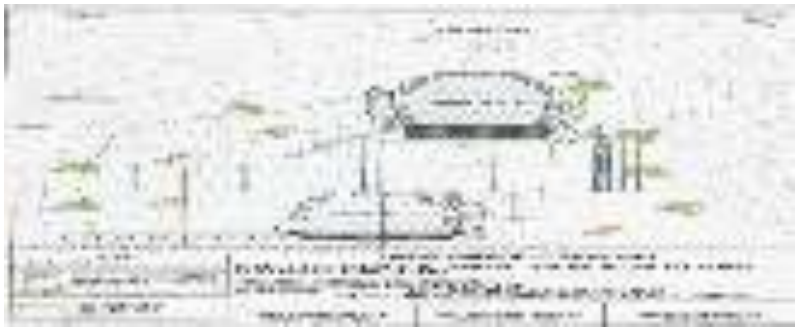
55.	Ready To Cook as value added products of Jackfruit
56.	Aloe vera based RTS drink blended with ginger, amla and sweet lime The product is an RTS drink developed from locally available inputs like ginger, amla, aloe-vera and sweet lime.
57.	Standardized technology for value added product of pineapple *viz.* juices (RTS) Pineapple Juice, RTS
58.	Low Glycemic index (GI) roti mix Product prepared from low GI roti mix will be useful for all age group in general, however, product will be highly beneficial for diabetic patients. Prepared from GI roti mix
59.	Low Glycemic index (GI) upma mix This low 'GI upma mix is prepared with semolina, foxtail millet and squash powder mix. The composition of the Upma mix is: Semolina: 65 g, Foxtail Millet: 20 g, Squash powder: 15 g. Organoleptic test (sensory evaluation) indicated that the mix has high acceptance levels.
60.	Low Glycemic index (GI) cheela mix Developed mix is a good source protein and dietary fibre, however, other nutrients are also present in appreciable amount in comparison to traditional cheela
61.	Standardized process and product development technology of pineapple powder for developing pineapple based Agro-industries in the NEH Region Most effective utilization of pineapple as value added product -powder with highly techno-economically feasibility.

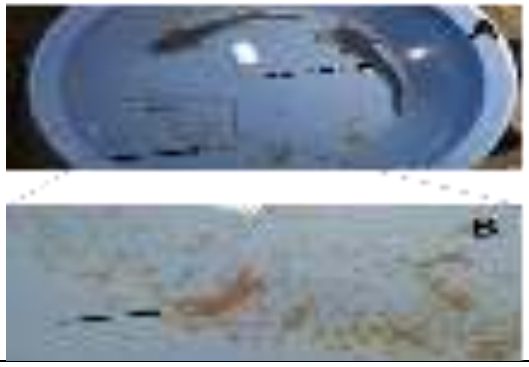
62.	Textile fiber extraction and yarn preparation from Arecanut husk agro-waste Arecanut husk from mature fruits is collected and processed for fiber extraction and prepared yarn **Fig.1-3** Processed Arecanut fiber **Fig. 1** Blended arecanut and cotton **Fig. 2** Carded sliver of blended arecanut fiber **Fig. 3** Hand spun arecanut and cotton blended
63.	Woven handloom fabric from arecanut husk Handloom fabrics woven on handloom by using Grade-I finer Arecanut fiber and cotton blended hand spun yarn and on the basis of physical performance can be used to prepare various household as well as apparel articles etc. Arecanut woven handloom fabric may further be utilized for various applications *viz*., woven for making handloom fabric (household/apparel articlesetc.
64.	Developed non woven material from arecanut husk agro-waste that can be utilized for various application viz. woven for making rugs/carpet/doormat/ napkins etc.
65.	Developed composite material from arecanut husk agro-waste Composites material can be developed using PVA matrix reinforced with arecanut husk fibers for further preparation of biodegradable mulching sheets, nursery grow bags and packaging materials etc.
66.	Anti-microbial finish and herbal dyeing from arecanut extract: Arecanut extract is used for natural herbal dyeing as well as imparting antimicrobial finishes to garment in single bath. Tannin rich nuts are dried and crushed into powder immediately after dehusking and used as source of natural color having anti-microbial finish. Various shades can be obtained through mordanting with chemical as well as natural mordants.
67.	Standardized technology for preparing cured *Vawksa rep* a traditional pork dish of Mizoram Improvised the technique to prepare the smoked pork (Vawksa rep) to increase the shelf life and nutrient quality.

68.	Standardized technology for hygienically produced Phasa Shidal Shidal is produced by using Phasa fish (*Setipina phasa*) in the following indigenous practice. Hygienic condition is maintained in important steps such as washing, drying and filling of *Matka* (Earthen vessel). Total fermentation period required is about 3-4 months. Final product (Phasa Shidal) is taken out from the matka after proper fermentation and packed immediately in poly pouch, which is then evacuated using vacuum sealing machine. The consumers' acceptability of the product is better compared to the similar product available in the retail dry fish market.
69.	Standardized production technology of functional chicken nuggets and patties by incorporating French bean and chickpea Flour A functional chicken nuggets was developed by incorporating high quality vegetable fibres using French bean and chickpea flour.
70.	Developed Boneless Fish Cubes (BFC). A complete boneless product from fish rich in antioxidant and omega-3 fatty acids, with texture like meat and attractable flavour. Shelf-life at -20°C is six months. Advantages: ➢ A health-food enriched with plant derived polyphenolic antioxidants ➢ Rich in omega-3 fatty acids ➢ Free from any chemical preservatives ➢ Choice of fish eaters of all age groups
71.	Standardized production technology of laminated & smoked pangasius. a) Laminated & smoked Pangasius has good consumers' acceptability b) Operational conditions like temperature, drying and smoking time, lamination process etc. have been optimized c) Smoked laminated Pangasius was found acceptable for 12 weeks in vacuum packed condition **Advantages:** a) A different type of product from traditional smoked fish product b) Bone-less c) Good shelf-life
72.	Developed high performing pig by crossing Large White Yorkshire x *Zovawk* (Mizo local pig) • Upgradation of local pig (*Zovawk*) using Large White Yorkshire (LWY) up to 75 % blood level of LWY is achieved. • Improvement in the growth of 75 % LWY (61.7±2.40 kg at 8 months of age) have been noticed compared to 23.51±1.25 kg in pure Zovawk

	Pure Zovawk (Gilt) 75% LWY x *Zovawk* (Mizo local pig) (Gilt)
73.	Standardized package of practices for culture of pengba (*Osteobrama belangeri*). Seed production technology through induced breeding, seed nursing, seed rearing, feed development using local ingredients namely *Wolffia arrhiza* (L) as protein and starch source and tapioca as starch source have been standardized. Further, artificial feed-less culture of pengba utilizing live wolffia has also been achieved.
74.	Standardized Cashew Nut Peeler drudgery reduction of farm women for peeling brown testa of cashew nut
75.	Developed High Fibre Multi Grain mix for food supplement to reduce/maintain weight and it can be recommended for diabetic and pre-diabetic.
76.	Developed Nutri Dense mix for food supplement suitable/recommended for low body weight population. It is a Ready to Use mix of banana powder, sticky rice powder, ground nut is incorporated with jiggery.

77.	Developed Pupa Extractor for reduction of drudgery and time consumption in extraction of pupa from cocoon for silk threads
78.	Developed improved large cardamom harvesting knife Efficient harvesting of large cardamom capsules with reduced drudgery and more output compared to the conventional harvesting knife.
79.	Developed mechanical operated bamboo shoots peeling machine The developed innovative bamboo shoots peeling machine removes the bamboo shoots peel at rate 50 units of bamboo shoots per hour which is about 50% lower time taken than that of the traditional method. Drudgery and injury free to the farmer. Cost: Rs. 25,000/-
80.	Developed manually operated *Citrus macroptera* peeling machine The developed machine can peel *Heiribob, Pomelo*, large size lemon having output capacity of 40 fruits/h. Mode of operation is manual. Cost: Rs. 2,500/-
81.	Developed Power operated small axial flow paddy thresher. The thresher consist of a spike tooth type threshing cylinder, concave, top cover with spiral louvers, aspirator blower, feeding chute, straw discharge outlet .The paddy crop is fed by the operator through the feeding chute, clean paddy grain is obtained at the grain outlet and semi-broken straw is discharged at the straw outlet. Capacity of the Thresher is about 200 kg/hour. Threshing and cleaning efficiency of 100% and 95% respectively.

82.	Developed Animal Drawn Jet plough/Mole Plough. It is suitable hill farmers for inversion of soil slice and leaves the field rough enough hence reduce in losses of fine particles of the prepared seed bed.
83.	Developed Gravity fed Micro Irrigation System (MIS) for terraced topography. It is a Micro Irrigation System (MIS) for the terraced topography of NEH region consists of water storage tank of 2000 litre capacity with the 50 mm diameter main line and sub main line and 16 mm LLDPE lateral pipes fitted with 2lph pressure compensating emitters. Micro sprinklers were installed on the terraces at 2.33 m spacing and riser height of 1.3m. Micro sprinklers worked satisfactorily at pressure > 1 kg/cm^2. Average emission uniformity, distribution efficiency (Ed) and application efficiency (Ea) for the developed gravity fed MIS is found greater than 90%.
84.	Rainwater harvesting system for the low cost bamboo polyhouses. It is a naturally ventilated bamboo polyhouse of 50 and 75 sq.m with slopping roof and developed an appropriate rainwater harvesting system for the low cost bamboo polyhouses. Developed rooftop rainwater harvesting system consists of three basic components namely catchment area, conveyance system and water storage facilities.
85.	Developed Integrated Farming System Model for enhancing livelihood security of small and marginal farmers under hill ecology. The IFS model at College of Agriculture, Kyrdemkulai is developed on 0.6 ha area for the livelihood security of small and marginal farmers with area allocation of different components : Water harvesting, Crops, Fishery, Mushroom, Livestock, Medicinal garden, Agro-forestry and Natural farming systems, Poly house, Apiary, Composting unit, Farm house & Store, Solar-based energy production. Technology is ecologically sound and economically viable with livelihood support by providing food (cereals, pulses, vegetables, fruits, milk, meat, honey, fish etc.) making farm family self reliant. 

86.	Low cost Smoked Chicken sausages incorporated with bamboo shoot. Bamboo shoots are successfully incorporated for nutritional improvement as well as from economical point of view and also give a preservative effect. Adding Bamboo shoot gives an ethnic taste to the products while incorporating the beneficial dietary fibre in the product.	
87.	BRICS (Barrier Removal in catfish for Voluntary Captive Spawning) Technology for Magur Seed Production. It is a technology to induce voluntary captive spawning in air breathing catfish through hormonal manipulation. It enables the seed production of *Clarias magur* in controlled conditions without necessitating the sacrifice of the male brooder. This technology will revolutionaries the catfish seed production and aquaculture. The technology will also assist in conservation of several fish of conservation significance.	
88.	Manually Operated Makhana (Euryale FeroxSalisb.) harvester with optical device Length: 1500 mm Weight: 2kg Man power :1 Capacity: 150-200 fruits/h It is capable of harvesting the Makhana fruits below the surface of water with the help of a high resolution camera fixed near to the cutting blade and telescopic aluminum pipe which length can be varied. The gadget is capable of harvesting 150-200 Makhana fruits in one hour which is almost 50-60% higher capacity as compared to the conventional method of harvesting. (Patent applied no: 201931023672 Under examination)	
89.	Low cost Turmeric/Ginger rhizome washer Crops: Ginger/Turmeric Capacity: 150kg/h Man Power:1 Cost of operation: Rs 2.5/100kg Cost of machine: Rs 25,000/- It is used for washing and peeling simultaneously. Spices like Turmeric and Ginger are washed and peeled. (Patent applied no.: 201931032748 Under examination)	
90.	Motorized hand held Pineapple harvester Weight: 9 kg Power Engine:Petrol	

	Man power:1 Capacity: 250-280 fruits/h Cost of operation: 1.5/fruit The machine works on the principle of cutting action of the blades at the stalk of standing pineapple. Rotation of cutting blade (125mm) is obtained through a transmission from a 1.5 hp petrol engine through a spiral rotating shaft. (Patent applied no.: 201931032749 Under examination)	

All the technologies developed by different colleges of CAU, Imphal are enlisted in a book which is published by CAU, Imphal. These technologies are well accepted and widely adopted by the stakeholders in the north eastern states. The area under rice cultivation increased from 10.12 lakh ha in 2009 to 11.71 lakh ha in 2017-18; and CAU R1 variety is cultivated on about 70 % of the total area.

6.6.3.4. Research Publication: Provide the list of research articles (NAAS ranking 5.00 or more) published in National and International Journals (only based on the work conducted in the University)

Research Publication (NAAS rating 5.00 and above):

1. College of Horticulture, CAU, Thenzawl:

SL.No.	Title and Author of Paper	NAAS Rating
1.	Shashidhar Viraktamath and Rojeet Thangjam (2021). Two new species of Tetragonula (Hymenoptera: Apidae: Meliponini) from North East India with notes on their nest structure *Biologia* https://doi.org/10.2478/s11756-020-00662-0	6.81
2.	Sarangthem Indira, L. Devarishi Sharma and A. K. Srivastava (2014). Development of Nutrient Diagnostic Techniques for Khasi Mandarin Grown in Manipur. *Journal of the Indian Society of the Soil Science*. Vol.62(2):118-125 .	5.23
3.	Indira Sarangthem, L. Devarishi Sharma , Nivedita Oinam and Punilkumar L (2019). Distribution of Zinc Fractions in Paddy Fields of Manipur. *Journal of Pharmacognosy and Phytochemistry*.Vol.8(3):2500-2503.	5.21
4.	Laxmi Ningthoujam, Indira Sarangthem, Edwin Luikham, N Gopimohan Singh and L Devarishi Sharma (2019). Evaluation of Suitable Extractant of Boron in Soil of Manipur. *Journal of Pharmacognosy and Phytochemistry*.Vol.8(4):1154-1157.	5.21
5.	Linthoi Watham, Indira Sarangthem, A Herojit Singh, L Nabachandra Singh, N Okendro Singh and L Devarishi Sharma (2019). Distribution of different forms of soil acidity in Imphal East district of Manipur. *Journal of Pharmacognosy and Phytochemistry*. Vol.8(4): 1262-1264.	5.21
6.	Indira Sarangthem, Kondareddy A N and L. Devarishi Sharma(2019). Fractionation of zinc and their association with soil properties of Manipur. *The Pharma Innovation Journal.*Vol.8(8):178-182.	5.03
7.	Linthoi Watham, Indira Sarangthem, L Devarishi Sharma and Herojit Singh Athokpam (2019). Distribution of different forms of iron (Fe) and aluminium (Al) under different land use system in acid soil. *The Pharma Innovation Journal*. Vol.8(8):1-4.	5.03

2. College of Post Graduate Studies in Agricultural Sciences, CAU, Barapani:

Sl.No.	Title and Author of Paper	NAAS Rating
1.	Singh R, Rai M, Singh NK (2016) From QTL to variety-harnessing the benefits of QTLs for drought, flood and sal tolerance in mega rice varieties of India through a multi-institutional network. *Plant Science* 242: 278-287	9.59
2.	Rajesh T., Maruthasalam S., Kalpana K., Poovannan K., Kumar K.K., Kohiladevi E., Sudhakar D., Samiyappan R. and Balasubramanian P., (2016) Stability of sheath blight resistance in transgenic ASD16 rice lines expressing a rice chi 11 gene encoding chitinase. Biologia Plantarum, 60 (4): 749-756	7.6
3.	Feroze, S.M., Singh, R. and Sirohi, S. 2016. Profitability and disposal pattern of milk in underdeveloped hill production system of Meghalaya, *Indian Journal of Animal Science*, 86(10):1198-1203.	6.28
4.	Feroze, S.M, Singh, Ram; and Sirohi, S. (2016) Profitability and disposal pattern of milk in underdeveloped hill production system of Meghalaya" Indian Journal of Animal Sciences,	6.28
5.	Singh, Ram, Kumar, A., Jat, P.C. and Ahmed, S.P (2016) Mobile based agro-advisory services in livestock management by tribal of Meghalaya. Indian Journal of Animal Sciences	6.28
6.	Mahendra K., Baiswar P, Chandra S., Choudhury, B.U., Majumder D., Rajesh T. and Firake, D.M. (20016) Molecular characterization and influence of soil factors on isolates of Rhizoctonia solani in Meghalay. Indian Phytopath. 69 (3): 271-277.	5.95
7.	Saplalrinliana, H., Thakuria, D., Changkija, S. and Hazarika, S. 2016. Impact of Shifting Cultivation on Litter Accumulation and Properties of Jhum Soils of North East India. J. of the Ind. Soc. of Soil Sci., 64(4): 402-413. (ISSN: 0019-638X)	5.31
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11.	Alethea Dympep ; Singh, R. J. ; Jitendra Chauhan ; Pandey, D. K. ; Hemochandra, L (2016) Standardize Index for Measuring Performance of Farmers on Mitigation and Adaptation Practices of Climate Change. Indian Research Journal Extension Education	5.22
12.	Singh, Anandkumar, N.; Singh, Ram, S.M. Feroze Singh, R.J. and P.M.N. Rani (2016) Growth and instability of pineapple cultivation in Manipur, India. *Indian J. Agric. Res* 0-0	5.2
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14.	Singh, Anandkumar, N.; Singh, Ram, S.M. Feroze and Singh, R.J. (2016) Economic evaluation of pineapple cultivation in Manipur. *Economic Affairs*0-0	5.08

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36.	K. Kalai and L. Devarani. Gender Differences in Agricultural Empowerment A Study of Farm Households in Tripura.. International Journal of Extension Education	5.95
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48.	Muliar, D. Singh, Ram and Feroze, S.M. (2017). An Economic appraisal of strawberry orchard in Meghalaya". Economic Affairs	5.08
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Sl.No.	Title and Author of Paper	NAAS Rating
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Sl.No.	Title and Author of Paper	NAAS rating
1.	Natasha Marak, D. Alina, Ch. Momin and Leebeliya Sharma, G. 2018. Incidence and Knowledge of Diabetes Mellitus of the Residents of Tura Town: A Case Study.Int.J.Curr.Microbiol.App.Sci. 7(9): 1756-1763	5.38
2.	Marak, Natasha & Malemnganbi, Chungkham& Marak, Cassandra & Mishra, Lokesh. (2019). Functional and antioxidant properties of cookies incorporated with foxtail millet and ginger powder. Journal of Food Science and Technology. 56. 10.1007/s13197-019-03981-6	7.26
3.	Natasha R. Marak, R.K. Nganthoibi and Chukambe W. Momin. 2019. Process Development for Brining of Tender Jackfruit. Int.J.Curr.Microbiol.App.Sci. 8(4): 2408-2414.	5.38
4.	Das, P. and Nagar, S. (2021). Food habits of people in Meghalaya and its effect on Health of women and Children. International Journal of Current Microbiology and Applied Sciences Vol 10 (01): 2581-2587	5.38
5.	Nagar, S. and Singh, N. (2018). Assessment of knowledge of tribal adolescent girls regarding reproductive health in Meghalaya. International Journal of Current Microbiology and Applied Sciences, Vol 7(9): 2777-2784.	5.38
6.	Singh, N. Nagar, S. and Takhellambam, R. (2019). Nutritional Status of Tribal Primary School children in Meghalaya. International Journal of Current Microbiology and Applied Sciences, Vol 8 (7): 668-681.	5.38
7.	Das, P. and Nagar, S. (2020). Food practices of Garo Hills and Harmful effects of Sodium Bicarbonate. International Journal of Current Microbiology and Applied Sciences Vol 8 (6): 2855-2857	5.38

8.	Mishra, A. and Das, P. (2019). Underutilized MeghalyanArecanut husk waste Fiber for development of Nonwoven textile material. International Journal of Pure and Applied Bioscience. 7(2): 563-567.	5.38
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11.	Mishra, A., Das, P., Tiwari, A., Kumar R. and Mishra, L. (2020). Comparative analysis of total phenolic content and antimicrobial activity of some plants of Garo hills, Meghalaya. International Journal of Chemical Studies, 8(6):2858-2861.	5.31
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13.	Das P and Sangma N, 2021 A comparison study on knowledge and use of different ICT tools of farm women of state of Meghalaya, International Journal of Current Microbiology and Applied Sciences. Vol- 10(01)January , 2021. Pp2633-2671	5.38
14.	Singh .N,Das P and Sangma. B 2021. Product development of Overnutrition and Undernutrition and effect dietary intervention on anthropometric and Biochemical parameters. Journal of Pharmacogynosy and phytochemistry Vol- 10(1) January , 2021 Pp 964-966	5.21
15.	Momin, M. G. and Das, P.2020.Benefits Derived from Integrated Basin Development and Livelihood Promotion (IBDLP) Programme by Garo Farm women in Garo Hills of Meghalaya. International Journal of Pure and Applied Biosciences. Vol-8 (6), pp 293-297.	5.31
16.	Das, P. and Sangma, N. 2020. Availability, accessibility and attitude towards ICT – A Study in Meghalaya. International Journal of Current Microbiology and Applied Sciences. Vol-9 (11) November, 2020. Pp2064-2073	5.3
17.	Das, P. and Sangma, N. 2020. Level of Awareness on Climate Change of Farm Women of West Garo Hills, Meghalaya. International Journal of Current Microbiology and Applied Sciences. Vol-9 (10) October, 2020. Pp1045-1053	5.3
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28.	Singh N. and Sangma B. (2021): Diabetes Mellitus: Status in North East India. The Pharma Innovation Journal 2021; 10(3): 313-319	5.03
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30.	T.R. Marak, D. Bhagat and S. Borah (2020) Physiological workload of ethnic Garo women of Meghalaya involved in tea leaves plucking activity. *Indian Journal of Hill Farming.* Vol 33 (1): 59-64	5.04
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5. College of Fisheries, Lembucherra, Tripura

Sl.No.	Title and Author of Paper	NAAS rating
1.	Choudhury, T.G., Singh, S.K., Baruah, A., Das, A., Parhi, J., Bhattacharjee, P. and Biswas, P., 2015. Reproductive Features of *Puntius sophore* (Hamilton, 1822) from Rivers of Tripura, India. *Fish. Technol.*, 52: 140 – 144	5.25
2.	Das, R., Krishna, G., Priyadarshi, H., Gireesh-Babu P., Kumar, A.P., Rajendran, K.V., Reddy, A.K., Makesh, M., Chaudhari, A., 2015. Captive maturation studies in *Penaeus monodon* by GIH silencing using constitutively expressed long hairpin RNA. *Aquaculture*, 448: 512–520.	9.02

3.	Debnath, M., Saha, R. K., Kamilya, D. and Saha, H., 2015. Effects of waterborne iron on fry of *Catla catla* (Ham.), *Labeo rohit*a (Ham.) and *Cirrhinus mrigala* (Ham.). *Indian J. Anim. Res.*, 49: 210–217**.**	6.44
4.	Devi, R., Saha, B. Kashyap, D. and Baruah, D., 2015. Documentation and perceived effectiveness of indigenous traditional fishing methods including gears and traps in Nagaon district of Assam. *Indian J. Tradit. Know.,* 14: 103-111.	6.9
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14.	Saha, B., 2015. Realizing Farmers' Objectives- Imperative to Adoption Process of Fish Farming Technology. *Indian J. Ext. Educ.*, 51: 13-19.	5.32
15.	Sahoo, L., Debnath, C., Parhi, J., Choudhury, T. G. and Pani Prasad, K., 2016. Effect of short-term feeding of Vitamin C as an immunostimulator on hemato-biochemical parameters of *Labeo bata* (Ham.) an important cultured fish of Tripura. *Fish. Technol*., 53: 1 – 5.	5.25
16.	Sangma, T. and Kamilya, D., 2015. Dietary *Bacillus subtilis* FPTB13 and chitin, single or combined, modulate systemic and cutaneous mucosal immunity and resistance of catla, *Catla catla* (Hamilton) against edwardsiellosis. *Comp. Immunol. Microbiol. Infect. Dis.,* 43: 8–15.	7.87
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19.	Subbaiah, K., Majumdar, R.K., Choudhury, J., Priyadarshini, B., Dhar, B. Roy, D., Saha, A. and Maurya, P., 2015. Protein Degradation and Instrumental Textural Changes in Fresh Nile Tilapia (*Oreochromis niloticus*) during Frozen Storage. *J. Food Process. Preserv.,*39: 2206–2214.	7.29
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24.	Choudhury, T.G., Vinay, T.N., Gita, S. Parhi, J. 2017. Advances in bacteriophage therapy for bacterial disease control in aquaculture. *Reviews in Fisheries Science & Aquaculture*, 25(2): 113–125	9.78
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28.	Kheti, B., Kamilya, D., Choudhury, J., Parhi, J., Debbarma, M., Singh, S.T. 2017. Dietary microbial floc potentiates immune response, immune relevant gene expression and disease resistance in rohu, *Labeo rohita* (Hamilton, 1822) fingerlings. *Aquaculture*, 468: 501–507.	9.02
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49.	Keer, N.R., Datta, M.K., Patel, A.B., Rathor, R.P., Kumar, M. and Das, S. 2018. Effect of stocking density on growth and survival of *Cirrhinusreba* (Hamilton, 1822) during spawn to fry nursing (outdoor). *Journal of Entomology and Zoology Studies,* 6: 640-645.	5.53
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6. College of Veterinary Science & Animal Husbandry, CAU, Jalukie, Nagaland

Sl.No.	Title and Author of Paper	NAAS rating
1.	Mili, B. Gogoi, A, Laltlankimi, Mandakini, Chutia, T., R., Ralte, L and Malsawmkima. (2020), A guide on Hemato- biochemical Profiles of IndigenousManipuri Cattle. Journal of Animal Research, 10 (6);1009-1014.	5.43
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7. The College of Agricultural Engineering and Post Harvest Technology, Sikkim

Sl.No.	Title and Author of Paper	NAAS rating
1.	Patle GT, Sengdo D and Tapak M (2019). Trends in major climatic parameters and sensitivity of evapotranspiration to climatic parameters in the eastern Himalayan region of Sikkim, India. Journal of Water and Climate Change; https://doi.org/10.2166/wcc.2019.121	
2.	Das SS, Chakraborti P, Bhowmik C and Singh R (2019). Decision-Making for Selection of Most Suitable Materials for Biomedical Applications, Advances in Interdisciplinary Engineering, 01: 901-917.	
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6.	Das S, Raman RK, Devarani N and Joshi SN (2019). Surface alloying of Titanium Di-boride (TiB_2) and Silicon Carbide (SiC) on Aluminium Al 5052 using Electric Discharge Processing. Procedia Structural Integrity, 14:119-126	
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48.	Tiwari R K, Singh Y J, Din M, ChauhanS K, and Namdev A 2019. Effect of Threshing Cylinder Configuration on wheat straw quality in Indo-Gangetic Plans.*International Journal of Agriculture Sciences*, 11 (3): 7813-7818.	
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54.	Kumar V and Said PP (2018). Physico-chemical characterization of *Elaeagnuslatifolia* from Sikkim Himalayas. International Journal of Pure & Applied Bioscience, 6(5):361-366.	
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63.	Devi KL, Panigrahi D, Yadav SR, Gurung MR, and Rai A(2018).Effect of Organic Manures on Growth and Yield of Gherkin (*Cucumissativus*L.) in Terraced Farmlands of Sikkim. Environment and Ecology, 36 (4A): 1191-1195.	

8. College of Agriculture, Imphal

Sl.No.	Title and Author of Paper	NAAS Rating
1.	Heisnam, P., Moirangthem A., Keisam, A., Singh, N.I., Athokpam, H.S. andSingh, L.N. (2015). Efficacy of some promising weedicides on shallowland transplanted rice (*Oryza sativa* L.) under rainfed conditions, *The Bioscan* 10(1): 459-463.	5.26
2.	Jekendra Singh Salam, N. Surbala Devi, Priyadarshini Salam and RK Dilip Singh. (2017). Comparisons of major biochemical constituents and mineral composition in six cultivars of aromatic rice in Manipur. *Indian Journal of Plant Genetic Resources*, 30(1): 61-65	5.12
3.	N. Surbala Devi and D. Saha. (2017). Influence of organic matter vis-à-vis humic acid on the transformation of inorganic and organic forms of nitrogen in a TypicHaplustept soil. *Communications in Soil Science and Plant Analysis*, 48(9):1042-1051.	6.69
4.	A. Yumnam, A.R.Mandal, T.M. Singh and N. Surbala Devi (2017). Impact of organic and inorganic source of nitrogen and water management on tomato-french bean by radish cropping system. *International Journal of Current Microbiology and Applied Sciences,* 6(12): 4110-4117.	5.38
5.	T. Sanahanbi Devi and N. Surbala Devi (2018). Influence of organic manures and moisture regimes on hydrolysable forms of nitrogen in an acid soil of Manipur, India. *International Journal of Current Microbiology and Applied Sciences*. 7(2):921-932	5.38
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11.	G. Nongmeikapam and N. Surbala Devi (2019). Effect of organic manures and humic acids on changes in hydrolysable organic fractions of nitrogen in a Typic Haploumbrepts soil. *Agrochimica*, 63(1): 3-14.	6.65
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209.	Surbala Yumnam, K.I. Singh and D.C.Ray. 2017. Effect of abiotic factors on the Rice caseworm, *Nymphula depunctalis* (Guenee) in Manipur. *Indian J. Ent*., 79(2):181-184.	5.89
210.	Vignesh, M. and Ibohal Singh. 2017. Studies on effect of dates of planting on the incidence of diamond back moth, *Plutella xylostella* (Linn.) in cabbage under Manipur Agro-climatic Conditions. *Int. J. Curr. Microbial App. Sci.,* 6(10: 4943-4947. .{ISSN NO.2319-7692}	5.38
211.	Vignesh, M., Murasing, J. andIbohal Singh. 2017. Bio Efficacy of Some Commercially Available Eco-Friendly Insecticides against Diamondback Moth, *Plutella xylostella* L. in Cabbage. *Int.J.Curr. Microbiol. App.Sci*., 6(10): 4948-4953	5.38
212.	M. Ranjeeta Devi, K. I. Singh and D.C. Ray. 2018. Predators and parasitoids of Rice insect pests under Rice ecosystems of Manipur valley. *Indian J. Ent*., 80(3):789-793.	5.89
213.	Shusmita, Th, M.K.Gupta, K.I.Singh and Karthik, S. 2019. Contact toxicity of some plant volatile oils against beetle, *Callosobruchus maculatus* (Coleoptera: Bruchidae). *J. Ent. and Zoo. Studies*, 7(1):597-599.	5.53
214.	Emmanuel Sonkarlay, Edwin Luikham and Herojit Singh Athokpam (2020). Effect of chemical fertilizer, organic manure and biofertilizer on nodulation, yield and economics of Lentil (*Lens culinaris* L. Medik.) *Int.J.Curr.Microbiol.App.Sci.* 9(8): 2653-2662	5.38
215.	Ngangom Monisha Devi, Abinash Moirangthem, Punabati Heisnam, Ramananda Singh, RK.Dilip Singh and Ng. Joykumar Singh (2017). Effect of Organic Manures and Varieties on growth, yield and its economics of Banana Cultivation. *The Bioscan: Special issue* 10: 285-292	5.26

6.6.3.5. Innovation and Best Practices:

- To promote innovation and research excellence among the faculty member, HK Jain award is given every year which comprises of a gold medal, citation and cash Award of 1 Lakh rupees.
- The University also has a research grant for Intra mural Research projects to the tune of 2 -5 Lakhs per projects to the faculty members of CAU, Imphal
- Out of box initiatives like "Students Innovative Ideas competition (SIIC)", hackathons, interaction programs with successful entrepreneurs etc. are conducted for the students at regular intervals.

6.6.3.6. IPR Cell/ ITMU: Whether the University is currently having functional Intellectual Property Right Cell in place. Mention the date of the meetings conducted by the Cell in last three years and what were the major recommendations. Is the University having Institute Technology Management Unit in place. Mention the date of the meetings conducted by the Unit in last three years and what were the major recommendations.

- There is no cell named as "IPR Cell" in the University, however, a "***Resource Management Cell***" has been established in December 2020. The first meeting was held on 2nd January 2021.The Cell is looking after the IPR related issues such as patenting, licensing and commercialization of technologies developed by constituent colleges of CAU. The Cell is involved in creation of digital database of technologies developed by constituent colleges of CAU. It also conducts awareness programs related to IPR issues of the faculties/staffs. One Nodal Officer is appointed in each of the constituent colleges for dealing with IPR issues.

6.6.3.7. Central Instrumentation Unit: Is there a Central Instrumentation Unit in place? What are the facilities available in the unit?

- No, there is no Central Instrumentation Unit in the University as the constituent colleges are located in different states of the North Eastern Hill region.

6.6.3.8. Global Support: Global Support may assist Universities to organize and undertake activities outside of the Regions by providing a centralized location for administrative resources and a single point of contact for addressing related questions. Does the University maintain functional experts in a range of administrative areas to provide technical advice and guidance in the areas of exchange programmes, visa related issues, International MoUs, collaborative research etc.?

- Not applicable, however, the Directorate of Instruction and Deans of the constituent colleges assist and guide the international students in the area of exchange programmes, collaborative research, visa issues etc. The University has also signed an MOU with Sydney University, Australia for students/faculty training programs.

6.6.4. EXTENSION SUPPORT

6.6.4.1 Extension Council:

The council is constituted of Vice Chancellor, Director of Research, Director of Instruction, Dean of constituent colleges, Director of Agriculture, Director of Horticulture & Soil Conservation, Director of Fisheries, Director of Animal Husbandry & Veterinary Services, Director of Skill Development, Chief Conservator of Forests Research & Planning, Director of Rural Development, Farmer representatives from all North Eastern States, Two external experts and Director of Extension Education.

SN	Meeting of EEC	Held on	Place	Year
i	3rd	18th Sept. 2015	CAEPHT, Ranipool, Sikkim	2015-2016
ii	4th	6th June, 2017	CAU, Imphal, Manipur	2016-2017
iii	5th	30th July, 2018	COA, Iroisemba, Imphal, Manipur	2017-2018
iv	6th	29-30th May, 2019	CPGS AS, Umiam, Meghalaya	2018-2019
v	7th	Not conducted due to COVID-19 Pandemic	-	2019-2020

6.6.4.2 Directorate of Extension Education:

Preamble: The Directorate of Extension Education is responsible for dissemination of useful and latest agricultural information to the farmers through constituent colleges and KrishiVigyanKendras of the University besides planning, monitoring and execution of extension progress based on results of the researches conducted in all campuses/units of the University.

Vision : " Self-reliant, healthy rural populous with rich agricultural knowledge and good marketing intelligence."

Mission : 1. Situation analysis of farming systems and identification of potential areas of training, technology gap, technology adoption gap and production constraints.

2. To develop and demonstrate alternate sustainable farming processes which help the farmers to improve their productivity and profitability with bio-diversity conservation and improving the environment.

3. to link farmers with newly emerging globalized world by providing them information and guidance.

4. To develop a system of effective research and extension linkage.

5. To provide consultancy services to progressive farmers, agro-industries and other agencies involved in agriculture and allied sectors.

6. Integration of IT in rural system for speedy development.

7. To bridge the gap between farm and market and provide sustainable competitive growth for the sector
8. To generate employment in the field of agriculture and allied disciplines.

Mandate:

1. Agricultural technology transfer through different extension methodologies in the NE region.
2. Imparting training for capacity building of human resource
3. Organization of farm advisory services at the doorsteps of the farmers
4. To enhance the agricultural vocation in the region
5. To act as a mediator between researchers and farmers to develop demand driven technology
6. Single window delivery system for technology products, diagnostic services and information through Agricultural Technology Information Centers (ATICs).
7. Facilitation in planning, implantation, execution and monitoring the agricultural development in the region.
8. Encourage to work in groups at the grass root level in the region for overall development

Staff position of Directorate of Extension Education:

Sl. No.	Designation	No. of Post
1.	Director	1
2.	Dy. Director	1
3.	IPO	1
4.	Videographer	1
5.	Computer operator	1
6.	P.A. to Director	1
7.	Accountant	1
8.	Head Asst.	1
9.	Account Asst.	1
10.	Stenographer Gr-III	2
11.	Artist	1
12.	LDC	2
13.	Driver	1
13.	MTS	3
Total		**18**

Although, agriculture as a whole is state subject but being the origin centre of technology generation and refinement of need-based technologies through rigorous experimentation, the educational/research institutions bear the responsibility to train the master trainers of the states and to conduct elite demonstrations. Off campus training, awareness program are conducted in the farmers filed through colleges and KVKs.

Activity	No. (Participants)
Distance Education Training	3 (88)
Vocational Training	13 (228)
Training for EP	51(1119)
Training for F/FW/RY	531 (23393)
Awareness Programme	114 (6183)

Owing to this responsibility, Directorate of Extension Education, Central Agricultural University, Imphal deals with front line activities to disseminate agricultural know how and emphasizes over to get acquainted with the technologies among the farming communities for further adoption through different constituent colleges situated all over the North Eastern Region except Assam and with the help of six Krishi Vigyan Kendras *i.e.,*Imphal East, Andro (Manipur); Aizawl, Selesih (Mizoram) and East Siang, Pasighat (Arunachal Pradesh), East Garo Hills (Meghalaya), South Garo Hills (Meghalaya) and Sepahijala

(Tripura).The function of agricultural universities for carrying out extension programmes in their jurisdiction is shown in the following figure:

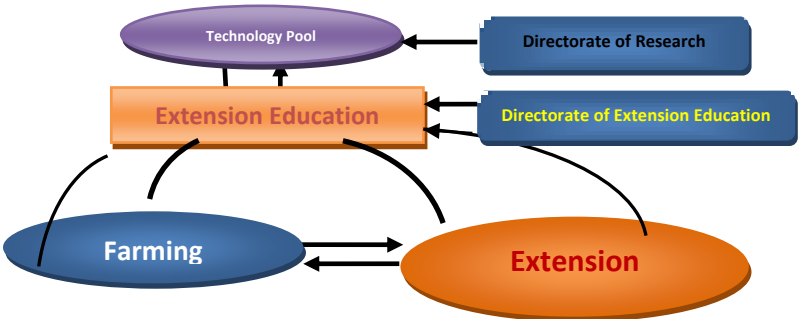

Fig: Diagrammatic Elaboration of Extension coordination

Extension coordination mechanism: To work in collaboration and coordination with state line department, KVKs every year Interface meeting with line department officials, KVKs and selected progressive farmers in every state is organized by all the constituent colleges of CAU to find out the need and problems of the farmers, strategies were formulated to solve the problems. Extension technology dissemination: Technologies are disseminated through FLDs, Field Days, Kisan melas though KVKs. First the technology is tested through OFTs under close supervision of experts and after successful conduction of OFT, the technology is demonstration in farmers field through FLDs for large scale adoption. Contribution in academic programmes: RAWE programme is conducted in KVKs to make student acquainted with real life situation of farmer and to learn the recent technologies through hands on training.

6.6.4.3 Extension Planning and Technological Impact:

Need based extension planning helps to support in adopting new technologies. The extension plan is prepared through participatory extension methodologies by participation with the local people. After collection of the grass root information with active participation with the local people/ villagers the need based action plan is prepared to support and upgrade enterprises though adoption of new technologies and in commercialization of innovations based on indigenous resources. The mechanism to study the technological impact is sample survey, focus group discussion, interaction with villagers and other participatory methodologies.

6.6.4.4. Implantation of National Initiatives:

1. Farmers; FIRST Programme sponsored by ICAR through ATARI Zone VII at CoA, Imphal started in 2016-17. Total 600 farmers are covered in 2 villages of Imphal East district of Manipur
2. NICRA project is implementedat 4 villages of Imphal East by KVK, Imphal East
3. Mera Gaon Mera Gaurav has been implemented by all the 6 KVKs and 13 Colleges under CAU, Imphal
4. Implementation of Swachhta Hi Sewa under Swachh BHARAT Mission through DEE, KVKs and Colleges

6.6.4.5. Innovation and Best Practice :

- The University takes up different innovative extension activities in the area of research project, training for human resource development. Some of them are mentioned below.

1. Mobile based agro advisory systemin project mode**(m4Agri)** sponsored by DIC, New Delhi running in 6 colleges viz., CoVSc& AH, Aizawl , CoF, Tripura , CoA, Imphal, CPGSAS, Barapani, COHF, Pasighat, Arunachal Pradesh, COAE & PHT, Sikkim.
2. Formation and management of FPO, FC, CIG, SHG though KVKs.
3. Distance Training Course for unemployed youth.
4. Skill development training programme under ASCI through MTTC and VTCs.
5.Development of incubate under RABI-Incubation Centres in Tripura, AP and Mizoram (12 nos.).
6. Skill development training programme sponsored by Power Finance Corporation and NIAM, Jaipur.

6.6.4.6. Consultancy / Certification/Testing: Nil

6.6.5. FACULTY AND STAFF DEVELOPMENT

6.6.5.1. Recruitment and Promotional Avenue: Give the detailed recruitment procedure for faculty, technical, supporting and administrative staff (in brief) and further mention the last recruitment for each category held in the University. Similarly, career advancement procedure and its implementation for all categories shall be given. How many staff have been recruited directly at the higher positions in the last five years?

- Based on the vacancies arises from the sanctioned posts which was not fill/vacated/superannuated all the posts of faculty, administrative and supporting staffs University advertised in two national papers and local dailies of the North Eastern States where constituent colleges are situated. The advertisement are uploaded in the University website for wide circulation.
- Last recruitment for filling up the posts of faculty positions viz Professor/Associate Professor/Assistant Professor was conducted during the month of October and November, 2019.
- As regard to supporting and administrative staff last recruitment was done during the January and February, 2020 for appointment of Group B and Group C posts.
- Career Advancement procedure are followed as per the UGC guidelines in the University and implemented accordingly. As for promotion to non teaching posts University followed the DoPT orders issued from time to time. For technical staff University adopted the Technical Service Rules implemented in the ICAR in toto.
- During the last five years University recruited 199 (one hundred ninety nine) directly at the higher positions.

6.6.5.2. Participation of Faculty in Symposia/Workshops: Give the comprehensive list (year wise, College wise) participation of faculty in National/International Seminars/ Symposia/ Workshops/ Training/ Consultancy visits/Special assignments etc.

YEAR 2015-16

Sl. No.	Name of the college	Hr. Studies (deputed)	Conference	Intl. Sem	Natl.Sem.	Workshop	Lect. Deliv.	Trainings	
								Long term =3 weeks	Short term <3 weeks
1.	College of Agriculture, Imphal.	-	02	02	03	02	04	01	03
2.	College of Vety. Sc & A.H. Selesih, Mizoram	01	03	04	12	01	27	03	-
3.	College of Fisheries, Lembucherra, Tripura	01	05	02	04	01	07	01	06
4.	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh.	-	05	01	03	02	12	04	08

5.	College of Home Science, Tura, Meghalaya.	-	-	-	-	01	-	01	01
6.	College of Agri-Engineering & Post Harvest Technology, Ranipool, Sikkim.	01	01	03	-	08	25	03	-
7.	College of Post Graduate Studies, Umiam, Meghalaya.	01	-	01	01	02	-	-	-
Total		**04**	**16**	**13**	**23**	**17**	**75**	**13**	**18**

YEAR 2016-17

Sl. No	Name of College	Higher studies	Conference		Seminars		Work shop	Training	
			National	International	National	International		Long term(>3 weeks	Short term(<3 weeks)
1	College of Agriculture, CAU, Imphal	-	2	-	9	5	-	-	-
2	College of Post-Graduate Studies, CAU, Umiam	2	10	5	5	-	5	0	6
3	College of Agriculture, Kyrdemkulai, Ri-Bhoi	-	-	-	-	-	-	-	-
4	College of Agricultural Engineering and Post Harvest Technology, Gangtok	01	03	03	03	-	04	-	-
5	College of Horticulture, Bermiok, Sikkim	-	-	-	-	-	-	-	-
6	College of Fisheries, Tripura	-	-	-	4	-	5	2	3
7	College of Horticulture and Forestry, Pasighat	-	3	3	6	-	6	2	2
8	College of Agriculture, Pasighat	-	-	-	-	-	-	-	-

9	CVSc& A.H., Selesih, Aizawl	-	2	1	2	1	-	-	1
10	College of Home Science	2	2	1	4	1	1	2	2
11	College Of Horticulture (Thenzawl), Mizoram	-	-	-	-	-	-	-	2
12	College of Food Technology, Imphal	-	-	-	-	-	-	-	-
13	College of Veterinary Sciences & Animal Husbandry, Jalukie, Nagaland	-	-	-	-	-	-	-	2
Grand Total		**05**	**22**	**13**	**33**	**07**	**21**	**06**	**18**

YEAR 2017-18

Sl. No.	**Name of College**	**Higher studies**	**Conference**		**Seminars**		**Workshop**	**Training**	
			National	**International**	**National**	**International**		**Long term(>3 weeks**	**Short term(<3 weeks)**
1	College of Agriculture, Imphal, Manipur	1	-	1	10	-	1	-	3
2	College of Post-Graduate Studies, Umiam, Meghalaya	1	1	0	2	1	13	4	0
4	College of Agricultural Engineering and Post Harvest Technology, Gangtok, Sikkim	1	04	-	-	2	08	01	06
5	College of Horticulture, Bermiok, Sikkim	-	2	-	-	-	-	-	-

6	College of Fisheries, Tripura	-	4	-	3	-	5	2	-
7	College of Horticulture and Forestry, Pasighat, Arunachal Pradesh	3	5	7	5	8	11	5	11
8	College of Agriculture, Pasighat, Arunachal Pradesh	-	5	6	1	-	4	-	1
9	CVSc& A.H., Selesih, Aizawl, Mizoram	2	6	2	4	2	2	5	7
10	College of Home Science, Tura, Meghalaya	2	2	3	-	-	-	1 (overseas associateship)	-
11	College Of Horticulture Thenzawl, Mizoram	-	1	-	-	-	-	-	3
Grand Total		**10**	**30**	**19**	**25**	**13**	**44**	**18**	**31**

YEAR 2018-19

Sl. No.	**Name of College**	**Higher Studies**	**Conference**		**Seminars**		**Work shop**	**Training**		**Others**
			National	**International**	**National**	**International**		**Long term (>3 weeks)**	**Short term (<3 weeks)**	
1)	College of Agriculture, Imphal	-	-	-	-	-	1	-	-	-
2)	College of Veterinary Science & A.H., Selesih, Aizawl	1	5	2	-		3	2	9	-
3)	College of Horticulture & Forestry, Pasighat		-	-	5	-	8	5	2	-

4)	College of Fisheries, Lembucherra, Tripura	1	-	3	-	1	6	1	4	-
5)	College of Agricultural Engineering & PHT, Ranipool, Sikkim	1	20	-	4	-	11	03	03	-
6)	College of Post Graduate Studies in Agril. Sciences, Barapani, Meghalaya	1	1	-	-	-	3	3	-	8
7)	College of Home Science, Tura, Meghalaya	2	4	-	1	-	1	3	-	2
8)	College of Veterinary Science & A.H., Jalukie, Nagaland	-	15	-	-	-	-	1	4	-
9)	College of Agriculture, Pasighat	-	3	2	-	-	1	1	1	-
10)	College of Horticulture, Bermiok, Sikkim	-	-	-	1	-	-	-	1	-
11)	College of Horticulture, Thenzawl, Mizoram	-	1	-	-	-	3	-	17	1
12)	College of Agriculture, Kyrdemkulai, Meghalaya	-	2	2	3	-	1	1	2	-

YEAR 2019-20

Sl. No.	**Higher Studies**	**Conference**		**Seminars**		**Workshop**	**Training**		**Others (Please specify)**
		National	**International**	**National**	**International**		**Long term (>3 weeks)**	**Short term (<3 weeks)**	
College of Agriculture, Imphal									
1.	-	02	01	04	01	09	-	08	01
College of Veterinary Science & A.H., Selesih, Aizawl									
1.	01	29	04	02	-	09	02	04	-

College of Horticulture & Forestry, Pasighat									
1.	-	-	01	10	-	17	03	16	14
College of Fisheries, Lembucherra, Tripura									
1.	-	02	04	03	01	04	03	-	-
College of Agricultural Engineering & PHT, Ranipool, Sikkim									
1.	01	01	03	01	-	04	04	05	01
College of Post Graduate Studies in Agricultural Sciences, Barapani, Meghalaya									
2	-	-	02	02	-	01	02	03	-
4	-	-	-	-	-	-	-	-	-
College of Community Science, Tura, Meghalaya									
1.	01	-	01	02	-	05	-	02	-
College of Veterinary Science & A.H., Jalukie, Nagaland									
1.	-	06	-	-	01	07	04	01	01
College of Agriculture, Pasighat									
1.	-	03	02	01	-	06	02	03	-
College of Agriculture, Kyrdemkulai, Meghalaya									
1	-	02	0	0	0	02	0	01	01

6.6.5.3. Incentives for Excellence/Faculty Recognition. Does the University is offering Best Teacher Award (ICAR) or any other means of recognition to promote excellence in faculty and other staff ? Give the list and selection procedure (in brief).

- The University is offering 3 types of awards for promotion of excellence in teaching, students research and extension activities.
    i. CAU Best Thesis award (for PG theses)
    ii. CAU Best Faculty award
    iii. CAU Best Extension Professional Award

The awards are given every year. Notifications are made from willing candidates for applying for the awards. The received applications are then screened by a selection committee constituted for the purpose with inclusion of external experts based on the individual guidelines formed for the award. Based on the maximum marks scored as per guidelines of the award, candidates are recommended for the award.

6.6.5.4. Capacity Building and Training: How many programme have been initiated towards developing and strengthening skills, instincts, abilities, processes and resources that the University and its stakeholders need to survive, adapt, and thrive in the fast-changing agricultural scenario?

2015-2016	➢ 28 nos. of training for Extension personal were conducted with 700 nos. of participants. ➢ 210 nos. of training were conducted with 6300 nos. of farmers and farm women.
2016-2017	➢ 29 nos. of training for Extension personal were conducted with 725 nos. of participants. ➢ 398 nos. of training were conducted with 13930 nos. of farmers and rural youth.
2017-2018	➢ 32 nos. of training for Extension personal were conducted with 800 nos. of participants. ➢ 401 nos. of training were conducted with 14035 nos. of farmers and rural youth.
2018-2019	➢ 36 nos. of training for Extension personal were conducted with 900 nos. of participants. ➢ 480 nos. of training were conducted with 16800 nos. of farmers and rural youth

2019-2020	➢ 42 nos. of training for Extension personal conducted with 758 nos. of participants. ➢ 531 nos. of farmers training conducted with 23393 nos. of farmers and rural youth. ➢ Organized 3 nos. of One-month Distance Education Certificate Course on "Scientific Fish Farming", "Pig farming" and "Poultry Farming" during this year by the Directorate of Extension Education and CVSc&AH, Aizawl.In total 157 nos. of farmers participated. ➢ One Road Show Nidhi Accelerator organized by DEE in collaboration with Lab Indigram, New Delhi at CoA, CAU, Imphal on Jan. 10, 2020 and total 68 nos. of start-ups were participated the programme. ➢ Organized two (2) workshops on "Bio control of Crop Pests & Invasive and Utilization in Insect as Food in North East Region" during February 25-26, 2020 at COA, Imphal and another at CPGS-AS, Umiam duringMarch 6-7, 2020. Total 104 progressive farmers and scientists attended the workshops. During the programmes poster competitions were also organised for farmers as well as scientists. ➢ Organized First State Level Mango Diversity Fair 2019 at COA, Imphal on July 02, 2019. Total 58 mango growers and two KVKs participated in the programme and 15 local cultivars exhibited during the Fair. Total six (6) prizes were awarded among the exhibitors. ➢ Organized two "State Level Workshop cum Honey Festival" by the Directorate of Extension Education under the project entitled "IBDC (Centre of Excellence)" during February 28-29, 2020 with the financial support of the National Bee Board, New Delhi at COA, Imphal and CHF, Pasighat.

6.6.6. STUDENT DEVELOPMENT

6.6.6.1. Scholarships/Stipend: Is the University offering any scholarship programme for meritorious students? How many students are receiving competitive scholarships/fellowships for each College? How many passed out students have been selected for scholarships/fellowships in other universities.

- The University is offering scholarship programme for meritorious students.Highest scored undergraduate students of each class for every faculty of the university are awarded merit scholarship. So, 54 UG students are receiving merit scholarship of the University every year. For Masters and PhD every student who got admission through University competitive examination is awarded institutional fellowship. So, 195 masters' student and 55 PhD students are receiving institutional fellowship. 421 pass out students have been selected for scholarships/fellowships in other universities in the last five years.

6.6.6.2. Extra and Co-curricular Activities: Whether the sports/games/cultural activities/NSS/NCC/ programmes are being organized? If yes, then give the list of events in last five years in tabular form. Participation of students in ICAR sponsored events (Agri-unifest/ Agri-sports/ any other) and award/medals received in last five years may be given in Tabular form. How the students practice sports and games daily?

- The university promotes co-curricular opportunities and encourages student participation in all aspects of campus life.

Events of Co-curricular activities

Sl. No.	Events	Remarks
1	Annual college week, sports and games and social/cultural meets	Organized by all the constituent Colleges

2	Annual Inter-Collegiate Games & Sports Meet and Youth Festivals	The University organized on shifting venue basis to provide a common platform for the students of constituent colleges located in different states of the region,
3	Swachh Bharat Abhiyaan programme	All constituent colleges of the university organized to create awareness among the CAU community, the sense of sanitation, hygiene and healthy living in tune with clean environment.
4	International Day of Yoga	The university organized to inculcate the students, a sense of nationalism through different community services.
5	National Youth Parliament Competetion	The university also organized to inculcate the students, awareness of Parliament procedure and decorum.
6	National Service Scheme(NSS)	The university availed National Service (NSS) Scheme by opening NSS cells in all the constituent colleges and organized programmes like blood donation, tree plantation, water harvesting, sanitation, health and hygiene activities, eco-environmental conservation and preservation etc.
7	Animal health camps, field visits, seminar on stress management, communal harmony weeks with poster campaigns and other community service related activities	The university also organized animal health camps, field visits, seminar on stress management, communal harmony weeks with poster campaigns and other community service related activities on regular intervals

The university shines in the All India ICAR Inter Agricultural Universities Games and Sports Meet (s), All India University Tournaments and Championships as well as AIU Youth Festivals and ICAR Youth Festivals *etc*.

Achievement of Central Agricultural University, Imphal at the AIICAR Inter Agricultural Universities Sports & Games Meet

Sl.no	Name of the Meet	Venue	Year	Event	Position
1	19th AIICAR Inter Agricultural University Sports & Games Meet.	Punjabi University, Ludhiana, Punjab	2019	High jump (W)	2nd
2	20thAIICAR Inter-Agricultural Universities Sports and Games Meet	Sri Venkateswara Veterinary University, Tirupati, Andhra Pradesh	2020	High jump (M) Badminton (W) doubles	3rd Runners up

Achievement of Central Agricultural University, Imphal at the AIICAR Inter Agricultural Universities Youth Festivals

Sl.no	Name of the Meet	Venue	Year	Event	Position

1	16th All India ICAR Inter Agricultural Universities Youth Festival	Orissa University of Agriculture and Technology, Odisha.	2016	i. Group Song (Patriotic) ii. Group Dance iii. Rangoli iv. Solo Song (Modern)	1st 3rd 2nd 3rd
2	18th AIICAR Inter Agricultural University Youth Festival,	Sri Venkateswara University, Tirupati, Andhra Pradesh	2018	Quiz	2nd
3	19th AIICAR Inter Agricultural University Youth Festival.	SDAU, Sardarkrusinagar, Dantewada (Gujarat).	2019	On the spot painting	1st
4	20th AI IA U Youth Festival	IGKV, Raipur, Chhatisgarh	2020	Patriotic Song (Indian),	4th

Students practice sports and games daily in the well managed games and sports infrastructures including all season indoor facilities, auditorium and gymnasium.

6.6.6.3. Health Facilities: Provide the brief information about medical facilities available in the head quarter and off-campuses. A brief about Health Insurance scheme being implemented at the University may be provided.

- Each constituent college has well equipped medical unit for regular health check-up of staff and students. These 24X7 hours medical facilities are available in all campuses with well qualified resident medical officers assisted by compounder cum dresser, trained nurses and attendants, in all the campuses of the university. Ambulances services by the colleges is also provided for the students and staffs for emergencies and effective health care management. Apart from routine check-up and treatment the medical unit of the colleges also organizes voluntary Blood Donation Camp for staff and student. In the University Head Quarter 3 alternation days in a week the routine service of M.O. is available to check up the health of employees of University Headquarters.

6.6.6.4. Sports and Cultural Facilities: Give detailed report of sports and games facilities and auditoriums available for cultural events.

- All constituent colleges of the universities have well managed games and sports infrastructures including all season indoor facilities, auditorium and gymnasium.

CHF, Pasighat

The college has one Multipurpose Indoor Stadium that has Multi-Gymkhana, Badminton Courts (two in number), Room for Table Tennis and an outdoor sports facility for Football cum Cricket ground, Volleyball Court for the college students. While the Student Officer looks after the outdoor facilities in close coordination with the Student in-charges Sports (Boys and Girls); the indoor stadium is looked after by separate faculty, Dr. Arunkumar Ph. The facilities are fully utilized by the students, employees as well as the wards of the employees. The college has an auditorium of sitting capacity of 285 constructed during 2010-11. The facility is being utilized for the cultural, literary activities of the students especially during the Annual College Week. The venue is made available to institutional and Governmental functions with approval/ permission from University Authority. On an average, it is being utilized around 20-25 times in a year.

College of Agriculture, Pasighat

Newly established college, so the auditorium is also under construction for the College.The auditorium is constructed at the allotted site with plinth size of 500 sq. mtr. The college is presently utilizing of the auditorium present at College of Horticulture and Forestry.

College of Agriculture, Imphal

It has an auditorium of capacity 300 seats, where round year different cultural programmes are organized by the student union and college. The College of Agriculture, Central Agricultural University provides Gym facility to the students of the College of Agriculture, CAU Imphal. The Gym is located inside the Gymnasium, students are doing gym activities both in morning and evening session and it was guide by a gym instructor. The Gymnasium is also provided with Badminton court, Table Tennis facility. Sometime yoga classes are also performed in this hall. During the Annual college week and inter class competition various indoor games were played inside the gymnasium.

CPGSAS, Umiam

One indoor/Badminton court, Basketball court, volleyball ground. Time schedule is maintained for students during morning and evening time. Regular competitions are conducted for students.

1. Multipurpose Student Utility Center
2. Badminton court
3. Basketball court
4. volleyball court
5. Football ground (at ICAR-RC for NEH)

The college auditorium of 250 seating capacity will be ready soon.

College of Fisheries, Tripura

The college has one indoor sport complex facility in which students regularly play badminton, basketball and table tennis. In addition to that, GYM facilities are also available to the students inside the indoor sports complex. The college also have outdoor sport facility (playing field) for playing cricket, football, volleyball, athletic events such as running etc. The college has an auditorium which was constructed in 2012 with a seating capacity of 256. The auditorium is frequently used for different college function, special lectures etc.

College of Veterinary Sc. & AH, Aizwal

The College is having 1 (one) multipurpose indoor stadium (470 sq.m.) with facilities for badminton, T.T., Carrom and multigym. One outdoor playground (2200 Sq.m) with a basketball cum volleyball ground (140 sq.m.).

College has established a student welfare section under supervision of student welfare officer who is looking after different activities like Sports and cultural events, NSS programmes and NCC activities along with placement cell. There are different in-charges for NSS and NCC activities. Different facilities developed at college campus for encouraging the students to participate in different extracurricular and co-curricular activities. The College has represented at University level, at Inter University meet and State level sports meeting.

The College is having a well equipped modern auditorium constructed and inaugurated in the year 2009 with a sitting capacity of approx. 300 persons(568 Sq.m). The facility has been used throughout the year for different activities like celebration of Annual College Week, Freshers' day, Farewell day of the final year students, world veterinary day, world anti rabies day, world milk and egg day, White coat ceremony for the 4^{th} year students, Inauguration of National Seminar, Celebration of Diwali, Pre-Christmas, any training programme inauguration, visit of any high dignitaries etc. The Auditorium is also having a community hall (415 Sq.m) adjacent to it, which is very useful for reception and arrangement of meals for students, faculties and other dignitaries etc.

CAEPHT, Ranipool

The college has a auditorium of 300 seating capacity where regular cultural programmes are organized. The college has a playground, volleyball and badminton court and gymnasium.

College of Horticulture, Bermiok

The students are provided with all types of physical exercises during the classes and in physical experience class to keep them physically fit and healthy. In addition, the skill development in any one of the games such as badminton, volleyball, football, cricket, table tennis and athletics is contemplated in the physical education programme. Maintenance and cleaning of the ground are regularly done for use by the students. Matches are conducted for the students during the annual sports day and intercollege meets or any other specific days such as the Foundation Day, Republic Day etc. to improve and maintain their skills using ground facilities. Indoor games such as carom, chess, badminton and table tennis are also available.
The college has a Student Activity Centre which is exclusively empowered to explore and equip the students for multi-varied cultural activities. The Cultural Committee is formed comprising of faculties, staff and students along with the Student Welfare Officer of the College. Different types of clubs' function under the Committee such as the Music, Theatre, Literary and Fine Arts.

College of Horticulture, Thenzwal

The students are provided with all types of physical exercises during the classes and in physical experience class to keep them physically fit and healthy. In addition, the skill development in any one of the games such as badminton, volleyball, football, cricket, table tennis and athletics is contemplated in the physical education programme. Maintenance and cleaning of the ground are regularly done for use by the students. Matches are conducted for the students during the annual sports day and inter-college meets or any other specific days such as the Foundation Day, Republic Day etc. to improve and maintain their skills using ground facilities. Indoor games such as carom, chess, badminton and table tennis are also available.

College of Community Science, Tura

The college has one field in which outdoor activities are held during the college week. Though, college does not have any indoor stadium or sports hall, there are adequate facilities for indoor games in the hostel. A music room is also set up in the hostel along with a good music system used for recreational purposes. There are a number of indoor and outdoor sports equipment that are used by the students. Prior to their participation in inter-college or national level events, special coaching is imparted to the selected students by professional coaches invited form nearby institutes and sport associations.

6.6.6.5. Student Counseling and Placement Cell: Give detailed report on placement cell and provide the report for recruitment of students by firms in last five years. What is the mode and mechanism of counseling being followed at the University level?

- The University has placement cell and availed placement for the students in different agri allied sectors including banks, private establishment, NGO's, industry etc. Pass out students of the university are serving in the reputed Universities, Technical Institutes of Higher Education, KrishiVigyan Kendra (s), Research Institutes of High Repute etc. We have students doing Doctoral Degree Research in fame International Research Institutes' as
  well as serving in the Universities abroad in different capacities. Since its inception, the University has produced 3508 graduates, 1288 post-graduates and 64 Ph.Ds. Out of which 125 passed out students are working as Agricultural Research Scientists (ARS), 120 as University faculty, 60 as SMS in KVKs, 453 in central/state Government Department, 129 in Private Firms and 55 in banking sectors. Moreover, 190 passed out students are settled in the occupation of agriculture & allied subjects and 40 pass out students are working as Entrepreneurs.
  College wise report is given below

A. College of Agriculture, Imphal

Placement cell:

Old Committee: Dr. MK Gupta, Chairman, Dr. Edwin Luikham, L Meghachandra Singh, Member Secretary

New Committee: Dr. S. Haldhar - Chairman, Dr. SM Feroze, Dr. Bireswar Sinha, Dr. Norjit Sinha, L Meghachandra Singh, Member Secretary

Student placement in National Govt./ State Govt./Public/ Private/other during 2016-17 to 2020-21

Year	ARS	National Exam.	State Exam.	Bank Exam.	Private	Other	Total
2016				1		5	6
2017			6	4		4	14
2018			6	2	1	2	11
2019	5		1			4	10
2020			2		6	1	9
2021			7				7
Grand total							57

The details are given below:

YEAR OF SELECTION/PLACEMENT: 2021

SL. NO.	NAME	SEX	ADM. NO.	DESIGNATION	ORGANIZATION	CATEGORY
1	Tammoy Bhowmik	M		SMS, (Subject Matter Specialist)	Govt. of Tripura	State Exam
2	Santanu Das	M		SMS, (Subject Matter Specialist)	Govt. of Tripura	State Exam
3	Dr.Binoy Tripura	M		SMS, (Subject Matter Specialist)	Govt. of Tripura	State Exam
4	Jayasree Data	F		SMS, (Subject Matter Specialist)	Govt. of Tripura	State Exam
5	Sri Rubin Debbarma	M		SMS, (Subject Matter Specialist)	Govt. of Tripura	State Exam
6	Smt. Tusi Chakma	F		SMS, (Subject Matter Specialist)	Govt. of Tripura	State Exam
7	Satku Lal Debbarma	M		FA (Farm Assistant.)	Govt. of Tripura	State Exam

Year of selection: 2020

Sl. No.	Name	Sex	Admission No.	Designation	Organization
1	NETHAJI M	M	15A-18(M)	ASST. PROF.	Imayam Institute Of Agriculture And Technology, T.N
2	PRAPAKARAN M	M	16A-18(M)	DCO	Kothari, Agritech private limited

3	GOLLAPUDI LALITHA	F	21A-18(M)	Teaching Associate	Agriculture Polytechnique College, ANGRAU, A.P
4	KANALA SAI SREELEKHA	F	23A-18(M)	Seed Certificate Officer	A.P State Seed Certification Authority (APSSCA)
5	GUTTI SARDESH RANA	M	28A-18(M)	Asstt. Breeder,	VNR SEED
6	W.TAMPAKLEIMA CHANU	F	2A-16(PH.D)	Asstt. Prof.	Himalayan University, Jollang AP -791111
7	MEGHNA GOGOI	F	6A-17(PH.D)	Agriculture Development Officer	Assam State govt.
8	SAMAL JAMATIA	M	28A-14	Sub Inspector	Tirpura State Govt.
9	ASHWINI ANANDA	M	3A-15 M	GUEST LECTUER	NEHU, Horticulture, Dept, Shillong

Year of selection: 2019

Sl. No.	Name	Sex	Admission No.	Designation	Organization
1	L. DEVARISHI SHARMA	M	3A-12(PH.D)	Asst. Prof. MTC, VTC	Miizoram, CAU
2	KHUMUKCHAM STINA	F	19A-10(M)	Asst. Prof. MTC, VTC	COA, CAU
3	DIANA SHAMULAILATPAM	F	15A-10(M)	AICRP Scientist ,	CAU, Lamphelpat
4	PRIYANKA IRUNGBAM	F	1A-15(PH.D)	Asst. prof	COA, Pasighat, CAU,
5	IMMANUEL CHONG HAOKIP	F	21A-08	ARS	ICAR, NEW-DELHI
6	RIPI DONI	F	18A-10	ARS	ICAR, NEW-DELHI
7	CHANDAN MAHARANA	M	20A-10	ARS	ICAR, NEW-DELHI
8	SHANNON. N. SANGMA	F	26A-10	ARS	ICAR, NEW-DELHI
9	PRIYAJOY KAR	M	44A-11	ARS	ICAR, NEW-DELHI
10	ANNA LAKSHMI . S	F	45A-18 (M)	HORTICULTURE OFFICER,	VIRUDHUNAGAR, TAMIL NAIDU

Year of selection: 2018

Sl. No.	Name	Sex	Admission No.	Designation	Organization
1	Vaishnu Rai	F	20A-14	ADO (Agriculture Development Officer) Sikkim	Sikkim State Govt.
2	Hissay Cheday	F	17A-14	HDO (Horticulture development officer), Sikkim	Sikkim State Govt.

3	Suraj Chettri	M	21A-14	ADO (Agriculture Development Officer) Sikkim	Sikkim State Govt.
4	Sanjit Chakma	M	29A-14	AEO (Agriculture Extension Officer), Sikkim	Sikkim State Govt.
5	Manish Pradhan	M	9A-13	ADO(Agriculture Development Officer) Sikkim	Sikkim State Govt.
6	Bomngam Karlo	F	59A-12	ADO (Agriculture Development Officer)	Arunachal State Govt.
7	Herojit yanglem	M	3A-15(PH.D)	SMS , TURA Center	CAU
8	Tshering palden Bhutia	M	45A-15 (M)	Agriculture Extension Officer,	Canara Bank, Assam
9	Daina Samurailatpam	F	15A-10 (M)	AICRP Scientist	CAU
10	Heisnam Bideshwori Devi	F	24A-16 (M)	Project Coordinator	Centre for microfinance and livelihood, Imphal
11	Sukanya sougaijam	F		Jr. Associate	SBI

Year of selection: 2017

Sl. No.	Name	Sex	Admission No.	Designation	Organization
1	Peter Biakthangsanga	M	2A-13	Range Officer	Mizoram State Govt.
2	Samuel Lalnundika	M	3A-13	Assistant Horticulture Extension Officer	Mizoram State Govt.
3	Lalnunzuala	M	25A-13	BTM	Mizoram State Govt.
4	Jaya Keisham	F	53A-13	LDA , Manipur court	Manipur State Govt.
5	Rohit Aheibam	M	47A-13	F.A	Manipur State Govt.
6	Nganba R.K	M	2A-12	F.A	Manipur State Govt.
7	Thiyam Tejmani	M	11A-14M	F.A	Manipur State Govt.
8	Masenglungliu Pamei	F	1A-12	ATM	Dept. of Agri, Manipur
9	Aswin C	M	2A-15M	Agriculture Officer	Central Bank of India
10	Devika Thangjam	f	9A-14M	Agriculture Field Officer	Bank of India
11	Thangjam Leonard	M	12A-14M	ATM	Dept. of Agri, Manipur
12	Hormichon Sareo	F	33A-14M	ATM	Dept. of Agri, Manipur
13	H. Kholchandra Singh	M	20a-15M	Agriculture Field Officer	Central Bank OF India
14	L. Diana Devi	F	1A-15 (M)	Agriculture Field Officer	Bank of Baroda

Year of selection: 2016

Sl. No.	Name	Sex	Admission No.	designation	organization
1	Rahul	M		Livestock/Farm Asst.	COA, CAU

2	Kamei Keishulung	M		Livestock/Farm Asst.	COA, CAU
3	Ebenazar Gympad	M	46A-12	Assistant Manager ATMA	Dept. of Agri, Meghalaya
4	Binita Das	F	37A-12	ATM	Dept. of Agri, Tripura
5	Jessamin Ch. Marak	F	42A-12	Faculty at SBI	SBI, Meghalaya center
6	Sachindra Tripura	M	30A-12	ATM	Dept. of Agri, Tripura

Year of selection: 2015

1	Laishram Santosh Singh	M	14A-13M	AAO	Manipur state government
2	Khundrakpam Manorama	F	4A-14M	AAO	Manipur state government
3	Khagokpam Sundeep Singh	M	10A-14M	AAO	Manipur state government

B. CoVSc. & AH, Aizwal

In-charge Placement Cell: TK Rajkhowa

1. No. of students placed employed in government organizations during the last five years

2015	2016	2017	2018	2019	2020	Total
16	8	21	25	37	9	116

2. No. of students gone for higher studies during the last five years:

2015	2016	2017	2018	2019	2020	Total
32 (30 PG + 2 PhD)	39 (39 PG)	23 (23PG)	22 (19 PG + 3 PhD)	30 (20 PG + 10 PhD)	33 (20 PG + 13 PhD)	179 (PG 151+ PhD28)

YEAR WISE DETAILS:

Placement and Higher studies (2017)

Academic Year	Programme	No of students placed	No of students selected for higher studies	Median salary of placed students in Rs
2017-2018 (UG)	**B. V. Sc. & A. H.**	**19**	**23**	
Details of 19 students placed				
	VO	9		60,000
	Scientist	2		75,000
	Assistant Commandant	3		1,00,000
	Asst Prof	3		65,000
	NGO	1		25,000

	Asst Prof (Contractual)	1		40,000
2017-2018 PG	**MVSc , PhD**	2		
Details of 2 students placed				
	Asst Prof	2		65,000

List of placed students:

1. Dr. GopalChhetri: Working with an NGO
2. Dr. Khumjungse: Working as VO, Govt of Nagaland
3. Dr. Sunitibala Devi: ARS
4. Dr. Laltlankimi : Asst Prof, Jaluki (Contractual)
5. Dr. Lalrinkima: Asst Prof, Selesih
6. Dr. Kima: Asst Prof, Anatomy , Jalukie
7. Dr. Uttarani, Asst Prof, Physiology, Jalukie
8. Dr. Lalduhuma: Asst Prof, Extension,Selesih
9. Dr. Sarmista: VO in Tripura
10. Dr. Avishek Paul: VO in Tripura
11. PhanjoubamBrojendro Singh: Assistant Commandant, ITBP
12. Dr. Chopel: Assistant Commandant, ITBP
13. Dr. LallawnpuiiKawlni: Scientist, Wildlife Institute, Dehradun
14. Dr. Arunava: VO in Tripura
15. Dr. Swagatam: VO in Tripura
16. Dr. Samarjit: VO in Tripura
17. Dr. Milton: VO in Tripura
18. Dr. SanjoyNoatia: VO in Tripura
19. Dr. Binoy Chandra Naha: VO in Tripura

PG students:

1. Dr. AmritGogoi
2. Dr. Joy Kataria: Asst Prof, Selesih

PG Higher studies: Nil

Placement and Higher studies (2018)

Academic Year	Programme	No of students placed	No of students selected for higher studies	Median salary of placed students in Rs
2018-2019 (UG)	**B. V. Sc. & A. H.**	**20**	**19**	
Details of 18 students placed				
	VO	2		60,000
	Scientist	3		75,000
	Assistant Commandant	2		1,00,000
	Asst Prof	4		65,000
	NGO			25,000
	SMS	1		40,000
	Focus, Mizoram	8		
2017-2018 PG	**MVSc , PhD**			

Details of 5 students placed				
	Focus, Mizoram	5	3	65,000

List of placed students:

1. Dr. LalhumlianaTochhawng: Assistant Professor, CVSc& AH, CAU, Selesih, Mizoram
2. Dr. ZosangpuiiKhenglawt: SMS, KVK, East Garo Hills, CAU
3. Dr. H. Lalrinkima: Assistant Professor, CVSc& AH, CAU, Selesih, Mizoram
4. Dr. C. Lalnunpuia: VO, Mizoram
5. Dr. H. Lalzampuia: ARS, NRC on Mithun, Nagaland
6. Dr. UttaraniMaibam: Asst Prof, Anatomy , Jalukie
7. Dr. LallianpuiiKawlni, Scientist C, Wildlife Institute of India, Dehradun
8. Dr. SunitaBala Devi: ARS, NRC on Mithun, Nagaland
9. Dr. Malsawmkima: Asst Prof, Anatomy , Jalukie
10. Dr. LalrengpuiiSailo: VO in Mizoram
11. Dr. P.C. Lalhriatpuia: Assistant Commandant, BSF
12. Dr. ChopelGyatsoLachungpa: Assistant Commandant, BSF
13. Dr. R. Lalhruaitluanga:Technical officer, Focus, Department of Agriculture, Mizoram.
14. Dr. Lalawmpuia: Technical officer, Focus, Department of Agriculture, Mizoram.
15. Dr. Lalrintluanga: Staff at Circle, Focus
16. Dr. LalthangsangaKhiangte: Technical officer, Focus, Department of Agriculture, Mizoram.
17. Dr. Lalmunmawia: Staff at Circle, Focus
18. Dr. LaltlanmawiHnamte: Staff at Circle, Focus
19. Dr. Lalhruaitluanga: Staff at Circle, Focus
20. Dr. JessyLalthasanga: Staff at Circle, Focus

PG students:

1. Dr. H. Lalruatfela: Technical officer, Focus, Department of Agriculture, Mizoram.
2. Dr. Francis LalrinmawiaSailo: Staff at Circle, Focus
3. Dr. Abigail Remlalfakawmi: Staff at Circle, Focus
4. Dr. H. Remsangzella: Staff at Circle, Focus
5. Dr. SuzaneMalswamthangi: Technical officer, Focus, Department of Agriculture, Mizoram

PG Higher studies: 2

Placement and Higher studies (2019)

Academic Year	Programme	No of students placed	No of students selected for higher studies
2019-2020 (UG)	**B. V. Sc. & A. H.**		
Detail of 14 placed			
	VO	8+6=14	20
	Scientist		
	Asst Prof	1+9=10	10
	NGO		
	Farm Manager	1	
2017-2018 PG	**MVSc , PhD**		
Detail of 2 placed			

	Asst Prof		

List of placed students:

1. Dr. PreetyRai : VO, Sikkim
2. Dr. SidhantPradhan; VO, Sikkim
3. Dr. AswiniPradhan : VO, Sikkim
4. Dr. WangchukDorjeeBhutia: VO, Sikkim
5. Dr. RoshanPirthawar: VO, Sikkim
6. Dr. PramadaGurung: VO, Sikkim
7. Dr. KunzangGurung: VO, Sikkim
8. Dr. Davendra Manger: VO, Sikkim
9. Dr. IwanrihunNonglang: VO, Meghalaya
10. Dr. Jasrang W. Momin: VO, Meghalaya
11. Dr. MonicabelBasaiawmoit: VO, Meghalaya
12. Dr. ManorishaMawrie: VO, Meghalaya
13. Dr. Lucky Julis J. Sangma: VO, Meghalaya
14. Dr. Ryan JuvilsonKharbhih: VO, Meghalaya
15. Dr.Iluheibe, Farm Manager , Jalukie, CVSc. & AH

PG Higher studies: Nil

List of Alumni who got job during 2020:

Sl. No	Name of student	Year of Passing	Organization joined	Position / joined as
	VETERINARY OFFICER, Mizoram , Appointed in January 2020			
1	Dr. Jonathan Lalremsanga S/O ZirlianaRalte	2018	Animal Husbandry and Veterinary Department, Mizoram	Veterinary Officer
2	Dr. M S. Dawngliana S/O V. L. Hmachhuana	2015	Animal Husbandry and Veterinary Department, Mizoram	Veterinary Officer
3	Dr. P. L. Lalruatfela S/O Biakhlira (L)	2009	Animal Husbandry and Veterinary Department, Mizoram	Veterinary Officer
4	Dr. George Martin Lalruattluanga S/O David Laldintluanga	2018	Animal Husbandry and Veterinary Department, Mizoram	Veterinary Officer
5	Dr. Lalthansanga Khiangte S/O K. Malsawma	2012	Animal Husbandry and Veterinary Department, Mizoram	Veterinary Officer
	LIST OF ALUMNI WHO GOT JOB IN 2020-21			
	CIVIL SERVENT, ARUNACHAL PRADESH			

1	BalbanKamlo S/O. ST Kamlo&YaningKamlo,c/O. YaningKamlo (RFW), Daporijo, Upper SubansiriDistt. Arunachal Pradesh-791122	2009-2014	Government of Arunachal Pradesh	Arunachal Civil Service
2	YAPU NIJO d/o. Mr.Yekek Niji & Mrs. Yakek Gongo Nijo Village-Nijo-Mote, P.O./P.S. Dumpurijo Dist. Upper Subansiri (AP) Pin: 791122 Ph: 08575442748/08014378226/09436224472 (self)	2011-2016	Government of Arunachal Pradesh	Arunachal Civil Service
3	Dr. Chang Lee s/o. S. Longkhae & L Sonela Oinam Hill Village, Senapati District-795106 ph: 9856427012M/add: 2nd MR Gate, Near ARECA School, Imphal East-795001 ph: 8575641254	2012-17 batch B. V. Sc. & A. H. 2017-2019 (M.V. Sc., Surgery)	ITBP , Assistant Commandant	Central Government

C. CAEPHT, Ranipool, Gangtok, Sikkim

In-charge placement cell: Dr. GT Patle, Assistant Professor

Student placement in National Govt./State Govt./Public/ Private/Others during 2016-17 to 2020-21							
Year	ARS	National Exam	State Exam	Bank Exam	Private	Others	Total
2016	-	-	03	01	-	-	04
2017	-	-	-	-	-	-	-
2018	-	-	-	-	03	-	03
2019	01	-	-	-	01	-	02
2020	-	01	-	-	01	-	02
2021	-	-	-	-	-	-	-

List of Company visited for campus interview at CAEPHT, Ranipool

Sl.No.	Name of the Private Company	Year
1	Zydus wellness, Rangpo, Sikkm	2018
2	Mahindra & Mahindra Ltd., Mumbai	2018
3	C. G. Foods India Pvt. Ltd., Rangpo, Sikkim	2019
4	Mahindra & Mahindra Ltd., Mumbai	2020

D. College of Fisheries, Agartala

Student placement in National Govt./State Govt./Public/ Private/Others during 2016-17 to 2020-21

Year	ARS	National Exam	State Exam	Bank Exam	Private	Others	Total
2016			53			4	58
2017			11	1	2	4	19
2018			4	1	5	8	18
2019			18	2	1	7	28
2020			26	1	3	10	40
2021			9			1	10

Placement of pass out students in private company during 2018-19

SL. No.	Name of Student	Year of passing from college	Organisations joined	Position/joined as
1.	Mr. Chakrapani Pegu	2018	NEOSPARK, Drugs and Chemicals Private Limited Corporate Center, Hyderabad- 500 082, Telangana, India	Technical manager
2.	Mr. Sarbeswar Kachari	2013	NEOSPARK Drugs and Chemicals Private Limited Corporate Center, Hyderabad- 500 082, Telangana, India	Technical manager
3.	Mr. Amarjit Debbarma	2016	Sesta development service	SMS
4.	Mr. Oinam Naresh Khuman	2016	KISAN CALL CENTRE, Guwahati	Technical expert
5.	Mr. Kashyap Borah	2018	KISAN CALL CENTRE, Guwahati	Technical expert

Placement of pass out students in private company during 2019-20

Sl. No	Name of student	Year of passing from college	Organizations joined	Position/ joined as
1.	Dr. Naorem Dinesh Singh	2012	Godrej	Senior Salas Executive

Placement of pass out students in private company during 2020-21

Sl. No	Name of student	Year of passing from college	Organizations joined	Position/ joined as
1.	Mr. Manu Mog	2019	TATA	SMS

2.	Bishorjit Hijam	2014	Sesta development service	SMS

E. College of Horticulture & Forestry, Pasighat

In-charge Placement Cell: Dr. N. Devachandra Singh, Assistant Professor

Student placement in National Govt./State Govt./Public/ Private/Others during 2016-17 to 2020-21							
Year	ARS	National Exam	State Exam	Bank Exam	Private	Others	Total
2016	02	8	05				15
2017	02	11	05		02	03	23
2018		28	05			03	36
2019		8	3				11
2020		15				03	18
2021			05			05	10

F. College of Community Science, Tura, Meghalaya

In-charge placement cell: Dr. CH Victoria, Student Welfare Officer

Student placement in National Govt./State Govt./Public/ Private/Others during 2016-17 to 2020-21							
Year	ARS	National Exam	State Exam	Bank Exam	Private	Others	Total
2016-17		20	7		1	10	38
2017-18		13	1	1	1	2	18
2018-19		9	1		2	8	20
2019-20		19			1	10	30
2020-21		17			2	6	25

G. CPGSAS, Umiam, Meghalaya

Placement Committee:

2015: Dr. VK Khanna, Dr. A. Sarkar, Dr. K. Momocha Singh, Dr. PK Bora, Dr. Writcha Tyagi, SWO

2016: Dr. VK Khanna, Dr. PK Bora, Dr. Ram Singh, Dr. Nibedita borgohain, Dr. L. Dhanabati, SWO

	Student placement in National Govt./State Govt./Public/ Private/Others during 2016-17 to 2020-21							
Year	ARS	National Exam	State Exam	Bank Exam	Public	Private	Others	Total
2016	-	22	-			-	7	29
2017	-	15	-			-	9	24
2018	-	07	07			-	12	26
2019	01	11	11		01	-	6	30
2020	02	02	07	01	15	-	5	33
2021	-	03	02			-	-	05

H. College of Agriculture, Pasighat

In-charge Placement Cell: Dr. L. Geetarani Devi, Assistant Professor

Student placement in National Govt./State Govt./Public/ Private/Others during 2016-17 to 2020-21							
Year	ARS	National Exam	State Exam	Bank Exam	Private	Others	Total

2016							
2017		1					1
2018			4		1		5
2019							
2020							
2021	-	-	-	-	-	-	-

I. College of Horticulture, Thenzwal

In-charge Placement Cell: Dr. Rahul Sadhukhan, Assistant Professor

Ten students got placement in MSc. in different universities of India

J. College of Agriculture, Kyrdemkulai, Meghalaya

In-charge Placement Cell: Dr. Kancha Reddy, Assistant Professor

Sl. No	Name of student	Year of passing from college	Organizations joined	Position/ joined as
1.	Mr. Raja Garaam	2019	ATMA	Assistant Technical Manager

K. College of Food Technology, Imphal

In-charge Placement Cell: Dr. Punnyakishore Maibam, Assistant Professor

2019: 02 (Gate)

2020: 04 (Gate + JRF)

L. College of Horticulture, Bermiok

In-charge placement cell: Dr. Digangana Talukdar, Assistant Professor

2019-20: Nine out of 14 students got admission in higher studies

2020-21: Eight out of 16 students got admission in higher studies

6.6.6.6. Disabled Friendly Facilities: What kind of facilities is available for differently abled persons in the campus? Give a brief report.

- Ramp facilities are provided for all the campuses.
- Modified toilet facilities are provided for all the campuses.
- Wheel chair facilities are also provided for all the campuses of the university.

6.6.7. INFRASTRUCTURE

6.6.7.1. Physical facilities including administrative building and lands: Give comprehensive report on the administrative buildings, academic blocks, Colleges research units instructional farms, seed production units etc. for each College and University Head Quarter.

1. UNIVERSITY HEADQUARTER

The Central Agricultural University Headquarters Complex having an area 3 acre is located at Lamphelpat, Imphal. The Complex has the following buildings.

1. Administrative Building.
2. Guest House.

3. Cluster A, Cluster B and Type-IV residential quarters.
4. 2 Nos. Type-V quarters.
5. Vice-Chancellor's residential quarter.
6. Electrical Sub-station.
7. Security House.

The Administrative building has the office of Hon'ble Vice-Chancellor, Registrar, Comptroller, Director of Instruction, Director of Research, Director of Extension Education, Administrative and Account Sections, Engineering Section etc. It has a well furnished Conference Hall with modern communication facilities for conducting video conferencing / webinars and seminars. It is also fully connected with internet facility for smooth and effective connectivity with various constituent Colleges of the University located in the seven states of the North-Eastern region. The University has a well furnished Guest House with VIP suites and double-bedded rooms. The campus is also guarded round the clock by security staff for safety and well being of the employees which also includes the installation of CCTV security cameras. A dedicated 250 KVA Generator set is installed in the campus as an alternative power supply in case of load shedding to ensure uninterrupted power supply to the whole campus.

2. College of Post Graduate Studies in Agricultural Sciences, Meghalaya

Campus area in acres	17 acres approx.
Academic blocks	2000 sqm
Green houses/Farm	150 sqm
Auditorium	500 sqm
Students' Utility Center (Indoor)	450 sqm
Hostels (4) Boys' Hostel Girls' Hostel	 2000 sqm 2200 sqm
Library (Dining & Mess Hall)	230 sqm
Farmers' Hostel	800 sqm
Sub Station	80 sqm
Students Canteen	70 sqm
Wooden Structures	60 sqm
Type –V Qtrs	170 sqm
Type-IV Qtrs	820 sqm
Type-III Qtrs	460 sqm
Types-II Qtrs	430 sqm
Medical Unit	70 sqm
Transit Hostels	120 sqm
Pump House	15 sqm
Over Ground Water Reservoir	40 sqm
Under Ground Water Reservoir	90 sqm
Total	11,255 sqm

3. College of Veterinary Sciences & A.H., Selesih, Mizoram.

S. No.	Name of the Hostel	Area (Sq. m.)	Type of Hostel	Capacity	Students per room accommodated

1	Boys' (Lyon's) Hostel-I	1600 Sq.m	Boys'	82	02
2	Boys' Hostel-II	1508 Sq.m	Boys'	64	02
3	PG Boys' Hostel	690 Sq.m	Boys'	54	02
4	U.G. Girls' Hostel-I	1600 Sq.m+ 1017 Sq.m	Girls'	120	02
5	U.G. Girls' Hostel-II (Temporary)	807 Sq.m	Girls'	40	02
6	P.G. Girls' Hostel (Temporary)	730 Sq.m	Girls'	42	02

All hostels are having spacious kitchen, dining hall, reading room, common room etc. with all facilities like table tennis, carom, chess, TV etc. Each Hostel is having a mess run by the students under the supervision of respective Wardens. The College authority has provided sufficient menials to cook quality and hygienic food in the mess.

Each and every Hostel has been provided with Water Filtration system and other kind of water filters for clean and safe drinking water. Facilities for indoor games are also available in the hostels e.g. carom, chess, T.T., dumbbell etc. Girl hostel is also provided with treadmill over and above the mentioned facilities. All the hostel premises are regularly cleaned by engaged sweepers in the each Hostel. Transport facility is also extended as and when required for all the boarders residing in the Hostel.

Medical facility is available centrally in the College Medical Unit. Moreover, each Hostel is provided with some general medicine in the hands of Sick monitors. For emergency, facilities with well equipped Ambulance service are also available for 24 hours.

Examination Hall:

There are total 7 (seven) lecture cum examination hall (area 1410 sq.m.) in the College with capacity of accommodating 420 students at a time for any examination purpose.

Sports and recreation Facilities:

The College is having 1 (one) multipurpose indoor stadium (470sq.m.) with facilities for badminton, T.T., Carrom and multigym. One outdoor playground (2200sq.m) with a basketball cum volleyball ground (140sq.m.).

College has established a student welfare section under supervision of student welfare officer who is looking after different activities like Sports and cultural events, NSS programmes and NCC activities along with placement cell. There are different in-charges for NSS and NCC activities. Different facilities developed at college campus for encouraging the students to participate in different extracurricular and co-curricular activities. The College has represented at University level, at Inter University meet and State level sports meeting.

Auditorium:

The College is having a well equipped modern auditorium constructed and inaugurated in the year 2009 with a sitting capacity of approx. 300 persons(568sq.m). The facility has been used throughout the year for different activities like celebration of Annual College Week, Freshers' day, Farewell day of the final year students, world veterinary day, world anti rabies day, world milk and egg day, White coat ceremony for the 4th year students, Inauguration of National Seminar, Celebration of Diwali, Pre-Christmas, any training programme inauguration, visit of any high dignitaries etc. The Auditorium is also having a community hall (415 Sq.m) adjacent to it, which is very useful for reception and arrangement of meals for students, faculties and other dignitaries etc.

Exhibition Hall/Museum:

The College is having 1 (one) exhibition hall at ATIC building (600 Sq.m). The different College activities and achievement have been displayed in that exhibition hall. All the high dignitaries visiting the College are taken to the unit to briefly apprise about different activities and achievement of the College.

Over and above, the College is also having the following facilities for specific purposes e.g. Administrative block (1592 Sq.m), Academic block-I (4763 Sq.m), Academic block-II (461 Sq.m), Academic block-III (2455 Sq.m), New Academic Block (7000 Sq. m), Library (770 Sq.m),Teaching veterinary clinical complex (1094 Sq.m), Instructional livestock farm complex (1793 Sq.m), Lab. animal house (130 Sq.m), KVK building (2650 Sq.m), ATIC building (600 Sq.m), Guest house (740 Sq.m), Dean's residence (266 Sq.m), Type-V Qtrs 4 units (807 Sq.m),Type IV Qtrs 23 units (2616 Sq.m),Type III Qrts 24 units (2287 Sq.m)Type II Qtrs 20 units (2017 Sq.m), Transit accommodation of 30 units of 2 rooms flat (1460 Sq.m), shopping complex (470 Sq.m), Medical unit (410 Sq.m) and Garage & workshop (205 Sq.m).

4. College of Fisheries, Agartala, Lembucherra, Tripura.

Sl no.	Particulars	Covered area in sqm	No. of rooms
A	Infrastructures		
1.	Extension of Administrative cum Academic building 1st floor	2402.00	36
2.	Extension of Library building	685.00	1
3.	ATIC building 1st floor	900.00	8
	MTTC Building (2nd floor of ATIC building)	900.00	4
4.	P.G. Girls' Hostel	286.00	16
5.	P.G. Boys' Hostel	280.00	16
	Extension of UG Boys' Hostel	260.00	21
6.	Animal shed	270.00	2
7.	VTC building	820.00	11
8.	Swimming Pool	546.00	3
9.	Cemented tanks	345.00	3 unit
10.	Simulating breeding environment with shed	75.00	1
	Sub total	7694.00	

5. College of Agriculture, Kyrdemkulai, Ri-Bhoi district, Meghalaya

Total area: 200 acres

Area covered by infrastructures : 10 acres

- Prefabricated Academic cum Administrative Block – 14 rooms with one conference hall;
- Pre-fabricated Boys Hostel – 12 rooms with one main dining hall,
- Pre-fabricated Girls Hostel - 12 rooms with one main dining hall

Area covered by research farm (IFS) and commercial farm: 10 acres

1. Project of International Rice Research Institute (IRRI), Philippines on Rice Production Technology
2. Project on Integrated Farming System
3. Project on Orchid Production and Training Facility
4. Project on Development of Model Integrated Farming System Village

6. College of Veterinary Sciences and A.H., at Jalukie, Peren, Nagaland.

Physical facilities including administrative building & lands

1. Total land area -266acres/107.6 Hectares

Sl.No	Facility	Availability		
		No. of units	Plinth area Sqm.	Capacity of applicable
1	Administrative building	1	450	-
2	Pre-fab Academic Block-I (Dept. of Vet. Microbiology, Vet. Pathology, Class Rooms-2)	1	740	Dept.-2 Class room-2
3	Pre-fab Academic Block-II (Dept. of AGB, ANN)	1	435	Dept.-2
4	Pre-fab Old Academic Block-On lease from Govt. of Nagaland (Dept. of Vet. Physiology and Biochemistry, Dept. of Anatomy, Dept. of Livestock Production Management, Dept. of Vet. Parasitology, Dept. of Public Health & Epidemiology, Dept. of Pharmacology and Toxicology, Dept. of Livestock Products Technology and Dept. of Vet. Animal Husbandry Extension Education)	3	1000	Dept:-8 Class room-1
5	Veterinary Clinical Complex:- 24 nos of sheds/ barracks on lease from Govt. of Nagaland (Dept. of Veterinary Clinical Complex, Dept. of Vet. Medicine, Vet. Surgery and Radiology and Vet. Gynecology & Obstetric , Pharmacy unit and Class room-1)	24	3150	Dept-4 Class room:-1 Pharmacy unit-1
3	Boys' Hostel with all modern facilities	1	1793	64 students
4	Girls' Hostel with all modern facilities	1	1793	64 students
6	Old Girls' Hostel with Dining Hall(Pre-fab structure)	1	512	24 students
7	Housing for faculty & staff (Type –II)	2	125	2
8	Library hall (Pre-fab structure)	1	80	-
9	Gym hall (Pre-fab structure)	1	80	-
10	Livestock Farm Complex	1	1000	Poultry shed, Cattle shed, Goat Shed and Piggery shed
11	Administrative cum Academic Building (Under construction)	1	7780	
12	Transit Hostel (Under Construction)	1	1370	

7. College of Agriculture, Imphal, Manipur

A.	Area of the college campus	44 Acre (17.78 hec)
B.	Auditorium capacity	364 unit

C.	Residential quarters:-	
	i. Type –II	10 nos.
	ii. Type –III	10 nos.
	iii. Type –IV	4 nos.
	iv. Type -V	4 nos.
	v. Assam type quarter treated as type V	2 nos.
D.	Guest House :-	
	i. New Guest House (Ground floor) New Guest House (First floor) Dormitory	5 nos. (Double seated) 2 nos. (VIP room) 1 no.
	ii. Old Guest House (Ground floor) Old Guest House (First floor)	5nos. (Single seated) 2 nos.
E.	Hostel Capacity :-	
	i. UG boys' hostel	82 rooms (164 capacity)
	ii. PG boys' hostel	33 rooms (66 capacity)
	iii. UG girls' hostel	76 rooms (152 capacity)
	iv. PG girls' hostel	20 rooms (40 capacity)

Basic amenities: -

1. Gymnasium -1no.
2. Auditorium -1no.
3. Canteen -1no.
4. ATIC Agriculture Information Training Centre -1no.
5. Pose Office and Bank -1no.
6. Health Centre -1no.

XII PLAN

A.	Multi technology testing center (MTTC)		Remark
	i. Multidisciplinary lab Asstt. Prof rooms MTTC staff office MTTC Coordinator office MTTC Lab	 5 nos. 1 no. 1 no. 1 no.	Construction work has been completed. However, handing and taking over is not done yet
	ii. Animal Shed	1 no.	
B.	Vocational Training Centre (VTC)		
	i. Hostel for 20 students	5 rooms	
	ii. Office room	1 no.	
	iii. Lecture hall	1 no.	

A.	PG Boys' Hostel	1 no.	Construction has already been started. However, the worked has been paused due to lockdown and curfew on account of COVID-19.
B.	UG Girls' hostel	1 no.	
C.	Type-III Quarters	10 nos.	
D.	Type-IV Quarters	10 nos.	
E.	UG boys' hostel	1 no.	

8. College of Food Technology, Lamphelpat,Imphal

Facility	Hectares/sq. m.
Academic buildings + Administrative Building	1400 m^2
Student hostels (Boys' + Girls')	2800 m^2
Housing for staff	Nil
Play grounds	4000 m^2 (Approx)/proposed to be developed
Health facilities	Land available but yet to be constructed
Library	48.5 m^2

S. No.	Particulars	Availability			
		No. of unit	Plinth area (sq. m.)	Capacity (if available)	Adequate (Yes/No)
1	Administrative Offices	1	113 m^2	80	Yes
2	Faculty room	2	48.5 x 2 = 97	07	No
2	Classrooms	4	113 m^2	80	Yes
3	Laboratory	1	48.5 m^2	-	No
4	Library	1	48.5 m^2	10	No
5	Housing for faculty	-	-	-	-
6	Boys hostel	1	1400 m^2	28	Yes
7	Girls hostel	1	1400 m^2	28	Yes
8	Sports complex	-	-	-	-
9	Guest house	-	-	-	-
10	Canteen	-	-	-	-
11	Health clinic	-	-	-	-
12	Workshop	-	-	-	-
13	Conference hall	1	107.5 m^2	50	No

[* The College of Food Technology, CAU, Imphal is presently functioning in a temporary campus comprising of 03 (three) prefabricated buildings of 1400 m^2 of plinth area each (i.e., Administrative/Academic Building, Boys' Hostel and Girls' Hostel*]

9. College of Community Science, Tura,Meghalaya

Sl.No	Particular	
A.	Area of the college campus	52.10 Acre (21.08 Hec)
1	Food Processing Unit	1 no.
2	Nursery School	1 no.
3	Weaving and spinning Lab	1 no.
4	MTTC building	1 no.

5	VTC Hostel	1 no.
6	Extension of Library and Medical unit	1 no.
7	Fish Pond and Animal Shed (under construction)	1 no.
8	Play ground	1 no.
9	Multipurpose shed in front of College	1 no.
10	Water reservoir near Type-I Quarter	1 no.
11	Canteen	1 no.
12	Care Taker room at Hostel	1 no.
13	Bore Well	1 no.
14	Vermicompost Unit	1 no.

10. College of Horticulture, Bermiok,Sikkim

Sl No.	Particular	Plinth area	Surrounding area	Total area	Unit
A	BUILDINGS		50%		
	Pre-Fabricated Academic Block				
	Academic Block	696	348	1044	Sqm
	Multipurpose Hall	110.5	55.25	165.75	Sqm
	Pre-Fabricated Girls Hostel				
	Girls Hostel Building	696	348	1044	Sqm
	Dining and Kitchen	110.5	55.25	165.75	Sqm
	Pre-Fabricated Girls Hostel				
	Boys Hostel Building	696	348	1044	Sqm
	Dining and Kitchen	110.5	55.25	165.75	Sqm
	Security Room Girls Hostel	7	3.5	10.5	Sqm
	Assam Type Building(2nos)	204.33	102.165	306.495	Sqm
	Administrative Building	1285.49	642.745	1928.235	Sqm
	Academic Building	1363.7	681.85	2045.55	Sqm
	Boys Hostel	918.1	459.05	1377.15	Sqm
	Girls Hostel	921.4	460.7	1382.1	Sqm
	Type-II	126	63	189	Sqm
		7245.52		10868.28	Sqm
B	SITE DEVELOPMENT				
	Internal Roads & paths	10000		10000	Sqm
	Drains	2000		2000	Sqm
	Retaining wall	2000		2000	Sqm
	Water Tank	100		100	Sqm
	Parking area	2000		2000	Sqm
		16100		16100	Sqm
	Total Area	26968.28			Sqm

		2.696828			Hec

11. College of Agricultural Engineering & Post Harvest Technology, Ranipool, Sikkim

Sl No.	Particular	Plinth Area	Surrounding area	Total area	Unit
A	BUILDINGS		50%		
	Girls Hostel (old transferred)	292.94	146.470	439.410	Sqm
	Girls Hostel (old)	325	162.500	487.500	Sqm
	Girls hostel extension	195	97.500	292.500	Sqm
	Boys Hostel (old)	296.08	148.040	444.120	Sqm
	Boys Hostel (Extension)	143.92	71.960	215.880	Sqm
	Boys Hostel Utility	372	186.000	558.000	Sqm
	Academic Block (North)	1026	513.000	1539.000	Sqm
	Tutorial Block (North)	310	155.000	465.000	Sqm
	ATIC Building	400	200.000	600.000	Sqm
	Auditorium	500	250.000	750.000	Sqm
	Deans Residence	150	75.000	225.000	Sqm
	Processing Plant	256	128.000	384.000	Sqm
	Workshop	338.44	169.220	507.660	Sqm
	Academic Block (South)	1026	513.000	1539.000	Sqm
	Tutorial Block (South)	310	155.000	465.000	Sqm
	Guest House	303.327	151.664	454.991	Sqm
	Type-II (Old) (One Block)	130	65.000	195.000	Sqm
	Type-II (New) (3 Block)	377.8	188.900	566.700	Sqm
	Type-III (old)	150	75.000	225.000	Sqm
	Type-III (New)	145	72.500	217.500	Sqm
	Typee IV (3 Block)	592.23	296.115	888.345	Sqm
	Rice Mill	177	88.500	265.500	Sqm
	VC residence	150	75.000	225.000	Sqm
	Transit hostel	203	101.500	304.500	Sqm
	Animal shed	187	93.500	280.500	Sqm
	Pump House	15	7.500	22.500	Sqm
	Mushroom house	40.5	20.250	60.750	Sqm
	Canteen	78.28	39.140	117.420	Sqm
	MTDC	277.737	138.869	416.606	Sqm
	VTC	229.4	114.700	344.100	Sqm
		8997.654		13496.481	Sqm
B	SITE DEVELOPMENT				
	Internal Roads & paths	5385		5385	Sqm
	Drains	500		500	Sqm
	Retaining wall	1000		1000	Sqm
	Water Tank	100		100	Sqm

	Parking area	1000		1000	Sqm
	Badminton court/ ground	480.76		480.76	Sqm
		8465.76		8465.76	Sqm
	Total Area (A+B)	21962.241			Sqm
		2.196			Hec

The above buildings/structures have been taken over on 10/12/2020.

12. College of Horticulture & Forestry, Pasighat, Arunachal Pradesh

Sl.No.	Name of works /structure	Plinth area
1.	Boys' Hostel	1000 sqm.- 23 rooms,
2.	PG Girls' Hostel	1000 sqm. 20 rooms
3.	Type –V Qtr.	-01 no. of area 167 sqm.
4.	Type –IV Qtr.	-14 nos. of area 101 sqm.
5.	Type –III Qtr.	16 nos. of area 72 sqm.
6.	Type –II Qtr.	20 nos. of area 60 sqm.
7.	Indoor Sports Complex	730 sqm.

Department wise infrastructural details of CHF Pasighat

Department/Section	Area (Sq.mtr.)	Facilities available
Natural Resource Management		
1. Farm Power & Irrigation Infrastructures	1500	• Run-off Experiment Facility • Rain water Harvesting Based Integrated Horticulture Farming System • WHP=5 Lakh Litre Capacity • 5Hp Solar Pumping System • Naturally Ventilated Greenhouse= 30m×7m • Drip irrigation system operated by Solar Pump • Sprinkler Irrigation System operated by solar pump • Gravity fed drip Irrigation System in 500sq.m area • Basic Power Machineries available
2. Agrometeorology Observatory	500	• Meteorological observation data for Research and Academic purpose
Forestry		
3. Silviculture Nursery	9100	• Nursery raised bed= 70 Nos.

		• Shade net house (5x1.5m) = 30 Nos. • Green Net House (9mx16.5mx 5.5m) • Tree Garden/ Collection of 250 species of tree species for research/academic • PG Research plots for germination exp • Plantation Blocks of diff. species • Water Pump with motor, Irrigation & electricity setups
4. Agroforestry Block	2100	• Compost (concrete) pit • PG Research plots under different spacing's of different species & different age
5. Bambusetum block	8000	• 67 spp. of different type of bamboos • Research, conservation & identification purpose
6. Rubber plantation block	20000	• Commercial genotypes of high yielding *Hevea brasiliensis*
7. NTFPs & High value timber block	25000	• Tans & dye yielding plants • Lac, Gums and resins plants • Drugs, spices and insecticides plants • Wild edible fruits trees
Horticulture		
8. Medicinal &Aromatic plant farm 9. Medicinal plant germplasm block	12000	• Germplasm of Medicinal and AromaticPlants • Collection of rare and endangered spps. • Nursery beds • Shade houses/roofs • Irrigation & electric facilities
10. Herbal garden	10000	• More than 160 species • Research, conservation & identification purpose
11. Floriculture and Landscaping	20000	• 8 nos. polyhouses • Germplasm bank of orchids & native ornamental plants • Commercial cut flower block of orchids, anthurium, gerbera, and heliconia • Collection of indoors plants, cactus and annual flowers
12. Vegetables science	35543	• Demonstration block on nutrition garden and other vegetable crops • Turmeric and spices processing unit • Hi-tech poly house (3 nos.) • Naturally ventilated polyhouses (2 nos.) • Water harvesting tanks

		• Solar power operated sprinkler irrigation system • Local vegetable garden • Vegetable nursery block
13. Fruit Department	98525	• Fruit nursery block • Demonstration & experimental block of coconut, passion fruit block, litchi, Jack fruit, Aonla, cashewnut, Mango, banana, Oil palm, Pumello and Assam lemon.
14. PBG farm	1800	• Nursery raised bed= 20 Nos. • Shade net house (15x15m) • Tokkopatta shade roofs: 10nos. • Arboretum 1100 sq. mtr. • Irrigation & electricity setups
Plant Protection		
15. Entomology (Biocontrol) Farm	4047	• Nursery Beds, Research plots • Water Pump with motor, Irrigation & electricity setups
16. Entomology (IBDC) Farm	2023	• All equipment's of beekeeping • Irrigation facility • Plots for nectar yielding plant

13. College of Agriculture, Pasighat, Arunachal Pradesh

The boys' hostel and the girls' hostel as well as transit hostel construction have almost completed but the college is under construction which will be functioning after completion of the college.

Therefore**,** at present, the students of College of Agriculture are accommodated in hostels of College of Horticulture and Forestry. However, a separate girl's hostel has been allotted to the girl students of B.Sc. Agriculture programme in the college while the boys are accommodated in the same hostels along with the students of College of Horticulture and Forestry. All hostels are provided with televisions, common rooms, medical facilities, indoor games, good mess (with cooks and menials), drinking water for the students.

The infrastructure of College of Agriculture *viz*., academic block, administrative block, separate hostels for boys (Fig. 20) and girls (Fig. 21), transit hostel (Fig. 22) *etc*. are under construction at the allotted site and major works are nearing completion.

Hostel	No. of rooms	No. of students
Boys		
Sindhu	15	2 students per room
Ganga	20	1 student per room
Brahmaputra	15	2 students per room
New Boys Hostel	23	1 student per room
Girls		
P.G. Hostel	20	1 student per room
Daisy	42 (41 for students and 1 office room)	3 students per room
Daffodil (Exclusively for girls of B.Sc. Agriculture)	24	2 students per room

Silvia	16	3 students per room
Lily	21 (18 for students and 3 for guests)	1 student per room

Basic medical facilities are centrally available at the Medical Unit of the college where basic medical amnesties such as antipyretics, antibiotics, antidiarrheal etc. are available. Also, facilities for I.V. injections and fluids and suture needles and materials are available for minor suturing. First aid kits are issued to all hostels. Time to time health awareness campaigns are organized by the NSS units. Medical experts are invited to deliver special lectures on self-hygiene, tobacco and its toxicity, nutritious foods for healthy living etc.

14. College of Horticulture, Thenzawl, Mizoram

College of Horticulture, Thenzawl has a total campus area of 120.38 hectare and the total area covered by building infrastructure is 1.42 hectare. The College of Horticulture has pre-fabricated and permanent buildings each of academic cum administrative block, hostels for boys and girls. The college also has Type-II quarter for accommodating its staff. The permanent academic cum administrative block, and transit hostel are under construction at the allotted site and major works are nearing to completion.

Particulars	Plinth Area (Sq. m)	Number of rooms
Permanent Administrative cum Academic Block	8000	
Pre-fabricated Administrative cum Academic Block	696	10
Permanent Boys Hostel	1500	32
Permanent Girls Hostel	1500	32
Pre-fabricated Boys Hostel	500	12
Pre-fabricated Girls Hostel	500	12
Transit hostel	1500	37
Type-II Quarter	132	2

6.6.7.2. IT Infrastructure. A brief report on University ARIS Cell shall be given. Give the information on LAN connectivity, Wi-Fi/internet facilities in campus and hostels; Computer based library management, videoconferencing facilities, smart class rooms and workshops etc.

- Under NAHEP project, the university is well equipped with smart class room. 1Gigabit ethernet LAN is connecting throughout the HQ and colleges with 144mbps Leased NKN connection. University is equipped with WiFi both 5GHz and 2.5GHz connectivity.
- For online classes, faculties use google meet whose participants limit is upto 250. University has subscribed to GSUIT and Premium Zoom for virtual meetings and workshops.
- There is no ARIS(Agricultural Research Information System) Cell at the University as well as at College but all the colleges have computer laboratories equipped with internet facilities.

6.6.7.3. Students and Staff Amenities: Give brief report on the sporting and recreational activities, employment and career advice, child care, financial advice and food services, entertainment avenues etc. available in the campus.

- All constituent colleges of the university have well managed games and sports infrastructures including all season indoor and outdoor sports facilities, auditorium, gymnasium. A separate cell for

co-curricular activities was opened in the Directorate of Instruction w.e.f. 1st November, 2013 to co-ordinate and improve various Games and Sports & Cultural activities of the University. To inculcate the sense of competitiveness among the students in a camaraderie atmosphere, the constituent colleges organized the co-curricular activities in the form of annual college week, sports and games and social/cultural meets. All constituent colleges have well organized hygienic canteens located within the campus. The food prepared is assessable to the students and staff of the college at a nominal rate. A Committee monitors the hygienic and nutritional food prepared in the canteen. The University has a placement cell and availed placement for the students in different agri allied sectors including banks, private establishment, NGO's, industry etc.

6.6.8. FINANCIAL RESOURCE MANAGEMENT:

6.6.8.1. Budget allocation: Give the budget allocation (College wise) for salary, contingency and amount received through the ICAR development grant during last five years. Give a note on the sufficiency of the fund to meet the academic requirement in last five years.

6.6.8.1. Budget allocation (Unit wise) (Rs. In lakh)

Sl. No.	Name of the College	Year 2016-17			Year 2017-18			Year 2018-19			Year 2019-20			Year 2020-21		
		Salary	Contg.	Capital	Salary	Contg.	Capital	Salary	Contg.	Capital	Salary	Contg.	Capital	Salary	Contg.	Capital
1	CAU (HQ), Imphal	588	317	1424	900	272	826	975	193	7321	9522	210	6404	11313	259	4204
2	Director of Instruction, CAU, Imphal	120	37	0	105	23	0	141	23	1	0	28	4	0	13	4
3	Director of Research, CAU, Imphal	132	158	0	120	79	0	167	98	0	0	68	3	0	76	28
4	Director ofExtension Education, CAU, Imphal	110	52	2	110	28	0	86	36	0	0	28	6	0	23	73
5	College of Agriculture, Imphal	1528	216	5	1600	296	3	1656	268	8	0	242	2	0	285	91
6	College of Veterinary Science & Animal Husbandry, Aizawl	1400	379	30	1560	371	3	1606	312	8	0	285	8	0	310	46
7	College of Fisheries, Tripura	664	234	15	705	234	3	757	164	8	0	196	7	0	192	62
8	College of Horticulture & Forestry, Pasighat	850	376	21	905	395	3	1040	277	8	0	240	8	0	225	104
9	College of Community Science, Tura	500	138	7	555	175	3	559	115	8	0	145	10	0	130	52
10	College of Agricultural Engineering and Post Harvest Technology, Sikkim	795	203	30	855	233	3	1003	172	8	0	200	10	0	164	60

11	College of Post Graduate Studies in Agricultural Science, Meghalaya	700	266	32	725	275	3	1015	175	8	0	234	11	0	295	35
12	College of Food Technology, Imphal	32	43	118	25	19	22	31	30	32	0	53	30	0	84	86
13	College of Horticulture, Thenzawl	16	14	22	25	55	22	31	42	52	0	40	37	0	44	75
14	College of Agriculture, Pasighat	0	23	15	25	51	22	45	52	47	0	50	27	0	43	56
15	College of Horticulture, Bermiok	13	40	45	25	83	22	52	69	52	0	80	31	0	74	64
16	College of Agriculture, Kyrdemkulai	7	31	71	25	39	22	33	41	52	0	44	46	0	86	109
17	College of Veterinary Science & Animal Husbandry, Jalukie	44	34	104	25	107	22	128	64	52	0	100	57	0	96	139
	Total amount	7500	2560	1940	8290	2731	979	9325	2131	7664	9522	2240	6700	11313	2400	5287

Note: Total may be seen in next page

Grant-in Aid received from Department of Agricultural Education and Research Education					
(Rs. In lakh)					
Sl. No.	**Financial Year**	**Grant in-Aid Salary**	**Grant in-Aid General**	**Grant in-Aid Capital**	**Total amount**
1	2016-17	7500.00	2560.00	1940.00	12000.00
2	2017-18	8290.00	2731.00	979.00	12000.00
3	2018-19	9325.00	2131.00	7664.00	19120.00
4	2019-20	9522.00	2240.00	6700.00	18462.00
5	2020-21	11313.00	2400.00	5287.00	19000.00

6.6.8.2. Finance Committee: Provide the schedule of the meetings of the financial committee held in last five years.

Finance Committee Meetings held during last five years			
Sl. No.	**Number of Meeting**	**Date of Meeting**	**Venue of Meeting**
1	22nd	01.06.2016	Krishi Anusandhan Bhawan II, Pusa, New Delhi
2	23rd	24.10.2016	Krishi Anusandhan Bhawan II, Pusa, New Delhi
3	24th	16.05.2017	Krishi Anusandhan Bhawan II, Pusa, New Delhi
4	25th	27.10.2017	Krishi Anusandhan Bhawan II, Pusa, New Delhi
5	26th	20.04.2018	Krishi Anusandhan Bhawan II, Pusa, New Delhi
6	27th	12.10.2018	Krishi Anusandhan Bhawan II, Pusa, New Delhi
7	28th	27.04.2019	Central Agricultural University (HQ), Imphal
8	29th	03.10.2019	Krishi Anusandhan Bhawan II, Pusa, New Delhi
9	30th	03.12.2020	Through Videoconference from CAU (HQ), Imphal

6.6.8.3. Internal Resource Generation (Unit wise)

6.6.8.3. Internal Resources Generation: Give a comprehensive report (College wise) internal resource generation through different sources for last five years. How this money is being utilized for the academic programmes and research work of students? Give a brief note.

Internal Resource Generation (Unit Wise) (Rs. In lakhs)

Sl. No.	Name of the College	Year 2016-17						Year 2017-18						Year 2018-19					
		Acad. Rec.	Int. on Bank bal.	Farm Income	Misc. Income	Other Income	Total	Acad. Rec.	Int. on Bank bal.	Farm Income	Misce. Income	Other Income	Total	Acad. Rec.	Int. on Bank bal.	Farm Income	Misce. Income	Other Income	Total
1	CAU (HQ), Imphal	3.03	50.67	0.7	1.84	42.7	98.94	7.72	55.18	2.42	0.82	65.67	131.81	9.26	71.67	5.07	6.15	3.79	95.94
2	Director of Instruction, CAU, Imphal	0.00	0.76	0.00	0.00	0.05	0.81	0.00	0.69	0.00	0.00	0.14	0.83	0.00	0.74	0.00	0.00	0.38	1.12
3	Director of Research, CAU, Imphal	0.00	4.76	0.00	0.00	0.41	5.17	0.00	1.68	0.00	5.84	0.00	7.52	0.00	2.08	0.00	5.84	0.00	7.92
4	Director ofExtension Education, CAU, Imphal	0.00	1.47	0.00	0.00	0.00	1.47	0.00	1.19	0.00	0.00	0.00	1.19	0.00	0.35	0.00	0.00	0.00	0.35
5	College of Agriculture, Imphal	13.08	3.58	7.90	4.16	0.00	28.72	46.22	1.63	6.02	6.48	0.58	60.93	53.66	4.32	5.27	4.15	0.15	67.55
6	College of Veterinary	8.16	1.83	26.02	3.12	1.19	40.32	36.86	1.78	24.45	9.11	2.04	74.24	39.85	1.07	22.88	9.63	0.11	73.54

	Science & Animal Husbandry, Aizawl																	
7	College of Fisheries, Tripura	4.16	4.60	0.62	4.06	0.88	14.32	25.83	2.90	0.70	4.68	8.82	42.93	34.78	2.46	0.44	7.85	40.05	85.58
8	College of Horticulture & Forestry, Pasighat	8.09	8.91	2.62	6.31	1.60	27.53	52.60	26.00	3.24	7.54	0.39	89.77	54.79	20.43	6.24	9.98	1.91	93.35
9	College of Community Science, Tura	2.93	6.55	0.31	3.90	0.14	13.83	13.99	6.11	0.34	3.34	0.65	24.43	16.28	3.91	0.89	5.02	5.26	31.36
10	College of Agricultural Engineering and Post Harvest Technology, Sikkim	3.69	13.47	1.28	5.69	3.21	27.34	16.32	6.15	1.73	0.63	9.64	34.47	23.25	6.64	0.33	5.42	0.63	36.27
11	College of Post Graduate Studies in Agricultural Science, Meghalaya	7.14	10.32	0.13	1.47	7.07	26.13	24.31	4.39	0.25	14.75	31.98	75.68	30.55	7.32	0.03	9.45	0.12	47.47
12	College of Food Technology, Imphal	0.74	0.01	0.00	0.00	0.00	0.75	5.33	0.03	0.00	0.00	0.00	5.36	9.88	0.41	0.01	0.00	0.00	10.30
13	College of Horticulture, Thenzawl	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.82	0.00	0.00	0.00	0.00	2.82

14	College of Agriculture, Pasighat	0.00	0.75	0.00	0.00	0.00	0.75	0.00	0.51	0.00	0.00	0.00	0.51	13.07	2.21	0.00	0.00	0.00	15.28
15	College of Horticulture, Bermiok	0.00	3.21	0.00	0.00	0.00	3.21	4.50	1.95	0.26	0.01	0.00	6.72	5.69	1.61	0.56	0.14	0.34	8.34
16	College of Agriculture, Kyrdemkulai	0.77	0.00	0.00	0.00	0.00	0.77	4.22	0.00	0.00	0.08	0.00	4.30	5.78	0.01	0.00	0.01	0.00	5.80
17	College of Veterinary Science & Animal Husbandry, Jalukie	0.41	0.09	0.00	0.00	0.00	0.50	3.91	0.00	0.00	0.00	0.00	3.91	5.89	0.00	0.00	0.02	0.05	5.96
Total amount		52.20	110.98	39.58	30.55	57.25	290.56	241.81	110.19	39.41	53.28	119.91	564.60	305.55	125.23	41.72	63.66	52.79	588.95

6.6.8.3. Internal Resource Generation (Unit wise)

(Rs. In lakhs)

Sl. No.	Name of the College	Year 2019-20						Year 2020-21					
		Acad. Rec.	Int. on Bank bal.	Farm Income	Misc. Income	Other Income	Total	Acad. Rec.	Int. on Bank bal.	Farm Income	Misc. Income	Other Income	Total
1	CAU (HQ), Imphal	9.42	122.43	7.30	15.06	47.74	201.95	0.41	168.17	5.43	58.53	46.73	279.27
2	Director of Instruction, CAU, Imphal	0.00	0.31	0.00	0.00	3.32	3.63	0.00	0.42	0.00	0.00	0.50	0.92
3	Director of Research, CAU, Imphal	0.00	0.64	0.00	0.00	0.00	0.64	0.00	0.00	0.43	0.00	0.00	0.43

4	Director ofExtension Education, CAU, Imphal	0.00	0.22	0.00	0.00	0.50	0.72	0.00	0.54	0.00	0.00	0.00	0.54
5	College of Agriculture, Imphal	63.44	2.52	5.60	8.04	2.59	82.19	64.83	1.74	5.66	2.90	1.42	76.55
6	College of Veterinary Science & Animal Husbandry, Aizawl	44.32	1.48	32.94	11.59	2.94	93.27	64.54	1.79	31.83	3.68	0.00	101.84
7	College of Fisheries, Tripura	42.63	3.88	1.04	14.14	2.50	64.19	49.20	1.37	0.85	6.32	15.96	73.70
8	College of Horticulture & Forestry, Pasighat	64.93	7.21	4.19	11.31	0.56	88.20	61.90	4.95	8.28	11.96	0.88	87.97
9	College of Community Science, Tura	15.90	2.43	0.81	5.31	0.43	24.88	7.51	2.13	0.62	5.03	0.55	15.84
10	College of Agricultural Engineering and Post Harvest Technology, Sikkim	27.64	7.16	0.06	10.30	0.97	46.13	14.53	9.80	0.15	4.09	0.00	28.57
11	College of Post Graduate Studies in Agricultural Science, Meghalaya	22.28	3.40	0.15	14.12	0.27	40.22	19.54	2.70	0.05	8.90	0.76	31.95
12	College of Food Technology, Imphal	14.30	0.31	0.00	0.05	0.02	14.68	15.74	0.36	0.00	0.00	0.00	16.10
13	College of Horticulture, Thenzawl	6.06	0.01	0.00	0.57	0.06	6.70	5.38	0.00	0.00	0.13	0.00	5.51
14	College of Agriculture, Pasighat	16.43	2.33	0.01	0.00	0.01	18.78	18.19	1.51	0.02	0.00	0.00	19.72
15	College of Horticulture, Bermiok	5.98	1.43	0.41	0.00	0.02	7.84	2.94	0.20	0.39	0.02	0.16	3.71
16	College of Agriculture, Kyrdemkulai	6.24	0.00	008	0.00	0.65	6.97	6.71	0.00	0.00	0.00	0.00	6.71

17	College of Veterinary Science & Animal Husbandry, Jalukie	8.21	0.00	1.34	0.59	1.55	11.69	8.59	0.00	6.65	0.14	0.00	15.38
Total amount		347.78	155.76	53.93	91.08	64.13	712.68	340.01	195.68	60.36	101.70	66.96	764.71

6.6.8.4. External Funding: How much resources the University has mobilized from the external sources (give the list) based on the competitive mode in last five year?

Rs. In Lakhs

Sl. No.	Financial Year	ICAR Funded Projects	Other Ministries/Departments Funded Projects (Other than ICAR Funded Projects)	KrishiVigyanKendras	DONER	NAHEP	Total amount
1	2016-17	750.55	1266.42	440.05	0.00	0.00	2457.02
2	2017-18	789.39	528.87	408.13	3289.00	0.00	5015.39
3	2018-19	1108.48	1736.19	1525.76	4934.00	0.00	9304.43
4	2019-20	1144.33	1316.69	1083.30	0.00	68.07	3612.39
5	2020-21	1149.16	1877.02	1222.40	0.00	617.58	4866.16

6.6.8.5. Financial Powers Delegation to Deans/Heads: Give a report on the financial autonomy to College Deans, University officers and Head of the Departments.

Sl. No.	Item of Expenditure	Monetary Limit of Delegation	
		Directors/ Registrar/ Comptroller	Deans of Colleges
(A)	**Powers to sanction contingent expenditure:**		
1.	Power to purchase Office Equipment:- Computers & Accessories/ Photocopiers/ Fax Machines/ Air Conditioners and all kinds of office equipment except Vehicles	Rs.3.00 lakhs at one time for any individual equipment.	Rs.2.00 lakhs at one time
2.	Powers to purchase Farm Equipment except Power tillers, Tractors & Vehicles	Rs.2.00 lakh for individual equipment	Rs.1.50 lakh for individual equipment
3.	Powers to purchase all types of Laboratory Equipment/ Medical Equipment/ Teaching Aids/ Audio Visual Equipment/ software/ Data card/ Broad band/ Camera, etc.	Rs.5.00 lakh for individual item/ equipment	Rs.3.00lakh for individual item/ equipment
Sl. No.	**Item of Expenditure**	**Monetary Limit of Delegation**	
		Directors/ Registrar/ Comptroller	**Deans of Colleges**
4.	Powers to Purchase Library/ Text Books/ Reference books/ Research /Journals/ Magazines etc.	Rs.3.00lakh at a time	Rs.3.00lakh at a time
5.	Powers to purchase consumable items out of Office Contingencies e.g. Stationery, Computer Stationery (Computer Cartridge/ Pendrives/ external hard-disk etc.)/ Postage Stamps/ Sanitary Materials/ P.O.L./ Rule Books/Calculators/ electrical items, etc.	Full Powers	Rs.3.00lakh at a time.

6.	Powers to purchase consumable items for Academic/ Research Activities such as Teaching materials (Films, Charts, Slides, Audio Video C.D., Printing Materials), Seeds, Fertilizers, Manures, Insecticides, Pesticides, herbicides, Feed, Fodder, Chemicals, Glasswares, Plasticwares, Medicines, Sports Materials etc.	Rs.3.00lakh at a time	Rs.3.00lakh at a time
7.	Power for re-imbursement of Newspaper claims of employees	Full Powers	Full Powers
8.	Powers to purchase furniture	Rs.3.00 lakh at one time	Rs.3.00lakh at one time
9.	Powers to sanction expenditure on Advertisement, Printing & publication of Annual Reports / Annual Accounts & Other Publications etc.	Rs.3.00 lakh at one time	1. Full Powers for advertisement**.** 2.Rs.50,000/- for printing & publication
10.	Powers to sanction binding of books, registers/ Journals	Full Powers	Full Powers
11.	Powers to purchase Live stock, fish, poultry birds and pigs etc.	Rs.2.00 lakh at a time	Rs.2.00 lakh at a time
12.	Powers to sanction for payment of official Telephone/ Water/ Electricity Charges etc. including re-imbursement of mobile bills as per rate fixed by the university	Full Powers	Full Powers
13.	Powers to engage labour on contractual basis	UptoRs.50,000/-for whole financial year.	Upto Rs.50,000/-for whole financial year.
14.	Powers to sanction conveyance expenditure (Bus, train, Taxi fare, etc.)	Full Powers	Full Powers
15.	Powers to sanction expenditure on food/ refreshment for meetings of Board of	Rs.25,000/- at one time	

	Management and other Committees/ Bodies/ Dignitaries/ University Guests.		
16.	Powersto sanction expenditure on functions/ Meetings/ Conferences/ Seminars/ Symposiums.	Rs.1.00 lakh	Rs.60,000/-
17.	Powers for hiring of vehicles	Rs.30,000/- per month	Rs.30,000/- per month
18.	Powers to sanction expenditure on Trainings, Field day, Kishan Gosties, Farmers Force, etc.	Rs.1.00 lakh	Rs.75,000/-
19.	Powers to sanction expenditure on demurrage/ wharfage charges.	Full Powers	Full Powers
20.	Powers to sanction payment of Rent of Buildings/ Municipal Taxes/ RTO Taxes/ Insurance Charges for Vehicles, D.S.Cs. etc.	Full Powers	Full Powers
21.	Powers to sanction Liveries/ Uniforms and Clothing Charges etc.	Full Powers	Full Powers
22.	Powers to sanction Study Tour and Educational Tour of Students such as RAWE, Students ready Programme, Exposure Visit, Field Work Experience, etc.	Full Powers within NEH Region.	Full Powers within the state
23.	Powers to sanction Examination Expenditure, TA/DA/ Remuneration to examiners (Except Air Travel)	Full Powers	Full Powers
24.	Powers to sanction Permanent Advance (Imprest money) to Head of Departments/ Programme Coordinators/ Heads of K.V.Ks. to meet emergent contingent requirements.	Rs.10,000/- in each case.	Rs.10,000/- in each case.

25.	Powers to sanction expenditure on repair of Vehicles, Tractors, Computers and other Equipment	Full Powers	20%of original cost of equipments and 10% of vehicles at a time.
26.	Powers to sanction expenditure on organization of Sports Meet, Youth Festival, Faculty Training, College Week, Academic Competition, etc.	Rs.1,00,000/- in each case.	Rs.50,000/- in each case.
27.	Power to sanction expenditure on pay and allowances including C.P.F./ N.P.S. contribution of staff as well as pension and other retiral benefits	Full Powers	Full Powers
28.	Power to purchase Computer/ Farm Equipment/ Laboratory Equipment in emergency	-	-
(B)	**Powers under Authorized Medical Attendance Rules:**		
	Powers to sanction re-imbursement of Medical Expenditure of Staff	Rs.10,000/- per claim.	Rs.10,000/- per claim
(C)	**Powers under Leave Travel Concession Rules:**		
	Powers to sanction Leave Travel Concession and LTC Advance	Full powers	Full Powers
(D)	**Powers for Repair and Maintenance (Civil and Electrical) of University Buildings/ Farms:**		
	Powers to Sanction Repair & Maintenance of University Buildings/ Sheds/ Farms etc.	-	a)Rs.10,000/- where no Jr. Engineer/ Asstt. Engineer is posted. b) Rs.1,00,000/- where Jr. Engineer/ Asstt. Engineer is posted.

(E)	**Powers to treat University Guest/ Hospitality Expenses:**		
	a) Powers to treat University Guest	-	-
	b) Powers to sanction hospitality expenses to host meals for official purposes	UptoRs.10,000/- at one time.	-
(F)	**Powers under Fundamental/ Supplementary Rules:**		
1.	Powers to Grant Annual Increments to staff	Full power	Full Power
2.	Powers to permit employees of the headquarters staff to go on Official Tour to Colleges/ employees of Colleges to go on tour to headquarters and other constituent colleges of University.	Full power except journey involving Air Travel.	Full Powers, except the cases of Air Travel.
Sl. No.	**Item of Expenditure**	**Monetary Limit of Delegation**	
		Directors/ Registrar/ Comptroller	**Deans of Colleges**
3.	Powers to sanction T.A. Advances	Full Powers in case of duly approved Tour Programme except for self.	Full Powers in case of duly approved Tour Programme except for self.

Note:- i) All purchases and expenditure incurred are subject to availability of funds and fulfillment of codal formalities.
ii) All powers beyond above mentioned monetary limits as well as powers for unspecified items vest in Vice-Chancellor

6.6.8.6. Finance Utilization: Mention in brief about per cent finance utilization in last five years.

Finance Utilization												**(Rs. In lakh)**	
Sl. No.	**Financial Year**	**DARE Fund, New Delhi**				**Own Revenue**			**Projects**				
		Budget	**Utilization**		**%**	**Budget**	**Utilization**	**%**	**Budget**	**Utilization**		**%**	
1	2016-17	12000.00	13246.72	*	110.39	290.56	68.23	23.48	2457.02	2517.95	*	102.47	
2	2017-18	12000.00	11947.18		99.56	564.60	547.48	96.97	5015.39	4879.42		97.29	
3	2018-19	19120.00	19111.71		99.96	588.95	82.45	13.99	9304.43	7659.06		82.32	

4	2019-20	18462.00	20334.71	**	110.14	712.68	7.45	1.05	3612.39	4505.32	**	124.71	
5	2020-21	19000.00	20360.00	***	107.16	764.71	3.00	0.39	4866.16	3908.65		80.32	
Note :-	**As regards DARE Fund, New Delhi**												
*	Excess Expenditure incurred out of un-utilized amount of Previous Years.												
**	Excess Expenditure incurred out of Loan amounting to Rs.1700.00 lakh from CAU-Revenue A/c. for disbursement of Pay and Allowances of Staff												
***	Excess Expenditure incurred out of Loan amounting to Rs.1360.00 lakh from CAU-Revenue A/c. for disbursement of Pay and Allowances of Staff												
	As regards Externally Funded Projects												
*	Excess Expenditure incurred out of un-utilized amount of Previous Years.												
**	Excess Expenditure incurred out of un-utilized amount of Previous Years.												

6.6.9. ACCOMPLISHMENTS

6.6.9.1 : Awards for the University :

National :

- Received ICAR JRF award for securing 2nd position twice (for the year 2012 and 2014) in All India Ranking in ICAR-JRF examination.
- Received ICAR-Junior Research Fellowship (JRF) Award for the year 2016 for obtaining 2nd position under the programme category of "Horticulture and Forestry"
- . A student of College of Fisheries, Lembucherra, Tripura, Ms. Bullo Angkha, bagged 1st rank in ICAR Junior Fellowship exam-2016.
- Two students, viz. Keisham Geenita and D. Bernice Ekhe topped the in the ICAR AIEEA JRF examination-2019 in the streams of Fisheries Science and Community Science respectively
- The University was conferred FICCI Higher Education Excellence Award, 2018(University of the Year in existence for 11 to 30 years) in recognition of all round achievements in Higher education.
- Mahindra Samriddhi India Agri Award-2017 (National Award) has been conferred to the Central Agricultural University, Imphal by Mahindra and Mahindra Co. Ltd. in recognition for its purposeful and noteworthy contribution to the field of agriculture, having a positive impact on the farming communities, thus enabling them to rise through successful large scale demonstration on "Zero tillage cultivation of rapeseed-mustard with bee pollination and non-chemical method of plant protection" in more than 1000 ha in rice fallow.
- Pandit Deendayal Upadhyay Rastriya Krishi Vigyan Protsahan Puraskar by KVK East Siang, Arunachal Pradesh, 2016-2017
- Best Exhibition Stall Award at Krishi Unnati Mela-2017 has been conferred to KVK, East Siang, Arunachal Pradesh by ICAR, New Delhi
- IARI Innovative Farmer Award and NEH Innovative Mushroom Farmer Award by KVK East Siang, Arunachal Pradesh, 2017-2018
- IARI Innovative Farmers Award by KVK Aizawl, Mizoram**,** 2016-17
- Mahindra Samridhi India Agri Award KVK Aizawl, Mizoram**,** 2018-19
- Best Senior Scientist cum Head Award KVK Aizawl, Mizoram**,** 2019-20
- Best Extension Professional Award KVK Aizawl, Mizoram**,** 2020-21
- Pandit Deendayal Upadhyay Rastriya Krishi Vigyan Protsahan Puraskar 2019, KVK, Imphal East, Manipur, 2019-20
- Best Centre Award of AICRP-PHET, 2019 at TNAU, Coimbatore.
- Best Centre Award of AICRP-PHET, 2020 at JNKV, Jabalpur.

Regional :

1. Best KVK award in implementation of CFLD programme by KVK East Siang, Arunachal Pradesh, 2018-2019.
2. Best Exhibition Award for State Agricultural Fair 2017 organized by SAMETI, Dept. of Agriculture, GOM, KVK, Imphal East, Manipur 2016-2017.
3. Best KVK for implementation of CFLD Pulses under Zone VII, ATARI, KVK, Imphal East, Manipur, 2018-19
4. Second best stall award during State Level Farmers Fair- 2019, Directorate of Extension Education, 2019-2020

AWARDS RECEIVED BY THE FACULTY MEMBERS OF THE UNIVERSITY:

Awards and recognition of faculty members. (2015-16)

Sl.no	Name of the College	Details of Awards
1.	**College of Veterinary Sciences & Animal Husbandry, Selesih, Aizawl , Mizoram**	

	Dr. Gunjan Das	Best oral presentation award (2nd) for the presentation on "wound healing property of two herbal plants by *in vivo* assessment in rats", 34th annual convention of ISVM on "Newer Approaches in diagnosis and management of animal diseases for sustainable health and production" during 17th – 19th February 2016 at GADVASU, Ludhiana, Punjab.
	Dr. Devajani Deka	Best oral research paper award for the paper " Serotyping and antibiotic sensitivity pattern of *Escherichia coli* from chicken and human sources" in National conference on Prospects and Challenges in Indigenous foods and drink sector, 11-12 April, 2015, organized by AFST (I), Manipur chapter at CAU, Imphal.
2.	**College of Fisheries, Lembucherra, Tripura**	
	Dr. K.V. Radhakrishnan	Best Oral Presentation Award in the National Seminar on Fisheries and Aquaculture: Livelihood security, Sustainability and Conservation, held at College of Fisheries, Lembucherra, Agartala, Tripura from 21-22nd January 2016
	Dr. Sagar Chandra Mandal	Best Paper presentation award during National Seminar on Fisheries and aquaculture: livelihood security, sustainability and conservation during 21-22 Jan. 2016 held at College of Fisheries, Lembucherra.
	Mr. Himadri Saha	Third Best Poster Presentation Award in the National Seminar on Fisheries and Aquaculture: Livelihood security, Sustainability and Conservation, held at College of Fisheries, Lembucherra, Agartala, Tripura from 21-22nd January 2016
	Dr. Janmejay Parhi	Dr. Hiralal Chaudhury Young Scientist Award by CIFE-ICAR, DBT Overseas Award for 6 months
3.	**College of Horticulture & Forestry, Pasighat, Arunachal Pradesh**	
	Dr. P. Debnath, Associate Professor	Best poster presentation in the National Conference on Horticulture in North Eastern region, held during January 16-18,2016 at CHF, CAU, Pasighat
	Dr. S.K. Pattanaaik, Assistant Professor	Govinda Chandra Sahu Award by the Institution of Engineers (India) for the paper "Flood frequency Prediction using Gumbel's and Log-Pearson method for Siang river"
		SECOND position in the POSTER presentation in National Conference on Horticulture in North East Region, which was held at CHF, Pasighat from 16-18 January 2016.
	Dr. S. Romen Singh, Assistant Professor	Best poster presentation in national conference on "National conference on horticulture in North eastern region" 16-18 January, 2016 on the topic "Genetic diversity of rambutan (*Nepheliumlappaceumlinn.*) in East Siang district of Arunachal Pradesh" organized by CHF, CAU, Pasighat.
4.	**College of Home Science, Tura, Meghalaya**	
	Dr. BiswajitLahiri	'Rapporteur' in the State Level Seminar on "Constraints Faced by Differently Abled Women in Their Access to Service and Education", organized by Department of Human Development

		and Family Studies, College of Home Science, Central Agricultural University on 6th November'2015.
		Appointed as external question paper setter for 2nd year B.Sc. Home Science, II Semester 2015-2016, Assam Agricultural University, Jorhat for the course Children with Developmental Challenges, CSK Himachal Krishi, Vishvavidyalaya, College of Home Science, Palampur HHD-355 Children with Special Needs and St. Terasa's College, Ernakulum, Kerala for the course of Psychology 2015.
	College of Post Graduate Studies, UmiamBarapani, Meghalaya	
5.	Dr. Ram Singh	Rapporteur in Indian Society of Agricultural Marketing, ANGRAU, Hyderabad (India) during 29th National Conference, MPUAT, Udaipur held on 28-30th, 2015 at RCA, MPUAT, Udaipur
		Elected as the MemberExecutive Committee in Indian Society of Agricultural Marketing, ANGRAU, Hyderabad (India) during 29th National Conference, MPUAT, Udaipur held on 28-30th, 2015 at RCA, MPUAT, Udaipur
	Dr. S.M. Feroze	Best paper award at National Seminar on Youth for Climate Change Transformation during 28-29th July 2015 at IIFM, Bhopal.
		Best paper award on "What influences the farmers' decision to adapt to climate change in hill? A case study of East Sikkim" authored by DayohimiRymbai, S.M. Feroze and Ram Singh
	Dr. Dwipendra Thakuria	External Member of the "Institutional Biosafety Committee" in the Institute of Advanced Study in Science and Technology, DST, GoI, Guwahati, Assam.
		Secretary in the soil "The Shillong Chapter of ISSS".

Awards and recognition of faculty members

Sl. No.	Name of the College	Name of the faculty	Designation	Details of Awards
1	College of Agriculture, Imphal, Manipur	Dr. Daya Ram	Assistant Professor (Department of Extension Education)	Certificate of Merit during Summer School from 7th Sept. To 27th Sept. 2016 at BCKV, West Bengal.
				Young Scientist Award-2017, by Society of Human Resources and Innovation, Agra during 1st National conference on Advances in Global Research in Agricultural Technology from 18 to 19 March, 2017 at Agra.
		Dr. MangsatabamNorjit Singh	Assistant Professor (Department of Animal Sciences)	Dr. V.S. Alwar Best Article Award. (Research paper entitled "Sero-diagnostic potential of *Babesiagibsoni*recombinant Thrombospondin Related Adhesive

				Protein (TRAP)" during the 26th National Congress of Veterinary Parasitology held at Veterinary College, Shivamogga, from 15-17th Feb, 2017 organised by Indian Association for the Advancement of Veterinary Parasitology.
		Dr. Th. Ranadhir Singh	Associate Professor (Animal Science)	Dr. N.S.R. Sastry Award (Indian Society of Animal Production and Management (ISAPM) awarded for the best LPM research work in North East India.
2	College of Post Graduate Studies, Umiam, Meghalaya	Dr. Sanjay Swami	Associate Professor (School of Natural Resource Management)	Best Paper Presentation Award: 8th National Extension Education Congress, 2017 on Nutrition-Sensitive Agriculture: Changing Role of Extension, January 28-31, 2017 at ICAR-NAARM, Hyderabad
				Best Worker Award in 8th National Extension Education Congress, 2017 on Nutrition-Sensitive Agriculture: Changing Role of Extension, January 28-31, 2017 at ICAR-NAARM, Hyderabad for extending extra-ordinary assistance in all the Congress related assignments.
		Dr. D. Majumder	Assoc. Prof. (School of Crop Protection)	Councillor for East Zone of the Indian Society of Plant Pathologists Executive Council (2013-15)
		Dr. Ram Singh	Associate Professor (School of Social Sciences)	North-East Extension Meritorious award and it was presented by Hon'ble Vice-Chancellor, CAU, Imphal jointly with Dr. R.P. Singh, Former VC, MPUAT, Udaipur and President of SEE, Agra during 8th NEE Congress on 28-31 January, 2017 at ICAR-NAARM, Hyderabad.
				Reviewer excellence award as reviewer of Indian Journal of Agricultural Research and Legume research-An international Journal, ARCC, Karnal during 2016-17
				Indian Society of Agricultural Economics, Mumbai, (India) during 76th Annual Conference, AAU, Jorhat held on 21-23rd November, 2016

3	College of Veterinary Sciences & Animal Husbandry, Selesih, Aizawl, Mizoram	Dr. P. C. Kalita	Associate Professor	"Reviewer Excellence Award" as reviewer of Indian Journal of Animal Research and Asian Journal of Dairy and Food Research. ARCC Journals during 2016.
		Dr. T. K. Rajkhowa	Associate Professor	Overseas Research associateship at University of Connecticut, Storr, CT, USA, awarded by DBT, Ministry of Science and Technology, GOI, New Delhi from 01-09-16 to 30-11-16
		Dr . A. K.Samanta	Associate Professor &Head	Received second best paper(Oral) award for the research paper "Effect of Feeding Palm Oil (*Elaeisguineensis*) Sludge as a Partial Replacement of Maize on the Performance of Growing crossbred (Large White Yorkshire xZovawk) Pigs" presented at X Biennial Animal Nutrition Association Conference held at CVSc, Sri Venkateswara Veterinary University, Tirupatiw.e.f. 9th to 11th November,2016.
4	College of Agricultural Engineering and Post Harvest Technology, Gangtok, Sikkim	Dr. Deepak Jhajharia	Associate Professor	Distinguished Alumni award-2016 by CTAE MPUAT, Udaipur Rajasthan
		Dr. Mahendra S. Seveda	Associate Professor	Received Young Scientist Award-2017 during National Congress-2017
				Received Best paper Presentation Award-2017 during National Congress-2017
		Dr. G. T. Patle	Assistant Professor	Received Distinguished Service Certificate Award- 2016 for the significant contributions in the field of Soil and Water Conservation Engineering by The Indian society of Agricultural Engineers, New Delhi
5	College of Home Science, Tura, Meghalaya	Dr. B. Lahiri	Assistant Professor	Young Scientist Award from SEEA
				Best Paper Presentation Award at 8th NEEC 2017
				Best Paper Presentation Award in National Seminar organized by NEHU and KVK, Tura
		Dr. S. Sarkar	Assistant Professor	Best Paper Presentation Award (Oral) in National Seminar organized by NEHU and KVK, Tura
6	College of Fisheries,	Dr.AtanuSarkar	Professor	'RahtriyaGaurav Award' along with Certificate of Excellence during the Annual Ceremony of India

	Lembucherra, Tripura			International Friendship Society on 1st October,2016 in New Delhi.
	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh	Dr.A.K. Pandey	Dean	Life Time Achievement Award, 2016 Conferred by Society of Biological Sciences and Rural Development, Allahabad on the occasion of National Symposium on "Natural Resource Management for Sustainable Agriculture and Rural Development" held at Allahabad on Nov. 5-6, 2016
7		Dr. B N Hazarika	Professor	Recognised as Member, Joint Inspection Team,Dept. of Agriculture,Cooperaion& Farmers Welfare,(Mission for Inegrated Development of Horticulture), KrishiBhawan, New Delhi
		Dr. B.P. Mishra and Dr. M.M. Kumawat	Assistant Professor	Scientist of the Year Award by The Society of Biological Sciences and Rural Development, Allahabad, Uttar Pradesh

Awards and recognition of faculty members. (2017-18)

Sl. No.	Name of the Faculty	Details of Awards/recognition received
(i) College of Post-Graduate Studies, Umami, Meghalaya		
1.	Dr. Ram Singh Associate Professor	Vice-president of Indian Society of Agricultural Economics, Mumbai, (India) during 77th Annual Conference at CPGS, CAU (Imphal), Umiam held on 12-14th October, 2017
(ii) College of Agricultural Engineering and Post Harvest Technology, Gangtok, Sikkim		
1	Dr. G. T. Patle Assistant Professor	Awarded ***Certificate of Appreciation*** from ICAR-NRC for Orchids, Pakyong, Sikkim. for the contribution towards the Development of a concept of drip irrigation in orchids cultivation on 05.10.2017
		Received best paper (Poster Award) for the paper on "Ensuring the water security in Sikkim through climate smart water technologies: A training and field demonstrations approach" during the session on doubling the farmer's income through horticulture/floriculture.
3	Er. S. K. Satpathy Asst. Prof.	Certified as Trainer for the job role-Tractor Operator by ASCI
4	Dr.Mahendra S. Seveda Professor	Certified as Trainer for the job role-Solar Pump Operator by ASCI
5	Dr.Rakesh Kumar Raigar	Awarded for Gandhian Young Technological Innovation Appreciation Award 2018. The award is given by Dr Harsh Vardhan, Hon'ble Minister of Science and Technology and Earth Sciences on March 19 2018 at Rastrapati Bhavan, New Delhi.

	Assistant Professor	
(iii) College of Horticulture & Forestry, Pasighat, Arunachal Pradesh		
1.	Dr. A.K. Pandey; Dr. S.K. Pattannaik; Dr. P. Sarma; Dr. P. Debnath Dean; Assistant Professor; Associate Professor; Associate Professor	Best Paper Award for the paper entitled Technology for conserving and utilizing rainwater for crop production presents in the 26th National Conference on Natural Resource Management for Climate Smart Sustainable Agriculture (NRMCSSA-2017), organized by Soil Conservation Society of India, New Delhi in collaboration with Central Agricultural University, Imphal, Imphal at College of PG Studies, CAU, Barapani, Meghalaya from 11-13 September, 2017
2.	Dr. A.K. Pandey; Dr. P. Heisnam; Dr. P. Debnath; S.K. Pattannaik Dean; Assistant Professor; Associate Professor; Assistant Professor	Best Paper Award for the paper entitled Growth and Development parameters of vegetable cowpea (*Vignaungiculata*(L.) Walp) as influenced by mulching in the 26th National Conference on Natural Resource Management for Climate Smart Sustainable Agriculture (NRMCSSA-2017), organized by Soil Conservation Society of India, New Delhi in collaboration with Central Agricultural University, Imphal, Imphal at College of PG Studies, CAU, Barapani, Meghalaya from 11-13 September, 2017
3.	Dr. A.K. Pandey& Dr. S.K. Pattnaik	Banabihari Mohanty Memorial Award for the paper entitled "Deficit Irrigation under Drip System- A potential option for enhancing water productivity in fruit crop" by the Institution of Engineers , India, Odisha State Centre, Bhubaneswar during the 59th Annual Technical Session held on 21st January, 2018
4.	Dr. Anil Kumar Assistant Professor (Forest Products and Utilization)	Awarded 2nd Position in Best Research Paper ward category along with Two Year membership of International Research Group on Wood Protection, Sweden (2017-19) Received Scientific assistance Programme (SAP) Award for IUFRO Div-5 Forest Product Conference, Vancuover, Canada
(iv) College of Veterinary Sciences & A.H., Selesih, Aizawl, Mizoram		
1.	Dr. Suvendu Kumar Behera Assistant Professor	1.Best Oral Presentation in 35th Annual Convention of ISVM 2. Overseas Associateship fellowship, DBT, India, 2017
2.	Dr.Gunjan Das Assoc. Professor	1. Main Nominee of CPCSEA for the Institutional Animal Ethics Committee (IAEC) of CPCSEA of Mizoram University (MZU), Mizoram & Tripura University, Agartala 2. Executive Committee member for Indian Veterinary Medicine Association (Mizoram Chapter) election held

		on 30th May' 2015 during Annual General Body Meeting of IVA-Mizoram for the term 2017 – 2019.
3.	Dr.Kalyan Sarma Assoc. Professor	1. Executive member (Regional Secretaries, North East Region) of Indian Society of Veterinary Medicine 2. Member of Project Screening Committee of Govt. of Mizoram underRKVY 3. Level-ll Expert for veterinary Medicine in project entitled "Development and Deployment of Mobile Based Agro-Advisory system in North-East India(m4agriNEl) - Phase II (Garo Hills)", funded by Media Lab Asia, MCIT, GOI, New Delhi 'which was commenced on 4th Ju1y'2015 at College of Home Science, CAU, Tura Meghalay
4.	Dr.Laltlankimi; Dr. T. K. Rajkhowa; Dr. R. Ravindran M.V.Sc. scholar ; Professor & Head; Assistant Professor	Dr. B. S. Raya award, 2016 for best non- oncology short communication in Indian journal of veterinary pathology.
5.	Dr. Y. Damodar Singh, Asst. Prof	Bharat Jyoti Purskar 2018 (From Best Citizen Publishing House, New Delhi)
6.	Dr Parthasarathi Behera Assistant Professor (SS)	"Best Oral Presentation award" at the national seminar on Opportunities and Challenges of Translational Research in the Frontier Areas of Animal Biotechnology held during 22nd to 23rd September 2017 at CVSc& A.H., OUAT, Bhubaneswar.
7.	Dr.N. Shyamsana Singh Assoc. Prof.	Awarded by ICAR for breed recognition of "Zovawk"
		Expert member for formulating Mizoram state pig breeding policy
8.	Dr. T.C. Tolenkhomba Asst. Prof.	Expert member for formulating Manipur state pig breeding policy
(v) College of Horticulture, Bermiok, South Sikkim		
1.	Dr S.K.Sharma Dean	Nominated as member of Board of Studies for College of Horticultural and Forestry, Jhalwar, Rajasthan by Hon'ble Vice-Chancellor, Kota Agricultural University, Kota, Rajasthan
		Awarded fellowship by the International Society for Noni Science, Chennai in a function held at Pune on 24th March 2018.
(vi) College of Home Science, Tura, Meghalaya		
1	Dr.Lokesh Kumar Mishra Assistant Professor, BioChem	Mishra, L.K., Christopher, A.C., Sarkar, D., Shetty, K. "Aronia Berry Juice: antioxidant and anti-hyperglycemic properties and its comparison with other commercial juices, "3rd International conference on Food for Health, July 16th - 19th, 2017, North Dakota State University, Fargo, ND, USA. ***(Won Best Oral Presentation Award)***.
(vii) College of Fisheries, Lembucherra, Tripura		
1	Dr.DibyenduKamilya Asst. Professor	Dr. M.S Swaminathan award for Best Indian Fisheries Scientist awarded by Professional Fisheries Graduate Forum, India

2	Dr.Arun B. Patel Prof. & Head	Invited Member of Expert panel "GAqP for Fresh Water Aquaculture' under Fish, Fisheries and Aquaculture Sectional Committee, FAD 12"
3	Dr. N.K. Mehta Asst. Prof.	Best Ph. D. Thesis Award from CIFE, Mumbai.
(viii) College of Agriculture, Pasighat, Arunachal Pradesh		
1	Dr.L.Geetarani Devi Assistant Professor (Contract)	Dr.N.A.Mujumdar Prize Award (By ISAE, Mumbai) for Best paper presenter award, 2017
		Young Scientist Award (by Endling conference, 2018) for best presentation
2	Dr.PunabatiHeisnam Assistant Professor (Contract)	Best Paper Award (by Soil Conservation Society of India, 2017)

Recognition of faculty members and staff through their excellence during 2018-19

Sl. No.	Name of the Faculty	Designation	Details of Awards/recognition received
College of Agriculture, Imphal			
1	Dr. Daya Ram	Assistant Professor	1. Young Scientist Award-2018, by Society of Exte Education, Agraon NEEC-2018 form 15 to 18 M at CAEPHT Sikkim 2. Young Scientist Award-2018by Indian of Extens Education, New Delhi on National Seminar-20 to 8 Dec.,2018 at WBUAF West Bengal
2	Dr. Ng. Joykumar Singh	Assistant Professor	1. Recognition of outstanding contribution in Development of Technologies in Post-Harvest Engineering and Technology. 2. Best paper presentation award on "development and performance evaluation of makhana in international conference on technological innovation for integration of food and health (TIIFH 2019) - Association of Food Scientist and Technologist, Tezpur University, Assam.
3	Dr. Bireshwar Sinha	Assistant Professor	1. Best oral presentation on "Indian Phytopathological North East Zone- National symposium - 2019, Tripura 2. Certificate of appreciation for contribution to Tricoderma research from North East India by UTU, Gujarat 3. Conferred Fellow Member- "FSARSD" for contribution to Agriculture Research by Society of Agricultural Research and Social Development, New Delhi
College of Veterinary Science & A.H., Selesih, Aizawl			

1.	Dr. Prava Mayengbam	Associate Professor	2nd Prize in Poster presentation under 30 during International Conference on Bio-diversity, Environment and Human Health: Innovations and Emerging Trends (BEHIET 2018) on 12-14 November, 2018 held at Mizoram University, Mizoram.
2.	Dr. Y. Damodar Singh	Assistant Professor (SG)	"The Bharat Jyoti Puraskar 2018" was conferred by the Best Citizen Publishing House, New Delhi.
3.	Dr.Parimal Roy Choudhury	Associate Professor	DBT overseas associateship
4.	Dr. O. P. Choudhary,	Assistant Professor	Late Dr. D. S. Grover Memorial Award for "Clinical Anatomy & Multidisciplinary Approach". during XXXIII ANNUAL CONVENTION OF IAVA & NATIONAL SYMPOSIUM at C.V.Sc.& A.H., CAU, Selesih, Aizawl
5.	Dr. Dibyajyoti Talukdar	Assistant Professor	IJRULA Title awards 2018" for best research article. Awarded by, International Journal for Research Under Literal Access
College of Horticulture & Forestry, Pasighat			
1	Dr. T.S.Mehra	Assiciate Professor	"Adarsh Vidya Saraswati Rashtriya Puraskar" by Global Management Council, Ahmedabad 2018.
			Conferred Fellowship of International Society of Noni Sciences, Perungudi, Chennai, India
2	Dr.Ng. Piloo	Associate Professor	'Scientists of the Year Award' for outstanding contribution in the field of Post harvest Management by the Society of Biological Sciences and Rural Development, Prayagraj on the occasion of "National Symposium on Innovations in Agriculture, Environment and Technology for Inclusive Development" on 17th-18th March, 2019.
3	Ms. M. Bishwapati Devi	Assistant Professor	'Scientists of the Year Award' for outstanding contribution in the field of Computer Science by the Society of Biological Sciences and Rural Development, Prayagraj on the occasion of "National Symposium on Innovations in Agriculture, Environment and Technology for Inclusive Development" on 17th-18th March, 2019.
4	Dr. Shivani Dobhal	Assistant Professor	Young Scientist Award, by COBACAS, Uttar Banga Viswavidyalaya, Pundibari Cooch Bihar, West Bengal India
5	N. Devachandra	Assistant Professor	Successfully Completed and Passed the Massive Open Online Course (MOOC) on Dynamic of Teaching-Learning held during 01-30, November,

			2018 organized by ICAR-NAARM, Rajendranagar, Hyderabad, Telangana.
6	Dr.Helen Soibam	Assistant Professor	Best Scientist National Award in field of Teaching, research and publications by IRDP Group of Journals, Chennai, India on 28th October,2018
College of Fisheries, Lembucherra, Tripura			
1	Dr.Anindya Sundar Barman	Assistant Professor	Zoology Congress Medal
2	Dr. S. Khagen Singh	Assistant Professor	Zoology Congress Medal
3	Mrs. BahniDhar	Assistant Professor	2nd prize for oral presentation on International Symposium
4	Dr.S.SMahanand	Assistant Professor	2nd prize for oral presentation on International Symposium
College of Agricultural Engineering & PHT, Ranipool, Sikkim			
1.	Prof. P. P. Dabral	Dean	Agricultural Engineering Division Prize (Gold Medal and Certificate) from The Institution of Engineers (India), for his research paper titled "Economic Evaluation and Overall Assessment of Water Harvesting Ponds based on Scorecard System : a Case Study" published in the Journal of The Institution of Engineers, Series A(Springer), Volume 98,2017.
2.	Prof.Mahendra S. Seveda	Professor	Society of Extension Education (SEE) Fellow Award during 9th National Extension Education Congress-2018 on Climate Smart Agricultural Technologies: Innovations and Interventions during November 15- 17, 2018
3.	a) Dr. Deepak Jhajharia b) Dr. G. T. Patle c) Dr.Kh. Lily Devi d) Dr.Rakesh Kumar Raiger	a) Associate Professor b) Assistant Professor c) Junior Research Scientist d) Assistant Professor	Received Young Scientist Award during 9th National Extension Education Congress-2018 on Climate Smart Agricultural Technologies: Innovations and Interventions during November 15- 17, 2018
4.	a) Dr.Mahendra S. Seveda b) Dr. Deepak Jhajharia c) Dr. A. K. Vashisht d) Dr. G. T. Patle e) Dr.Kh. Lily Devi	a) Professor b) Associate Professor c) Associate Professor d) Assistant Professor e) Junior Research Scientist	Received the Best Paper Award during 9th National Extension Education Congress-2018 on Climate Smart Agricultural Technologies: Innovations and Interventions during November 15- 17, 2018

	f) Dr.Rakesh Kumar Raiger	f) Assistant Professor	
5	Dr. Deepak Jhajharia	Associate Professor	Received Best Extension Scientist of AICRP-PET for 2017-18 during the XIVth Annual workshop of the AICRP on PET held at ICAR-VPKAS, Almora (Uttarakhand) from 18-19th December 2018.
6	Dr. Rakesh Kumar Raiger	Assistant Professor	Received Gandhian Young Technological Innovation (GYTI) appreciation Award 2018 from Ministry of Science & Technology on March 19, 2019 at Rastrapati Bhavan, New Delhi
College of Post Graduate Studies, Barapani, Meghalaya			
1.	Dr. KonjengbamNoren Singh	Professor	Bharat Ratna Indira Gandhi Gold Medal Award conferred by GEPRA, New Delhi for their excellency in Education and Research on 9th March, 2019.
2.	Dr.R.K.Tombisana Devi	Professor	Chaired the technical session National Symposium on "Role of Plant Pathology in empowering and doubling farmers' income". 25-27 October, ICAR Research Complex for NEH Region, Umiam, Meghalaya
3.	Dr. Sanjay Swami	Associate Professor	SCSI Leadership Award: Soil Conservation Society of India (SCSI), New Delhi honoured for consistent contribution in the field of Natural Resource Management, especially Soil and Water Resource Management in Hilly tracts during 27th National Conference of SCSI on "Sustainable Management of Soil and Water Resources for Doubling Farmers' Income" held at AAU, Jorhat, Assam w.e.f. October 25-27, 2018.
			Best Oral Paper Award, paper entitled "Doubling Tribal Farmers' Income through Location Specific Integrated Farming Systems in North Eastern Hill Region of India" during Technical Session VI of the 27th National Conference of SCSI on "Sustainable Management of Soil and Water Resources for Doubling Farmers' Income" held at AAU, Jorhat, Assam w.e.f. October 25-27, 2018.
			Young Scientist Award: Society of Extension Education conferred for consistent contribution in the field of Extension of Natural Resource Management Practices, especially Soil and Water Resource Management in Hilly tracts during 9th National Extension Education Congress-2018 on "Climate Smart Agriculture Technologies: Innovations and Interventions" at held at

			CAEPHT, Ranipool, Sikkim w.e.f. November 15-17, 2018.
			Best Poster Award: paper entitled "Biochar for enhancing crop productivity and sustaining soil health" in the Technical Session –IV of the 27th National Conference of SCSI on "Sustainable Management of Soil and Water Resources for Doubling Farmers' Income" held at AAU, Jorhat, Assam w.e.f. October 25-27, 2018.
			Oral Paper Presentation Prize: research paper entitled "Biochar: Managing acidic soil in North Eastern Hill region of India" 3rd in the Technical Session on Managing Soil Health and Quality of the All India Post Graduate Students' Research Convention in Soil Science held at BAU, Sabour, Bhagalpur w.e.f. March 15-16, 2019.
4.	Dr. Dwipendra Thakuria	Professor	Recognized as Editor of the Journal of the India Society of Soil Science for a period of 2 years (2017 and 2018).
			Supervisor of the DBT-Research Associateship Programme on the topic "Endophyte metabolomics of rice in response to habitat-adaptive fitness against abiotic stresses" by the Indian Institute of Sciences, Bangalore.
			Mr. Sagolshem Kalidas-Singh was awarded Young Investigator's Award for the research presentation on "Phosphorus Management for Transplanted Rice in Acid Soil: Seedling-Root-Dipping in SSP-Soil Slurry Method" authored by Kalidas-Singh S. and Thakuria D. in the 3rd International Symposium on Rice Science in Global Health, 2018, Kyoto Japan.
5.	L. Devarani Student: Neyoni Nkululeko	Assistant Professor	Best Paper Award during the National Agri - Business Entrepreneurship Conclave held at ICAR-RC-NER during 9-11 February 2019
6.	Dr. Ram Singh,	Professor	Elected as Vice-president of Indian Society of Agricultural Economics for 3 years
			Elected as an executive member in the Indian Society of Agricultural Marketing at ISEC, Bengaluru November, 2018
			Reviewer Excellence Award as Reviewer of the journal *Agricultural Science Digest* by Agricultural Research Communication Center, Karnal, Haryana
College of Home Science, Tura, Meghalaya			

1	Dr. Biswajit Lahiri	Assistant Professor	Best Paper Award & Young Scientist Award' from Indian Society of Extension Education, New Delhi in ISEE National Seminar-2018 organized by Indian Society of Extension Education, New Delhi on December 5-7, 2018 at WBUAFS, Kolkata, West Bengal
College of Agriculture, Pasighat			
1	Dr. L.Geetarani Devi	Assistant Professor (C)	Young Professional Award (for research quality, novelty and significance) & Young Scientist Award(for research quality)
College of Horticulture, Bermiok, Sikkim			
1	Dr. P. Bhumita	Assistant Professor (C)	Eminent Scientist Award-2018 conferred by Agro-Environmental Development Society
College of Agriculture, Kyrdemkulai, Meghalaya			
1	Dr. U.K.Behera	Dean	Gold Medal in the XXI Biennial National Symposium on "Doubling Farmers Income through Agronomic Interventions under Changing Scenario" from 24-26 October, 2018 which was organized at Rajasthan College of Agriculture, MPUAT, Udaipur, Rajasthan. President, Indian Science Congress Association (ISCA), Agriculture and Forestry Science, 2019-2020 for 107 Indian Science Congress during 3-7 January, 2020.

Awards and recognition of faculty members (2019-20)

Sl. No.	Name of the Faculty	Designation	Details of Awards/recognition received
College of Horticulture and Forestry, Pasighat, Arunachal Pradesh			
1	Prof. B.N. Hazarika	Dean, Professor	ISHRD Fellowship: Indian Society of Horticultural Research and Development (ISHRD), Uttararhand
			Outstanding contribution to science Award-2019. Dr. B. Vasantharaj David Foundation, Chennai, India
			Dr. H.K. Jain- CAU Award (2016-17), Central Agricultural University, Imphal (awarded in 2019)
2	Dr. D.B. Ahuja	Professor	Best Research Project Award in CAU Regional Fair 2019 - 20 Integrated Bee Keeping Development
3	Dr. Sunil Kumar	Professor	Outstanding Academic Leader Award 2020 from Eudoxia Education Private Limited, Guwahati.
			Best Research paper award in Current Horticulture-2019
			Best Academician Award 2019 in Agriculture from Scholars Academic and Scientific Society, Borhawar, Murajhar, Hojai, Assam
			Best Faculty Award from EET CRS 7th Faculty Branding Awards-2019
5	Dr.A.S.Mailappa	Associate Professor	Best Agricultural Academician Award *(Best KrishiShikshak Award) during* National Conference on Challenges and Innovative Approaches in Agriculture &

			Allied Sciences Research, organized by SBER (Society for Biotic and Environmental Research), on 26.07.19 & 27.07.2019 at Sona College of Arts & Science, Salem, Tamil Nadu.
6	Dr. Shivani Dobhal	Assistant Professor	Young Scientist Award, by COBACAS, Uttar Banga Viswavidyalaya, Pundibari Cooch Bihar, West Bengal India
7	Dr. Barun Singh	Assistant Professor	Distinguished Service Award for outstanding contribution in the field of Pomology. Conferred by Society of Biological Sciences and Rural Development, Prayagraj, U.P. India
8	Dr. Nangsol Dolma Bhutia	Assistant Professor	Awarded with Jagar Nath Raina Memorial for All India Best Research Award at Doctorate Level 2019 by Society for Advancement of Human and Nature (SADHNA) , Himachal Pradesh
			Awarded with Dwarika Nath Memorial Award-2018 for best Ph.D. Thesis by Indian Society of Vegetable Science, Varanasi, Uttar Pradesh
9	Mr. Premaradhya, N	Assistant Professor	Best Paper Presentation during Regional Seminar of Indian Society of Agricultural Economics (ISAE) on "Perspectives of Horti-Business in Development of North Easter Region" 24-25th February, 2020
College of Fisheries, Lembucherra, Tripura			
1.	Dr. Himadri Saha	Assistant Professor	Young Scientist Award-2019
2.	Dr. Amitava Ghosh	Assistant Professor	CWSS- Young Scientist Award-2020
3.	Dr. A.S. Barman	Assistant Professor	Best Oral presentation award in National Seminar on "Biodiversity –Issues challenges and opportunity" 16-17th July 2019, organized by CCSHAU, Hisar, Haryana
4.	J. Parhi,	Asst. Professor	Prof Harswarup Medal -2020 by Zoological Society of India for academic contribution in the field of Fish Genetics and Biotechnology
		Asst. Professor	Dr. S. Ayyappan Gold Medal by Inland Fisheries Society of India (IFSI), Barrackpore
College of Community Science, Tura, Meghalaya			
1	Prof. Puspita Das	HOD & Dean In-charge	Conferred "**Excellence in Research Award**" by Astha Foundation, Meerut (U.P.) during International Conference on Innovative and Current Advances in Agriculture and Allied Sciences held from 27th January to 1st February 2020, ICAAAS – 2020 at Bangkok, Thailand
College of Post Graduate Studies in Agricultural Sciences, Barapani, Meghalaya			
1	Dr. Mahesh Pathak	Professor Entomology	Best KVK Award for effective Implementation of Cluster Frontline Demonstration (CFLD) programme in Toria (*Rabi* 2018-19)conferred by ICAR-ATARI, Zone-VI, Guwahati, Assam in Annual Review Meeting of

			KVKs 2019-20 held at ATARI Guwahati, Assam, 29-31st May, 2019.
2	Dr. Kennedy Ningthoujam	Assistant Professor Entomology	Appreciation certificate for outstanding participation on "Production Protocol for Biocontrol agents (Predators, Parasitoids and Microbial Bio pesticides) and Biofertilizers" held at NIPHM, Hyderabad
3	Dr. Pranab Dutta	Associate Professor	Best Poster Presentation Award (Jointly) for the paper "Green synthesis of silver nanoparticles , its characterization and study the efficacy against Fusariumoxysporum in IPSCONF 2020 held at ICAR-IARI, New Delhi, India during January 16-20, 2020
7	Dr. Dwipendra Thakuria	Professor	American Phytopathological Society Travel Grant (North Eastern Zone, IPS) was awarded to Mr. Hubert Jones Shullai in the symposium "Sustainable Plant Health Management on North East India" during 6-7 November, 2019 at ICAR-RC for NEH Region, Umiam, Meghalaya
8	Dr. Dwipendra Thakuria	Professor	Best Poster Presentation Award by Miss Lipa Dev in the 7th International Conference "Phytopathology in achieving UN Sustainable Development Goals" (IPSCONF2020) held on January 16-20, 2020 at ICAR-IARI, New Delhi, India
9	Dr. Sanjay Swami	Professor	Outstanding Achievement Award during 3rd International Conference on "Global Initiatives in Agricultural and Applied Sciences for Eco Friendly Environment (GIASE-2019)" held at Tribhuvan University, Kathmandu, Nepal w.e.f. June 16-18, 2019 organized by(ATDS), Ghaziabad
			Distinguished Scientist Award during International Conference on "Sustainable Agriculture Production for Food, Nutritional and Livelihood Security: A Challenge for Asian Farmers" held at Pattaya, Thailand w.e.f. September 25-27, 2019.
			Appreciation Award by the Soil Conservation Society of India (SCSI) New Delhi in recognition of his sincere, dedicated and hard work for successful organization of the 4th International Conference of Soil Conservation Society of India (SCSI) on "Soil and Water Resources Management for Climate Smart Agriculture, Global Food and Livelihood Security" at NASC Complex, New Delhi during November 05-09, 2019.
			Best Oral Presentation in the 4th International Conference of Soil Conservation Society of India (SCSI) on "Soil and Water Resources Management for Climate Smart Agriculture, Global Food and Livelihood

			Security" at NASC Complex, New Delhi during November 05-09, 2019.
			The Visitor of Manipur University, His Excellency, The President of India nominated as a Member of the Fifth Court of Manipur University under Section 22(1) read with Amended Statute 10(5) of Manipur University Act, 2005 for a term of three years
26	Dr. N. J. Singh	Asstt. Professor	Best Master Thesis Award-2019 from International Conference on "Global Perspective in Agricultural and Applied Sciences for Food and Environment Security (GAAFES 2019)"1-2 December, 2019 held at UGC-HRDC Hall, Kumaun University, Nainital, UK, India
College of Veterinary Science & A.H., Selesih, Aizawl			
1	Dr. J. B. Rajesh,	Assistant Professor	Adarsh Vidya Saraswati Rashtriya Puraskar Glacier Journal Research foundation, Global Management Council: 2019
			Young Faculty award from EET, CRS (Academic Brilliance Award): 2020
4	Dr. Suvendu Kumar Behera	Assistant Professor	DBT overseas associateship
5	Dr. Chethan G E	Assistant Professor	1st prize in poster presentation (session 3 & session 4) under 38th Annual Convention and National Symposium of ISVM (Feb 5th to 7th , 2020) held at Veterinary college, KVAFSU, Hebbal, Bengaluru
			1st prize in poster presentation (under 38th Annual Convention and National Symposium of ISVM (Feb 5th to 7th , 2020) held at Veterinary college, KVAFSU, Hebbal, Bengaluru
7	Dr. M. Ayub Ali	Professor	**Best paper Award** in technical session on Clinical and Nutritional Biochemistry during the 4th National seminar and Annual Convention of SVBBI on Current Research in Veterinary Biochemistry and Biotechnology in the improvement of Animal Health and Production held at CVSc, SVVU, Tirupati on 4-5th Feb, 2020.
8	Dr. Parthasarathi Behera	Assistant Professor	**Best paper Award** in technical session on Biochemical interventions and Metabolomics during the 4th National seminar and Annual Convention of SVBBI on Current Research in Veterinary Biochemistry and Biotechnology in the improvement of Animal Health and Production held at CVSc, SVVU, Tirupati on 4-5th Feb, 2020.
9	Dr. A. K. Samanta	Professor	Received best presentation (oral) award for the research paper entitled 'Effect of Supplementation of Plant Extracts and Essential Oils on Immune Status and Intestinal Microbial Population of Weaned Piglets' in the International Conference of Animal Nutrition 2019 on 'Nutritional strategies for improving farm profitability and clean milk production', 17-19 Dec., 2019 organised

			by Department of Animal Nutrition, West Bengal University of Animal and Fishery Sciences, Kolkata, India
10	Dr. Pragati Hazarika	Asst.Prof. (Selection grade)	3rd Prize for oral paper presentation on the topic "Effect of Nisin on qualitative and sensory aspects of cured Vawksa Rep – a traditional pork product of Mizoram" in the International Symposium & 9th conference of Indian Meat Science Association" organized by . Dr. G.C. Negi College of Veterinary & Animal Sciences, CSK HPKV, Palampur – HP, India.
11	Dr. T. K. Rajkhowa Dr. Y. Damodar Singh, Dr. Ravindran R. Dr. Rahul Singh Arya,	Professor Asst. Professor (SG) Asst. Professor (SS) Asst. Professor	IAVP-Savithree Jibachch Sinha Third Best Poster Presentation Award, 2019 for the Poster "Histopathological investigation of pathology of mushy chick disease in Gramapriya and Srinidhichicks"in Veterinary Pathology Congress-2019 and National symposium on *"Advances in veterinary pathology for fostering one health, food security and environment protection"*Selesih, Aizawl, Mizoram (November 6-8, 2019).
12	Dr. T. K. Dutta,	Prof.	Dr. C. M. Singh best research paper award-2020.Awarded by the Indian Association of Veterinary Microbiologists, Immunologists and Specialists in Infectious Diseases (IAVMI) for the research paper published in the Indian Journal of Comparative Microbiology, Immunology and Infectious Diseases, Vol 40(2), 2019: 90-94
			Reviewer Excellence Award by the ARCC journal in recognition to significant and outstanding contribution to the journal and reviewing the article in January, 2020
14	Dr. P. K. Subudhi	Asst. Prof. (SS)	Awarded best oral presentation for paper "Serum Diagnostic Enzyme Profile of Khaki Campbell Ducks is improved by Eclipta alba as Feed Supplement in the face of Salmonellosis" in technical session II - Clinical and Nutritional Biochemistry in Annual Convention of SVBBI and 4th National Seminar on "Current Research in Veterinary Biochemistry and Biotechnology in the improvement of Animal Health and Production" from 4th – 5th February, 2020; at College of Veterinary Science, SVVU, Tirupati – 517502, A.P., India
College of Agricultural Engg. & P.H.T., Ranipool, Sikkim			
1	Prof. Mahendra S. Seveda	Professor	ISAE Commendation Medal Award during the 54th Annual Convention of Indian Society of Agricultural Engineers (ISAE) & International Symposium on "Artificial Intelligence Based Future Technologies in Agriculture during January 07-09, 2020 at Hyatt Regency, Vimannagar, Pune, Maharashtra.

2	Prof. D. Jhajharia	Professor	Fellow (Indian Water Resources Society)
			Best paper award in Regional Seminar on "Perspectives of Horti-business in development of north eastern region" of Indian Society of Agriculture Economics at CoHF, Pasighat from 24-25 February, 2020
4	Dr. A. K. Vashisht	Associate Professor	Fourth Dr. H.K. Jain CAU Award, 2017-18
5	Er. S.S. Das	Assistant Professor	Best paper award at the ICMMRE-2019 conference, 6-7, December, 2019 at SMIT Sikkim
6	Dr. Abujam Anuradha Devi	Assistant Professor	Best Paper presentation in Regional Seminar of Indian Society of Agricultural Economics (ISAE) on Perspectives of Horti-Business in Development of North Eastern Region at CoH& F, Pasighat on 24 – 25 February, 2020.
College of Agriculture, Kyrdemkulai, Meghalaya			
1	U.K. Behera	Dean	Elected president for Agriculture and Forest Sciences of 107th Indian Science Congress held during 03.01.2020 to 07.01.2020
College of Agriculture, Pasighat, Arunachal Pradesh			
1	Dr. Kh. Lily Devi	Assistant Professor	Best paper presentation award on the paper entitled "Enhancing the farmers income through Low-cost polyhouse intervention in Soureni Village of East Sikkim- A Case Study during Reginal seminar on "Perspectives of horti-business development of north eastern region", February 24-25, 2020, at CHF,Pasighat, Arunachal Pradesh.
College of Agriculture, Imphal, Manipur			
1.	Dr. Th. Ranadhir Singh	Associate Professor	ICAR-Breed Conservation Award – 2019 for conservation of Manipur Pony and Development

6.6.9.2. Accreditation Report from ICAR/Other Agencies: Whether the University and its Colleges were accredited by the ICAR and other agencies in the past? What was the recommendation of the accreditation agencies? Whether the University has taken the action taken report and submitted the reply to the accreditation agencies? Provide the detailed action report for each observation.

- The University & its 7(seven) constituent Colleges have been accredited by the NAEAB, ICAR, New Delhi during March 2017. B.Sc.(Forestry) programme of the College of Horticulture and Forestry, Pasighat, Arunachal Pradesh is accredited by the Accreditation Board of the Indian Council of Forestry Research & Education(ICFRE), Dehradun, Uttrakhand. Action taken report on the recommendation of the NAEAB, ICAR, New Delhi had been submitted. Detailed action report for each observation is enclosed herewith ***(Annexure-C)***

6.6.9.3. Inter Institutional Standings: Status of the University in the ranking announced by agencies for academics, research, extension, sports/games, cultural events etc.

Sl No.	NIRF	YEAR	Ranking Status
1.	ICAR Ranking of Agricultural Universities	2017	13th rank
2.	ICAR Ranking of Agricultural Universities	2018	25th rank
3.	NIRF by MHRD in Overall category	2019	151-200th rank
4.	ICAR Ranking of Agricultural Universities	2019	25th rank

6.6.9.4. Socio-economic Impact: Elaborate data based impact of various activities/ recommendation on upliftment of the economics and social status of the farmers.

Extension Output in last 5 (five year) by Directorate of Extension Education, CAU, Imphal:

1. 4600 nos. of farmer registered under m4agri project implemented in Tripura, Mizoram, Manipur and Arunachal Pradesh and Mizoram.
2. 12 starts up in 3 states, *viz.,* Tripura, Arunachal Pradesh and Mizoram developed under RKVY-RAFTAR project.
3. 104 nos. of entrepreneurs develop through KVKs in Manipur, Tripura, Aizwal, Arunachal Pradesh, Meghalaya.
4. Formation and promotion 98 nos. of women SHGs and Farmers Clubs in Manipur, Tripura, Aizwal, Arunachal Pradesh, Meghalaya though KVKs.
5. 390 nos. of individuals were trained under skill development programme sponsored by PFC in 6 states of NEH region.
6. Credit linkage of Rs. 87,00,000/- through KCC, DED programme, ED and EG, piggery loan and Mudra Loans benefiting 47 beneficiaries

6.6.9.5. International Collaboration: Mention the list of collaboration taken place during last five years with international agencies/universities/institutes for academic, research and others.

- MoU Signed between Western Sydney University, Australia & CAU, Imphal in the year 2019 (which is valid for a period of 5 years) for development of collaborative research project, exchange of academic staff for teaching & research activities, exchange of students to undertake study/participate in research program. The MOU is signed under the flagship of Institutional development plan granted to CAU, Imphal under National Agricultural Higher Education Project of ICAR.
- MoU Signed between IRRI, Philippine and CAU, Imphal for implementation of the project entitled " Direct Seeded Rice Consortium (DSRC) in19th November 2020 for development of collaborative Research project, exchange of academic staff for teaching & research activities, exchange of students to undertake study/participate in research program.

IRRI

AGREEMENT NO. 1 to the
LETTER OF AGREEMENT
between
International Rice Research Institute (IRRI)
and
Central Agricultural University (CAU)

I. Project description

Project Title:	Direct Seeded Rice Consortium (DSRC)
FULL ID:	G-2017-174
Agreement no:	A-2017-174
Name and address of partner institution:	Central Agricultural University (CAU)
Name of CAU Scientist/Project Leader and contact details:	Dr. Ranjan Bhattacharya Senior Scientist (Agronomy), Soil Science and Coordinator of Direct Seeded Rice Consortium Sustainable Impact Platform International Rice Research Institute (IRRI) Email: r.bhattacharya@irri.org Dr. Ramkrushna Gogoi Assistant Professor (Agronomy), Soil Science and Agronomy (SSA) Senior Scientist (Agronomy), Sustainable Impact Platform ICAR-North East Regional Centre (NERC) Umiam, Ri-Bhoi, Meghalaya, India Email: ramkrushna.gogoi@icar.gov.in
Corresponding MANR scientist/position responsible for DSRC:	Dr. U.K. Behera Dean, College of Agriculture, Pusa College of Post Graduate Studies (Campus) Central Agricultural University Umiam, Meghalaya-793103, India Tel: +91-9402130091, 9485311503 Email: ukbehera@gmail.com dean.agriculture@cau.ac.in
Project Activities:	1. Site selection and characterization for methane and GHG emission monitoring (Jan-Dec)

Inter-Institutional Memorandum of Understanding

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1	2. Developing Integrated Asset Management (IAM) plans for [illegible]
Effectiveness date:	01 December 2020
New End date:	31 December 2021
Additional budget:	USD 3,000

II. Reporting Schedule

	Due date	Report type	Time of Report
1	30 June 2021	Technical	Narrative Progress Report
2	30 June 2021	Financial	Liquidation report of Fund Received
3	31 December 2021	Technical	Final Progress Report
4	31 December 2021	Financial	Final Liquidation Report

III. Payment Schedule

	Currency	Amount	Due Date
1	US Dollar	3,000	Upon receipt of the signed agreement

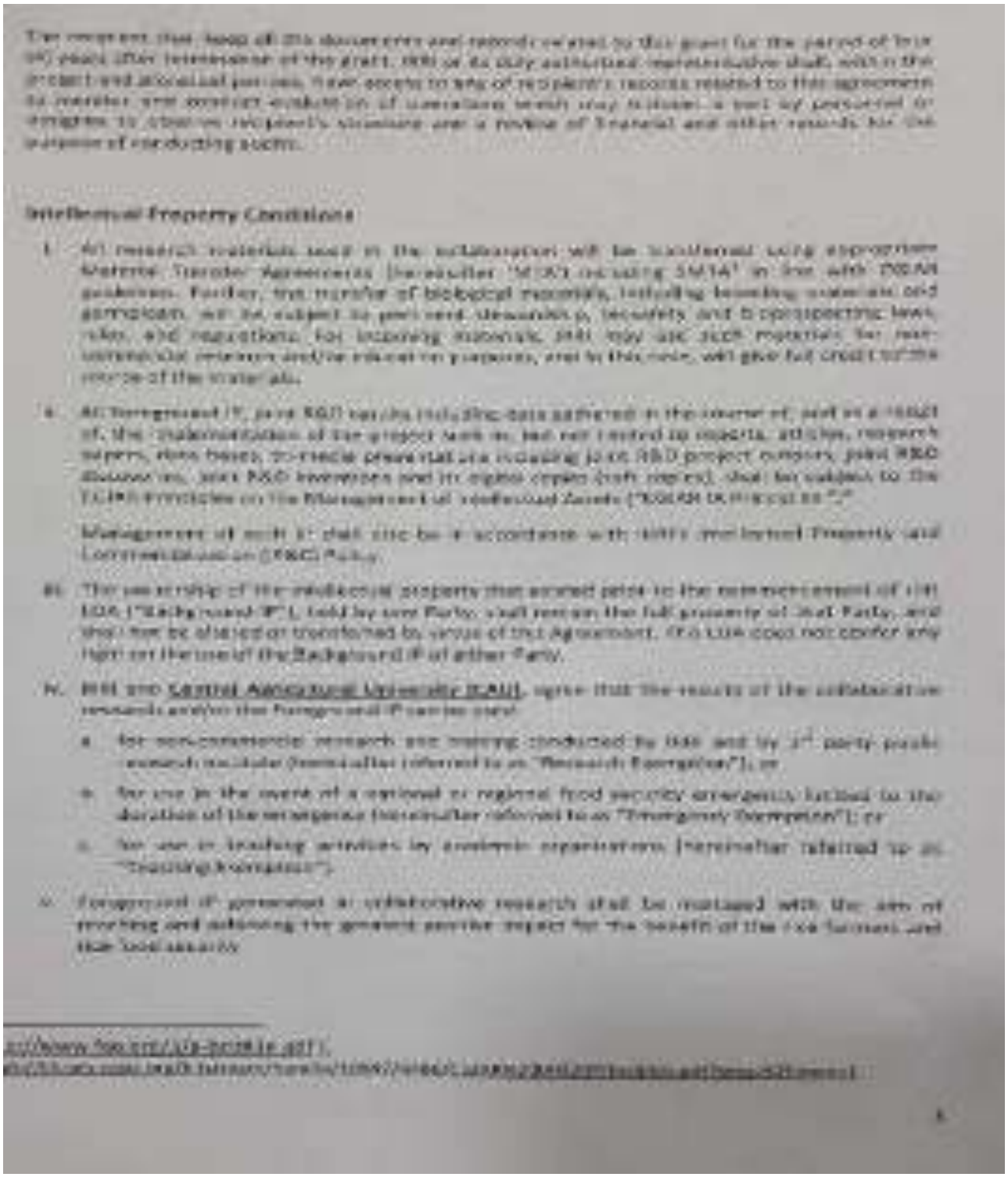
3.1 Funds shall be used exclusively for the purpose of implementing the project activity. Within thirty (30) days after completion of the activity, Central Agricultural Laboratory (CAL) shall return to PPD any unutilized funds, which must be reflected in the financial statements. Financial report must follow the template as in the attached Annex 1 duly signed by the person's authorized signatory for Finance. All financial reports must be submitted via email to the following email addresses: [illegible]

3.2 Final payment shall be undertaken upon receipt of the signed COR, subject to availability of funds. Subsequent releases, if any, will be subject also to availability of funds from the DBM Members. liquidation of at least 75% of the released funds, satisfactory delivery of agreed outputs/deliverables and satisfactory narrative and financial reports.

3.3 The partner institution shall not spend more than the amount of this agreement unless amended by an amendment.

IV. General conditions

4.1 Results of the collaborative research will be jointly published in the widely accessible journals to maximize impact. In each use of the names, logos or pictures of the parties, the parties will agree on suitable timeframe for publication.



The recipient shall keep all its documents and records related to this grant for the period of five (5) years after termination of the grant. IRRI or its duly authorized representative shall, within the project and allocated period, have access to any of recipient's records related to this agreement to monitor and oversee evaluation of operations which may include a visit by personnel or designee to observe recipient's operations and a review of financial and other records for the purpose of conducting such.

Intellectual Property Conditions

i. All research materials used in the collaboration will be transferred using appropriate Material Transfer Agreements (hereinafter "MTA") including SMTA[1] in line with ITPGRFA guidelines. Further, the transfer of biological materials, including breeding materials and germplasm, will be subject to genetic use restrictions, biosafety and biosecurity laws, rules, and regulations for receiving countries, and may use such materials for non-commercial research and/or educational purposes, and in this case, will give full credit to the source of the material.

ii. All foreground IP, pre-R&D results including data gathered in the course of, and as a result of, the implementation of the project such as, but not limited to reports, articles, research papers, data bases, technical presentations including all R&D project outputs, joint R&D discoveries, joint R&D inventions and its rights (both registrable) shall be subject to the [CAU] Principles on the Management of Intellectual Assets ("IP Principles").

Management of such IP shall also be in accordance with IRRI's Intellectual Property and Communications Policy.

iii. The ownership of the intellectual property that existed prior to the commencement of this MOA ("Background IP") held by one Party, shall remain the full property of that Party, and shall not be altered or transferred by virtue of this Agreement. This MOA does not confer any right on the use of the Background IP of either Party.

iv. IRRI and Central Agricultural University (CAU), agree that the results of the collaborative research and/or the Foreground IP can be used:

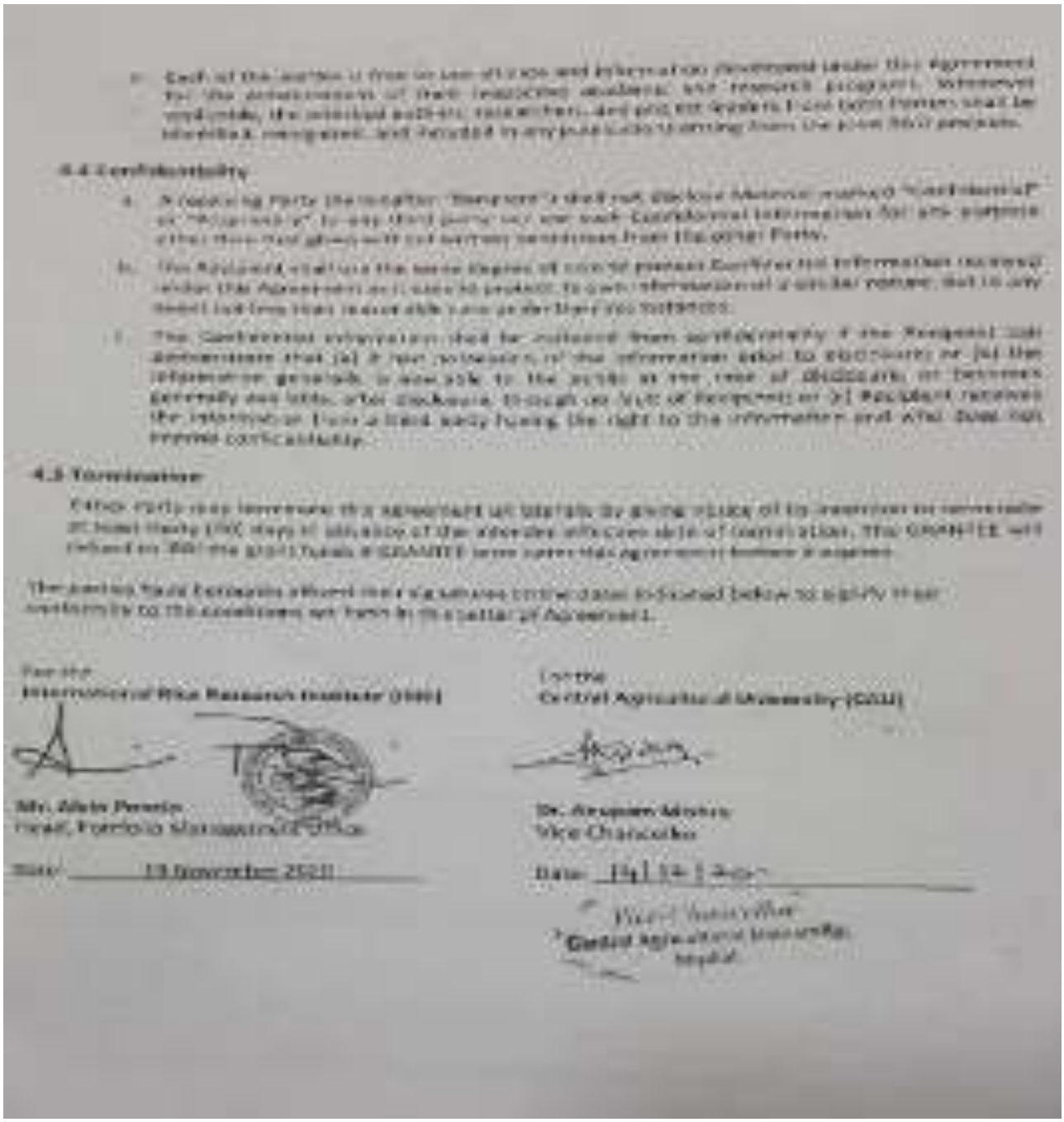
a. for non-commercial research and training conducted by IRRI and by 3rd party public research institutes (hereinafter referred to as "Research Exemption"); or

b. for use in the event of a national or regional food security emergency limited to the duration of the emergency (hereinafter referred to as "Emergency Exemption"); or

c. for use in breeding activities by academic organizations (hereinafter referred to as "Breeding Exemption").

v. Foreground IP generated in collaborative research shall be managed with the aim of protecting and advancing the genuine public aspect for the benefit of the rice farmers and rice consumers.

[1] http://www.fao.org/3/a-i0510e.pdf).



6.6.9.6. Fund Raising through CSR: How much fund the university has collected from corporate sector for on- farm research and extension and other related activities in last five years?

- The university has raised total of Rs. 2.24 Cr. in 2018-19 from Power Finance Corporation Ltd. for skill development program benefiting 390 unemployed youths of North East India.

6.6.9.7. Alumni Support: Does the University have the active alumni association. How much fund the Association has raised for the development of the University? What the other areas where the Association is supporting to the University?

- Each constituent college of the University has college level CAU Alumni Association. There is regular interaction programmes with well known alumni with the present students for boosting up their moral support.

6.6.10. Certificate (Application when SSR in submitted for Programmes, Colleges and Agricultural University). I, the Registrar of the Agricultural University **CENTRAL AGRICULTURAL UNIVERSITY, IMPHAL** hereby certify that the information contained in the sections 6.4, 6.5 and 6.6.1 to 6.6.9.7 are furnished as per the records available in the University.

Signature of Registrar with Date and Seal

ANNEXURE-A

THE CENTRAL AGRICULTURAL UNIVERSITY ACT, 1992
(No.40 of 1992)

An Act to provide for the establishment and incorporation of a University for the North Eastern region for the development of agriculture and for the furtherance of the advancement of learning and prosecution of research in agriculture and allied sciences in that region.

BE it enacted by Parliament in the Forty Third year of the Republic of India as follows :-

1. (1) This Act may becalled the Central Agricultural University Act,1992.
   (2) It shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint.
2. In this Act, and in all Statutes made hereunder, unless the context otherwise requires:-
   (a) "Academic Council" means the Academic Council of the University.
   (b) "Academic staff" means such categories of staff as are designated as academic staff by the Ordinance;
   (c) "Agriculture" means the basic and applied sciences of the soil and water management, crop production including production of all garden crops, control of plants, pests and diseases, horticulture including floriculture, animal husbandry including veterinary and dairy science,/fisheries, forestry, including farm forestry, home-science, agricultural engineering and technology, marketing and processing of agricultural and animal husbandry products, land use and management;
   (d) "Board" means the Board of Management of the University;
   (e) "Board of Studies" means the Board of Studies of the University;

Short title and commencement.

Definitions

(f) Chancellor" means the Chancellor of the University;

(g) "College" means a constituent college ofthe University whether located at the headquarters, campus orelsewhere;

(h) "Department" means a department of Studies of the University;

(i) "Employee" means any person appointed by the University and includes teachers and other staff of the University;

(j) "Extension education" means the educational activities concerned with the training of orchardists, farmers and other groups serving agriculture, horticulture, fisheries and improved practices related thereto and the various phases of scientific technology related to agriculture and agricultural production including post harvest technology andmarketing;

(k) "Faculty" means Faculty of the University,

(l) "North-Eastern region" means the North-Eastern region of India comprising the States of Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Sikkim and Tripura;

(m) "Ordinances" means the Ordinances of the University;

(n) "Regulations" means the Regulations made by any authority of the University;

(o) "Research Advisory Committee" means the Research Advisory Committee of the University;

(p) "Statutes" means the Statutes of the University;

(q) "Students" means a person enrolled in the University for undergoing a course of studies for obtaining a degree, diploma or other academic distinction duly instituted;

(r) "Teachers" means Professors, Associate Professors, Assistant Professors, Teaching Faculty Members and their equivalent appointed for imparting instruction or conducting research or extension education programmes or combination of these in the University, college or any institute maintained by the University
and designated as teachers by the Ordinances;

(s) "University" means the Central Agricultural

University established under this act;

(t) "Vice-Chancellor" means the Vice-Chancellor of the University;

(u) "Visitor" means the Visitor of the University;

3. (1) There shall be a University established by the name of the "Central Agricultural University". The University

(2) The headquarters of the University shall be at Imphal in the state of Manipur and it may also establish campuses at such other places within its jurisdiction as it may deem fit.

(3) The first Chancellor and the first Vice-Chancellor and the first members of the Board, the Academic Council and all persons who may hereafter become such officers or members so long as they continue to hold such office or membership are hereby constituted a body corporated by the name of the Central Agricultural University.

(4) The University shall have perpetual succession and a common seal and shall sue and be sued by the said name.

4. The objects of the University shall be: Objects of the University

(a) to impart education in different branches of agricultural and allied sciences as it may deem fit;

(b) to further the advancement of learning and prosecution of research in agriculture and allied sciences.

(c) to undertake programmes of extension education in the States under the jurisdiction; and

(d) to undertake such other activities as it may, from time to time, determine.

5. The University shall have the following powers, namely:- Powers of the University

(i) to make provision for instructions in agricultural and allied sciences;

(ii) to make provision for conduct of research in agricultural and allied branches of learning;

(iii) to make provision for dissemination of the findings of research and technical information through extension programmes;

(iv) to grant, subject to such conditions as it may determine, diplomas or certificates to, and confer degrees or other academic distinctions on the basis of examination, evaluation or any other method of testing, on persons, and to withdraw any such diplomas, certificates degrees or other academic distinction for good and sufficient cause;

(v) to confer honorary degrees or other distinctions in the manner prescribed by the Statutes;

(vi) to provide lectures and instructions for field workers, village leaders and other persons not enrolled as regular students of the University and to grant certificates to them as may be prescribed by the
Statutes;

(vii) to co-operate or collaborate or associate with any other University or authority or institution of higher learning in such manner and for such purpose as the University may determine.

(viii) to establish and maintain colleges relating to agriculture, fisheries, dairying, veterinary medicine and animal science, home-science, agricultural engineering, forestry and allied sciences;

(ix) to establish and maintain such campuses, special centres, specialized laboratories, libraries, museums or other units for research and institution as are, in its opinion, necessary for the furtherance of it sobjects;

(x) to create teaching, research and extension education posts and to make appointments there to;

(xi) to create administrative, ministerial and other posts and to make appointments there to;

(xii) to institute and award fellowships, scholarships, studentships, medals and prizes;

(xiii) to determine standards of admission to the University which may include examination, evaluation or any

other method of testing;

(xiv) to provide and maintain residential accommodation for students and employees;

(xv) to supervise the residences of the students of the University and to make arrangements for promoting their health and general welfare;

(xvi) to lay down conditions of service of all categories of employees, including their code of conduct;

(xvii) to regulate and enforce discipline among the students and the employees and to take such disciplinary measures in this regards as it may deem necessary;

(xviii) to fix, demand and receive such fees and other charges as may be prescribed by the Statutes,

(xix) to borrow, with the approval of the Central Government on the security of its property, money for the purpose of the University;

(xx) to receive benefactions, donations and gifts and to acquire, hold, manage and dispose of any property, movable or immovable including trust and endowment properties, for its purposes,

(xxi) to do all such other acts and things as may be necessary, incidental or conducive to the statement of all or any of its objects.

Jurisdiction 6. (1) The jurisdiction and responsibility of the University with respect to teaching, research and programmes of extension education at the University level, in the field of agriculture shall; extend to the States of Arunachal Pradesh, Manipur, Meghalaya, Mizoram , Sikkim and Tripura.

(2) All colleges, research and experimental stations or other institutions coming under the jurisdiction and authority of the University shall be its constituent units under the full management and control of its officers and authorities and no such units shall be recognized as affiliated units.

(3) The University may assume responsibility for the training of field extension workers and others and may develop such training centres as may be required in

various parts of the States under its jurisdiction.

7. The University shall be open to persons of either sex and of whatever caste, creed, race or class, and it shall not be lawful for the University to adopt or impose on any person, any test whatsoever of religious belief or profession in order to entitle him to be appointed as a teacher of the University or to hold any other office therein or be admitted as a student in the University or to graduate thereat or to enjoy for exercise any privilege thereof; University opens to all classes, castes and creed.

Provided that nothing in this section shall be deemed to prevent the University from making special provisions for the employment or admission of women, handicapped or of persons belonging to the weaker sections of the society and, in particular, of the Scheduled Castes, the Scheduled Tribes and other backward classes.

8. (1) The President of India shall be the Visitor of the University. The Visitor.

(2) Subject to the provisions of sub-sections (3) and (4), the Visitor shall have the right to cause an inspection to be made, by such person or persons as he may direct, of the University, its buildings, laboratories, libraries, museums, workshops and equipment, and of any institution or college and also of the examination, instruction and other work conducted or done by the University, and to cause an inquiry to be made in like manner in respect of any matter connected with the administration and finances of the University.

(3) The Visitor shall, in every case, give notice to the University of his intention to cause, an inspection or inquiry to be made and the University shall, on receipt of such notice, have the right to make, within thirty days from the date of receipt of the notice or such other period as the Visitor may determine, such representations to him as it may consider necessary.

(4) After considering the representations, if any, made by the University, the Visitor may cause to be made such

inspection or inquiry as is referred to in sub-section(2).

(5) Where an inspection or inquiry has been caused to be made by the Visitor, the University shall be entitled to appoint a representative who shall have the right to appear in person and to be heard on such inspection or inquiry.

(6) The Visitor may address the Vice-Chancellor with reference to the results of such inspection or inquiry together with such views and advice with regard to the action to be taken thereon as the Visitor may be pleased to offer and on receipt of the address made by the Visitor, the Vice-Chancellor shall communicate forthwith to the Board the results of the inspection or inquiry and the views of the Visitors and the advice tendered by him upon the action to be taken thereon.

(7) The Board shall communicate through the Vice-Chancellor to the Visitor such action, if any, as it proposes to take or has been taken by it upon the results of such inspection or inquiry.

(8) Where the Board does not, within reasonable time, take action to the satisfaction of the Visitor, the Visitor may, after considering any explanation furnished or representation made by the Board, issue such directions as he/she may think fit and the Board shall be bound to comply with such directions.

(9) Without prejudice to the foregoing provisions of this sections, the Visitor may, by an order in writing annul any proceeding of the University which is not in conformity with this Act, the Statutes or the Ordinances. Provided that before making any such order, he shall call upon the University to show cause why such an order should not be made and, if any cause is shown within a reasonable time, he/she shall consider the same.

(10) The Visitor shall have such other powers as may be specified by the Statutes.

Officers of the University.

9. The following shall be the officers of the University, namely:-

(1) The Chancellor;

(2) The Vice-Chancellor;

(3) Deans;

(4) Directors;

(5) The Registrar;

(6) The Comptroller; and

(7) such other officers as may be prescribed by the Statutes.

The Chancellor.

10. (1) The Chancellor shall be appointed by the Visitor in such manner as may be prescribed by the Statutes.

(2) The Chancellor shall, by virtue of his office, be the Head of the University.

(3) The Chancellor shall, if present, preside at the convocations of the University held for conferring degrees.

The Vice-Chancellor.

11. (1) The Vice-Chancellor shall be appointed by the Visitor in such manner as may be prescribed by the Statutes.

(2) The Vice-Chancellor shall be the principal executive and academic officer of the University and shall exercise general supervision and control over the affairs of the University and give effect to the decisions of all the authorities of the University.

(3) The Vice-Chancellor may, if he is of opinion that immediate action is necessary on any matter, exercise any power conferred on any authority of the University by or under this Act and shall report to such authority the action taken by him on such matter;

Provided that if the authority concerned is of opinion that such action ought to have been taken, it may refer the matter to the Visitor whose decision thereon shall be final;

Provided further that any person in the service of the University who is aggrieved by the action taken by the Vice-Chancellor under this sub-section shall have the right to appeal against such action to the Board within three months from the date on which decision on such action is communicated to him and there upon the Board may confirm, modify or reverse the action taken by the Vice-Chancellor.

(4) The Vice-Chancellor, if he is of opinion that any decision of any

authority of the University

ty is beyond the powers of the authority conferred by the provisions of this act, the Statutes or the Ordinances or that any decision taken is not in the interest of the University, may ask the authority concerned to review its decision within sixty days of such decision and if the authority refuses to review the decision either in whole or in part or no decision is taken by it within the said period of sixty days, the matter shall be referred to the visitor whose decision thereon shall be final.

Deans and Directors.

(5) The Vice-Chancellor shall exercise such other powers and perform such other duties as may be prescribed by the Statutes or the Ordinances.

12. Every Dean and every Director shall be appointed in such manner and shall exercise such powers and perform such duties as may be prescribed by Statutes.

13. (1) The Registrar shall be appointed in such manner as may be prescribed by the Statutes.

The Registrar.

(2) The Registrar shall have the power to enter into agreements, sign documents and authenticate records on behalf of the University and shall exercise such powers and perform such duties as may be prescribed by the Statutes.

14. The Comptroller shall be appointed in such manner and shall exercise such powers and perform such duties as may be prescribed by the Statutes.

The Comptroller.

15. The manner of appointment and powers and duties of the other officers of the University shall be prescribed by the Statutes.

Other Officers.

Authorities of the University.

16. The following shall be the authority of the University, namely

(1) The Board;

(2) the Academic Council;

(3) the Finance Committee;

(4) the Research Council;

(5) the Extension Education Advisory Committee;

(6) the Board of Studies; and

(7) such other authorities as may be prescribed by the Statutes.

The Board.

17. (1) The Board shall be the principal executive body of the University.

(2) The constitution of the Board, the term of office of its members and its powers and functions shall be prescribed by the Statutes.

The Academic Council.

18. (1) The Academic Council shall be the principal academic body of the University and shall, subject to the provisions of this Act, the Statutes and Ordinances, have the control and general regulation of, and be responsible for, the maintenance of standards of learning, education, instruction, evaluation and examination within the University and shall exercise such other powers and perform such other functions as may be conferred or imposed upon it by the Statutes.

(2) The constitution of the Academic Council and the term of office of its members shall be prescribed by the Statutes.

The Finance Committee.

19. The constitution, powers and functions of the Finance Committee shall be prescribed by the Statutes.

The Research Council

20. The constitution, powers and functions of the Research Council shall be prescribed by theStatutes.

The Extension Education Council

21. The constitution, powers and functions of the Extension Education Council shall be prescribed by the Statutes.

The Board of Studies.

22. The constitution, powers and functions of the Board of Studies shall be prescribed by the Statutes.

Faculties

23. The University shall have such Faculties as may be prescribed by the Statutes.

Other authorities.

24. The constitution, powers and functions of other authorities of the University referred to in clause (7) of Section 16 shall be such as may be prescribed by the Statutes.

Power to make Statutes.

25. Subject to the provisions of this Act, the Statutes may provide for all or any of the following matters, namely:-

(a) the constitution, powers and functions of the authorities of the University, as may be constituted from time to time;

(b) the appointment and continuance in office of the members of the said authorities, the filling up of vacancies of members, and all other matters relating to those authorities for which it may be necessary or desirable to provide;

(c) the appointment, powers and duties of the officers of the University and their emoluments;

(d) the appointment of teachers, academic staff and other employees of the University and their emoluments;

(e) the appointment of teachers and academic staff working in any other University or organisation for a specific periods for undertaking a joint project;

(f) the conditions of service of employees including provision for pension, insurance and provident fund, the manner of termination of service and disciplinary action.

(g) the principles governing the seniority of service of employees of the University;

(h) the procedure for arbitration in cases of dispute between employees or students and the University;

(i) the procedure for appeal to the Board by any employee or student against the action of any officer or authority of the University;

(j) the establishment and abolition of Departments, Centres, colleges andinstitutions;

(k) the conferment of honorarydegrees;

(l) the withdrawal of degrees, diplomas, certificates and other academicdistinctions;

(m) the institution of fellowships, scholarships, studentships, medals andprizes;

(n) the delegation of powers vested in the authorities or officers of the University;

(o) the maintenance of discipline among the employees andstudents;

(p) all other matters which by this Act are to be, or may be, prescribed by theStatutes;

26. (1) The first Statutes are those set out in theSchedule.

Statutes how to be made.

(2) The Board may from time to time make Statutes or may amend or repeal the Statutes referred to in sub-section(1);

Provided that the Board shall not make amend or repeal any Statute affecting the status, powers or constitution of any authority of the University until such authority has been given an opportunity of expressing an opinion in writing on the proposed changes and any opinion so expressed shall be considered by the Board.

(3) Every Statute or any amendment or repeal of a Statute shall require the assent of the Visitor who may assent thereto or withhold assent there from or remit it to the Board for consideration.

(4) A Statute or a Statute amending or repealing an existing Statute shall have no validity unless it has been assented to by the Visitor.

(5) Notwithstanding anything contained in the foregoing sub-sections, the Visitor may amend or repeal the Statutes referred to in sub-section (1) during the period of three years immediately after the commencement of this Act.

(6) Notwithstanding anything contained in the foregoing sub-sections, the Visitor may direct the University to make provisions in the Statutes in respect of any matter specified by him and if the Board is unable to implement such direction within sixty days of its receipt, the Visitor may, after considering the reasons, if any, communicated by the Board for its inability to comply with such direction, make or amend the Statutes suitably.

Power to make Ordinances.

27. (1) Subject to the provisions of this Act and statutes, the Ordinances may provide for all or any of the following matters, namely:-

(a) the admission of students to the University and their enrolment as such;

(b) the courses of study to be laid down for all degrees, diplomas and certificates of the University;

(c) the medium of instruction and examination;

(d) the award of degrees, diplomas, certificates and other academic distinctions, the qualifications for the same and the means to be taken relating to the granting and obtaining of the same;

(e) the fees to be charged for courses of study in the University and for admission to the examinations, degrees, diplomas and certificates of the University.

(f) the conditions for award of fellowships, scholarships, studentships, medals and prizes;

(g) the conduct of examinations, including the term of office and manner of appointment and the duties of examining bodies, examiners and moderators;

(h) the conditions of residence of the students;

(i) the special arrangements, if any, which may be made for the residence, discipline and teaching of women students and the prescribing of special courses of studies for them;

(j) the appointment and emoluments of employees other than those for whom provision has been made in the Statutes;

(k) the establishment of special centres, specialized laboratories and other committees;

(l) the manner of co-operation and collaboration with other Universities and authorities including learned bodies or associations;

(m) the creation, composition and functions of any other body which is considered necessary for improving the academic life of the University;

(n) such other terms and conditions of service of teachers and other academic staff as are not prescribed by the Statutes;

(o) the management of colleges and institutions established by the University;

(p) the setting up of a machinery for redressal of grievances of employees; and

(q) all other matters which by this Act or the Statutes may be provided for by the Ordinances.

(2) The first Ordinances shall be made by the Vice- Chancellor with the previous approval of the Central Government and the Ordinances so made may be amended or repealed at any time by the Board in the manner prescribed by the Statutes.

Regulations.

28. The authorities of the University may make Regulations, consistent with this Act, the Statutes and the Ordinances for the conduct of their own business and that of the committees appointed by them and not provided for by this Act, the Statutes or the Ordinances in the manner prescribed by the Statutes.

Annual report.

29. (1) The annual report of the University shall be prepared under the direction of the Board, which shall include, among other matters, the steps taken by the University towards the fulfilment of its objects and shall be submitted to the Board on or after such date as may be prescribed by the Statutes and the Board shall consider the report in its annual meeting.

(2) The Board shall submit the annual report to the Visitor along with its comments, if any.

(3) A copy of the annual report as prepared under the sub-section(1), shall also be submitted to the Central Government, which shall, as soon as may be, cause the same to be laid before both Houses of Parliament.

Annual accounts

30. (1) The annual accounts of the University shall be prepared under the directions of the Board and shall, once at least every year and at intervals of not more than fifteen months, be audited by the Comptroller and Auditor-General of India or by such persons as he may authorize in this behalf.

(2) A copy of the annual accounts together with the audit report thereon shall be submitted to the Board and the Visitor along with the observations of the Board.

(3) Any observations made by the Visitor on the annual accounts shall be brought to the notice of the Board and observations of the Board, if any, shall be submitted to the Visitor.

(4) A copy of the annual accounts together with the audit report as submitted to the Visitor, shall also be submitted to the central Government, which shall, as soon as may be, cause the same to be laid before both Houses of Parliament.

(5) The audited annual accounts after having been laid before both Houses of Parliament shall be published in the Official Gazette.

31. (1) Every employee of the University shall be appointed under a written contract, which shall be lodged with the University and a copy of which shall be furnished to the employee concerned. Conditions of service of employees

(2) Any dispute arising out of the contract between the University and any employee shall, at the request of the employee, be referred to a Tribunal of Arbitration consisting of one member appointed by the Board, one member nominated by the employee concerned and an umpire appointed by the Visitor.

(3) The decision of the Tribunal shall be final, and no suit shall lie in any civil court in respect of the matters decided by the Tribunal.

Every request made by the employee under sub-section (2) shall be deemed to be a submission to arbitration upon the terms of this section within the meaning of the Arbitration Act, 1940. 2 of 1940

(4) The procedure for regulating the work of the Tribunal shall be prescribed by the Statutes.

Procedure of appeal and arbitration in disciplinary case against students.

32. (1) Any student or candidate for an examination whose name has been removed from the rolls of the University by the orders or resolution of the Vice- Chancellor, Discipline Committee or Examination Committee, as the case may be, and who has been debarred from appearing at the examinations of the University for more than one year, may, within ten days of the date of receipt of such orders or copy of such resolution by him appeal to the Board and the Board may confirm, modify or reverse the decision of the Vice-Chancellor or the Committee, as the case maybe.

(2) Any dispute arising out of any disciplinary action taken by the University against a student shall, at the request of such student, be referred to a Tribunal of Arbitration and the provisions of sub-section (2),(3),
(4) and(5) of Section 31 shall, as far as may be, apply to a reference made under this sub-section.

Right to appeal.

33. Every employee or student of the University or of a college or institution maintained by the University shall, notwithstanding anything contained in this Act, have a right to appeal, within such time as may be prescribed by the Statutes, to the Board against the decision of any officer or authority of the University or any college or an institution, as the case may be, and thereupon the Board may confirm, modify or reverse the decision appealed against.

Provident and pension funds.

34. (1) The University shall constitute for the benefit of its employees such provident or pension fund or provided such insurance schemes as it may deem fit in such manner and subject to such conditions as may be prescribed by the Statutes.

(2) Where such provident fund or pension fund has been so constituted, the Central Government may declare that the provision of the Provident, funds, Act. 1925, shall apply to such fund, as if it were a Government provident fund. 19 of 1955.

Disputes as to constitution of University authorities

35. If any question arises as to whether any person has been duly appointed as, or is entitled to be, a member of any authority of the University; the matter shall be referred to the Visitor whose decision thereon shall be final.

Constitution of Committees.

36. Where any authority of the University is given power by this Act or the Statutes to appoint Committees; such Committees shall, save as otherwise provided, consist of the members of the authority concerned and of such person, if any, as the authority in each case may think fit.

Filling of casual vacancies.

37. All casual vacancies among the members (other than EX-OFFICIO members) of any authority of the University shall be filled, as soon as may be, by the person who appointed or co-opted the member whose place has become vacant and person appointed or co- opted to a casual vacancy shall be a member of such authority or body for the residue of the term, for which the person whose place he fills would have been a member.

Proceedings of the University authorities not invalidated by vacancy.

38. No act or proceedings of any authority of the University shall be invalid merely by reason of the existence of a vacancy or vacancies among its members.

Protection of action taken in good faith.

39. No suit, prosecution or other legal proceeding shall lie against the Board, any authority or officer or other employee of the University for anything which is in good faith done or intended to be done in pursuance of any of the provisions of this Act, the Statutes or the Ordinances.

40. A copy of any receipt, application, notice, order, proceeding, resolution of any authority or Committee of the University, or other documents in possession of the University, or any entry in any register duly maintained by the University, if verified by the Registrar, shall be received as PRIMA FACIE evidence of such receipt, application, notice, order proceeding, resolution or documents or the existence of entry in the register and shall be admitted as evidence of the matters and transactions therein where the original thereof would, if produced, have been admissible in evidence, notwithstanding anything contained in the Indian Evidence, Act, 1872 or in any other law for the time being in force.

Mode of proof of University records.

41. (1) If any difficulty arises in giving effect to the provision of this Act, the Central Government may, by order published in the Official Gazette, make such provisions, not inconsistent with the provisions of this Act, as appear to it to be necessary or expedient for removing the difficulties.

Power to remove difficulties.

Provided that no such order shall be made under this section after the expiry of three years from the commencement of this Act.

(2) Every order made under this section shall be laid, as soon as may be after it is made, before each House of Parliament.

42. Notwithstanding anything contained in this Act, and the Statutes,-

Transitional provisions.

(a) the first Chancellor and the first Vice-Chancellor shall be appointed by the Visitor and shall hold office for a term of five years;

(b) the first Registrar and the first Comptroller shall be appointed by the Visitor and each of the said officers shall hold office for a term of three years;

(c) the first members of the Board shall be nominated by the Visitor and shall hold office for a term of three years;

the first members of the Academic Council shall be nominated by the Visitor and shall hold office for a term of three years;

Provided that if any vacancy occurs in the above offices or authorities, the same shall be filled by appointment or nomination, as the case may be, by the Visitor, and the person so appointed or nominated shall hold office for so long as the officer or member in whose place he is appointed or nominated would have held office, if such vacancy had not occurred.

Statutes, Ordinances and Regulations to be publishedint he Official Gazette and to be laid before Parliament.

43. (1) Every Statute, Ordinance or Regulation made under this Act shall be published in the Official Gazette.

(2) Every Statute, Ordinance or Regulation made under this Act shall be laid, as soon as may be after it is made, before each House of Parliament, while it is in session for a total period of thirty days which may be comprised in one session or in two or more successive sessions, and if, before the expiry of the session immediately following the session or the successive sessions aforesaid, both Houses agree in making any modification in the Statute, Ordinance or Regulation or both Houses agree that the Statute, Ordinance or Regulation should not be made, the Statute, Ordinance or Regulation shall thereafter have effect only in such modified form or be of on effect, as the case may be so however, that any such modification or annulment shall be without prejudice to the validity of anything previously done under that Statute, Ordinance or Regulation.

(3) The power to make Statutes, Ordinances or Regulations shall include the power to give retrospective effect from a date not earlier than the date of commencement of this Act, to the Statutes, Ordinances or Regulations or any of them but no retrospective effect shall be given to any Statute, Ordinance or Regulation so as to prejudicially affect the interests of any person to whom such statutes, Ordinances or Regulations may be applicable.

THE SCHEDULE
(See Section 26)

THE STATUTES OF THE UNIVERSITY

The Chancellor

1 (1) The Chancellor shall be appointed by the Visitor from a panel of not less than three persons recommended by the Board from amongst persons of eminence in education in general and agricultural sciences inparticular;

Provided that if the Visitor does not approve of any of the persons so recommended he may call for fresh recommendations from the Board.

(2) The Chancellor shall hold office for a term of five years and shall not be eligible forreappointment;

Provided that notwithstanding the expiry of his term of office, the Chancellor shall continue to hold office until his successor enters upon his office.

The Vice-Chancellor

2 (1) The Vice-Chancellor shall be appointed by the Visitor from a panel of not less than three persons who shall be recommended by a Committee as constituted under clause(2):

(2)(1)The Committee referred to in clause 2(1) shall consist of the following:

(i) Secretary, Department of Agricultural Research and Education, Government of India -Chairman

(ii) Secretary to North-Eastern Council set up under section 3 oftheNorth-Eastern Council Act 1971 -Member.

(iii) The nominee of the Visitor as Member, who shall also be theConvenor.

(3) The Vice-Chancellor shall be a whole time salaried officer of the University.

1. Purple Colour: Original Act and Statute as per Gazette Notification vide RESISTERED NO. Dl/-33004/92 dated December 28,1992.
2. Blue Colour: First Amendment made as per Gazette notification vide REGISTERED NO. DL(N)-04/0007/2003-05 dated July 15-July21,2006.
3. Green Colour : Second Amendment made as per Gazette notification vide REGISTERED NO. DL(N)-04/0007/2003-05 dated March 22-28 ,2008.
4. Red Colour: Third Amendment made as per Gazette notification vide REGISTERED NO. DL(N)-04/0007/2003-05 dated January 10-January 16, 2009.

(4) The Vice-Chancellor shall hold office for a term of five years from the date on which he enters upon his office, or until he attains the age of seventy years, whichever is earlier, and he shall be eligible for reappointment for a further term of five years, or until he attains the age of seventy years whichever isearlier;

Provided that notwithstanding the expiry of the said period of five years, he shall continue in office for a period not exceeding one year or until his successor is appointed and enters upon hisoffice.

Para 3 : Deleted.

(5) The emoluments and other conditions of service of the Vice-Chancellor shall be asfollows:-

(i) The Vice-Chancellor shall be paid a monthly salary and allowances other than the house rent allowance, at the rate fixed by the Central Government from time to time and he shall be entitled, without payment of rent, to use a furnished residence throughout his term of office and no charge shall fall on the Vice-Chancellor in respect of the maintenance of suchresidence.

(ii) The Vice-Chancellor shall be entitled to such terminal benefits and allowances asmaybefixedbytheBoardwiththeapprovalofthe Visitorfromtimetotime;

Provided that where an employee of the University or a College or an Institution maintained by it or of any other University or any institution maintained by or affiliated to such other University, is appointed as the Vice-Chancellor, he may be allowed to contribute to any provident fund of which he is a member and the University shall contribute to the account of such person in that provident fund at the same rate at which the person had been contributing immediately before his appointment as theVice-Chancellor;

Provided further that where such employee had been a member of any pension scheme, the University shall make the necessary contribution to such scheme.

(iii) The Vice-Chancellor shall be entitled to traveling and other allowances as per the rate fixed from time to time by the Government of India for the officers equivalent to the rank of Secretary to Government of India. Further, he shall be entitled to transfer traveling allowances and other allowances as admissible to officers of the rank of Secretary to Government of India for joining and after relinquishing the post.

(iv) The Vice-Chancellor shall be entitled to leave on full pay at the rate of thirty days in a calendar year and the leave shall be credited to his account in advance in two half yearly instalments of fifteen days each on the first day of January and July every year;

Provided that if the Vice-Chancellor assumes or relinquishes charge of the office of the Vice-Chancellor during the currency of a half year, the leave shall be credited proportionately at the rate of two and a half days for each completed month of service.

v) In addition to the leave referred to in sub-clause (iv), the Vice-Chancellor shall also be entitled to half pay leave at the rate of twenty days for each completed year of service. This half pay leave may also be availed of as commuted leave on full pay on medical certificate. When commuted leave is available, twice the amount of half pay leave shall be debited against half pay leave due.

(vi) The Vice-Chancellor shall be entitled to Leave Travel Concession and Home Travel Concession as per rules of Government of India.

(vii) The Vice-Chancellor shall be entitled to the benefit of leave encashment at the time of laying down the office as per rules of Government of India..

(6) If the office of the Vice-Chancellor becomes vacant due to death, resignation or otherwise, or if he is unable to perform his duties due to ill health or any other cause, the senior-most Dean or Director, as the case may be, shall perform the duties of the Vice-Chancellor until a new Vice-Chancellor assumes office or until the Vice- Chancellor attends to the duties of his office, as the case maybe.

Power and duties of the Vice-Chancellor:

3 (1) The Vice-Chancellor shall be ex-officio Chairman of the Board, the Academic Council, the Finance Committee, the Research Council and the Extension Education Council and shall in the absence of the Chancellor preside over the Convocation held for conferring degrees.

(2) The Vice-Chancellor shall be entitled to be present at, and address, any meeting of any authority of the University, but shall not be entitled to vote there at unless he is a member of such authority.

(3) It shall be the duty of the Vice-Chancellor to see that this Act, the Statutes, the Ordinances and the Regulations are duly observed, and he shall have all the powers necessary to ensure such observance.

(4) The Vice-Chancellor shall exercise control over the affairs of the University and shall give effect to the decisions of all the authorities of the University.

(5) The Vice-Chancellor shall have all the powers necessary for the proper maintenance of discipline in the University and he may delegates any such powers to such person or persons as he may deem fit.

(6) The Vice-Chancellor shall have the power to convene or cause to be convened the meetings of the Board, the Academic Council, the Research Council, the Extension Education Council and the Finance Committee.

Dean of Colleges/Faculties

4 (1) Each Faculty shall have a Dean who shall also be the head of the College concerned. However, if any Faculty has more than one college, the Vice-Chancellor may nominate one of the Deans as Dean of the Faculty

The Dean of the college shall be appointed by the Board on the recommendation of the Selection Committee constituted for the purpose as per Clause 18 of the Statutes and he shall be a whole time salaried officer of the University.

The Dean shall be entitled to rent free and unfurnished residential accommodation.

Provided that a Dean on attaining the age of sixty five years shall cease to hold Office as such.

The Dean shall hold the office for a term of five years and shall be eligible for re-appointment, provided that a Dean on attaining the age of sixty five years shall cease to hold office.

(2) When the office of the Dean is vacant or when the Dean is, by reason of illness, absence or any other cause, unable to perform duties of his office, the duties of the office shall be performed by such persons as the Vice-Chancellor may appoint for the purpose.

(3) The Dean shall be responsible to the Vice-Chancellor for the conduct and maintenance of the standards of teaching in the college/faculty and shall perform such other functions as may be prescribed by the Ordinance.

(4) The Dean shall be the ex-officio Chairman of the Board of Studies of the Faculty, a member of the Academic Council, the Research Council and the Extension Education Council of the University.

Director Instruction

5 (1) The Director Instruction shall be appointed by the Board on the recommendation of a Selection Committee constituted for the purpose and he shall be a whole time salaried officer of the University.

The Director of Instruction shall be entitled to rent free and unfurnished residential accommodation.

(2) The Director Instruction shall hold office for a term of five years and shall be eligible for reappointment;

Provided that Director of Instruction on attaining the age of sixty five years shall cease to hold office as such.

(3) The Director Instruction shall be responsible for planning, co-ordination and supervision for all educational programmes in the various faculties of the University.

The Director of Research

6 (1) The Director of Research shall be appointed by the Board on the recommendation of a Selection Committee constituted for the purpose and he shall be a whole time salaried officer of the University.

The Director of Research shall be entitled to rent free and unfurnished accommodation

(2) The Director of Research shall hold office for a term of five years and shall be eligible for reappointment;

Provided that the Director of Research on attaining the age of sixty five years shall cease to hold office as such.

(3) The Director of Research shall be responsible for supervision and co-ordination of all research programmes of the University and shall be responsible to the Vice-Chancellor for performance of his duties.

(4) The Director of Research shall be ex-officio Member-Secretary of the Research Council of the University.

The Director of Extension Education

7 (1) The Director of Extension Education shall be appointed by the Board on the recommendation of a Selection Committee constituted for the purpose and he shall be a whole time salaried officer of the University.

The Director of Extension Education shall be entitled to rent free and unfurnished accommodation.

(2) The Director of Extension Education shall hold office for a term of five years and shall be eligible for reappointment;

Provided that the Director of Extension Education on attaining the age of sixty five years shall cease to hold office as such.

(3) The Director of Extension Education shall be responsible for supervision and co-ordination of all Extension Education Programmes in the University and shall be responsible to the Vice-Chancellor for performance of his duties.

(4) The Director of Extension Education shall be ex-officio Member-Secretary of the Extension Education Council of the University.

Registrar

8 (1) The Registrar shall be appointed by the Board on the recommendation of a duly constituted Selection Committee under Clause 18 of the Statutes and he shall be a whole time salaried officer of the University. He shall be responsible to the Vice- Chancellor for performance of his duties.

(2) He shall be appointed for a term of five years and shall be eligible for reappointment

He may also be appointed on deputation for a specified period not exceeding five year.

(3) The emoluments and other terms and conditions of service of the Registrar shall be such as may be prescribed by the Ordinances:

Provided that the Registrar shall retire on attaining the age of sixty years.

Para 3 : Deleted.

In case of a person appointed on deputation his tenure, emoluments and other terms of service shall be according to the terms of deputation.

(4) When the office of the Registrar is vacant or when the Registrar is, by reason of illness, absence, or any other cause, unable to perform the duties of his office, the duties of the office shall be performed by such person as the Vice-Chancellor may appoint for the purpose.

(5) (a) The Registrar shall have power to take disciplinary action against such of the employees excluding teachers, as may be specified in the order of the Board and to suspend them pending inquiry, to administer warnings to them or to impose on them the penalty of censure or the with-holding of increment;

Provided that no such penalty shall be imposed unless the person concerned has been given a reasonable opportunity of showing cause against the action proposed to be taken in regard to him.

(b) An appeal shall lie to the Vice-Chancellor against any order of the Registrar imposing any of the penalties specified in sub-clause(a).

(c) In a case where the inquiry discloses that a punishment beyond the power of the Registrar is called for, the Registrar shall, upon conclusion of the inquiry, make a report to the Vice-Chancellor along with his recommendations;

Provided that an appeal shall lie to the Board against an order of the Vice- Chancellor imposing any penalty.

(6) The Registrar shall be ex-officio Secretary of the Board and the Academic Council, but shall not be deemed to be a member of any of these authorities.

(7) It shall be the duty of the Registrar-

(a) To be the custodian of the records, the common seal and such other property of the University as the Board shall commit to his charge;

(b) To issue all notice convening meeting of the Board, the Academic Council and of any committees appointed by those authorities;

(c) To keep the minutes of all the meetings of the Board, the Academic Council and of any committees appointed by those authorities;

(d) To conduct the official correspondence of the Board and the Academic Council;

(e) To arrange for the examinations of the University in accordance with the manner prescribed by the Ordinances/notifications;

(f) To supply to the Visitors, copies of the agenda of the meetings of the authorities of the University as soon as they are issued; and the minutes of such meetings;

(g) To represent the University in suits or proceedings by or against the University, sign powers of attorney and verify pleadings or depute his representatives for the purpose; and

(h) To perform such other duties as may be specified in the Statutes, the Ordinances or the Regulations or as may be required, from time to time, by the Board or the Vice-Chancellor.

The Comptroller

9 (1) The Comptroller shall be appointed by the Board on the recommendation of a duly constituted Selection Committee under Clause 18 of the Statutes and he shall be a whole time salaried officer of the University.

The Comptroller may also be appointed on deputation for a specified period not exceeding five years.

(2) He shall be appointed for a term of five years and shall be eligible for reappointment.

(3) The emoluments and other terms and conditions of service of the Comptroller shall be such as may be prescribed by the Ordinance. In case of a person being appointed on deputation, his tenure, emoluments and other terms of service shall be according to the standard of deputation;

Provided that the Comptroller shall retire on attaining the age of sixty years.

Para 3: Deleted.

(4) When the office of the Comptroller is vacant or when the Comptroller is, by reason of illness, absence or any other cause, unable to perform the duties of his office, the duties of the office shall be performed by such person as the Vice-

Chancellor may appoint for the purpose.

(5) The Comptroller shall be ex-officio Secretary of the Finance Committee, but shall not be deemed to be a member of such Committee.

(6) The Comptroller shall–

a) Exercise general supervision over the funds of the University and shall advise it as regards its financial policy, and

b) Perform such other duties as may be specified in the Statutes, the Ordinances or as may be required, from time to time, by the Board or the Vice-Chancellor.

(7) Subject to the control of the Board, the Comptroller shall–

(a) hold and manage the property and investments of the University including trust endowed property.

(b) ensure that the limits fixed by the Board for recurring and non- recurring expenditure for a year are not exceeded and that all moneys are expended on the purpose for which they are granted or allotted.

(c) be responsible for the preparation of annual accounts and the budget of the University and for their presentation to the Board.

(d) keep a constant watch on the state of the cash and bank balances and on the state of investment.

(e) watch the progress of the collection of revenue and advice on the methods of collection employment.

(f) ensure that the registers of buildings, land, furniture and equipment are maintained up to date and that stock-checking is conducted, of equipment and other consumable materials in all offices, specialized Laboratories, Colleges and Institutions maintained by the University.

(g) bring to the notice of the Vice-Chancellor unauthorized expenditure and other financial irregularities and suggest disciplinary action against persons at fault; and

(h) call for from any office, Laboratory, College or Institution maintained by the University and information or returns that he may consider necessary for performance of his duties.

(8) Any receipt given by the Comptroller or the person or persons duly authorized in this behalf by the Board for any money playable to the University shall be sufficient discharge for payment of such money.

Head of Departments

10 (1) Each Department shall have a Head, appointed by Vice-Chancellor who shall be not below the rank of an Associate Professor and whose duties and functions and terms and conditions of appointment shall be prescribed by the Ordinances.

He shall be responsible to the Dean for teaching, to Director of Research for research to Director of Extension Education for extension education work. However, the Dean shall be the administrative controlling officer of the Heads of Departments in college concerned;

Provided that if there is more than one Professor in any Department, the Head of the Department shall be appointed by the Vice-Chancellor from amongst the Professors.

Provided that in the case of Department where there is only one Professor, the Vice-Chancellor shall have option, to appoint either the Professor or an Associate Professor as the Head of the Department,

Para 4 :Deleted.

Provided also that in a Department where there is no Professor or Associate Professor in a Department, the Dean of the College shall act as the Head of the Department or with the approval of the Vice-Chancellor assign the duty to any other Head of the Department of the College.

(2) It shall be open to a Professor or an Associate Professor to decline the offer of appointment as the Head of the Department.

(3) A Professor or an Associate Professor appointed as Head of the Department shall hold office as such for a period of three years and shall be eligible for re-appointment.

(4) A Head of a Department may resign his office at any time during his tenure of office.

Head of a Department shall perform such functions as may be prescribed by the Ordinances.

(5) The Head of Department shall retire at the age of sixty five years.

Librarians

11 (1) Every Librarian shall be appointed by the Board on the recommendation of the Selection Committee constituted for the purpose under clause 18 of the Statutes and he shall be a whole-time salaried officer of the University.

(2) Every Librarian shall exercise such powers and perform such duties as may be assigned to him by the Vice-Chancellor.

Constitution, powers and functions of the Board

12 (1) The Board shall consist of the following members namely:-

(i) The Vice-Chancellor, ex-officio Chairman.

(ii) Three Secretaries from amongst the Secretaries-in-charge of the Depts. of Agriculture/Forest/Animal Husbandry/Fishery/Horticulture of a State in the North Eastern Region to be nominated by the Visitor by rotation in the alphabetical order to represent that State;

Provided that there shall not be more than one Secretary from a State in the Board at a particular time.

(iii) Three eminent scientists to be nominated by the Visitor.

(iv) One distinguished person representing Agro-based industries or a manufacturer having a special knowledge in agricultural development to be nominated by the Visitor.

(v) The Deputy Director General (Education) representing the Indian Council of Agricultural Research.

(vi) The Secretary to the North Eastern Council set up under section 3 of the North Eastern Council Act, 1971 (84 of1971).

(vii) One Dean of College and one Director to be nominated by the Vice-Chancellor on rotational basis.

(viii) Two persons representing farmers in the States of the North-Eastern

Region to be nominated by the Vice-Chancellor by rotation alphabetical order of those states.

(ix) *deleted.*

(x) One woman social worker representing woman social organization from the North-Eastern Region to be nominated by the Vice-Chancellor.

(xi) An Advisor (Agriculture), Planning Commission.

(xii) A distinguished authority on forest, Social forest or environment management to be nominated by the Visitor.

(xiii) Two persons not below the rank of Joint Secretary representing respectively the Departments of Government of India dealing with the Agriculture and Animal Husbandry to be nominated by the concerned Secretary to the Government of India.

(xiv) A nominee of the Secretary representing the Department of Agricultural Research & Education, Government of India.

(xv) The Registrar of the University –Secretary.

(2) The term of office of the members of the Board, other than ex-officio members, shall be three years.

(3) The Board shall have the power of management and administration of the revenue and property of the University and the conduct of all administrative affairs of the University not otherwise provided for.

(4) Subject to the provisions of this Act, the Statutes and the Ordinances, the Boardshallinadditiontoallotherpowersinithavethefollowingpowers,namely:-

(i) To create, teaching and academic posts, to determine the number and emoluments of such posts and to define conditions of service of University staff, subject to the approval of the Indian Council of Agricultural Research;

(ii) To appoint such teachers and other academic staff, as may be necessary, and Deans of Colleges, Director and Heads of other institutions maintained by the University on the recommendation of the Selection Committee constituted for the purpose and to fill up temporary vacancies therein;

(iii) To create administrative, ministerial and other necessary posts and to make

appointments thereto in the manner prescribed by the Ordinances;

(iv) Deleted.

(v) To regulate and enforce discipline among employees in accordance with the Statutes and Ordinances;

(vi) To manage and regulate the finances, accounts, investments, property, business and all other administrative affairs of the University, and for that purpose to appoint such agents as it may thinkfit;

(vii) To fix limits on the total recurring and the total non-recurring expenditure for a year on the recommendation of the FinanceCommittee;

(viii) To invest any money belongings to the University, including any unapplied income, in such stocks, funds, shares or securities, from time to time, as it may think fit or in the purchase of immovable property in India, with the like powers of varying such investment from time totime;

(ix) To transfer or accept transfers or any movable or immovable property on behalf of the University;

(x) To provide buildings, premises, furniture and apparatus and other means needed for carrying on the work of the University;

(xi) To enter into, vary, carry out and cancel contracts on behalf of the University;

(xii) To entertain, adjudicate upon, and, if thought fit, to redress any grievances of the employees and students of the University;

(xiii) To fix fees, honorarium, emoluments and travelling allowances of examiners/experts/Consultants/advisors/officers on special dutyetc.;

(xiv) To select a common seal for the University and provide for the custody and use of such seal;

(xv) To make such special arrangements as may be necessary for the residence and discipline of women students;

(xvi) To delegate any of its powers to the Vice-Chancellor, the Deans, Directors, the Registrar or the Comptroller or such other employee or authority of the University or to a committee appointed by it as it may deem fit;

(xvii) To institute fellowships, scholarships, studentships, medals and prizes;

(xviii) to provide for appointment of visiting Professor(s), Emeritus Professor(s), Consultant and Officers on Special Duty/Scholars etc. and to determine the terms and conditions of such appointment.

Quorum for meetings of the Board

13. To exercise such other Power and perform such other duties as may be conferred on it by the Act, or the statutes.

Five members of the Board shall form the quorum for a meeting of the Board

Constitution and powers of the Academic Council

14 (1) The Academic Council shall consist of the following members, namely:-

(i) *The Vice-Chancellor ex-officio-Chairman;*
(ii) All the Deans of the Colleges of the University;
(iii) The Director of Research of the University;
(iv) The Director of Extension Education of the University;
(v) The Director of Instruction;
(vi) A Librarian to be nominated by the Vice-Chancellor on rotational basis;
(vii) *Two eminent scientists to be co-opted from outside the University to be nominated by the Vice-Chancellor;*
(viii) *Seven Heads of the Departments, at least one from each faculty to be nominated by the Vice-Chancellor;*
(ix) *One nominee of North eastern Council with specialization in Agricultural Sciences;*
(x) *The Registrar of the University, ex-officio Secretary.*

(2) The term of office of the members of the Academic Council, other than Ex- officio members, shall be three years.

(3) Subject to the Act, the Statutes and Ordinances, the Academic Council shall, in addition to all other powers vested in it, have the following powers, namely:-

(a) *To exercise general supervision over the academic policies of the University to give directions regarding methods of instruction, co-operative teaching among colleges and institutions, evaluation and improvements in academic standards;*

(b) *To bring about inter-college co-ordination and establish or appoint committee on academic matters;*

(c) To consider matters of general academic interest either on its own initiative or on a reference by a college or the Board and to take appropriate action thereon; and

(d) To frame such regulations and rules consistent with the Statutes and the Ordinances regarding the academic functioning of the University, discipline, residences, admissions, award of fellowships and studentships, fees, concessions, corporate life and attendance.

Quorum for meetings of the Academic Council

15. One third members of the Academic Council shall form the quorum for a meeting of the Academic Council.

Board of Studies

16 (1) Each Faculty shall have a Board of Studies.

(2) The Board of Studies of each Faculty shall be constituted asunder:

(i) Dean of Faculty – Chairperson.

(ii) Director of Research –Member.

(iii) Director of Extension Education-Member.

(iv) All Heads of Departments of the Faculty not below the rank of Associate Professor –Member.

(v) One representative of the Academic Council not belonging to the particular faculty to be nominated by the Vice-Chancellor.

(vi) Two eminent scientists from Agricultural Education system not belonging to the Central Agricultural University to be nominated by the Vice-Chancellor.

(vii) One final year Post Graduate student with Highest Overall Grade Point Average (OGPA) –Member.

(viii) Assistant Registrar (Academic) of the faculty –Member.

(ix) Director Instruction-Member.

(3) The functions of the Board of Studies shall be to recommend to the Academic Council course curriculum to be prescribed for various degree(s) to be offered by the concerned Faculty and to make suitable recommendations for the teaching of the prescribed/approved course.

Finance Committee

17 (1) The Finance Committee shall consist of the following members, namely:-

(i) *The Vice-Chancellor –Chairman*
(ii) *Financial Advisor (DARE) or his/her nominee not below the rank of Deputy Secretary.*
(iii) Three persons to be nominated by the Board, out of whom at least one shall be a member of the Board;
(iv) Three persons to be nominated by the Visitor; and
(v) The Comptroller of the University – Member Secretary

(2) Three members of the Finance Committee shall form a quorum for meeting of the Finance Committee;

(3) The members of the Finance Committee, other than ex-officio members, shall hold office for a term of three years;

(4) A member of the Finance Committee shall have the right to record a minute of dissent if he does not agree with any decision of the Finance Committee;

(5) The Finance Committee shall meet, at least twice a year to examine the accounts and to scrutinize proposals for expenditure;

(6) Every proposal relating to creation of posts, and those, items which have not been included in the Budget, should be examined by the Finance Committee before they are considered by the Board;

(7) The annual accounts and the financial estimates of the University prepared by the Comptroller, shall be laid before the Finance Committee for consideration and comments and thereafter submitted to the Board for approval;

(8) The Finance Committee shall recommend limits for the total recurring expenditure and the total non-recurring expenditure for the year, based on the income and resources of the University (which, in the case of productive works, may include the proceeds of loans).

SelectionCommittees

18 (1) There shall be a Selection Committee for making recommendations to the Board for appointment to the posts of teachers, Comptroller, Registrar, Librarians, Deans of Colleges, Directors and heads of other institutions maintained by the University.

(2) The Selection Committee for appointment to the posts in the University shall consist of members as specified in column 1 of the Table below shall consist of membersasspecifiedinthecorrespondingentriesincolumn2ofthesaidTable.

1	*2*
Directors/ Deans	*(i) Vice-Chancellor or his nominee-Chairman;* *(ii) One nominee of the Visitor;* *(iii) Three eminent scientists not below the rank of Vice-Chancellor or equivalent (serving/retired) to be nominated by the Vice- Chancellor from a penal of six names approved by the Board.*
Professors/ Equivalent	*(i) Vice-Chancellor or his nominee – Chairman;* *(ii) One nominee of the Visitor;* *(iii) Dean of the concerned Faculty – Member;* *(iv) Director of Research or Director of Extension Education or Director Instruction to be nominated by Vice-Chancellor – Member; and* *(v) Three eminent subject matter specialists not below the rank of Head of Department or equivalent (serving or retired) to be nominated by the Vice-Chancellor out of a panel of six names approved by the Board – Members.*
Associate Professor/ Asstt. Professor/ Equivalent	*(i) Vice-Chancellor or his nominee-Chairman;* *(ii) One nominee of the Visitor;* *(iii) Dean of the concerned faculty –Member;*

	(iv)	*Director of Instruction or Director of Research or Director of Extension Education to be nominated by Vice-Chancellor*
	(v)	*Head of the concerned Department not below the rank of Professor; and*
	(vi)	*Two eminent teachers/ scientists not below the rank of Professor or equivalent (serving or retired) to be nominated by the Vice-Chancellor out of panel of six names approved by the Board.*
Registrar/ Comptroller/ Librarian	*(i)*	*Vice-Chancellor or his nominee-Chairman;*
	(ii)	*One nominee of the Visitor;*
	(iii)	*One Director/Dean to be nominated by the Vice-Chancellor; and*
	(iv)	*Two experts in the concerned subject to be nominated by the Vice-Chancellor, out of a panel of six names approved by the Board-Members.*

18 (3) The Vice-Chancellor, or in his absence, his nominee shall preside at the meetings of a Selection Committee;

Provided that the meetings of the Selection Committee shall be fixed after prior consultation with the nominees of the Visitor.

Provided further that the proceedings of the Selection Committee shall not be valid unless at least two members, not in the service of the University are present in the meeting.

(a) Deleted.
(b) Deleted.

(4) The meeting of a Selection Committee shall be convened by the Vice- Chancellor or in his absence by his nominee.

(5) The procedure to be followed by the Selection Committee in making recommendations shall be decided by the Committee prior to the interview.

(6) If the Board is unable to accept the recommendations made by a Selection Committee, it shall record its reasons and submit the case to the Visitor for final orders.

(7) Appointments to temporary posts shall be made in the manner indicated below:-

(i) The Vice-Chancellor shall have the authority to appoint a person on ad-hoc basis for period not exceeding six months extendable by a further period of six months with the approval of the Board;

Provided that if the Vice-Chancellor is satisfied that in the interest of work it is necessary to fill the vacancy, the appointment may be made on a purely temporary basis by the local Selection Committee referred to in Sub-clause (ii) for the period not exceeding six months.

(ii) If the temporary vacancy is for a period less than a year, an appointment to such vacancy shall be made on the recommendation of a local Selection Committee consisting of the Dean of the college concerned, the Head of the Department and a nominee of the Vice-Chancellor;

Provided that if the same person holds the offices of the Dean and the Head of the Department, the Selection Committee may contain two nominee of the Vice- Chancellor:

Provided further that in case of sudden casual vacancies of teaching posts caused by death or any other reason, the Dean may, in consultation with the Head of the Department concerned, make a temporary appointment for a month and report to the Vice-Chancellor and the Registrar about such appointment.

(iii) No teacher appointment temporarily shall, if he is not recommended by a regular Selection Committee for appointment under the Statutes, be continued in service on such temporary employment, unless he is subsequently selected by a local Selection Committee or a regular Selection Committee, for a temporary or permanent appointment, as the case maybe.

(8) Mode of Constitution of the Selection Committee for non-academic staff, not prescribed in the statutes, shall be prescribed by the Ordinances(s).

Special Mode of Appointment

19 (1) Notwithstanding anything contained in Statute 18, the Board may invite a person of high academic distinction and professional attainments to accept a post of Professor or Associate Professor or any other academic post in the University,

as the case may be, on such terms and conditions as it deems fit, and on the person agreeing to do so appoint him to the post.

(2) The Board may appoint a teacher or any other academic staff working in any other University or organization for undertaking a joint project in accordance with the manner laid down in the Ordinances.

Appointment for a fixed tenure

20 The Board may appoint a person selected in accordance with the procedure laid down in Statute 18 for a fixed tenure on such terms and conditions as it deems fit.

Recognized Teachers

21 (1) (a) Qualifications of Director, Dean, Professor, Associate Professor and Assistant Professor of different faculties and their equivalents in Research and Extension Education shall be as prescribed by the Ordinance(s).

(b) Qualification of Non- Academic Staff shall be prescribed by the Ordinances(s).

(2) Deleted.
(3) Deleted.
(4) Deleted.
(5) Deleted.
(6) Any person aggrieved by an order of withdrawal under clause (5) may, within three months from the communication to him of such order, appeal to the Board which may pass such orders thereon as it thinks fit.

Committees

22 (1) The authorities of the University specified in section 16 may appoint as many standing or special committees as it may deem fit, and may appoint to such committees persons who are not members of such authority.

(2) Any such committee appointed under clause (1) may deal with any subject delegated to it subject to confirmation by the authority appointing it.

Terms and conditions of service and code of conduct of the teachers, etc.

23 (1) All the teachers and other academic staff of the University shall, in the absence of any agreement to the contrary, be governed by the terms and conditions

of service and code of conduct as are specified in the Statutes, the Ordinance and the Regulations.

(2) Every teacher and other staff of the University shall be appointed on a written contract, the term of which shall be prescribed by the Ordinances.

(3) A copy of every contract referred to in clause (2) shall be deposited with the Registrar.

Terms and conditions of service and code of conduct of other employees

24. All the non-academic employees of the University, shall in the absence of any contract to the contrary, be governed by the terms and conditions of service and code of conduct as are specified in the Statutes, the Ordinances and the Regulations as made from time to time

Seniority list

25 (1) Whenever, in accordance with the Statutes, any person is to hold an office or be a member of an authority of the University by rotation according to seniority such seniority shall be determined according to the length of continuous service of such person in his grade and, in accordance with such other principles as the Board may, from time to time, prescribe.

(2) It shall be the duty of the Registrar to prepare and maintain, in respect of each class of persons to whom the provisions of these Statutes apply, a complete and up-to- date seniority list in accordance with the provisions of clause(1).

(3) If two or more persons have equal length of continuous service in a particular grade or the relative seniority of any persons is otherwise in doubt, the Registrar may, on his own motion and shall, at the request of any person, submit the matter to the Board whose decision thereon shall be final.

Removal of employees of the University

26 (1) Where there is an allegation of misconduct against a teacher, a member of the academic staff or other employee of the University, the Vice-Chancellor, in the case of the teacher or member of the academic staff and the authority competent to appoint (hereinafter referred to as the appointing authority) in the case of other employee, may, by order in writing, place such teacher, member of the academic staff or other employee, as the case may be, under suspension and shall forthwith report to the Board the circumstances in which the order was made;

Provided that the Board may, if it is of the opinion, that circumstances of the case do not warrant the suspension of the teacher or a member of the academic staff, revoke such order.

(2) Notwithstanding anything contained in the terms of the contract of appointment or of any other terms and conditions of service of the employees, the Board in respect of teacher and other academic staff and the appointing authority, in respect of other employees, shall have the power to remove a teacher or a member of the academic staff, or other employees as the case may be on grounds of misconduct.

(3) Save as aforesaid, the Board or the appointing authority as the case may be, shall not be entitled to remove any teacher, member of the academic staff or other employee except for a good cause and after giving three months notice or on payment of three months salary in lieu thereof.

(4) No teacher, member of the academic staff or other employee shall be removed under clause (2) or clause (3) unless he has been given a reasonable opportunity of showing cause against the action proposed to be taken in regard to him

(5) The removal of a teacher, member of the academic staff or other employee shall take effect from the date on which the order of removal is made;

Provided that where the teacher, member of the academic staff or other employee is under suspension at the time of his removal, such removal shall take effect from the date on which he was placed under suspension.

(6) Notwithstanding anything contained in the foregoing provisions of this Statutes, a teacher/member of the academic staff or other employee may resign :-

(a) If he is a permanent employee, only after giving three months' notice in writing to the Board or the appointing authority, as the case may be, or by paying three month's salary in lieu there of;

(b) If he is not a permanent employee, only after giving one month's notice in writing to the Board or, the appointing authority as the case may be, or by paying one month's salary in lieuthereof;

Provided that such resignation shall take effect only on the date from which the resignation is accepted by the Board or the appointing authority, as the case may be.

Honorary degrees

27 (1) The Board may, on the recommendation of the Academic Council and by a resolution passed by a majority of not less than two-thirds of the members present and voting, make proposals to the Visitor for the conferment of honorarydegrees;

Provided that in case of emergency, the Board may; on its own motion, make such proposals.

(2) The Board may, by a resolution passed by a majority of not less thantwo-thirds of the members present and voting, withdraw, with the previous sanction of the Visitor, any honorary degree conferred by the University.

Withdrawal of degrees etc.

28 The Board may, by a special resolution passed by a majority of not less than two-thirds of the members present and voting, withdraw any degree or academic distinction conferred on, or any certificate or diploma granted to, any person by the University for good and sufficientcause;

Provided that no such resolution shall be passed until a notice in writing has been given to that person calling upon him to show cause within such time as may be specified in the notice why such a resolution should not be passed and until his objections, if any, and any evidence he may produce in support of them, have been considered by theBoard.

Maintenance of discipline among students of the University

29 (1) All powers relating to discipline and disciplinary action in relation to students of the University shall vest in theVice-Chancellor.

(2) The Vice-Chancellor may delegate all or any of his powers as he deems proper to such Officers as he may specify in thisbehalf.

(3) Without prejudice to the generality of his powers relating to the maintenance of discipline and taking such action, as may seem to him appropriate or the maintenance of discipline, the Vice-Chancellor may, in exercise of his powers, by order, direct that any student or students be expelled, or rusticated, for a specified period, or be not admitted to a course or courses of study in a college, institution or Department of the University for a stated period, or be punished with fine for an amount to be specified in the order, or be debarred from taking an examination or examinations conducted by the University, college, institution or Department for one or more years, or that the results of the student or students concerned in the examination or examinations in which he or they have appeared

becancelled.

(4) The Dean of colleges, institutions and Heads of the teaching Departments in the University shall have the authority to exercise all such disciplinary powersover

thestudents in their respective colleges, institutions and teaching Departments in the University as may be necessary for the proper conduct of such colleges, institutions and teaching in theDepartments.

(5) Without prejudice to the powers of the Vice-Chancellor, the Deans and other persons specified in Clause (4), detailed rules of discipline and proper conduct shall be made by the University. The Deans of the colleges, institutions and Heads of the teaching Departments in the University may also make the supplementary rules as they deem necessary for the aforesaidpurposes.

(6) At the time of admission, every student shall be required to sign a declaration to the effect that he submits himself to the disciplinary jurisdiction of the Vice- Chancellor andother authorities of the University.

Maintenance of discipline among students of colleges, etc.

30 All powers relating to discipline and disciplinary action in relation to the students of the college or an institution maintained by the University, shall vest in the Dean of the College or institution, as the case may be, in accordance with theprocedure prescribed by theOrdinances.

Advisory Committee

31. Deleted.

Convocations

32. Convocations of the University for the conferring of the Degrees or for other purposes shall be held in such manner as may be prescribed by theOrdinances.

Acting Chairman

33. When no provision is made for a Chairman to preside over a meeting of any Committee or when the Chairman so provided for is absent or the Vice-

Chancellor has not in writing made any arrangement, the members shall elect one from among themselves to preside overmeeting.

Resignation

34 Any member, other than an ex-officio member of the Board, Academic Council or any other authority of the University or any Committees of such Authority may resign by letter addressed to the Registrar and the resignation shall take effect as soon as such letter is received by theRegistrar.

Disqualifications

35 (1) A person shall be disqualified for being chosen as, and for being, a member of any of the Authorities of the University:-
(i) If he is of unsoundmind;
(ii) If he is an un dischargedinsolvent;
(iii)if he has been convicted by a court of law of an offence involving moral turpitude and sentenced in respect thereof to imprisonment for a period of not less than six months.

(2) If any question arises as to whether a person is or had been subjected to any of the disqualification mentioned in clause (1), the question shall be referred to the Visitor and his decision thereon shall be final and no suit or other proceeding shall be in civil court against suchdecision.

Residence Condition for Membership and Office

36. Notwithstanding anything contained in the Statutes, a person who is not ordinarily resident in India shall not be eligible to be an Officer of the University or a member of any authority of the University.

Membership of authorities by virtue of membership of other bodies

37. Notwithstanding anything contained in the Statutes, a person who holds any posts in the University or is a member of any authority of the University in his capacity as a member of a particular authority or as the holder of a particular appointment shall hold such office or membership only for so long as he continues to be a member of that particular authority or the holder of that particular appointment, as the case maybe.

Alumni Association

38 (I) There shall be an Alumni Association for the University.

(2) The subscription for membership of the Alumni Association shall be prescribed by theOrdinances.

(3) No member of the Alumni Association shall be entitled to vote or stand for election unless he has been a member of the Association for at least one year prior to the date of the election and is degree holder of the University of at least five years standing;

Provided that the condition relating to the completion of one year's membership shall not apply in the case of the firstelection.

Students' Council

39(1) There shall be, in each College of the University a Students' Council for each academic session for the purpose of making recommendations to the authorities of the University with regard to various activities relating to students welfare, including games, sports, dramatics, debates, cultural activities etc. and such Council shall consist of:

(i) The Dean of the College-Chairperson

ii) All HostelWardens

iii) Campus EstateOfficer

iv) Five Heads of the Departments to be nominated by theDean

v) HostelPrefects

vi) One student from each class/year who has secured the highest Overall Grade Point Average in the previous academicsession.

vii) Students Welfare Officer – MemberSecretary

(2) Deleted.

(3) The Students Council shall meet at least once in eachsemester.

Ordinances how made

40 (1) The first ordinances made under sub-section (2) of Section27may be amended or repealed at any time by the Board in the manner specifiedbelow.

(2) No Ordinance in respect of the matters enumerated in section 27, other than those enumerated in clause (n) of sub-section (1) thereof shall be made by the Board unless a draft of such Ordinance has been proposed by the AcademicCouncil.

(3) The Board shall not have power to amend any draft of any Ordinance proposed by the Academic Council under clause (2), but may reject the proposal or return the draft to the Academic Council for reconsideration either in whole or in part, together with any amendment which the Board maysuggest.

(4) Where the Board has rejected or returned the draft of an Ordinance proposed by the Academic Council, the Academic Council may consider the question afresh and in case the original draft is reaffirmed by a majority of not less than two-thirds of the members present, and voting and more than half the total member of numbers of the Academic Council, the draft may be sent back to the Board which shall either adopt it or refer itto the Visitor whose decision shall be final.

(5) Every Ordinance made by the Board shall come into effectimmediately.

(6) Every Ordinance made by the Board shall be submitted to the Visitor within two weeks from the date of its adoption. The Visitor shall have the power to direct the University within four weeks of the receipt of the Ordinance to suspend theoperation of any such Ordinance and he shall, as soon as possible, inform the Board about his objection to the proposed Ordinance. The Visitor may, after receiving the comments of the University, either withdraw the order suspending the Ordinance, or disallow the Ordinance, and his decision shall befinal.

Regulations

41 (1) The Authority of the University may make Regulations consistent with the Act, the Statutes andthe Ordinances for the following matters, namely:-

(i) Laying down the procedure to be observed at their meeting and the number of members required to form aquorum.;

(ii) Providing for all matters which are required by the Act, the Statutes or the Ordinances to be prescribed by theRegulations;

(iii) Providing for all other matters concerning such authority or committees appointed by them and not provided for by the Act, the Statutes or the Ordinances.

(2) Every authority of the University shall make Regulations providing for the giving of notice to the members of such authorities of the dates of meeting and of the business to be considered at meetings and for the keeping of a record of the proceedings of meetings.

(3) The Board may direct the amendment in such manner as it may specified, ofanyRegulation made under the Statutes or the annulment of any such Regulation.

Delegation of Powers

42 Subject to the provisions of the Actandthe Statutes, any officer or authorityof the University may delegate his or its power to any other officer or authority or person under his or its respective control and subject to the condition that overall responsibility for the exercise of the powers so delegated shall continue to vest in the officer or authority delegating suchpowers.

Collaboration with other Institution and Organizations

43 The University shall have the authority to enter into an agreement through a Memorandum of Understanding with any research and /or academic institution of higher learning, including the Indian Council of Agricultural Research, Regional Complex for North Eastern Hill Region, Barapani (Meghalaya), to conduct collaborative Post Graduate Research Programme to fulfill the partial requirement for the award of Master's and Ph. D. degrees of the University.

Constitution and Function of Research Council

44 (1) There shall be a Research Council of the University to exercise general supervision over the research policies and programmesof the University in the area of Agricultural and allied disciplines. The Research Council shall consist of the following members:

(i) The Vice-Chancellor –Chairman

(ii) Director of Extension Education –Member

(iii) Director of Instruction-Member

(iv) All Deans of the Colleges of the University –Members

(v) Six nominees of the State Governments not below the rank of Directors one each from the six states of NEHRegion.

(vi) All Co-ordinatorsof the Research Teams of the University –Members

(vii) Two eminent Agricultural Scientists to be nominated by the Vice-Chancellor for three years – Members

(viii) Director of Research – MemberSecretary

(2) The Research Council shall meet at least once in ayear.

(3) One third member of the Research Council shall form a quorum for the meeting of the ResearchCouncil.

(4) If a vacancy occurs due to resignation or otherwise the same shall be filled up for the remaining period.

Constitution and Function of the Extension Education Council

45 (1) There shall be an Extension Education Council of the University to exercise general supervision over the Extension Education policies and programmes of the University in the area of Agricultural and allied disciplines. The Extension Education Council shall consist of the followingmembers:

(i) The Vice-Chancellor – Chairman

(ii) Director of Research – Member

iii) Director of Instruction-Member

(iv) All Deans of the Colleges of the University –Members

(v) Six nominees of the State Governments of NEH Region not below the rank of Directors -Members

(vi) Six farmers representatives from the States of NEH Region and one woman Social Worker to be nominated by the Vice-Chancellor for term of three years –Members

(vii) Two eminent Scientists from outside the University to be nominated by the Vice-Chancellor for two years –Members

(viii) Director of Extension Education – MemberSecretary

(2) The Extension Education Council shall meet at least once in ayear.

(3) One third members of the Extension Education Council shall form a quorum for the meeting of the Extension EducationCouncil.

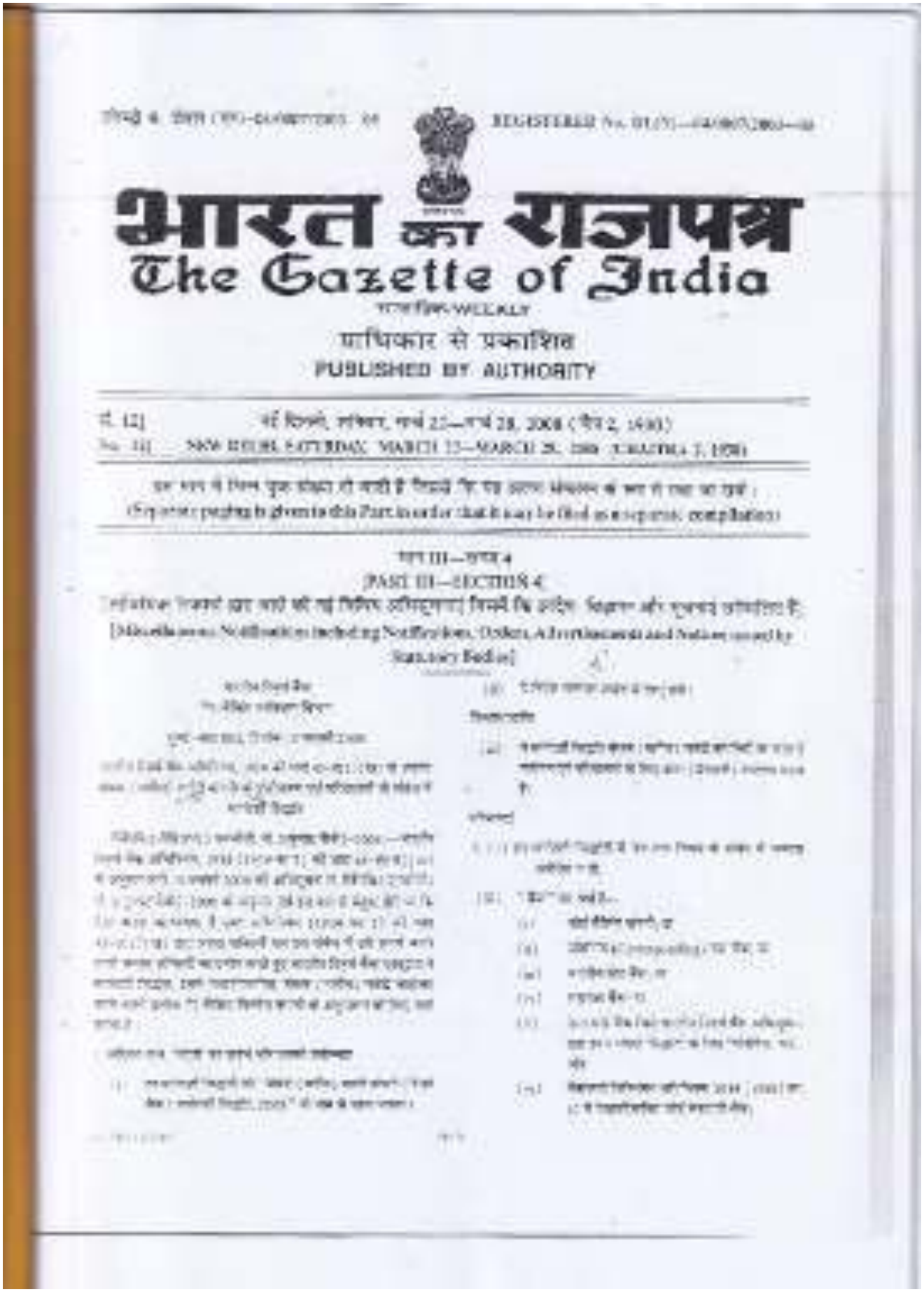
46(1) All regular employees of Central Agricultural University shall be governed by the provisions of " Central Civil Services (Pension) Rules 1972" and "General Provident Fund (Central Services) Rules 1960", in respect of grant of Pension and Gratuity and G.P.Fund.

(2) Any change incorporated by Government of India in "Central Services (Pension) Rules 1972" and " General Provident Fund (Central Services) Rules 1960", shall also be applicable to employees of Central AgriculturalUniversity.

(3) In respect of commutation of Pension, the provisions of "Central Civil Services (commutation of Pension) Rules, 1981" shallapply.

(4) The Vice-Chancellor, Central Agricultural University shall remain (1) Pension Sanctioning Authority and (2) Pension Authorization Authority.

(5) Pension Payment shall be centralized and controlled by Comptroller'sOffice.



भारत का राजपत्र
The Gazette of India

साप्ताहिक-WEEKLY

प्राधिकार से प्रकाशित
PUBLISHED BY AUTHORITY

MINISTRY OF AGRICULTURE
DEPARTMENT OF AGRICULTURAL RESEARCH AND EDUCATION
CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL, MANIPUR the 17th December, 2007

No. CAU/Reg/5810-195.– Whereas the approved Memorandum Governing Modalities alongwith addendum in respect of the creation of the Central Agricultural University Scheme under the VIII Five Year Plan as communicated by the Joint Secretary, Department of Agricultural Research and Education and Secretary, Indian Council of Agricultural Research vide their letter number 2(2)/90-EI and M (Part-II) dated 11th October, 1993 provides for the establishment of College of Veterinary Sciences (Mhowrey), College of Horticulture and Forestry (Arunachal Pradesh), College of Fisheries (Tripura), College of Agricultural Engineering and Post Harvest Technology (Sikkim), College of Dairy Science and College of Post Graduate Studies (Meghalaya);

Whereas, the aforesaid memorandum also provides for creation and the filling up of job positions and the administrative/governing staff as proposed therein in the campuses and the constituent colleges with the necessary modifications considered necessary by the Central Agricultural University;

Whereas, the Government of India in the Department of Agricultural Research and Education has approved the incorporation of an Ordinance for the establishment of College of Agricultural Engineering and Post Harvest Technology in Sikkim as a constituent college of the Central Agricultural University, Imphal vide letter No. 1-6/2005-Coord.(I) Agricultural University dated 11.1.2005;

Whereas, in exercise of the powers conferred by the sub-section 2 of section 35 of Central Agricultural University Act, 1992 (No. 40 of 1992), the Board of Management has already approved to promulgate an Ordinance No. 7 of 2006;

And Whereas, the Government of India in the Department of Agricultural Research and Education has approved the incorporation of an Ordinance for enabling amendment to

Ordinance No. 2 of 2008 of the Central Agricultural University, Imphal vide letter No. 1 (6)/2007-CAU, dated 13th December, 2007.

Now with the approval of Central Government, I, S.N. Puri, Vice-Chancellor, Central Agricultural University in exercise of powers conferred under section 27(2) of Central Agricultural University Act, 1992 (No. 40 of 1992) do hereby make the amendments in the Ordinance No. 2 of 2008 regulating the admission of eligible candidates and the Notification of Faculty positions in the College Agricultural Engineering and Post Harvest Technology at Barapani in Meghalaya in the manner specified below:

1. That the said College shall offer B.Tech degree course in Agricultural Engineering with following programmes of approved by the University.
2. The said College shall have Departments and the teaching staff specified in column 2 of the table below and shall consist of Dean, Professor(s), Associate Professor(s) and Assistant Professor(s) specified in the corresponding columns in the table.

Table

Composition of faculty positions in different Departments of College of Agricultural Engineering and Post Harvest Technology, Barapani, Meghalaya

Sl. No.	College/ Department	Professor	Associate Professor	Assistant Professor	Total
(1)	(2)	(3)	(4)	(5)	(6)
	Dean	1 (Dean, College of Agril. Engg. & PHT)			1
2	Farm Power and Machinery (FPM)	1 (Farm Power and Machinery)	1 (Farm Power and Machinery) 1 (Renewable Energy)	2 (Farm Power and Machinery) 2 (Renewable Energy) 2 (Mechanical Engineering)	11
3	Processing and Food Engineering (PFE)	1 (Processing and Food Engg.) 1 (Food Technology)	1 (Processing and Food Engg.) 1 (Food Engg.) 1 (Dairy Engg.)	1 (Food Process Engg.) 1 (Food Tech.) 1 (Dairy Engg.) 1 (Agricultural Engg.) 1 (Electrical Engg.) 1 (Instrumentation and Automation)	13
4	Soil and Water Engineering (SWE)	1 (Soil and Water Engineering)	1 (SWC Engg.) 1 (GT Engg.)	2 (SWC Engg.) 2 (GT Engg.) 2 (Civil Engg.)	11
5	Agricultural Sciences (AGS)			1 (Agronomy) 1 (Horticulture) 1 (Soil Science) 1 (Plant Pathology) 1 (Agricultural Biotechnology)	5

6.	Home Science and Human Ecology	-	-	1 (Horticulture) 1 (Physiology) 1 (Biochemistry) 1 (Home Science) 1 (English) 1 (Computer Programming) 1 (Statistics)	7
	Total	8	11	20	46

This Ordinance shall come into force on the date of its publication in the Official Gazette.

(S.S. Rao)
Vice-Chancellor

No. 2 of 1997

No. Civil/Reg./564/Ord/95. - Whereas the approved Expenditure Finance Committee Memorandum with addendum in respect of the creation of the Central Agricultural University Scheme under the VII th Five Year Plan is communicated by the Joint Secretary, Department of Agricultural Research and Education and Secretary, Indian Council of Agricultural Research vide their letter number 2(23)/95-EC and A (Part-II) dated 24th October, 1995 provides for the establishment of College of Veterinary Sciences (Mizoram), College of Horticulture and Forestry (Arunachal Pradesh), College of Fisheries (Tripura), College of Agricultural Engineering and Post Harvest Technology (Sikkim), College of Home Science and College of Post Graduate Studies (Meghalaya);

And whereas the Government of Meghalaya has also transferred the land measuring 30 acres in Tura to the Central Agricultural University for the establishment of the College of Home Science vide their letter No. Agri. (Res)/2/95/147 dated the 18th March 1997;

Whereas the Government of India in the Department of Agricultural Research and Education has approved the establishment of an Autonomous College of Home Science, West Garo Hills, Tura, Meghalaya as a constituent college of the Central Agricultural University, Imphal vide their letter No. 42-3/94-Edn(CU) dated 20.03.1997;

Whereas, in exercise of the powers conferred by the sub-section 2 of section 27 of CAU Act, 1992 (No. 40 of 1992) and sub-section 1 of section 40 of the Statutes of Central Agricultural University Act, 1992 (No. 40 of 1992), the Board of Management approved the amendments in Ordinance No. 1 of 1997;

And whereas, the Government of India in the Department of Agricultural Research and Education has approved the introduction of an Ordinance for making amendments in Ordinance No. 1 of 1997 of the Central Agricultural University, Imphal vide letter No.1-1/2005-CAU dated 13th December 2007.

Now, with the approval of Central Government, I, A.N. Puri, Vice Chancellor, Central Agricultural University in exercise of powers conferred under section 2(vi) of CAU Act, 1992 (No. 40 of 1992) do hereby make the amendments in Ordinance No. 1 of 1997 regulating the recruitment of faculty positions in the College of Horticulture, West Garo Hills, Tura, Meghalaya in the manner given below.

1. The said College shall have Departments specified in column 2 of the table below and faculty shall consist of Dean, Professor(s), Associate Professor(s) and Assistant Professor(s) specified in the corresponding entries in the table.

Table

Composition of faculty positions in different departments of the College of Horticulture, Tura, Meghalaya

Sl. No.	Departments	Professor	Associate Professor	Assistant Professor	Total
1.	Dean	1	-	-	1
2.	Fruit Science & Horticulture	1	2	3	6
3.	Plant Breeding & Genetics	1	2	2	5
4.	Faculty Resource Management	1	2	3	6
5.	Rural Studies/ Extension Education	1	1	2	4
6.	Human Development	1	1	2	5
7.	Basic Sciences & Humanities	-	-	1 (Statistics) 1 (Biochemistry) 1 (Statistics with Computer Application) 1 (Agril. Economics)	4
8.	Agricultural Chemistry	-	-	1	1
9.	Horticulture & Social Science	-	-	1	1
10.	Agril. Engineering (Food Technology)	-	-	1	1
11.	Agricultural Entomology	-	-	1	1
12.	Agricultural Extension	-	-	1	1

(c) (Agronomy)	-	-	1	1
(d) (Forestry)	-	-	1	1
Total	5	9	11	25

+ Department of Women Development shall have following academic and supporting staff:

i) Nursery School Teacher – 1

ii) Creche Supervisor – 1

This Ordinance shall come into force on the date of its publication in the Official Gazette.

(S.N. Jha)
Vice-Chancellor

No. 5 of 2007

No. CAU/Reg/954/Ordin/... Whereas the approved Expenditure Finance Committee Memorandum along with addendum in respect of the creation of the Central Agricultural University Scheme under the VIII th Five Year Plan as recommended by the Joint Secretary, Department of Agricultural Research and Education and Secretary, Indian Council of Agricultural Research vide their letter number 1(2)/83-EP and M (Part-II) dated 21st October, 1993 provides for the establishment of College of Veterinary Sciences (Mizoram), College of Horticulture and Forestry (Arunachal Pradesh), College of Fisheries (Tripura), College of Agricultural Engineering and Post Harvest Technology (Sikkim), College of Home Science and College of Post Graduate Studies (Meghalaya);

And whereas, the aforesaid sanction also provides for creation and filling of the Academic positions such as the Director of Instruction, Director of Research and Director of Extension Education, Deans of the concerned Colleges and of Postgraduate, Associate Professors and Assistant Professors and their equivalent academic positions;

And whereas, the Government of India in the Department of Agricultural Research and Education (Indian Council of Agricultural Research) has approved the recommending of an Ordinance prescribing the academic and other qualifications for the various academic and scientific positions in the Central Agricultural University vide their No. 42-3/93-EP(A-II&III)/V dated 8th August 1994;

And whereas, in exercise of the powers conferred by sub-section (2) of Section 24 of CAU Act, 1992 (No. 40 of 1992) and sub-section (1) of Section 49 of the Statutes of Central Agricultural University Act, 1992 (No. 40 of 1992), the Board of Management of Central Agricultural University repealed the aforesaid ordinance (re-appointment) Exercise of the Post of Associate Professor equivalent to Ordinance No. 1 of 1994

1384 THE GAZETTE OF INDIA : MARCH 21, 2015/CHAITRA 30, 1937 [PART I—SEC. 1]

And whereas, the Government of India in the Department of Agricultural Research and Education has approved the laying down of the Ordinance governing the appointment in Ordinance No. 3 of 1994 regarding the academic and other qualifications for the appointment of the Central Agricultural University vide letter No. 5-15/2007-CAU dated 17th December 2013;

Now, with the approval of the Council Government, I, S.K. Pal, Vice-Chancellor, Central Agricultural University, hereby in exercise of powers conferred by sub-section 2 of section 27 of C.A.U., Act, 1992 (No. 40 of 1992), do hereby make amendment in experience/qualification for the purpose of appointment of Associate Professor and equivalent as under:

Sl. No.	Post	Qualifications
1.	Associate Professor and equivalent	I. Master's degree in the concerned discipline followed by a Doctorate degree in the concerned subject.
		II. Three years experience (excluding the period spent for Ph.D. studies) of working in research/extension education in the rank of Assistant Professor or equivalent in the Agricultural University/National Agricultural Research System/Agricultural Education Institute.
		III. Research contributions as evidenced by publications in reputed journals/books.

(S.K. Pal)
Vice-Chancellor

No. 4 of 2007

No. CAU/Reg/Ord/2007. - Whereas the approved Expenditure Finance Committee Meeting with authorities in respect of the creation of the Central Agricultural University Scheme under the VIII th Five Year Plan as communicated by the Joint Secretary, Department of Agricultural Research and Education and Secretary, Indian Council of Agricultural Research vide their letter number F(12)92-PI (ii)/92-(Part-II) dated 13th October, 1993 provides for the establishment of College of Veterinary Sciences (Meghalaya), College of Horticulture and Forestry (Arunachal Pradesh), College of Fisheries (Tripura), College of Agricultural Engineering and Post Harvest Technology (Sikkim), College of Home Science and College of Post Graduate Studies (Meghalaya);

And whereas, the aforesaid sanction also provides for creation and the filling up of both academic and non-teaching college staff as provided therein to run the university and its constituent colleges with the assistance and technical assistance by the Central Agricultural University;

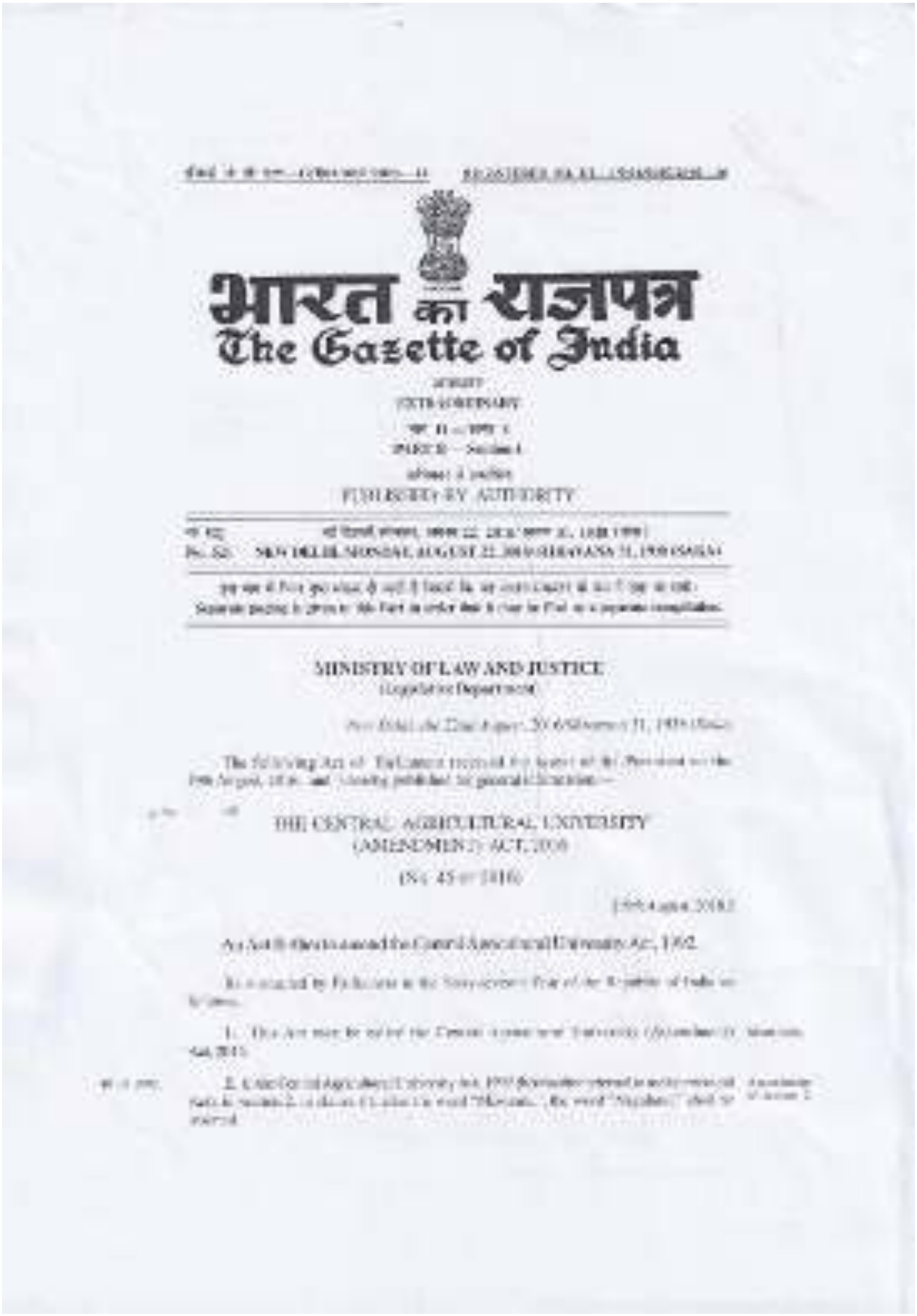
And whereas the Government of India in the Department of Agricultural Research and Education, Indian Council of Agricultural Research has accorded to make an Ordinance regarding the appointments and conditions of employment thereof and hence for which provisions are here made in the Statutes of the Central Agricultural University, Imphal vide notification no. 42-1994-Edn.IV, dated 31st March, 1995;

And whereas, in exercise of the powers conferred by the sub-section 2 of section 27 of CAU Act, 1992 (No. 40 of 1992) and sub-section 1 of section 48 of the Statutes of Central Agricultural University Act, 1992 (No. 40 of 1992), the Board of Management has moved the new Statute in Ordinance No. 2 of 1994;

And whereas, the Government of India in the Department of Agricultural Research and Education has approved to make an Ordinance for making amendments in Ordinance No. 2 of 1995 of the Central Agricultural University, Imphal vide letter No. 9-15/2007-CAU dated 13th December, 2007.

Now with the approval of Central Government, I, S.N. Puri, Vice-Chancellor, Central Agricultural University in exercise of powers conferred under section 27(2) of CAU Act, 1992 (No. 40 of 1992) do hereby make amendments in Ordinance No. 2 of 1995 amending the qualification and experience for the posts of Livestock Farm Assistant, Field-cum-Laboratory Assistants and for different posts in Central Agricultural University as mentioned in Appendix.

(S.N. Puri)
Vice-Chancellor



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The Gazette of India

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MINISTRY OF LAW AND JUSTICE

THE CENTRAL AGRICULTURAL UNIVERSITY (AMENDMENT) ACT, 2016

ANNEXURE - B

ATRs of 15th to 23rd Meeting of Academic Council

Action Taken Report of Academic Council Meetings

pursuance of the decision of the Academic
2016 at College of Agriculture, Imphal
neeting, CAU, Imphal is pleased to issue
CENTRAL AGRICULTURAL UNIVERSITY, Application for Ph.D. Degree
IMPHAL : MANIPUR

NOTIFICATION
Imphal, the 15th December, 2016

(a) [illegible]
(b) [illegible]
(c) A teacher other than Professor shall be the CA
[illegible] research paper
Masters' or Ph.D. thesis]

Or

A teacher must have guided [(three) M
students
This provision shall be included in the Ruv
ve guided or is guiding 2 (two) Masters' students
e in NAAS related journals (other than his/ her

(Prof. K. Manocha)
Registrar

sters' students successfully
ified Academic Regulations

Memo No. CAU/Reg/1188/ATB-AC/16/ 4425 Imphal, the 15th December, 2016

Copy to:
1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Deans of all constituent Colleges of CAU for information
4. SWOs of all constituent Colleges of CAU, Imphal
5. Guard file

(Prof. K. Manocha Singh)
Registrar

(51)

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

N O T I F I C A T I O N

Imphal, the 15th December, 2016

No. CAU/Reg/1188/ATR-AC/16/ 4490 : In pursuance of the decision of the Academic Council accorded in its 15th Meeting held on 02.09.2016 at College of Agriculture, Imphal, Manipur under **Agenda Item No. 5**, the Vice-Chancellor, CAU, Imphal is pleased to issue notification that NSS/ NCC/ Physical Education/ Yoga should be made compulsory in all the constituent Colleges of the University

15/12/2016

(Prof. K. Manichra Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/16/ 4490 Imphal, the 15th December, 2016

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Deans of all constituent Colleges of CAU for information and necessary action
4. SWOs of all constituent Colleges of CAU, Imphal
5. Guard file

15/12/2016

(Prof. K. Manichra Singh)

Registrar

15/12/16

(43)

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

N O T I F I C A T I O N

Imphal, the 15th December, 2016

No. CAU/Reg/1188/ATR-AC/16/ 4464 : Consequent upon the approval of the Academic Council accorded in its 15th Meeting held on 02.09.2016 at College of Agriculture, Imphal, Manipur under **Agenda Item No. 11**, the Vice-Chancellor, Central Agricultural University, Imphal is pleased to issue notification for adoption of the recommendation of the Committee constituted by the University for reviewing the Conversion Formula and adoption of performance Classification of the students in the Transcripts/ Degree Certificates of UG, PG & Ph.D. programmes of CAU as detailed below:

A. **Formula for conversion of OGPA to percentage marks and vice-versa:**

$y = 10x$ (where y is the percentage of marks in the traditional system and x is the OGPA/CGPA in 10.00 point scale).

B. **Criteria for award of Distinction, First and Second Division:**

Programme	Pass Marks	II Division	I Division	I Division with Distinction
Under-Graduate Programmes	5.000 – 5.999	6.000 – 6.999	7.000 – 7.999	8.000 & above
Post-Graduates Programmes	6.50	6.50 – 6.99	7.00 & above	-

The conversion formula and the performance classification should be reflected/shown in the Transcripts/Degree Certificates issued to the Under-Graduate & Post-Graduate students and it shall be applicable to the students who have passed out from the month of May, 2017 onwards.

15/12/2016
(Prof. K. Manocha Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/16/ 4464 Imphal, the 15th December, 2016

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Deans of all constituent Colleges of CAU for information
4. SWOs of all constituent Colleges of CAU, Imphal
5. Guard file

15/12/2016
(Prof. K. Manocha Singh)
Registrar

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL, MANIPUR

O R D E R

Imphal, the 15 December, 2016

No. CAU/Reg/1188/ATR-AC/16/ ৬৭১-৮ : In pursuance of the decision of the Academic Council accorded in its 15th Meeting held on 02.09.2016 at College of Agriculture, Imphal, Manipur under **Agenda Item No. 29**, the Vice-Chancellor, CAU, Imphal is pleased to inform that the Academic Council discussed the proposal to set up National Innovation Clubs in constituent Colleges of CAU, Imphal and resolved that each College should establish at least 1 (one) Innovation Club and initiate action in this regard according to the proposed guidelines.

15/12/2016

(Prof. K. Manocha Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/16/ ৬৭১-৮ Imphal, the 15th December, 2016

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Deans of all constituent Colleges of CAU for information and necessary action
4. SWOs of all constituent Colleges of CAU, Imphal
5. Guard file

Registrar

15/12/2016

(Prof. K. Manocha Singh)

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

N O T I F I C A T I O N

Imphal, the 15th December, 2016

No. CAU/Reg/1188/ATR-AC/16/ 4435 : In pursuance of the decision of the Academic Council accorded in its 15th Meeting held on 02.09.2016 at College of Agriculture, Imphal Manipur under **Agenda Item No. 30**, the Vice-Chancellor, CAU, Imphal is pleased to issue notification to amend the Clause No. 2.12.2 of the CAU Academic Regulation for Ph.D. degree programme as under:

2.12.2

(a) Ph.D. in the concerned/ related discipline
(b) All Professors are eligible to guide Ph.D. students
(c) A teacher other than Professor must have guided or is guiding 2 (two) Masters' students and has published four research papers in NAAS related journals (other than his/ her Masters' or Ph.D. thesis)

Or

A teacher must have guided 3(three) Masters' students successfully as a major adviser

The amended clause shall be included in the Revised Academic Regulations.

15/12/2016
(Prof. K. Manocha Singh)
Registrar
Imphal, the 15th December, 2016

Memo No. CAU/Reg/1188/ATR-AC/16/ 4435

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Deans of all constituent Colleges of CAU for information
4. SWOs of all constituent Colleges of CAU, Imphal
5. Guard file

15/12/2016
(Prof. K. Manocha Singh)
Registrar

Corrigendum

(152)

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R

Imphal, the 15th December, 2016

Subject: Proposal for opening an English Language Laboratory at College of Home Science, Tura & College of Agril. Engg. & PHT, Ranipool, Sikkim.

No. CAU/Reg/1188/ATR-AC/16/ 4434. : In pursuance of the decision of the Academic Council accorded in its 15th Meeting held on 02.09.2016 at College of Agriculture, Imphal, Manipur under **Agenda Item No. 31**, the Vice-Chancellor, CAU, Imphal is pleased to inform that the Academic Council discussed the proposal for opening an English Language Laboratory at College of Home Science, Tura & College of Agril. Engg. & PHT, Ranipool, Sikkim and approved for all the constituent Colleges of the University subject to vetting by the Office of the Comptroller, CAU, Imphal.

15/12/2016
(Prof. K. Manocha Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/16/ 4434, Imphal, the 15th December, 2016

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Deans of all constituent Colleges of CAU for information and necessary action
4. Comptroller, CAU, Imphal
5. SWOs of all constituent Colleges of CAU, Imphal
6. Guard file

15/12/2016
(Prof. K. Manocha Singh)
Registrar

15/12/2016

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CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

NOTIFICATION

Imphal, the 15th December, 2016

Subject: Proposal for continuing existing examination pattern for UG programme (50% external examination system) in view of the adoption of the Fifth Dean's Committee recommendation.

No. CAU/Reg/1188/ATR-AC/16/4453-In pursuance of the decision of the Academic Council accorded in its 15th Meeting held on 02.09.2016 at College of Agriculture, Imphal, Manipur under **Agenda Item No. 33**, the Vice-Chancellor, CAU, Imphal is pleased to notify that existing examination system for UG programme will continue in all constituent Colleges.

Further, it is also notified that the UG External Examination, only Assistant/Associate Professor should be the External Examiner. Teachers from constituent Colleges of CAU may also be permitted to be the External Examiner for UG courses.

15/12/2016

(Prof. K. Manocha Singh)
Registrar
Imphal, the 15th December, 2016

Memo No. CAU/Reg/1188/ATR-AC/16/4459-
Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Deans of all constituent Colleges of CAU for information
4. SWOs of all constituent Colleges of CAU, Imphal
5. Guard file

15/12/2016

(Prof. K. Manocha Singh)

15/12/16

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R

Imphal, the 15th December, 2016

No. CAU/Reg/1188/ATR-AC/16/ 4459 : In pursuance of the decision of the Academic Council accorded in its 15th Meeting held on 02.09.2016 at College of Agriculture, Imphal, Manipur under **Agenda Item No. 52**, the Vice-Chancellor, CAU, Imphal is pleased to order that once a satisfactory thesis evaluation report is received from the External Examiner, viva-voce may be conducted by the advisory committee members of the student in the presence of Chairman/ In-charge of the School and a senior faculty from some other Departments/ Schools nominated by the Dean of the College.

15/12/2016
(Prof. K. Manmohan Singh)
Registrar
Imphal, the 15th December, 2016

Memo No. CAU/Reg/1188/ATR-AC/16/ 4459
Copy to:
1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Deans of all constituent Colleges of CAU for information.
4. SWOs of all constituent Colleges of CAU, Imphal
5. Guard file

Registrar
15/12/2016
(Prof. K. Manmohan Singh)

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CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 10th October, 2017

Subject : Exposure visit of P.G. and Ph.D. Students of the College of Horticulture & Forestry, Pasighat, Arunachal Pradesh.

No. CAU/Reg/1188/ATR-AC/16/2796 : In pursuance of the decision of the Academic Council accorded in its 16th Meeting held on 05.06.2017 at Central Agricultural University Hqrs., Imphal, Manipur under **Agenda Item No. 3**, the Vice-Chancellor, CAU, Imphal is pleased to inform that the Academic Council discussed the issue and resolved that if the facilities are not available in the College, students may be permitted to utilize the facilities available in other constituent Colleges of CAU. Otherwise, if the facilities are not at all available in the CAU, students may be sent to other National Institutes/ Universities after taking special permission from competent authority.

(Prof. K. Manocha Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/16/2796 Imphal, the 10th October, 2017

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Deans of all constituent Colleges of CAU for information and necessary action
4. SWOs of all constituent Colleges of CAU, Imphal
5. Guard file

(Prof. K. Manocha Singh)

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Prof. K. Manochi Singh

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, the 10th October, 2017

Subject : Special recognition of Students of those who participate in Inter-Collegiate & All India Inter-University Competitions and NSS Certificate holders.

No. CAU/Reg/1188/ATR-AC/16/ 2787 : In pursuance of the decision of the Academic Council accorded in its 16th Meeting held on 05.06.2017 at Central Agricultural University Hqrs., Imphal, Manipur under **Agenda Item No.4**, the Vice-Chancellor, Central Agricultural University, Imphal is pleased to constitute a committee consisting of the following members to work the modus operandi on the above subject.

	Dr. C.A. Srinivasamurthy Director of Instruction, CAU, Imphal	Chairman
	Dr. M. Dinachandra Singh Dy. Registrar (Academic), CAU, Imphal/University Coordinator	Member
	SWOs of all constituent Colleges of CAU, Imphal	: -do-
4	Prof. K. Marrocha Singh Registrar, CAU, Imphal	Member Secretary

The Committee shall have its sitting at a convenient time & place and submit the report a period of 1 (one) month from its sitting.

(Prof. K. Marrocha Singh)
Registrar
Imphal, the 10th October, 2017

Memo No. CAU/Reg/1188/ATR-AC/16/ 2787

Copy to :
1. PS to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Committee Members (by name)
3. Guard File

Registrar

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CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R

Imphal, the 10th October, 2017

Subject : Splitting of the course of Fundamentals of Plant Biochemistry and Biotechnology in Agriculture of College of Horticultuye & Forestry, Pasighat, Arunachal Pradesh.

No. CAU/Reg/1188/ATR-AC/16/2936 : In pursuance of the decision of the Academic Council accorded in its 16th Meeting held on 05.06.2017 at Central Agricultural University Hqtrs., Imphal, Manipur under **Agenda Item No.5**, the Vice-Chancellor, Central Agricultural University, Imphal is pleased to constitute a committee consisting of the following members to work the modus operandi on the above subject.

1.	Dr. C.A. Srinivasamurthy Director of Instruction, CAU, Imphal	: Chairman
2.	Dr. A.K. Pandey, Dean, College of Horticulture & Forestry, Pasighat.	: Member
3.	Dean i/c, College of Horticulture, Bermiok, Sikkim	: -do-
4.	Dean i/c, College of Horticulture, Thenzawl,	: -do-
5.	Prof. K. Mamocha Singh Registrar, CAU, Imphal	: Member Secretary

The Committee shall have its sitting at a convenient time & place and submit the report within a period of 1 (one) month from its sitting.

10/10/2017
(Prof. K. Mamocha Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/16/2936 Imphal, the 10th October, 2017

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Committee Members (by name)
3. Guard File

10/10/2017
(Prof. K. Mamocha Singh)
Registrar

(232)

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R

Imphal, 10th October, 2017

No. CAU/Reg/1188/ATR-AC/16/ 2730 : In pursuance of the decision of the Academic Council accorded in its 16th Meeting held on 05.06.2017 at Central Agricultural University Hqtrs., Imphal, Manipur under **Agenda Item No. 7**, the Vice-Chancellor, CAU, Imphal is pleased to inform that the Academic Council discussed the issue and resolved that the Transcript of students should reach Registrar's office on time. This responsibility will be taken by the Academic-in-charge of PG Coordinator or any other person authorized by the Dean.

(Prof. K Manikhla Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/16/ 2730 Imphal, the 10th October, 2017

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Deans of all constituent Colleges of CAU for information and necessary action
4. Guard file

(Prof. K. Manikhla Singh)
Registrar

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CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

N O T I F I C A T I O N

Imphal, the 10th October, 2017

No. CAU/Reg/1188/ATR-AC/16/3793 In pursuance of the decision of the Academic Council accorded in its 16th Meeting held on 05.06.2017 at CAU Hqrts, Imphal, Manipur under **Agenda Item No. 10**, the Vice-Chancellor, CAU, Imphal is pleased to issue notification for increasing intake capacity of Ph. D. in Fruit Science and Vegetable Science from 2(two) to 3(three) seats in each discipline (including 1 ICAR seat each) from the academic session 2017-18.

(Prof. K. Manoch Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/16/ 3793-2 Imphal, the 10th October, 2017

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction/Director of Research/Director of Extension Education, CAU, Imphal for kind information
3. Deans of all constituent Colleges of CAU for information and necessary action.
4. Guard file

(Prof. K. Manoch Singh)
Registrar

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CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

N O T I F I C A T I O N

Imphal, the 10th October, 2017

No. CAU/Reg/1188/ATR-AC/16/3753 In pursuance of the decision of the Academic Council accorded in its 16th Meeting held on 05.06.2017 at CAU Hqrts, Imphal, Manipur under **Agenda Item No. 11**, the Vice-Chancellor, CAU, Imphal is pleased to issue notification for increasing intake capacity of M. Sc. (Forestry) from 3(three) to 6(six) including 2(two) ICAR seats from the academic session 2017-18

(Prof. K. Manocha Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/16/ 3753 Imphal, the 10th October, 2017

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction/Director of Research/Director of Extension Education, CAU, Imphal for kind information
3. Deans of all constituent Colleges of CAU for information and necessary action.
4. Guard file

(Prof. K. Manocha Singh)
Registrar

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CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

N O T I F I C A T I O N

Imphal, the 10th October, 2017

No. CAU/Reg/1188/ATR-AC/16/ 2945 In pursuance of the decision of the Academic Council accorded in its 16th Meeting held on 05.08.2017 at Central Agricultural University Hqrs., Imphal, Manipur under **Agenda Item No. 24**, the Vice-Chancellor, CAU, Imphal is pleased to issue notification that M.Tech. degree programmes in (i) Renewable Energy Engineering and (ii) Irrigation & Drainage Engineering with intake capacity of 3 seats in each discipline (including ICAR seat each) will be started from the academic session 2018-19.

(Prof. K. Manochja Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/16/ 2946 Imphal, the 10th October, 2017

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal.
2. Director of Ingraction/Director of Research/Director of Extension Education, CAU, Imphal for kind information.
3. Deans of all constituent Colleges of CAU for information and necessary action.
4. Guard file

(Prof. K. Manochja Singh)
Registrar

10/10/17

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CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL - MANIPUR

O R D E R
Imphal, 10th October, 2017

Subject : Abolition of External System for conducting M.Sc. Comprehensive Viva-Voce Examination.

No. CAU/Reg/1188/ATR-AC/16/ 2752 : In pursuance of the decision of the Academic Council accorded in its 16th Meeting held on 05.06.2017 at Central Agricultural University Hqrs., Imphal, Manipur under **Agenda Item No. 31**, the Vice-Chancellor, CAU, Imphal is pleased to inform that the Academic Council discussed the issue and resolved to approve the abolition of External System for conducting M.Sc. Comprehensive Viva-Voce Examination. For M.Sc. after Comprehensive Examination, setting up of question paper by external examination will be completed and the answer scripts shall be sent back to the same external examiner for evaluation. On receiving satisfactory results in Written Comprehensive Examination, Viva-Voce (oral comprehensive examination) may be conducted internally within the School/Department along with the Dean's nominee (senior faculty from other School/Department within the same College).

Examiners may be from the constituent Colleges of CAU, Imphal except for College of Horticulture, Tura and College of Fisheries, Lembucherra, Tripura.

(Prof. K. Manochoi Singh)
Registrar
Imphal, the 10th October, 2017

No. CAU/Reg/1188/ATR-AC/16/ 2752

Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
Director of Instruction, CAU, Imphal for kind information
Deans of all constituent Colleges of CAU, Imphal for information and necessary action
SWOs of all constituent Colleges of CAU, Imphal for information and necessary action
Guard file

(Prof. K. Manochoi Singh)
Registrar

10/10/17

(195)

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 10th October, 2017

Subject : Clarification for award of University Institutional Fellowship to PG/Ph.D students who got "F" grade in a semester.

No. CAU/Reg/1188/ATR-AC/16/ : In pursuance of the decision of the Academic Council accorded in its **16th Meeting held on 05.06.2017** at Central Agricultural University Hqtrs., Imphal, Manipur under **Agenda Item No. 52,** the Vice-Chancellor, CAU, Imphal is pleased to inform that the Academic Council discussed the issue and decided that **University Institutional Fellowship/Merit Scholarship** may be withheld till he/she clears the "F" Grade.

(Prof. K. Manocha Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/16/ Imphal, the 10th October, 2017

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Deans of all constituent Colleges of CAU, Imphal for information and necessary action
4. SWOs of all constituent Colleges of CAU, Imphal for information and necessary action.
5. Guard file

(Prof. K. Manocha Singh)
Registrar

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14/12/2017
A Singh

Copy to:

14/12/2017

Registrar

C/c Dt 19/12/17

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 10th October, 2017

Subject : Framing policy/guidelines for foreign students.

No. CAU/Reg/1188/ATR-AC/16/2985 : In pursuance of the decision of the Academic Council accorded in its **16th Meeting held on 05.06.2017** at Central Agricultural University Hqtrs., Imphal, Manipur under **Agenda Item No. 76**, the Vice-Chancellor, CAU, Imphal is pleased to constitute a committee consisting of the following members for framing of guidelines/policies for the foreign students:

1.	Dr. C.A. Srinivasamurthy Director of Instruction, CAU, Imphal	Chairman
2.	Prof. J.M. Laishram Dean, College of Agriculture, Imphal	Member
3.	Dr. M. Dinachandra Singh Dy. Registrar (Acad.) CAU, Imphal	Member
4.	Dr. Y. Ranjana Devi Dy. Director of Instruction, CAU, Imphal	Member
5.	Dry. Y. Bedajit Singh Dy. Director of Instruction, CAU, Imphal	Member
6.	Prof. K. Manochs Singh Registrar, CAU, Imphal	Member Secy.

The Committee shall have its sitting at the earliest and submit the report within a period of 1 (one) month from its constitution.

(Prof. K. Manoch
Registrar

Memo No. CAU/Reg/1188/ATR-AC/16/2985 Imphal, the 10th October, 2017

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Deans of all constituent Colleges of CAU, Imphal for information .
4. Committee members (by name)
5. Guard file

(Prof. K. Manochs Singh)

XV

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

ORDER

Imphal, 10th December, 2018

Subject : Documents to be enclosed/approved for submitting the proposal for award of PG/Ph. D. degree programme.

No. CAU/Reg/1188/ATR-AC/18/8742 : In pursuance of the decision of the Academic Council accorded in its 17th **Meeting held on 17.05.2018** at Central Agricultural University Hqtrs., Imphal, Manipur under **Agenda Item No.73**, the Vice-Chancellor, CAU, Imphal is pleased to issue order for documents to be enclosed/approved for submitting the proposal for award of PG/Ph. D. degree programmes. Copies of the documents (**Appendix I to IX**) are also enclosed herewith for compliance.

10/12/2018
(Prof. K. Manjulu Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/18/8742 Imphal, the 10th December, 2018

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Dean, College of Agriculture, Imphal/Vety. Science &A.H, Aizawl, Mizoram/Fisheries, Lembucherra, Tripura/Horticulture & Forestry, Pasighat, Arunachal Pradesh/Agril. Engg. & PHT, Ranipool, Sikkim/Post Graduate Studies, Barapani, Meghalaya/Home Science, Tura, Meghalaya for kind information and further necessary action.
4. Guard file

10/12/2018
(Prof. K. Manjulu Singh)
Registrar

10/12/18

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CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 10th December, 2018

Subject : External examination system for final M.Sc. Thesis Viva Voce.

No. CAU/Reg/1188/ATR-AC/18/ ৪৭৪৬ : In pursuance of the decision of the Academic Council accorded in its **17th Meeting held on 17.05.2018** at Central Agricultural University Hqtrs., Imphal, Manipur under **Agenda Item No.75**, the Vice-Chancellor, CAU, Imphal is pleased to inform that the Academic Council discussed the issue and resolved to conduct with Dean's nominee..

(Prof. K. Manodha Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/18/ ৪৭৪৬ Imphal, the 10th December, 2018

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Dean, Colleges of Agriculture, Imphal/Vety. Science &A.H, Aizawl, Mizoram/Fisheries, Lembucherra, Tripura/Horticulture & Forestry, Pasighat, Arunachal Pradesh/Agril. Engg. & PHT, Ranipool, Sikkim/Post Graduate Studies, Barapani, Meghalaya/Home Science, Tura, Meghalaya for kind information and further necessary action.
4. Guard file

(Prof. K. Manodha Singh)
Registrar

(85)

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

E R
O R D
Imphal, 10th December, 2018

Subject : Linking of research activities of CAU, Imphal with students thesis work.

No. CAU/Reg/1188/ATR-AC/18/ ৪৭৮৫ : In pursuance of the decision of the Academic Council accorded in its **17th Meeting held on 17.05.2018** at Central Agricultural University Hqtrs., Imphal, Manipur under **Agenda Item No.77**, the Vice-Chancellor, CAU, Imphal is pleased to issue order that the Deans of the concerned Colleges should direct the faculties to take up research activities as per the recommendations/agenda notes from any important meetings.

(Prof. K. Manocha Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/18/ ৪৭৮৫ Imphal, the 10th December, 2018

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction/Research/Extension Education, CAU, Imphal for kind information
3. Dean, Colleges of Agriculture, Imphal/Vety. Science &A.H, Aizawl, Mizoram/Fisheries, Lembucherra, Tripura/Horticulture & Forestry, Pasighat, Arunachal Pradesh/Agril. Engg. & PHT, Ranipool, Sikkim/Post Graduate Studies, Barapani, Meghalaya/Home Science, Tura, Meghalaya for kind information and further necessary action.
4. Guard file

(Prof. K. Manocha Singh)
Registrar

(87)

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 10th December, 2018

Subject : Approval required for paper publication/books etc. by faculty members of the University.

No. CAU/Reg/1188/ATR-AC/18/8765 : In pursuance of the decision of the Academic Council accorded in its 17th **Meeting held on 17.05.2018** at Central Agricultural University Hqtrs., Imphal, Manipur under **Agenda Item No.78,** the Vice-Chancellor, CAU, Imphal is pleased to issue order that any publication bearing the name/address of the University should be brought to the knowledge of the University and properly documented as the faculties are employees of CAU, Imphal. Henceforth, any publication submitted by the faculty should be routed through the concerned Dean of the College and a copy of the same must be sent to the O/o the Director of Instruction, CAU, Imphal for records.

(Prof. K. Manochia Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/18/8765 Imphal, the 10th December, 2018

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction/Research/Extension Education, CAU, Imphal for kind information
3. All Deans of constituent Colleges of CAU, Imphal for kind information and compliance.
4. Guard file

(Prof. K. Manochia Singh)
Registrar

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 15th September, 2018

Subject : Initiation of Best Faculty Award

No. CAU/Reg/1188/ATR-AC/18/4534 : In pursuance of the decision of the Academic Council accorded in its 17th **Meeting held on 17.05.2018** at Central Agricultural University Hqtrs., Imphal, Manipur under **Agenda Item No. 8**, the Vice-Chancellor, CAU, Imphal is pleased to constitute a committee consisting of the following members for taking up necessary action on the above subject.

1.	Dr. S. Basanta Singh Director of Instruction, CAU, Imphal	:	Chairman
2.	Prof. J.M. Laishram Dean, College of Agriculture, Imphal		
3.	Dr.P.K. Pandey Dean, College of Fisheries, Tripura	:	Member
4.	Dr.B.N. Hazarika Dean, College of Horticulture & Forestry, Pasighat, Arunachal Pradesh	:	Member
5.	Prof. K. Manocha Singh Registrar, CAU, Imphal	:	Member Secy.

The Committee shall have its sitting at a convenient time and place and submit the report within a period of 1 (one) month from its sitting.

(Prof. K. Manocha Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/18/ Imphal, the 15th September, 2018

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. **Committee members (by name)**
4. **Guard file**

(Prof. K. Manocha Singh)
Registrar

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 15th September, 2018

Subject : Proposal for evaluation of comprehensive answer books/scripts by a teacher not the course teacher in the concerned dept.

No. CAU/Reg/1188/ATR-AC/18/ 9951 : In pursuance of the decision of the Academic Council accorded in its **17th Meeting held on 17.05.2018** at Central Agricultural University Hqtrs., Imphal, Manipur under **Agenda Item No. 10**, the Vice-Chancellor, CAU, Imphal is pleased to inform that the members of the Academic Council discussed the agenda only decided that the proposal may be tried for 2-3 years on experimental basis.

(Prof. K. Manocha Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/18/ 9951 Imphal, the 15th September, 2018

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Deans of all constituent Colleges of CAU, Imphal for kind information and further necessary action.
4. Guard file

(Prof. K. Manocha Singh)
Registrar

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

N O T I F I C A T I O N

Imphal, the 15th September, 2018

No. CAU/Reg/1188/ATR-AC/18/9953 In pursuance of the decision of the Academic Council accorded in its 17th Meeting held on 17.05.2018 at CAU Hqrts, Imphal, Manipur under **Agenda Item No. 12**, the Vice-Chancellor, CAU, Imphal is pleased to issue notification that all the Colleges of Agriculture of CAU, Imphal should have 12 Departments including (1) Department of Basic Sciences & Humanity (2) Department of Biochemistry, Crop Physiology & Microbiology with uniform course outline and credit hours.

(Pro) 15/9/2018
(Prof. K. Manocha Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/18/ 9953 Imphal, the 15th September, 2018

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Dean, College of Agriculture, Imphal for kind information and further necessary action
4. Dean, College of Agriculture, Pasighat, Arunachal Pradesh for kind information and further necessary action
5. Dean, College of Agriculture, Kyrdemkulai, Meghalaya for kind information and further necessary action
6. Guard File

15/9/2018
(Prof. K. Manocha Singh)
Registrar

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

Subject:

O R D E R
Imphal, 15th September, 2018

Introduction of Best Thesis Award at the University level across all the disciplines in the Faculty of Agriculture.

No. CAU/Reg/1188/ATR-AC/18/ : In pursuance of the decision of the Academic Council accorded in its 17th **Meeting held on 17.05.2018** at Central Agricultural University Hqrs., Imphal, Manipur under **Agenda Item No. 16**, the Vice-Chancellor, CAU, Imphal is pleased to constitute a Committee consisting of the following members to prepare the detailed guidelines on the above subject.

1.	Dr. S. Basanta Singh Director of Instruction, CAU, Imphal	Chairman
2.	Prof. J.M. Laishram Dean, College of Agriculture, Imphal	Member
3.	Dr.N. B. Singh Dean, College of Post Graduate Studies, Barapani, Meghalaya.	Member
	Prof. K. Manocha Singh Registrar, CAU, Imphal	Member Secy.

The Committee shall have its sitting at a convenient time and place and submit the report in a period of 1 (one) month from its sitting.

15/9/2018
(Prof. K. Manocha Singh)
Registrar

No. CAU/Reg/1188/ATR-AC/18/ Imphal, the 15th September, 2018

Copy to:
1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Committee Members (By Name)
4. Guard file

15/9/2018
(Prof. K. Manocha Singh)
Registrar

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 15th September, 2018

Subject: Proposal for inclusion of M.Sc. degree programme in Organic Farming

No. CAU/Reg/1188/ATR-AC/18/৯৯৭ : In pursuance of the decision of the Academic Council accorded in its **17th Meeting held on 17.05.2018** at Central Agricultural University Hqtrs., Imphal, Manipur under **Agenda Item No. 21**, the Vice-Chancellor, CAU, Imphal is pleased to inform that the Academic Council discussed the above proposal in detail and resolved that "Advanced Research Centre for Organic Farming and Post Graduate Diploma in Organic Farming" should be started first in the College of Agriculture, CAU, Kyrdemkulai, Meghalaya before starting P.G. Programme.

started

15/9/2018
(Prof. K. Manocha Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/18/৯৯৭ Imphal, the 15th September, 2018

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction/Extension Education/Research, CAU, Imphal for kind information
3. Comptroller, CAU, Imphal for kind information.
4. Dean, College of Agriculture, Kyrdemkulai, Meghalaya for kind information and farther necessary action
5. All Deans, constituent Colleges of CAU, Imphal for kind information.
6. Guard file

15/9/18
(Prof. K. Manocha Singh)
Registrar

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 15th September, 2018

Subject Admission of foreign students.

No. CAU/Reg/1188/ATR-AC/18/9943 : In pursuance of the decision of the Academic Council accorded in its **17th Meeting held on 17.05.2018** at Central Agricultural University Hqtrs., Imphal, Manipur under **Agenda Item No. 27**, the Vice-Chancellor, CAU, Imphal is pleased to inform that the Academic Council discussed the issue and resolved that English Proficiency Certificate should be produced by the foreign students at the time of admission or they have to undergo 6(six) months course in English before admission/at initial stage of the degree programme.

15/9/2018
(Prof. K. Manochi Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/18/9943 Imphal, the 15th September, 2018

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Dean, College of Agriculture, Imphal/Horticulture & Forestry, Pasighat/Agril. Engg. & PHT, Sikkim/Post Graduate Studies, Barapani for kind information and further necessary action
4. Guard file

15/9/2018
(Prof. K. Manochi Singh)
Registrar

(45)

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 15th September, 2018

Subject: Evaluation of PG thesis and viva-voce to be conducted through External Examiners

No. CAU/Reg/1188/ATR-AC/18/ 9644 : In pursuance of the decision of the Academic Council accorded in its 17th **Meeting held on 17.05.2018** at Central Agricultural University Hqtrs., Imphal, Manipur under **Agenda Item No. 29**, the Vice-Chancellor, CAU, Imphal is pleased to inform that the Academic Council discussed the proposal in length and resolved to conduct along with the Deans nominee for Masters degree as decided earlier.

(Prof. K. Manocha Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/18/ 9644 Imphal, the 15th September, 2018

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Dean, College of Agriculture, Imphal/Vety. Sc. & A.H. Mizoram/Fisheries, Tripura/Horticulture & Forestry, Pasighat/Home Science, Tura/Agril. Engg. & PHT, Sikkim/Post Graduate Studies, Barapani for compliance.
4. Guard file

(Prof. K. Manocha Singh)
Registrar

(AA)

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

N O T I F I C A T I O N

Imphal, the 15th September, 2018

No. CAU/Reg/1188/ATR-AC/18/9945 In pursuance of the decision of the Academic Council accorded in its 17th Meeting held on 17.05.2018 at CAU Hqrts, Imphal, Manipur under **Agenda Item No. 30**, the Vice-Chancellor, CAU, Imphal is pleased to issue notification that M. Sc. (Horticulture) degree programme in Floriculture & Landscape Architecture with intake capacity of 2 (two) seats (including 1 ICAR seat) will be started from the academic session 2018-19

(Prof. K. Manocha Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/18/ 9945 Imphal, the 15th September, 2018

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction/Extension Education CAU, Imphal for kind information
3. Dean, College of Horticulture & Forestry, Pasighat, Arunachal Pradesh for kind information and further necessary action
4. Deans of all constituent Colleges of CAU, Imphal
5. Guard File

(Prof. K. Manocha Singh)
Registrar

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

N O T I F I C A T I O N

Imphal, the 15th September, 2018

No. CAU/Reg/1188/ATR-AC/18/5944: In pursuance of the decision of the Academic Council accorded in its 17th Meeting held on 17.05.2018 at CAU Hqrts., Imphal, Manipur under **Agenda Item No. 33**, the Vice-Chancellor, CAU, Imphal is pleased to notify that College of Horticulture, Bermiok, Sikkim shall have following 8(eight) Departments as per Fifth Deans' Committee recommendation.

1. Department of Fruit Science
2. Department of Vegetable Science
3. Department of Post-Harvest Technology
4. Department of Floriculture & Landscape Architecture
5. Department of Plant Protection
6. Department of Natural Resource Management
7. Department of Basic Science
8. Department of Social Science

(Prof. K. Manocha Singh)
Registrar

Means
Copy to:

No. CAU/Reg/1188/ATR-AC/18/5946 Imphal, the 15th September, 2018

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Dean, College of Horticulture, Bermiok, Sikkim for kind information and further necessary action
4. Dean, College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
5. Dean, College of Horticulture, Thenzawl, Mizoram
6. Guard File

(Prof. K. Manocha Singh)
Registrar

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

NOTIFICATION

Imphal, the 15th September, 2018

No. CAU/Reg/1188/ATR-AC/18/3951: In pursuance of the decision of the Academic Council accorded in its 17th Meeting held on 17.05.2018 at CAU Hqrts., Imphal, Manipur under **Agenda Item No. 38**, the Vice-Chancellor, CAU, Imphal is pleased to issue notification to amend the **sub-clause 3.4.3 and 3.6.2** of CAU Academic Regulation -2016 for Master & Ph. D. degree programmes and the amended sub-clause may be read as below:

3.4.3: Thesis

Sl.No.	Particular	Master Programme	Doctoral Programme
1	Submission	After thesis seminar and submission of manuscript for one research paper	a. After thesis seminar. b. Two research papers must be submitted of which at least one has been accepted/published in any 4 and above NAAS Rated Journal or one application for patent filed out thesis work.

3.6.2: Detention of students

I) A student securing less than 6.50/10.00 GPA/CGPA at the end of any semester shall not be allowed to go to the next semester till he/she clear the semester.

(Prof. K. Manaoba Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/18/3952 Imphal, the 15th September, 2018

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction CAU, Imphal for kind information
3. Deans of all constituent Colleges of CAU, Imphal for kind information and necessary action.
4. Guard File

(Prof. K. Manaoba Singh)
Registrar

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R

Imphal, 15th September, 2018

Subject: Requirement of a registered institutional e-mail ID at least for the faculty.

No. CAU/Reg/1188/ATR-AC/18/ ৩৯৫২ : In pursuance of the decision of the Academic Council accorded in its **17th Meeting held on 17.05.2018** at Central Agricultural University Hqtrs., Imphal, Manipur under **Agenda Item No. 41**, the Vice-Chancellor, CAU, Imphal is pleased to inform that the Academic Council approved the proposal with a direction to arrange in the College level in the line already existed in CAU, Hqrts., Imphal

15/9/2018
(Prof. K. Manmohan Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/18/ ৩৯৫৩ Imphal, the 15th September, 2018

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction/Research/Extension Education, CAU, Imphal for kind information
3. Deans of all constituent Colleges of CAU, Imphal for kind information and necessary action
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15/9/2018
(Prof. K. Manmohan Singh)
Registrar

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 15th September, 2018

Subject: Proposal for ratification to increase the total number of Credit Hours.

No. CAU/Reg/1188/ATR-AC/18/ ৩৯৩৫ : In pursuance of the decision of the Academic Council accorded in its **17th Meeting held on 17.05.2018** at Central Agricultural University Hqtrs., Imphal, Manipur under **Agenda Item No. 44**, the Vice-Chancellor, CAU, Imphal is pleased to inform that the Academic Council approved the proposal to increase the Credit Hours of B.Sc (Hons.) Community Science and B.Sc.(Hons.) Nutrition & Food Dietetics to 180 as proposed

(Prof. K. Manocha Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/18/ ৩৯৩৫ Imphal, the 15th September, 2018

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction/Research/Extension Education, CAU, Imphal for kind information
3. Deans , College of Home Science, Tura, Meghalaya for kind information and necessary action
4. Guard file

15/9/2018
(Prof. K. Manocha Singh)
Registrar

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

N O T I F I C A T I O N

Imphal, the 15th September, 2018

No. CAU/Reg/1188/ATR-AC/18/9955 In pursuance of the decision of the Academic Council accorded in its 17th Meeting held on 17.05.2018 at CAU Hqrts., Imphal, Manipur under **Agenda Item No. 45**, the Vice-Chancellor, CAU, Imphal is pleased to issue notification that Ph.D. programme in Fish Processing Technology with intake capacity of 3 seats (including 1 ICAR seat) will be started from the academic session 2018-19

(Prof. K. Manochar Singh)
Registrar

Imphal, the 15th September, 2018

Memo No. CAU/Reg/1188/ATR-AC/18/9955

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction/Research/Extension Education, CAU, Imphal for kind information
3. Dean, College of Fisheries, Lembucherra, Tripura for kind information and further necessary action
4. Deans of all constituent Colleges of CAU, Imphal
5. Guard File

(Prof. K. Manochar Singh)
Registrar

(27)

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 15th September, 2018

Sub

ject : Regarding overhead charges in Experiential Learning (EL) Programme

No. CAU/Reg/1188/ATR-AC/18/3960 : In pursuance of the decision of the Academic Council accorded in its **15th Meeting held on 17.05.2018** at Central Agricultural University Hqrs., Imphal, Manipur under **Agenda Item No. 51**, the Vice-Chancellor, CAU, Imphal is pleased to pass order that University's share toward overhead charges in Experiential Learning (EL) Programme has been increased from 10% to 20% with immediate effect.

(Prof. K. Manocha Singh)
Registrar

Memo:
No. CAU/Reg/1188/ATR-AC/18/ 3960 Imphal, the 15th September, 2018

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction/Research/Extension Education CAU, Imphal for kind information
3. Deans of all constituent Colleges of CAU, Imphal for kind information and necessary
4. action
5. SWOs of all constituent Colleges of CAU, Imphal for information.
   Guard file

(Prof. K. Manocha Singh)

Registrar

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CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 15th September, 2018

Subject : Proposal for extension of examination period.

No. CAU/Reg/1188/ATR-AC/18/ 3962– : In pursuance of the decision of the Academic Council accorded in its **17th Meeting held on 17.05.2018** at Central Agricultural University Hqtrs., Imphal, Manipur under **Agenda Item No. 54**, the Vice-Chancellor, CAU, Imphal is pleased to inform that the Academic Council discussed issue and approved the proposal but the same should be adjusted in the Preparatory Leave.

(Prof. K. Manmohan Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/18/ 3962– Imphal, the 15th September, 2018

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction/Research/Extension Education CAU, Imphal for kind information
3. Deans of all constituent Colleges of CAU, Imphal for kind information and necessary action.
4. SWOs of all constituent Colleges of CAU
5. Guard file

Imphal for information.

15/9/2018
(Prof. K. Manmohan Singh)
Registrar

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

N O T I F I C A T I O N

Imphal, the 15th September, 2018

No. CAU/Reg/1188/ATR-AC/18/[illegible]: In pursuance of the decision of the Academic Council accorded in its 17th Meeting held on 17.05.2018 at CAU Hqrts., Imphal, Manipur under **Agenda Item No. 62**, the Vice-Chancellor, CAU, Imphal is pleased to issue notification that the University shall issue Original Degree Certificate to all the foreign students after completion of their study programme requirements prior their leaving India for home country as per ICAR's guidelines and their name shall be reflected in the Convocation List.

15/9/2018

(Prof. K. Manocha Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/18/ 2966 Imphal, the 15th September, 2018

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. DDG (Agril. Edn.), ICAR, New Delhi for kind information
3. Director of Instruction/Research/Extension Education, CAU, Imphal for kind information
4. Dean of all the constituent Colleges of CAU, Imphal for kind information and further necessary action
5. SWOs of all the constituent Colleges of CAU, Imphal
6. Guard File

15/9/2018

(Prof. K. Manocha Singh)
Registrar

(19)

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

N O T I F I C A T I O N

Imphal, the 15th September, 2018

No. CAU/Reg/1188/ATR-AC/18/3967 In pursuance of the decision of the Academic Council accorded in its 15th Meeting held on 17.05.2018 at CAU Hqrts., Imphal, Manipur under **Agenda Item No. 63**, the Vice-Chancellor, CAU, Imphal is pleased to issue notification for adoption of the recommendations of the Committee constituted by the University for"Special recognition of students who participated in Inter-Collegiate and All India Inter-University Competitions and NSS Certificate Holders".

1. 5 (five) marks shall be added in the percent marks obtained after adding up academic record marks and written examination marks to the students who represent Central Agricultural University, Imphal in the National Level Championships in Literature, Games & Sports and Cultural Activities at the time of PG degree programmes admission of the University.
2. For student participating Inter-Collegiate Sports and Cultural Meets of the University **5(five), 3(three) & 2(two)** marks shall be allotted to the **1st, 2nd and 3rd winner** respectively.
3. The benefit of awarding marks shall be considered for only 1(one) event and limited to 5(five) marks only.
4. There will be no marks for NSS Certificate .

15/9/2018

(Prof. K. Manocha Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/18/3967 Imphal, the 15th September, 2018

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction/Research/Extension Education, CAU, Imphal for kind information
3. Deans of all the constituent Colleges of CAU, Imphal for kind information and further necessary action
4. SWOs of all the constituent Colleges of CAU, Imphal
5. Guard File

15/9/2018

(Prof. K. Manocha Singh)
Registrar

(18)

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

NOTIFICATION

Imphal, the 19th September, 2018

No. CAU/Reg/1188/ATR/ accorded in its 17th Meeti e of the decision of the Academic Council CAU Hqrts., Imphal, Manipur under **Agenda Item No. 64**, the Vice-Chancellor be admitted under displeased to issue notification for adoption of the recommendations of the Committee constituted by the University for "Framing policy/guidelines for foreign students".

1. Foreign students (Cultural Relations or ICR and organisation, respectiv category of ICAR nominee. No self-financing foreign student sponsored/nominated th ess their case in supported by the Govt. of India, Internatio equired to pay tuition fee Govt. and approved by the Govt. of India or Indian Council o per year in addition to the
2. Foreign students rough ICAR or any other agencies mentioned above shall be r d economic fee of US Dollar 200 per month or US Dollar 2000 e normal fee charged by the College/University from Indian students.
3. Foreign students must have valid passport and visa before they can be given admission.
4. Foreign students' adviser may be nominated from every constituent Colleges of CAU, Imphal and the same has to be sent to Head Quarters for approval by the competent authority.
5. They must register with the foreign students' adviser of the respective College the nearest Civil police station within 24 hours of their arrival.
6. They should also be provided with the police clearance certificate in proof of their antecedents available from the concerned Colleges be submitted before they can be admitted.
7. All foreign students (fresh and returning from abroad) must get themselves screened for the disease AIDS (Acquired Immune Deficiency Syndrome) at their own cost and submit the screening certificate from authorized Medical Officer before they can be considered for admission to any class.
8. [illegible]
9. If a student is found unfit due to any disease, other than AIDS, he/she shall be declared temporarily unfit and can continue studies subject to University Regulations. A student with confirmed AIDS disease will have to return to his/her country.
10. The minimum academic qualification for admission in all the Under Graduate programmes and Post Graduate programme are as per the CAU criteria/Govt. of India (ICAR).

(Prof. K. Manaobi Singh)
Registrar

To

(16)

(Prof. K. Manocha Singh)
Registrar
ber, 2018

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 15th September, 2018

Subject : Revised Guidelines for Accreditation of Higher Educational Institutions in India.

No. CAU/Reg/1188/ATR-AC/18/ 5969 : In pursuance of the decision of the Academic Council accorded in its 17th **Meeting held on 17.05.2018** at Central Agricultural University Hqtrs., Imphal, Manipur under **Agenda Item No.46**, the Vice-Chancellor, CAU, Imphal is pleased to inform that the Academic Council discussed the issue in length and suggested that the concerned Deans should carefully examine the criteria laid down by the ICAR for accreditation of different degree programmes and that they should take up necessary steps for accreditation of the degree programmes which were not accreditated.

Memo No. CAU/Reg/1188/ATR-AC/18/ 5969 Imphal, the 15th Septem

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Deans of all constituent Colleges of CAU, Imphal for kind information and further necessary action.
4. Guard file

(Prof. K. Memocha Singh)
Registrar

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 15th September, 2018

Subject : Uniform time schedule in the CAU Academic Regulation-2016 for Master and P:h. D. Degree P:rogrammes w.r.t. submission of thesis by the PG and Ph. D. students.

No. CAU/Reg/1188/ATR-AC/18/ 4554 : In pursuance of the decision of the Academic Council accorded in its **17th Meeting held on 17.05.2018** at Central Agricultural University Hqtrs., Imphal, Manipur under **Agenda Item No.68**, the Vice-Chancellor, CAU, Imphal is pleased to issue order that students who could not submit their theses in time shall have to pay fine in terms of money. If the student can not submit their theses before registration date of the 5th Semester in case of PG programme and 7th Semester in case of Ph. D. programme, they should pay a late fee of Rs. 1000/- for PG and 2000/- for Ph. D. Otherwise they have to register in the next semester.

15/9/2018

(Prof. K. Manocha Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/18/ Imphal, the 15th September, 2018

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Deans of all constituent Colleges of CAU, Imphal for kind information and further necessary action.
4. Guard file

15/9/2018

(Prof. K. Manocha Singh)
Registrar

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CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 27th December, 2019

Sub: Proposal for inclusion of Performance Classification in description in the Common Format of PG/Ph.D. Result Sheet.

No. CAU/Reg/1188/ATR-AC/19/ ৪৭২৯ : In pursuance of the decision of the Academic Council accorded in its 19th Meeting held on 27.06.2019 at College of Agril. Engg & PHT, Ranipool, Sikkim under **Supplementary Agenda Item No. 1 (AC-19/S(I)/2019)**, the Vice-Chancellor, CAU, Imphal is pleased to issue order for inclusion of Performance Classification in the Common Format of PG/Ph.D. Result Sheet. Format of the Result Sheet is appended herewith for compliance.

27/12/2019

(Prof. K. Manocha Singh)
Registrar

Imphal, the 27th December, 2019

Memo No. CAU/Reg/1188/ATR-AC/19/ ৪৭২৯

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction CAU, Imphal for kind information and necessary action.
3. Dean, College of Agriculture, Imphal, Manipur / Veterinary Sciences & Animal Husbandry, Aizawl, Mizoram / Fisheries, Lembucherra, Tripura/ Horticulture & Forestry, Pasighat, Arunachal Pradesh / Agril. Engg. & PHT, Ranipool,Sikkim/ Post Graduate Studies in Agril. Sciences, Barapani, Meghalaya / Community Science, Tura, Meghalaya for kind information and further necessary action.
4. Guard file

27/12/2019

(Prof. K. Manocha Singh)
Registrar

27/12/19

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CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 27th December, 2019

Sub: Proposal for Question Pattern in the theory examination of PG/Ph.D. End Term Examination.

No. CAU/Reg/1188/ATR-AC/19/ ৬৬৪১ : In pursuance of the decision of the Academic Council accorded in its **19th Meeting held on 27.06.2019** at College of Agril. Engg & PHT, Ranipool, Sikkim under **Agenda Item No. 48**, the Vice-Chancellor, CAU, Imphal is pleased to issue order as below:

"The standard question pattern for **Theory Examinations** of PG and Ph.D. Degree programme may be adopted as 30 percent objective (of 0.5 marks with **no True/False and no choices**), 20 percent **Short Answer Type** (of 2 marks each with choices for answering the question) and 50 percent **Descriptive/Long Answer Type Question** (of 5 marks each with choices for answering the question)."

29/12/2019
(Prof. K. Manocha Singh)
Registrar

Copy to:

No. CAU/Reg/1188/ATR-AC/19/ ৬৬৪১ Imphal, the 27th December, 2019

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction CAU, Imphal for kind information and necessary action.
3. Dean, College of Agriculture, Imphal / Veterinary Sciences & Animal Husbandry, Aizawl, Mizoram / Fisheries, Tripura/ Horticulture & Forestry, Pasighat, Arunachal Pradesh/ Agril. Engg. & PHT, Ranipool,Sikkim/ Post Graduate Studies in Agril. Sciences, Barapani, Meghalaya / Community Science, Tura, Meghalaya for kind information and necessary action.
4. Guard file

29/12/2019
(Prof. K. Manocha Singh)
Registrar

29/12/19

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

N O T I F I C A T I O N

Imphal, the 27th December, 2019

No. CAU/Reg/1188/ATR-AC/19/1526 In pursuance of the decision of the Academic Council accorded in its 19th Meeting held on 27.06.2019 at College of Agril. Engg. & PHT, Ranipool, Sikkim under **Agenda Item No. 47 (a) & (b)**, the Vice-Chancellor, CAU, Imphal is pleased to issue notification to amend the **Sub-Clause No. 3.4.2 & 3.5.1** of CAU Academic Regulation-2016 for Master & Ph.D. Degree programme and the amended sub-clause may be read as below:

3.4.2: Comprehensive Qualifying Examination:

a)

Subject/Details	Master's Degree Programme	Doctoral Degree Programme
Major Subjects	One paper	One paper
Minor Subject	One paper	One paper
Question Paper Setting	External	External
Evaluation	External	External
Viva-voce exam	Internal (within the School/ Department along with the Dean's nominee who may be senior faculty from other School/Department within the same college).	External with Advisory Committee Members.
Qualifying marks	60%	
Grading	Satisfactory/Unsatisfactory*	

b) There will be one paper in major field and one paper in minor field for Master's and two papers in major field (in which one paper will be from core course and the other paper from optional course) and one paper in minor field for Ph.D. programme. The question paper of Written Comprehensive Examination should be of 100 marks with the pattern of 30% Objective, 20% Short Answer and 50% Subjective and of three hours duration for major and minor papers. The question papers shall be so designed that these tests judge the overall comprehension of the student in the major/minor field. In case of unsatisfactory performance both in major and minor subjects, the student will have appear in repeat written examination conducted only after two months of the declaration of result and new examiner will be appointed for the repeat exam from the panel submitted earlier.

Contd. Page-2

3.4.1: Written Comprehensive Qualifying Examination

a) After completion of 75 percent of course work requirement separately in major and minor subjects and on completion of minimum two semesters, the student shall be eligible to appear in the Comprehensive Qualifying Examination. The qualifying examination shall be conducted as per the procedure outlined under clause 3.4.2.

b) The written comprehensive examination shall be of two papers, one for major and the other for minor.

c) The question papers for the written examination shall be set externally and evaluated externally.

d) A student shall score a minimum of 60 percent marks (separately in major and minor papers) to qualify the Comprehensive Qualifying Examination.

(Prof. K. Manocha Singh)
Registrar

Imphal, the 27th December, 2019

No. CAU/Reg/1188/ATR-AC/19/ 8968-6

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Dean, College of Agriculture, Imphal / Veterinary Sciences & Animal Husbandry, Arizwal, Mizoram / Fisheries, Tripura/ Horticulture & Forestry, Pasighat, Arunachal Pradesh / Agril. Engg. & PHT, Ranipool,Sikkim / Post Graduate Studies in Agril. Sciences, Barapani, Meghalaya / Community Science, Tura, Meghalaya for kind information and further necessary action.
4. Guard File

(Prof. K. Manocha Singh)
Registrar

(139)

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 27th December, 2019

No. CAU/Reg/1188/ATR-AC/19/৫৩৯৫ : In pursuance of the decision of the Academic [illegible] accorded in its **19th Meeting held on 27.06.2019** at College of Agril. Engg & PHT, [illegible], Sikkim under **Agenda Item No. 46**, the Vice-Chancellor, CAU, Imphal is pleased to [illegible]der for adopting Revised Uniform Common Result Sheet for the Bachelor Degree (Agril. [illegible]me in constituent Colleges of CAU, Imphal. Sample copy of Result Sheet in r/o B.Tech. [illegible] Engg.) 4th Year students, College of Agril. Engg. & PHT, Ranipool, Sikkim is appended ith **(Annexure)** for compliance.

27/12/2019
(Prof. K. Manocha Singh)
Registrar

Memo

No. CAU/Reg/1188/ATR-AC/19/ ৫৩৯৫ Imphal, the 27th December, 2019

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction/Director of Research/Director of Extension Education, CAU, Imphal for kind information and necessary action.
3. Dean of all constituent College of CAU, Imphal for kind information and compliance.
4. Guard file

27/12/2019
(Prof. K. Manocha Singh)
Registrar

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 27th December, 2019

No. CAU/Reg/1188/ATR-AC/19/ঌ৮ঌ : In pursuance of the decision of the Academic Council accorded in its **19th Meeting held on 27.06.2019** at College of Agril. Engg & PHT, Ranipool, Sikkim under **Agenda Item No. 43**, the Vice-Chancellor, CAU, Imphal is pleased to issue order for increasing remuneration of Adjunct Faculty from Rs. 1000/- per lecture per day to a maximum of Rs. 3000/- per day without crossing ceiling limit of Rs. 25,000/- per month.

(Prof. K. Manocha Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/19/ঌ৯৪ Imphal, the 27th December, 2019

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction/Director of Research/Director of Extension Education, CAU, Imphal for kind information and necessary action.
3. Comptroller, CAU, Imphal for kind information.
4. Dean of all constituent College of CAU, Imphal for kind information and further necessary action.
5. Guard file

(Prof. K. Manocha Singh)
Registrar

VC

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

N O T I F I C A T I O N

Imphal, the 27th December, 2019

No. CAU/Reg/1188/ATR-AC/19/6617 In pursuance of the decision of the Academic Council accorded in its 19th Meeting held on 27.06.2019 at College of Agril. Engg. & PHT, Ranipool, Sikkim under **Agenda Item No. 42**, the Vice-Chancellor, CAU, Imphal is pleased to issue notification for adoption of the recommendation of the Committee constituted by the University for Best Thesis Award for Faculty of Agriculture, with the inclusion of other faculties also.

27/12/2019

(Prof. K. Manocha Singh)

Registrar

Memo No. CAU/Reg/1188/ATR-AC/19/6617 Imphal, the 27th December, 2019

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction/Director of Research/Director of Extension Education, CAU, Imphal for kind information
3. Dean of all constituent Colleges of CAU, Imphal for kind information.
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27/12/2019

Registrar

(Prof. K. Manocha Singh)

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR
27th December,

O R D E R

Imphal, 2019

Subject : Revision of PGS/Appendix-V (format for submitting results of Comprehensive Qualifying Written Examination.

No. CAU/Reg/1188/ATR-AC/19/ ৪৭৩৫ : In pursuance of the decision of the Academic Council accorded in its 19th Meeting held on 27.06.2019 at College of Agril. Engg & PHT, Ranipool, Sikkim under **Agenda Item No. 30**, the Vice-Chancellor, CAU, Imphal is pleased to issue order for exclusion of Advisory Committee Member's signature except Chairman in the PGS/Appedix-V format for PG and Ph.D. students.

(Prof. K. Manocha Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/19/ ৪৭৩৫ Imphal, the 27th December, 2019

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information and necessary action.
3. Dean, College of Agriculture, Imphal / Veterinary Sciences & Animal Husbandry, Aizawl, Mizoram / Fisheries, Tripura/ Agril. Engg. & PHT, Ranipool,Sikkim/ Horticulture & Forestry, Pasighat, Arunachal Pradesh / Post Graduate Studies in Agril. Sciences, Barapani, Meghalaya / Community Science, Tura, Meghalaya for kind information and further necessary action.
4. Guard file

(Prof. Manocha Singh)
Registrar

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

NOTIFICATION

Imphal, the 27th December, 2019

Sub: Specific guidelines to undertake the course of Special Problems for PG & Ph.D. students in the CAU Academic Regulations, 2016.

No. CAU/Reg/1188/ATR-AC/19/6965: In pursuance of the decision of the Academic Council accorded in its 19th Meeting held on 27.06.2019 at College of Agril. Engg. & PHT, Ranipool, Sikkim under **Agenda Item No. 29**, the Vice-Chancellor, CAU, Imphal is pleased to issue notification for incorporation of the following guidelines under Clause No. 2.13(Plan of work) of CAU Academic Regulations-2016 for Master and Ph.D. Degree Programmes.

2.13 Plan of work

2.13.5 'The course of **Special Problem** will be offered by the Adviser of Student's Advisory Committee in the **second semester or later**. The student has to submit a brief synopsis of the work to be done through the Chairman of the Student's Advisory Committee to Dean within 30 days of offering the course. A final report on the special problem will be submitted by the student to his/her guide, which will be sent to Dean along with the evaluation report indicating marks in prescribed format'.

The incorporated clause shall be applicable from the ensuing academic session 2019-20.

(Prof. K. Manocha Singh)
Registrar

Imphal, the 27th December, 2019

Memo No. CAU/Reg/1188/ATR-AC/19/6965

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Dean, College of Agriculture, Imphal, Manipur / Veterinary Sciences & Animal Husbandry, Aizawl, Mizoram / Fisheries, Lembucherra, Tripura/ Agril. Engg. & PHT, Ranipool,Sikkim/ Horticulture & Forestry, Pasighat, Arunachal Pradesh / Post Graduate Studies in Agril. Sciences, Barapani, Meghalaya / Community Science, Tura, Meghalaya for kind information and further necessary action.

Guard File

(Prof. K. Manocha Singh)
Registrar

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CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

N O T I F I C A T I O N

Imphal, the 27th December, 2019

No. CAU/Reg/1188/ATR-AC/19/[illegible] In pursuance of the decision of the Academic Council accorded in its 19th Meeting held on 27.06.2019 at College of Agril. Engg. & PHT, Ranipool, Sikkim under **Agenda Item No. 18**, the Vice-Chancellor, CAU, Imphal is pleased to issue notification for allotment of seats in M.Sc. (Forestry) programme in the following disciplines from the academic session 2020-21.

Sl. No.	Name of the Discipline	CAU Seat	ICAR Seat	Total
1.	Silviculture	02	01	03
2.	Forest Genetics Resources	02	01	03
3.	Medicinal & Aromatic Plants	02	01	03
	Grand Total	**06**	**03**	**09**

(Prof. K. Manocha Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/19/[illegible] Imphal, the 27th December, 2019

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction/Director of Research/Director of Extension Education, CAU, Imphal for kind information
3. Dean, College of Horticulture & Forestry, Pasighat, Arunachal Pradesh for kind information and further necessary action.
4. Dean of all constituent Colleges of CAU, Imphal for kind information.
5. Guard File

(Prof. K. Manocha Singh)
Registrar

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CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

N O T I F I C A T I O N

Imphal, the 27th December, 2019

No. CAU/Reg/1188/ATR-AC/19/৯৩৭৪ In pursuance of the decision of the Academic Council recorded in its 19th Meeting held on 27.06.2019 at College of Agril. Engg. & PHT, Ranipool, Sikkim under **Agenda Item No. 16**, the Vice-Chancellor, CAU, Imphal is pleased to issue notification for increasing intake capacity of M.Sc. (Hort.) programme in Floriculture & Landscape Architecture from 2 (two) to 4(four) seats (excluding ICAR seat) from the academic session 2020-21.

(Prof. K. Manocha Singh)
Registrar

Imphal, the 27th December, 2019

Memo No. CAU/Reg/1188/ATR-AC/19/৯৩৭৫

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction/Director of Research/Director of Extension Education, CAU, Imphal for kind information
3. Dean, College of Horticulture & Forestry, Pasighat, Arunachal Pradesh for kind information and further necessary action.
4. Dean of all constituent Colleges of CAU, Imphal for kind information.
5. Guard File

(Prof. K. Manocha Singh)
Registrar

(207)

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 27th December, 2019

Subject : Revisiting the requirement of keeping plan of work for post-graduate students (PG-2) format.

No. CAU/Reg/1188/ATR-AC/19/ 6985 : In pursuance of the decision of the Academic Council accorded in its **19th Meeting held on 27.06.2019** at College of Agril. Engg & PHT, Ranipool, Sikkim under **Agenda Item No. 6**, the Vice-Chancellor, CAU, Imphal is pleased to constitute a committee consisting of the following members to examine the proposal.

1.	Director of Instruction, CAU, Imphal	:	Chairman
2.	Dean, College of Agriculture, Imphal	:	Member
3.	Dean, College of Veterinary Sciences & Animal Husbandry, Aizawl, Mizoram		Member
4	Dean, College of Fisheries, Tripura		Member
5.	Dean, College of Horticulture & Forestry, Pasighat, Arunachal Pradesh	:	Member
6	Dean, College of Agril. Engg. & PHT, Ranipool,Sikkim		Member
7	Dean, College of Post Graduate Studies in Agril. Sciences, Barapani, Meghalaya		Member
8	Dean, College of Community Science, Tura, Meghalaya		Member
9	Registrar, CAU, Imphal	:	Member Secy.

The Chairman of the Committee will take the comments of the members via IT Cells and unanimous decision will be compiled and submitted to the Hon'ble Vice Chancellor for final approval.

27/12/19
(Prof. K. Manindra Singh)
Registrar

Memo
Copy No. CAU/Reg/1188/ATR-AC/19/ 6988 Imphal, the 27th December, 2019

to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information and necessary action.
3. Committee members (by name)
4. Guard file

27/12/2019
(Prof. K. Manindra Singh)
Registrar

(215)

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 27th December, 2019

Subject : Revisiting the requirement of keeping plan of work for post-graduate students (PG-2) format.

No. CAU/Reg/1188/ATR-AC/19/ 6465 : In purvance of the decision of the Academic Council accorded in its 19th Meeting held on 27.06.2019 at College of Agril. Engg & PHT, Ranipool, Sikkim under Agenda Item No. 6, the Vice-Chancellor, CAU, Imphal is pleased to constitute a committee consisting of the following members to examine the proposal.

1.	Director of Instruction, CAU, Imphal	:	Chairman
2.	Dean, College of Agriculture, Imphal	:	Member
3.	Dean, College of Veterinary Sciences & Animal Husbandry, Aizawl, Mizoram		Member
4	Dean, College of Fisheries, Tripura	:	Member
5.	Dean, College of Horticulture & Forestry, Pasighat, Arunachal Pradesh		Member
6	Dean, College of Agril. Engg. & PHT, Ranipool,Sikkim		Member
7	Dean, College of Post Graduate Studies in Agril. Sciences, Barapani, Meghalaya		Member
8	Dean, College of Community Science, Tura, Meghalaya		Member
9	Registrar, CAU, Imphal	:	Member Secy.

The Chairman of the Committee will take the comments of the members via IT Cells and unanimous decision will be compiled and submitted to the Hon'ble Vice Chancellor for final approval.

(Prof. K. Manocha Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/19/ 6465 Imphal, the 27th December, 2019

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information and necessary action.
3. Committee members (by name)
4. Guard file

(Prof. K. Manocha Singh)
Registrar

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

NOTIFICATION

Imphal, the 27th December, 2019

No. CAU/Reg/1108/ATR-AC/19/[illegible] In pursuance of the decision of the Academic Council accorded in its 19th Meeting held on 27.06.2019 at College of Agril. Engg. & PHT, Ranipool, Sikkim under **Agenda Item No. 47 (a) & (b)**, the Vice-Chancellor, CAU, Imphal is pleased to issue notification to amend the **Sub-Clause No. 3.4.2 & 3.5.1** of CAU Academic Regulation-2016 for Master & Ph.D. Degree programme and the amended sub-clause may be read as below:

3.4.2: Comprehensive Qualifying Examination:

a).

Subject/Details	Master's Degree Programme	Doctoral Degree Programme
Major Subjects	One paper	One paper
Minor Subject	One paper	One paper
Question Paper Setting	External	External
Evaluation	External	External
Viva-voce exam	Internal (within the School/ Department along with the Dean's nominee who may be senior faculty from other School/Department within the same college).	External with Advisory Committee Members.
Qualifying marks	60%	
Grading	Satisfactory/Unsatisfactory*	

b) There will be one paper in major field and one paper in minor field for Master's and two papers in major field (in which one paper will be from core course and the other paper from optional course) and one paper in minor field for Ph.D. programme. The question paper of Written Comprehensive Examination should be of 100 marks with the pattern of 30% Objective, 20% Short Answer and 50% Subjective and of three hours duration for major and minor papers. The question papers shall be so designed that these tests judge the overall comprehension of the student in the major/minor field. In case of unsatisfactory performance both in major and minor subjects, the student will have appear in repeat written examination conducted only after two months of the declaration of result and new examiner will be appointed for the repeat exam from the panel submitted earlier.

Contd. Page-2

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL - MANIPUR

O R D E R
Imphal, 7th July, 2020

Sub: Approval for internal setting of questions paper and evaluation for 2nd Semester of Academic Session 2019-20.

No. CAU/Reg/1188/ATR-AC/19/ : In pursuance of the decision of the Academic Council accorded in its 28th **Meeting held on 08.06.2020** at CAU Headquarters, Lamphelpat, Imphal through Webinar/Videoconference under **Agenda Item No. 3**, the Vice-Chancellor, CAU, Imphal is pleased to issue order for approval of internal setting of question paper and evaluation for 2nd Semester of Academic Session 2019-20. In this system, the Question Paper shall be prepared and evaluated by Teacher(s) other than the course Teacher. However, for subject/course where there is single faculty, the course Teacher shall do question paper setting and evaluation.

(Prof. K. Manocha Singh)
Registrar
Imphal, the 7th July, 2020

Copy to:

Memo No. CAU/Reg/1188/ATR-AC/19/

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction CAU, Imphal for kind information.
3. All Deans of the constituent Colleges of CAU, Imphal for kind information and further necessary action.
4. Guard file

(Prof. K. Manocha Singh)
Registrar

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

(32)

O R D E R
Imphal, 7th July, 2020

Sub: Combining Mid-Term and End-Term Examination for 2nd semester of Academic Session 2019-2020.

No. CAU/Reg/1188/ATR-AC/19/৬৫৩ : In pursuance of the decision of the Academic Council accorded in its **20th Meeting held on 08.06.2020** at CAU Headquarters, Lamphelpat, Imphal through Webinar/Videoconference under **Agenda Item No. 4**, the Vice-Chancellor, CAU, Imphal is pleased to issue order for combining Mid-Term and End-Term Examination for 2nd Semester Academic Session 2019-20.

(Prof. K. Manocha Singh)
Registrar
Imphal, the 7th July, 2020

Memo No. CAU/Reg/1188/ATR-AC/19/ ৬৫৩

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction CAU, Imphal for kind information.
3. All Deans of the constituent Colleges of CAU, Imphal for kind information and further necessary action.
4. Guard file

(Prof. K. Manocha Singh)
Registrar

(32)

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 7th July, 2020

Sub: Conducting comprehensive viva-voce examination for Ph.D. and PG students online during 2nd semester of Academic Session 2019-2020.

No. CAU/Reg/1188/ATR-AC/19/ : In pursuance of the decision of the Academic Council accorded in its **20th Meeting held on 08.06.2020** at CAU Headquarters, Lamphelpat, Imphal through Webinar/Videoconference under **Agenda Item No. 5**, the Vice-Chancellor, CAU, Imphal is pleased to issue order for conducting comprehensive viva-voce examination for Ph.D. and PG students online during 2nd semester of Academic Session 2019-2020.

7/7/2020
(Prof. K. Mamocha Singh)
Registrar
Imphal, the 7th July, 2020

Memo No. CAU/Reg/1188/ATR-AC/19/

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction CAU, Imphal for kind information.
3. Dean, College of Agriculture, Imphal, Manipur / Veterinary Sciences & Animal Husbandry, Aizawl, Mizoram / Fisheries, Lembucherra, Tripura/ Horticulture & Forestry, Pasighat, Arunachal Pradesh / Agril. Engg. & PHT, Ranipool,Sikkim/ Community Science, Tura, Meghalaya/ Post Graduate Studies in Agril. Sciences, Barapani, Meghalaya for kind information and further necessary action.
4. Guard file

7/7/2020
(Prof. K. Mamocha Singh)
Registrar
7/7/2020

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CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

N O T I F I C A T I O N

Imphal, the 7th July, 2020

No. CAU/Reg/1188/ATR-AC(19)/ [illegible] In pursuance of the decision of the Academic Council accorded in its **20th Meeting held on 08.06.2020** at CAU Headquarters, Lamphelpat, Imphal through Webinar/Videoconference under **Agenda Item No. 6**, the Vice-Chancellor, CAU, Imphal is pleased to issue notification for starting Ph.D. Programme in the discipline of Veterinary Parasitology with initial intake capacity of 2 (two) seats (excluding ICAR seat) from the academic session 2020-21.

(Prof. K. Manocha Singh)
Registrar
Imphal, the 7th July, 2020

Memo No. CAU/Reg/1188/ATR-AC(19)/ [illegible]

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction/Director of Research/Director of Extension Education, CAU, Imphal for kind information
3. Dean, College of Veterinary Sciences & Animal Husbandry, Aizawl, Mizoram for kind information and further necessary action.
4. Dean of all constituent Colleges of CAU, Imphal for kind information.
5. Guard File

(Prof. K. Manocha Singh)
Registrar

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

325

O R D E R

Imphal, 7th July, 2020

Sub: Request to consider NEET merit for admission to BVSc & AH Degree programme at CVSc &AH, Selesih, Aizawl, Mizoram against payment seat.

No. CAU/Reg/1188/ATR-AC/19/ 875 In pursuance of the decision of the Academic Council accorded in its **20th Meeting held on 08.06.2020** at CAU Headquarters, Lamphelpat, Imphal through Webinar/Videoconference under **Agenda Item No. 8**, the Vice-Chancellor, CAU, Imphal is pleased to issue order for considering NEET merit for admission to B.V.Sc. &A.H. degree programme at College of Voty. Sc. & AH, Selesih, Aizawl, Mizoram against payment seat (higher fee category).

Further, the Academic Council also approved to consider UG admission on higher fee category for other discipline/faculties based on mark scored in NEET/AIEEA Examination.

The above guidelines shall be effective from the ensuing academic session 2019-20/ 2020-21

(Prof. K. Manaocha Singh)
Registrar
Imphal, the 7th July, 2020

Memo No. CAU/Reg/1188/ATR-AC/19/ 876

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction/Director of Research/Director of Extension Education, CAU, Imphal for kind information.
3. Dean, College of Veterinary Sciences & Animal Husbandry, Aizawl, Mizoram for kind information and further necessary action.
4. Dean of all constituent College of CAU, Imphal for kind information.
5. Guard file

(Prof. K. Manaocha Singh)
Registrar

(323)

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 7th July, 2020

Sub: Extension of current semester for completion of final examination (for UG, PG and PhD 1st Year students) and extension of thesis submission date (for PG and PhD final year students).

No. CAU/Reg/1188/ATR-AC/19/১৮৭ : In pursuance of the decision of the Academic Council accorded in its **20th Meeting held on 08.06.2020** at CAU Headquarters, Lamphelpat, Imphal through Webinar/Videoconference under **Agenda Item No. 18**, the Vice-Chancellor, CAU, Imphal is pleased to issue order for extension of current semester duration by 3-4 weeks for completion of final examination for UG, PG and Ph.D. 1st Year students and thesis submission by 6 months for PG and Ph.D. final year students specifically for those students who are not in the campus, but those in the campus, their examination can be conducted.

(Prof. K. Manochu Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/19/১৮৭ Imphal, the 7th July, 2020

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information.
3. All Dean of constituent College of CAU, Imphal for kind information and further necessary action.
4. Guard file

(Prof. K. Manochu Singh)
Registrar

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R

Imphal, 7th July, 2020

Sub: Shifting the submission of PG-3 form (work plan for post-graduate students) from 2nd Semester to 3rd Semester or within one month of resumption of regular academic activity.

No. CAU/Reg/1188/ATR-AC/19/ [illegible] : In pursuance of the decision of the Academic Council accorded in its **20th Meeting held on 08.06.2020** at CAU Headquarters, Lamphelpat, Imphal through Webinar/Videoconference under **Agenda Item No. 11**, the Vice-Chancellor, CAU, Imphal is pleased to issue order for shifting the submission time frame of PG-3 Form (Work Plan for Post-Graduate students) from 2nd Semester to 3rd Semester or within one month of resumption of regular academic activity as recommended by BOS taking into consideration the present COVID-19 pandemic.

(Prof. K. Manocha Singh)
Registrar

Memo No. CAU/Reg/1188/ATR-AC/19/ [illegible] Imphal, the 7th July, 2020

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information.
3. Dean, College of Agriculture, Imphal, Manipur / Veterinary Sciences & Animal Husbandry, Aizawl, Mizoram / Fisheries, Lembucherra, Tripura/ Horticulture & Forestry, Pasighat, Arunachal Pradesh / Community Science, Tura, Meghalaya/ Post-Graduate Studies in Agril. Sciences, Barapani, Meghalaya for kind information and further necessary action.
4. Guard file

[illegible] Agril. Engg & PHT, Ranipool, Sikkim

(Prof. K. Manocha Singh)
Registrar
07/07/2020

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

(322)

O R D E R
Imphal, 7th July, 2020

Sub: Proposal for engaging Ph.D. students as Teaching Assistant.

No. CAU/Reg/1188/ATR-AC/19/892 In pursuance of the decision of the Academic Council accorded in its **20th Meeting held on 08.06.2020** at CAU Headquarters, Lamphelpat, Imphal through Webinar/Videoconference under **Agenda Item No. 15**, the Vice-Chancellor, CAU, Imphal is pleased to issue order that Ph.D. students may be awarded Teaching Assistantship after completion of their course work with a condition that only Experience Certificate can be issued by the Dean of the respective College but not the remuneration.

(Prof. K. Manocha Singh)
Registrar
Imphal, the 7th July, 2020

Memo No. CAU/Reg/1188/ATR-AC/19/892

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information.
3. All Deans of constituent Colleges of CAU, Imphal for kind information and further necessary action.
4. Guard file

(Prof. K. Manocha Singh)
Registrar

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CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 7th July, 2020

Sub: Cancellation of All India Tour Program for final year batch of Academic session 2019-20.

No. CAU/Reg/1188/ATR-AC/19/685 In pursuance of the decision of the Academic Council accorded in its **20th Meeting held on 08.06.2020** at CAU Headquarters, Lamphelpat, Imphal through Webinar/Videoconference under **Agenda Item No. 16**, the Vice-Chancellor, CAU, Imphal is pleased to issue order for cancellation of All India Study Tour Programme for final year batch of Academic Session 2019-20 as recommended by the Board of Studies.

(Prof. K. Manochu Singh)
Registrar
Imphal, the 7th July, 2020

Memo No. CAU/Reg/1188/ATR-AC/19/685

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information.
3. All Deans of constituent Colleges of CAU, Imphal for kind information and further necessary action.
4. Comptroller, CAU, Imphal for kind information.
5. Guard file

(Prof. K. Manochu Singh)
Registrar

(343)

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

NOTIFICATION

Imphal, the 7th July, 2020

No. CAU/Reg/1188/ATR-AC/[illegible] In pursuance of the decision of the Academic Council accorded in its 20th Meeting held on 08.06.2020 at CAU Headquarters, Lamphelpat, Imphal through Webinar/Vtk)conference under **Agenda Item No. 30**, the Vice-Chancellor, CAU, Imphal is pleased to issue notification for starting M.Sc. (Agri.) programme in the discipline of **Agricultural Nematology**, School of Crop Protection, **College of Post-Graduate Studies in Agril. Sciences, Barapani, Meghalaya**, with initial intake capacity of 3 seats (including ICAR seat) from the academic session 2020-21.

(Prof. K. Manocha Singh)
Registrar
Imphal, the 7th July, 2020

Memo No. CAU/Reg/1188/ATR-AC/[illegible]

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal.
2. Director of Instruction/Director of Research/Director of Extension Education, CAU, Imphal for kind information.
3. Dean, College of Post-Graduate Studies in Agril. Sciences, Barapani, Meghalaya for kind information and further necessary action.
4. Dean of all constituent Colleges of CAU, Imphal for kind information.
5. Guard file.

(Prof. K. Manocha Singh)
Registrar

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CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

N O T I F I C A T I O N
Imphal, the 7th July, 2020

No. CAU/Reg/1188/ATR-AC(P)/5[illegible] In pursuance of the decision of the Academic Council accorded in its 20th **Meeting held on 18.06.2020** at CAU Headquarters, Lamphelpat, Imphal through Webinar/Video conference under **Agenda Item No. 30**, the Vice-Chancellor, CAU, Imphal is pleased to issue notification for starting M.Sc. (Agri.) programme in the discipline of **Agricultural Nematology**, School of Crop Protection, **College of Post-Graduate Studies in Agril. Sciences, Barapani, Meghalaya**, with initial intake capacity of 3 seats (including ICAR seat) from the academic session 2020-21.

(Prof. K. [illegible])

Memo No. CAU/Reg/1188/ATR-AC(P)/[illegible] Imphal, [illegible]

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal.
2. Director of Instruction/Director of Research/Director of Extension Education, CAU, Imphal for kind information.
   Dean, College of Post-Graduate Studies in Agril. Sciences, Barapani, Meghalaya for kind information and further necessary action.
4. Dean of all constituent Colleges of CAU, Imphal for kind information.
5. Guard file.

(Prof. K. Manocha Singh)
Registrar

(55)

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 7th July, 2020

Sub: Extension of date of thesis submission by six months (applicable for gold medal awardees also).

No. CAU/Reg(1)88/AER-AC(W)/2015 In pursuance of the decision of the Academic Council accorded in its **28th Meeting held on 08.06.2020** at CAU Headquarters, Lamphelpat, Imphal through Webinar/Videoconference under **Supplementary Agenda Item No. 06(i)**, the Vice-Chancellor, CAU, Imphal is pleased to issue order for extension of date of thesis submission by 6(six) mon[illegible] Ph.D. students and including for those students who are yet to [illegible] approval of PC & [illegible] in previous will also apply to the students competing for [illegible]

(Dr. K. Manoranjan Singh)
Registrar
Memo No. CAU(Reg)(1)88/AER-AC(W)/2015 Imphal, the 7th July, 2020

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Dean, College of Agriculture, Imphal, Manipur / Veterinary Sciences & Animal Husbandry, Aizawl, Mizoram / Fisheries, Lembucherra, Tripura/ Horticulture & Forestry, Pasighat, Arunachal Pradesh / Community Science, Tura, Meghalaya/ Post-Graduate Studies in Agril. Sciences, Barapani, Meghalaya for kind [illegible] and further necessary action
4. Guard file

(Dr. K. Manoranjan Singh)
Registrar

ANNEXURE-C

Submission of Action Taken Report on the recommendation of the National Agricultural Education Accreditation Board.

Reply from Central Agricultural University, Imphal, Manipur.

Sl. No.	Sl. No. As listed by ICAR	Particulars of information sought by ICAR, New Delhi	Remarks/Compliance Report
1	3	The following colleges/degree programmes were not approved for accreditation until such time that the University furnishes evidence of faculty strength as per ICAR norms and fulfils the following specific observations made by the Board against each college.	
		1) B.Tech.(Food Technology) in College of Agricultural Engineering & Post Harvest Technology, Ranipool, Sikkim	As detailed below

Information from the University:

Evidence for strengthening faculties in B.Tech(Food Tech.) for accreditation.

1) Faculty strength in B.Tech. (Food Tech.) of College of Agricultural Engineering & Post Harvest Technology, Ranipool, Sikkim, University has filled one Professor, two Associate Professor and nine Assistant Professors in the recent past to fulfill the requirements.

Faculty strength before visits of Peer Review Team

Department	**Professor**	**Associate Professor**	**Assistant Professor**
Farm Power Machinery	-	2(FPM)	1 (FPM)
		1 (Renewable Energy)	1 (Mech. Engg.)
Soil & Water Engineering	-	1 (SWE)	1 (SWE)
		2 (IDE)	1 (ID Engg.)
			1 (Civil Engg.)
Processing & Food Engineering/Food Technology	1		1 (PHEngg.)
			1 (Food Tech)
			1 (Aqua Engg.)
			1 (Elect. Engg.)
Basic Science & Humanities	-		1 (Physics)
			1 (Biochemistry)
			1 (English)
			1 (Comp. Engg.)
Agricultural Science	-		1 (Agronomy)
			1 (Soil. Sc.)

Total	**1**	**6**	**15**

Faculty strength after visits of Peer Review Team

Department	**Professor**	**Associate Professor**	**Assistant Professor**
Farm Power Machinery	-	1(FPM)	2 (FPM)
		1 (Renewable Energy)	2 (Mech. Engg.)
Soil & Water Engineering	-	2 (SWE)	1 (SWE)
		2 (IDE)	1 (ID Engg.)
Processing & Food Engineering/Food Technology	1	1	1 (PHEngg.)
			1 (Food Tech)
			1 Diary Engg.)
			1 (Aqua Engg.)
			1 (Elect. Engg.)
			1 (Elect & Inst.
Basic Science & Humanities	-		1 (Maths)
			1 (Physics)
			1 (English)
			1 (Comp. Engg.)
			1 (Statistics)
Agricultural Science	-		1 (Agronomy)
			1 (Soil. Sc.)
			1 (Agri BM))
Total	**2**	**7**	**21**

Details of appointment are as under:

Department	**Professor**	**Associate Professor**	**Assistant Professor**
Farm Power Machinery	01	-	01
Soil & Water Engineering	-	01	01
Processing & Food Engineering/Food Technology	-	01	01
Mathematics	-	-	01
Statistics	-	-	01

Mechanical Engg.	-	-	01
Electronics & Instrumentation	-	-	01
Agri Business Management	-	-	01
Post Harvest Engineering	-	-	01
Total	**01**	**02**	**09**

Sl. No.	Sl. No. As listed by ICAR	Particulars of information sought by ICAR, New Delhi	Remarks/Compliance Report
1	3	The following colleges/degree programmes were not approved for accreditation until such time that the University furnishes evidence of faculty strength as per ICAR norms and fulfils the following specific observations made by the Board against each college.	
		2) B.Sc. (Forestry) in College of Horticulture and Forestry, Pasighat, Arunachal Pradesh	As detailed below

Information from the University:

2. As regard for B.Sc. (Forestry) in College of Horticulture & Forestry, Pasighat, Arunachal Pradesh, the University has filled up one Professor, two Associate Professor and eight Assistant Professors respectively to fulfill requirement for degree programmes,

Faculty strength before visits of Peer Review Team

Department	**Professor**	**Associate Professor**	**Assistant Professor**
Agril. Economics		01	01
Medicinal & Aromatics Plant		01	
Pomology		01	
Plantation Crops		01	
Soil Science & Agril Chemistry		01	02
Plant Pathology & Microbiology			02
Entomology & Nematology			02
Agril. Extn Edn. & RS			02
Sylviculture & Agroforestry			02
Vegetable Crops (Olericulture)	01		
Plantation Crops			02
Floriculture & Landscaping			02
Plant Physiology/Tree Improvement/PBG		01	02
PHT			01

Agronomy & Meteorology			01
Forest Product Utilization			01
Biotechnology			01
Agril Engg.			01
Computer Science			01
Total	**01**	**06**	23

Faculty strength after visits of Peer Review Team

Department	**Professor**	**Associate Professor**	**Assistant Professor**
Agril. Economics		01	01
Medicinal & Aromatics Plant		01	01
Pomology		01	02
Soil Science & Agril Chemistry		01	02
Plant Pathology & Microbiology			03
Entomology & Nematology			02
Agril. Extn Edn. & RS			02
Sylviculture & Agroforestry	01		02
Vegetable Crops (Olericulture)	01	02	01
Plantation Crops		01	02
Floriculture & Landscaping			02
Plant Physiology/Tree Improvement/PBG		01	04
PHT			01
Agronomy & Meteorology			01
Forest Product Utilization			01
Biotechnology			01
Agril Engg.			01
Computer Science			01
English			01
Total	**02**	**08**	**31**

Details of appointment are as under:

Department	**Professor**	**Associate Professor**	**Assistant Professor**
Sylviculture & Agroforestry	01		
Vegetable Crops (Olericulture)		02	01
Plant Protection & Microbiology			01
Floriculture & Landscaping			01
Plant Physiology/Tree Improvement			02

Fruit Science (Pomology)			02
English			01
Total	**01**	**02**	**08**

	4	**General Suggestion:**	
1	3	The following suggestion of the Board need to be fulfilled by the University and a compliance report requested to be submitted to the Board before 31.01.2017 for its consideration	
		i) Vacant Positions of teaching and non-teaching staff	
		● Positions of senior and middle level faculty as well as non-teaching staff are largely vacant. These need to be filled on priority.	As detailed below

- University filled up senior and middle level faculty as well as non teaching staffs after the visit of Peer Review Team as suggested to acquire the needs on priority basi.

Details of Faculties and non-teaching positions filled are:

Faculties

Dean	**Chairman**	**Professor**	**Associate Professor**	**Assistant Professor**	**SWO**
2	1	15	11	26	3

Non-Teaching Staffs

Director	**Dy. Director**	**Group-A**	**Group-B**	**Group-C**	**Group-D/(C)**
1	3	2	6	36	49

		● The current position of teaching and non-teaching staff is inadequate and these should be strengthened in accordance with the recommendations of the Deans' committee/Minimum standards for Higher Agricultural	● To solve the present inadequate positions of faulty and non-teaching positions University advertised most of the vacant positions and are likely to fill up at the earliest possible in accordance with the recommendations of the Deans Committee. ● The College of Fisheries(CF), CAU Lembuchera, Agartala, Tripura has been

		Education(MSHAE) of the ICAR	accredited in respect of both UG and PG courses except that the name of Department of Fishery Resource Management is not mentioned for MFSc. Courses without assigning any reason. So, perhaps it is presumed that PRT did not consider accreditation of this department in view of the faculty position at that time which was only Assistant Professor. But now, University has already filled up the post of Professor and Associate Professor as a result, the present faculty position of FRM Department is as follows: Professor-1 Associate Professor-1 Assistant Professor-2 Total -4. Now, besides adequate faculty position, the Department of FRM is fully equipped in respect of infrastructural facilities to offer MFSc.(FRM) has already passed out. Moreover, First batch of MFSc.(FRM) students likely to be passed out during academic year 2016-17 from this department. Therefore, the case may be considered for the accreditation of the MFSc.(FRM) course under the Department of Fishery Resource Management in due course of time.
		● PRT noted that many faculty members are leaving the University to take better career options in other Universities. Thus, the following steps need to be taken on priority.	
		1) Timely promotions need to be provide through career advancement scheme	1) Timely promotions given under Career Advancement Scheme adopted in the University to those who fulfilled the criteria for year up to 2014-15. Further, University is processing for next promotion for those left out faculties due to shortage of required eligibility criteria for the year 2015-16. This will be continued for every year as a continuous process.
		2) Study leave for Ph.D. to be extended to the faculty with two years experience instead of five years of experience	2) Regarding suggestion for extending study leave for Ph.D. to those faculties with 2 (two) years experience instead of 5 (five) years shall ne placed before the next Academic Council and Board of Management for further necessary action. University extended

			for Ph.D. program based on the availability of the faculty (20%) in the particular department.
		3) Provision of two increments at the time of joining as Assistant Professor to attract the talent to CAU(on par with ICAR)	3) As regard for grant of two advance increments at the time of joining as Assistant Professor it is not implemented in the University. Instead, five advance increments are given to those Assistant Professors who possessed Ph.D. at the time of joining as Assistant Professor. For those who acquired Ph.D. after joining the service University granted three advance increments which is at par with ICAR/UG norms.
		ii) Wider issue of unfilled seats in UG and PG programmes across the University	
		● There are vacant seats in various UG programmes for want of eligible candidates in the reserved categories specifically in OBC category and it needs to be addressed by the University	**Comments:** From the current academic session 2016-17, the nominating State Department/Directorates of the States under CAU's jurisdiction have been issued instruction to the effect that "if the State Govt. Does not find the candidates from OBC category, the vacant OBC seats shall be converted into general category i.e. unreserved seats". This is compliance to the judgement and Order (oral) received from the Assistant Registrar (Judl). Guwahati High Court, Aizawl Permanent Branch, Aizawl, Mizoram in c/w Writ Petition (c) No. 156 of 2015 and as per decision of the Hon'ble Supreme Court in the matter of P.V. Inderesan Vs Union of India and Others: In view of the above relaxation, the vacant seats in the OBC category have been filled up/nominated by the States under CAU's jurisdiction an accordingly the overall vacant seats in various UG programme have been remarkably decreased. May kindly see comparative statement of students admitted in UG courses during the academic session 2015-16 and 2016-17 **(at Annexure-A)**
		● It has been observed that several seats in PG Programmes are not filled in the colleges and one of the reasons could be the entrance examination is being conducted at the respective colleges only. Hence, steps may be taken to	**Comments:** No. Of applications for admission to MVSc, & M.Tech. Programmes are very less in comparison to number of seats available in the concerned Colleges. In addition, candidates qualifying in the ICAR's AIEEA have not fully opted for the above courses in CAU. Hence there are vacant/unfilled seats every year. CAU Entrance Examination for M.Sc.(Agri) courses at CAU,

		conduct either online examination or seats may be filled through AIEEA conducted by ICAR.	Imphal, CPGS, Barapani, M.Sc.(Hort) courses at CoH&F, Pasighat is being conducted at a single campus from the introduction of CAU Entrance Test either at CAU Hqts, Imphal or College of Post Graduate Studies, Barapani as decided by the competent authority excepting for MVSc, MFSc. & M.Tech. Courses which are being conducted at the campus of the respective Colleges. However, there has been substantial increase in the no. Of candidates admitted through CAU Entrance Test as well as ICAR's AIEEA (PG) counseling. Even the candidates in the waiting list in ICAR's PG counselling have been admitted in constituent Colleges of the University as per ICAR guidelines. May kindly see comparative statement of students admitted in PG courses during the academic session 2015-16 and 2016-17**(at Annexure A)** Further, steps have been taken to introduce Online submission of application form for CAU Entrance Test from the academic session 2017-18. Online examination may be conducted after ICAR's implementation. As desired by the Accreditation Board/PRT, it is proposed to conduct CAU Entrance Test at a single venue from the academic session 2017-18 excepting MVSc. Course since the commencement of academic session for MVSc. Programme is different as per Academic Calender as well as ICAR's PGs counseling for the same is held at a later stage every year.
		● University fellowships for G programmes should be made on par with the fellowships in ICAR Deemed Universities.	**Comments:** University Institutional Fellowship @ Rs. 3,000/- pm and @ Rs. 5,000/- pm admissible to all PG & Ph.D. students had been implemented from the academic session 2014-15 onwards. National Talent Scholarship (NTS) to the non-JRF candidates @ Rs. 3,000/- admissible to every ICAR nominees admitted to different PG programmes of the University has been implemented from the academic session 2016-17 onwards as per ICAR guidelines
		iii) Compliance with the ICAR Guidelines	
		● Separate Board of Studies is to be constituted for each faculty and conduct of its regular meetings should be ensured.	Separate Board of studies for seven constituent collehes of the University were already formed prior to the visit of PRT, and its regular meeting has regularly been held.
		● Nomenclature of the degree programmes is not in	**Comments:** Change of nomenclature of the degree programmes has been approved by the statutory

		conformity with the guidelines of ICAR. It needs to be modified as prescribed by the Deans, Committee of the ICAR/Broad subject Matter Committee on Agricultural, especially inclusion of " Honours" in the degrees.	bodies of the University and it shall be implemented as per 5th Deans' Committee and ICAR guidelines from the current academic session 2016-17
		• National Talent Scholarships (NTS) and stipend during internship of UG students need to be implemented as per the ICAR guidelines.	**Comments:** It has been implemented as per the ICAR guidelines
		iv) Decentralization of administration	
		Keeping in view the mandate and geographic spread of constituent colleges of CAU across north-east States, it would be appropriate to decentralize the university administration. The decentralization in the following areas is recommended to bring out efficiency and performance of the university.	
		• Academic Administration- Some of the academic functions of Registrar may be delegated to Deans of constituent colleges.	Nil
		• Establishment Administration- Some of the function of establishment may be delegated to Dy. Registrar/Assistant Registrar of the respective constituent colleges.	Nil
		v) The objectives set by the constituent colleges need to be revised in compliance with the University mandate to fulfil the specific needs of NEH region.	CA, Imphal-Yes
		vi) A separate Cell/Unit may be established to identify various	CA, Imphal-Yes CF, Agartala-College of Fisheries, CAU, Lembucherra has established two Cell namely (i)

		programmes/schemes of different Departments/ministries for tapping grants available under NEH category.	Project Monitoring Evaluation Cell, and (ii) CRAC. The assignment to identify various programmes/schemes of different Department/Ministries for tapping grants available under NEH category is assigned to project Monitoring Evaluation Cell.
		vii) The Positions of Physical Instructor may be created and units like Placement Cell, Women Cell, Grievance Redressal Cell, SC/ST Cell, NCC & NSS Units need to be strengthened.	CA, Imphal-1 Physical instructor is engaged on guest lecture basis. College is having Placement Cell and NSS Cell under the guidance of one Associate Professor. CF, Agartala- One physical instructor has been appointed on contractual basis and Unit like Placement Cell, Women Cell, Sc/ST Cell & NSS are already established and functioning properly. Grievance Redressed Cell is existed in University level. The college has already applied for opening NCC unit.
		viii) The University in general lacks adequate facilities for instructional farms, laboratories, sports, hostel, Wi-Fi and library. They need to be strengthened.	CA, Imphal: Instructional farms of the college is yet to be strengthened and developed. Laboratories, sports and library facilities are strengthened and well appreciated by the students. All the hostels are equipped with 24*7 Wi-Fi connections. CF, Agartala- Facilities for instructional farms, laboratories, sports, hostel Wi-fi and Library already exist.
		ix) Automation of library system in respect of accessions, issue of books etc. Is not in place and it needs to be implemented immediately.	CA, Imphal: One library management software (LMS) namely KOHA which is using by all ICAR institutions is going to be installed. Accessioning issue of books, etc in automated system will be done soon. CF, Agartala- College library have collection of 9430 books in the field of fisheries and agriculture allied, 74 theses/sissertations, number of CDs, training manuals, annual reports of academic and research programms, library has been subscribing 24 journals, one e-journals, 17 popular magazines and 5 news papers. In addition, College has accessible e-journal and e-books through Cera(Consortium for e-Resources in Agriculture). Library Automation: Library is using e-Granthalaya which is an integrated library management software from NIC. The record of the books and others documents were entered in the computer. And up to date are also recorded in FoxPro.
		x) Four new academic programmes have been	

		initiated by the university as per the XII plan EFC and these have been implemented at Imphal, Ranipool, Barapani and Paisghat without having required infrastructures and faculty in place. The university is place. The University is required to address these issues at appropriate level.	
		College-wise specific Recommendations	
		College of Agriculture (CA), Imphal, Manipur	
		● PRT expresses its deep disappointment that despite having infrastructure, laboratories, adequate equipments and new farmarea, these resources remain largely under-utilized. As a consequence the student community expressed wider feeling of not getting proper practical training both in the field and in the laboratories. Despite having adequate human resources, PRT was unanimous in observing that the scientific staff of the college was largely indifferent and under performing. Therefore, the university authority must take urgent steps to change this inertia in the college.	As the college has good infrastructure, laboratories, adequate equipments and new farm area, all faculty members started to use properly in both laboratory practical classes and field. Further, the University Authority is also trying very hard to implement steps for timely incentives/promotions to deserving teachers.
		College of Veterinary and Animal Sciences, Selesih, Aizawl	
		● As the number of clinical cases brought to the hospital at Veterinary College, Aizawl is very low and insufficient to to offer adequate opportunities for hands-on training of Under Graduates, alternative	● To overcome the less numbers of clinical cases in the teaching veterinary clinical complex (TVCC), college has been arranging the clinical practice in nearby hospital cum dispensary under state veterinary department. Students are visiting the hospital regularly for clinical practice. Moreover, animal health camp, mobile

		arrangements should be made by adopting sate veterinary hospitals/government farms on few select location to enable the students get more exposure of handling clinical cases. The students may be deputed to other Veterinary colleges for three months during internship period	ambulatory service and farm visit are regularly being organized to increase the exposure of the students to more number of clinical cases. During the internship training programme, final year students are being sent to their respective state for clinical training/livestock product services/wild life medicine for 3 months.
		● Faculty positions need to be created as per VCI guidelines	● Faculty positions for the college is as per the VCI, MSVE-2016
		● Internship allowance should be provided as per VCI guidelines.	● Internship allowance of the students undergoing compulsory six months internship programme has been increased from Rs. 750/- to Rs. 3000/- per month w.e.f. 2016 as per ICAR norms. At present, VCI has not given any specific direction about allowance for the internship training programme.
		College of Post Graduate Studies, Barapani, Meghalaya	
		● The concept of Schools is being followed by having two departments in each School. In view of the guidelines prescribed by Deans committee/Minimum Standard fro Higher Agricultural Education(MSHAE) of the ICAR, the concept of Schools may be revised.	● The concept of school was started to promote integrated researches within the line disciplines. Being a PG college the concept definitely has relevance with a wider outlook in the development of agricultural sciences. However, identity of individual disciplines should be retained for the interest of the students as the employment opportunists in agricultural sectors are still quite specialized including the specific jobs under ICAR. Disciplines need to be strengthened in for academic and research facilities for achieving excellence. The post of Chairman of the school should be tenure (for a period of at least 3 years) and may be filled up from senior faculty of the respective school having desired administrative experiences.

PG Programmes

Sl. No.	Name of the Constituent College	Name of the Course	Intake Capacity		Actual Admission	
			2015-16	2016-17	2015-16	2016-17
1.	College of Agriculture, Imphal, Manipur	M.Sc.(Agri)	56	56	45	51
2.	College of Vety. Sc. & AH, Selesih, Mizoram	M.V.Sc.	75	75	34	30
3.	College of Fisheries, Lembucherra, Tripura	M.F.Sc.	30	30	30	28
4.	College of Hort. & Forestry, Pasighat, Arunachal Pradesh	(i) M.Sc.(Hort.)	10	10	07	10
		(ii) M.Sc.(Forestry)	03	03	01	03
5.	College of Home Science, Tura, Meghalaya	M.Sc.(Home Science)	00	06	00	01
6.	College of Agril. Engg. & PHT, Ranipool, Sikkim	M.Tech.	09	15	06	04
7.	College of Post Graduate Studies, Barapani, Meghalaya	M.Sc.(Agri)	56	56	45	54
		Total	**239**	**251**	**168**	**181**

Ph.D. Programmes

Sl. No.	Name of the Constituent College	Name of the Course	Intake Capacity		Actual Admission	
			2015-16	2016-17	2015-16	2016-17
1.	College of Agriculture, Imphal, Manipur	Ph.D in Agriculture	10	10	07	11
2.	College of Vety. Sc. & AH, Selesih, Mizoram	Ph.D in Veterinary Science	16	18	02	03
3.	College of Fisheries, Lembucherra, Tripura	Ph.D in Fisheries Science	00	03	00	02
4.	College of Hort. & Forestry, Pasighat, Arunachal Pradesh	Ph.D in Horticulture	04	04	03	04
5.	College of Home Science, Tura, Meghalaya	-	00	00	00	00
6.	College of Agril. Engg. & PHT, Ranipool, Sikkim	Ph.D in FMPE	00	03	00	01
7.	College of Post Graduate Studies, Barapani, Meghalaya	Ph.D in Agriculture	21	21	17	19

Total	**51**	**59**	**29**	**40**

COMPARATIVE STATEMENT OF UG, PG 7 PH.D. STUDENTS ADMITTED DURING THE ACADEMIC SESSION 2015-16 AND 2016-17

UG Programmes

Sl. No.	**Name of the Constituent College**	**Name of the Course**	**Intake Capacity**		**Actual Admission**	
			2015-16	**2016-17**	**2015-16**	**2016-17**
1.	College of Agriculture, Imphal, Manipur	B.Sc.(Agri)	89	89	69	82
2.	College of Vety. Sc. & AH, Selesih, Mizoram	B.V.Sc. & AH	70	72	49	64
3.	College of Fisheries, Lembucherra, Tripura	B.F.Sc.	36	36	27	29
4.	College of Hort. & Forestry, Pasighat, Arunachal Pradesh	(i) B.Sc.(Hort.)	50	50	40	49
		(ii) B.Sc.(Forestry)	27	27	16	22
5.	College of Home Science, Tura, Meghalaya	(i) B.Sc.(Home Science)	34	34	32	21
		(ii) B.Sc.(Nutrition & Dietetics)	20	20	13	14
6.	College of Agril. Engg. & PHT, Ranipool, Sikkim	(i) B.Tech(Agril. Engg)	45	45	31	44
		(ii) B.Tech (Food Tech)	20	20	14	09
7.	College of Post Graduate Studies, Barapani, Meghalaya	B.Sc.(Agri)	20	20	17	17
8.	College of Food Technology, Imphal, Manipur	B.Tech (Food Tech)	20	20	09	15
9.	College of Agriculture, Pasighat, Arunachal Pradesh	B.Sc.(Agri)	20	20	18	19
10	College of Horticulture, Bermiok, Sikkim	B.Sc.(Hort.)	20	20	15	18
11.	College of Horticulture, Thenzawl, Mizoram	B.Sc.(Hort.)	00	20	00	20
12.	College of Veterinary Sc. & AH, Jalukie, Nagaland	B.V.Sc. & AH	00	30	00	26
		Total	**471**	**523**	**350**	**449**

SELF-STUDY REPORT

College of Agriculture, Central Agricultural University, Imphal

Submitted to
National Agricultural Education Accreditation Board
ICAR, New Delhi

PREFACE

India faced the challenge of providing food security to millions of its people soon after independence. The Research and Development initiatives taken by the Government of India resulted in the 'Green revolution' in the late 60s and early 70s. As a result of 'Green revolution', India has made significant achievement through production of food grains, fruits and vegetables, milk, livestock production, fish production and gained self-sufficiency in most of the areas of Indian Agriculture. But considering the nutritional security, economic sustainability and high generation of employment, Agricultural sector plays an important role.

Keeping in view the importance of Agriculture in improving the agricultural scenario in the state in particular and the North Eastern Hill (NEH) region in general, the College of Agriculture, Imphal which was the erstwhile Manipur Agricultural College was established in 1979 and became the first constituent college of the Central Agricultural University, Imphal, Manipur which has been established by an act of Parliament and came into effect on 26th January, 1993; later M.Sc. (Agri.) and Ph.D. degree programme started in some major disciplines.

At B. Sc. (Agri.) level, mostly students are admitted from all the State of NEH with ICAR nominee (15%) bases through ICAR quota. The quota of various States is fixed. The State Governments recommend students (on the basis of competitive examinations within their state) for admission. Similarly ICAR nominate (on the basis of all India competitive examination) students for their quota. At M. Sc and Ph. D. level, students are admitted on the basis of All India competition conducted by the University. Out of the total seats allotted in each discipline, additional 25% seats are filled through ICAR quota at M.Sc. level on the basis of all India competitive examination.

Students of this college have excelled not only in curriculum but also in extracurricular activities and national level competitive examinations and the college is making continuous efforts to improve the quality of education offered here. The ICAR has introduced the procedure of accreditation, which help in assessing facilities available to impart the quality education offered by the college. The college was accredited by ICAR Peer Review committee for a period of **five years (up to March, 2021).** Since the college is due for further accreditation, the present report provides all the necessary information about the college activities performed during **last five years.**

The University Level Task Force and the College Level Task Force have done a great job in compiling information and bringing out this report to be submitted to Accreditation Board of ICAR. I convey my heartfelt thanks to all those, who are involved in preparation of this report.

(Indira Sarangthem)
Dean

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Proforma for Institutional Profile of
COLLEGE OF AGRICULTURE
CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL

➢	State		: Manipur
➢	University	Name	: Central Agricultural University, Imphal
		Headquarter	: Imphal,
➢	College	Name	: College of Agriculture, Imphal
		Address	: Iroisemba, Imphal – 795 004
		Telephone	: 0385 – 2410427
		Fax	: 0385 – 2410427
		E-mail	: dean_collegeagri@yahoo.co.in
	Date of establishment	University	: 1993
		College : 1993	
➢	Head of faculty	Name	: Prof.IndiaraSarangthem
		Designation	: Dean
➢	Head (CEO) of the College	Name	: Prof. Indira Sarangthem
		Designation	: Dean

➢ **Self-Study Report of the College**

6.5 Goals and objectives

The College of Agriculture, Central Agricultural University, Iroisemba, Imphal was established as first constituent College of Central Agricultural University, Imphal after taking over the erstwhile Manipur Agricultural College affiliated to Manipur University in November, 1993. The College is situated in an extensive area of Iroisemba at a distance of about 6 km from the Imphal city. The college campus sprawls in an area of 94 acres (approx.) surrounded by Langol hills to its western and northern sides and Lamphelpat and Iroisemba village in the eastern and southern side respectively.

The College since its establishment has continuously strived to impart Education, Research and Extension activities in the field of agriculture and its allied subjects in the North Eastern Hill Region. Students from the North Eastern States viz., (a) Manipur, (b) Mizoram, (c) Meghalaya, (d) Arunachal Pradesh, (e) Tripura, (f) Nagaland and (g) Sikkim are admitted in the college. In addition to this, students from other parts of the country are also admitted through ICAR quota in both Undergraduate and Postgraduate courses. Admissions under Undergraduate courses are also given under the Higher Fee category. Eight departments of the college offers M.Sc. (Ag) programme. Further, the Ph.D. program in five departments of the College admits students based on entrance test.

Satellite view image of College of Agriculture Campus (Source: Google Maps)

The College of Agriculture has 12 departments *viz*., [Agronomy, Agricultural Economics, Animal Husbandry, Agricultural Engineering, Basic Science, BPME (Biochemistry, Microbiology, Plant Physiology and Environmental Science), Entomology, Extension Education, Horticulture, Plant Pathology, Plant Breeding & Genetics (PBG) and Soil Science & Agricultural Chemistry (SSAC)]. These departments collectively work to cater to the academic and research needs of the NE region, provide technical support, inputs to farmers and contribute to overall agricultural development in the region.

The College also offers short-term, vocational courses and training programme for the benefit of the Officials of line departments, farmers, entrepreneurs, SHGs, NGOs etc. from time to time. The college is also engaged in dissemination of technologies from laboratory to farmer's field.

The College has started several new initiatives namely: location specific Intra-Mural Research Projects, Extension Demonstrations in New Technologies & Exhibitions, Informal Education Programmes for Farmers, Farm Women, Students Placement Cell, Experiential Learning and formal Training programmesfor line departments to equip the masses.

Goals and Objectives

College of Agriculture, CAU, Iroisemba, Imphalisanationally renowned, premier institution for teaching, research and extension programmes in the field of agriculture, which is serving the farming community, extension functionaries of state governments, entrepreneurs and policy makers in the state and the northeastern region of the country.

Goals

- Tocreateanintellectuallystimulatingcampusenvironment.
- Act as a hub of technological base and train work force for supportin gagriculture and allied activities in the NE states.
- To plan and implement the strategies and programmes to achieve excellence in UG, PG and Ph.D agriculture education, need based research and extension activities, reinforcing one another.

Objectives

- To train and develop outstanding personnel in agriculture leading to B.Sc. (Hons.) Agriculture graduates, M.Sc. (Ag.) graduates and Ph.D. scholars so as to keep pace with latest developments in the field.
- To develop improved technologies forvarious agri/horticultural crops with respect to

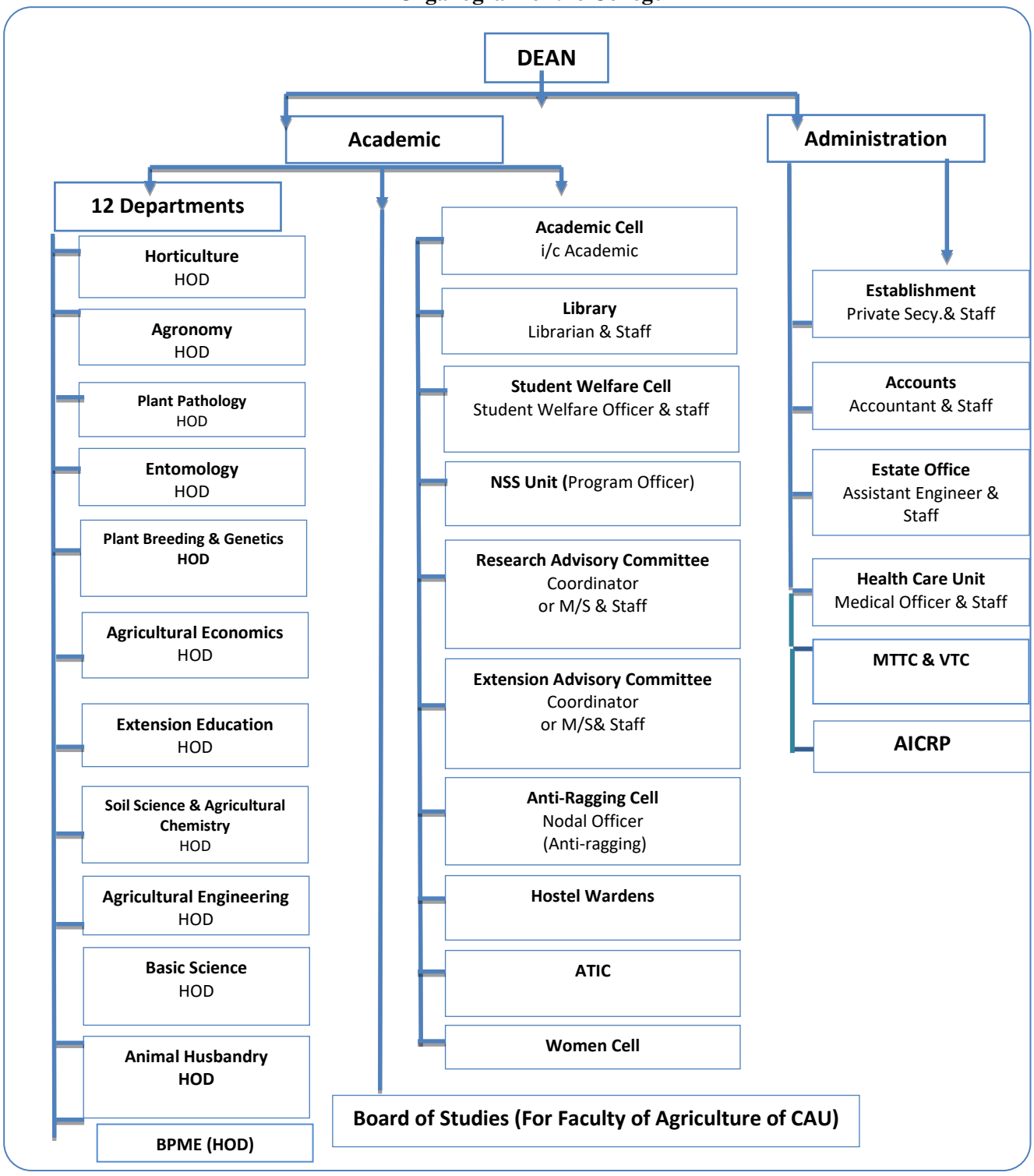
cropimprovement, production, protection, post-harvest management and marketing.

- To disseminate the improved technology to the farming community.
- To share the technological knowhow among extension functionaries, line department officials of state government of NE states through various outreach activities.

6.5.1 College Administration

The Dean is the Head of the institution, appointed by the University for a tenure of fiveyears, and he/she is eligible for second term. The Dean looks after the administration and provides leadership for the overall functioning of the College. Hemonitors teaching, research and extension programmes of the college in coordination with Head of Departments, Academic In-charge, Research Coordinator, and Extension Coordinator,in the best interest of the College.

Organogram of the College



6.5.1.1. College Dean's Office Establishment

The Dean's post has been sanctioned as per the model act of the ICAR adopted by theCentral Agricultural University, Imphal, Manipur. The mode of selection of Dean post is by direct selection. The college is headed by Prof. Indira Sarangtham since 08.8.2019.

: **Prof. Indira Sarangtham**
Dean
College of Agriculture,
Imphal, Manipur

TelephoneNo : 0385 – 2410427

Email : dean_collegeagri@yahoo.co.in

The Dean is assisted by technical assistant, stenographer, assistant cum computer operator and messenger at Dean Office level.

The Dean is assisted by Academic In-charge, Assistant Registrar, Assistant Comptroller, Assistant Executive Engineer and Assistant Professor (Farms) inrespect of academics, administration, accounts, college and farm up keep respectively at the college level.

- Staff Avaliabity in Dean's Secretariate

A. Establishment:

Sl. No.	Name of the Staff	Designation
1	Rajkumari Muktabali Devi	Head Assistant
2	Sougaijam Devjani	LDC
3	Naorem Gunileima Chanu	LDC
4	Ningthoujam Chandrakala Devi	FCLA
5	Thiyam Gobin Meitei	MTS
6	Tahira Begum	MTS
7	Naorem Premota Devi	MTS
8	Sagolsem Poireinganba Meetei	MTS

B. Accounts:

Sl. No.	Name of the Staff	Designation
1	Ningthoujam Anilkumar Singh	Asstt. Comptroller (On deputation)
2	Laishram Chandrajit Singh	Accountant
3	Nameirakpam Nabachandra Singh	UDC
4	Yumnam Ranjit Singh	UDC
5	Jathuom Muona	UDC
6	Konthoujam Romesh Singh	LDC
7	Rajkumari Monika Devi	LDC
8	Jupiter Thiyam	LDC
9	Usham Nirmala Devi	MTS
10	Ningthoujam PritamKumar Singh	MTS
11	Elam Oken Singh	MTS

C. Different Sections:

Name of Section	Staff	MTS
Dean's Office	Sr.Steno.-1, LDC-2, Tractor Driver-1, Driver-1, Security Guard-2	1
Academic	Asstt. Registrar (Acad)-1, Computer Operator-1, FCLA-1, Lib. Asstt. -1	4
Accounts	Asstt. Compt.-1, Accountant-1, UDC-3, LDC-3	3
Establishment	Head Asstt.-1, LDC-2, FCLA-1	4
Engg. Section	AE-1, JE-1, Carpenter-1, Driver-1	4
SWO	SWO-1	1
Medical	Medical Officer-1, Compounder-1, MHW-1, FHW-2	
Library	Librarian-1, Sr. Lib. Asstt.-2, Lib. Asstt.-1	1

D. Infrastructure/ facilities available in the Dean's Office:

Sl. No.	Infrastructure available in the Dean's Secretariate:	Quantity
1	Xerox (Photocopy)	1
2	Computer system	Desktop-1, Laptop -4.
3	Printer	1

E. Infrastructure/ facilities available in different sections

Items	Computers/ peripherals	Printer	Xerox	Fax
Dean's Office	5	1	1	Nil
Academic	5	3	2	Nil
Accounts	8	7	1	Nil
Establishment	2	2	Nil	Nil
Engg. Section	2	2	Nil	Nil
SWO	1	1	Nil	Nil
Medical	Nil	Nil	Nil	Nil
Library	5	0	1	Nil

6.5.1.2. Monitoring Mechanism for Quality Education (on-line and off-line)

- Academic information and regulations (AI & R's) are prepared based on ICAR Dean's committee and BSMA recommendations are scrupulously followed.
- Academic Management System (AMS) is Web Enabled application Software for Management of various academic activities of the College. The System caters to there quirements of different users Dean, Registrar, Heads, Guides, Faculty, Teachers, Students, Administrators and officials for performing their assigned tasks. The System isuser friendly and can be accessed ubiquitously. The online capabilities of the system allowthe students, faculty members and administrators to publish and retrieve the information from the irrespective disciplines. Ithas modules like Course Management, Student Management, Faculty Management, Administration Management, E-Learning, Online fee Collection
- E-course material is provided for all the courses and internet facility and projectors are being used to effectively deliver the information.
- Students after their admission are allotted to different counselors, each teacher being allotted with 4-8 students. The counselor's meetings are regularly conducted where students are monitored and enquired about the courses and quality of education being imparted.
- Counselor records are maintained and the progress of the students is intimated to their parents.
- A centralized examination system is being followed in the college and examinations including evaluation are conducted with stricts upper vision and under CCTV surveillance installed in smart classroom.
- Library is under digitization process and well equipped with adequate books, and plagiarism

detecting tools for the reference of students.

- All classrooms are under CCTV surveillance, monitored directly by Dean.
- Regular supervision of the classrooms by the heads of the departments & Dean.
- Laboratory manuals are provided by the course instructors for few UG courses.
- Decently equipped laboratories withcharts/ specimens/ teaching aids for conducting the practical classes are functional.
- Exposure visits to state/ central institutes/ private organizations and progressive farmers' fields are organized.
- Staff and student inter action meetings conducted regularly.
- PG students are allocated to the teachers based on their area of specialization along withstudent's merit and their area of research interest. External qualifying examination system is being followed for PG.
- Regular monitoring of PG research progress by the HOD's and quarterly monitoring is done by Dean and university officers.

Monitoring of Teaching, Research and Extension (TRE)

- TRE of teaching faculty is monitored by the Dean annually by obtaining reports.
- In Research and Extension advisory/formulation workshop new research proposals and technology outcomes arecritically analyzed in coordination with state agriculture/ horticulture/ forestry/ sericulture departments, central institutes and progressive farmers.

Impact of monitoring on the outcomes

College of Agriculture, CAU, Imphal, since its inception has contributed significantly for the development of quality human resource which can be evidenced in the form of number of graduate, postgraduate and doctoral students, JRF's, SRF awardees, students employed in state government, SAU's, centralinstitutes, banking sector, private firms, and entrepreneurs.

Career Development Centre under the aegis of National Agriculture Higher Education Project (NAHEP) of the college is facilitating carrier guidance and personality development programmes that aim at increasing employability of the students. Faculty are also encouraging students to appear for various competitive exams like ASRB, UPSC and other competitive examinations organized by different agencies**.**

6.5.1.3. Board of Studies

The College of Agriculture, Iroisemba, Imphal is a constituent college of Central Agricultural University, Imphal and is governed by decisions of the statutory bodies *viz.,* Board of Studies (BOS) and Academic Council represented by Professors, AssociateProfessors, of all the constituent colleges alongwith University officers.

Boards of Studies meeting are conducted where various academic issues are discussed and academic progress monitored.

Committee for Board of Studies

Vice Chancellor of Central Agricultural University	Chairman
Director of Instructions	Member
Registrar	Member
Director of Research	Member

Director of Extension Education	Member
Deans of all constituent colleges under CAU	Member
Two external experts	Member
Academic In-charges of all constituent colleges under CAU	Member

The major recommendations of BOS for the preceeding years are as follows:

S. No.	Particulars of the meetings	
1.	**Board of studies meeting Date: 25th May 2017**	
	Agenda	**Resolution/Recommendation**
	Proposal for development and installation of Agro meteorological observation for the college.	The Board of studies discussed the proposal in details and resolved that to constitute a committee to find out the location, list of available instruments and required instruments. Then the matter should be put to Academic Council for further approval.
	Agenda	**Resolution/Recommendation**
	Proposal for opening of Ph.D. Programme in the Department of Extension Education, College of Agriculture, CAU, Imphal.	The Board of studies discussed the proposal in details and resolved that the matter may be put to Academic Council for further approval.
	Agenda	**Resolution/Recommendation**
	Proposal for fillup one post of Assoc. Prof. and Asst. Prof.	The Board of studies discussed the proposal in details and resolved that the matter may be put to Academic Council for further approval.
	Agenda	**Resolution/Recommendation**
	Proposal for strengthening experimental plots for P.G. students.	The Board of studies discussed the proposal in details and Dean, COA will provide mini bus twice in a week except Saturday.
	Agenda	**Resolution/Recommendation**
	Strengthening of laboratory facility.	The Board of studies discussed the proposal in details and Dean, COA will provide the said instruments or facilities after shifting the Department of Horticulture to the New Academic Building.
	Agenda	**Resolution/Recommendation**
	Additional requirement of staff for teaching the Plant Physiology courses and Molecular Biology.	The Board of studies discussed the proposal in details and resolved to propose One Assistant Professor in Molecular Biology which is a vacant sanctioned post to the Academic Council for further Approval.
	Agenda	**Resolution/Recommendation**
	Modification of the rule number	The Board of studies discussed the proposal in details

	3.5.1 "Written Comprehensive Qualifying Examination" of Academic regulations -2016 for master and Ph.D. degree programmes.	and resolved to come up with a modified proposal and model question paper. Then it may put up to Academic Council for further Approval.
	Agenda	**Resolution/Recommendation**
	Clarification for award of University Institutional fellowship to PG/Ph.D. students who got "F" grade in a semester.	The Board of studies discussed the proposal in details and resolved that to put up to Academic Council for further approval.
	Agenda	**Resolution/Recommendation**
	Comprehensive viva voce of M.Sc. students to be internal whereas paper setting to be external as usual.	The Board of studies discussed the proposal in details and resolved that to further submit to Academic Council for approval.
	Agenda	**Resolution/Recommendation**
	Proposal for setting rules and regulations for Hostels.	The Board of studies discussed the proposal in details and resolved that to put up to Academic Council for further approval.
	Agenda	**Resolution/Recommendation**
	Fixing the fees for PhD/ Training/ Experiencing/ or other programme for the student from other Universities.	The Board of studies discussed the proposal in details and resolved that to further submit to Academic Council for approval.
	Agenda	**Resolution/Recommendation**
	Proposal for Ph. D. admission twice in a year, COA, CAU, Imphal.	The Board of studies discussed the proposal in details and resolved not to further proceed.
	Agenda	**Resolution/Recommendation**
	Proposal for recruitment of Teachers with specialization in Insect Taxonomy/Ecology/Toxicology)	The Board of studies discussed the proposal in details and resolved that AICRP Scientist of this University Campus may be utilized after proper permission from the Hon'ble VC, CAU, Imphal. Then the matter should be put to Academic Council for further approval.
	Agenda	**Resolution/Recommendation**
	Approval for extension of the Farm area of the Department of Animal Sciences for the focus area	The Board of studies discussed the proposal in details and resolved that to proceed with a request to Hon'ble VC, CAU, Imphal to provide some of the Developed

	such as pig, pony and dairy farming.	land for the same purpose. Then the matter should be put to Academic Council for further approval.
	Agenda	**Resolution/Recommendation**
	Strengthening the laboratory facility such as laboratory equipments / implements in the Dept. of Agril. Engg. for teaching.	The Board of studies discussed the proposal in details and resolved the matter should be discussed in details HOD, Dept. of Agril. Engg. and Dean, COA to finalize the required instruments on priority basis only. Then the matter should be put to Academic Council for further approval.
	Agenda	**Resolution/Recommendation**
	Shifting of course Agril. Engg. 122 from 2nd Semester to 5th Semester	The Board of studies discussed the proposal in details and resolved that the course may be shifted to the 4th Semester. Then the matter should be put to Academic Council for further approval.
	Agenda	**Resolution/Recommendation**
	Proposal for establishment of a medicinal plant garden.	The Board of studies discussed the proposal in details and resolved that to proceed with a request to Hon'ble VC, CAU, Imphal to provide some of the Developed land for the same purpose. Then the matter should be put to Academic Council for further approval.
	Agenda	**Resolution/Recommendation**
	Proposal for establishment of crop cafeteria/museum in which all the crops/varieties grown in the region/countries should be grown.	The Board of studies discussed the proposal in details and resolved that to proceed with a request to Hon'ble VC, CAU, Imphal to provide some of the Developed land for the same purpose. Then the matter should be put to Academic Council for further approval.

2.	**Board of studies meeting Date: 2nd May 2018**	
	Agenda	**Resolution/Recommendation**
	Clear guidelines for conduct of written comprehensive examination of PG and Ph.D. students.	The Board of studies discussed the proposal in details and resolved that there will be two separate papers i.e. one for major and one for minor subject each carrying 100 marks and all the questions should be of descriptive/ long type question. And the matter may be put to Academic Council for further approval.
	Agenda	**Resolution/Recommendation**
	Proposal for evaluation of	The Board of studies discussed the proposal in details

	comprehensive answer books/scripts by a teacher not the course teacher in the concerned dept.	and resolved that for Ph.D. programme, question setting as well as evaluation of the paper will be done externally and for M.Sc. programme, question setting will be external while paper evaluation will be internal by a teacher nominated by the Head of the department. It was also agreed to put at the Academic Council for further approval.
	Agenda	**Resolution/Recommendation**
	Recognition of Dr K.D. Sah as guide of the University	The Board of studies discussed the proposal in details and resolved that the College should initiate to sign an MoU (Memorandum of Understanding) with either NBSS Johrat or Kolkata Centre with the approval of the Academic Council.
	Agenda	**Resolution/Recommendation**
	Proposal for opening of new departments in the line of 5th Deans' Committee report.	The Board of studies discussed the proposal in details and resolved that all the colleges of Agriculture should have 14 departments with uniform course outline and credit hours and resolved to put up to Academic Council for further approval.
	Agenda	**Resolution/Recommendation**
	Proposal for splitting of the course, Fundamentals of plant biochemistry and biotechnology in UG agriculture.	The Board of studies discussed the proposal in details and resolved to put up to Academic Council for further approval after attaching the detail course outline.
	Agenda	**Resolution/Recommendation**
	Changes for Credit hours from 2(2+0) to 3(2+1) for course Problematic Soils and their Management SSAC-242 (2+0)	The Board of studies discussed the proposal in details and resolved to change the credit hour from 2 (2+0) to 2(1+1). Accordingly the syllabus of theory portion and practical is to be prepared to submit to the Academic Council for approval.
	Agenda	**Resolution/Recommendation**
	No. of seats that can be filled for M.Sc. and Ph. D. in the College of Post Graduate Studies for the Academic Year 2018-19	The Board of studies discussed the proposal in details and resolved to put up to Academic Council for further approval after proper indication of the total number of faculty members, number of students already admitted and approved intake capacity in each discipline.
	Agenda	**Resolution/Recommendation**
	Introduction of best Thesis award at the University level across all the disciplines in the Faculty of Agriculture	The Board of studies discussed the proposal in details and resolved that best thesis award will be given for all schools and submit to Academic Council for approval.
	Agenda	**Resolution/Recommendation**
	Pre-Requisite Courses for Agri-	The Board of studies discussed the proposal in details

	Business Management in CPGS	and resolved that the matter may be put to Academic Council for further approval.
	Agenda	**Resolution/Recommendation**
	Setting up of Smart Class rooms in the college	The Board of studies discussed the proposal in details and resolved that the matter may be put to Academic Council for further approval.
	Agenda	**Resolution/Recommendation**
	Renaming of College of Post Graduate Studies as Post Graduate College in Agricultural Sciences (PGCAS)	The Board of studies discussed the proposal in details and resolved that the name of the college should be College of Post Graduate Studies of Agricultural Sciences and matter may be put to Academic Council for further approval.
	Agenda	**Resolution/Recommendation**
	Transfer of teaching post (Hort.) available in CPGS to COA, CAU, Imphal.	The Board of studies discussed the proposal in details and resolved the matter may be put to Academic Council for further approval to transfer two sanctioned posts of Horticulture department to College of Agriculture, Imphal and one sanctioned post (Hort.) to College of Agriculture, Kyrdemkulai.
	Agenda	**Resolution/Recommendation**
	Proposal for common question paper for End-Term examination of different schools.	The Board of studies discussed the proposal in details and resolved that uniform question papers, answer scripts and examination time-table to be introduced and put up to Academic Council for further approval.
	Agenda	**Resolution/Recommendation**
	Proposal for inclusion of M.Sc. degree programme in Organic Farming	The Board of studies discussed the proposal in details and resolved that the committee formed earlier for course designing should discuss in detail with its members and put up in Academic Council for further approval. And in case, it is not approved by the Academic Council, then it will propose to open as a course (organic farming) in all the degree programme of the University (Agriculture, Veterinary, Fisheries, Horticulture, Forestry, etc.)
	Agenda	**Resolution/Recommendation**
	Proposal for providing proper training to laboratory technician to assist the student during research work. (Proposed by student member)	The Board of studies discussed the proposal in details and resolved to put to the Academic Council for further approval.
	Agenda	**Resolution/Recommendation**
	Proposal for providing fully	The Board of studies discussed the proposal in details

	equipped lab and research field for M.Sc. and Ph.D. students. (Proposed by student member)	and resolved that there should be one Central Instrumentation Facility (CIF) in all the colleges and to put up to Academic Council for further approval.

3.	**Board of studies meeting of Faculty of Agriculture, CAU, Imphal Date: 22nd May 2019** **Summary of the second board of studies of the faculty of agriculture, Central Agricultural University, Imphal held on 22nd may, 2019 at the College of Agriculture, Central Agricultural University, Imphal, Manipur**	
	Agenda	**Resolution/Recommendation**
	Availing the service of scientists of AICRP (Fodder) and AICRP (Dryland agriculture) for teaching the course AGRON – 509 (Agronomy of fodder & forage crops) and AGRON – 512 (Dryland agriculture) respectively.	The committee felt that utilization of AICRP scientist for teaching purpose is allowed on genuine proposals by the competent authority. Respected Deans may seek permission of the authority on specific cases with proper justification. Hence the proposal is deferred.
	Agenda	**Resolution/Recommendation**
	Creation of infrastructure facilities for climate change studies.	The committee decided that as it is related to the financial matter, so it can be discussed in the Senior Officers Meeting of CAU, Imphal with proper documents and justification.
	Agenda	**Resolution/Recommendation**
	Awarding degree in M.Sc.(Hort.) instead of M.Sc.(Agri.) in Horticulture.	The committee decided to dropped agenda as the matter has already discussed so many times and not approved by the council by giving reference that as College of Agriculture is giving the degree, so it cannot be given degree as M.Sc.(Hort.) instead of M.Sc.(Agri.) in Horticulture.
	Agenda	**Resolution/Recommendation**
	Creation of 2 (two) posts (Assistant Professor/ Teaching Associate)	The committee decided that as it is related to the financial matter, so it can be discussed in the Senior Officers Meeting of CAU, Imphal with proper documents and justification.
	Agenda	**Resolution/Recommendation**
	Creation of a Central Common	The committee decided that it is under the jurisdiction

	Laboratory.	of the concerned Dean.
	Agenda	**Resolution/Recommendation**
	Filling up of vacant post (2 in nos.) in Horticulture Dept.	The committee decided that as it is related to the financial matter, so it can be discussed in the Senior Officers Meeting of CAU, Imphal with proper documents and justification.
	Agenda	**Resolution/Recommendation**
	New rule for the need of publication of paper in high rating journals before thesis submission.	The committee decided to drop this agenda as it is as per UGC guidelines.
	Agenda	**Resolution/Recommendation**
	Development of Infra-Structure of the Department of BPME	The committee decided that as it is related to the financial matter, so it can be discussed in the Senior Officers Meeting of CAU, Imphal with proper documents and justification.
	Agenda	**Resolution/Recommendation**
	Lack of regular teaching faculty of the Department of BPME	The committee decided that as it is related to the financial matter, so it can be discussed in the Senior Officers Meeting of CAU, Imphal with proper documents and justification.
	Agenda	**Resolution/Recommendation**
	Proposal for modernization and upgradation of Computer Lab.	The committee decided that as it is related to the financial matter, so it can be discussed in the Senior Officers Meeting of CAU, Imphal with proper documents and justification.
	Agenda	**Resolution/Recommendation**
	Proposal for sanctioning and filling up the post of an Assistant Professor (in Computer Application/Computer Science/ relevant field).	The committee decided that as it is related to the financial matter, so it can be discussed in the Senior Officers Meeting of CAU, Imphal with proper documents and justification.
	Agenda	**Resolution/Recommendation**
	Proposal to cut down the duration of the examination time.	The committee decided to continue with the existing system. Hence agenda is deferred.
	Agenda	**Resolution/Recommendation**
	Proposal to provide an equal opportunity in making the selection	The committee decided to continue with the existing system.

	criteria of all the teachers of CAU, Imphal for "Best Teacher Award (CAU, Imphal)"	
	Agenda	**Resolution/Recommendation**
	Improvement of Ph. D. research in collaboration with other Universities/Research Institutes	The committee felt that such type of system is already existing in CAU. Dean of the respective colleges can initiate the process. Hence, the agenda is deferred.
	Agenda	**Resolution/Recommendation**
	Evaluation of answer scripts of comprehensive examination locally.	The committee decided to continue the existing system. However, the committee suggested to send the electronic versions of answer books instead of hard copies and marks can also be received electronically. Hence the agenda is deferred.
	Agenda	**Resolution/Recommendation**
	Synchronization of academic calendar and start of classes with the admission procedure of ICAR.	The committee decided to drop the agenda as there was problem in ICAR admission in the previous year only due to Kerala flood.
	Agenda	**Resolution/Recommendation**
	Centralized evaluation of UG examination answer scripts.	The committee decided to proceed elaborately in the Academic Council with details of the procedures, remuneration per paper etc.
	Agenda	**Resolution/Recommendation**
	Introduction of concept of University head of department.	The committee decided to drop the agenda.
	Agenda	**Resolution/Recommendation**
	The University should notify a unified time table of practical and theory examinations across the agricultural campuses.	The committee decided that Deans of the concerned Colleges can notify within his jurisdiction for the practical examinations while notifications for theory exam is already done by the University
	Agenda	**Resolution/Recommendation**
	Increase of Thesis evaluation fee of Ph D Students	The committee decided that this matter can be discussed at the Senior Officers meeting with proper proof and justification from other University as well as ICAR

4.	**Board of studies meeting of Faculty of Agriculture, CAU, Imphal Date: 27th May 2020 Summary of the third board of studies of the faculty of agriculture, Central Agricultural University, Imphal held on 27th may, 2020 through video conferencing**	
	Agenda	**Resolution/Recommendation**
	Permission for allotment of research topic of PG student (M.Sc. Agri. Programme) beyond the prioritised area	After thorough discussion, the members of the BOS approved to propose for permission for allotment of research topic of PG student (M.Sc. Agri Programme) beyond the priotised area as adopted by University Research Council in exceptional cases.
	Agenda	**Resolution/Recommendation**
	Evaluation of comprehensive examination answer scripts of M.Sc. (Agri.) and Ph.D. courses internally	After thorough discussion, all the members of the BOS agreed to drop this proposal
	Agenda	**Resolution/Recommendation**
	Inclusion of the practical class of the PhD Plant Pathology course Pl path - 605 (Principles and Procedures of Certification)	The house rejected the proposal.
	Agenda	**Resolution/Recommendation**
	Introduction of 2-year PG course in Biochemistry and Plant Physiology [M.Sc. (Agri) Plant Physiology and M.Sc. (Agri) Biochemistry] from next academic year with intake capacity of 01 students for each discipline (Physiology and Biochemistry).	After thorough discussion, it is agreed to put up the proposal of opening PG in Biochemistry with detailed justification to the next Academic Council.
	Agenda	**Resolution/Recommendation**
	Change in credit hours of course GP 243 Principles of Seed Technology	The proposal is agreed and may be put up in the next academic council for approval.
	Agenda	**Resolution/Recommendation**
	Modification of course content of Agron-114 (Fundamentals of Agronomy)	The proposal was declined by the BOS.
	Agenda	**Resolution/Recommendation**
	Shifting of the course "Fundamental of	In view of the above facts, the members of the house

	Plant Biotechnology GPB (Biotech)112" from 1st year 1st semester to 2nd year 1st semester of B. Sc. (Ag.) UG programme	agreed to approve the proposal and agreed to place as an agenda in the next academic council with proper justification
	Agenda	**Resolution/Recommendation**
	Experiential Learning Programme-Taking decisions for completion of ELP programme under present scenario	The proposal was dropped.
	Agenda	**Resolution/Recommendation**
	Increase of the student's strength to 60 numbers for COA, Kyrdemkulai	The agenda was dropped
	Agenda	**Resolution/Recommendation**
	Internal question paper and internal evaluation for B. Sc (Ag) students for the second semester of Academic session 2019-20	The proposal was agreed to be put up as an agenda of next Academic Council for approval.
	Agenda	**Resolution/Recommendation**
	Extension of 2nd semester Academic Session 2019-20	The Agenda was accepted.
	Agenda	**Resolution/Recommendation**
	Cancellation of All India Tour Programme	The Agenda was accepted.
	Agenda	**Resolution/Recommendation**
	Internal setting of question paper and evaluation	The Agenda was accepted.
	Agenda	**Resolution/Recommendation**
	Combining Mid Term and End Term Examination of 2nd Semester of Academic session 2019-20	The Agenda was accepted
	Agenda	**Resolution/Recommendation**
	Evaluation of answer scripts of comprehensive examination locally.	The committee decided to continue the existing system. However, the committee suggested to send the electronic versions of answer books instead of hard copies and marks can also be received electronically. Hence the agenda is deferred.
	Agenda	**Resolution/Recommendation**

	Proposal for Postgraduate programme M.Sc. (Agri.) in Agricultural Economics at COA, Pasighat, Arunachal Pradesh	The Agenda was dropped.
	Agenda	**Resolution/Recommendation**
	Number of seats for M.Sc. and Ph.D. in the College of Post Graduate Studies for the Academic Year 2020-21	The Agenda was accepted with little modification that the number of seats in Agricultural Nematology should be only two seats.
	Agenda	**Resolution/Recommendation**
	Limiting seats to be filled by students from outside North Eastern Hill states in PG and PhD admissions	The Agenda was accepted with little modification that the supportive documents should be put up in the Academic Council.
	Agenda	**Resolution/Recommendation**
	Starting Ph.D. programme in Entomology	The Agenda was accepted to be put up in the Academic Council
	Agenda	**Resolution/Recommendation**
	Starting M.Sc. programme in Agricultural Nematology	The Agenda was accepted to be put up in the Academic Council with two seats only.
	Agenda	**Resolution/Recommendation**
	Recognition of adjunct faculty in the discipline of Agricultural Economics, School of Social Sciences, CPGS-AS, CAU (Imphal), Umiam	The Agenda was accepted to be put up in the Academic Council.
	Agenda	**Resolution/Recommendation**
	Recognition of adjunct faculty in the discipline of Plant Pathology (Virology), School of Crop Protection, CPGS-AS, CAU (Imphal), Umiam	The Agenda was accepted to be put up in the Academic Council.
	Agenda	**Resolution/Recommendation**
	Allotting 3 days for conducting Mid-term Exam just prior to End Term Examination for the 2nd Semester of Academic Session 2019-20	The Agenda was dropped.
	Agenda	**Resolution/Recommendation**
	Adjunct faculty in Soil Physics in COA, Imphal, Manipur	The Agenda was accepted to be put up in the Academic Council with relevant documents and modalities.

	Agenda	**Resolution/Recommendation**
	Teaching Assistant of Agricultural Economics in COA, Imphal, Manipur	The Agenda was declined by the BOS.

From 2019 onwards the Central Agricultural University has created the Board of Studies for Faculty of Agriculture. The current composition of BOS for Faculty of Agriculture is as follows:

6.5.1.4. Anti-Ragging Cell

- Directions and guidelines of the UGC issued from time to time are strictly implemented in this college to curb the menace of ragging. The college is taking all precautionary measures and formalities atthe time of admission.
- Ragging incidents have not happened in this college during the last five years because of the precautionary measures taken from time to time by the college administration.

The following measures are taken to curb the menace of ragging.

- The Dean, Staff advisor, SWO and Wardens of all hostels regularly address all the students and educate them about the consequences of involving in ragging related activities.
- Newly admitted students and parents are well oriented about the punishments for ragging and they are sensitized about the ragging and its prevention.
- Anti ragging committee has been constituted which conducts regular meetings with members of teaching, non-teaching staff, local police staff and local social activists.

- Two anti-ragging squads are constituted, one during office hours and another for after office hours to make surprise visits to sensitive areas like hostel premises, canteen, corridors, class rooms, fields and play ground. Another special committee has also been constituted for day wise supervisions. Strict vigilance is done during holidays as well as atlate hours.
- Every teaching and non-teaching staff, employees of mess/canteen are given necessary instructions to keep strict vigilance and to report any incidence of ragging to the collegeauthorities.
- Both administrative and college building as well as hostels are under CCTV surveillancewhich is monitored by the office of the Dean at college level and wardens at hostel level which have greatly enabled to curb the ragging menace.
- As per the UGC guidelines all the students are registered themselves on the website http://www.amanmovement.organd http://www.antiragging.in and give an undertakingthat they will not involve/indulge in any type of ragging activities. This has to be endorsed by their parents or guardians.
- Regular video clips, flex boards and banners have been displayed in the college highlighting guidelines, warnings, punishments and its harmful consequences.
- Students are encouraged to involve in the sports / games / co-curricular activities in thehostels. The students are given psycho-social support through yoga camps, health camps, awareness programmes, sports and other activities for raising confidence, amity and friendship among themselves.
- Counseling of both freshers and seniors is conducted by their respective counselors.
- The newly admitted students are encouraged to be free to submit their complaints and problems to authorities.
- Periodical reports of ragging incidents if any or nil reports are submitted to MHRD and UGC Secretariats of Government of India through the University.

College maintained RAGGING FREE campus till today

UG Boy's Hostel Visit by anti Ragging Squad

UG Girl's Hostel Visit by anti Ragging Squad

Anti-Ragging Campaign

Anti-Ragging Banner

Anti-Ragging Banner

CCTV MONITOR CONTROL ROOM

6.5.1.5. Biological waste disposal Facility

- Chemical, Biological and recyclable wastes generated througha variety of research activities, maintenance and cleaning operation at the college level have been disposed systematically. Field wastes are converted to compost. Food waste is used for feeding farm animals and also converted to compost. Incineration unit has been installed in ladies hostel and soak pit facilities are being used.
- Compost and vermicompost units are established for converting biological wastes.
- The laboratory chemical wastes are disposed by burying deep into the soil.
- Waste bins and Dustbins are maintained at regular distance.
- Regular cleaning and burying activities of the wastes accumulated are done by the field staff and NSS students.
- Regular cleaning activities under the "Swach Bharat Abhiyann" is carried out in the College Campus by students, staff and faculties

6.5.1.6. Institutional Ethics Committee for Experiment on Animals

Experimentation on animals in course of veterinary/medical research and education is not being taken up at our campus hence, no such committee was formed.

6.5.1.7. Committee for Prevention of Sexual Harassment of Women at Work Places

The University has taken measures for prevention of sexual harassment of women at work place. The college has constituted a committee on 25th February 2021 vide order no. COA/CAU/191-ORDER/2019 dated 25th Feb 2021 that acts on complaints of sexual harassment of Women at work places. The composition of the committee is given below:

COLLEGE OF AGRICULTURE
CENTRAL AGRICULTURAL UNIVERSITY
IROISEMBA, IMPHAL – 795 004

No. COA/CAU(I)/ Office Order (iv) Imphal, the 25th February, 2021

OFFICE ORDER

An "Internal Complaint Committee" consisting of the following Officers of this College is newly constituted with immediate effect.

Sl. No.	Name of Officials	Position
1.	Dr. Ph. Subhas Devi, Prof. Dept. of Plant Pathology	Chairman
2.	Dr. A.N. Bijaya Devi, Prof. Dept. of Entomology	Member
3.	Ms. Rangpi Khaidukpam, Asst. Prof. Clinical Psychology, RIMS	Member
4.	Dr. N. Subhas Chn, Asst. Prof., Dept. of Agril.	Member
5.	Shri N. Arvi Singh, Asstt. Comptroller	Member
6.	Dr. K. Mahendrajit, Asst. Prof., Dept. of Home Science	Member Secy.

The Committee is responsible for inquiring into complaints of sexual harassment cases of working women in the workplace in accordance with the Section 4(1) of the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013. The tenure of the committee shall be of 3 years from the date of this order.

Prof. Subha Sarangthem
Dean

No. COA/CAU(I)/ Office Order (iv) Imphal, the 25th February, 2021

Copy to:-
1. All [illegible] for kind information of the Hon'ble Vice-Chancellor, Central Agricultural University, Lamphelpat, Imphal.
2. The Registrar, Central Agricultural University, Imphal for information.
3. All persons concerned by name ..... for kind information and necessary action.
4. Guard file

Prof. Subha Sarangthem
Dean

Duties of the committee

- Regular conduct of meetings
- Receive the complaints and take appropriate action

The committee has taken all necessary measures for the prevention for Sexual Harassment of Women at workplace. **Till date such grievances have not been reported in this college**.

6.5.2 FACULTY

6.5.2.1. FacultyStrength

Category-wise staff strength (5 years)

Category of staff	Number and per cent									
	2016-17		2017-18		2018-19		2019-20		2020-21	
Faculty (49)*	40	81.63	40	81.63	40	81.63	42	85.72	46	93.87
Technical (50)*	36	72	36	72	34	68	34	68	31	62
Administrative (50)*	15	30	15	30	13	26	13	26	13	26
Supporting (47)*	26	55.31	26	55.31	26	55.31	21	44.68	21	44.68

**- Sanctioned Posts*

6.5.2.2. Faculty profile (departmentwise)* – *As on 30th April 2021*

Department wise faculty position at College of Agriculture, Iroisemba, Imphal

S. No.	Department	Current Faculty position					
		Professor	Assoc. Prof.	Asst. Prof.	Total	Remarks	Faculty Recommended by the ICAR/UGC/VCI/Other regulatory bodies**
1	Dean	01	0	0	01		-

2	Agronomy	04	0	01	05	*4 Prof. & 1 Asst. Prof.	Prof – 1, Assoc. Prof – 1 Assistant Prof. – 5
3	GPB	03	01	0	04	*3 Prof. & 1 Assoc. Prof.	Prof – 1, Assoc. Prof – 1 Assistant Prof. – 3
4	SSAC	03	0	01	04	*3 Prof. & 1 Assoc. Prof.	Prof – 0, Assoc. Prof – 1 Assistant Prof. – 5
5	Plant Pathology	01	01	02	04		Prof – 0, Assoc. Prof – 1 Assistant Prof. – 2
6	Horticulture	03	01	01	05	*3 Prof. 1 Assoc. & 1 Asst. Prof	Prof – 1, Assoc. Prof – 1 Assistant Prof. – 3
7	Agril. Engg.	0	01	02	03		Prof – 0, Assoc. Prof – 0 Assistant Prof. – 2
8	Entomology	02	02	0	04	*2 Prof. & 2 Assoc. Prof.	Prof – 0, Assoc. Prof – 1 Assistant Prof. – 2
9	Extn. Edn.	02	01	02	05	*2 Prof. , 1 Assoc. Prof. & 2 Asst. Prof.	Prof – 0, Assoc. Prof – 1 Assistant Prof. – 4
10	Animal Sc.	0	01	01	02	*1 Assoc Prof. & 1 Asst. Prof.	Prof – 0, Assoc. Prof – 0 Assistant Prof. – 2
11	Agril. Econ.	01	01	0	02	*1 Prof. & 1 Assoc. Prof.	Prof – 0, Assoc. Prof – 1 Assistant Prof. – 5
12	Basic Science	01	01	0	02	*1 Prof. & 1 Assoc. Prof	Prof – 0, Assoc. Prof – 1 Assistant Prof. – 5
13	BPME	01	01	0	03	*1 Prof. & 1 Assoc. Prof.	Prof – 0, Assoc. Prof – 0 Assistant Prof. – 2
14	MTTC & VTC	0	0	03	03		-
	Total	22	11	13	46		-

**Promoted to Professor under CAS*

*** Reference – Report of the ICAR Fifth Dean's Committee – Page No. 97 – 99.*

6.5.2.3 Credentials of the Faculty

Sl. No	Name of Faculty	Post held	Highest qualification	Teaching / Work Experience (In Years)	Honors & Awards	No. of Students Guided---		No. of publications in NAAS rated Journals
1	2	3	4	5	6	7	8	9
						PG-	Ph. D	
HORTICULTURE DEPARTMENT								
1	Dr. Ak. Bijaya Devi	Professor	Ph.D.	35 years	Nil	8 Guided 3 Guiding	Nil	20 nos.
2	Dr. U. Chaoba Singh	Professor	Ph.D.	35 years	Nil	6 Guided 3 Guiding	Nil	5 nos.
3	Dr. RK. Dilip Singh	Professor	Ph.D.	27 years	Nil	3 Guided 7 Guiding	Nil	6 nos.
4	Dr. Ng. Piloo	Associate Professor	Ph.D.	12 years	4	3 Guiding	Nil	8 nos
5	Dr. M. Chanchan	Assistant Professor	Ph.D.	5 Years	Nil	1 Guiding	Nil	9 nos.
6	Dr. Ps. Mariam Anal	Assistant Professor	Ph.D.	5 years	1	1 Guided 2 Guiding	Nil	12 nos.
7	Dr. AbhinashMoirangthem	Assistant Professor	Ph.D.	3 years	2	1 Guiding	Nil	12 nos.
AGRICULTURAL ECONOMICS								
8	Dr.Y. Chakrabarty Singh	Professor	PhD	32years	-	15		45
9	Dr SM Feroze	Assoc. prof.	PhD	12years	6	14	2	65
10	Dr. S. Basanta Singh	Director of Extension CAU, Imphal	PhD	28years	-	2	0	60
11	Dr Rishikanta Singh	Senior Scientist ICAR	PhD	12years	-	2	0	25
12	Dr BC Roy	Professor	PhD	28years	-	0	10	70
SOIL SCIENCE AND AGRICULTURAL CHEMISTRY								
13	Dr. Indira Sarangthem	Professor and Dean	Ph.D	30 years	-	13	2	46
14	Dr. R. K. Kumarjit Singh	Professor (Retired-2020)	Ph.D	40 years	-	7	2	25
15	Dr. A. Herojit Singh	Professor and HOD	Ph.D	32 years	-	13	3	78
16	Shri. O. Nirmalkumar Singh	Assoc.Prof. (Retired-2020)	M.Sc.	40 years	-	-	-	10
17	Dr. N. Surbala Devi	Assistant Professor	Ph.D	10 years	7*	12	-	25

		(Sr. Scale)						
DEPARTMENT OF BPME								
18	Dr. S. Jekendra Singh	Professor	Ph D	35	1	19/ As co-guide	1 As co-guide	28
19	Dr. RK Bhanisana Devi	Professor	Ph D	38	Nil	Nil	5 As co-guide	3
20	Dr. L.K. Mishra	Assoc Prof	Ph D	13	3	1	02 As co-guide	18
PLANT PATHOLOGY								
21	Dr. PhSobita Devi	Professor	Ph. D.	34 years and 7month	1	PG- 27	1 completed and 3 ongoing	25
22	Dr. L. Nongdrenkhomba Singh	Associate Professor and HOD.	Ph. D.	18 years 4 years Administration	Nil	PG- 3 completed and 2 0ngoing/	1 Ph.D. Ongoing	8
23	Dr. BireswarSinha	Assistant Professor	Ph. D.	11 years	6	PG- 10/	PhD. - 2	19
24	Dr. SumitraPhurailatpam	Assistant Professor (MTTC&VTC)	Ph. D.	1 year and 5 months	2	Nil	Nil	13
25	Dr. NabakishorNongmaithem	Assistant Pathologist (AICRP on Maize)	Ph. D.	3 Years	1	Nil	Nil	3
26	Dr. KshSumita	Assistant Nematologist AICRP(Nematodes)	Ph. D.	4 years and 11 months	Nil	Nil	Nil	6
AGRICULTURAL ENGINEERING								
27	Ng. Joykumar Singh	Asstt. Professor (Sr. Scale)	Ph.D.	20 yrs	05 **	PG (Co-guide)- 04	(Co-guide) - 02	18
28	PT Sharma	Asstt. Professor	Ph.D.	14	-	Nil	Nil	03
AGRONOMY								

29	Dr. Edwin Luikham	Professor	Ph. D	29	Nil	PG=5	1	21
30	Dr. L.Nabachandra Singh	Professor	Ph. D	31	Nil	PG=4	3	15
31	Dr.M.Sumarjit Singh	Professor	Ph. D	31	Nil	PG=5	1	11
32	Dr. K. Nandini Devi	Professor	Ph. D	16		PG=5	5	26
33	Shri. RK Nurbahan Singh	Associate Professor	M.Sc. Physics	40	Nil	Nil	Nil	Nil
34	Dr. J. Lhungdim	Assistant professor (Sr.Scale)	Ph.D	12	1	PG=5	Nil	17
35	Dr N. Anando Singh	Jr. Agronomist (AICRP-Chickpea)	Ph.D	9	1	Nil	Nil	11
36	Dr. Joseph Koireng	Scientist AICRP (FC)	Ph.D	9	3	PG=2	Nil	8
37	Dr. T. Sunanda Devi	Jr. Agronomist (AICRP-Soyabean)	Ph.D	9	Nil	PG=1	Nil	4
38	Dr. Sanjenbam Dayananda Singh	Assistant Agronomist AICRP (Maize)	Ph.D	3	1	Nil	Nil	6
39	Dr. Diana Shamurailatpam Devi	Agronomist (AICRP- RM)	Ph.D	2	Nil	Nil	Nil	3
GENETICS AND PLANT BREEDING (GPB)								
40	Dr. E V Divakara Sastry	Professor	Ph.D	39 years	3	PG- 45	12	90
41	Dr. Ph. Ranjit Sharma	Professor	Ph.D.	32 years	-	PG -15	3	25
42	Dr.N.Brajendra Singh	Professor	Ph.D.	32 years	-	PG - 18	3	88
43	Dr.Th.Renuka Devi	Associate Professor	Ph.D	15 years	-	PG-11	2	11
Basic Science								
44	Dr. N. Okendro Singh	Professor & Head	Ph.D.	18 years	-	Nil	Nil	50
45	Shri. N. Gopimohan Singh	Associate Professor	M.Sc.	34 years	-	Nil	Nil	50
46	Dr. K. Maheshwari Devi	Assistant Professor	Ph.D.	02 years	-	Nil	Nil	2
EXTENSION EDUCATION								
47	Angad Prasad	Professor	Ph.	29	4	02	-	43

			D					
48	M. Kunjaraj Singh	Professor	Ph. D.	31	-	24	-	29
49	Daya Ram	Asst. Professor	Ph. D	15	6	18	-	85
50	M. Deepa Devi	Asst. Professor	Ph. D	11	-	3	-	17
51	DipakNath	Assoc. Professor	Ph. D.	20	5	0	10	85
ANIMAL SCIENCE								
52	Dr.Th. Ranadhir Singh	Associate Professor & Head	Ph.D. LLB	17 years	3	2	1	17
53	Dr. M. NorjitSngh	Assistant Professor	Ph.D.	4 yrs, 11 months	01	Nil	Nil	15
ENTOMOLOGY								
54	Dr K Ibohal Singh	Associate Professor	Ph.D	20 years	02	12	-	35
55	Dr. Shravan MHaldhar	Associate Professor	Ph. D	13 years	11	4	1	41
56	Dr Mamocha Singh	Professor/Registrar	Ph.D	21 years	02	05	-	30
57	Dr Robindro	Deputy Director (Research)	Ph.D	13	01	-	-	17
58	Mrs. Bina Devi	Assistant Professor	M.Sc.	27	-	15	-	17

Publications in last 4 years (enclosed)

Department	**No. of papers published**		**No. of extension publications**	**Practical manuals**	**Books**	**Others (specify)**
	Research	**Others**				
	221	102	119	25	26	-
ENCLOSED in Annexure-B						
Total	221	102	119	25	26	-

6.5.2.4: Technical and Supporting Staff

The college has been sanctioned with adequate technical and supporting staff to meet therequirement of teaching, research and extension, administration and academic activities. The vacancies are filled through direct selection/contractual/ outsourcing. The details are presented in the following table.

Staff Type	**Sanctioned**	**Filled**	**Vacant**
Technical	50	31	19
Administrative & Supporting Staff	97	53	44
Total	**147**	**84**	**63**

6.5.3. LEARNING RESOURCES

Learning Resources

Faculties are provided with computers to access the online open courseware and online portal to use it for the curriculum delivery. Faculty members access various resources for use in teaching, research and extension activities. Students are also encouraged to access various software applications in agriculture. Learning resources are texted, video lessons, and other ICT related materials that teachers used to guide students to meet the expectation for learning defined by ICAR recommended

curriculum

6.5.3.1. College Library

- Location of Library: It is located with the Admistrative block of the College in its main campus of the campus.
- Present Staff Position (in place): Presently Library is working with one Librarian, Two Library Assts, one Library Asst and one MTS under one Prof i/c Library.
- Availability of Wi-fi: Library is having Wi Fi facility.
- Books/Reading Material (in number): Library is having its collection of 21021 print books in its custody for use by its users.
- Periodicals/Research Journals (in number): Library is having its collection of 120 above print journals for use by its Sclients in total, with 18 present subscribed journals. The List is attached below:

S No	TITLE	VOL: NO.
1.	Agricultural Abstracts	46;47:1-5;48;49:1-5
2.	Agricultural Engineering Today	10;11:1-5;13;17:1-5;17;12:3-6;18;19:1-4;24;
3.	Agricultural Extension Review	11;12:1-6;13:1-4,6
4.	Agricultural Reviews	7;8:1-2;9;10:1-2;11;12:1-2;13;14;1-3,1-2; 15;16;19;21;22;
5.	Agricultural Science Digest	6;7:1-4;8;9:1-4;10;11:1-4;12:1-3;13:1-2;14; 15:3-4;16:2-4;17:3-4;18;20;21;
6.	Agricultural Situation in India	39:1-10;40:4-7;46:1,3,4,6,10,12;48:10-12; 49:1-3,5-9;
7.	Agronomy Journal	82:1-6;83:1-6;86:1-3;86:4-6;87:1-3;87:4-6; 88:1-3;88:4-6;89:1-3;89:4-6;90:1-3; 90:4-6;
8.	Alternative/Appropriate Technologies in Agriculture	2,4.1-4;76:1-3;76:4-5;77:2-3;77:4-5;78:1-3; 78:4-5;79:1-3;79:4-5;80:1-3;80:4-5;
9.	American Sociological Review	34:1-6
10.	Annals of Agricultural Research	6;7;8;9;10;11;12;13;14;28;29;30;31;32:2-4;34;35;18:1,3,4;19:1-4;20;
11.	Asian Journal of Diary Research	5;6:1-4;7;8:1-4;9;10:1-4;
12.	Australian Journal of Agricultural Research	45:1-4;45:5-8;46:1-4;46:5-8;47:1-4;47:5-8;48:1-3;45:5-8;
13.	Bio-control News and Information	16:1-4;17:1-4;18:1-4;19:1-4;9;11;
14.	Biological Abstracts (Biosis,	89:1-12;90:1-12;91:1-12;92:1-12;93:1-2;;

	USA)	94:1-12;91:A-D;93:A-Z;;94:A-Z;;92:A-D;
15.	Biometrics	50:1-2;50:3-4;51:1-2;51:3-4;52:1-3;53:1-2; 53:3-4;54:1-2;54:3-4;
16.	Bulletin of Entomological Research	84:1-4;85:1-4;86:1-6;87:1-6;88:1-6;
17.	Canadian Journal of Plant Science	72;74:1-4;75:1-4;76:1-4;77:2-4;78:1-4;
18.	Communication Research	21:1-3;21:4-6;22:1-3;22:4-6;23:1-3;23:4-6; 24:1-3;24:4-6;25:1-3;25:4-6;
19.	Crop Science	30:1-3;30:4-6;25:1-3;25:4-6;26:1-3;26:4-6; 27:1-3;27:4-6;28:1-3;28:4-6;29:1-3;28:4-6;34:1-3;34:4-6;35:1-3;35:4-6;36:1-3;36:4-6; 37:1-3;37:4-6;38:1-3;38:4-6;
20.	Current Advances in Genetics and Molecular Biology	1:1-6;1:7-12;2:1-6;2:7-12;3:1-6;3:7-12;4:1-6; 4:7-12;5:1-6;5:7-12;11:1-4;11:5-7;11:9-12; 12:1-4;12:5-7;12:9-12;13:1-6;13:7-12; 14:1-6; 14:7-12;15:1-6;15:7-12;
21.	Current Contents: agriculture, biology and environmental Sciences.	25:15-'21;26:1-9;26:10-17;26:18-26;26:27-35; 26:36-44;26:45-52;27:36-44;27:46-53;28:1-8; 28:9-17;28:18-26;28:27-34;28:35-43; 28:44-52;29:1-8;29:9-17;29:18-26;29:27-35; 29:36-43;29:44-52;30:1-8;30:9-17;30:18-26;30:27-30;
22.	Current Science	60:3-5,7-10;61:1,28-12;66:1-6;68:1-6; 68:7-12;69:1-12;70:1-7;70:9-12;71:1-12; 72:1-5,7-12;73:1,2,5,6,8-12;74:5-12;75:1-3,5-7; 75:8-12;76:1-6;76:8-12;77:1-6;77:7-12;80:1-7; 80:8-12;81:1-6;81:7-12;55:1-12;57:1-12; 58:1-12; 55:13-24;57:13-24;58:13-24;59:1-14; 64:1-12; 65:4-12;66:1-12;
23.	Cytologia	59:1-4;60:1-4;61:1-4;62:1-4;63:1-3;
24.	Ecological Entomology	11:1-4;11:1-4;
25.	Entomon	12:1-4;14;16:1-4;10;11;12;13;16;19;20; 21;22;25;26;
26.	Euphytica : international journal of plant breeding	75-77:1-3;78-80:1-3;81-83:1-3;84-86:1-3; 87-89:1-3;90-92:1-3;93;93-95:1-3;96-98:1-3;
27.	Experimental Agriculture	30:1-4;32:1,2,4;33:1-4;34:1-4;
28.	Farmers' Journal	8:1-3,6-12;9:1-9;5:10-12;6:1-5,7; 7:2,4-9,11, 12;9:10-12;10:1-7;11:1-3;
29.	Fertiliser News	39;40;41:1-11;44:4,9-12;45:1-3,5-9;46:1-6,8; 37:1-12;33:4-12;34:1-6,8-12;36:2-4,6-12;38:1-7,9-12;
30.	Field Crop Abstracts	41:1-12;42:1-12;43:1-12;47:1-6;47:7-12;48:1-5;48:6-12;49:1-4,5;49:8-12;50:1-4;50:7-12; 51:1-6;51:7-12;

31.	Haryana J of Horticultural Scs	24-26:1-4;28;29:1-4
32.	Hereditas	122;123;124;125;126;127;128;129;
33.	Horticultural Science	30:1-3;30:4-7;31:1-3;31:4,6,7;32:1-3;32:4-7;
34.	IASSI Quarterly	13;14:1-4;15:1-4;16:1-4;17:1-4;18:1-4;
35.	India Journal of Agl Sciences	65:2-6,8-12;68:1-6,8-12;70;71:1-2,4-12;
36.	Indian Academy of Science Proceedings (Chemical Sc)	100:1-6;102:1-6;104:1-6;105:1-6;99:1-6;97:1-6;98:1-6;99:1-6;100:1-6;95:4; 98:1,4-6;100:1
37.	Indian Bee Journal	57;58;59;60;61;62;
38.	Indian Coffee	53:1-12;55:1-12;56:1,4-12;57:1,2,7,9-12; 58:1-12;59:1-12;60:1-3,5-8,12;61:2-12;
39.	Indian Economic Reviews	27;23;26;30-32;35;36;
40.	Indian Farming	36:1-12;37:1-9;41:10-12,42:1-12; 43:1-9; 38;39;43:10-12;44:1-6,8,10,11;45:1-9;45:10-12;46:1-7,9-12;47:1-6,8,9;47:10-12; 48:1,3-9;49:10-12;50:1-12;51:1-9;
41.	Indian J of Agricultural Research	20-22:1-4;23;24:-4;25-27:1-4;34-37:1-4;
42.	Indian J of Animal Research	21-27;28-30:1-2;31;32:1-2;34;35:1-2;
43.	Indian Journal of Agricultural Economics	45;47;48;46:1,2,4;49;1,2,4;51;52;53;55;56;
44.	Indian Journal of Agricultural Sciences	55:5-9,12;56:5-11;57:7-12;57:7-12;57:1-6;57:16; 58:1-6;59:6-12;60:1-11;61:1,2,4-6;62:1-5,8-12; 63:1-10,12;57:1-2;58:1-3,7,10,12; 59:3-5; 60:7,9,10;31:4;32:3;42:2-3;56;
45.	Indian Journal of Agronomy	36:1-4;,37:1-3;38:1-4;34;35;36;33;26:3-4;27:1; 32;30:1-4;31:2-4;39;40:2-4;41;42;43;44;45;45;
46.	Indian Journal of Animal Sciences	57:7-12;58:1-6;58:7-12;59:7-12;59:1-6;61:1-7; 63:1-6;63:7-12;56:4-11;57:1,2,4-710,12;58:1-7; 60:1-5;60:7-9,11,12;62:1-5,9-12;50:6-7,9,10,12; 57:2,5,6,8;60:7-9;64:1-6;64:7-12;65:1-6;65:7-12; 66:2-6;66:7-12;67:1-6;67:7-12;68:1-6; 68:7-12; 70:1-6;70:7-12;
47.	Indian Journal of Biochemistry and Biophysics	30:1-6;24:1-5;29:1-4,6;31:1-6;32:1-3,6;33:1-5; 34:1-5;38:1,2,4-6;
48.	Indian Journal of Entomology	50-51:1-4;47:1-4;53:1-4;52:1,3,4; 54;55;56;57;59;61;62;63;

49.	Indian Journal of Experimental Biology	29:1-6;30:1-6;31:1-6;25:1-7,10-12;27:1-11;30:7-12;29:7-10,31:7-10;32:1-12;33:1-9,11,12; 35:16; 35:7-12;39:7-12;39:7-12;
50.	Indian Journal of Extension Education	13:1-4;14:1-4;17:1-4;19:1-4;20:1-4;21:1-2,27;17,22,23;
51.	Indian Journal of Forestry	20;21:1-4;22;23:1-4;24:1-4;
52.	Indian Journal of Genetics and Plant Breeding	44:2;45:1,3;47,48;49:1-3, 50:1-4;53;1-2;3-4;6-9; 10-12;1315;16;17:1;17:2;18-19; 20-21;22-23;24; 25; 26;27;28;29;30;31;32;33;34;35;36;37;38; 39; 40;41;42;43;44;45;46;47;48;49;54;55;56;57;59;60;
53.	Indian Journal of Microbiology	35;36:3,4;37:3;38:1-4;40,41;
54.	Indian Journal of Mycology and Plant Pathology	22;23:1-3;15,16:2,17:1,2;24;25:1-3; 26,27; 28,29;30,31;
55.	Indian Journal of Nematology	15,16:1-2;17,18:1-2;19,20:1-2;21,22:1-2;23,24; 25,27;29,30,31;
56.	Indian Journal of Plant Physiology	34,35:1-4;36:1-4;31:1-3;33;38:1,2;3,4;5,6;
57.	Indian Journal of Plant Protection	14:1;15:1;16:1,2;17:1;18;19;20;21;22;; 23:1;26:1;27;28;
58.	Indian Journal of Technology Indian Phycopathology	25:1-4,7-9,11,12;48;52,53;54;38;39;40;41;42;43; 44;45;78:1-6;78:7-12;79:2-6;79:7-12; 80:1-7; 80:8-12;82:1-6;82:7-12;
59.	Indian Science Abstract	28:1-6;28:7-12;28:13-18;28:19-24;29:1-6;29:7-12;29:13-18;29:19-24;
60.	Indian Veterinary Journal	64:1-6;64:7-12;65:1-6;65:7-12;66:1-6;66:7-12; 67:1-6; 67:7-12;68:1-6;68:7-12;69:1-6;69:7-12; 63:7,8,10-12; 63:1-6;66:1-3,5,6; 66:7-12;71:1-6; 71:7-12;72:1-6;72:7-12;73:1-6; 73:7-12;74:2-7; 75:1,4,5,7,8,10,11;76:1-6; 76:7-12;77:1-6;77:7-12; 78:1-6;78:7-12;79:1-6;
61.	Intensive Agriculture	36:11,12;37:1,2,5-12;38;39:1-12
62.	Irrigation and Drainage Abstracts	20:1-4;21:1-6;22:1-6;23:1-6; 24:1-6;
63.	Irrigation and Power Journal	49:1-4;50:1-4;1-3.1-4;4;5:1-4; 6:1-3;;46:2-4;47; 48:1,3,4;
64.	JARQ (Japan Agricultural	24:1-4;25-27;Xxx28;29-31;32-34;

	Research Quarterly)	
65.	Journal of Applied Entomology	117:1,2,4;118:1,3,4,5;;119:1-10;120:1-10; 122: 110; 87:1-3;87:4-6;88:1-3;88:4-6;89:1,3;89:4-6; 90:1-2;90:4-6;91:1-3;91:4-6;82:1-5+ index;
66.	Journal of Biosciences	18:1-4;17:2-4;19:1-5;20:1-5;21:1-6;23:1-3;24:1-4;26:1-5;
67.	Journal of Entomological Research	15:1-4;16:1-4;1-3;8;9;14;;4-7;15:1-3;; 18;19;;20;21;;23;24;;25;
68.	Journal of Food Science and Technology	26:2-4;29:1-6;;20:4;21:3;23:1-2;24:2;25:1-4,6;; 31:1-6;32:1-6;33:1-3,5,6;34:1-6;35:1-6;36:1-6;38:1-6;22:1,2,4-6; 24:1,3-5;
69.	Journal of Genetics	70-72:1-3;68;69:1-3;;74;75;76:1-2;;77;78;80;
70.	Journal of Research	22:1-4;23:1-4;25:1-4;Xxx;36;37;38;
71.	Journal of Rural Development	7:1-6;9:1-6;11:1-6;10:3-6;
72.	Journal of Scientific and Industrial Research	50;51:1-12;52;53:1-12;50:7,8,11,12; 51:7-11;; 48:1-5,9-12;46:1-5,10,11;53:1-11; 54:1-11;55:1-6,8-12;56:1-12;
73.	Journal of the American Soc for Horticultural sciences	120:1-6;121:1-6;122:1-6;123:1-6;
74.	Journal of the Indian Society of Soil Sciences	41;40;33;34:1,2,4;37;36;39;38;42;43;44;45;47;48;
75.	Legume Research	9-12;13-16;17;18;20;21;23;24;
76.	Medicinal and Aromatic Plant Abstracts	13:1-6;15:1-6;9:1,2,4-6,9;11:1,3-6;14:1-4,6; 16:1-6;17:1-6;18:1-6;
77.	Mycological Research	94;94;98:1-6;98:7-12;100:1-6;100:7-12; 101:1-6; 101:7-12;102:1-6;102:7-12;
78.	Nature	343;344;345;346;347;348;349;350;351;352;352;353;354;355;356;357;358;360;367:6458.'58,'61-'65;;368:6467-'74;;369:6475,'77,79-'83;; 370:6484-'91;371:6492-'00;372:6501-'08; 373:6509-'16;374:6517-'25;375:6526-'34; 376:6535-'43; 377:6544-'51;378:6552-'59; 385:661,'14,'16,'17; 387:6628-'31;388:6637-'42; 391:6665-'70; 392: 6671- '79;393:6680-'87; 394:6688-'96;395:6697-'05;396:6706-'13;
79.	Pestology	14-15:1-12;Xxx;18:1-7,9-12;19;20:1-12; 20:1-12; 21:1-6,9,11;22:2-12;23:1-6;23:7-12;24; 25;10; 13;16;17;
80.	Phytopathology	82:1-12;84:1-2;84:3-8;84:9-12;85:1-7;85:8-12; 86:1-6;86:7-11;87:1-6;87:7-12;88:1-6; 88:7-12;

81.	Plant and Soil	158-160:1-2;161-162:1-2;163-164:1-2; 165-167:1-2;168-170:1-2;171-172:1-2;173-173:1-2; 176-177:1-2;178-180:1-2;181-183:1-2;184-185: 1-2;186-187:1-2;188-190:1-2;191-194:1-2;195-197:1-2;198-200:1-2;201-203:1-2;204-207:1-2;
82.	Plant Breeding Abstract	57:1-12;58:1-12;59:1-12;60:1-12;61:1-12;62:1-12;64:1-5;64:6-12;65:1-5;65:6-12;66:1-5;66:6-12;67:1-5;67:6-12;68:1-6;68:7-12;
83.	Plant Diseases	76:1-7;76:9-12;78:1-6;78:7-12;79:1,2,4-6;79:7-10,12;80:1-6;80:7-12;81:1-3,5,6;81:7-12; 82:1-6;82:7-12;
84.	Plant Pathology	40:1-4;39;43:1-6;44:1-6; 45:1-6;46:1-6;47:1-6;
85.	Proceedings of the Indian Academy of Sciences (Chemical Sciences)	106:1-3;106:4-7;107:4-6;108:1-6;109:1-6;110:1-3;6;111:1,2,5,6;113:1-6;
86.	Progressive Horticulture	29;30:1-4;31:1-4;32:1-2;
87.	Review of Applied Entomology	82:6-12;84:1-5+ index;84:6-12;85:1-5 + index; 85:6-12;86:1-6;86:7-12;
88.	Review of Plant Pathology	69:1-9;73:1-5;73:6-12;74:1-5;74:6-12;75:1-5; 75:6-12;76:1-5;76:6-12;77:1-5;77:6-12;
89.	Rice Abstract	15:1-4;9;11:1-6;12;14:1-6; 17;18:1-4;19;20:1-4;21:1-4;
90.	Scientica Horticulture	56;57:1-4;58;59:1-4;60:1-2;;61;62:1-4;60:3-4;; 63;64:1-4;65-67:1-4;68-71:1-4;72:1;; 73;74:1-4; 72:2;;75-78:1-4;
91.	Seed Abstracts	17:1-12;18:1-12;19:1-12;20:1-12;21:1-12; 11:1-12;12:1-12;13:1-12;
92.	Seed and Farms	12:1-3,5-11;13:1-12;14:1-6,9-12;11:7,9,11,12; 16:1-4,8-10;17;18:1-6;;Xxx;
93.	Sociological Methods and Research	22:3,4;23:1-4;24;25:1-4;25:1-4;26:1-4;27:1-2;
94.	Soil Science	153;157;158;159;160;161;:1-6;162:1-12;
95.	Soil Science Society of America Journal	62:1-2;62:3-4;62:5-6;61:1-2;61:3-4;61:5-6;60:1-2;60:3-4;60:5-6;59:1-2;59:3-4;59:5-6;58:1-2; 58:3-4;58:5-6;
96.	Soil Sciences Society of America	55:1-3;55:4-6;56:1-3;55:4-6;
97.	Soils and Fertilizers	57:1-6;57:7-12;58:1-5;58:6-12;59:1-5;59:6-12; 60:1-5;60:6-12;61:1-5;61:6-12;

98.	South Indian Horticulture	34:1-6;36:1-5;38:1-6;39;40:1-6; 41:1-6;33:1,6; 35:3,6; 36:3,4;;42;43:1-6;44;45:1-2;46-48:1-6;
99.	Theoretical and Applied Genetics	81:1-6;82:1-6;87:1-5;87:6-8; 88:1-8;94:1-8;95:1-5;95:5-8;
100.	Transactions of the ASAE	33:1-3;33:4-6;38:1-3;38:4-6;39:1-2;39:3-4; 39:5-6;40:2-3;40:4,6;41:1-3;41:4-6;
101.	Vegetable Science	20:1-2;27;28:1-2;11;12;19:1-2;
102.	Weed Research	30;32;34:1-6;35:1-6;36:1-6;37:1-6;38:1-6;
103.	World Agrl Economics and Rural Sociology Abstracts	36:1-12;37:1-12;38:1-5;38:6-12; 39:1-5;39:6-12;40:1-6;40:7-12;

Viewof College Library

- Internet facility: LAN and Wi-fi available
- No of Computers: 02
- Seating Capacity: 20
- Latest Technology in the library: Plagiarism software, CeRA online resources
- Stocking arrangements: Cupboards, Racks
- Collection of volumes on different subject: See the above Table
- Latest publications in the field of relevant subjects: See the above table
- Automation & user services through computer: Has been started
- Opening hours: 9:00 – 5:00
- Subscription of journals of national & international reputenational dailies/ magazines (provide list): See the above list.

Computer and Teaching Aids

The College has two computer centers at Academic Block – I and II.At present, there are 32 computers in computer labs with printer facility and internet wi-fi facility. The departments are also provided with computers and teaching aids.

6.5.3.2. Laboratories, Instructional farm, Workshops, Dairy Plant, Veterinary Clinic, Hatchery, Ponds etc.

i) The college has UG programme, 12 departments' *viz*., [Agronomy, Agricultural Economics, Animal Husbandry, Agricultural Engineering, Basic Science, BPME (Biochemistry, Microbiology, Plant Physiology and Environmental Science), Entomology, Extension Education, Horticulture, Plant Pathology, Plant Breeding & Genetics (PBG) and Soil Science & Agricultural Chemistry (SSAC)]. eight PG departments and five doctoral degree courses So

adequate number of classrooms and laboratories have been established at this college.

ii) The Instructional Farm for students to conduct field trial are spread over different locations in the College campus. The details of these farms is given below:

Details of Fields Allotted for Student Trials at College of Agriculture

SI. No.	Name of Department	Area of Farm/Field Alloted
1	UG Students Field (Agronomy ELP Farm)	490 sqm
2	Agronomy	4297.4 sqm
3	Plant Breeding and Genetics	2597 sqm
4	Plant Pathology	1543 sqm
5	Horticulture	660 sqm
6	Entomology	2050.5 sqm
7	Soil Science and Agriculture Chemistry	2466 sqm

iii) In addition to this college has honey processing unit, mushroom unit, vermicomposting unit and animal husbandry unit housing a poultry, piggery and dairy unit for ELP training of the students.

6.5.3.3. Student READY/ In-Plant Training / Internship / Experiential Learning Programmes

The college has already implemented the Student's READY Programme as per the directions and guidelines of Central Agricultural University, Imphal. The Rural Agricultural Work Experience Programme (RAWEP), Agro-industrial Attachment (AIA) and Experiential Learning Programme (ELP) are under the Students READY Programme for B.Sc. (Hons.) Agriculture. Through this programme, students are given hands on experience and practical training in agriculture and allied areas. The programme helps to develop confidence, skills and to acquire knowledge of agricultural systems.

RAWE & AIA programme: RAWE is organized for every year for the undergraduate students of College of Agriculture in the 4th Year, 1st semester of every academic session the with a credit load of 0+10. The objective of the RAWEP is provide opportunities to the students to study the rural agricultural system through direct farm experiences by personally visiting the farms and interacting with the farmers. The students also gain experience and knowledge about the extension activities carried out by the Govt. and private agencies and non-governmental organizations. The students undergoing the programme are expected to learn different components of agriculture and allied activities, conduct method demonstration and training, organize exhibition and prepare reports on their experiences gained. The students are expected to learn day to day farming activities of farmers and general village conditions during their stay at the villages.

The AIA programme (credit load of 0+10) provides hands on training to students about the managerial and commercial aspects of Agri-based business. Interaction with experienced entrepreneurs/businessman helps them to understand the practical aspects of business and motivates students to become entrepreneurs themselves. The students are placed in fertilizer industries, bio-fertilizer production units, vermicomposting units, food processing units etc. The students are expected to undertake the following activities:

- Acquaintance with industry and staff
- Study of structure, functioning, objective and mandates of the industry
- Study of various processing units and hands-on trainings under supervision of industry staff
- Ethics of industry
- Employment generated by the industry
- Contribution of the industry promoting environment
- Learning business network including outlets of the industry
- Skill development in all crucial tasks of the industry
- Documentation of the activities and task performed by the students
- Performance evaluation, appraisal and ranking of students

The details of the programme are as:

Sl. No.	RAWE & AIA		
	Activities	**Weeks**	**Credit hrs**
1.	General orientation & on campus training by different faculties	1	14
2.	Village attachment	8	
3.	Unit attachment in Univ./ College KVK/ Research Station	5	
4.	Plant clinic	2	2
5.	Agro-Industrial Attachment	3	4
6.	Project Report Preparation, Presentation and Evaluation	1	
Total weeks for RAWE & AIA		**20**	**20**

- Agro- Industrial Attachment: The students would be attached with the agro-industries for a period of 3 weeks to get an experience of the industrial environment and working
- Educational tour will be conducted in break between IV & V Semester or VI & VII Semester

RAWE Component-I

Village Attachment Training Programme

Sl. No.	Activity	Duration
1.	Orientation and Survey of Village	1 week
2.	Agronomical Interventions	1 week
3.	Plant Protection Interventions	1 week
4.	Soil Improvement Interventions (Soil sampling and testing)	1 week
5.	Fruit and Vegetable production interventions	1 week
6.	Food Processing and Storage interventions	1 week
7.	Animal Production Interventions	1 week
8.	Extension and Transfer of Technology activities	1 week

RAWE Component –II

Agro Industrial Attachment

- Students shall be placed in Agro-and Cottage industries and Commodities Boards for 3Weeks
- Industries include Seed/Sapling production, Pesticides-insecticides, Post harvest-processingvalue addition, Agri-finance institutions, etc

Activities and Tasks during Agro-Industrial Attachment Programme

- Acquaintance with industry and staff
- Study of structure, functioning, objective and mandates of the industry
- Study of various processing units and hands-on trainings under supervision of industry staff
- Ethics of industry
- Employment generated by the industry
- Contribution of the industry promoting environment
- Learning business network including outlets of the industry
- Skill development in all crucial tasks of the industry
- Documentation of the activities and task performed by the students
- Performance evaluation, appraisal and ranking of students

Modules for Skill Development and Entrepreneurship: A student has to register 20 credits opting for two modules of (0+10) credits each (total 20 credits) from the package of modules in the VIII semester

Sl. No.	Name of Module	Course Number
1	A. Food Processing	Ag. Engg–4A PP
	B. Seed Production Technology	CPB–4BSP
2	A. Commercial Bee Keeping	Ento–4B BK
	B. Commercial Sericulture	Ento–4BCS
3	A. Commercial Horticulture	Hort–4BCH
	B. Floriculture & Land Scaping	Hort–4B FL
4	A. Production Tech. for Biogents & Biofertilizers	PP–4BBB
	B. Mushroom Production Technology	PP–4BMP
5	A. Agriculture Waste Management	SSAC–4BWM
	B. Organic Production Technology	SSAC–4BOP
6	A. Poultry Production Technology	AH–4BPP
	B. Organic Production Technology	AH4BOP

Evaluation of Experiential Learning Programme

Sl. No.	Parameters	Maximum Marks
1.	Project Planning and Writing	10
2.	Presentation	10
3.	Regularity	10
4.	Monthly Assessment	10
5.	Output delivery	10
6.	Technical Skill Development	10
7.	Entrepreneurship Skills	10
8.	Business networking skills	10
9.	Report Writing Skills	10
10.	Final Presentation	10
	Total	**100**

Profit sharing mechanism (AMOUNT) should be mentioned for each ELP unitfor last 5 year

FOR GENETICS AND PLANT BREEDING (GPB)

ELP Course of **GPB-48 SP** was started from the year 2019-20 in the **Genetics and Plant Breeding Department**.

Number of students involved: 12 during 2019-20 and carried out seed production

Profit sharing mechanism **(AMOUNT):**

1. ELP Students group (75%) = **Rs. 6091.5/-**
2. Department of GPB (10%) = **Rs. 812.2/-**
3. College of Agriculture, CAU, Imphal (15%) = **Rs.1218.3/-**
4. Profit per student**: Rs. 507.63/-**

FOR ANIMAL SCIENCE

Years	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**
Pig rearing	Student-75% (Rs.3500/- x 4 students) Department-10% (Rs.1869/-) Faculty-15% (Rs.2800/-)	-	-	-	-
Poultry rearing	-				

6.5.3.4. Curricula Delivery through IT (smart classrooms / interactive board etc.)

Instructional methods used

- The classrooms are equipped with high-resolution LCD projectors, smartboards, internet facilities and other ICT facilities are being used. The teachers are making Power Point presentations for effective teaching. In view of recent COVID-19 pandemic that has halted the physical classes across the globe the faculties at the College have adopted to online classes through various platforms like YouTube, Google meet, Zoom etc.

Online classes by Faculties during COVID-19 Pande

ICT tools for various courses

- Online video lectures and group discussion
- Online training manuals
- Virtual lab resources
- Electronic Resource Management package for e-journals through CeRA ICAR (Consortia for e-Resources in Agriculture) at www.cera.jccc.in
- CAB data base access facility (CAB data from 1972 to 2005)
- Access to Krishikosh (e-theses etc. Institutional Repository of ICAR) at Krishikosh.egranth.ac.in
- Access to SWAYAM and NEPTEL Virtual learning platforms

6.5.4 STUDENTDEVELOPMENT

6.5.4.1. StudentIntake and Attrition

Name of the Degree Programme	Actual student admitted in last five years					Attrition (%)				
	(16-17)	(17-18)	(18-19)	(19-20)	(20-21)	(16-17)	(17-18)	(18-19)	(19-20)	(20-21)
U.G. Programme										
B.Sc. (Ag) Hons	82	94	103	95	113	nil	nil	8. 8.73 (09 student)	1.05 (01 student)	15.92 (18 students)
P.G.Programmes										
M.Sc.(Ag) GPB	6	6	4	6	7	Nil	16.6	25	Nil	Nil
M.Sc.(Ag) Agricultural Economics	2	3	4	4	7	50	Nil	Nil	25	Nil
M.Sc.(Ag) Extension Education	4	7	7	8	3	Nil	42.8	14.2	Nil	Nil
M.Sc.(Ag) SSAC	**6**	**6**	**5**	**4**	**2**	Nil	Nil	Nil	Nil	Nil
M.Sc.(Ag) Horticulture	7	5	6	7	7	28.57	Nil	Nil	Nil	Nil
M.Sc.(Ag) Agronomy	6	6	8	6	3	Nil	Nil	Nil	Nil	Nil
M.Sc.(Ag) Entomology	7	5	6	5	4	Nil	Nil	Nil	Nil	Nil
M.Sc.(Ag) Plant Pathology	4	4	3	3	5	Nil	Nil	Nil	Nil	Nil
Ph.D. Programmes										
Ph.D. (GPB)	2	2	2	2	1	Nil	Nil	Nil	Nil	Nil
Ph.D. (SSAC)	1	1	1	2	1	Nil	Nil	Nil	Nil	Nil
Ph.D. (Agronomy)	3	1	2	2	2	Nil	Nil	50	50	50
Ph.D. (Entomology)	-	1	1	1	1	Nil	Nil	Nil	Nil	Nil
Ph.D. (Plant Pathology)	2	1	1	1	1	Nil	Nil	100	100	100

- **Academic Programmes**
  - Programmes offered with duration

	Programmes	Duration
UG	B.Sc. (Agri)	4 years
PG	M.Sc. (Agri)	2 years

PhD	Ph. D. (Agri)	3 years

- Are the programmes implemented on schedule as prescribed in the prospectus notified?

  Yes [√] No [x]

  If No, give reasons thereof.

- **Student and Student Development**
  - **Details of Under graduate and Post graduate Programmes in the college**

	Year Started	Approved Seats			
			Year Established Actual Enrollment	Current Year Approved Seats	Current Year Actual Enrollment
B.Sc. (Agri)	1994	40	29	121	113
M.Sc. (Agriculture)					
1. Agronomy	1994	3	3	5	7*
2. Horticulture	-do-	3	3	5	11*
3. Plant breeding and genetics	-do-	3	3	5	9*
4. Plant Pathology	-do-	3	3	5	7*
5. Entomology	1999	2	2	5	7*
6. Soil Science and Agricultural Chemistry	-do-	2	2	5	6*
7. Agricultural Extension	2003	2	2	5	6*
8. Agricultural Economics	-do-	2	2	5	7*
Ph.D.					
1. Agronomy		2	2	2	2
2. Entomology		1	1	1	1
3. Genetics and Plant Breeding		2	2	2	2
4. Plant Pathology		1	1	1	1
5. Soil Science and Agricultural Chemistry		2	2	2	2

**** - Includes all the students currently studying in department.***

- **Admission Policy**

a) Are Student admission policies clearly defined and conforms to the ICAR norms. Yes [√] No [ ]

b) Basis for admission

Particular of Examination	UG	PG	Ph.D.
Qualifying Examination	50% in PCB/M in 10+2 for General and 40% for SC/ST	OGPA of 6.00 in 10 pt. Scale for General and 5.5 for SC/ST	Candidates with Master's degree in concerned/related subjects from a recognized University with OGPA of 6.50/10.00, 3.25/5.00, 2.6/4.00 are eligible for admission to the Doctoral programmes under General/OBC/EWS category. SC/ST/PC category candidates with OGPA of 5.50/10.00, 2.75/5.00, 2.20/4.00 in the Master's degree shall be eligible for

			admission. In case where Grade Points are not awarded, only marks are awarded, the candidates must have secured at least 60% marks for General/OBC/EWS category and 50% marks for SC/ST/PC category. For in-service candidates also, qualifications remain same for respective categories.
Entrance Examination	Nomination by respective State Govt. through common entrance test	Open Entrance Test conducted by CAU.	Open Entrance Test conducted by CAU.
Others (Specify)			

- **Student Reservation (Per cent)**

Category	**UG**	**PG**	**Ph.D.**
	%	**%**	**%**
General	Nil	Nil	Nil
SC	15	15	15
ST	7.5	7.5	7.5
OBC	27	27	27
Farmer's ward	-	-	-
Others (Specify) ICAR	10 (EWS)	10 (EWS)	10 (EWS)
	05 (PH)	05 (PH)	05 (PH)

- **Student Evaluation**

Examination	UG	PG
Internal (percentage)	50%	50%
External (percentage)	50%	50%
Other (Specify) (percentage)		

- **Frequency of Student Evaluation (Per cent Weightage)**

	UG	PG
Monthly	Quiz 20%	Quiz 20%
Quarterly		
Semester wise	End-Term – 50%	End-Term – 50%
Others (Specify)	Mid-Term- 30%	Mid-Term - 30%

- **Mode of Student Evaluation (Per cent Weightage)**

Mode	**UG**	**PG**
Quiz/ Test	20%	20%
Assignment		

Term Papers	End-Term – 50%	End-Term – 50%
Seminars		Seminars 10%
Others (Specify)	Mid-Term- 30%	Mid-Term- 30%

- **Student involvement in RAWE/ equivalent programme :**
  a) Is there a separate coordinator for the programme ? Yes [√] No [ ]
  b) Is there a student feedback mechanism established ? Yes [ ] No [√]
  If Yes, provide examples of feedback received.

6.5.4.2. Average Number of Students in Theory and Practical Classes

The batches of students are organised to ensure better delivery of information, encourage students' participation and active monitoring.

Year	B.Sc. (Hons) Agriculture	
	Batch of students in theory class	**Batch of students in practical class**
2016-17	01	02
2017-18	01	02
2018-19	01	02
2019-20	01	02
2020-21	01	02

- **Academic Programme and Curricula**
  - Medium of Instruction — English [√]; Hindi; Regional Languages; Others (Specify)
  - Does your college follow academic regulations, curricula and syllabi as recommended by ICAR. [√] Yes [ ]
    If the answer is No, please describe the curricula followed along with the name of the approving authority.
  - (a) Mechanism/ Bodies for course curriculum development at college level.
    It is made through Board of studies at College level. One topper of the M.Sc. (Agri.) Final yr. is co-opted as member of the Board of Studies.
    (b) Mechanism/ Bodies for course curriculum development at University level. Indicate the involvement of faculty, students and other stakeholders.
    It is made through the Academic Council. Two senior professors and Dean of the faculty are member of the Academic Council.
    (c) Describe the PG thesis evaluation system

	Internal	External	Comments
M.Sc.		√	
Ph.D.		√	

  - Please provide the curricula and syllabi approval process: From time to time the University adopted the curricula and syllabi circulated by Dean's committee for UG and PG studies of ICAR.
  - How the curricula and syllabi communicated? Provide a copy of the relevant publication.
    a) College Handbook [ ]
    b) College Prospectus [ ] [√] As per ICAR Norms

c) Academic Calendar
d) Annual Report ☑
e) Others (Specify)

- Indicate the methods the college uses to encourage teaching-learning process (Percent Weightage)

	UG	PG
a) Instructional methods		
Conventional Classroom Instruction	30	**20**
Special Lectures	5	5
Seminar	-	5
Home Assignment	5	5
Field Work	40	50
Computer Aided Teaching/ Learning	20	15
Others (Specify) -	-	

b) Instructional material

i) Are the lecture schedules distributed among students in the beginning of the course?

Yes ☑ No Comments ☐

ii) Is the instructional material distributed in the beginning of the course?

Yes ☑ No Comments ☐

- Number of seminars required for

Master's Degree 1 (One)

Doctoral Degree 2(Two)

- Student Teacher Ratio :

Give Student Teacher ration for UG and PG courses separately and compare this with ICAR Norms (Theory – 60 : 1, Practical/ Tutorial – 15-20 : 1, Project – 10 : 1)

Department	**Under graduate**			**Post graduate**		
	Theory	**Practical/ Tutorial**	**Project**	**Theory**	**Practical/ Tutorial**	**Project**
Agronomy	35	29	-	23	8	-
Horticulture	27	29	-	58	34	-
PBG	40	31	-	35	19	-
Soil Sc.	21	19	-	20	9	-
Entomology	22	29	-	29	21	-
Pl. Pathology	38	33	-	30	12	-
Agril. Ext. Education	15	7	-	28	16	-
Agril. Economics	31	31	-	48	20	-
Animal Sc.	18	36	-	0	0	-
Agril. Engineering	25	28	-	0	0	-

Basic Sc.	29	15	-	18	6	-

- Has the teaching programme been evaluated before?

  Yes ☐ No ☑

  If Yes, has it been evaluated by Alumni or external reviewer? Give details.

  Yes ☐ No ☑

  If Yes, how? If No, why?
- Computer Centre

  Is there a central computer facility in the college ?

  Yes ☑ No ☐ Comments
- Is there a central Instrumentation lab facility ? ☐ Yes ☑ No

  If Yes, Name few most important equipment available.
- Retreat and other facilities/ student interaction forums.

Please indicate briefly if the college has retreats for faculty and students to provide opportunity for free interaction and communication of ideas.

1. Student advisory system
2. Student Council
3. Student Placement and Career counseling cell
4. Student Advisory Council

6.5.4.3. Admission Process

Admission requirement

- The candidates should have passed 10+2 examination with English as one of the subjects of study. The candidates much have attained 17 years of age on 31st December in year of admission. The selection or nomination of candidates is done through National Eligibility cum Entrance Test (NEET) conducted by the National Testing Agency (NTA). Students seeking admission to the above degree programme shall be permanent resident or domicile of any one of the north eastern states of India *i.e*., Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. The number of students to be admitted for each of the north eastern states is notified by CAU from time to time
- The candidates to be sponsored for admission shall be from the merit list based on the entrance test
- 15% of the approved number of seats in the UG programme shall be filled by the candidates selected on the basis of All India Entrance Test conducted by ICAR or as amended from time to time by ICAR. The ICAR nominees shall be governed by the eligibility as prescribed by ICAR

Date of admission

- The date of admission to a bachelor's degree programmeevery year is as per the announcement made in the prospectus or academic calendar or semester calendar which is duly notified by the Registrar**,** CAU

Registration process

- On admission, a student is provided four copies of registration cards having different colours; one for the student, one for the advisor, one for the Dean and one for the Registrar which is filled up and registered for the prescribed process for the first semester. The registration card shall be signed by the student, his advisor, Assistant Registrar (academic) and countersigned by the Dean of the college.

- On admission and registration, the students are provided with college identity cards with his/her photograph. The identity card is returned to the college by the students when the students leave the college after completion or discontinuation of the course
- Newly admitted students are given an admission number by the Dean of the college. This admission number is valid till individual registration number is allotted by the Registrar, CAU to the students
- An orientation programme is organized by the Dean of the college for the benefit of the newly admitted students immediately at the beginning of the first semester

6.5.4.4. Conduct of Practical and Hands on Training

Practical classes, field visits and hands on training are conducted by most of the departments of College of Agriculture with the existing facilities available at College campus. InadditiontoregularpracticalclassesinallthecoursesextensiveandexclusiveExperientialLearningProgrammeandRuralWorkExperienceProgrammeunderstudentREADYprogrammeareconductedduringfinalyeargraduateprogramme.

6.5.4.5. Examination and Evaluation Process

The college strictly adheres to the examination and evaluation system as recommended by the Vth Deans' Committee. As such, the college follows Uniform Grading system with uniform OGPA requirements for award of degrees at all levels. A uniform conversion formula is followed for declaration of Ist, IInd and IIIrd divisions, distinctions etc.

Examination

The students are evaluated middle of the semester as well end of the semester through mid and end term examinations. Also, the students are evaluated continuously through class exercises and assignments. The examination system is a combination of 50% internal and 50% external components. The weightage to the theory and practical examinations are in the same proportion as the theory and practical credits allotted to different courses. Total marks obtained for a course for practical and theory examination are added and converted into percentage for calculating the cumulative grade point average.

Courses with Theory and Practical

- Mid-term Exam (30%) + Assignment (5%) in practical oriented courses + Practical (15%)

Courses with only Theory

- Mid-term Exam (40%) + Assignment (10%)

Courses with only Practical

- 100% Internal

Keeping this in view, the schedule and weightage to different examination are as follows:

Particulars	**Course credits**									
	2+1		**1+1/2+2**		**1+2**		**1+0/2+0**		**0+1/0+2**	
	T	**P**	**T**	**P**	**T**	**P**	**T**	**P**	**T**	**P**
Mid-term exam	30	-	30	-	30	-	30	-		
Quiz/Continuous evaluation	20	30	20	30	20	30	20	-	-	30
End-term exam	50	70	50	70	50	70	50	-	-	70
Maximum marks	100	100	100	100	100	100	100	100	-	100

* At least 4 number of quizzes are conducted for each course

The question papers are set by externals while HODs of concerned departments ensure the coverage of syllabus. If needed, moderations are done accordingly.

Duration of exams

Mid-term theory exam	:	1½ hours
End-term theory exam	:	2½ hours
End-term practical exam	:	3 hours

Evaluation

B.Sc. (Hons.) Agriculture Programme

Evaluation is done internally by the faculty other than the Course Instructor. Syllabus of the concerned course is sent to an external examiner, who prepares the question papers. For practical, the examination is conducted by the course instructor(s) and one teacher nominated by the HOD. The answer books of end term theory exams are evaluated by external examiners nominated by the Hon'ble Vice Chancellor, CAU.A Ten-point grading system is adopted with minimum Grade Point Average (GPA) of 5.00 for passing a subject and Overall Grade Point Average (OGPA) of 5.50 for obtaining the degree.

Post-graduatedegreeprogramme

A student admitted for Master's and Ph.D. programmes in the college shall complete aminimum of 55 credits and 75 credits, respectively, to be eligible for the award of thedegree. This comprises of coursesin core, optional and supportingsubjects, seminar, researchandqualifyingexamination.

Credit detailsofMaster'sprogramme

Sl. No	Coursework	Credithours
1.	Majorsubject	20
2.	Minor subjects	09
3.	Supporting subject(s)	05
4.	Seminar	01
5.	Research	20
6.	CompulsoryNon-credit courses	Yes
7.	Compulsorycreditcourses(STAT600)	No
	Total	**55**

Credit details of Doctoral programme

Sl.No	Courswork	Credith ours
1.	Majorsubject	17
2.	Minorsubject(s)	08
3.	Supporting subject(s)	05
4.	Seminar	02
5.	Research	45
6.	CompulsoryNon-credit courses	NO
7.	Compulsory credit courses (STAT600)	NO
	Total	**75**

Permissible workload

i) The maximum credit load for Masters and Ph.D. degree students in a semester shall not be more than 20 credits including course and research credits.

Examination system

The examination system shall be a combination of 50% internal and 50% external components.

Examination schedule and weightage

- The weightage to the theory and practical examinations will be in the same proportion as the theory and practical credits allotted to different courses.
- Total marks obtained for a course for practical and theory examination shall beadded and converted into percentage for working out the grade point. Keeping this in view,

the schedule and weightage to different examinations shall be as follows:

Particulars	Course Credits									
	2+1		1+1/2+2		1+2		1+0/2+0		0+1/0+2	
	Th.	Pr.	Th.	Pr.	Th.	Pr.	Th.	Pr.	Th.	Pr.
1.Mid-term Exam	30	--	30	--	30	--	30	--	--	--
2. Quiz*/ Continuous evaluation	20	30	20	30	20	30	20	--	--	30
3.End-term Exam	50	70	50	70	50	70	50	--	--	70
MaximumMarks	100	100	100	100	100	100	100	--	--	100

**There shall be atleast four quizzes in a course.*

Calculation of percentage of marks and Grade Point

- Marks secured in a course in theory and practical shall be multiplied by number of theory credit(s) and practical credit(s) of the course respectively and added together. This sum shall be divided by total credits (Theory + Practical) of the saidcourse to get percentage of marks, which shall be divided by 10 to obtain Grade Point (GP).

Duration of Examinations

Mid-term theory Exam –1 ½hours
End-term theory Exam –2 ½hours
End-term practical Exam–3 hours

Internal and External Components for Question Setting and Evaluation

Coursework

i) Major, Minor & Supporting Courses

- Quiz and mid-term (Question setting and evaluation) — Internal
- Final Theory (Question setting and evaluation) — External
- Final Practical — External

Comprehensivequalifyingexamination

(Separate examination for major, minor & supporting courses)

i) Questionsetting — External
ii) Evaluation — Internal
iii) Viva-voceExamination — External (With Advisory Committee)

Thesis

S. No.	Particulars	Master's Programme	Doctoral Programme
1	Submission	After thesis seminar and submission of manuscript for one research paper	a.Afterthesisseminar **b. One research paper should have been accepted and second submitted or one application for patent filed outof thesis work.**

2	Evaluation	One external examiner	Two external examiners
3	VivaVoce	External (with Advisory Committee)	External (with Advisory Committee)

Evaluation of seminar

The student shall present the seminar in the last one or two weeks of the semester before the audience comprising the Head of Department, Advisory Committee members and all the teaching staff and the PG students of the department in which the student is majoring his study.

The performance of the student in the seminar shall be evaluated by the CourseIn-chargebased on the followingnorms:

i)	Coverage of literature on the aspects of topic & submission of write-up	25
ii)	Mode of presentation	25
iii)	Use of audio visual aids	25
iv)	Ability to answer the questions	25

Qualifying Examination

Written Comprehensive Qualifying Examination

a) After completion of 75 percent of course work requirement separately inmajor and minor subjects and on completion of minimum two semesters, the student shall be eligible to appear in the comprehensive qualifying examination. The qualifying examination shall be conducted as per the extant rules

b) The written comprehensive examination shall be of two papers, one for major and the other for minor and supporting courses.

c) The question papers for the written examination shall be set externally and evaluated internally by the concerned teacher.

d) A student shall score a minimum of 60 percent marks (separately in Paper-I and II) to qualify the Comprehensive Qualifying Examination.

Qualifying Viva-voce examination

i) On successful completion of the comprehensive qualifying written examination by scoring a minimum of 60 per cent marks, the student(s) shall be eligible for the comprehensive qualifying viva-voce examination, which shall be conducted by the Advisory Committee of the concerned student alongwith an External Examiner.

ii) The performance of the student(s) in the qualifying viva-voce examinationshall be graded as “Satisfactory” or “Unsatisfactory”. The Examination Committee may point out deficiencies, if any, in student‟s performance inany course(s) with specific recommendations to overcome deficiencies.The Examination Committee shall also recommend whether the student shall be re-examined for viva-voce in case the result is“Unsatisfactory”.

iii) A student failing in the comprehensive qualifying written/viva-voce examination shall apply to the Dean through his/her Chairperson for permission to appear the failed examination again. Re-examination shall be held after a period of three months from the date of the first examination and a student can avail two chances including the first re-examination. A student, if becomes unsuccessful for the third time he/she shall be debarred from studentship and shall not be eligible for the degree.

Thesis Examination:

Thesis Evaluation

The thesis submitted by a student shall be evaluated by 1 (one) External Examiner (Master‟s Degree Programme) 2(two) External Examiner (Ph.D. Degree Programme), specialized in student‟s major field of study.The External Examiner(s) shall be required to send the report(s) to the Dean of the College with his/her/their opinion on the overall standard ofthe thesis clearly indicating whether it shall be accepted for award of Master‟ /Ph.D Degree of the student. In case the External Examiner(s) suggest som ecorrection and modifications, his/her/their detailed comments shall be endorsed to the student‟s Chairperson who shall instruct the student to bring out necessary corrections and modifications in the light of the examiner suggestions and resubmit the thesis for re-evaluation by the concerned examiner(s).

ThesisViva-voceexamination

i On receiving the report with the recommendation of acceptance of thethesis for award of degree, the Chairperson shall arrange the viva-voce examination and shall take into account the suggestions of the External Examiner, if any, and the Chairperson shall give a certificate to the effect that necessary corrections/modifications have been made by the student as per suggestion of the External Examiner. The results of the viva-voce examination in the prescribed format, duly signed by all the members ofthe Advisory Committee and the External Examiner shall be forwarded to the Dean of the College through theHead of theDepartment.

ii Upon completion of the viva-voce examination the student shall submitfour hardbound copies and one soft copy of the thesis to the Advisor.Unless final thesis copies are submitted, the results of the concerned student shall not be declared.

iii In case the student’s performance in the viva-voce examination is unsatisfactory, he/she shall appear the examination again after a period ofone month. For the repeat examination the student shall deposit the re-examination fee and apply to the Dean through the Chairperson seeking permission for he repeat examination.

Grading System

Undergraduate Programme

Degree	Percentage of Marks Obtained	Conversion into Points
B.Sc. (Hons.) Agriculture	100	10 Points
	90 to <100	9 to <10
	80 to <90	8 to <9
	70 to <80	7 to <8
	60 to <70	6 to <7
	50 to <60	5 to <6
	<50 (Fail)	<5

	Example 80.76	8.076
	43.60	4.360
	72.50 (but shortage in attendance)	Fail (1 point)
M.Sc. (Ag.)	100	10 Points
	90 to <100	9 to <10
	80 to <90	8 to <9
	70 to <80	7 to <8
	60 to <70	6 to <7
	50 to <60	5 to <6
	<50 (Fail)	<5
	Example 80.76	8.076
	43.60	4.360
	72.50 (but shortage in attendance)	Fail (1 point)
Ph.D.	100	10 Points
	90 to <100	9 to <10
	80 to <90	8 to <9
	70 to <80	7 to <8
	60 to <70	6 to <7
	50 to <60	5 to <6
	<50 (Fail)	<5
	Example 80.76	8.076
	43.60	4.360
	72.50 (but shortage in attendance)	Fail (1 point)

The following ranking pattern is adopted to award the degrees:

OGPA	**Division**
5.000-5.999	Pass
6.000-6.999	II division
7.000-7.999	I division
8.000 and above	I division with distinction

GPA, CGPA and OGPA are calculated as follows:

GPA	=	Total points scored / Total credits (for 1 semester)
CGPA	=	∑ Total points scored / Course credits
OGPA	=	∑ Total points scored (after excluding failure points)/ Course credits
Percentage of Marks	=	OGPA × 100/10

Detentionof students

i) A student securing less than 6.00/10.00 GPA/CGPA at the end of anysemester shall not be allowed to go to the next semester till he/she clears the semester.

ii) A student securing CGPA of 6.00/10.00 or more but having "F" grade in more than two courses in a semester.

iii) A student falling short of attendance and unable to clear the semester shall be detained.

iv) A student on academic probation if fails to secure 60% or more marks both in theory and practical section in special examination shall be detained.

6.5.4.6. NCC/NSS/RVC Units

NSS cell has existed in the college of Agriculture, CAU, Iroisemba. All the 1st B.Sc students are NSS volunteers and it is one of the credit courses in the first semester. During the NSS period students are involved in different activities. A brief report has given below:

A Coordinator is the incharge of NSS Cell. All the NSS activities are organised under the guidance of the coordinator. During the NSS period students are engaged in two types of activities i.e. Regular and Special programmes.

Activities are:

- Cleaning
- Plantation
- Observation of National important days
- Training on First Aid
- Training on Vermi-compost pit preparation
- Surveyed to find out Socio-economic status and different issues related with health, hygiene sanitation conditions of the selected village.

Volunteers presents awareness programmes to the village or local people and school students of such issues as social problems like nutrition related problems, traffic rules, consumer education, environment and cleanliness through Skit play, Poster, Chart and model display.

FNSS Social service

NSS Social service

6.5.4.7. Language Laboratory

The language lab was set up with the main objective of helping the students, especially the UG students, of the college to become efficient communicators and encourage them to become dynamic individuals. So, the courses offered are not focused only on English but includes foreign language as well. So far, the courses conducted using this facility include a) Communicative Skills and Personality Development course: Basic and Intermediary Level, b) Remedial Course and c) French language course. The Language Instructor (Reena Ashem, PhD in Linguistics, IIT Delhi) is in charge of overseeing and teaching the course of Communication skills and Personality development course while Dr. K. Maheshwari (PhD in English, Guwahati University), Assistant Professor of English, Department of Basic Science handles the Remedial course as well as co-ordinates the French language course. Workshops, trainings and talks on Communication and Soft skills has also been

conducted utilizing this facility in addition to the above mentioned regular courses. Some of the major events conducted are "Workshop on Soft Skills" conducted by Mr. Kushal Raut, Director, CommuniCare, Pune on 1st, 2nd, 3rd and 5th October, 2020 and "Training on Communication Skills, Soft Skills and Entrepreneurial Skills" conducted by Skills World Overseas Point, Manipur during 22nd to 24th March, 2021. The lab is equipped with 31 computer systems (i5) which are pre-installed with language software (SANAKO) and backed up with 15 KVA UPS, 30 revolving chairs as well as a projector and screen. Each of the computer is connected with a high speed internet connection and are attached with a headphone that has microphone as well. To warrant a somewhat secluded space that will help the students concentrate better, each and every system is placed inside a half cabin space. The lab was designed with a specific aim of ensuring balance between the use of technology and human interaction within the lab. To elaborate, all the computer systems are placed against three walls of the lab which helps to create a big open space in the middle of the room where interaction between the students takes place with skits performance, presentation and so on. The overall functioning of the language lab takes place under the supervision of Dr. K. Maheshwari.

6.5.4.8. Cultural Center

The College has no specific cultural centre but Students' Cultural secretaries are selected every year. Students can practice any kind of cultural performance in the college Auditorium after taking permission from the competent authority. The College regularly organizes cultural activities like Annual college week. Cent percent of the students encouraged to participate in the programme. Students participated in singing, dancing, mime, drama, rangoli, collage work, poster making and many more cultural events. Students also encouraged to participate in the district level, Intercollegiate and Inter University level competitions.

6.5.4.9. Personality Development

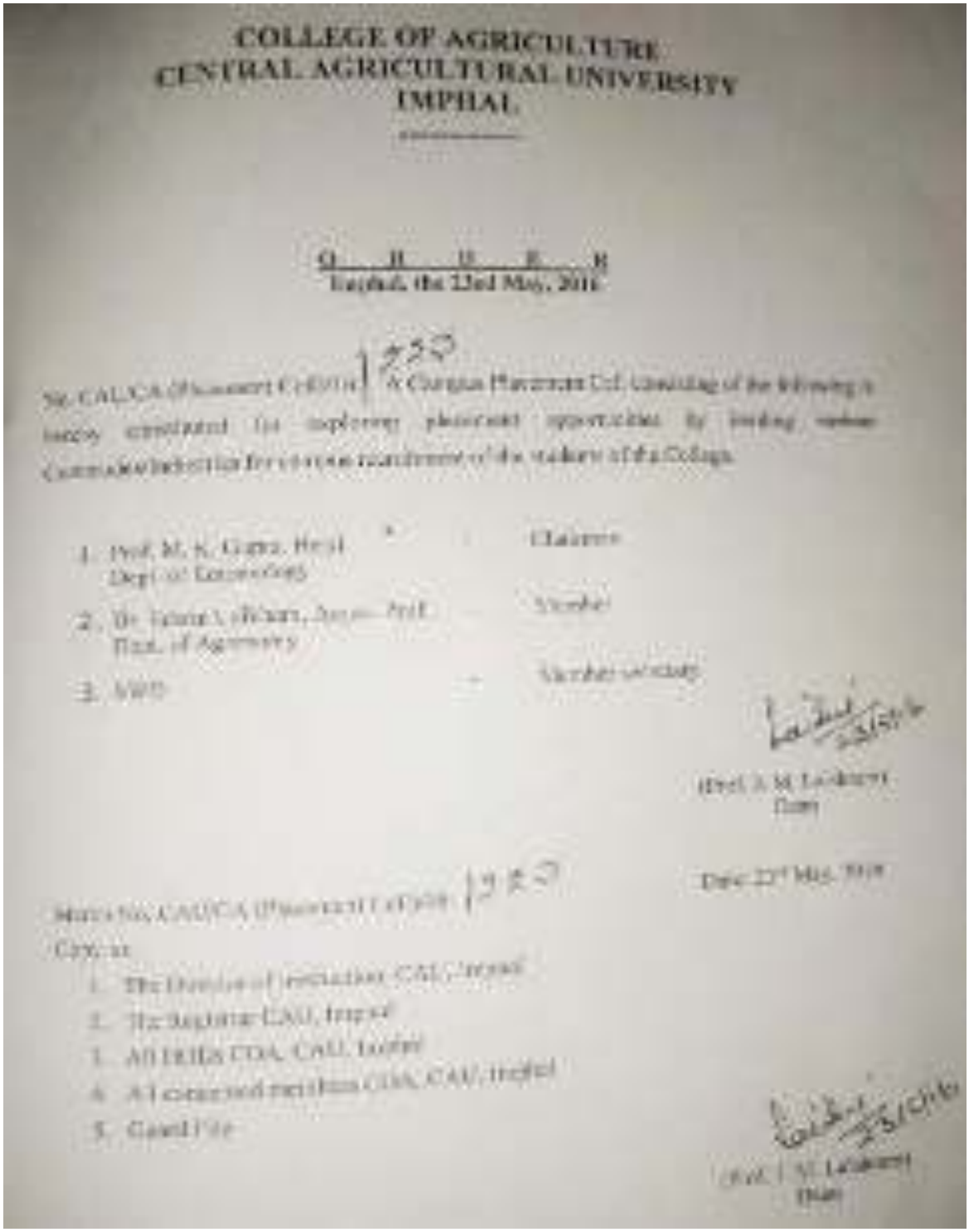
As part of the Communicative Skills and Personality development course offered to the students of the college under the NAHEP-IDP program, multiple topics on Personality development have been taught. Some of the topics taught in this line are Interview Skills, Self Introduction Manner, Presentation skills, Conversation Turn-Taking, Information Taking Skills and Request/Need-Based Conversation. In addition to the regular classes covered by the Language Instructor, multiple talks on Personality Development have also been conducted under the NAHEP-IDP project. For this, experienced individuals as well as established academician were invited speaker of the talks. The details of some of the talks organized for students are as follows:

S. No.	Theme	Title of Talks	Speaker and Designation	Date	Participants
1.	Computer Skills for students	Power using MS-Word and MS-Excel	Prof. EVD Sastry, Department of PBG, College of Agriculture, CAU, Imphal	8th August 2018	UG/PG/Ph.D. students
2.	SWOT Training for students	Same as theme title	Variable speakers	4th May 2019	4th Year UG Students
3.	Soft Skills and Personality Development	Getting Ready for Interview	Dr VK Khanna, Ex-Professor and Chairman, CPGSAS, CAU, Umiam	18th September 2020	UG/PG/Ph.D. students
		Personality and Attitude	Dr VK Khanna, Ex-Professor and Chairman, CPGSAS, CAU, Umiam	19th September 2020	UG/PG/Ph.D. students

4.	Leadership skills	Opportunities and Experiences of studying in foreign countries	Dr. Suchismita Raha, Gyeongsang National University, Republic of Korea	10th Jan 2020	UG/PG/Ph.D. students
		Experiences of studying aboard	Puyam Tondonba Singh, PhD Scholar, National Taiwan University, Taiwan	4th September 2020	UG/PG/Ph.D. students

Placement Cell of College of Agriculture, CAU, Imphal

The College has constituted a Placement Cell with the following details:



COLLEGE OF AGRICULTURE
CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL

O R D E R
Imphal, the 23rd May, 2018

1. Prof. M. S. Gupta, Head
Deptt. of Entomology — Chairman
2. Dr. [illegible], Asstt. Prof.
Deptt. of Agronomy — Member
3. [illegible] — Member/Secretary

(Prof. S. M. Lakshmi)
Dean

Dated 23rd May, 2018

Copy to:
1. The Director of Extension, CAU, Imphal
2. The Registrar, CAU, Imphal
3. All Heads COA, CAU, Imphal
4. All concerned faculties COA, CAU, Imphal
5. Guard file

(Prof. S. M. Lakshmi)
Dean

COLLEGE OF AGRICULTURE
CENTRAL AGRICULTURE UNIVERSITY
IMPHAL

ORDER

Imphal, the [illegible] June, 2021

[illegible] Assistant Professor (Agronomy) [illegible]

1. [illegible] - Chairman
2. Dr. S.C. [illegible], Associate Professor (Agril. Economics) - Member
3. [illegible] - Member
4. [illegible] - Member
5. L. Meghachandra Singh, SMO - Member Secretary

[illegible]

Memo No. [illegible] Dated, Imphal, the [illegible] June, 2021

Copy to:

1. [illegible]
2. Registrar, CAU, Imphal for [illegible]
3. [illegible]
4. [illegible]
5. [illegible]

[illegible]

Student's placement profile:

Year of selection: 2020

S. No.	Name	Sex	Admission No.	designation	organization
1	NETHAJI M	M	15A-18(M)	ASST. PROF.	Imayam Institute Of Agriculture And Technology, T.N
2	PRAPAKARAN M	M	16A-18(M)	DCO	Kothari, Agritech private limited
3	GOLLAPUDI LALITHA	F	21A-18(M)	Teaching Associate	Agriculture Polytechnique College, ANGRAU, A.P
4	KANALA SAI SREELEKHA	F	23A-18(M)	Seed Certificate Officer	A.P State Seed Certification Authority (APSSCA)
5	GUTTI SARDESH RANA	M	28A-18(M)	Asstt. Breeder,	VNR SEED
6	W.TAMPAKLEIMA CHANU	F	2A-16(PH.D)	Asstt. Prof.	Himalayan University, Jollang AP -791111
7	MEGHNA GOGOI	F	6A-17(PH.D)	Agriculture Development Officer	Assam State govt.
8	SAMAL JAMATIA	M	28A-14	Sub Inspector	Tirpura State Govt.
9	ASHWINI ANANDA	M	3A-15 M	GUEST LECTUER	NEHU, Horticulture, Dept, Shillong

Year of selection: 2020

S. No.	Name	Sex	Admission No.	designation	organization
1	L. DEVARISHI SHARMA	M	3A-12(PH.D)	Asst. Prof. MTC, VTC	Miizoram, CAU
2	KHUMUKCHAM STINA	F	19A-10(M)	Asst. Prof. MTC, VTC	COA, CAU
3	DIANA SHAMULAILATPAM	F	15A-10(M)	AICRP Scientist ,	CAU, Lamphelpat
5	PRIYANKA IRUNGBAM	F	1A-15(PH.D)	Asst. prof	COA, Pasighat, CAU,
6	IMMANUEL CHONG HAOKIP	F	21A-08	ARS	ICAR, NEW-DELHI
7	RIPI DONI	F	18A-10	ARS	ICAR, NEW-DELHI
8	CHANDAN MAHARANA	M	20A-10	ARS	ICAR, NEW-DELHI
9	SHANNON. N. SANGMA	F	26A-10	ARS	ICAR, NEW-DELHI
10	PRIYAJOY KAR	M	44A-11	ARS	ICAR, NEW-DELHI
	ANNA LAKSHMI . S	F	45A-18 (M)	HORTICULTURE OFFICER,	VIRUDHUNAGAR, TAMIL NAIDU

Year of selection: 2018

S. No.	Name	Sex	Admission No.	designation	organization
1	Vaishnu Rai	F	20A-14	ADO (Agriculture development officer) sikkim	Sikkim State Govt.
2	HissayCheday	F	17A-14	HDO (Hoticulture development officer), sikkim	Sikkim State Govt.
3	Suraj Chettri	M	21A-14	ADO (Agriculture development officer) sikkim	Sikkim State Govt.
4	Sanjit Chakma	M	29A-14	AEO (Agriculture extension officer), sikkim	Sikkim State Govt.
5	Manish Pradhan	M	9A-13	ADO(Agriculture development officer) sikkim	Sikkim State Govt.
6	Bomngam Karlo	F	59A-12	ADO (Agriculture development officer)	Arunachal State Govt.
7	Herojit Yanglem	M	3A-15(PH.D)	SMS , TURA Center	CAU
8	Tshering palden Bhutia	M	45A-15 (M)	Agriculture Extension Officer,	Canara Bank, Assam
10	Heisnam Bideshwori Devi	F	24A-16 (M)	Project Co-oridnator	Centre for microfinance and livelihood, Imphal
11	Sukanya sougaijam	F		Jr. Associate	SBI

Year of selection: 2018

S. No.	Name	Sex	Admission No.	designation	organization
1	Peter Biakthangsanga	M	2A-13	Range Officer	Mizoram State Govt.
2	Samuel Lalnundika	M	3A-13	Assistant Horticulture Extension Officer	Mizoram State Govt.
4	Lalnunzuala	M	25A-13	BTM	Mizoram State Govt.
5	Jaya Keisham	F	53A-13	LDA , Manipur court	Manipur State Govt.
6	Rohit AHEIBAM	M	47A-13	F.A	Manipur State Govt.
7	NGANBA R.K	M	2A-12	F.A	Manipur State Govt.
8	THIYAM Tejmani	M	11A-14M	F.A	Manipur State Govt.
9	MasenglungliuPamei	F	1A-12	ATM	Dept. of Agri, Manipur
10	Aswin C	M	2A-15M	Agriculture Officer	Central Bank Of India
11	Devika Thangjam	f	9A-14M	Agricultue Field	Bank of India

				Officer	
12	THANGJAM LEONARD	M	12A-14M	ATM	Dept. of Agri, Manipur
13	HORMICHON SAREO	F	33A-14M	ATM	Dept. of Agri, Manipur
14	H. kholchandra Singh	M	20a-15M	Agriculture Field Officer	Central Bank OF India
15	L. Diana Devi	F	1A-15 (M)	Agriculture Field Officer	Bank of baroda

Year of selection: 2016

S. No.	Name	Sex	Admission No.	designation	organization
1	Rahul	M		Livestock/Farm Asst.	COA, CAU
2	Kamei keishulung	M		Livestock/Farm Asst.	COA, CAU
5	EbenazarGympad	M	46A-12	Assistant Manager ATMA	Dept. of Agri, Meghalaya
6	Binita Das	F	37A-12	ATM	Dept. of Agri, tripura
7	Jessamin ch.Marak	F	42A-12	Faculty at SBI	SBI, Meghalaya center
8	Sachindra Tripura	M	30A-12	ATM	Dept. of Agri, tripura

2015

S. No.	Name	Sex	Admission No.	designation	organization
1	Laishram Santosh Singh	M	14A-13M	AAO	Manipur state government
2	Khundrakpam Manorama	F	4A-14M	**AAO**	Manipur state government
3	Khagokpam Sundeep Singh	M	10A-14M	AAO	Manipur state government

- **Students achievements in national competitions during last 4 years.**

Number and per cent of students from the college

Year	JRF		SRF		ARS-NET		Others (Specify)	
	No.	%	No.	%	No.	%	No.	%
2015-16	5		-		-		-	
2016-17	4		-		10		3	
2017-18	7		-		08		2	
2018-19	11		1		02			
2019-20	11		-		-		9	

Others – CSIR-NET/DBT/UGC Fellowships.

% - Means percentage of total passed out students during the year.

- **Sports and Physical Education**

Give the following details regarding status of physical education facilities

S. No.	Games and sports	Equipment and infrastructure available	Adequate/inadequate

1.	Gym	I. Gymnasium hall is available II. Necessaries installation yet to start III. Equipment available is enclosed in Annexure-I	Adequate Likely to initiate shortly Improvement is required
2	Football	I. Ball, net, goal posts are available II. One playground	Adequate Expansion of size is required
3.	Cricket	I. Bat, ball and stump available II. No separate field	Adequate Field can be adjusted as usual in football ground
4	Volleyball	Ball, net, posts are available Field can be managed in the premises	Adequate Adequate
5	Badminton	Rackets, nets , posts are available Court can be constructed in the gymnasium	Adequate Adequate
6	SepakTakrow	Ball ,net and posta available Court can be managed in the Gymnasium	Adequate Adequate
7	Javelin	Materials are available	Adequate
8	Discuss	Materials are available	Adequate
9	Short put	Materials are available	Adequate
10	T.T.	Boards, nets, rackets are available	Adequate

- **Participation of students in sports and games (to be submitted by SWO)**

Name of sport	**Level of participation**				**Award/recognition**				**Remarks**
	Uni.	Zonal	National	Inter-national	Uni.	Zonal	National	Inter-national	
1.Field and tract	√	-	√	-	-	-	-	-	Level of performance is expected to increase in the years to come
2.Indoors	√	-	√	-	-	-	-	-	

- **Does the college have a Physical Education Instructor?**

  Yes ☐ No ☑ Comments

- **Student involvement in NCC**

  Is the NCC compulsory ? Yes ☐ No ☑

  If Yes, percentage of students participating

- **Does the college have cultural pogramme ?** ☐

  ☐ ☑

Yes No

If Yes, please give a brief description.

- **Student Financial Aid**

Source	Under graduate		Post graduate		Research	
Central Govt.	No.	%	No.	%	No.	%
ICAR	13	14.61	-	-	-	-
State Govt.	75	84.27	-	-	-	-
University	1	1.12	16	33.33	-	-
College	-	-	-	-	-	-
Others	-	-	-	-	-	-
Total	89	100%	-	-	-	-

- **Student Counseling and Placement Services.**

Does the college maintain a student counseling and placement services?

Yes [√] No [ ]

If Yes, please provide year-wise data for the following categories for last 4 years.

Total number of graduates [11] out of which

a) Joined in Government Services

b) Joined in Industry [11]

c) Self-employed : Farming Business [ ]

d) Further Education [ ]

e) Others (specify) [ ]

- **Alumni affairs :**

a) Alumni association

Is there an Alumni association of the college ? Yes [√] No [ ]

b) Alumni achievements

Name the Alumni holding top national and International positions.

Position Number

Creation of Alumni Association is under process.

6.5.5. Physical facilities

- Total Land Area in Hectare 38.0405 Ha
  Academic Campus 13.02 Ha
  Farm 20.45 Ha
  Irrigated land in hectare (area and per cent of the total farm) 1.955 Ha 0.1%
- Does the college have an Estate Office ? Yes [√] No [ ]
- Enclose the site plan of the college indicating the existing buildings and other planned for future and give details.

Facility	Hectares / Sq.m.
Academic buildings	3585.40
Students hostels	5195.09

Housing for staff	1320.00
Play grounds	6847.00
Administrative buildings	1736.97
Open spaces	6.46
Gardens and farms	36248.20
Cattle shed	2651.77
Health facilities	323.40
Library	342.83
Irrigation infrastructure	19557.88
Others	NA

- Give the following infrastructure information.

Sl. No.	Particulars	Availability			
		No. of unit	Plinth area (Sq.m.)	Capacity if applicable	Adequate (Yes/ No)
1.	Administrative offices	1	1736.97		No
2.	Classrooms	6	528.48		No
3.	Laboratory	7	650		No
4.	Library	1	342.84		Yes
5.	Housing for faculty	9	548.00		Yes
6.	Boys' hostel	1	2931.64	76	No
7.	Girls' hostel	1	2263.45	118	No
8.	Sports complex	1	895.48		Yes
9.	Guest house	1	1025		Yes
10.	Canteen	1	97.33		Yes
11.	Health clinics	1	323.40		Yes
12.	Workshops	1	135.00		No
13.	Faculty club	Nil	Nil		Nil
14.	Auditorium	1	777.70	360	yes
15.	Others (specify) 1. Farmers' Hostel 2. PG Hostel 3. ATIC 4. Bank and Post Office 5. Animal Sc. Block	 1 1 1 1 1	 1248.00 889.00 597.72 134.66 1061.94	 1 1 1 1 1	 Yes No Yes Yes Yes

- **Research and Extension Education**
  - Is there a separate Directorate of
    a) Research Yes [√] No [ ]
    b) Extension Yes [√] No [ ]
  - Annual Budget for Education, Research and Extension (Rs. In lakhs and per cent)*

Budget	Resident Instruction	Research	Extension
Non-Plan	NA	NA	NA
Plan	NA	NA	NA
Internal sources	NA	NA	NA
ICAR	NA	NA	NA
Others	NA	NA	NA

* Information available at the University level.

- Fiscal Resources
  - Total College Budget during last 5 years (Rs. In lakhs and per cent)

S.No	Particulars	2015-16		2016-17		2017-18		2018-19		2019-20	
		Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
1	Non-plan(State)	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
2	Plan(State)	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
3	Internal Resources	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
4	ICAR	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
5	Others-DARE	17.78	100	17.21	100	189.85	100	194.15	100	333.05	100
	Total	17.78	100	17.21	100	189.85	100	194.15	100	333.05	100

  - Internal resources during last five years (Rs. In lakhs and per cent)

S.No	Source	2015-16		2016-17		2017-18		2018-19		2019-20	
1		Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
	Farm including dairy, poultry etc.	6.34	38.47	7.89	31.46	6.02	10.3	5.27	8.09	5.6	7.24
2	Students Fees	7.18	43.56	12.98	51.75	45.73	78.28	51.98	79.79	62.62	80.98
3	Consultancy	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
4	Hiring out college facilities	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
5	Funds raised by Alumni Groups	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
6	Others-Misc. income	2.96	17.96	4.21	16.78	6.67	11.42	7.89	12.11	9.10	11.77
	Total	16.48	100	25.08	100	58.42	100	65.14	100	77.32	100

  - Library Budget during last five years (Rs. in lakhs and per cent)

(a) Details of budget

S.No	Particulars	2015-16		2016-17		2017-18		2018-19		2019-20	
		Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
1	Non-plan(State)	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL

2	Plan(State)	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
3	Internal Resources	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
4	ICAR	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
5	Others-DARE	11.27	100	15.0	100	5.00	100	2.00	100	2.00	100
	Total	11.27	100	15.0	100	5.00	100	2.00	100	2.00	100

(b) What percentage is library budget to the total college budget ? 0.58% approximately.

- Department-wise annual budget during current year of total college budget (Rs. In lakhs and %)

Departments	**Non-plan**		**Plan**		**Internal resource**		**ICAR**		**Others (specify)**	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
There is no system of Department wise budget.										

- Basis of budget allocation to each department. N/A
- Provide the budget allocation under the following sub-heads for current year
  Amount (Rs. In lakhs and per cent)

S No	Particulars	Amount in lakhs	%	Remarks
(a)	Establishment	0.00	0	Establishments charges i.e. pay and allowances, retired benefits are included with CAU HQ budget
(b)	TA	6.01	1.74	
(c)	Recurring Contingency	225.72	65.2	
(d)	Works & Maintenance	42.48	12.27	
(e)	Others	71.96	20.79	
Total		346.17	100	

- College fees and other charges per year

Categories of fees and charges	**UG**	**PG**
Tuition fee	240	300
Hostel charges	165	445
Laboratory charges	100	300
Others	265	1040
Total	770	2085

- Indicate the year of the last revision of fees and other charges.
  Last revision - 2012
- Accounting and record keeping.
  Please briefly describe accounting, record keeping and auditing system followed:
  Double entry system.
- Powers of the head of the college for sanctioning

	Full	Partial	Amount Rs. In lakhs
Equipment		√	02.0
TA for staff	√		-
Recurring contingency		√	0.99
Others		√	0.99

- Powers of the Head of the Departments for Sanctioning.Nil

	Full	Partial	Amount Rs. In lakhs
Equipment	NIl	Nil	nil
TA for staff	Nil	nil	nil
Recurring contingency	nil	nil	nil
Others	nil	nil	nil

6.5.5.1. Hostels

Hostel	No. of rooms	No. of students
Boys		
UG	82	2 students per room
PG	31	2 student per room
Girls		
U.G. Hostel	71	2-3 students per room
P.G. Hostel (Farmer's hostel utilized as PG Girls hostel)	19	2 students per room

PG Girls' Hostel (presently occupying Farmers' Hostel)

A. Facilities provided:

i. 19 rooms (12 rooms with attached bathroom, 1 common bathroom at ground floor)
ii. One Dining Hall
iii. One kitchen
iv. One Washing machine, 7.2 kg
v. One Sony TV
vi. One refrigerator (not working condition)
vii. Wi-Fi connection
viii. One Treadmill (manual)
ix. One Water cooler
x. One Sanitary pad dispenser
xii. One Sanitary pad incinerator

B. Furniture items:

i. Bed (61 nos.)
ii. Table (53 nos.)
iii. Almirah (24 nos.)
iv. Chair (47 nos.)
v. Dining table (2 nos.)

6.5.5.2. Examination hall

The college has an assembly hall on top floor of Academic Block – I which is now utilized as examination hall. It has a seating capacity of 65-70 students. Recently under the NAHEP project the hall has be partitioned to create a smart classroom and separate hall used for conduct of examination. Due to large number of students the classrooms (4 No.s) at Academic Block – I are also used as examination halls for mid-term and end-term examinations.

View of Academic Block, Examination Halls and Assembly Hall

6.5.5.3. Sports and Recreation Facilities

Sports and recreation facilities

Indoor sports facilities: Table Tennis board, Badminton, Volleyball, Carom, Chess.

Outdoor sports facilities: Play ground, Javelin, Discus, Shotput, Long jump, Triple jump.

GYMNASIUM

The College of Agriculture, Central Agricultural University provides Gym facility to the students of the College of Agriculture, CAU Imphal. The Gym is located inside the Gymnasium, students are doing gym activities both in morning and evening session and it was guide by a gym instructor. The Gymnasium is also provided with Badminton court, Table Tennis facility. Sometime yoga classes are also performed in this hall. During the Annual college week and inter class competition various indoor games were played inside the gymnasium.

GYM College of Agriculture

Figure 1student playing badminton

Figure students doing regular gym work

Figure students doing yoga in gymnasium

Figure college week table tennis games

Figure students doing physical exercise in gymnasium

Figure 2 college week badminton games

PLAYGROUND

The playground of the College of Agriculture, CAU is located inside the Campus of the College. It is approximately 100 x 50 meter in size. Student of the College of Agriculture used to play (football, cricket and many athletics event etc.) in playground during their free time. The Games and Sports events and some Literary cum cultural event were conducted in the College playground during the Annual college week programme. Some of the events like Agri-fair, Horse are also carry out in the College playground. In addition to this, a small playground in also located inside the UG-Boys' Hostel campus.

Figure : students performning long jump in annual cw

Figure : students performing march past

Figure : students competing in various sports in CW

Figure :students competing in various sports in CW

6.5.5.4. Auditorium

The College of Agriculture, Central Agricultural University had an Auditorium facility which have a seating capacity of 365 seats. It is located inside the college campus. The auditorium is the main place for performing literary and cultural events in the college. It is the main center for performing Seminar, workshop, orientation programme, training programme, and various cultural programmes.

Students Cultural dance performance at Auditotium

literary programme during College week

Prize distribution ceremony at Auditorium,

National Indegeneous seed festival 2019 at Auditorium

6.5.5.5. Exhibition Hall/Museum

The Agriculture technology and information center (ATIC) of the College of Agriculture had a museum cum exhibition hall. ATIC is a single window support system lining the various units of a research institution with intermediary

users and end users (farmers) in decision making and problem solving exercise. In this hall various achievement of the college were displayed. Visitor (Farmers, entrepreneurs, extension worker, NGOs and other private sector organization) can get farm worthy techniques/ technologies/ knowledge materials that had developed by our college. This also provides information through published literature, banner and communication materials as well as audio-visual aids. Sometime seeds and planting materials were also given to farmers and other organization for taking up the frontier technologies to the field. A museum is also present in the department of agriculture engineering college of agriculture which displayed different equipment or materials of agricultural engineering.

Displaying various farm products and technology (ATIC)

Varieties of Seed were displayed in ATIC

ATIC Centre at College of Agriculture, CAU, Imphal

6.5.6. Research Facilities

6.5.6.1. Postgraduate Laboratories and Equipments

The laboratories are well equipped to conduct the practicals/hands on training to the students with instruments, laboratory tables, basins, irrigation facilities, electrical and ventilations, adequate wooden furniture etc.

- Department-wise laboratories established

S.No.	Name of Department	Name of Laboratory	Equipments Available in Department
1	Plant Breeding and Genetics	Biotechnology Laboratory	Stereo microscope, Laminar flow, HP computer with Digital and image aids software, Milli Q Gradient, Spectrophotometer, UV Transilluminator, Gel caster, Mini Submarine Electrophoresis unit Spin win Microcentrifuge, Spinix Vortex Shaker, Magnetic stirrer, Digital P^H Meter, Accupippette, Electronic Analytical Balance Mini Submarine Electrophoresis unit, Servo stabilizer, Dry Ice maker, Inverted Research Microscope, Refrigerator, Hot Air oven, Mechanical Shaker, Vertical Autoclave, Horizontal Autoclave
		Plant breeding and genetics laboratory	Camera Lucida, Bend Thermometer, Hand Refractometer, Olympus Microscope, Avery balance, Electronic balance, Leaf area meter Digital P^H Meter, Hot Air Oven, Desssicator Refrigerator, Electrical water bath, Micro Kjeldahl with accessory, Laminar flow
2	Entomology	Biological Control Laboratory	Laminar Flow, BOD Incubator, Hot Air Oven, Autoclave, Electronoic Balance, Centrifuge, Hot Water Bath, Rotavator, HPLC, Spectrophotometer Thermo Meter, Double Distillation Unit, pH Meter, Honey processing unit, Research Microscope-small Microscope(Lica) with camera, Micro Wave Oven, Student Microscope, Orbital shaker, Refrigerators, Elite Panaboard, Xerox Canon, Honey box packaging machine, *Corcyra* egg cleaning machine, Deep Freezer, Honey bottle packaging machine
3	Plant Pathology	Student Laboratory	Laminar Air Flow, Shaker Cum BOD Incubator, Bod Incubator, Hot Air Oven Nsw, Autoclave, Electronoic Balance, Centrifuge, Hot Water Bath, Fermenter, Lyopholyzer, P.C.R. Thermo PX2, Double Distillation Unit, pH Meter-Eutech, Cold Centrifuge(HermleMicroprocesor), Well Wash(Thermo), Research Microscope-Olympus-1,Magnus-4, Microscope(Olympus) Digital Balance(Electronic),

			(i)SARTORIOUS (NAIP GINGER), (ii)KERN Cap. 421gm Digital Balance(Electronic (In Mushroom Lab.), DNA Gel Electrophoresis Unit With Power Point(DBT Project), Micro Wave Oven(NAIP Ginger), MAGIC COOK 20S(M) Phase Contrast With Digital Image Analyzer With Camera (DBT Project), Student Microscope- 45 nos
		Mushroom production Lab.	BOD Orbitek (Mushroom unit) (i) BOD 350L SR NO. 201D1700017 (ii) BOD 350L Laminar FlowKlenz (Mushroom Unit) (i)MODEL NO.-1500C-36-24-24 (ii)1500C-36-24-24 Autoclave(Equitron) SR.7451STWL.AJF.076(Mushroom Unit) Autoclave Vertical NSW227 , Jiotech Microprocessor Incubator Orbital shaker (DST) (i)L. G. Model no. GL-295TMG, (ii)L.G. Model no. GL-244GP, (iii)L.G.-FF& (iv)Godrej Eon, Model no. Elite Panaboard Xerox Canon2420L, Glass House, Laminar flow , project (DBT) (in Trichoderma lab.), B.O.D. from project (DBT)(in Trichoderma lab.), Autoclave digital, project (Vocational training on mushroom), Straw cutter, project (Vocational training on mushroom) (Mushroom Unit)
4	Soil Science	Bio-Chemistry Lab.	Rocker Vaccum Pump, Rotary Shaker (Sonar), Hot air oven NSW-145, N-Auto Analyzer, BOD Incubator, Incubator LTC-4, Flame Photometer 128, Gas Chromatography**(not working),** Atomic Absorption Spectrophotometer, Perkin Elmer **(not working),** Water Column Chromatography**(not working),** Spectrophotometer 104, Rotary Vaccum Evaporator (Buchi type), Orbitex Double Deck Shaker, Global Positioning System (GPS), Deep Freezer, GPS MAP76/MAP78, NSW-143 Oven Universal, Rectangular Vaccum Oven, Quartz Double Distillation unit (with Distillation Power Supply)**(not working),** Double Beam UV-VIS Spectrophotometer (Elico) Flame Photometer –n 378 (Elico), Rotary Vaccum Pump (Elico), Atomic Absorption

			Spectrophotometer (Elico)(**not working),** Laboratory Shaker, Muffle Furnance, UV-VIS Spectrophotometer, Refrigerator Double Door, Centrifuge (Floor Model) Sorvall RC6, Electrophorasis (complete set)
5	Horticulture	Tissue culture Lab	Frost Freeze, BOD Incubator Automatic – 610 Malhotra Brothers, Delhi, Thermostat BlowerLunar Comp. Sl.No. 0312317 (230v), Hot Air OvenModel: ACM-220661 Comp. SHIVAKI, Digital FPM – 125 Sl.No. 2190 SYSTRONICS, FPM Compressure Unit -122Sl.No. 5040 SYSTRONICS, Panasonic Battery two – LC – XA 12100CH, Autoclave Calton, Autoclave Vertical NSW -227, BOD Incubator Super Delux Automatic NSW – 152, pH/mv/Temp. meter, , Laminar Flow-Klenz Flow 15000/48/24/24, Hot Air Oven – NSW- 142 NARANG SCI WORK PVT. LTD, Nitrogen Auto Analyser Distillation Unit-Kelplus Classic DXVATSE, Spectrophotometer UV VIS – 117SYSTRONICS, Digital pH Meter – 335 SYSTRONICS, FPM Compressor 126 SYSTRONICS Flame photometer 128 SYSTRONICS, Rotary Flask Shaker MARCO SCI WORK (MAC), Photoperiodic timer, UPS RS – 1000 APC Ref.No.COA-5-6/134-04, Digital Spectrophotometer SPECTRASCAN UV 2600, Ref.No. COA-5-1/148-04 Leaf Area Meter 2H SYSTRONICS Sl. No. 432, Flame Photometer FP-102 CHEMITORef.No. COA-5-2/146-04, Spectro colorimeter 103SYSTRONICS Sl.NO. 1324, Electronic Weighing machineCap. 500gms Sl.No. 5133, ADAIR DUTT NST PVT. LTD. Microscope (olympus)Model GB Sl. No. 55415, Simple Microscope, Falcon Garden Tools, Godrej Eon Freezer, Deep Freezer Electrolux Cap. 170 Ltr. Product ER37FF, Automatic Voltage Autoclave LUNAR, Hot Air Oven, Micro Balance, Biotech Room Temperature Controller, Double Distillation Unit , Nitrogen Digestion Unit KEL PLUS, Soil Moisture Meter, Digital Vernier Caliper, Digital Pocket Refractometer, Digital Light MeterModel
6.	Agronomy	Agronomy Lab	Electronic balance, water distillation set, Hot air oven, Mechanical shaker, N-analyzer set, spectrophotometer, Flame photometer, pH meter, BOD incubator

6.5.6.2. Research Contingency

The College of Agriculture is presently offering only one under graduate programme in Agriculture, PG programme in eight departments and Ph.D. programme in five departments. The funds received from CAU and externally funded schemes are used for conducting undergraduate educational activities, especially for practical classes, wherever applicable. Adequate funds are available for meeting the recurring expenses incurred during the education programme. The year wise funds received for various education related activities are distributed among the departments by the Dean office depending on need and proper justification.

6.5.7. Outcome/Output

The College of Agriculture takes paramount interest in the performance of its students in the field of studies, sports, other extracurricular activities, employment and career growth. Alumni of the University are regularly consulted to get feedbacks on employment, performance in competitive exams, job selection process etc. Regular interactive talks are arranged between alumni and students so that students can get insights on different exams and personal interviews.

6.5.7.1. Student Performance in National Examinations

JRF RECORD FOR COLLEGE OF AGRICULTURE CAU

Year	JRF	SRF	NET	ARS
PASSE	ICAR	ICAR	ICAR	ICAR
D OUT	ICMR	ICMR	ICMR	ICMR
YEAR	UGC	UGC	UGC	UGC
	DBT	DBT	DBT	DBT
	CSIR	CSIR	CSIR	CSIR
2016	***5(ICAR)***			
2017	***4(ICAR)***		**(ARS-NET)**	(ARS)
	ICAR-JRF 1. Lalduhsanga 2. Lalhmingmawia 3. WayoolangTalang **4.** Kenny Sora	1. Chethankumar N. 2. PrateekRanjanBehera 3. NaoremChanuGulleibi	1. Chethankumar N. 2. T. Rihe 3. Prateek Ranjan Behera 4. Aswin C. 5. AshwiniAnanda 6. Mr. I. Yimjenjang 7. ChingakhamInao Khaba, 8. C. Lalhruaitlungi, 9. Thokchom Nepolian 10. Marjit Chandam,	
2018	***7 (ICAR)*** **ICAR-JRF-PGS** 1. AshikaDebbarma 2. MunnyChinyo **ICAR-NTS** 1. Hissay Cheday Bhutia 2. SurajChettri 3. Monica Oinam	1. K. Dinesh 2. Balaga Mohan Ganesh	1. Konreddy. A.N. 2. K. Dinesh 3. SomalaKarthik 4. Balaga Mohan Ganesh 5. Sushmita Th. 6. H.Bideshwori Devi 7. Christina Borang 8. Omekali	

	4. Chumai Hina 5. Guneshori Lairenjam **DBT** HumayunMiah		
2019	***11 (ICAR)*** **ICAR-JRF-PGS** 1. Amlannath 2. Miyirloyi **ICAR-NTS** 1. TrishitaBanik 2. Gabriel Darlong 3. Tara Man Rai 4. PC. Lalruatfeli 5. C. Vanthangzuali 6. L. Boris Singh 7. M. Monalisa Devi 8. RinkuNath 9. Monica Yaying **DBT** Maqbool qutub	ICAR-SRF V. BHUVANESWARI	**1. M. SOMORJIT SINGH** **2. AKSHAY MISHRA**
2020	***11 (ICAR)*** **ICAR-JRF-PGS** 1. Bobby Pradhan 2. SK Asraful Ali **ICAR-NTS** 1. RohitDebbarma 2. KamsonRikung 3. TashiPanden 4. RajkumariJyotika 5. ChossterfieldMawblei 6. DibyajyotiNath 7. PriyaSeram 8. LalmalsawmaRalte 9. IromSanjukta **DBT**		

6.5.7.2. Students Placement Profile

Most of the students graduating from College of Agriculture, Imphal are placed in academics/research institution for pursuing higher education (M.Sc./Ph.D.) in India and abroad. The details of the placement profile of passed out students are as follows:

Student's placement (for last 5 years i.e 2016 to 2020)

S No.	POSITION/ DESIGNATION	TOTAL NUMBER
1	AGRICULTURE DEVELOPMENT OFFICER/ AGRICULTURE EXTENTION OFFICER	7
2	ATM/BTM IN STATE'S ATMA	7

3	ASSISTANT PROFESSOR	5
4	AGRICULTURE RESEARCH SCIENTIST	5
5	FARM ASSISTANT	5
6	AGRICULTURE FIELD OFFICER (BANK)	3
7	HORTICULTURE OFFICER/ HORTICULTURE DEVELOPMENT OFFICER	2
8	AICRP SCIENTIST	2
9	PRIVATE COMPANY LIMETED	2
10	TEACHING ASSOCIATE/ GUEST LECTURE	2
11	RANGE OFFICER	1
12	AGRICULTURE OFFICER	1
13	ASSISTANT HORTICULTURE EXTENTION OFFICER	1
14	SUB INSPECTOR	1
15	SUBJECT MATTER SPECIALIST	1
16	SEED CERTIFICATE OFFICER	1
17	LOWER DIVISION ASSISTANT	1
18	SBI FACULTY	1
19	JUNIOR ASSOCIATE	1
20	PROJECT CO-ORDINATOR	1
	Total	50

DETAILS OF PLACEMENT (YEAR WISE)

No. of students placed employed in government organization during the last five year

2016	2017	2018	2019	2020	Total
6	14	11	10	9	50

No. of students gone for higher studies during the last five year

	2016	2017	2018	2019	2020	Total
UG TO PG	40	46	53	33	20	192
PG TO Ph.D	6	11	12	11	5	45

6.5.7.3. Awards/Recognitions/Certificates

Award 2016

Award in All India Youth Festival or All India Agri University Sports Meet 2016

- CAU, Imphal Bagged 1st Position in **Patriotic Song** Category in the 16th All India Agricultural Universities Youth festival held at Orissa University of Agricultural and Technology, Bhubaneswar, Odisha. 2015-16
- COA, Students participants
  1. Ningthoujam Babulu
  2. Ksh. Jabaskumar
  3. Vanlalmalsawmi Sailo
  4. Elreev Rai
  5. Mandakranta Chakraborty
  6. Supriya Debnath

2017- COA STUDENT LITERARY ACHIEVEMENT

S. No.	ACHIEVMENT	STUDENT INFORMATION	REMARK
1	BEST POSTER PRESENTATION AWARD-2017	NAME: Priyanka Irungbam Admission No. :1A-15 (Ph.D) Department : Agronomy	Topic: "Emerging Crop of North east india suitable for horticulture based integrated farming system"

2018

105th India Science Congress, Manipur

- Held in Manipur University from 16 – 20th March, 2018
- Poster presentation
- Takhellambam Julia – M.Sc. Final Year
- Topic: Mutagenic effectiveness and efficiency of Gamma ray in Indian mustard (Brassica juncea L. Czern and cross)

COA STUDENT LITERARY ACHIEVEMENT 2019

S. No.	ACHIEVMENT	STUDENT INFORMATION	REMARK
1	YOUNG SCIENTIST AWARD, 2019 Rank : 11th position	NAME:MeghnaGogoi , ADMISSION NO. : 6A-17 (Ph.D) DEPARTMENT :AGRONOMY	RESEARCH WORK : performance of winter potato undervaried dates of planting irrigation scheduling in mid-hills of Meghalaya
2	BEST MASTER THESIS AWARD, 2019	NAME : Kota Chakrapani Admission No.: 16A-17(M) Department : Plant pathology	TOPIC : morphological and molecular variability of Rhizoctonia solani causing sheath blight of rice and invitro management
3	BEST POSTER PRESENTATIO N AWARD-2019	NAME: wangkheimayumTampakleimaC hanu Admission No. :2A-16 (Ph.D) Department : Plant pathology	Topic: Bio priming of chickpea seeds by native tricoderma isolates under the national seminar –Strengthening of seed systems in the north eastern and unreached regional – problems, prospects and policies

2019- COA STUDENT SPORT ACHIEVEMENT

S. No.	STUDENT INFORMATION		EVENTS
1	NAME: L. KhonzaniEzung ADMISSION NOI.: 33A-17	2nd POSITION	HIGH JUMP WOMEN LL INDIA INTER AUNIVERSITY GAMES AND SPORT MEET 2019, PAU, LUDHIANA)

2019- COA STUDENT CULTURAL ACHIEVEMENT

S. No.	STUDENT INFORMATION	ACHIEVMENT	EVENTS
1	NAME : Sunil sono (M) ADMISSION NO.: 70A-17	1st position	ON SPOT PANTING ALL INDIA INTER UNIVERSITY LITERARY AND CULTURAL MEET 2019, SDAU,PALANPUR, GUJARAT)

2020

Sl. No.	Name of the students	SEX	ADMISSION No.	Name of the event	Position secured (1st/2nd/3rd)
1	B.Keyang	M		High Jump (Men) All India Agri-University Sport Meet in 2019-20, Tirupati, Andra Pradesh	3rd

6.5.7.4. Employability

The Placement Cell under the Student Welfare Cell of College of Agriculture also look after the students of the College of Agriculture. The students are provided with ample opportunity enabling them to develop their overall personality. The Faculty of Language guides the students regarding preparation and updating resumes and biodata for the students. Interaction sessions organized for the personality development by inviting motivators, social worker, and entrepreneur inspire our students to be more employable. The college is regularly organising sufficient co-curricular and extracurricular activities for the students making them physically fit enough to take up any job challenges. The engagement of students in the READY Program- RAWE, KVK and Village attachment provide ample exposure enabling them to face real life situation on placement. Exposure visit of students to Agro-based industries, tea factories, nurseries, artisans, banks and financial institutions help them understand the expectation of the industries. Interaction sessions with Subject Matter Specialists of KVKs motivated the students with the aspiration towards agri-professionals. An excellent opportunity is given to the students through ELP of the course curricula that enable them to take up their economically viable agri-preneurship such as commercial nurseries, agri-clinic agri-business centre (ACABC) under GoI initiative, primary processing units, agri start-ups etc. The degree program nurtures a student with the knowledge and skills that will help them to manage agri-entrepreneurship, to conduct research, work in agricultural field, conduct field surveys and manage different areas of farming practices. Alumni of the college are invited to guide the students of the college to share various scopes available after the UG and higher studies in their courses.

6.5.8. SSR of the College must have the SSR of all its Degree Programmes (following section 6.4), then the report of the Colleges shall be considered

6.5.9. Certificate (Applicable when SSR is submitted for Programmes& College)

I, the **Dean College of Agriculture, Iroisemba, Imphal, Manipur** hereby certify that the information contained in Sections 6.4 and Section 6.5.1 to 6.5.7.4 are furnished as per the records available in the college and degree awarding university.

Signature of the Dean of the college with Date & Seal
01/05/2021

Dean
Central Agricultural University
Imphal

6.5.10. Each college shall submit SSR as mentioned in 6.5.8. It shall be [illegible] of the Agricultural University

SSR
for
B. Sc. (Ag.) Hons. Programme

6.4.1. Brief History of the Degree Programme:

The College of Agriculture, Central Agricultural University, Iroisemba, Imphal was established as first constituent College of Central Agricultural University, Imphal after taking over the erstwhile Manipur Agricultural College affiliated to Manipur University on 22nd November, 1993. The College is situated in an extensive area of Iroisemba at a distance of about 6 km from the Imphal city. The college campus sprawls in an area of 94 acres (approx.) surrounded by Langol hills to its western and northern sides and Lamphelpat and Iroisemba village in the eastern and southern side respectively.

Goals and Objectives

College of Agriculture, CAU, Iroisemba, Imphal is a nationally renowned, premier institution for teaching, research and extension programmes in the field of agriculture, which is serving the farming community, extension functionaries of state governments, entrepreneurs and policy makers in the state and the north eastern region of the country.

Goals

- To create an intellectually stimulating campus environment.
- Act as a hub of technological base and train workforce for supporting agriculture and allied activities in the NE states.
- To plan and implement the strategies and programmes to achieve excellence in UG, PG and Ph.D agriculture education, need based research and extension activities, reinforcing one another.

Objectives

- To train and develop outstanding personnel in agriculture leading to B.Sc. (Hons.)Agriculture graduates, M.Sc. (Ag.) graduates and Ph.D. scholars so as to keep pace with latest developments in the field.
- To develop improved technologies for various agri/horticultural crops with respect to crop improvement, production, protection, post-harvest management and marketing.
- To disseminate the improved technology to the farming community.
- To share the technological knowhow among extension functionaries, line department officials of state government of NE states through various outreach activities.

Since, its inception of the College of Agriculture, CAU, Imphal has established a robust networking throughout the North Eastern Region, National and other International organizations to cater the emerging issues of the Agriculture and allied sectors of NE Region of India. Thus, **College has the following major missions and mandates:**

1. To forge ahead in teaching, research and extension services in Agriculture and its allied sciences.
2. The College intends to strengthen contemporary knowledge of the Agricultural science to develop a strong and efficient work force that would cater the needs of the rural areas in particular and the society. To strengthen this, College under CAU, Imphal is determined to employ highly qualified faculties and assigning target to develop human resources, innovative and need based technologies and their dissemination to serve the rural masses especially farming community of this remote region having rich biodiversity, diverse traditional knowledge and unexplored flora and fauna of nutritional significance.

The College since its establishment has continuously strived to impart Education, Research and Extension activities in the field of agriculture and its allied subjects in the North Eastern Hill Region. Students from the North Eastern States viz., (a) Manipur, (b) Mizoram, (c) Meghalaya, (d) Arunachal Pradesh, (e) Tripura, (f)Nagaland and (g) Sikkim are admitted in the college. In addition to this, students from other parts of the country are also admitted through ICAR quota in both Undergraduate and Postgraduate courses. Admissions under Undergraduate courses are also given under the Higher

Fee category. Eight departments of the college offers M.Sc. (Ag) programme. Further, the Ph.D. program in five departments of the College admit students based on entrance test.

6.4.2.Faculty Strength:

The faculty strength of the Degree Programme is given cadre-wise, both sanctioned and in-place in the table given below

S. No.	Faculty	Sanctioned Faculty	Faculty in place	Vacant position	Faculty recommended by The ICAR/ UGC/ VCI/ other regulatory bodies
1.	Professor	08	20*	Nil	Set up sanctioned by the Central Government, Government of India
2.	Associate Professor	12	10**	02	
3.	Assistant Professor	29	16	13	
	Total	49	46	15	

**** - 15 Faculties promoted as Professor under CAS***

***** - 04 faculties promoted as Associate Professor under CAS***

S.No.	Department	Current Faculty position					
		Professor	Assoc. Prof.	Asst. Prof.	Total	Remarks	Faculty Recommended by the ICAR/UGC/VCI/Other regulatory bodies**
1	Dean	01	0	0	01		-
2	Agronomy	04	0	01	05	*4 Prof. & 1 Asst. Prof.	Prof – 1, Assoc. Prof – 1 Assistant Prof. – 5
3	GPB	03	01	0	04	*3 Prof. & 1 Assoc. Prof.	Prof – 1, Assoc. Prof – 1 Assistant Prof. – 3
4	SSAC	03	0	01	04	*3 Prof. & 1 Assoc. Prof.	Prof – 0, Assoc. Prof – 1 Assistant Prof. – 5
5	Plant Pathology	01	01	02	04		Prof – 0, Assoc. Prof – 1 Assistant Prof. – 2
6	Horticulture	03	01	01	05	*3 Prof. 1 Assoc. & 1 Asst. Prof	Prof – 1, Assoc. Prof – 1 Assistant Prof. – 3
7	Agril. Engg.	0	01	02	03		Prof – 0, Assoc. Prof – 0 Assistant Prof. – 2
8	Entomology	02	02	0	04	*2 Prof. & 2 Assoc. Prof.	Prof – 0, Assoc. Prof – 1 Assistant Prof. – 2
9	Extn. Edn.	02	01	02	05	*2 Prof. , 1 Assoc. Prof. & 2 Asst. Prof.	Prof – 0, Assoc. Prof – 1 Assistant Prof. – 4
10	Animal Sc.	0	01	01	02	*1 Assoc Prof. & 1 Asst. Prof.	Prof – 0, Assoc. Prof – 0 Assistant Prof. – 2
11	Agril. Econ.	01	01	0	02	*1 Prof. & 1 Assoc.	Prof – 0, Assoc. Prof – 1 Assistant Prof. – 5

						Prof.	
12	Basic Science	01	01	0	02	*1 Prof. & 1 Assoc. Prof	Prof – 0, Assoc. Prof – 1 Assistant Prof. – 5
13	BPME	01	01	0	03	*1 Prof. & 1 Assoc. Prof.	Prof – 0, Assoc. Prof – 0 Assistant Prof. – 2
14	MTTC & VTC	0	0	03	03	-	-
	Total				46	-	-

**Promoted to Professor under CAS*

*** Reference – Report of the ICAR Fifth Dean's Committee – Page No. 97 – 99.*

6.4.3. Technical and Supporting staff: The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in-place.

Sl. No.	Staff Category	Sanctioned Staff	Staff in place	Vacant position
1.	Technical	50	31*	19
2.	Supporting Staff	47	34**	13
3.	Administrative	50	19***	31

The details of staff posting is as given below:

S No.	Department	Technical*	Supporting Staff**	Administrative***	Total
1.	Dean	2	2	5	9
2.	Accounts	-	3	8	11
3.	Establishment	-	3	3	6
4.	Estate Office	2	3	-	5
5.	Library	3	1	-	4
6.	Academic	3	4	1	8
7.	Farm Section	3	2	-	5
8.	UGGirls Hostel	-	1	-	1
9.	PG Girls Hostel	-	1	1	2
10.	SWO	-	1	1	2
11.	Medical Unit	5	-	-	5
12.	Beautification	1	-	-	1
13.	Agronomy	1	1	-	2
14.	GPB	1	1	-	2
15.	SSAC	1	1	-	2
16.	Plant Pathology	1	2	-	3
17.	Horticulture	1	1	-	2
18.	Agril. Eng.	1	1	-	2
19.	Entomology	1	1	-	2
20.	Extn. Edn.	1	1	-	2
21.	Animal Sci.	1	1	-	2
22.	Agril. Econ.	1	1	-	2
23.	Basic Science	1	1	-	2
24.	BPME	1	1	-	2
	Total	31	34	19	84

6.4.4. Classrooms and Laboratories: Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipment, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

Details of Laboratories:

Particulars	Class Rooms	Functional Laboratories	Equipment	Theory batches	Practical Batches
UG Level	06	07 (All functional)	All essential Equipment & Utensils available and functional	04	08

Detail list of major equipment:

Sl. No.	Name of equipment	Status of equipment
1.	Electronic balance	Working
2.	water distillation set	Working
3.	Hot air oven	Working
4.	Mechanical shaker	Working
5.	N-analyzer set	Working
6.	Spectrophotometer	Working
7.	Flame photometer	Working
8.	pH meter	Working
9.	BOD incubator	Working
10.	Tensiometer	Working
11.	Leaf area meter	Working
12.	Infra-red thermometer	Working
13.	Luxmiter	Working
14.	Laminar Flow (Model no.-1500c-24-24-24, S.r. no. 112/0705)	Working
15.	Biotech Room Temperature Controller Model No. 09300 PREMA 2SP	Working
16.	Shaker Cum BOD Incubator Model no. LEIL S.R. NO. 2009400007	Working
17.	Bod Incubator(Orbitek) (30D-350L)	Working
18.	Hot Air Oven Nsw MODEL NO. 14P S.R. NO. 34164	Working
19.	Autoclave NSW-227(18X24 MLS)	Working
20.	Electronic Balance Anamed Z2000	Working
21.	Centrifuge MODEL NO. MB-2B SR: CCC-256	Working
22.	Hot Water Bath, MODEL –ORBITEK MO, SR. 2009800001	Working
23.	Fermenter, MODEL NO.GX, SR: FGXMG04770071	Working
24.	Lyopholyzer, MODEL NO. 7001000060, S.R.: 06070024	Working

25.	P.C.R. Thermo PX2 SR HBPX220	Working
26.	Double Distillation Unit, Qualizen, Model AODO-20P-08, SR.-0H51006168	Working
27.	pH Meter-Eutech, PRODUCT NO.ECPH70042S	Working
28.	Cold Centrifuge(Hermle Microprocessor), TYPE-Z400K Nr. 50070027	Working
29.	Well Wash(Thermo), REF: 51118170, S.R.: 3550903790	Working
30.	Research Microscope-Olympus-1, Magnus-4	Working
31.	Microscope(Olympus)	Working
32.	Digital Balance (Electronic), (i)SARTORIOUS-(ELEMENT ELT202) (NAIP GINGER), (ii)KERN Cap. 421gm	Working
33.	DNA Gel Electrophoresis Unit With Power Point(DBT Project)	Working
34.	Micro Wave Oven(NAIP Ginger), MAGIC COOK 20S(M)	Working
35.	Phase Contrast With Digital Image Analyzer With Camera (DBT Project)	Working
36.	Student Microscope- 45 nos	Working
37.	Refrigerators	Working
38.	Elite Pan board	Working
39.	Xerox Canon2420L	Working
40.	Glass House	Working
41.	Straw cutter, project	Working
42.	Stereo microscope	Working
43.	Milli Q Gradient	Working
44.	UV Transilluminator	Working
45.	Gel caster	Working
46.	Mini Submarine Electrophoresis unit	Working
47.	Spin win Microcentrifuge	Working
48.	Magnetic stirrer	Working
49.	Dry Ice maker	Working
50.	Inverted Research Microscope	Working
51.	Bend Thermometer	Working
52.	Hand Refractometer	Working
53.	Micro Kjeldahl with accessory	Working
54.	Rocker Vacuum Pump	Working
55.	Rotary Shaker (Sonar)	Working
56.	N-Auto Analyzer	Working
57.	Flame Photometer 128	Working
58.	Gas Chromatography	Working
59.	Atomic Absorption Spectrophotometer, Perkin Elmer	Working

60.	Water Column Chromatography	Working
61.	Atomic Absorption Spectrophotometer (Elico)	Working
62.	HPLC	Working
63.	Honey box packaging machine	Working
64.	*Corcyra* egg cleaning machine	Working
65.	Deep Freezer	Working
66.	Honey bottle packaging machine	Working
67.	Frost Freeze	Working
68.	Thermostat Blower Lunar Comp	Working
69.	Digital FPM – 125 Sl. No. 2190 SYSTRONICS	Working
70.	FPM Compressor Unit -122 Sl. No. 5040 SYSTRONICS	Working
71.	Photoperiodic timer	Working
72.	Spectro colorimeter 103 SYSTRONICS Sl.NO. 1324	Working
73.	Falcon Garden Tools	Working
74.	Godrej Eon Freezer	Working
75.	Digital Vernier Caliper a) Absolute Digi Matic b) Stainless Hardened	Working
76.	Digital Pocket Refractometer ATAGO	Working
77.	Digital Light Meter Model HTC LX-103	Working
78.	Gas Set	Working
79.	Plastic Desiccator	Working
80.	Soil Moisture Meter Model KS-D1 DELMHORST INST.CO.	Working

6.4.5. Conduct of Practical and Hands-on-Training:

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much of the learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

Details of Agricultural Tools and Implements

Sl. No.	Name of tools & Implements	Number	Status of equipment
1	Hedge Cutter	1	Working
2	Lawn Mover	1	Working
3	Ladder	1	Working
4	Cutting Knife	15	Working

Details of Implements, Farm Infrastructure and facilities

Sl. No.	Name of Implements at Farm Infrastructure	Number	Status of equipment
1.	Tractor	02	Working
2.	Disc harrow	01	Working
3.	Cultivator	01	Working
4.	Rotavator	01	Working
5.	MB plough	01	Working
6.	Four-wheel trolley	01	Working
7.	Power tiller	01	Working
8.	Storehouse	01	Working
9.	Implement shade	02	Working
10.	Green Net Shade	02	Working

The details information regarding how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements area sunder

Level	Practical Class Rooms	No. of students getting hands-on-training	Courses as per Vth Dean's Committee	Practical Classes
UG	07	370	All Courses of UG	All the students of each session is divided in two split batches and practical conducted as per syllabus

Class-wise average number of students in theory and practical classes

Name of the Degree Programme	Class	Batch of Students in theory class	Batch of Students in practical class
B.Sc.(Agri.) Hons	B.Sc.(Agri.) Hons IV year	78	39
	B.Sc.(Agri.) Hons III year	85	43
	B.Sc.(Agri.) Hons II year	94	47
	B.Sc.(Agri.) Hons I year	113* (05 students are yet to join the campus after lockdown due to COVID-19 pandemic	54
Total UG Students		**370**	

6.4.6. Supervision of students in PG/PhD programmes: Number of students being supervised by Faculty in case of Masters/Ph.D Programme (as per ICAR/UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

(NOT APPLICALBE FOR UG PROGRAMME)

6.4.7. Feedback of stakeholders (Students, parents, industries, employers, farmers etc.):

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feed back?

Feedbacks to teaching, training and extension activities have always been collected from respective stakeholders.

a) Students' corners: The college organizes a one day awareness programme for the newly admitted students to make them aware about the college, its education system, anti-ragging acts, andother rules and regulations of the academic at the initial stage of start of every academic session. All the faculty member of college, all hostel wardens, Student welfare officer, Medical unit staff, are compulsorily present during the programme to explain their parts and roles in the college.

b) Orientation Programme: Programmes are always being organized for the betterment of farming and rural youth. Farmers are also motivated by giving them farmers awards.

Couples of feedbacks from students received are presented below as sample:

College of Agriculture
Central Agricultural University, Imphal, Manipur

STUDENT FEEDBACK FORM

1. Name of the student: Rom Prasad Singh
2. Admission No.: 14A-1391
3. Academic Year: 2021-23
4. Name of programme studied: M.Sc. Ag (Horticulture)
5. Designation: Student
6. Mobile No: - 8132462775
7. Email id: - Singh.romprasad705@gmail.com
8. Hostel:

S.No.	Parameters	Ranking
1.	Curriculum & its lab of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation.	1
2.	Quality of teaching skills and ICT as practiced by faculty to facilitate teaching and give quality education	3
3.	Teaching quality, fairness in the assessment processes (internal evaluation, exam, assignments etc.) and freedom to adopt new technique/ evaluation tools.	2
4.	Opportunities in the college for research activities & relevance with practical / lab work.	1
5.	Curriculum has provisions for supporting higher education career orientation/employability.	2
6.	Overall learning experience	2

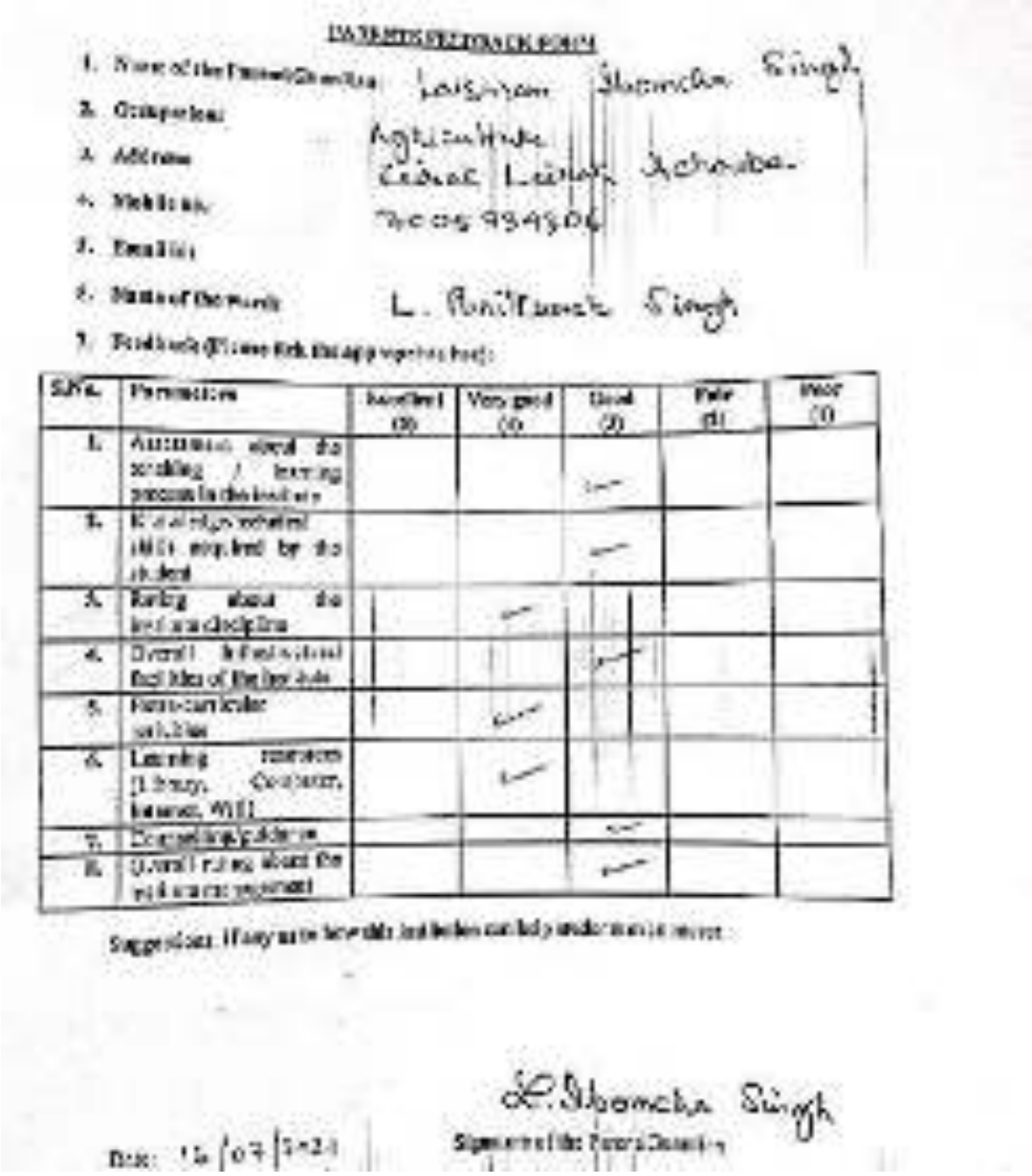
* Select your ranking on the scale of 1 to 5 for each of the above mentioned parameters
(1 – excellent, 2 – very good, 3 – good, 4 – fair, 5 – poor)

Recommendations if any for course improvement:

Research Contingency may be Provided for PG Students.

Rom Prasad Singh.
Signature of the student

Feedback from Parents



PARENTS FEEDBACK FORM

1. Name of the Parent/Guardian: L. Shamchan Singh
2. Occupation: Agriculture
3. Address: Cachar, Lailan, Achouba
4. Mobile no.: 9612994506
5. Email id:
6. Name of the ward: L. Ashitanch Singh
7. Feedback (Please tick the appropriate box):

Sl.No.	Parameters	Excellent (3)	Very good (4)	Good (2)	Fair (1)	Poor (0)
1.	Attention given by the teaching / learning process in the institute			✓		
2.	Knowledge imparted/ skills acquired by the student			✓		
3.	Ranking status of the institute/discipline		✓			
4.	Overall infrastructural facilities of the institute			✓		
5.	Extra-curricular activities		✓			
6.	Learning resources (Library, Computer, Internet, Wifi)		✓			
7.	Counselling/guidance			✓		
8.	Overall rating about the performance/ personality			✓		

Suggestions, if any to be provided for further consideration by the institute/university:

L. Shamchan Singh

Date: 16/07/2021 Signature of the Parent/Guardian

PARENTS' FEEDBACK FORM

1. Name of the Parent/Guardian: Chingangbam Bhanu Devi
2. Occupation: Homemaker
3. Address: Lamdeng Kolka Sabai, Lamdeng Bazar, Imphal West
4. Mobile no.: 9366477902
5. Email id: —
6. Name of the ward: Chingangbam Kumar Chanu
7. Feedback (Please tick the appropriate box):

S.No.	Perception	Excellent (5)	Very good (4)	Good (3)	Fair (2)	Poor (1)
1.	Awareness about the teaching / learning process in the institute		✓			
2.	Knowledge/technical skills imparted by the student:			✓		
3.	Rating about the facilities	✓				
4.	Overall infrastructural facilities of the institute			✓		
5.	Extra-curricular activities		✓			
6.	Learning resources (Library, Computer, Internet, WiFi)			✓		
7.	Overall hygiene			✓		
8.	Overall rating about the institute management		✓			

Suggestions, if any as to how this institution can help to improve more:

Date:
15th July 21

Signature of the Parent/Guardian
Ch. Bhanu Devi

PARENTS FEEDBACK FORM

1. Name of the Parent/Guardian: Thokchom Joykumar Singh
2. Occupation: Retd. Agriculture Officer
3. Address: Sagolband Salam Leikai, Imphal
4. Mobile no.: 9436035638
5. Email id:
6. Name of the ward: Amitta Thokchom
7. Feedback (Please tick the appropriate box):

S.No.	Parameters	Excellent (5)	Very good (4)	Good (3)	Fair (2)	Poor (1)
1.	Assessment about the teaching / learning process in the institute	√				
2.	Knowledge/technical skills acquired by the student	√				
3.	Rating about the institute discipline	√				
4.	Overall infrastructural facilities of the institute		√			
5.	Extra-curricular activities	√				
6.	Learning resources (Library, Computer, Internet, Wifi)		√			
7.	Counselling/guidance	√				
8.	Overall rating about the institute management		√			

Suggestions, if any as to how this institution can help its students even more:

Date: 16/07/2021

Signature of the parent/guardian

6.4.8. Student intake and attrition in the programme for last five years: Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

Name of the Degree Programme	Actual student admitted in last five years					Attrition (%)				
	(16-17)	(17-18)	(18-19)	(19-20)	(20-21)	(16-17)	(17-18)	(18-19)	(19-20)	(20-21)
B.Sc. (Ag) Hons	82	94	103	95	113	nil	nil	8.8.73 (09 student)	1.05 (01 student)	15.92 (18 students)

6.4.9. ICT Application in Curricula Delivery: The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

The College has two computer centers at Academic Block – I and II. At present, there are 32 computers in computer labs with printer facility and internet wi-fi facility. The departments are also provided with computers and teaching aids. Faculties are well versed with tools of ICT and therefore they incorporate video, photos and tutorial for easy and clear cut understanding of teaching syllabus. Faculties have developed their online test system to provide real atmosphere of quality examination using tools like Google Form, Google Meet, Zoom etc.

6.4.10. The information pertaining to 6.4.1to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean College of Agriculture, Central Agricultural University, Iroisemba, Imphal, Manipur hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date &Seal

SSR
for
M. Sc. (Ag.) Programme

SSR REPORT OF DEPARTMENT OF AGRICULTURAL ECONOMICS

6.4. SELF STUDY REPORT FOR DEGREE PROGRAMME

6.4.1 Brief History of the Degree Programme

Background information

The department has started in the year 2003-04 with admission of 2 students and till date total 29 students have received the MSc degree in Agricultural Economics. The objective of the Department is, to become a centre of excellence in teaching, research and extension education in the discipline of Agricultural Economics. The Department envisages in supplying human resources to the north eastern as well as other states of India and provides solution to different economic issues vis-à-vis agriculture which helps the farmers of the north eastern region and policy makers. The Department offers courses to BSc (Ag) and MSc (Ag) Students. The department admits students from ICAR-JRF and CAU entrance examination. The MSc students receive NTS as well as University merit scholarship.

The mission, vision, mandate, goal objectives and thrust areas of the Department is given below.

Mission

i) To create manpower in area of specialization to Agricultural Economics

ii) To achieve sustainable socio-economic development of the farming community

Vision

In accordance with the vision of CAU, Imphal the vision of College of Agriculture, Imphal is to produce world class professionals who are equipped to meet the demands of global outfit, have analytical abilities and entrepreneurship for making career of self-employment and as contributors, to livelihood and food/nutritional security.

Mandate

- Shortage of trained manpower in discipline(s) of Agricultural Economics.
- Survey and suggest suitable measure for socio-economic development of farmers.

Thrust Areas

With respect to human resource development, research and extension education activities the College has setup following thrust areas

i) Human Resource Development

Human resource development in the discipline of Agricultural Economics

ii) Research

- Economics of natural resources, animal products and impact studies of Covid-19 Pandemic and ICTs
- Reforms in Agricultural Policies and gender equity, finance, livelihood security through agriculture & allied sectors
- Value chain of Agri and allied products and Rural Development
- Organic Food business and its potential analysis in domestic and international markets.
- Economic Valuation of Organic Farming, Rural Tourism and indigenous agri and allied products in North East Hill Regions of India
- Economic analysis of different successful models like; kiwi cultivation, *Jebo*, *apatani*, rubber plantation, *jhum*, and CAU R1
- Studies on jhum and implications of climate change on jhuming including the applicability of adoption of climate resilient and climate smart technology in which researcher may consider the economies and diseconomies of scale
- As the region is highly deficit in infrastructural aspects therefore, studies on infrastructural changes especially in agricultural sector of the region need to study
- District level cluster wise cropping pattern optimization plan should be developed for next 5-

10 years

M. Sc. Degree Programme

The Department of Agricultural Economics is one of the major departments under Agricultural teaching system as per the 5th Deans committee. Since the establishment of the College of Agriculture, Iroisemba, the Department of Agricultural Economics is engaged in teaching of the B.Sc. (Agri) students as per the course curriculum of ICAR and latest by as per 5th Deans Committee. Later on M.Sc. (Agri), Agricultural Economics started with admission of students from ICAR-JRF and as well by CAU entrance examination.

Department of Agricultural Economics

The mission of the Agricultural Economics Department of COA, Iroisemba to be a centre of excellence in teaching and research in the discipline so as to suggest suitable policy measures in NEH region.

With the help of two permanent and two guest faculty and one Faculty from headquarters the Department is contributing for the running of B.Sc. (Agriculture) and M.Sc. (Agricultural Economics) programme. The M.Sc. (Agri) students are getting the following scholarships & Fellowships.

Scholarships & Fellowships

- ICAR-JRF including NTS - CAU
- University fellowship

Statistics of M.Sc. (Agri) degree programme (2016-17 to 2020-21)

Year of Admission	Admitted			Dropped			Completed			Remarks
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	
2016-17	2		2	1	-	1	1		1	
2017-18	3		3	-	-	-	2		2	1 student continuing
2018-19	1	3	4	-	-	-	0	3	3	1 student continuing
2019-20	3	1	4	1	-	1	-	-	-	In progress
2020-21	4	3	7	-	-	-	-	-	-	In progress
Total	**13**	**7**	**20**	**2**	**-**	**2**	**3**	**3**	**6**	

Award of CAU, GOI & ICAR authorities' Scholarships

M.Sc. (Agricultural Economics)	Scholarship Type			
	University Scholarship (CAU)	ICAR scholarship (NTS)	SC/ST Fellow Ship	GOI Scholarship (SC+ST)
2016-17	2		-	-
2017-18	3		-	-
2018-19	4		-	-
2019-20	2	1(NTS)	-	-
2020-21	4	3 (NTS)	-	-
TOTAL=	**15**	4	-	-

6.4.2. FACULTY STRENGTH

At the Department of Agricultural Economics, College of Agriculture, Iroisemba the following Faculty members/Scientists and staffs are associated in teaching and guiding the students of B.Sc. (Agri) and M.Sc. (Agri) level courses during 2016-2020.

S. No.	Sanctioned Faculty	Faculty in place	Vacant position	AICRP Scientists/Guest Faculty/Teacher Contract
1	Professor	0	0	1 from Visva Bharati University, Santiniketan, 1 from CAU, Imphal –Director of Instruction
2	Associate Professor	1	0	1 Senior Scientist from ICAR RC for NEH region, Manipur Centre
3	Assistant Professor	2*	1	0
Total		3	0	3

** All the faculty were assigned the responsibility for the multiple programme (Bachelor level, P.G. level Levels)*

*** 1 Assistant Professor is promoted to the Professor under Career Advancement Scheme (CAS) and one has retired 2 years back**

Information regarding faculties teaching (Agricultural Economics) programme

Name	Designation and Affiliation	Qualification	Teaching
Y Chakrabarty Singh	Professor* CoA, Imphal	PhD	BSc, MSc
SM Feroze	Associate Professor	PhD	BSc, MSc
Dr. BC Roy (Guest Faculty)	Prof (Agricultural Economics), Visva Bharati, WB	PhD	BSc, MSc
Dr. Basanta Singh	Director Instruction CAU	PhD	MSc
Dr. Rishikanta Singh	Senior Scientist, ICAR RC for NEH, Imphal	PhD	BSc, MSc

**original position is Assistant Professor, promoted through CAS*

Information regarding faculties guiding MSc (Agricultural Economics) programme

Name	Designation and Affiliation	Qualification
Y Chakrabarty Singh	Professor* CoA, Imphal	PhD
SM Feroze	Associate Professor CoA, Imphal	PhD
S. Basanta Singh	Director Instruction CAU, Imphal	PhD
Rishikanta Singh,	Senior Scientist, ICAR RC for NEH, Imphal	PhD

*original position is Assistant Professor, promoted through CAS

Courses offered by permanent teachers

Sl. No.	Course no	Course title	No. of credits	Course Leader
1	AGECON-501	Micro-economic Theory and Applications	2+0=2	Y Chakrabarty Singh (Leader)/ SM Feroze
2	AGECON 502	Evaluation of Economic Thought	1+0=1	SM Feroze
3	AGECON-503	Macroeconomics and policy	2+0=2	SM Feroze
4	AGECON-504	Agricultural Production Economics	1+1=2	Y Chakrabarty Singh
5	AGECON-505	Agricultural Marketing and	2+1=3	SM Feroze*

		Price Analysis		
6	AGECON-506	Research Methodology for Social Sciences	1+1=2	Y Chakrabarty Singh
7	AGECON- 507	Econometrics	2+1=3	Y Chakrabarty Singh (T) / SM Feroze (P)
8	AGECON-508	Linear Programming	1+1=2	Y Chakrabarty Singh
9	AGECON-509	Agricultural Finance and Project Management	2+1=3	SM Feroze*
10	AGECON-591	Master's Seminar	1+0=1	Y Chakrabarty Singh
11	AGECON-599	Master's Research		Y Chakrabarty Singh/ SM Feroze

* Guest Faculty is also involved

6.4.3. TECHNICAL AND SUPPORTING STAFF

Sl. No.	Assistant	Sanctioned	In position	Faculty recommended by the ICAR/ 5th Dean's Committee	Deviation
1	Assistant	1	1*	1	1
2	Lab Assistant	1	1*	1	1

* temporary

6.4.4. CLASSROOMS & LABORATORY

PG Class room: 1 in number which is sufficient to complete course curricula as the PG student strength is only 7 per batch. The room is also used for different seminars.

PG Lab: The department has at present one PG Economics Laboratory. The lab is equipped with furniture, and 7 computers with UPS. The students use R, GRETL softwares in the laboratory. The laboratory facility is sufficient for PG students. The department also uses the common computer lab facility for using SAS, SPSS etc.

Number of M.Sc. student qualified SRF during the last 5(five) years (2016-2020)

Sl. No.	Name of the student	ARS /JRF / SRF	Year
1	Mr. O. Krishnadas Singh 37A-17(M) **/ U-17-MN-01-002-M-A-664**	ICAR SRF qualified with Fellowship at PAU, Ludhiana	2019

6.4.5. CONDUCT OF PRACTICAL AND HANDS-ON-TRAINING

There are manageable number of students who are kept in one batch during Theory & Practical classes to ensure better delivery of information, encourage students' participation and active monitoring. The PG students are given hands on training using laptops. Emphasis is given on imparting training on how to handle statistical tools and develop problem solving capabilities. The practical notebook is filled up in the practical class itself and signed by the teacher so as to reduce the burden of students.

Average number of students in theory and practical classes

S. No.	Name of the degree programme	Batch of student in theory	Batch of student in practical
1.	M.Sc. (Agricultural Economics)	1	1

6.4.6 SUPERVISION OF STUDENTS IN M.Sc. PROGRAMME

There are sufficient numbers of qualified and experienced faculties who are guiding MSc students in the area of Agricultural Economics. The names of the faculties who are entitled to guide MSc students are given below along with the number of students guided and currently guiding. The

university norms for becoming a research guide is followed to allow a faculty to guide a student.

S. No.	Name of the faculty	Designation	Qualification	Experience	No. of students guided		No. of students guiding	
					MSc	PhD	MSc	PhD
1)	Y Chakrabarty Singh	Professor	Ph.D.	32 years	15	-	3	-
2)	SM Feroze	Assoc. Professor	PhD	10 years	12	2	2	-
3)	S. Basanta Singh	DI*, CAU	Ph.D.	28 years	2	0	1	-
4)	Rishikanta Singh	Senior Scientist	Ph D	10 Years	2	0	1	-

* DI =Director of Instruction

Number, name and thesis title of MSc (Ag) Agricultural Economics in last five years

S.No.	Name	Year		Title	Supervisor
1	Mr. H. Lalnunsanga 49(A)-16M / CAU/327-A/16(M)	2016-17	Nov. 2018	Economics of Pig Production and Marketing in Imphal West District of Manipur	Dr. Y. Chakrabarty Singh
2	A. Elavarson 5A-17(M) / 1-17-MN-01-002-M-A-634	2017-18	June 2019	Economics of Winter Vegetables Marketing in Bishnupur District of Manipur	Dr. Y. Chakrabarty Singh
3	O. Krishnadas Singh 37A-17(M) / U-17-MN-01-002-M-A-664	2017-18	June 2019	Economics of Milk production and Marketing in Thoubal District of Manipur	Dr. Y. Chakrabarty Singh
4	Th. Kanyalaxmi Devi 8(A)-18M	2018-19	2021	An economic analysis of Paddy-Fish farming system in Bishnupur district of Manipur.	Dr. S. Basanta Singh
5	Kenjit Tongbram 32(A)-18M	2018-19	Cont.	Production and marketing of French Bean in Bishnupur district of Manipur - An economic analysis.	Dr. Y. Chakrabarty Singh
6	Sushnim Golay 40A-18(M)	2018-19	2021	Production and marketing of organic large Cardamom in Sikkim - An economic analysis.	Dr. S. Basanta Singh
7	H. Gayathri 48A-18(M)	2018-19	2021	Economics of production of Rapeseed and Mustard in Imphal West district of Manipur.	Dr. Y. Chakrabarty Singh

6.4.7 FEED BACK OF STAKE HOLDERS

In our University most of the faculty members are made Advisor of students. There has to be at least one meeting of the students with their Advisors. Students raised their various problems (academic, personal etc.) with the Advisor. The Advisors helped the students to solve their problem. In case, help of some particular faculty member/staff/Dean were needed, Advisors took their help and solved the problem. Six monthly student-teacher interactions are held specifically to understand the issues related to student. After each semester our students and parents give their feedbacks. Some of them are given below

6.4.8 STUDENT INTAKE AND ATTRITION IN THE PROGRAMMEFOR LAST FIVE YEARS

Name of the Degree Programme	Actual student admitted in last five years					Attrition (%)				
	2016-17	2017-18	2018-19	2019-20	2020-21 (CurrentYear)	2016-17	2017-18	2018-19	2019-20	2020-21 (CurrentYear)
MSc Agricultural Economics	2	3	4	4	7	50	0	0	25	0

6.4.9 ICT APPLICATION IN CURRICULA DELIVERY

College is having a well-equipped Computer Lab with Internet Lan Connection. All the departments and various externally funded Projects are having Computer facilities which were used for teaching, practical, project work analysis etc. of students. The college is having a system (e-collection) through which students deposited their fees etc. online itself. All the funds either from the University or from various funding agencies for various outside funded projects were/are deposited in the college account through Public Finance Management System. Wi-Fi availability and internet services are available in the whole campus (Academic buildings including class rooms, hostels, residential colony).

Our Library is having sufficient Books for use by the Students. It is also having various facilities where student can go through various Journals, Books etc. online either in the Library or Class Rooms or Departments or in their Hostel rooms etc. The Library provides Circulation and reference services. The library has also access to online e-journals through CERA (Consortium for e-Resources in Agriculture) and IP address has been activated to access the online journals through CERA. Photocopying & Printing facilities are also available in the library. Students used all these facilities during the period under report.

The teachers use PPTs in delivery of lectures. The students are taught the use of different statistical softwares like SPSS, EVIEWS etc for completing their curricula.

6.4.10 The information pertaining to 6.4.1 to 6.4.9 has been provided for PG programme *i.e.,* M.Sc. (Agri) in Agricultural Economics of College of Agriculture, Iroisemba, Manipur is correctly.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificates of the Awards

I, the Dean Prof. Indira Sarangthem hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date &Seal

M.SC. (Ag) PROGRAMME IN AGRONOMY

6.4. SELF STUDY REPORT FOR DEGREE PROGRAMME

6.4.1Brief History of the Degree Programme

Back ground information

Keeping in view the high potential of applications of agricultural technological interventions in improving the agricultural scenario of NEH region blessed with abundant natural resources and to address to the issues of shortage of trained human resource in Agronomy, the than Manipur Agriculture College was upgraded to College of Agriculture, under Central Agricultural University (CAU) by an act of parliament in 1993. The first batch of PhD programme was started in the year 2015 with admission of two students, one is from ICAR-SRF and another is from CAU entrance examination.

The mission, vision, mandate, goal objectives and thrust areas of the college is given below.

Mission

To be the centre of excellence in teaching, research and extension activities in the discipline of Agronomy for increasing the productivity and quality of crop and maintaining the soil health.

Vision

In accordance with the vision of CAU, Imphal the vision of College of Agriculture, Imphal is to produce world class professionals who are equipped to meet the demands of global outfit, have analytical abilities and entrepreneurship for making career of self-employment and as contributors, to livelihood and food/nutritional security.

Mandate

- Shortage of trained manpower in discipline(s) of Agronomy.
- Utilization of the natural resources for the sustainable agriculture with a special preference to the North East India, a hub of organic farming.

Thrust Areas

With respect to human resource development, research and extension education activities the college has set up following thrust areas;

i) Human Resource Development

Human resource development in the discipline of Agronomy.

ii) Research

- Development of suitable Agro-techniques for different crops to increase the production,quality and income
- Suitable technology for organic farming of selected crops like aromatic black aromatic rice.
- Alternative/ improve system in Jhum cultivation
- Development of suitable cropping system which are remunerative and eco-friendly

iii) Extension Education

Undertaking variety of extension education activities for transfer of technology through involvement of farmers, researchers, manufactures and extension education functionaries for promoting adoption of improved Agro- techniques for higher productivity and profitability to the farming community of the region.

M.Sc . Degree Programme

Agronomy is one of the major departments under Agricultural teaching system as per the 5th Deans committee. Since the establishment of the College of Agriculture, Iroisemba, the Department of Agronomy is engaged in teaching of graduate, Post-graduate and Ph.D students as per the course curriculum of ICAR and latest by as per 5th Deans Committee. M.Sc in Agronomy started since inception of the Central Agricultural University in 1993 with the admission of students from ICAR-JRF as well as by CAU entrance examination during the last five years.

Department of Agronomy

The mission of the Agronomy Department of COA, Imphal to be a centre of excellence in teaching, research and extension education in the discipline of weed management, water management, nutrient management of different field crops, cropping system, organic farming with special reference to NEH region.

Statistics of M.Sc. (Agronomy) degree programe (2015-16 to 2020-21)

Year of Admission	Admitted			Dropped			Passed			Remarks
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	
2015-16	3	3	6							All Completed
2016-17	2	4	6							All Completed
2017-18	3	3	6	-	-	-	-	-	-	All Completed except 1
2018-19	3	5	8	-	-	-	-	-	-	All Completed except 1
2019-20	4	2	6	-	-	-	-	-	-	Yet to complete
2020-21	1	2	3	-	-	-	-	-	-	Yet to complete
Total	16	19	35	-	-	-	10	14	24	

6.4.2. FACULTY STRENGTH

At the Department of Agronomy, College of Agriculture, Imphal the following Faculty members/Scientists and staffs are associated in teaching and guiding the students of B.Sc(Ag), M.Sc (Ag) and Ph.D level courses during 2015-2020.

Faculty	Number	Permanent	On contract/ from other sister organizations/guest	Faculties involved in teaching of M.Sc Agronomy
Professor	4	4	-	4
Associate Professor	1	1	-	1
Assistant Professor	1	1	-	1

**All the faculty were assigned the responsibility for the multiple programme (Bachelor level, PG level and Ph.D Levels)*

Information regarding the designation and qualification of various faculty members are given below

Information regarding faculties teaching and guiding M.Sc.(Agronomy) programme

Classification of Courses	Title of Course	Faculty	Qualification
Major Subject	Modern concept in crop production	Dr. M Sumarjit Singh, Prof Dr K. Nandini Devi, Prof	Ph.D
	Principles and practices of soil fertility and nutrient management	Dr. M Sumarjit Singh,Prof. Dr K. Nandini Devi, Prof	Ph.D
	Principles and practices of weed management	Dr K. Nandini Devi, Prof Dr L. Nabachandra Singh,Prof.	Ph.D

	Principles and practices of water management	Dr. Edwin Luikham,Prof. . Dr K. Nandini Devi, Prof	Ph.D
	Agronomy of major cereals and pulses	Dr L. Nabachandra Singh,Prof Dr. J. Lhungdim, Asst Prof	Ph.D
	Agronomy of oilseed, fibre and sugar crops	Dr. Edwin Luikham,Prof. Dr. J. Lhungdim, Asst Prof.	Ph.D
	Principles and practices of organic farming	Dr. M Sumarjit Singh,Prof Dr. Edwin Luikham,Prof.	
Minor Subject	Soil erosion and conservation	Dr. A. Herojit Singh, Prof	Ph.D
	Soil water and air pollution	Dr. A. Herojit Singh, Prof	Ph.D
	Management of problematic soils and water	Dr N. Surbala Devi	Ph.D
Supporting Subjects	Statistical methods for applied sciences	Shri. N Gopimohan Singh, Assoc. Prof.	Ph.D
	Experimental designs	Dr. N. Oken Singh, Prof.	PhD
Seminar	Master's Seminar (1+0)	Dr. J. Lhungdim, Asst Prof	Ph.D
Research	Master's Research(**0+20**)	Dr Edwin Luikham, Prof. Dr L Nabachandra Singh, Prof. Dr M. Sumarjit Singh. Prof. Dr Nandini Devi. Prof. Dr. J. Lhungdim, Astt.Prof.	Ph.D Ph.D PhD PhD

6.4.3. TECHNICAL AND SUPPORTING STAFF

S. No.	Name of the post	Number
1.	Lab- cum- field Assiatant	1
2.	MTS	1

6.4.4. CLASS ROOMS & LABORATORY

There are sufficient classrooms in various divisions, which are being used by the students of M Sc. (Agronomy). There are various labs which are being utilized by different UG, PG & Ph.D. Programs. These labs are well equipped as per the recommendations of various Dean's Committee.

List of the Equipment's at Department of Agronomy, College of Agriculture, CAU(I)

6.4.5. CONDUCT OF PRACTICAL AND HANDS-ON-TRAINING

There are manage able number of students who are kept in one batch during Theory & Practical

S No	Name of the equipment
1.	Electronic balance
2.	water distillation set
3.	Hot air oven
4.	Mechanical shaker
5.	N-analyzer set
6.	Spectrophotometer
7.	Flame photometer
8.	pH meter
9.	BOD incubator
10.	Tensiometer
11.	Leaf area meter
12	Infra-red thermometer
13.	Luxmiter

classes to ensure better delivery of information, encourage students 'participation and active monitoring. Students conducted their practical training in Laboratory, research field of the college, visit experimental fields of other institutes.

Average number of students in theory and practical classes

Sl. No.	Name of the degree programme	Batch of student in theory	Batch of student in practical
1.	**M.Sc.(Agronomy)**	Full strength	Full strength

A. 6.4.6 SUPERVISION OF STUDENTS IN M.SC. PROGRAMME

There are sufficient numbers of qualified and experienced faculties who are guiding M.Sc. students in the area of Agronomy. The names of the faculties who are entitled to guide M.Sc students are given below.

S. No	Name of the faculty	Designation	Qualification	Experience	No. of students guided/guiding	
					Guided	Guiding
1)	Dr. Edwin Luikham	Professor	Ph.D.	29 years	18	4
2)	Dr. L.Nabachandra Singh	Professor	Ph.D.	31 years	21	2
3)	Dr.M.Sumarjit Singh	Professor	Ph.D.	31 years	19	2
4)	Dr. K. Nandini Devi	Professor	Ph D	16 Years	11	2
5.	Dr. J. Lhungdim	Asstt. Prof.	Ph D	12 Years	6	2

a. MSc students have completed their degree programme in the last five years

S. No.	Name & Admission No.	Thesis title
1	Aswin C 2A-15(M)	Agronomic Manipulation of Indain Mustard *(Brassica junces L.)* for Yield Optimization under Protected Irrigation of late Sown Condition
2	Nilanjana Halder 34A-15(M)	Studies on the Effect of Sowing Techniques and Seed rate on the Productivity, Economics and Energetic of Direct Seeded Rice (*Oryza satva* L.) Rainfed Medium land Condition
3	Langpei Pamei 18A-15(M)	Yield Performance of Different Summer Mung (*Vigna radiate* L.) Varieties Sown at Different Dates under Manipur Valley Condition
4	Mary Chongtham 15A-16(M)	Studies on Pea (*Pisum sativum* L.) based Intercropping System with Indian Mustard (Brassica juncea L.) on Growth, Yield an
5	Devaraja 46A-16(M)	Response of Broad Bean (*Vcia faba* L.) to Tilage and Crop Establishment Mathods in Conjunction with Nutrient Management on Growth, Yield and Economics
6	A Abel Arche 3A-16(M)	Effect of Rice Husk Mulching on the Yield of Local Variety Pea (Makhatmubi) *Pisum satvum* L.
7	Naorem Meena Devi 31A-16(M)	Influence of Phosphorus and Potassium on Growth and Yield of Black Aromatic Rice (Chak-hao)
8	Tophia Yumnam 25A-16(M)	Influence of Phosphorus on Growth and Yield of Promising Varieties of Lentil (*Lens culinaris* L. Medik)
9	T Malemnganbi 26A-16(M)	Influence of Different Doses of Pyrazosulfuron-Ethyl and Establishment methods on the Yield of lowland Rice (*Oryza sativa* L.)
10	Nurina Shahni 15A-17(M)	Studies on Different Crop Establishment Techniques and Nitrogen Management on Basmati Rice variety (*Pusa basmati* 1509)
11	Tabuiliu abonmai 14A-17(M)	Influence of Sowing Time and Integrated Nitrogen Management on Growth and Yield of local Glutinous Maize (*Zea mays* L)
12	Kamwenes Kazamba 46A-17(M)	Effect of Integrated Nitrogen Management on Yield of Potato (*Solanum tuberosum* L.) local Cultivar Alu Amubi
13	Kumar Sambhavgiri 13A-17(M)	Nitrogen Management in Direct Seeded Black Rice (*Oryza sativa* L.) Under Different Establishment Methods
14	N. Ananda kumar 25A-15(M)	Systematic approach on Agronomic research of SRI system of rice cultivation in Manipur
15	Emmanuel Sonkarlay 39A-18(M)	Influence of integrated phosphorus management on growth, yield and quality of lentil (Lens culinaris L. Medik.)
16	Mutum Dinamani 12A-17(M)	Effect of spacing and root trimming on growth, yield and economics of water mimosa (Neptunia prostrata L)
17	KPE Mounika 22A-18(M)	Resource conservation technology in pigeonpea (Cajanus cajan L. Millsp.) through tillage and mulching
18.	Thoudam Anupama Devi 19A-18(M)	Effect of chemical priming on drought tolerance and its impact on a few varieties of rice (Oryza sativa L.) under moisture stress condition.
21	Buru yalung 12A-18(M)	Effect of tillage and weed management practices on growth and yield of direct seeded rice under rainfed condition
22	Deva Daniel Anand 27A-18(M)	Effect of mulching on the performance of soyabean (Glycine max L. Merill)

23	Barnali Narayan 43A-18(M)	Influence of different nutrient management practices on the performance of rice variety CAU-R1 under different moisture regimes.
24	Bala Mani Kanta 47A-18(M)	Influence of nitrogen sources and application methods on nodulation and yield of soybean (Glycine max L. Merill)

b. List of students presently pursuing MSc (Agronomy) programme

1. Manish Pradhan, 24A-17(M)
2. Sorokhaibam Bijayalakshmi devi, 10A-18(M)
3. M. Prashant Singh, 10A-19(M)
4. N. Bhargavi Naga Kalyani, 23A-19(M)
5. M. Rabichandra Singh, 32A-19(M)
6. N. Sanatomba Singh, 33A-19(M)
7. V. Sathavahana Reddy, 40A-19(M)
8. Khomdrom Monika Devi, 55A-19(M)
9. Saithala Mounika, 2A-20(M)
10. Shandhini J, 38A-20(M)
11. Rupesh Dnyaneshwar Ganjare, 39-20(M)

c. Publication (From student's research work during last five years)

1. Kumar, R; E. Luikham; S, Babu and AK Singh (2017). Productivity, nutrient acquisition and economics of summer maize under various levels of phosphorus and potash in valley land of Manipur. Indian J. of Agril. Sci. 87(11): 1572-4.

2. Yumnam Sanatombi Devi; E.Luikham; J. Lhungdim and P. Irungbam (2017). Effect of integrated nitrogen management practices on growth and soil fertility in hybrid maize –PAC 740 variety. The Bioscan 12(3): 1503-1507.

3. Zothanmawii, E. Luikham and Ps.Mariam Anal (2018). Growth and yield of hybrid maize as influence by levels of nitrogen and biofertilizer. International Journal of Current Microbiology and Applied Sciences 7(8):1864-1873.

4. Naorem Meena Devi and E. Luikham (2018). Influence of phosphorus and potassium on growth and yield of black aromatic rice. Int. J. Curr. Microbiol.App.Sci. 7(8): 143 – 150.

5. Tophia Yumnam, E. Luikham and A. Herojit Singh (2018). Influence of phosphorus on growth and yield of promising varieties of lentil. Int. J. Curr. Microbiol.App.Sci. 7(8): 162 – 170.

6. Yumnam Sanatombi Devi; E.Luikham; M.S.Singh; J. Lhungdim and Y.Bebila Chanu (2018). Influence of integrated nitrogen management practices on yield attributes, yield, nutrient uptake and economics of hybrid maize (Zea mays L.). Int. J. Curr. Microbiol.App.Sci. 7(10): 2469 – 2476.

7. Tabuiliu Abonmai, E. Luikham, Kazamba Kamwenu and Kumar Sambhav Giri (2019). Influence of Sowing Time and Integrated Nitrogen Management on Growth and Yield of Local Glutinous Maize (*Zea mays* L.). *Int.J.Curr.Microbiol.App.Sci. 8*(6): 2512-2518.
8. Laikhuram Banarjee Singh, Herojit Singh Athokpam, Rajkumar Kumarjit Singh, K. Nandini Devi, Edwin Luikham and N.Okendro Singh (2019). Vertical distribution of micronutrient cations in the orange (Citrus rganized) orchard, Tamenlong district, Manipur, India. *Int.J.Curr.Microbiol.App.Sci. 8*(7): 1166-1177.
9. Ningthoujam Laxmi; Sarangthem, I; Luikham, E; Singh, Gopimohan, N and Sharma, L.D (2019). Evaluation of suitable extractant of boron in soil of Manipur. J. of Pharmacognosy and Phytochemistry 8(4):1154-1157.
10. Sonkarlay Emmanuel, E. Luikham and Herojit Singh Athokpam (2020). Effect of Chemical Fertilizer, Organic Manure and Biofertilizer on Nodulation, Yield and Economics of Lentil (*Lens culinaris* L. Medik.). *Int.J.Curr.Microbiol.App.Sci 9(8): 2653-2662.*
11. CK Chanu, I Sarangthem, NS Devi, E Luikham, NG Singh, LD Sharma(2020) Effect of

nitrogen and molybdenum on crop growth, yield and soil properties of pea in acid soil (Pisum sativum L.) *International Journal of Chemical Studies* 8 (5), 2023-2027

12. SakhenSorokhaibam, N. Anando Singh & L. Nabachandra Singh (2016): Effect of liming, planting time & tillage on system productivity, profitability & resource use efficiency of rice (*Oriza sativa*) – based cropping system under rainfed valley land condition. *Indian Journal of Agronomy:* 61(2): 138-147
13. P -Heisnam, A. Moirangthem, N.I. Singh, A.H. Singh &L. N. Singh (2017): Study on economic feasibility of some promising weedicides on shallow land transplanted rice (*Oriza sativa* L.) under rainfed condition. *Journal of Crop & Weed 13(1): 170-174.*
14. SakhenSorokhaibam, N. Anando Singh & L. Nabachandra Singh (2017): Effect of liming, planting time and tillage on system productivity, resource use efficiency & energy dynamics of rice (*Oriza sativa)* –lathyrus (*Lathyrussatives*) cropping syatem under rainfed lowland condition of NE India. *Legume Research 40(3): 506-513*.
15. Kumar S.G. L. Nabachandra Singh, P.K. Sarangi, Priyanka I., Tabuilui A. and Nurina Sh. (2019): Effect of nitrogen on growth and yield of direct seeded black aromatic rice (*Oryza sativa* L.).*International Journal of Chemical Studies 7(3): 3494-3496*
16. M. Dinamani,L. Nabachandra Singh,M. Dinachandra& N. Devachandra (2020): Economic analysis in different spacings of water-mimosa cultivation under Manipur valley condition.*Int. J. Curr. Microbiol. App. Sci. 9(7): 1-7*
17. Barnali Narayan, L. Nabachandra Singh, K. Nandini Devi, S. Jekendra Singh, N. Gopimohan Singh (2020) Influence of different nutrient management practices on the performance of Rice var. CAU-R1 under different moisture regimes. *Int. J. Curr. Microbiol. App. Sci. 9(9)*
18. KamwenuKamzamba, MS Singh*(2020).* Effect of integrated nitrogen management on yield of potato (*Solanum tuberosum* L.), Local cultivar, Alu Amubi. *IJCS, 7(3):4049-4052,*
19. Thoudam Anupama Devi, M.Sumarjit Singh, J Lhungdim, N.Surbala Devi, N.Gopimohan Singh and Ranjan Hijam (*2020).* Effect of chemical priming on growth characteristics of few varieties of rice (*Oryza sativa* L.) under moisture stress condition. *JPP, 9(5): 1528-1531*
20. YumnamSanatombi Devi, Edwin Luikham, Jamkhogin Lhungdim and PriyankaIrungbam (2017). Effect of integrated nitrogen management practices on growth and soil fertility in hybrid maize (*Zea mays*) PAC 740 variety. The Bioscan 12(3):1503-1507
21. K.Nandini Devi, Ksh. Manishwari Devi, J. Lhungdim, H.S. Athokpam, Y. BebilaChanu, Kh. Lenin Singh, and A. Dorendro Singh (2017) . Foliar application of potassium under water deficit conditions improved the growth and yield of wheat (T*riticumaestivum* L.) The Bioscan 12(3):1777-1787
22. T. Malemnganbi and J. Lhungdim (2019) .Influence of different doses of Pyrazosulfuron ethyl and establishment methods on the yield of lowland rice (Oryza siva L.) . Journal of Crop and Weed, 15 (1): 209-212
23. Langpei Pamei, Jamkhogin Lhungdim, Meghna Gogoi, Yumnam Sanatombi Devi and Santosh Korav(2020) .Effect of different dates of planting and varieties on the growth and yield of Summer mung (*Vigna radiate* L.) under Manipur valley condition .The Pharma Innovation Journal, 9 (4): 87-90
24. Lalitha Gollapudi, Hrojit Singh Athokpam, N. Surbala Devi, Jamkhogin Lhungdim and N. Gopimohon (2020) .Status and distribution of zinc in the soils of Thoubal district, Manipur, India. International Journal of Chemical Studies, 8 (5): 1752-1755
25. ThoudamAnupama Devi, M. Sumarjit Singh, J. Lhungdim,N.Surbala Devi, N. Gopimohon Singh and RanjanHijam(2020). Effect of chemical Priming on growth characteristics of few varieties of rice (*Oryza sativa*) under moisture stress condition Journal of Pharmacognosy and Phytochemistry, 9(5): 1528-1535

26. D. Daniel Anand, M. Sumarjit Singh, Jamkhogin Lhungdim, N. Surbala Devi and N. Gopimohan Singh(2020) Effect of Mulching on Growth and Yield of Soybean (*Glycine max* (L.) Merrill) International Journal of Current Microbiology and Applied Sciences, 9(9): 3313-3318
27. T. AkhilDev, N. Surbala Devi, Indira Sarangthem, Jamkhogin Lhungdim, N.Okendro Singh and Hiren Das(2020) Effect of rock phosphate, PSB and FYM on P concentration and dry matter yield of soybean (Glycine max) International Journal of Chemical Studies, 8 (6): 627-63
28. Gurjar G.N., Nandini Devi K., Meena Narendr Kumar and Kumar Rajesh (2017) "Effect of age of seedlings and number of seedlings per hill on growth and yield of manipur black scented rice (*oryza sativa* l.) cultivar Chakhao Poireiton" *International Journal of Agriculture Sciences* 25(9): 4311-4314.
29. Susmita Das, K Nandini Devi, Herojit Singh Athokpam, Jamkhogin Lhungdim, Mrinalini Longjam (2017) "Chickpea (*Cicer arietinum* L.) based Intercropping System with Repeseed (*Brassica napus* L.) on Growth,Yield and Competition Indices" *Environment & Ecology* 35 (1B) : 427—430
30. Mary Chongtham, K. Nandini Devi1, Nurina Shahni, Herojit Singh Athokpam, N. Gopimohan Singh, Kangujam Bokado and A. Dorendro Singh (2018)" Evaluation of Pea *(Pisum sativum*L.*)* and Indian Mustard *(Brassica juncea L.*) Intercropping System on Growth, Yield and Competition Indices" *Int.J.Curr.Microbiol.App.Sci 7*(7): 2502-2508
31. K. Nandini Devi, Rashmi Hajong, H.S. Athokpam, Mary Chongtham and A. Dorendro Singh (2018) "Response of Lathyrus (*Lathyrus sativus* L.) on Different Levels of Phosphorus and Row Spacing on Growth and Yield under Manipur Condition" *Int.J.Curr.Microbiol.App.Sci 7*(5): 1950-1957
32. K. Nandini Devi, Ganesh Narayan, K. Khamba Singh, M. Anandi Devi, Herojit Singh Athokpam and A. Dorendro Singh (2019)" Effect of Age and Number of Seedling per Hill on Growth and Yield of Black Scented Rice (*Oryza sativa* L.) Variety '*Chakhao Poireiton*' under Manipur Condition" *Int.J.Curr.Microbiol.App.Sci 8*(7): 1738-1745
33. Nurina Shahni, K. Nandini Devi, Mary Chongtham, Herojit Singh Athokpam and N. Gopimohan Singh(2019) "Studies on Different Crop Establishment Techniques and Nitrogen Management on Basmati Rice Variety (*Pusa basmati* 1509)" *Int.J.Curr.Microbiol.App.Sci* (2019) *8*(6): 2423-2429
34. K. Nandini Dev, Nilanjana Haldar, Herojit Singh Athokpam, K. Khamba Singh, M. Anandi Devi and A. Dorendro Singh (2019) "Influence of Sowing Techniques and Seed Rate on Growth and Yield of Direct Seeded Rice (*Oryza sativa* L.) under Rainfed Medium Land Situation" *Int.J.Curr.Microbiol.App.Sci 8*(8): 529-536
35. Buru Yalung*, K. Nandini Devi, J. Lhungdim, Herojit Singh Athokpam and N. Gopimohan(2020) "Effect of Tillage and Weed Management Practices on Growth and Yield of Direct Seeded Rice (*Oryza sativa* L.) under Rainfed Condition" *Int.J.Curr.Microbiol.App.Sci 9*(9): 1615-1624

d. Research project completed/ongoing during last five years

1. System approach on Agronomic research for adoption of SRI in Manipur (Funding agency- TATA TRUST)
2. Tribal sub plan project, Enhancing socio-economic status and livelihood security of tribal farmers of NEH states though Agricultural interventions (Funding agency - ICAR)
3. Identification of climate resilient food crops, traditional rice varieties of Manipur and their production enhancement through scientific manipulation having least impact to climate change. (Funding agency -DST)
4. Influence of mulching on production potential and economic of rainfed rice based cropping system in Manipur. (Funding agency - CAU)

5. Weed management study on direct seeded and transplanted rice under lowland condition of Manipur. . (Funding agency -CAU)
6. Field configuration and weed management techniques for Soybean production for enhancing socio-economic status of *Jhum* farmers of Manipur influenced by different tillage systems under rice fallow condition. (Funding agency -CAU)
7. Study on yield and economics of rapeseed-mustard as influenced by different tillage systems under rice fallow condition. (Funding agency -DST)

B. 6.4.7 FEED BACK OF STAKE HOLDERS

In our University most of the faculty members are made Advisor of students. There has to be at least one meeting of the students with their Advisors. Students raised their various problems (academic, personal etc.) with the Advisor. The Advisors helped the students to solve their problem. In case, help of some particular faculty member/staff/Dean were needed, Advisors took their help and solved the problem.

There was / is a register with the Student Welfare Officer of the College, in which any student can raise their problems (related to academic, hostels etc.).The Student Welfare Officer brought the problem to the notice of the Dean of the College. Dean discussed the issue with the Student/Group of Students/faculties/officials and took remedial measures.

During Farewell of the final year students they sometimes raised the problem faced by them during their stay of four years in the college. After knowing their problems Dean and Faculty tried to implement their suggestions.

In every Semester there was a meeting of Dean with representative of Students to discuss their problems related to teaching, hostels, etc. Generally Students raised their issue which used to be discussed in the meeting. The issues which can be solved at the College level were settled in the College itself. The issues which needed the attention of the Vice-Chancellor were sent to him for satisfactory solution.

CAU organized Agricultural Fair every year in various states of NEH. During these fair many parents visited these fairs. Many times parents also visited the college or talked to various officials over phone.During these visits and discussions they appreciate the facilities and academic atmosphere of the college. Sometimes they also made various suggestions. Many times college implemented these suggestions. Every Year College also organized Technology Demonstration Mela/ Farmers 'Agriculture Fair. Many farmers of NEH region visited these Mela /Fair. During their visit interaction between various faculties and farmers were held and we got their opinion regarding various academic works, hostels and other facilities of the college.

Extension council meeting of the college and University were regularly held every year. During these meeting, progressive farmers, members of FPO, members of SHG, state government officials, entrepreneurs etc. participated and gave their feedbacks and suggestions.

We have trained (through demonstration, short duration training, vocational training, training in the field etc.) many entrepreneurs & farmers during last five years in Agronomical aspects from various funded external as well as internal project.

The feedback received from few students are attached below:

College of Agriculture

Central Agricultural University, Imphal, Manipur

STUDENT FEEDBACK FORM

1. Name of the Student: SAITHALA MOUNIKA

2. Admission No: 2A-20(M)

3. Academic year: 2020-21

4. Name of the programme studied: M.Sc Ag(Agronomy)

5. Designation: Student

6. Mobile No: 8465901278

7. Email id: mouni.saithala@gmail.com

8. Feedback:

S.No.	Parameters	Rating
1.	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation.	**1**
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education	**2**
3.	Teaching quality, fairness in the assessment processes (internal evaluation, quiz, assignment ect.) and freedom to adopt new techniques/education tools.	**1**
4.	Opportunities in the college for research activities& relevance with practical / lab work	**1**
5.	Curriculum has prospects for supporting higher education career oriented/ employability.	**2**
6.	Overall learning experience.	**2**

Select your ranking on the scale of 1 to 5 for each of the above- mentioned parameters

(1-excellent, 2- very good, 3- good, 4- fair, 5- poor)

Recommended if any for course improvement:

Signature of student

College of Agriculture

Central Agricultural University, Imphal, Manipur

STUDENT FEEDBACK FORM

1. Name of the Student: KHOMDRAM MONIKA DEVI

2. Admission No: 55A-19(M)

3. Academic year: 2019-20

4. Name of the programme studied: M.Sc Ag(Agronomy)

5. Designation: Student

6. Mobile No: 8118907677

7. Email id: khomdramoni@gmail.com

8. Feedback:

S.No.	Parameters	Rating
1.	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation.	**2**
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education	**2**
3.	Teaching quality, fairness in the assessment processes (internal evaluation, quiz, assignment ect.) and freedom to adopt new techniques/education tools.	**2**
4.	Opportunities in the college for research activities& relevance with practical / lab work	**3**
5.	Curriculum has prospects for supporting higher education career oriented/ employability.	**2**
6.	Overall learning experience.	**2**

Select your ranking on the scale of 1 to 5 for each of the above- mentioned parameters

(1-excellent, 2- very good, 3- good, 4- fair, 5- poor)

Recommended if any for course improvement:

Signature of student

College of Agriculture

Central Agricultural University, Imphal, Manipur

STUDENT FEEDBACK FORM

1. Name of the Student: V. [redacted]
2. Admission No: [redacted]
3. Academic year: [redacted]
4. Name of the programme enrolled: B.Sc. Ag.(Agriculture)
5. Designation: Student
6. Mobile No: [redacted]
7. Email id: [redacted]
8. Feedback

S.No.	Parameters	Rating
1.	Curriculum & Syllabi of the courses provided in Central Agricultural University are good because [redacted]	1
2.	Usage of blackboard, audio and LCD in the class by faculty is [redacted]	2
3.	Teaching quality, fairness in the examination process (periodical evaluation, quiz, assignments etc) and freedom to share new knowledge is [redacted]	1
4.	Opportunities in the college for research and hands on training with [redacted]	2
5.	Counselling and guidance for study or any higher education courses [redacted]	2
6.	Overall academic environment	1

Kindly your ranking on the scale of 1 to 5 for each of the above parameters of performance.

(1-excellent, 2- very good, 3- good, 4- fair, 5- poor)

Recommendations if any for academic improvement:

Signature of student

6.4.8 STUDENT INTAKE AND ATTRITION IN THE PROGRAMME FOR LAST FIVE YEARS

6.4.9 ICT APPLICATION IN CURRICULA DELIVERY

Name of the Degree Programme	Actual students admitted in last five years						Attrition (%)					
Year / M.Sc. (Agron)	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
	06	06	06	08	06	03	-	-	6	06	05	07

College is having a well-equipped Computer Lab with Internet Connection, All the departments and various externally funded Projects are having Computer facilities which were used for teaching, practical, project work analysis etc of students. The college is having a system(e-collection) through which students deposited their fees etc. online itself. All the funds either from the University or from various funding agencies for various outside funded projects were/are deposited in the college account through Public Finance Management System. Wi-Fi availability and internet services are available in the whole campus (Academic buildings including classrooms, hostels, residential colony).

Our Library is having sufficient Books for use by the Students. It is also having various facilities where student can go through various Journals, Books etc. online either in the Library or Class Rooms or Departments or in their Hostel rooms etc. The Library provides Circulation and reference services. The library has also access to online e-journals through CERA (Consortium for e-Resources in Agriculture) and IP address has been activated to access the online journals through CERA. Photocopying & Printing facilities are also available in the library. Students used all these facilities during the period under report.

6.4.10. The information pertaining to 6.4.1 to 6.4.9 has been provided for PG programme *i.e,* M.Sc.(Agriculture) in Agronomy of College of Agriculture, Iroisemba, Manipur is correct.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section6.4 is liable to the verification at any stage.

6.4.12. Certificates of the Awards

I, the Dean Prof. Indira Sarangthem hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date &Seal

M.SC. (AG) PROGRAMME IN ENTOMOLOGY

6.4. SELF STUDY REPORT FOR DEGREE PROGRAMME

6.4.1. Brief History of the Degree Programme

Background information

Keeping in view the high potential of applications of agricultural technological interventions in improving the agricultural scenario of NEH region and to address to the issues of shortage of trained human resource in Entomology, College of Agriculture, Iroisemba, Central Agricultural University (CAU), Imphal. Initially this present Department was named as Zoology and Entomology, later on as per the ICAR-Deans committee norms, changed to Department of Entomology with teaching students of B.Sc. (Agri) and later M.Sc. (Ag), Entomology started with admission of students from ICAR-JRF and as well by CAU entrance examination.

Started M. Sc. programme: 1999

The mission, vision, mandate, goal objectives and thrust areas of the college is given below.

Mission

i) To create manpower in area of specialization to Entomology

ii) To achieve sustainable Plant Protection strategies

iii) To train farmers/ extension functionaries on Insect Pest Management

Vision

In accordance with the vision of CAU, Imphal the vision of College of Agriculture, Imphal is to produce world class professionals who are equipped to meet the demands of global outfit, have analytical abilities and entrepreneurship for making career of self-employment and as contributors, to livelihood and food/nutritional security.

Mandate

- Shortage of trained manpower in discipline(s) of Entomology.
- Utilization of the natural resources for the sustainable agriculture with a special preference to the North East India, a hub of organic farming.

Thrust Areas

With respect to human resource development, research and extension education activities the college has setup following thrust areas;

i) Human Resource Development

Human resource development in the discipline of Entomology.

ii) Research

- Finding the solution for the hill agriculture with conservation approach having organic base to increase production and productivity of crops by adoption/refinement/development of plant protection measures.
- Adoption/refinement/development of improved insect pest diagnosis.
- Adoption, promotion and development of improved techniques of pest management, in relation to climate change in the region.
- Adoption and promotion of use of different appropriate sustainable sources of Plant protection strategies in relation to crop specific, region specific.

iii) Extension Education

Undertaking variety of extension, education activities for transfer of technology through involvement of farmers, researchers, manufactures and extension education functionaries for promoting adoption of improved techniques of pest management strategies for higher productivity and profitability with reduced losses ensuring higher net returns to the farming community of the region.

M. Sc. Degree Programme

The Department of Entomology is one of the major departments under Agricultural teaching

system as per the 5th Deans committee. Since the establishment of the College of Agriculture, Iroisemba, the Department of Entomology is engaged in teaching of the B, Sc. (Agri) students as per the course curriculum of ICAR and latest by as per 5th Deans Committee. Later on M. Sc. (Agri), Entomology started in 2003 with admission of students from ICAR-JRF and as well by CAU entrance examination.

Department of Entomology

The mission of the Entomology Department of COA, Iroisemba to be a centre of excellence in teaching, research and extension education in the discipline of pest management, diagnosis, so as to reduce losses in crops in NEH region.

With the help of well-established labs including biocontrol laboratory, insecticide residue laboratory, molecular laboratory and honey bee disease diagnosis laboratory this Department is contributing for the running of B.Sc. (Agriculture), M. Sc. (Entomology) and Ph.D. (Entomology) programme. The M.Sc. (Agri) students are getting the following scholarships & Fellowships.

Scholarships & Fellowships

ICAR-JRF including NTS -CAU -University fellowship

Statistics of M. Sc. (Agri.) degree programme (2015-16 to 2020-21)

Year of Admission	Admitted			Dropped			Passed			Remarks
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	
2015-16	04	01	05	-	-	-	02	04	06	
2016-17	01	06	07	-	-	-	02	03	05	
2017-18	04	01	05	-	-	-	04	02	06	
2018-19	03	03	06	-	-	-	01	05	06	
2019-20	03	02	05	-	-	-	05	01	06	
2020-21	02	02	04	-	-	-	03	02	05	Works in progress for the students of2019 & 2020 Batch admitted
Total =	**17**	**15**	**32**	**-**	**-**	**-**	**17**	**17**	**34**	

Award of CAU, GOI & ICAR authorities' Scholarships

M.Sc. (Entomology)	Scholarship Type			
	University Scholarship (CAU)	ICAR scholarship (NTS)	SC/ST FellowShip	GOI Scholarship (SC+ST)
2015-16	05	-	-	-
2016-17	05	02 (JRF)	-	-
2017-18	04	01 (JRF)	-	-
2018-19	04	02 (NTS)	-	-
2019-20	05	-	-	-
2020-21	04	02 (NTS)	-	-
TOTAL=	**27**	**07**	-	-

6.4.2. FACULTY STRENGTH

At the Department of Entomology, College of Agriculture, Iroisemba the following Faculty members/Scientists and staffs are associated in teaching and guiding the students of B.Sc. (Agri), M.Sc. (Agri) and Ph.D. level courses during 2015-2020.

S. No.	Sanctioned faculty	Faculty in place	Vacant position	AICRP Scientists /Guest Faculty/ Teaching Contract
1	Professor	1	-	
2	Associate Professor	2	-	1(DDR, CAUImphal)
3	Assistant Professor	1	-	3(2Scientists-AICRP,CAU, Imphal) and 1(Scientist-ICAR asGuest Lecturer),
	Total	4	-	4

** All the faculty were assigned the responsibility for the multiple programme (Bachelor level, P.G. level and Ph. D. Levels)*

Information regarding faculties teaching and guiding M.Sc. (Entomology) programme

Classification of Courses	Title of Course	Faculty	Qualification
Major Subject	Insect Morphology	Dr. Nilima Karam (Junior Entomologist, AICRP)	Ph.D
	Insect Anatomy, Physiology and Nutrition	Smt. Th. Bina Devi, Asstt. Prof.(S.G.)	M.Sc. (Agri)
	Classification of Insects	Smt. Th. Bina Devi, Asstt. Prof. (S.G.) & Dr. K. I. Singh, Associate Professor	M.Sc. (Agri) &Ph.D.
	Principles of Integrated Pest Management	Dr. K. I. Singh, Associate Professor	Ph.D
	Pests of Field Crops	Dr. K. I. Singh, Associate Professor & Dr. Th. Robindro Singh, DDR, CAU, Imphal	Ph.D
	Techniques in Plant Protection	Smt. Th. Bina Devi, Asstt. Prof.(S.G.)	M.Sc. (Agri)
	Insect Ecology	Smt. Th. Bina Devi, AssistantProfessor (S.G.)	M.Sc. (Agri)
	Biological Control of Crop Pests & Weeds	Dr. K. I. Singh, Associate Professor	Ph.D
	Toxicology of Insecticides	Smt. Th. Bina Devi , Asstt. Pro. (S.G.) & Dr. Nilima Karam(Junior Entomologist, AICRP)	M.Sc. (Agri) &Ph.D.
Minor Subject	Plant Virology	Dr. Bireswar Sinha, Assistant Professor	Ph.D
	Principles Plant Pathology	Dr Ph Sobita Devi, Professor & Dr. Bireswar Sinha, Assistant Professor	Ph.D

	Diseases of Field and medicinal Crops	Dr. Bireswar Sinha, Assistant Professor.	Ph.D
	Principles of Plant Disease management	Dr. L. Nongdrenkhomba Singh, Associate Professor	Ph.D
Supporting Subjects	Experimental Design	Dr. N. Okendro Singh Professor	PhD
	Statistical Methods for Sciences	Dr. N. Okendro Singh Professor	PhD
Seminar	Master Seminar-I (1+0)	Dr. K. I. Singh, Associate Professor	Ph.D
Research	Master Research (**0+20**)	Dr. M.K.Gupta, Professor (Retired in 2019& Dr. K. I. Singh, Associate Professor	Ph.D

6.4.3. TECHNICAL AND SUPPORTING STAFF

Technical/ Supporting Staff of the Department of Entomology

S. No.	Name of the posts and number	Remarks
1.	Field cum Lab. Assistant-1	Looking after the laboratory, field works and PG and Ph.D. research works
2.	MTS -1	-do-
3.	Contractual labour -3	-do-
4.	Contractual SRF-3	-do-
5.	Contractual Bee Professional-1	-do-

6.4.4. CLASSROOMS & LABORATORY

There are sufficient classrooms in various divisions, which are being used by the students of M. Sc. (Entomology). The smart class room facility is being also utilized by the students of M.Sc. (Entomology). There are various labs which are being utilized by various UG, PG & Ph.D. Programs. These labs are well equipped as per the recommendations of various Dean's Committee.

Details of the Laboratory and the equipment's being used are given below:

S . No.	Name of the Laboratory
1.	UG Laboratory (consisting of microscopes, insect display box & plastic boards, dry and digital)
2.	P.G./Ph.D. (consisting of well-equipped operational lab)
3.	Bio-control-Trichogramma Laboratory (well established with equipments for Trichogramma mass production)
4.	Bio-insecticide preparation Unit (consisting of all facilities required for the uroinsecticide production)
5.	Green house (One)
6.	Net house (Two)
7.	Honey processing Unit -2 (1 for 250 litre capacity & another for 500 litre capacity
8.	Honey bee disease diagnostic Unit-One
9.	One big Training Hall
10.	Research Plot (Sufficient Research area for M.Sc. students are available)

List of the Equipment's at Department of Entomology, College of Agriculture, CAU, Imphal

S. No	Name of the equipment	Total no.
1.	Laminar Flow	02
2.	BOD Incubator	04
3.	Hot Air Oven	02
4.	Autoclave	01
5.	Electronic Balance	02
6.	Centrifuge	02
7.	Hot Water Bath	02
8.	Rotavator	01
9.	HPLC	01
10.	Spectrophotometer	
11.	Thermo Meter	03
12.	Double Distillation Unit	02
13.	pH Meter	01
14.	Honey processing unit	02
15.	Research Microscope-small	04
16.	Microscope(Lica) with camera	01
17.	Micro Wave Oven	01
18.	Student Microscopes	35
19.	Orbital shaker	01
20.	Refrigerators	02
21.	Elite Panaboard	01
22.	Xerox Canon	01
23.	Honey box packaging machine	01
24.	*Corcyra* egg cleaning machine	01
25.	Deep Freezer	01
26.	Honey bottle packaging machine	02

Photographs

Department of Entomology

Honey processing laboratory

Bio-control laboratory

UG laboratory | Insect museum

Number of M. Sc student qualified SRF during the last 5(five) years (2015-2020)

S. No.	Name of the student	ARS /JRF / SRF	Year
1.	Mr. Arun Debbarma (Adm No. 40A-10(M))	ICAR SRF qualified with Fellowship at TNAU, Coimbatore & presently working as an Assistant Professor in a Private University, South India State	2015
2.	Mr. M. Vignesh (Adm No. 41A-14(M))	ICAR SRF qualified with Fellowship at UAS, Dharwad & presently working as an Assistant Professor, , SBAC & RF, Karaikudi	201**6**
3.	Chethan Kumar N (Adm No. **7A-15(M))**	ICAR SRF qualified with Fellowship	2017

Awards/ Recognition / Certificates (M.Sc. students in last five years)

Year	Name of the Student	Details of the recognition
2015	Mir. Roshna Gazmer (Adm No. 12A-12(M))	Received Rajeev Gandhi Senior Fellow and Presently working asADO, ATMA, Agri. Dept., Sikkim

6.4.5. CONDUCT OF PRACTICAL AND HANDS-ON-TRAINING

There are manageable number of students who are kept in one batch during Theory & Practical classes to ensure better delivery of information, encourage students' participation and active

monitoring. Students conducted their practical training in various Laboratory, research field of the college. The M. Sc. students are time to time sent to ICAR Research Imphal centre for NE Region for various hands-on- trainings on Modern Techniques of Crop Pest Management. To impart knowledge about beekeeping, students are allowed to join the several 7 and 3 days hands-on- training programmes on "Scientific Methods of Beekeeping" organized by the Department under IBDC Project (sponsored by NBB, New Delhi) & AICRP Project on Honey Bees & Bee pollinators (sponsored by ICAR, New Delhi).

Average number of students in theory and practical classes

S. No.	Name of the degree programme	Batch of student intheory	Batch of student inpractical
1.	M.Sc. (Entomology)	Full strength	Full strength

6.4.6 SUPERVISION OF STUDENTS IN M.Sc. PROGRAMME

There are sufficient numbers of qualified and experienced faculties who are guiding M. Sc. And Ph.D. students in the area of Entomology. The names of the faculties who are entitled to guide Ph.D students are given below. Each year given maximum 2 students per guide.

S. No.	Name of the faculty	Designation	Qualification	Experience	No. of students guided/guiding	
					M. Sc.	Ph. D
1	Smt. Th. BinaDevi	Assistant Professor (S.G.)	M.Sc.(Agri)	40 years	5	-
2	Dr.K.I.Singh	Associate Professor	Ph.D.	20 years	16	1
3	Dr. K. M. Singh	Professor	Ph.D.	20 years	6	2
4	Dr S.M. Haldhar	Associate Professor	Ph D	2 Years	1	1

Number, name and thesis title of MSc (Ag) Entomology in last five years

S. No	Thesis Title	Name of the Student
2015-16		
1	Studies on Growth, Development and Host Specificity Test of *Galerucella placida* Baly on some Polygonaceous plant	Mr. Depanker Dey
2	Effect of Gamma Radiation on the Growth and Development of Cabbage Aphid, *Brevicoryne brassicae* Linnaeus,(Homoptera:Aphidae)	Mr. Mangal Deep Singh
3	Laboratory efficacy of certain indigenous plant powders and edible oils against *Callusobrucheus chenensis* Linnaeus infesting pea grains	Mr. Kh. Julia
4	Effect of Cow Urine Decoctions of against Cabbage Aphid, Botanicals *Brevicoryne brassicae* Linnaeus,(Homoptera:Aphidae)	Miss. Konsam Linda Devi
5	Management of Thrips and Leafminer Using Eco- friendly Insecticides in Onion- crop- ecosystem of Manipur Valley	Miss Sunanda Devi Tongbram
6	Studies on Bioefficacy of New Molecular Insecticides against Major Insect Pestsof *Kharif* Rice under Manipur Agro-Climatic Conditions	Miss.A. Rajshree

2016-2017		
1	Evaluation of extracts of some fern plants against DBM, *Plutella xylostella* (Lepidoptera: Plutellidae)	Miss Murasing Jyotirnoyee
2	Studies on varietal screening and efficacy of new molecular insecticides for the management of major insect pests of *Kharif* rice- crop – ecosystem	Miss. Mukta Das
3	Laboratory Evaluation of Some Plant Oils Against *Piris brassicae* Linn. (Pieridae; Lepidoptera)	Miss. Bhowmi Madhumita
4	Cosumption and utilization of food by *Galerucella placida* Baly on some Polygonaceous plants	Mr. Rakesh Debbarma
5	Biology and Eco-friendly Management of Diamond Back Moth in Manipur Valley Agro-Climatic Conditions	Mr. M. Vignesh
2017-2018		
1	Effect of Maleic Hydrazide and Gibberellic Acid on the Biology of Melon fly, Bactrocera cucurbitae Coquilett (Diptera:Tephritidae)	Mr. Chethan Kumar N
2	Bio-efficacy of certain eco-friendly insecticides against yellow stem borer and rice leaf folder under *Kharif* Rice-crop ecosystem of Manipur valley	Mr.I.Yimjenjang Longkumer
3	Biology and Biometrics of Melon fly, *Bacterocera cucurbitae* Coquillett on Some Cucurbitaceous crops	Mr. Yona Pradhan
4	Efficacy of some insecticides for the control of pulp weevil (*Sternochetus frigidus* Fabricius (Coleoptera:Curculionidae) and fruit fly, *Bactrocera dorsalis* Hendel(Diptera: Tephritidae) infesting Mango	Miss. Sukanya Sougaijam
5	Biology of Potato Tuber Moth,*Phthorimaea operculella* (Zeller)(Lepidoptera:Gelechiidae) on Some Potato Varieties and Management	Miss. Lapynbiang Khongrymmai
6	Effect of some plant oils against major insect pests of soybean, *Glycine max* (Linn.) Mbrril	Mr. Thangjam Leonard Singh
2018-2019		
1	Studies on the Reproductive Organs of Diapausing and Non-Diapausing Leaf Beetle, *Galerucella placida* Baly(Coleptera: Chrysomelidae)	Miss. Christina Borang.
2	Screening of indigenous rice chak-hao Rice genotypes of Manipur for resistance reaction against major insect pests of Rice	Miss. Punam Bagang
3	Influence of dietary constituents on development of reproductive organs and some life history parameters of Melon fly, *Bactrocera cucurbitae* Coquillet (Diptera:Tephritidae)	Mr. Somala Karthik
4	Effect of some plant volatile oils on pulse beetle, *Callosobruchus maculatus* (Fab.)	Miss. Sushmita Thokchom
5	Eco-friendly management of *Brevicoryne brassicae* Linn. In cabbage using indigenous plant extracts under Manipur valley situation	Miss. Heisnam Bideshwori Devi
6	Screening of indigenous rice genotypes of Manipur for their resistance reaction	Mr. Mohan Ganesh

	against major insect pests of Rice	
2019-2020		
1	Microbial control of cabbage butterflies under cabbage crop-agro-ecosystem	Miss. Maryir Basar
2	Comparative Biology and Ovipositional Preference of pulse beetle, *Callosobruchus maculates* Fabricius (Coleoptera:Bruchidae) on different storedpulses	Mr. R. Karthik
3	Study on the Biology of Papaya Mealybug (*Paracoccus marginatus* Williams) and its Management in Brinjal Using Biopesticides under Manipur conditions	Miss. Shobha Laishram
4	Effect of planting dates and newer insecticides on the incidence of major insect pests under *Kharif* Rice-crop-ecosystem of Manipur valley	Mr. B. Naveen Kumar
5	Study on the Arthropod Pest Complex of King Chilli (*Capsicum chinense* Jacquin) and Their Eco-friendly Management in Manipur	Mr. M. Somorjit Singh
6	Influence of gibberilic acid and maleic hydrazide on some biological parameters of *Bactercera cucurbitae* Coquillet (Diptera;Tephritidae)	Mr. Akshay Mishra
2020-2021		
1	Biology and eco-friendly management of pulse beetle, *Callosobruchus chinensis* Linn. Under the stored condition	Mr. Gopi. N
2	Effect of planting dates and certain molecular insecticides on the incidence of *Scirpophaga incertulas* Walk. & *Cnaphalocrocis medinalis* Guen. Under *Kharif* Rice- crop- ecosystem of Manipur	Miss. Monika. M
3	Management of pulse beetle, *Callosobruchus maculatus* Fab. On stored chickpeagrains through the use of some edible oils	Mr. Said Nuredin
4	Study on the effect of some microbial insecticides on larval growth & development of diamond back moth (*Plutella xylostella* Linn.) (Submitted during March, 2021)	Mr. Subhadip Sen
5	Study on the insect pest complex of leafy mustard vegetables in the valley of Manipur (Submitted during March, 2021)	Miss. D. Rajeshwari

C. 6.4.7 FEED BACK OF STAKE HOLDERS

In our University most of the faculty members are made Advisor of students. There has to be at least one meeting of the students with their Advisors. Students raised their various problems (academic, personal etc.) with the Advisor. The Advisors helped the students to solve their problem. In case, help of some particular faculty member/staff/Dean were needed, Advisors took their help and solved the problem.

There was / is a register with the Student Welfare Officer of the College, in which any student can raise their problems (related to academic, hostels etc.). The Student Welfare Officer brought the problem to the notice of the Dean of the College. Dean discussed the issue with the Student/Group of Students/faculties/officials and took remedial measures.

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discussed in the meeting. The issues which can be solved at the College level were settled in the College itself. The issues which needed the attention of the Vice-Chancellor were sent to him for satisfactory solution.

CAU organized Agricultural Fair every year in various states of NEH. During these fair many parents visited these fairs. Many times parents also visited the college or talked to various officials over phone. During these visits and discussions they appreciate the facilities and academic atmosphere of the college. Sometimes they also made various suggestions. Many times college implemented these suggestions. Every Year College also organized Technology Demonstration Mela/ Farmers 'Agriculture Fair. Many farmers of NEH region visited these Mela /Fair. During their visit interaction between various faculties and farmers were held and we got their opinion regarding various academic works, hostels and other facilities of the college.

Extension council meeting of the college and University were regularly held every year. During these meeting, progressive farmers, members of FPO, members of SHG, state government officials, entrepreneurs etc. participated and gave their feedbacks and suggestions.

We have trained (through demonstration, short duration training, vocational training, training in the field etc.) many entrepreneurs & farmers during last five years in Entomological aspects from various funded external as well as internal projects.

Department of Entomology
College of Agriculture
Central Agricultural University, Imphal, Manipur

STUDENT FEEDBACK FORM

1. Name of the student: Brajesh Yadav
2. Admission No: 89A-17.
3. Name of programme studied: B.Sc (Agriculture) / Experimental learning.
4. Designation: Student.
5. Mobile No: 9926101067
6. Email id: Yadavbrajesh447@gmail.com.
7. Feedback:

S. No.	Parameters	Rating*
1.	Curriculum & Syllabus of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation.	1
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	1
3.	Teaching quality, fairness in the assessment processes (internal evaluation, quiz, assignments etc.) and freedom to adopt new techniques/education tools.	2
4.	Opportunities in the college for research activities & relevance with practical / lab work.	2
5.	Curriculum has prospects for supporting higher education career oriented/ employability	1
6	Overall learning experience.	1

* Select your rating on the scale of 1 to 5 for each of the above-mentioned parameters (1-excellent, 2-very good, 3-good, 4-fair, 5-poor)

Recommendations if any for course improvement:

Signature of the student

STUDENT FEEDBACK FORM

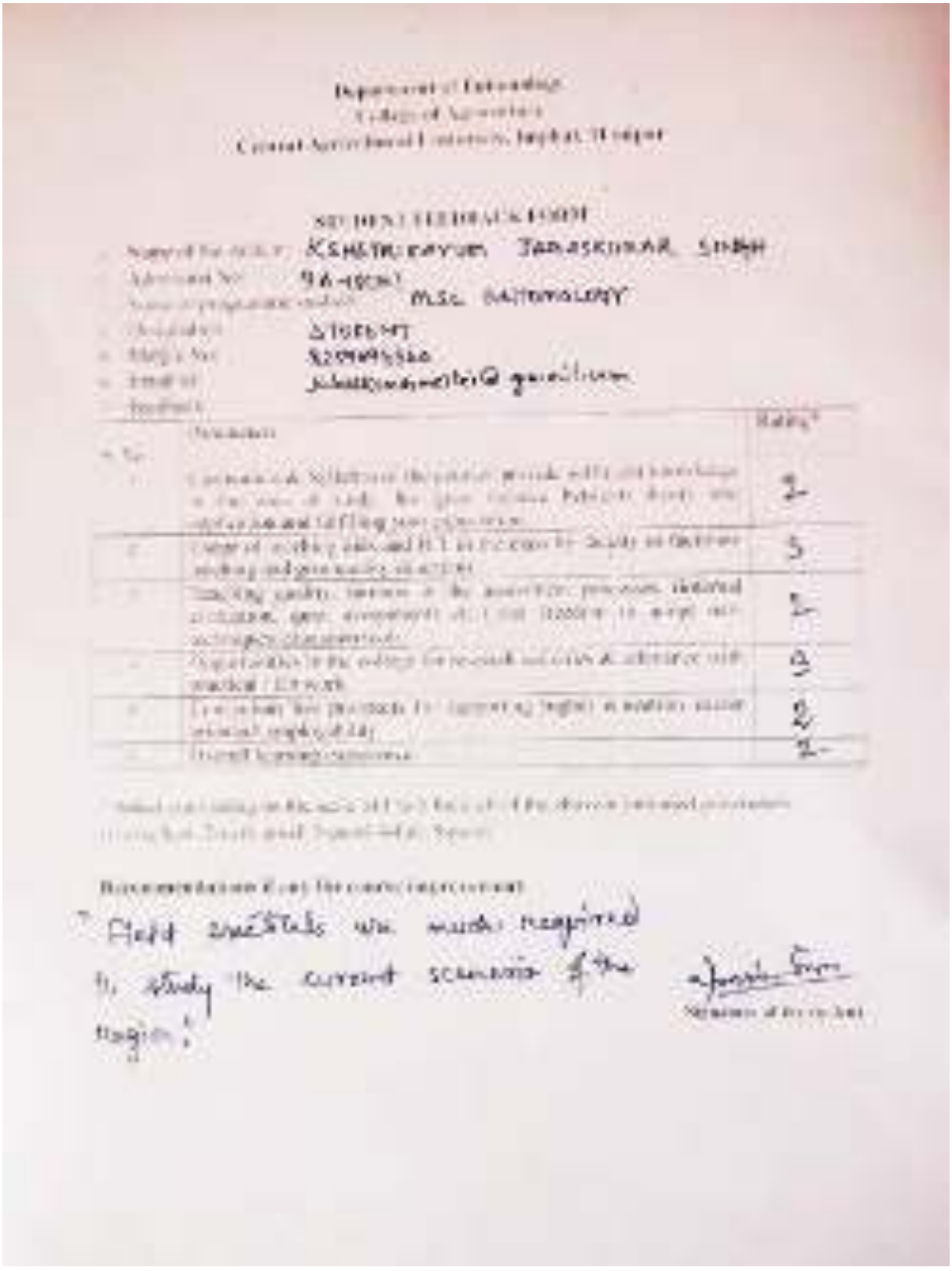
1. Name of the student: [illegible]
2. Admission No: [illegible]
3. Name of programme studied: M. Sc (Agriculture)
4. Designation: STUDENT
5. Mobile No: [illegible]
6. Email id: [illegible]
7. Feedback:

S. No.	Parameters	Rating*
1.	Curriculum & Syllabus of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation	1
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education	1
3.	Teaching quality, fairness in the assessment processes (internal evaluation, quiz, assignments etc.) and freedom to adopt new techniques/education tools	1
4.	Opportunities in the college for research activities & relevance with practical / lab work	2
5.	Curriculum has prospects for supporting higher education career oriented/ employability	2
6.	Overall learning experience	2

* Select your rating on the scale of 1 to 5 for each of the above-mentioned parameters (1-excellent, 2-very good, 3-good, 4-fair, 5-poor)

Recommendations if any for course improvement:

[illegible]
Signature of the student



Department of Extension
College of Agriculture
Central Agricultural University, Imphal, Manipur

SELECTION LIST

Name of the student: KSHETRIMAYUM JADUMOHAN SINGH
Admission No: 19-1001
Name of programme: M.Sc. (AGRONOMY)
Discipline: AGRONOMY
Reg. No: 2019/M/550
Email id: jadumohan@cau.ac.in

Sl. No.	Particulars	Marks
1	Personal Statement (Interest, goals and knowledge of the area of study, how your chosen field will help you achieve your career objectives)	2
2	Letter of recommendation (Academic Quality of Referee writing recommendation)	5
3	Teaching ability (Interest in the assigned programme, relevant previous experience, any achievement etc.) (Not applicable in case of fresh candidates)	2
4	Experience in the subject (Research activities & achievements, publications, awards)	2
5	Extra curricular activities (Sports, NCC, NSS, Cultural activities, Social responsibility)	2
6	Overall impression	2

Recommendation for the course/programme

Field practicals are much required to study the current scenario of the region.

Signature of Recorder

6.4.8 STUDENT INTAKE AND ATTRITION IN THE PROGRAMME FOR LAST FIVE YEARS

Name of the Degree Programme	Actual students admitted in lastfive years						Attrition (%)					
Year	2015 -16	2016 -17	2017 -18	2018 -19	2019 -20	2020 -21	2015 -16	2016 -17	2017 -18	2018 -19	2019 -20	2020 -21
M.Sc. (Ento.)	05	07	05	06	05	04	-	-	-	-	-	-

6.4.9 ICT APPLICATION IN CURRICULA DELIVERY

College is having a well-equipped Computer Lab with Internet Lan Connection, All the departments and various externally funded Projects are having Computer facilities which were used for teaching, practical, project work analysis etc of students. The college is having a system (e-collection) through which students deposited their fees etc. online itself. All the funds either from the University or from various funding agencies for various outside funded projects were/are deposited in the college account through Public Finance Management System. Wi-Fi availability and internet services are available in the whole campus (Academic buildings including class rooms, hostels, residential colony).

Our Library is having sufficient Books for use by the Students. It is also having various facilities where student can go through various Journals, Books etc. online either in the Library or Class Rooms or Departments or in their Hostel rooms etc. The Library provides Circulation and reference services. The library has also access to online e-journals through CERA (Consortium for e-Resources in Agriculture) and IP address has been activated to access the online journals through CERA. Photocopying & Printing facilities are also available in the library. Students used all these facilities during the period under report.

6.4.10 The information pertaining to 6.4.1 to 6.4.9 has been provided for PG programme *i.e.,* M. Sc. (Agri) in Entomology of College of Agriculture, Iroisemba, Manipur is correctly.

6.4.11 Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12 Certificates of the Awards

I, the Dean Prof. Indira Sarangthem hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date &Seal

M.SC. (Ag) PROGRAMME IN EXTENSION EDUCATION

6.4. SELF STUDY REPORT FOR DEGREE PROGRAMME

6.4.1 Brief History of the Degree Programme

Background information

Keeping in view the high potential of applications of agricultural technological interventions in improving the agricultural scenario of NEH region and to address to the issues of shortage of trained human resource in Extension Education, the College of Agriculture, Iroisemba, Central Agricultural University (CAU), Imphalwas established in 1979 erstwhile (Manipur Agriculture College) under Manipur University, later in 1993, which became one of the constituent colleges of Central Agricultural University (CAU), Imphal at Iroisemba, Manipur with only B.Sc. (Agri.) degree programme.

Initially, this Department was running only UG programme due to acute shortage of extension experts. Later on, it was assumed that mere imparting agricultural education and conducting need-based agricultural researches will not solve/address the problems of local farmers and the mandate of agricultural university will not be fulfilled. In addition, there was too much scarcity of highly qualified agricultural experts in almost all the states of the NEH region. Therefore, after having three faculty members in the Department of Extension Education, PG programme in this subject was started in the year 2003 with the admission of only one student.

The mission, vision, mandate, goal objectives and thrust areas of the college is given below:

Mission

i) To create manpower in the area of specialization of Extension Education.
ii) To achieve sustainable development of rural mass through continuous transfer of technology in a systemic way.
iii) To train farmers/ extension functionaries in behavioural aspects.

Vision

In accordance with the vision of CAU, Imphal the vision of College of Agriculture, Imphal is to produce world class professionals who are equipped to meet the demands of global outfit, have analytical abilities and entrepreneurship for making career of self-employment and as contributors to livelihood and food/nutritional security.

Mandate

- Providing basic principles and methods in the disciplineof Extension Education
- Conducting need-based extension education research for improving the rural livelihood with a special preference to the North East India in particular and the whole country in general.
- Developing a system of reaching to the farmers' community in coordination with all departments of the College, Directorate of Extension Education, KVKs, ICAR and land-based departments of the State of Manipur.

Thrust Areas

With respect to human resource development, research and extension education activities the College has setup following thrust areas:

i) Human Resource Development

Human resource development in the discipline of Extension Education.

ii) Research

- Finding bottlenecks for transfer of available technologies and suggesting appropriate ways for the purpose.
- Finding the solution for the problems of hill agriculture with the conservation approach having organic base to increase production and productivity of crops by adoption of improved agricultural technologies.

- ❖ Adoption of high yielding varieties /alteration ofdifferent crops and improved breeds of livestock to increase production in the State.
- ❖ Adoption, promotion and development of improved techniques of crops raising, animal / livestock rearing and pest management in relation to climate change in the region.

iii) Extension Education

Undertaking variety of extension education activities for transfer of technology through involvement of farmers, researchers, manufactures and extension education functionaries of KVKs, ICAR and state development departments for promoting adoption of improved technologies for higher productivity and profitability with reduced losses ensuring higher net returns to the farming community of the State.

M. Sc. Degree Programme

The Department of Extension Education is one of the major departments under agricultural teaching system as per the 5th Deans Committee. Since the establishment of the College of Agriculture, Iroisemba, Imphal, the Department of Extension Education is engaged in teaching of the B,Sc.(Agri.) students as per the course curriculum of ICAR and latest report of the 5th Deans Committee. The M. Sc. (Agri) in Extension Education has been started with the admission of students from ICAR-JRF and as well as by CAU entrance examination and the ICAR approved syllabus is also followed for teaching the discipline at PG level.

Department of Extension Education

The mission of the Department of Extension Education, College of Agriculture, Iroisembais to be a Centre of Excellence in teaching, research and basics of extension education in the discipline of rural sociology, ICT, educational psychology, agricultural communication, diffusion and adoption of agricultural information, entrepreneurship development, market-led extension and different aspects of social research etc.so as to make the State prosper with trained extension personnel to meet the future challenges of agricultural development.

With the help of available infrastructure and ATIC of the College, this Department is contributing in teaching of **B.Sc.** (Agriculture) and **M. Sc.** (Extension Education).

Future Planning of the Department

i. Opening of Ph.D. programme for increasing quality human resource in the field of Extension Education.
ii. Establishment of two Class Rooms and one Seminar/Meeting Room.
iii. Development of Inter Departmental Mechanism at College level to execute the extension education activities for the welfare of the farmers and reporting on time.
iv. Preparation of database of the students of Extension Education along with their research work(s) completed.

Statistics of PG Students (2015-16 to 2020-21)

Year of Admission	Admitted			Dropped			Passed out			Degree awarded during the year	Remark
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total		
2015-16	02	02	04	01	00	01	01	02	03	2017-18	-
2016-17	02	04	06	01	01	02	01	03	04	2018-19	-
2017-18	03	04	07	01	02	03	02	02	04	2019-20	-
2018-19	04	03	07	00	01	01	04	02	06	2020-21	-
2019-20	04	04	08	03	01	04	-	-	-	Yet to complete	-
2020-21	04	01	05	03	01	04	01 student (Boy) is continuing				

Award of CAU, GOI and ICAR Scholarships:

Name of PG Programme [M. Sc.(Ag.) in Ext. Education]	University Scholarship	ICAR Scholarship (NTS)	SC/ST Scholarship	GOI Scholarship
2015-16	03	00	00	00
2016-17	04	00	00	00
2017-18	04	00	00	00
2018-19	06	00	00	00
2019-20	04	00	00	00
2020-21	00	01	00	00
Total	**21**	**01**	**00**	**00**

6.4.2 Faculty Strength

S. No.	Sanctioned Faculty	Faculty in place	Vacant Position	AICRP Scientist/Guest Faculty/Teaching Contract
1	Professor	1	-	
2	Assoc. Professor	1	-	1 from DEE, CAU,Imphal
3	Asstt. Professor	3	-	1from MTTC and VTC, CAU,Imphal
	Total	5	0	2

*Transferred to the Directorate of Extension Education to work as Dy. Director (Ext. Education) for time being.

**One promoted under CAS carrying the original position of Asstt. Professor.

Faculty involved in teaching and guiding the students at PG level

Faculty	Number
Professor	02
Assoc. Professor	-
Asstt. Professor	02
Total	04

Information regarding faculty involved in teaching and guiding students at PG level

Course Title and number of credits	**Faculty involved**	**Qualification**
EXT-501(Development Perspectives of Ext. Education), Credits: 2(1+1)	Dr. Angad Prasad & Dr. M. Deepa Devi	All are Ph. D.
EXT-502 (Dev. Communication and Information Mgt.), Credits: 3(2+1)	Dr. D. Ram	
EXT-503 (Diffusion and Adoption of Innovations), Credits: 3(2+1)	Dr. M. Kunjaraj Singh	
EXT-504 (Research Methods in Behavioural Sciences), Credits: 3(2+1)	Dr. M. Kunjaraj Singh & Dr. Angad Prasad	
EXT-505 (E-Extension), Credits: 3(2+1)	Dr. D. Ram	
EXT-506 (Entrepreneurship Dev. and Mgt. in Extension), Credits: 3(2+1)	Dr. Angad Prasad & Dr. D. Ram	
EXT-507 (Human Resource Development), Credits: 3(2+1)	Dr. M. Kunjaraj Singh & Dr. M. Deepa Devi	
EXT-599 (Research Work), Credits: 8(0+8) and Seminar	Dr. M. Kunjaraj Singh, Dr. Angad Prasad, Dr. D. Ram & Dr. M. Deepa Devi	

6.4.3 Technical & Supporting Staff:

Sl. No.	Name of the Post	No. of Post	Actual filled	Vacant
1.	Field-cum-Lab Asstt.	01	-	01
2.	MTS	01	01	-

6.4.4 Class Rooms & Laboratories:

Class Room: 01

Laboratory: No

List of the Equipment's at Department of Extension Education, College of Agriculture, CAU, Imphal

Sl. No.	Name of the equipment	Total No.
1.	Computers	03
2.	Photocopier	01
3.	OHP	01
4.	LCD	01
5.	Projector Board	01

6.4.5 Conduct of Practical and Hands-on-Training

Limited practical are done in the Department or room. Most of the practical are done in the field/villages. Inter Departmental help is also sought for some courses to conduct practical classes.

Average number of students in theory and practical classes:

Sl. No.	Name of the Degree Programme	Batch of students in theory	Batch of students in practical
1.	M. Sc. (Ag.) in Ext. Education	Full strength (only one batch)	Full strength (only one batch)

6.4.6 SUPERVISION OF STUDENTS IN M.Sc. PROGRAMME

S. No.	Name of the student	Title of the PG research work	Major Guide	Co-Guide	Year of the award of Degree
1.	Mr. Ediga Ravi Goud, Adm. No. 13A-15(M)	A study on communication behavior among the rice growers in HaorangSabal Block, Imphal west Distt., Manipur	Dr. Daya Ram	Dr. M. K. Singh	2017-18
2.	Ms. WeijimuluTayang, Adm. No. 14A-15(M)	Extent of opportunities in rice cultivation of Lohit District of Assam	Dr. M. K. Singh	Dr. Daya Ram	2017-18
3.	Ms. Bandana Yumnam, Adm. No. 17A-15(M)	A study on newspaper reading behavior amiongImphal urban women in Manipur	Dr. Ng. Narahari Singh	Dr. M. K. Singh	2017-18
4.	Ms. S. KareiniKayina, Adm. No. 21A-16(M)	A study on entrepreneurial behavior of tribal farmers in Senapati District of Manipur	Dr. Daya Ram	Dr. M. K. Singh	2018-19
5.	Ms. W. Miranda,	A study on women's	Dr. M.	Dr. Daya	2018-19

	Adm. No. 48A-16(M)	participation in silk industry in Imphal West District of Manipur	Deepa Devi	Ram	
6.	Ms. RebaniAkoijam, Adm. No. 4A-16(M)	A study on the role performance of the ATMs in the revitalized extension system in Manipur	Dr. M. K. Singh	Dr. M. Deepa Devi	2018-19
7.	Mr. Ch. Narendrajit Singh, Adm. No. 11A-16(M)	A study on utilization pattern of Mobile Phone among registered women vendors in ImphalEma Market of Manipur	Dr. Daya Ram	Dr. M. K. Singh	2018-19
8.	Mr. S. Harishkumar, Adm. No. 33A-17(M)	A study on effect of internet utilization among the UG students in COA, CAU, Imphal	Dr. Daya Ram	Dr. M. K. Singh	2019-20
9.	Mr. NgakenYongam, Adm. No. 44A-17(M)	A study on technology gap in orange production technology in West Siang District of Arunachal Pradesh	Dr. M. K. Singh	Dr. Daya Ram	2019-20
10.	Ms. Ebiangnitre Pale, Adm. No. 21A-17(M)	A study on training needs assessment of tomato growers in West Jaintia hills District of Meghalaya	Dr. Daya Ram	Dr. M. Deepa Devi	2019-20
11.	Ms. PhidalangkiLyngdoh, Adm. No. 20A-17(M)	A study on technology gap in turmeric production technology in West Jaintia hills District of Meghalaya	Dr. M. K. Singh	Dr. Daya Ram	2019-20
12.	Mr. Mhike Augustine, Adm. No. 36A-18(M)	A study on training needs assessment of SMSs of KVKs in Manipur	Dr. M. Deepa Devi	Dr. M. K. Singh	2020-21
13.	Mr. Godfre Tore, Adm. No. 35A-18(M)	A study on adoption behavior of vegetable crops growing fsarmers of BishnupurDistt., Manipur	Dr. M. K. Singh	Dr. Daya Ram	2020-21
14.	Ms. SuparnaDey, Reg. No. U-18-MN-01-002-M-A-013	Impact of IFS on the SES of farmers under MGMG programme in Bishnupur District, Manipur	Dr. Daya Ram	Dr. M. K. Singh	2020-21
15.	Ms. HageYadi, Reg. No. U-18-MN-01-002-M-A-024	A study on training needs assessment of Kiwi growers in Lower	Dr. M. Deepa Devi	Dr. M. K. Singh	2020-21

		Subansiri District of Arunachal pradesh			
16.	Mr. Nethaji M., Reg. No. U-18-MN-01-002-M-A-025	A study on utilization pattern of ICT by the farmers of Farmers FIRST programme of Imphal East District, Manipur	Dr. M. K. Singh	Dr. Daya Ram	2020-21
17.	Mr. Darelli Naveen, Reg. No. U-18-MN-01-002-M-A-006	Comparative study on adoption of organic and inorganic pesticides by the vegetable growers in Bishnupur District, Manipur	Dr. Daya Ram	Dr. M. K. Singh	2020-21

6.4.7 FEED BACK OF STAKE HOLDERS

In our University most of the faculty members are made Advisors of students. There has to be at least one meeting of the students with their Advisors. Students raised their various problems (academic, personal etc.) with the Advisor. The Advisors helped the students to solve their problem. In case, help of some particular faculty member/staff/Dean were needed, Advisors took their help and solved the problem.

There is a register with the Student Welfare Officer of the College, in which any student can raise his/her problem (related to academic, hostels etc.).The Student Welfare Officer brings the problem to the notice of the Dean of the College. The Dean discusses the issue with the Student/Group of Students/faculties/officials and takes remedial measures.

During farewell of the final year students, they sometimes raised the problem faced by them during their stay in the College. After knowing their problems, Dean and Faculty try to implement their suggestions.

In every Semester, a meeting is convened under the chairmanship of the Dean with representative of Students to discuss their problems related to teaching, hostels etc. Generally, Students raise their issues which use to be discussed in the meeting. The issues which can be solved at the College level are settled in the College itself. The issues which needed the attention of the Vice-Chancellor are sent to him for solution.

CAU organizes Agricultural Fair every year in various states of the NEH region. During these fairs, visit of many parents is seen. Several times, parents also visit the College or talk with various officials over phone. During these visits and discussions, they appraise the facilities and academic atmosphere of the College. Sometimes, they also give various suggestions. College usually considers and implements these suggestions. Every Year, College also organizes Technology Demonstration Mela/ Farmers' Agriculture Fair. So many farmers of NEH region visit these Mela /Fairs. During their visit, interaction between various faculties and farmers are held and we seek their opinion regarding various academic activities, hostels and other facilities of the College.

Few feedbacks of the students are attached below.

College of Agriculture
Central Agricultural University, Imphal

STUDENT FEEDBACK

1. Name of the student: Yaorakpam Omen Chanu
2. Admission No: 37A-15(M)
3. Academic Year: 2022-24
4. Name of programme studied: M.Sc. Ag. (Extension Education)
5. Designation, if employed: Student
6. Mobile No: 6909853537
7. Email ID: yaorakpamomenchanu@gmail.com
8. Feedback:

Sl No	Parameters	Rating*
1.	Curriculum and syllabi of the course provide sufficient knowledge in the area of study, has good balance between theory and applicable and satisfying your expectations	2
2.	Usage of teaching aids and ICT in the class by faculty is facilitating and give quality education	3
3.	Teaching quality, inclusion of the associated seminars, journal club, class, online/practicals, use of innovative adoptive classroom / relevant tools	2
4.	Opportunities in the UG programme for research activities and collaborative with (industry, lab work	3
5.	Facilities and prospects for supporting higher education, career oriented / employability	2
6.	Overall learning experience	2

*Kindly put your rating in the table of 1 to 3 for each of the above mentioned parameters as 1 = Excellent, 2 = Very good, 3 = Good, 4 = Poor and 5 = Very poor

Any other comments, if any, the student is pleased

Provide opportunities for field of practicals and application in Extension Education and more hands on practicals and training.

Signature of the Student
Yaorakpam

STUDENT FEEDBACK

College of Agriculture
Central Agricultural University, Imphal, Manipur

STUDENT FEEDBACK FORM

1. Name of the Student: [illegible]
2. Admission No: [illegible]
3. Academic year: 2020-21
4. Name of the Programme studied: M.Sc. Ag. (Agronomy Major)
5. Designation: Student
6. Mobile No: [illegible]
7. Email Id: [illegible]
8. Feedback:

Sl. No.	Parameters	Ratings*
1.	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study for good balance between theory and application and fulfilling your expectations	3
2.	Usage of teaching aids and ICT in the class by faculty to stimulate learning and give quality education	2
3.	Evaluation system, decision on the assessment procedures (internal evaluation, quiz, assignment etc.) and freedom to adopt new technologies/education tools	1
4.	Opportunities in the college for research oriented activities with practical knowledge	1
5.	Curriculum and prospects for supporting higher education and/or successful employability	3
6.	Overall learning experience	2

*Kindly give your ranking on the scale of 1 to 5 for each of the above mentioned parameters
(1 – very low, 2 – poor, 3 – good, 4 – very good, 5 – excellent)

Recommendations: If any, for overall improvement. Include all areas of the course should be updated

Signature of the student

STUDENT FEEDBACK

College of Agriculture
Central Agricultural University, Imphal

STUDENT FEEDBACK FORM

1. Name of Student : BRIJESH PANDEY
2. Admission No. : 6A-05 (M)
3. Academic Year : 2005-2007
4. Name of programme studied : M.Sc. (Ag.)
5. Designation, if employed : SMS (Horticulture), BUAT, Banda, U.P.
6. Mobile no. : 9430655050 / 6393667463
7. E-mail ID : bpb.108@gmail.com
8. Feedback:

Sl. No.	Parameters	Rating*
1.	Curriculum and syllabi of the course provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation.	2
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	3
3.	Teaching quality, fairness in the assessment processes (internal evaluation, quiz, assignments etc.) and freedom to adopt new techniques/ education tools.	2
4.	Opportunities in the college for research activities and relevance with practical/ lab work.	1
5.	Curriculum has prospects for supporting higher education career criteria/ employability.	2
6.	Overall learning experience.	2

*Select your ranking on the scale of 1 to 5 for each of the above mentioned parameters (1=Excellent, 2=Very good, 3=Good, 4=Fair and 5=Poor).

Recommendation, if any, for course improvement- Recent advances related to subject area must be added as additional course.

Signature of the Student

STUDENT FEEDBACK

College of Agriculture
Central Agricultural University, Imphal, Manipur

STUDENT FEEDBACK FORM

1. Name of the student: Jayam Rati Chanu
2. Admission No.: 19 I - 17 (M)
3. Academic Year: 2019 - 2021
4. Name of programme studied: M.Sc. Agri Extension Education
5. Designation: Student
6. Mobile No.: 7005 706 054
7. Email Id: rajkishore5274@gmail.com
8. Feedback:

S.No.	Parameters	Rating
1.	Curriculum & Syllabus of the courses provide sufficient knowledge in the area of study, has good balance between theory and practical and fulfilling our expectations	2
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and gain quality education	2
3.	Teaching quality, fairness in the assessment processes (internal evaluation, quiz, seminar, viva etc.) and freedom in education (new initiatives/activities)	3
4.	Opportunities in the college for research activities & its relevance with practical work	3
5.	Curriculum has prospects for supporting higher education or career orientation/employability	2
6.	Overall learning experience	2

* Select your rating on the scale of 1 to 5 for each of the above mentioned parameters (1-excellent, 2-very good, 3-good, 4-fair, 5-poor)

Recommendations if any for course improvement: It will be more good if providing RA courses of agriculture in CAU, Imphal

Jayam Rati Chanu
Signature of the student

STUDENT FEEDBACK

6.4.8 STUDENT INTAKE AND ATTRITION IN THE PROGRAMMEFOR LAST FIVE YEARS

Name of the Degree Programme	**Actual students admitted in last five years**						**Attrition (%)**					
Year / **M.Sc. (Ext. Educ.)**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**
	04	04	07	07	08	03	01	-	03	01	Continuing	

6.4.9 ICT APPLICATION IN CURRICULA DELIVERY

College is having a well-equipped Computer Lab with Internet Lan Connection. All the departments and various externally funded Projects are having Computer facilities which are used for teaching, practical, project work analysis etc. of the students. The College is having a system (e-Collection) through which students deposit their fees etc. online itself. All the funds either from the University or from various funding agencies for various outside funded projects are deposited in the College account through Public Finance Management System (PFMS). Wi-Fi availability and internet services are also available in the whole campus (Academic buildings including class rooms, hostels, residential colonies etc.).

Our Library is having sufficient books for use by the students. It is also having various facilities where student can go through various journals, books etc. online either in the Library or Class Rooms or Departments or in their Hostel rooms etc. The Library provides circulation and reference services. The library has also access to online e-journals through CERA (Consortium for e-Resources in Agriculture) and IP address has been activated to access the online journals through CERA. Photocopying &printing facilities are also available in the Library. Students use all these facilities during their stay in the campus.

Meeting of the Extension Education Council is organized in the College and University every year. During these meetings, progressive farmers, members of FPOs, members of SHGs, state government officials, entrepreneurs etc. participate and give their feedback and suggestions for further improvement.

We have trained (through demonstration, short duration training, vocational training, training in the field etc.) many entrepreneurs & farmers during last five years in coordination with other Departments under different external as well as intramural projects.

6.4.10 The information pertaining to 6.4.1 to 6.4.9 has been provided for PG programme*i.e.,* M. Sc. (Agri) in Extension Education of the College of Agriculture, Iroisemba, Manipur is correct.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore, the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificates of the Awards

I, the Dean Prof. Indira Sarangthem hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the College, and degree awarding university.

Signature of Dean of the College with Date &Seal

M.SC. (Ag) PROGRAMME IN GENETICS AND PLANT BREEDING

6.4. SELF STUDY REPORT FOR POST GRADUATE DEGREE PROGRAMME

6.4.1 Brief History of the M.Sc. Ag. (Genetics and Plant Breeding)

Background information

Keeping in view the high potential of applications of agricultural technological interventions in improving the agricultural scenario of NEH region and to address to the issues of shortage of trained human resource in Genetics and Plant Breeding, College of Agriculture, Iroisemba, Central Agricultural University (CAU), Imphal the M.Sc. Ag. (Plant Breeding and Genetics) was open in the year 1990. Initially this present Department was named as Plant Breeding and Genetics, later on as per the ICAR-Deans committee norms; it is changed to Department of Genetics and Plant Breeding with teaching students of B.Sc. (Hons) Agriculture and later M.Sc. Ag. (Genetics and Plant Breeding) started with admission of students from All India Competitive Examination for ICAR's JRF and admission to Master's programmes of IARI, NDRI, CIFE, CAU and SAU's as well as by CAU, Imphal entrance examination.

The mission, vision, mandate, and thrust areas of the college is given below:

Mission

i) To create manpower in area of specialization to Genetics and Plant Breeding.
ii) To identify and breed varieties suitable to agro-climatic conditions of the state in particular and NE Region in general.
iii) To train farmers/ extension functionaries on adoption and result demonstration of the identified and bred varieties.

Vision

In accordance with the vision of CAU, Imphal the vision of College of Agriculture, Iroisemba is to produce world class professionals who are equipped to meet the demands of global outfit, have analytical abilities and entrepreneurship for making career of self-employment and as contributors, to livelihood and food/nutritional security.

Mandate

- Shortage of trained manpower in discipline(s) of Genetics and Plant Breeding.
- Utilization of the natural resources for the sustainable agriculture with a special preference to the North East India.

Thrust Areas

With respect to human resource development, research and extension education activities the College has setup following thrust areas;

i) Human Resource Development

Human resource development in the discipline of Genetics and Plant Breeding.

ii) Research

- Identifying and breeding varieties suitable for different agro-climatic conditions of major crops.
- Maintenance breeding of the released varieties of the University.
- Replacement of age old varieties released by the state department and other Institutes with new varieties.
- Utilization and conservation vast biodiversity in major crops for identifying and breeding varieties which will solve the problem arises due to climate resilient conditions.
- To undertake basic, applied and adaptive research to seek appropriate solutions to emerging problems in agriculture and develop suitable varieties to improve socio-economic conditions of the farming community.

iii) Extension Education

Undertaking variety of extension, education activities for transfer of technology through involvement of farmers, researchers and extension education functionaries for promoting adoption of improved varieties of major crops for higher productivity and profitability ensuring higher net returns to the farming community of state in particular and NEH region in general. Front line demonstration and result demonstration of the identified and bred varieties of the major crops in the farmers' filed and adopted village of the College so that farmers are convinced themselves to adopt the varieties.

M. Sc. Degree Programme

The Department of Genetics and Plant Breeding is one of the major departments under Agricultural teaching system as per the 5th Deans committee. Since the establishment of the College of Agriculture, Iroisemba, the Department of Genetics and Plant Breeding is engaged in teaching of the B.Sc.(Hons) Agriculture students as per the course curriculum of ICAR and latest by as per 5th Deans Committee. Later on M. Sc. Ag. (Genetics and Plant Breeding) started with admission of students from All India Competitive Examination for ICAR's JRF and admission to Master's programmes of IARI, NDRI, CIFE, CAU and SAU's as well as by CAU, Imphal entrance examination.

Department of Genetics and Plant Breeding

The mission of the Genetics and Plant Breeding Department of College of Agriculture, Iroisemba to be a centre of excellence in teaching, research and extension education in the discipline of crop improvement, adaptive research and strategic research, so as to help in increasing crop productivity in the state in particular and NEH region in general.

With the help of well-established labs including biotechnology laboratory, this Department is contributing for the running of B.Sc. (Hons) Agriculture, M. Sc. Ag. (Genetics and Plant Breeding) and Ph.D. (Genetics and Plant Breeding) programme; and internship programme of students from other Universities.

Statistics of Master's degree (Genetics and Plant Breeding) programme (2015-16 to 2019-20)

Year of Admission	Admitted			Dropped			Passed			Degree awarded during the year	Remarks
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total		
2015-16	4	1	5	-	-	-	4	1	5	2017 and 2018	1 boys student passed in 2018
2016-17	-	6	6	-	-	-	-	6	6	2018 and 2019	2girls students passed in 2018 ; and 4 students passed in 2019
2017-18	6	-	6	-	-	-	5	-	5	2019 and 2020	4 students passed in 2019 and 1 student passed in 2020, 1 student thesis viva awaited
2018-19	4	-	4	-	-	-	2	1	3	2020	1 Boys student's thesis viva awaited
2019-20	4	2	6	-	-	-	-	-	-	-	Continuing
2020-21	2	5	7	-	-	-	-	-	-	-	Continuing

Award of CAU, GOI & ICAR Authorities' Scholarships

M.Sc. Ag. (Genetics and Plant Breeding)	Scholarship Type			
	University Scholarship (CAU)	ICAR Scholarship (NTS)	State SC/ST Fellowship	GOI Scholarship (SC+ST)
2015-16	2	-	-	-
2016-17	2	1	-	-
2017-18	2	1	-	-
2018-19	2	-	-	-
2019-20	2	1	-	-
2020-21	2	2	-	-

6.4.2. FACULTY STRENGTH

At the Department of Genetics and Plant Breeding, College of Agriculture, Iroisemba the following Faculty members/Scientists and staffs are associated in teaching and guiding the students of B.Sc. (Hons) Agriculture, M.Sc. Ag. and Ph.D. level courses during 2015-2020.

S. No.	Sanctioned Faculty	Faculty in place	Vacant position	AICRP Scientists/ Guest faculty/teacher contract
1	Professor	1	0	-
2	Associate Professor	2	0	-
3	Assistant Professor	2	0	6(5 AICRP Scientists and 1 guest lecturer from College of Food Technology, Imphal)
	Total	**5**	**0**	**6**

Note: *All the faculties and Scientists were assigned the responsibility for the multiple programme (Bachelor level, PG level and Ph.D. level.*

* 2 Assistant Professors are promoted to Professor under career advancement scheme (CAS); 1 Assoc. Prof. promoted to Professor has retired on 28th February, 2021.

Information regarding faculties teaching and guiding M.Sc. Ag. (Genetics and Plant Breeding)

Area	Course title and credit hours	Faculty	Qualification
Major Courses (Core)	Principles of Genetics [2+1=3]	Dr. N. Brajendra Singh	Ph.D.
	Principles of Cytogenetics [2+1=3]	Dr.EV Divakara Sastry	Ph.D.
	Principles of Plant Breeding [2+1=3]	Dr. (Mrs.) Th. Renuka Devi Dr. Ph. Ranjit Sharma	Ph.D. Ph.D.
	Principles of quantitative genetics [2+1=3]	Dr.EV Divakara Sastry	Ph.D.
	Cell Biology and Molecular Genetics [2+1=3]	Dr.EV Divakara Sastry	Ph.D.
	Biotechnology and crop improvement [2+1=3]	Dr. N.Brajendra Singh ; Dr. Samuel Jeberson; Dr.Punyakishore Maibam	Ph.D. Ph.D. Ph.D.
Major Courses (Optional)	Mutagenesis and mutation breeding [2+1=3]	Dr. J. M. Laishram Dr. (Mrs.) Th. Renuka Devi	Ph.D. Ph.D.

	Maintenance breeding, concepts of variety release and seed production [1+1=2]	Dr. E V Divakara Sastry	Ph.D.
	Heterosis Breeding [1+1=2]	Dr. N. Brajendra Singh; Dr.Sonika Yumnam	Ph.D. Ph.D.
	Master's Seminar [1+0=1]	Dr. (Mrs.) Th. Renuka Devi	Ph.D.
	Master's Research [20]	Respective guides	

6.4.3. TECHNICAL AND SUPORTIVE STAFF

S. No.	Name of the post and Number	Remarks
1	Field cum Lab Assistant - 1	Looking after the Field works and Laboratory works for Departmental and P.G. and Ph. D. research
2	Multi tasking staff -1	Looking after the Laboratory works and Field works for PG and Ph.D. classes
3	Computer Operator (Contractual) -1	Typing and other official works

In addition to the above staff, Skilled and Unskilled labours are hired on contractual basis.

6.4.4. CLASSROOMS AND LABORATORY

There are sufficient classrooms in various divisions, which are being used by the students of M. Sc. Ag. (Genetics and Plant Breeding). The smart class room facility is being also utilized by the students of M.Sc. Ag. (Genetics and Plant Breeding). There are various labs which are being utilized by various UG, PG and Ph.D. Programs. These labs are well equipped as per the recommendations of various Dean's Committee.

S. No.	Name of the laboratory
1	Genetics and Plant Breeding Laboratory
2	Biotech Laboratory

Major Equipments

Sl. No.	Name of the equipment
	Biotechnology Laboratory
1.	Stereo microscope
2.	Laminar flow
3.	HP computer with Digital and image aids software
4.	Milli Q Gradient
5.	Spectrophotometer
6.	UV Transilluminator
7.	Gel caster
8.	Mini Submarine Electrophoresis unit
9.	Spin win Microcentrifuge
10.	Spinix Vortex Shaker
11.	Magnetic stirrer
12.	Digital P^H Meter
13	Accupippette
14	Electronic Analytical Balance
15.	Mini Submarine Electrophoresis unit
16	Servo stabilizer
17	Dry Ice maker

18	Inverted Research Microscope
19	Refrigerator
20	Hot Air oven
21	Mechanical Shaker
22	Vertical Autoclave
23	Horizontal Autoclave
	Genetics and Plant breeding laboratory
1.	Camera Lucida
2.	Bend Thermometer
3.	Hand Refractometer
4.	Olympus Microscope
5.	Avery balance
6.	Electronic balance
7.	Leaf area meter
8.	Digital P^H Meter
9.	Hot Air Oven
10.	Desssicator
11.	Refrigerator
12.	Electrical water bath
13.	Micro Kjeldahl with accessory
14.	Laminar flow

6.4.5. CONDUCT OF PRACTICAL AND HANDS-ON-TRAINING

There are manageable number of students who are kept in one batch during Theory and Practical classes to ensure better delivery of information, encourage students' participation and active monitoring. Students conducted their practical training in various Laboratories, research field of the college. Exposures trip to the farm and laboratories of the other research institutes and private institutes are regular features. The M. Sc. students are time to time sent to ICAR Research Imphal centre for NE Region for various hands-on- trainings on Modern Techniques of Molecular Biology.

Average number of students in theory and practical classes

Sl. No.	**Name of the degree programme**	**Batch of student in theory**	**Batch of student in practical**
1.	M.Sc. Ag. (Genetics and Plant Breeding)	Full Strength	Full Strength

Students conducting practical

Genetics and Plant Breeding Laboratory-2

Molecular Biology Laboratory 3

Hands on training in Biotech

Tissue Culture Racks

Laminar Flow

6.4.6. SUPERVISION OF STUDENTS IN M.Sc. PROGRAMME

There are sufficient numbers of qualified and experienced faculties and scientists who are guiding PG students in the area of Genetics and Plant Breeding. The names of the faculties and scientists who are currently guiding M.Sc. Ag. (Genetics and Plant Breeding) students are given below:

Sl.No.	Name of the faculty	Designation	Qualification	Experience	Number of students guiding
1	Dr. EVD Sastry	Professor	Ph.D.	37years	2
2	Dr. Ph. Ranjit Sharma	Professor	Ph.D.	32 years	2
3	Dr. N. Brajendra Singh	Professor	Ph.D.	32 years	2
4	Dr. Th. Renuka Devi	Associate Professor	Ph.D.	20 years	3
5	Dr. Samuel Jeberson	Scientist	Ph.D.	15 Years	1
6	Dr. Pramesh Khoyumthem	Scientist	Ph.D.	15 Years	1
7	Dr. H. Nanita Devi	Scientist	Ph.D.	15 Years	1
8	Dr. Sonika Yumnam	Scientist	Ph.D.	8 Years	1
9	Dr. Pushparani Senjam	Scientist	Ph.D.	7 Years	1

Number, name and completed thesis title of M.Sc. Ag. (Genetics and Plant Breeding) in last five years

Sl. No.	Thesis Title	Name of the Student

2015-16		
1	"Assessment of Genetic Diversity in Indian Mustard (*Brassica juncea* L. Gzern and Coss) Genotypes for Agro-morphological Parameters"	Nongmaithem Devshini Devi
2	"Combining Ability Studies in Field Pea (*Pisum sativum* L. var. *arvense*) for Yield and its Attributes"	Manish Kumar
3	"Character association and variability studies and trait on mungbean (*Vigna radiata* L.)Wilzeck."	Konsamcha Shyamananda
4	"Genetic divergence in black gram (*Vigna mungo*)"	Sunder Nongthombam
2016-17		
5	"Analysis of gene effects controlling yield contributing traits in grasspea (*Lathyrus sativus* L.)"	Roda Gonmei
6	"Induced Variability in Adapted Cultivars/Varieties of Indian Mustard (*Brassica juncea* L. Czern and Coss) by using Gamma Rays"	Takhellambam Julia
7	"Agro-morphological and Quality Characterization of Some Rice (*Oryza sativa* L.) Genotypes in Manipur"	Bomit Lourembam
8	"Combining ability analysis of yield and yield contributing characters of groundnut (*Arachis hypogea* L.)"	Hijam Premila Chanu
9	"Genetic diversity among soybean [Glycin max (L.) Merrill] genotypes based on agro-morphological parameters under rainfed condition of Manipur"	Homichon Sareo
2017-18		
10	"Combining ability studies in lentil for yield ant its attributes"	Supriya Majumder
11	"Study of mutagenic effects of sodium azide on field pea (*Pisum sativum* L. arvense)"	Th. Nepolian Singh
12	"Genetic variability study using SSR markers in chickpea (*Cicer arietinum* L.)"	Krishna Murari Prasad
13	"Molecular characterization of soybean [*Glycine max* (L.) Merrill] genotypes using SSR markers"	Daisy Zirthansangi
2018-19		
14	"Line x Tester Analysis For Yield And Its Contributing Characters In Field Pea"	Soibam Tampha Devi
15	"Genetic Diversity Analysis of Indian Mustard Genotypes Using SSR Markers"	Haobam Kholchandra Singh
16	"Variability and stability of yield and related traits in baby corn (*Zea mays* L.)"	Magudeeswari P.
2019-20		
17	"Genetic variability for yield related traits and resistance to late leaf spot in Groundnut (*Arachis hypogea* L.)"	Vanlalrohlupuii
18	"Screening of hill rice (*Oryza sativa* L.) Genotypes of Manipur through agro-morphological, biochemical analysis and genetic diversity analysis"	Sophia Longjam
19	"Genetic Variability and Character Association Analysis in Quality Protein Maize "	Takhellambam Thjasana Devi
20	"Characterization and Evaluation of Aromatic Rice Genotypes of	Lalrinchhani

	North East Region for Agronomic and Quality Traits"	Chhangte
21	"Selection Indices for Improving Seed Yield in Soybean (*Glycine max* (L.) Merrill under Manipur Condition"	P. Manjunath
22	"Genetic Variability and Character Association Studies for Higher Grain Yield and its Component Traits in M4 Mutant Lines of Indian Mustard (*Brassica juncea* L. Czern and Coss)	Ippa Srujan Kumar
23	"Variation for Seed Vigour and Seedling Establishment Traits in Rice (*Oryza sativa*) Genotypes from North East India"	Sushilkumar S.
24	"Genetic divergence in lentil (*Lens culinaris* M.)"	Sakthivel G.
2020-21		
25	"Mutagenesis in Indigenous Semi-Glutinous Rice Genotypes of Manipur"	Elreev Rai
26	"Variation for aluminum tolerance in Indigenous genotypes of rice from Manipur"	Kanala Sai Sreelekha
27	"Variation and character association for seed yield and related traits among indigenous rice (*Oryza sativa* L.) Genotypes of Manipur"	Prapakaran M
28	"Genetic Variability and Character Association Analysis in Quality Protein Maize "	Danisa Dube

6.4.7 FEED BACK OF STAKE HOLDERS

The feedback is received from the students, parents and employer. The feedback is used to improve the curriculum delivery, course evaluation process, and development of infrastructure in the different laboratories and sections of the department, availability of chemical and reagents and other research facilities.

In our University most of the faculty members are made Advisor of students. There has to be at least one meeting of the students with their Advisors. Students raised their various problems (academic, personal etc.) with the Advisor. The Advisors helped the students to solve their problem. In case, help of some particular faculty member/staff/Dean were needed, Advisors took their help and solved the problem.

The alumni of the department have expressed their satisfaction regarding various theoretical as well as practical knowledge that they have gained during their degree programme. One in- service African student studied in this department and recently passed out and expressed his overall satisfaction about his academic as well as stay in the campus.

There is a register with the Student Welfare Officer of the College, in which any student can raise their problems (related to academic, hostels etc.).The Student Welfare Officer brought the problem to the notice of the Dean of the College. Dean discussed the issue with the Student/Group of Students/faculties/officials and took remedial measures. At the University level there is Student Advisory Council which discuss and solve the appropriate demand raised by the student representatives of different constituent colleges.

During Farewell of the final year students they sometimes raised the problem faced by them during their stay of four years in the college. After knowing their problems Dean, Faculty and Officers tried to implement their suggestions.

In every Semester there was a meeting of Dean with representative of Students to discuss their problems related to teaching, hostels, etc. Generally Students raised their issue which has to be discussed in the meeting. The issues which can be solved at the College level were settled in the College itself. The issues which needed the attention of the Vice-Chancellor were sent to him for satisfactory solution.

CAU, Imphal organized Agricultural Fair every year in various states of NEH region. During these fair many parents visited these fairs. Many times parents also visited the college or talked to various officials over phone. During these visits and discussions they appreciate the facilities and academic atmosphere of the college. Sometimes they also made various suggestions. Many times college implemented these suggestions. Every Year College also organized Technology Demonstration Mela/ Farmers 'Agriculture Fair. Many farmers of NEH region visited these Mela /Fair. During their visit interaction between various faculties and farmers were held and we got their opinion regarding various academic works, hostels and other facilities of the college.

Extension council meeting and Interface meeting of the college and University were regularly held every year. During these meeting, progressive farmers, members of Farmer Producer Organization (FPO), members of Shelf Help Groups (SHG), entrepreneurs, officials from line departments of the State Government etc. participated and gave their feedbacks and suggestions.

We have trained (through demonstration, short duration training, vocational training, training in the field etc.) many entrepreneurs , farmers and students from other Universities during last five years in Genetics and Plant Breeding and Tissue culture aspects from various funded external as well as internal projects.

College of Agriculture

Central Agricultural University, Imphal, Manipur

STUDENTS FEEDBACK FORM

1. **Name of the student:**
2. **Admission No:**
3. **Registration No:**
4. **Academic year:**
5. **Name of the programme studied:**
6. **Designation:** Student
7. **Mobile No:**
8. **Email Id:**
9. **Feedback**

S.No.	Parameters	Rating
1.		
2.		
3.		
4.		
5.		
6.		

Signature of student

College of Agriculture

Central Agricultural University, Imphal, Manipur

STUDENT FEEDBACK FORM

1. Name of the Student: [illegible]
2. Admission No: [illegible]
3. Academic year: [illegible]
4. Name of the programme studied: M.Sc. Agricultural [illegible]
5. Designation: Student
6. Mobile No: [illegible]
7. Email id: [illegible]
8. Feedback:

S.No.	Parameters	Rating
1.	Overall curriculum & Syllabi of the course provide sufficient knowledge in the area of study, Is there good balance between theory and practical and fulfilling your expectation	3
2.	Usage of teaching aids such as ICT tools used by faculty to facilitate teaching and promote quality education	2
3.	Teaching quality, factors to the assessment process (internal evaluation, exam, assignment etc) and freedom to adopt new techniques/education tools	2
4.	Opportunities to undertake/participate research and extension work/ practical / lab work	2
5.	Curriculum and prospects for pursuing higher education and enhancing employability	2
6.	Overall learning experience	2

Submit your ranking on the scale of 1 to 5 (1= needs to be improved, 5= outstanding)

(1=excellent, 2= very good, 3= good, 4= fair, 5= poor)

Recommended if any for course improvement:

Signature of student

College of Agriculture

Central Agricultural University, Imphal, Manipur

STUDENT FEEDBACK FORM

1. Name of the Student:

2. Admission No:

3. Academic year:

4. Name of the programme studied:

5. Designation:

6. Mobile No:

7. Email id:

8. Feedback

S.No.	Parameters	Rating
1.	Curriculum & Syllabi of the course provided sufficient knowledge in the area of study, has good balance between theory and application and in line with current practices.	
2.	Usage of teaching aids and ICT in the class has been helpful in facilitating and give quality education	
3.	Teaching methods, fairness in the course progress, assessment, evaluation, practical assignments and field visits are in alignment with the course learning outcomes	
4.	Opportunities in the college for research, extension, internship, practical / lab work	
5.	Curriculum has prepared for upcoming higher education, career, market / employability	
6.	Overall learning experience	

Rate your ranking in the scale of 1 to 5 for each of the above mentioned parameters

(1-excellent, 2- very good, 3- good, 4- fair, 5- poor)

Suggestions/additional input for course improvement:

Signature of Student

6.4.8. STUDENT INTAKE AND ATTRITION IN THE PROGRAMME FOR LAST FIVE YEARS

Name of the degree programme	Actual students admitted in last five years						Attrition (%)					
Degree/Year	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
M.Sc. Ag. (Genetics and Plant Breeding)	5	6	6	4	6	7	-	-	-	-	-	-

6.4.9. ICT APPLICATION IN CURRICULA DELIVERY

College is having a well-equipped Computer Lab with Internet Lan Connection, All the departments and various externally funded Projects are having Computer facilities which were used for teaching, practical, project work analysis etc of students. The University is having online Academic Management System (AMS) through which students made their online research advisory committee registration. The college is having a system (e-collection) through which students deposited their fees etc. online itself. All the funds either from the University or from various funding agencies for various outside funded projects were/are deposited in the college account through Public Finance Management System. Wi-Fi availability and internet services are available in the whole campus (Academic buildings including class rooms, hostels, residential colony).

The nodal officer of the Academic Management System conducted regular training for the newly admitted students to use the system effectively. Under the IDP- NAHEP project of CAU, Imphal the faculty were trained by the experts to use the online platform for conducting classes in online mode especially during pandemic.

Our Library is having sufficient Books for use by the Students. It is also having various facilities where student can go through various Journals, Books etc. online either in the Library or Class Rooms or Departments or in their Hostel rooms etc. The Library provides Circulation and reference services. The library has also access to online e-journals through CERA (Consortium for e-Resources in Agriculture) and IP address has been activated to access the online journals through CERA. Photocopying and Printing facilities are also available in the library. Students used all these facilities during the period under report.

To check the percentage of plagiarism the college library has installed the software and student has to get the certificate from the Librarian before initial submission of their thesis.

For data analysis of the students the Department of Agricultural Statistics provide the software for different analysis.

6.4.10. The information pertaining to 6.4.1 to 6.4.9 has been provided for PG programme *i.e.,* M. Sc. Ag. (Genetics and Plant Breeding) of College of Agriculture, Iroisemba, Manipur is correct.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificates of the Awards

I, the Dean Prof. Indira Sarangthem hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding University.

Signature of Dean of the College with Date &Seal

M.SC. (Ag) PROGRAMME IN HORTICULTURE

6.4. SELF STUDY REPORT FOR DEGREE PROGRAMME

6.4.1Brief History of the Degree Programme

Back ground information

Keeping in view the high potential of applications of agricultural technological interventions in improving the agricultural scenario of NEH region blessed with abundant natural resources and to address to the issues of shortage of trained human resource in Horticulture the then Manipur Agriculture College was upgraded to College of Agriculture, under Central Agricultural University (CAU) by an act of parliament in 1993. The M.Sc programme was started in Department of Horticulture, before upgrading the then Manipur Agricultural College to College of Agriculture.

The mission, vision, mandate, goal, objectives and thrust areas of the college is given below**.**

Mission

i) To be the centre of excellence in teaching, research and extension activities in the discipline of Horticulture

ii) To increase the productivity and quality of crop and maintaining the soil health.

Vision

In accordance with the vision of CAU, Imphal the vision of College of Agriculture, Imphal is to produce world class professionals who are equipped to meet the demands of global standard, have analytical abilities and for making career in government organisations and even as entrepreneurship of self-employment and as contributors, to livelihood and food/nutritional security.

Mandate

- Shortage of trained manpower in discipline(s) of Horticulture.
- Utilization of the natural resources for the sustainable agriculture, specially horticulture with a special preference to the North East India, a hub of organic farming.

Thrust Areas

With respect to human resource development, research and extension education activities the college has set up following thrust areas; Human Resource Development in the discipline of Horticulture.

iv) Research

- Development of suitable Agro-techniques for different horticultural crops to increase the production, quality and income
- Suitable technology for organic farming of selected horticultural crops
- Alternative/ improve system in Jhum cultivation
- Development of suitable cropping system which are remunerative and eco-friendly

v) Extension Education

Undertaking variety of extension education activities for transfer of technology through involvement of farmers, researchers, manufactures and extension education functionaries for promoting adoption of improved Agro- techniques and value addition for higher productivity and profitability to the farming community of the region.

M.Sc. Degree Programme

Horticulture is one of the major departments under Agricultural teaching system as per the 5th Deans committee. Since the establishment of the College of Agriculture, Iroisemba, the Department of Horticulture is engaged in teaching of graduate and Post-graduate students as per the course curriculum of ICAR and latest by as per 5th Deans Committee. M.Sc. in Horticulture started with the admission of students from ICAR-JRF as well as by CAU entrance examination.

Department of Horticulture

The mission of the Horticulture Department of COA, Imphal is to be a centre of excellence in teaching, research and extension education in the discipline of production technology, Hi-tech horticulture, post-harvest management including value addition, nutrient management of different horticulture crops, cropping system, organic farming with special reference to NEH region.

Scholarships & Fellowships

- ICAR –JRF including NTS
- CAU university fellowship

Statistics of M.Sc. (Agri) degree programmee (2015-16 to 2020-21)

Year of Admission	Admitted			Dropped			Passed			Remarks
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	
2015-16	1	5	6	-	1	1		4	4	
2016-17	3	4	7	2	-	2	1	1	2	
2017-18	2	3	5	-	-	-	2	2	4	
2018-19	2	4	6	-	-	-	1	3	4	
2019-20	3	4	7	-	-	-	-	4	4	
2020-21	4	2	6	-	-	-	2	1	3	Work in progress for the students of 2019-20 batch admitted
Total	**15**	**22**	**37**	**2**	**1**	**3**	**6**	**15**	**21**	

Award of CAU, GOI & ICAR authorities' Scholarships

M.Sc. (Horticulture)	Scholarship Type			
	University Scholarship (CAU)	ICAR scholarship (NTS)	SC/ST Fellow Ship	GOI Scholarship (SC+ST)
2015-16	1	-	-	-
2016-17	4	-	-	-
2017-18	3	2(NTS)	-	-
2018-19	5	1(NTS)	-	-
2019-20	4	1(JRF) 2(NTS)	-	-
2020-21	3	3(NTS)	-	-
TOTAL=	**20**	**9**	-	-

Accomplishments:

a) Following M.Sc. students have completed their degree programme in the last 5 years

Sl. No.	Thesis Title	Name of the Student
2015-16		
1.	Evaluation of Greater yam (*Dioscorea alata* L.) germplasm on growth, yield and quality	Loitongbam Sulochana Devi
2.	Effect of Grafting Height and Scion Length on Growth of Citrus reticulata. var. Nagpur Mandarin	Amrita Thokchom
3.	Effect of nitrogen and phosphorus on growth flowering and yield of African Marigold (*Tagetes erecta L*) cv. Pusa Narangi Gainda –	Koso Chokhoni

4.	Effect of different levels and mode of application of potassium on growth flowering and yield of African Marigold (*Tagetes erecta L*) cv. Pusa Narangi Gainda –	Lumlin Mary Lamare
2016-2017		
1.	Effect of planting time and spacing of king chilli (*Capsicum chinense*) under polyhouse condition	Satya Prakash Barik
2.	Effect of Ethrel in the Flower Induction of Ratoon Pineapple (Ananascomosus L. Merrill) cv. Kew	Leishangthem Hemabati Devi
2017-2018		
1.	Effect of introducing knoll khol (*Brassica oleracea L.* var. *gongylodes*) and intercrops on growth and yield of cabbage (*Brassica oleracea* L. var. *capitata*) cv. Rareball	Ashwini Ananda
2.	Effect of Growth Regulator and Different Diameter of Cuttings on Rooting and Growth of Grapes (Vitus vinifera) cv. Thompson Seedless Un	Hannah Lalrohlui Betlu
3.	Effect of integrated nutrient management on growth, flowering and yield of tuberose (*Polianthes tuberosa L.*) cv. Prajwal	Usham Gautam
4.	Effect of foliar application of Zn, Cu and B on growth, flowering and yield of African Marigold (*Tagetes erecta* L.) Pusa Narangi Gainda	Devika Thangjam
2018-2019		
1.	Effects of Different Length of Cuttings and IBA Concentration in Rooting and Growth Performance of Dragon Fruit Cuttings (Hylocereus undatus Haw.)	Omekali
2.	Response of Gibberellic Acid and Benzyladenine on Growth, Flowering and Yield of Tuberose (*Polianthes tuberosa* L.) cv. Prajwal.	Sukanta Biswas
3.	Efficacy of Foliar spray of IAA, GA_3 and Daminozide on Growth, Flowering and Yield of Gladiolus (*Gladiolus grandiflorus* L.) cv. Oscar.	Rajkumari Sweety Devi
4.	Effect of Different Sources of Nitrogen on Growth, Flowering and Yield of African Marigold (*Tagetes erecta* L.) cv. Summer Sugat	Meikam Ichancha
2019-2020		
1.	Effect of organic source of Nitrogen on growth and yield of Local onion (*Allium cepa* L. var *aggregatum* Don.)	Nishita T.M
2.	Effect of short duration vegetable crops on growth, yield and quality of cabbage (*Brassica oleracea* L. var. *capitata*) cv. Rareball	Justy D.Varughese
3.	Characterization and evaluation of Swamp taro [*Colocasia esculenta* var. *stoloniferum* (L.)Schott] under Manipur condition	Joyshree Laishram
4.	Effect on Different Levels of Potassium on Growth, Flowering and Yield of Gladiolus (*Gladiolus grandiflorus* L.) cv. Oasis in Acidic Soil Condition of Manipur"	Lourembam Tinibala Devi,42A-17(M) -
2020-2021		
1.	Effect of organic sources of nitrogen on growth, yield and quality of King chilli (*Capsicum chinense* Jacq.) under polyhouse condition	Humtu Rangai
2.	Effect of different levels of nitrogen and potassium on growth, yield and quality of sweet potato [*Ipomoea batatas* (L.) Lam.] cv. NFSP-1	Rudolph D. Nongkhlaw
3.	Effect of planting time and spacing on Growth and yield of Multiplier Onion (*Allium cepa L. var aggregatum* Don.) cv Meitie Tilhou under Manipur condition	Poovama B.C

b) Publication of student's research work:

1. Lourembam Dhanapati, R.K. Dilip Singh: Effect of desuckering on yield and quality of banana cv. Grand Naine under Manipur condition ". *J.Interacad*.16 (1):26-30, 2012. NAAS rating :- 3.0
2. R.K. Dilip Singh, S.Monita and Yogita Yambem : "Effect of manuring on the Vegetative growth of passion Fruit (*Passiflora edulis var.Kaveri)". J.Interacad*. 17(3): 412-417,2013: NAAS rating:- 2.34
3. R.K Dilip Singh L.Sani Khrasi and Yogita Yambemv: "Effect of different levels of Nitrogen on Vegetataive growth of Guava (Pasidium guajava L.) During the pre bearing stage ". *J.Interacad*. 17(3):451-458,2013 : NAAS rating: - 2.34
4. Ravi Kiran Thirumdasu, A.K. Bijaya Devi, Momoko Thokchom (2015) Analysis on growth, physiological aspects and yield of elephant foot yam, *Amorphophallus campanulatus* Roxb Blume cv. Gajendra in spice intercropping system under sloppy foot hills of Imphal East. *Inter J. of Farm Sciences* 5 (4): 118-126, 2015 NAAS: 3.54
5. Ravi Kiran Thirumdasu, A.K. Bijaya Devi, Momoko Thokchom (2015) Elephant foot yam (*Amorphophallus campanulatus* Roxb Blume) CV Gajendra Introduction with Spice Intercropping: Yield Efficiency Under sloppy foot hills of Imphal East. *The Bioscan* 10 (3): 1327-1329, 2015 NAAS: 4.57
6. Thokchom, R and Singh, U.C. (2015) Effect of time and depth of planting on growth, flowering and yield of tuberose (*Polianthes tuberosa* L.) cv. Single. *Indian Journal of Horticulture* 72(4): 581-585 NAAS rating: 6.13
7. Ngangbam Piloo and Jahangir Kabir (2016). Effect of nitrogen and biofertilizer on fruit quality and storage behavior of okra (Abelmoschus esculentus L. Moench). Green Farming, 7(1): 143-147. (NAAS-4.38)
8. Ravi Kiran Thirumdasu, A.K. Bijaya Devi, Momoko Thokchom (2016) Corroborated Economic Viability of Acridity Free Elephant Foot Yam Introduction with Spice Intercropping under Sloppy Foot Hills of Imphal-East. *International Journal of Current Research in Biosciences and Plant Biology* 3(3):30-33, 2016 NAAS: 2.99
9. Ravi Kiran Thirumdasu, A.K. Bijaya Devi, Momoko Thokchom (2016) Yield Attributes and Quality Assessment of Elephant Foot Yam (*Amorphophallus campanulatus* Roxb. Cv Gajendra) in Spice Intercropping System under Sloppy Foot Hills of Imphal-East. Environment & Ecology, 2016, 34(4C):2297-2300 NAAS:4.09
10. Kh. Swarnalata Devi, K. James Singh, A.K. Bijaya Devi, Joydip Mandal and H. Birkumar Singh (2016) Morphological Evaluation of Taro (*Colocasia esculenta* Linn.) Genotypes Collected from Manipur State of India and their Yield Performance. *Journal of Root Crops*, 2016, 42(2):18-23 NAAS:4.05
11. *Premi Devi Mayengbam and* R.K.D. Singh (2016). Effect of different levels of BAP on In vitro culture of pineapple {Ananas comosus L. (Merr)} var. Kew. *J.Interacad.20(4):441-447,2016 NAAS rating :- 2.34*
12. SP Barik, AKB Devi, A Ananda and J Konthoujam. Effect of planting time and spacing on reproductive growth and physiological changes in King chilli (*Capsicum chinense*) under poly house condition. *The Pharma Innovation Journal* 2017;6(10): 342-344 NAAS : 5.03
13. Kenny Thangjam, A.K. Bijaya Devi and Premi Mayengbam (2017) Evaluation of (White Flesh) sweet potato (*Ipomoea batatas*. L.) cultivar under Manipur condition. *International Journal of Agricultural Science and Research* 2017; 7 (6) : 151-158 NAAS : 4.13
14. Kenny Thangjam and A.K. Bijaya Devi (2017) Study on yield, yield parameters and tuber quality of (Orange flesh) sweet potato (*Ipomoea batatas.* L.) cultivars. *International Journal of Agricultural Science and Research* 2017; 7 (6) : 139- 142 NAAS : 4.13
15. Ashwini Ananda, AK Bijaya Devi, Abhinandan Singh, Satyaprakash Barik and Mukesh Kumar

Bairwa (2017) Cabbage (*Brassica oleracea* L. var. *capitata*) cv. Rareball introduction with Knolkhol and Broad bean intercropping: yield efficiency under foot hills of Imphal west. *The Pharma Innovation Journal* 2017;6 (10): 339-341 NAAS : 5.03

16. NM Devi, A Moirangthem, P Heisnam, N Devchandra, K Duhlian, R.K.D. Singh and WI Meitei (2017). Response of Local Banana Cultivars of Manipur on Application of Organic Manures towards Uptake of Macro-Nutrients ad Total Soluble Solid .Trends in Biosciences 10(45), NAAS rating :- 3.94
17. Hijam Kishan , R.K.D. Singh, and Bashu Langpoklakpam (2017). Effect of Variety and Bio-fertilizer on yield and Bio-chemical Constituents of Pineapple fruit (Ananas comosus (L).Merr.) Trend in Biosciences 10(45), ISSN 0974-8431, 9249-9252, 2017. NAAS rating :- 3.94
18. Devi, S.R, Thokchom, R and Singh, U.C. (2017) Growth flowering and yield of tuberose (*Polianthes tuberosa* L.) cv. Single as influenced by foliar application of $ZnSO_4$ and$CuSO_4$. *International Journal of Current Microbiology and Applied Sciences*. 6(10): 735-743 NAAS rating: 5.38
19. Rhine, T. Singh, U.C., A.H., Singh, R.K. Dilip and Singh, N.O. (2017) Effect of foliar application of micronutrients on growth, flowering and yield of gladiolus (*Gladiolus grandiflorus* L.) *Journal of Ornamental Horticulture* 20(3&4): 113-119
20. Devi, L.T. Singh, U.C. and Laishram, J. (2019) Effect of different levels of K on physio-chemical parameters of gladiolus (*Gladiolus grandiflorus* L.) cv. Oasis. *International journal of Chemical Studies* 7(4): 194-197 NAAS Rating: 5.31 Impact Factor: GIF: 0.565
21. Ichancha, M., Singh, U.C., Singh, A.H. and Devi, R.S. (2019) – Effect of Different sources of nitrogen on the growth, flowering and yield of African Marigold (*Tagetes erecta* L.) cv. Summer Sugat. *The Pharma. Innovation Journal* 8(7):283-286 NAAS rating 5.03
22. Sweety, R.; Singh, U.C. and Ichancha, M. (2019) Efficacy of foliar spray of IAA, GA3 and daminozide on growth and flowering of gladiolus (*Gladiolus grandiflorus* L.) cv. Oscar *The Pharma Innovation Journal* 8(7): 287-289 NAAS Rating: 5.03
23. Piloo Ngangbam, AK Phurailatpam and SR Singh (2017). Changes in quality attributes during storage of underutilized green leafy vegetables. Journal of Hill Agriculture, 8(4):486-489. (NAAS-4.94)
24. Loitongbam Sulochana Devi and Ak Bijaya Devi (2018) Performance of Greater Yam (*Dioscorea alata* L.) Germplasm on Growth and Yield. *Research Journal of Agricultural Sciences*, 2018 Vol .9 (3) 700-701 NAAS: 4.54
25. Momoko Thokchom, Loitongbam Sulochana Devi, Ravi Kiran Thirumdasu, Ak. Bijaya Devi and K.H. James Singh (2018) Growth, physiological studies and yield of taro (*Colocasia esculenta* Schott) cv. Mukhi Pan as influenced by intercropping and row pattern under Manipur condition. *International Journal Of Current Microbiology And Applied Sciences* 2018 Vol. 7 (5) 925-931 NAAS: 5.38
26. Ashwini Ananda, AK Bijaya Devi, S.P. Barik, J. Konthoujam and M.K. Bairwa (2018) Effect of growth, physiological aspects and yield of cabbage (*Brassica oleracea* L. var. *capitata*) cv. Rareball in Knolkhol and Broad bean intercropping system under Imphal west condition. *International Journal Of Current Microbiology And Applied Sciences*.2018 Vol. 7 (10) 1111-1117 NAAS: 5.38
27. Mayengbam Premi Devi, Kenny Thangjam and R.K. Dilip Singh. "Influence of different Doses of Benzyl Adenine with Constant Naphtahlin Acetic Acid on callus Induction and Mass Multipilcation of Pineapple (Ananas comosus L. Merr) var. Kew ..."*ISSN: 2319-7706 Volume 7 Number 07. International Journal of Current Microbiological and applied Sciences.:2319-7706 Volume 7 Number 07 (2018) NAAS rating :- 5.38*
28. TM Nishchitha, AK. B. Devi, K James Singh, AH Singh and NG Singh. Effect of organic source

of nitrogen on growth and quality of local onion (*Allium cepa* var. *aggregatum* Don.) *International Journal of Chemical Studies* (2019) vol.7 (4) 299-303 NAAS: 5.31

29. Justy D Varughese, AK Bijaya Devi, S. Jekendra Singh, Ann Maria Joseph, arathy J and Ashwini Ananda (2019) Intercropping of Knol Khol and pea with cabbage (*Brassica oleracea* L. var. *capitata*) cv. Rareball and its effect on growth and quality of cabbage. *International Journal of Chemical Studies*(2019) Vol.7(4)296-298 NAAS: 5.3
30. Joyshree Laishram*, A.K. Bijaya Devi, K. James Singh and Lourembam Tinibala Devi (2019) Evaluation of Swamp taro [*Colocasia esculenta* var. *Stoloniferum* (L.) Schott] Germplasms on physiology, yield and quality. *International Journal Of Current Microbiology And Applied Sciences* (2019)Vol.8(7)1184- 1189 NAAS: 5.38
31. (1)Amrita Thokchom (2) R.K. Dilip Singh (3) Nesara Begane , (4) Khamrang Mathukmi (5) K.S. Sabastian. "Influence of Grafting Height and Scion Length on Healing of Graft Union and Growth Characteristics of *Citrus reticulate* cv. Nagpur Mandarin Grafted on Rough Lemon Rootstocks". *International Journal of Current Microbiological and applied Sciences. ISSN:2319-7706 Volume 8 Number 03 (2019) NAAS rating :- 5.38*

c) Research Project by the faculties (Ongoing)

1. **AICRP-TC** – Funding Agency: ICAR – Central Tuber Crops Research Institute, Sreekariyam, Thiruvananthapuram, Kerala
2. **AICRP-F (Mango)** – Funding Agency: ICAR- Indian Institute of Horticultural Research, Bengaluru
3. **M4 Agri.** - Funding Agency: Ministry of Electronics and Information Technology, MEITY, Govt. of India
4. **PFDC** – Funding Agency: Mission for Integrated Development of Horticulture
5. **Tribal Sub Plan Project** - Funding Agency: ICAR

6.4.2. FACULTY STRENGTH

At the Department of Horticulture, College of Agriculture, Iroisemba the following Faculty members/Scientists and staffs are associated in teaching and guiding the students of B.Sc. (Agri.), M.Sc. (Agri.) courses during at present.

S.No.	*Sanctioned Faculty*	*Faculty in Place*	*Vacant Position*
1.	Professor	3	-
2.	Associate Professor	1	-
3.	Assistant Professor	3	-

** All the faculty were assigned the responsibility for the multiple programme (Bachelor level, P.G. level)*

Information regarding the designation and qualification of various faculty members are given below.

Information regarding faculties teaching programme for M.Sc. courses

Classification of Courses	Title of Course	Faculty	Qualification
Major & Minor Subjects	Biodiversity & Conservation of Fruit Crops	Dr. R.K. Dilip Singh Dr. Ps .Mariam Anal	Ph.D.
	Propagation and Nursery Management of Fruit Crops	Dr. R.K. Dilip Singh Dr. Ng. Piloo Dr. M. Chanchan	Ph.D.
	Production Technology of Warm Season Vegetable Crops	Dr. AK. Bijaya Devi Dr. M. Chanchan Dr. Ps. Mariam Anal	Ph.D.
	Production Technology of Underutilized Vegetables	Dr. AK. Bijaya Devi Dr. Ng. Piloo Dr. Ps. Mariam Anal	Ph.D.

	Production Technology of Loose flowers	Dr. U. Chaoba Singh Dr. Abhinash M. Dr. Gayatri Kh.	Ph.D.
	Protected Floriculture	Dr. U. Chaoba Singh Dr. Abhinash M. Dr. Gayatri Kh.	Ph.D.
	Tropical and Dry Land Fruit Production	Dr. R.K. Dilip Singh	Ph.D.
	Subtropical and Temperate Fruit Production	Dr. R.K. Dilip Singh	Ph.D.
	Post-Harvest Technology of Fruit Crops	Dr.Ng. Piloo	Ph.D.
	Production Technology of Cool Season Vegetable Crops	Dr. Ak. Bijaya Devi Dr. Mariam Anal	Ph.D.
	Breeding of Vegetable Crops	Dr. Ak. Bijaya Devi	Ph.D.
	Systematics of Vegetable Crops	Dr. Ak. Bijaya Devi Dr.Ng. Piloo & Dr. Mariam Anal	Ph.D.
	Organic Vegetable Production Technology	Dr. Ak. Bijaya Devi Dr.Ng. Piloo & Dr. Meinam Chanchan	Ph.D.
	Production Technology of Cut Flowers	Dr. U. Chaoba Singh & Dr. Abhinash Moirangthem	Ph.D.
	Landscaping and Ornamental Gardening	Dr. U. Chaoba Singh, Dr. Abhinash Moirangthem & Dr. Gayatri Khangjarakpam	Ph.D.
	Protected Floriculture	Dr. U. Chaoba Singh & Dr. Gayatri Khangjarakpam	Ph.D.
	Value Addition in Flowers	Dr. U. Chaoba Singh and Dr.Ng. Piloo	Ph.D.
Supporting Subjects	Agricultural Statistics	Dr. N. Okendro Singh Shri N.Gopimohan Singh	Ph.D. M.Sc.
Seminar	**Master Seminar-I (1+0)**		
	FSC 591	Dr. R.K. Dilip Singh	Ph.D.
	VSC 591	Dr. Ak. Bijaya Devi Dr.Ng. Piloo	Ph.D.
	FLA 591	Dr. U. Chaoba Singh	Ph.D.

Research	Masters' Research – FSC 599	Dr. R.K. Dilip Singh Dr. Ng. Piloo	Ph.D.
	Masters' Research – VSC 599	Dr. AK Bijaya Devi Dr. M. Chanchan Dr. Ps. Mariam Anal	Ph.D.
	Masters' Research – FLA 599	Dr. U. Chaoba Singh Dr. Abhinash M.	Ph.D.

6.4.3. TECHNICAL AND SUPPORTING STAFF

Technical Staff of the Department of Entomology

S No	Name of the Posts & No	Remarks
1	Field cum Lab Assistant- 1	Looking after the Field works for both Departmental and P.G. research
2	MTS (Multitasking Staff)-1	Look after extra works on P.G. & Lab and helps in operating computer works.

6.4.4. CLASSROOMS & LABORATORY

There are sufficient classrooms in various divisions, which are being used by the students of M. Sc. (Horticulture). The smart class room facility is being also utilized by the students of M.Sc. (Horticulture). There are various labs which are being utilized by various UG & PG Programs. These labs are well equipped as per the recommendations of various Dean's Committee.

Details of the Laboratory and the equipment's being used are given below:

S. No.	Name of the Laboratory
1.	**UG Laboratory**
2.	**P.G. Laboratory**
3.	**Green house (2)**
4.	**Research Plot** (Sufficient Research area for M.Sc. students are available)

List of the Equipment's at Department of Horticulture, College of Agriculture, CAU

Sl. No.	Name of the equipments	Quantity
1.	Frost Freeze	01
2.	BOD Incubator Automatic – 610 Malhotra Brothers, Delhi	01
3.	Thermostat Blower Lunar Comp. Sl.No. 0312317 (230v)	01
4.	Hot Air Oven Model: ACM-220661 Comp. SHIVAKI	01
5.	Digital FPM – 125 Sl.No. 2190 SYSTRONICS	01
6.	FPM Compressure Unit -122 Sl.No. 5040 SYSTRONICS	01
7.	Autoclave Calton	01
8.	Autoclave Vertical NSW -227	01
9.	BOD Incubator Super Delux Automatic NSW – 152 Calton Ref.No. COA-4-165/122-04	01

10.	a) pH/mv/Temp. meter – WEIBER b) Digital pH meter 335 - SYSTRONICS c) Electronic Voltz Stablizer – SMART CARE d) Load (Comp. BHANU) Infusil India pvt Ltd. – e) Decicator glass - 01 f) Electronic Balance: i) Sartorius – COA-4-165/122-04 ii) ANAMED INST. PVT. LTD. Model No. MX7210A	01 01 01 02 01 01
11.	Laminar Flow- Klenz Flow 15000/48/24/24	01
12.	Laminar Flow- Klenz Flow 15000/24/24/24	01
13.	Hot Air Oven – NSW- 142 NARANG SCI WORK PVT. LTD.	01
14.	Nitrogen Auto Analyser Distillation Unit- Kelplus Classic DXVATSE	
15.	Spectrophotometer UV VIS – 117 SYSTRONICS	01
16.	Digital pH Meter – 335 SYSTRONICS	01
17.	FPM Compressor 126 SYSTRONICS	01
18.	Flame photometer 128 SYSTRONICS	01
19.	Rotary Flask Shaker MARCO SCI WORK (MAC)	01
20.	Digital Spectrophotometer SPECTRASCAN UV 2600 Ref.No. COA-5-1/148-04	01
21.	Leaf Area Meter 2H SYSTRONICS Sl. No. 432	01
22.	Flame Photometer FP-102 CHEMITO Ref.No. COA-5-2/146-04	01
23.	Spectro colorimeter 103 SYSTRONICS Sl.NO. 1324	01
24.	Electronic Weighing machine Cap. 500gms Sl.No. 5133 ADAIR DUTT NST PVT. LTD.	01
25.	Microscope (olympus) Model GB Sl. No. 55415	02
26.	Simple Microscope	05
27.	Godrej Eon Freezer	01
28.	Deep Freezer Electrolux Cap. 170 Ltr. Product ER37FF	01
29.	Automatic Voltage Autoclave LUNAR	01
30.	Hot Air Oven NWS India MFD by: NARANG SCI WORK PVT. LTD.	01
31.	Micro Balance Model No. LCB – H3 ROY ELECTRONICS	01
32.	Automatic Voltage Stabilizer Model No. 506DX Cap. 5 KVA SHARP COMPANY	01

33.	Biotech Room Temperature Controller Model No. 09300 PREMA 2SP	01
34.	Double Distillation Unit a) Infusel India Pvt. Ltd. b) QUARTZ BI – Distillation Unit Cat.No. 3365 Cap.1.5L/hr.	02
35.	Nitrogen Digestion Unit KEL PLUS Classic DX	01
36.	Soil Moisture Meter Model KS-D1 DELMHORST INST.CO.	01
37.	Digital Vernier Caliper a) Absolute Digimatic b) Stainless Hardened	02
38.	Digital Pocket Refractometer ATAGO	01
39.	Digital Light Meter Model HTC LX-103	01
40.	Gas Set	01
41.	Digital pH meter MKVI SYSTRONICS Sl.No. 4841	01
42.	Electronic Balance Medium Size Roy Electronics Model No. LCB E2 Max.Cap. 5kg.	01
43.	Godrej Refrigerator Gross Vol. 165 Ltr Model P6	01
44.	Electronic Voltage Stabilizer - HI-TECH	01

Photographs

Department of Horticulture	UG Laboratory

PG Laboratory	Laminar Flow
Spectro Photometer	Nitrogen Digestion Unit
Hot Air Oven	BOD Incubator

Autoclave	Electronic Weighing Balance

Number of M.Sc. student qualified SRF during the last 5(five) years (2015-2020)

Sl. No.	Name of the student	ARS /JRF / SRF	Year
1.	Satya Prakash Barik	SRF	2016
2.	Ashwani Ananda	SRF	2017

Awards/ Recognition / Certificates (M.Sc. students in last five years)

Year	Name of the Student	Details of the recognition
2020	P. Manoj Reddy	2nd position in Poster presentation under the theme "Post Harvest Management, value addition and marketing" during National Seminar on "**Conservation and Commercialization of Citrus Biodiversity in NEH Region**" organized by Central Agricultural University, Imphal in collaboration with ICAR-Central Citrus Research Institute, Nagpur, Maharashtra from 18th to 19th February, 2021.
2020	Haobam Neljosh Meetei	3rd position in Poster presentation under the theme "Post Harvest Management, value addition and marketing" during National Seminar on "**Conservation and Commercialization of Citrus Biodiversity in NEH Region**" organized by Central Agricultural University, Imphal in collaboration with ICAR-Central Citrus Research Institute, Nagpur, Maharashtra from 18th to 19th February, 2021.
2020	Deepak Singh	2nd position in Poster presentation under the theme "Genetic resources, diversity, conservation and utilization of Citrus fruits" during National Seminar on "**Conservation and Commercialization of Citrus Biodiversity in NEH Region**" organized by Central Agricultural University, Imphal in collaboration with ICAR-Central

		Citrus Research Institute, Nagpur, Maharashtra from 18th to 19th February, 2021.

6.4.5. CONDUCT OF PRACTICAL AND HANDS-ON-TRAINING

There are manageable number of students who are kept in one batch during Theory & Practical classes to ensure better delivery of information, encourage students' participation and active monitoring. Students conducted their practical training in various Laboratory, research field of the college.

Average number of students in theory and practical classes

Sl. No.	Name of the degree programme	Batch of student in theory	Batch of student in practical
1.	M.Sc. (Horticulture)	Full strength	Full strength

6.4.6 SUPERVISION OF STUDENTS IN M.Sc. PROGRAMME

As per Central Agricultural University Academic Regulations - 2016 for Master and Ph.D. Degree Programmes, the chairperson of a students advisory committee shall be a recognized PG teacher eligible to guide PG research and thesis work. At any given time, professor, associate professor and assistant professor shall not be a chairperson for more than 6, 5 and 4 P.G. students (Master's and Ph.D. combined), respectively. The chairperson should be a recognized P.G. teacher with 5 years of experience and 5 NAAS rating publications or possesses Ph.D. with good publications, made after joining the university.

There are sufficient numbers of qualified and experienced faculties who are guiding M.Sc. students in the area of horticulture. The details of which are given below:

Sl. No.	Name of the faculty	Designation	Qualification	Experience	No. of M. Sc students guided/guiding	
					Guiding	Guided
1.	Dr. Ak. Bijaya Devi	Professor	Ph.D.	35 years	3	21
2.	Dr. U.Chaoba Singh	Professor	Ph.D.	35 Years	3	16
3.	Dr. RK. Dilip Singh	Professor	Ph.D.	27 Years	5	11
4.	Dr. Ng. Piloo	Associate Professor	Ph.D.	12 years	3	-
5.	Dr. M. Chanchan	Assistant Professor	Ph.D.	5 years	1	-
6.	Dr. Mariam Anal	Assistant Professor	Ph.D.	5 years	2	1
7.	Dr. Abhinash Moirangthem	Assistant Professor	Ph.D.	3 years	1	-

6.4.7 FEED BACK OF STAKE HOLDERS

In our University most of the faculty members are made Advisor of students. There has to be at least one meeting of the students with their Advisors in which students raised their various problems (academic, personal etc.). The Advisors helped the students to solve their problem and if needed, help is also taken from other faculty member/staff/Dean to solve the problem.

A register is maintained by the Student Welfare Officer of the College, where any student can raise their problems and the Student Welfare Officer brings the problem to the notice of the Dean of the College. The Dean discussed the issue with the Student/Group of Students/faculties/officials and took remedial measures.

Further, in every Semester, Dean conducts a meeting with representative of Students to discuss their problems related to teaching, hostels, etc. The issues which can be solved at the College

level are settled in the College itself and those which needed the attention of the Vice-Chancellor are sent to him for satisfactory solution.

CAU organized Agricultural Fair every year in various states of NEH where many parents visited these fairs. Also parents also visit the college or talked to various officials over phone. During these visits and discussions they appreciate the facilities and academic atmosphere of the college. Sometimes they also made various suggestions which are implemented by the college. Every Year College also organized Technology Demonstration Mela/ Farmers 'Agriculture Fair in which many farmers of NEH region visit and interact with the faculties of the college.

Extension council meeting of the college and University are regularly held every year. During these meeting, progressive farmers, members of FPO, members of SHG, state government officials, entrepreneurs etc. participated and gave their feedbacks and suggestions.

We have trained (through demonstration, short duration training, vocational training, training in the field etc.) many entrepreneurs & farmers during last five years in Horticultural aspects in the college.

The feedback form (4 nos.) collected from various stakeholders viz. students, farmers, parents etc. are attached below:

1. Students Feedback form - 1:

STUDENT FEEDBACK FORM

1.	Name of the student	:
2.	Admission No.	:
3.	Academic Year	: 2018-20
4.	Name of the programme studied	:
5.	Designation	: Student
6.	Mobile No.	:
7.	Email ID	:
8.	Feedback	:

Sl.No.	Parameter	Rating
1.	Curriculum is in syllabi of the course provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your aspirations	1
2		2
3		1
4.	Opportunities in the College for Research Activities & Relevance with Practical Job work	2
5		2
6		2

* Select your rating on the scale of 1 to 5 for each of the following parameters. (1- Excellent, 2-Very Good, 3- Good, 4-Fair, 5-Poor)

I believe that practical or performance help in better understanding of the subject. Therefore, it's important for the institute to focus on the availability of the laboratory equipments and also to ensure that all equipments are in working conditions.

Signature of the student

2. Students Feedback form - 2:

STUDENTS FEEDBACK FORM

1. **Name of the student: Haobam Neljosh Meetei**
2. **Admission no.: 43A- 17 (M)**
3. **Academic Year: 2017-21**
4. **Name of the programme studied: Pomology**
5. **Designation: M.Sc. (Agri.) Horticulture**
6. **Mobile No.: 9774351551**
7. **Email id: neljoshh@gmail.com**
8. **Feedback:**

S.No.	Parameters	Rating
1.	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation.	2
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	3
3.	Teaching quality, fairness in the assessment processes (Internal evaluation, Quiz, Assignments, etc.) and freedom to adopt new techniques/education tools	2
4.	Opportunities in the College for Research Activities & Relevance with Practical / Lab work	3
5.	Curriculum has prospects for supporting higher education, career orientated/employability	2
6.	Overall Learning Experience	2

*Select your ranking on the scale of 1 to 5 for each of the following parameters. (1- Excellent, 2- Very good, 3- Good, 4- Fair, 5- Poor)

Recommendations if any for course improvement:

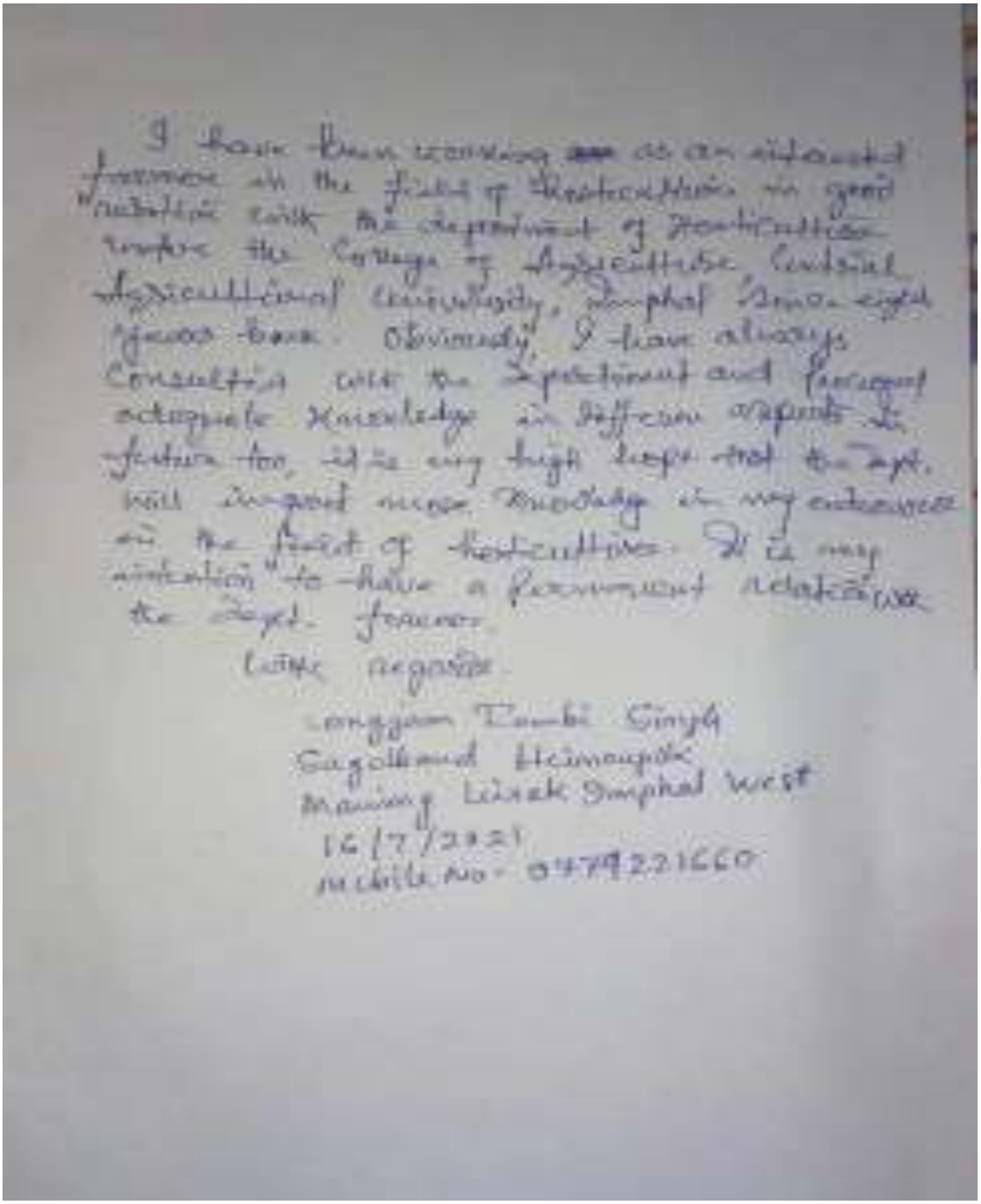
If proper upto-date laboratory for horticulture is set up/provided for practical hands on knowledge to go alongside with theory classes would be better.

If transportation facility is provided for students having experimental field at Andro it would be convenient in carrying out the research.

Date: 17/7/21 Signature of the student

Action taken on: Action has been initiated to procure new laboratory equipments as well as to repair those which are not in working condition. Further the number of departmental laboratory has also been increased to 2 (only one laboratory earlier) as UG and PG laboratory to facilitate the practical works of UG and PG degree programmes in the lab.

3. Farmer's Feedback:



I have been working as an interested farmer in the field of Horticulture in good relation with the department of Horticulture under the College of Agriculture, Central Agricultural University, Imphal since eight years back. Obviously, I have always consulting with the Scientist and getting adequate knowledge in different aspects in future too, it is my high hope that the dept. will suggest more knowledge in my endeavour in the field of horticulture. It is my intention to have a permanent relation with the dept. forever.

Thank regards.

Longjam Tombi Singh
Sagolband Heimoupok
Mayang Likak Imphal West
16/7/2021
Mobile No - 07629221660

4. Parents Feedback form:

PARENTS FEEDBACK FORM

1. Name of the Parent/Guardian: Thokchom Joykumar Singh
2. Occupation: Retd. Agriculture Officer
3. Address: Gagolband Salam Leikai, Imphal
4. Mobile no. 9436038430
5. Email id:
6. Name of the ward: Amata Thokchom
7. Feedback (Please tick the appropriate box):

Sl No.	Parameters	Excellent [5]	Very good [4]	Good [3]	Fair [2]	Poor [1]
1.	Assessment about the teaching / learning process in the institute	✓				
2.	Knowledge/technical skills acquired by the student	✓				
3.	Feeling about the campus discipline	✓				
4.	Overall infrastructural facilities of the institute		✓			
5.	Extra curricular activities	✓				
6.	Learning resources (Library, Computer, Internet, Wifi)		✓			
7.	Counselling/guidance	✓				
8.	Overall feeling about the institute management		✓			

Suggestions, if any, as to how the institution can help its students even more:

Date: 15/12/2021

Signature of the parent/guardian

6.4.8 STUDENT INTAKE AND ATTRITION IN THE PROGRAMME FOR LAST 5 YEARS

Name of the Degree Programme	Actual students admitted in last five years						Attrition (%)					
M.Sc. (Agri.) in Horti	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
	6	7	5	6	7	7	1 (16.6)	2 (28.57)	- Nil	- Nil	- Nil	- Nil

6.4.9 ICT APPLICATION IN CURRICULA DELIVERY

College is having a well-equipped Computer Lab with Internet LAN Connection, All the departments and various externally funded Projects are having Computer facilities which were used for teaching, practical, project work analysis, etc. of students. The college is having a system (e-

collection) through which students deposited their fees etc. online itself. All the funds either from the University or from various funding agencies for various outside funded projects were/are deposited in the college account through Public Finance Management System. Wi-Fi availability and internet services are available in the whole campus (Academic buildings including class rooms, hostels, residential colony).

Our Library is having sufficient Books for use by the Students. It is also having various facilities where student can go through various Journals, Books etc. online either in the Library or Class Rooms or Departments or in their Hostel rooms etc. The Library provides Circulation and reference services. The library has also access to online e-journals through CERA (Consortium for e-Resources in Agriculture) and IP address has been activated to access the online journals through CERA. Photocopying & Printing facilities are also available in the library. Students used all these facilities during the period under report.

6.4.10 The information pertaining to 6.4.1 to 6.4.9 has been provided for PG programme *i.e.,* M. Sc. (Agri) in Horticulture of College of Agriculture, Iroisemba, Manipur.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificates of the Awards

I, the Dean, Prof. Indira Sarangthem hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree is awarded by the university.

Signature of Dean of the College with Date &Seal

M.SC. (Ag) PROGRAMME IN PLANT PATHOLOGY

6.4. SELF STUDY REPORT FORDEGREEPROGRAMME

6.4.1. Brief History of the Degree Programme

Back ground information

Keeping in view the high potential of applications of agricultural technological interventions in improving the agricultural scenario of NEH region and to address to the issues of shortage of trained human resource in Plant Pathology, College of Agriculture, Central Agricultural University (CAU), Imphal. Initially this present Department was named as BPP(Botany and Plant Pathology), later on as per the ICAR-Deans committee norms, changed to Department of Plant Pathology with teaching students of B.Sc (Agri) and later MSc(Ag), Plant Pathology started with admission of students from ICAR-JRF and as well by CAU entrance examination. In the Year 1990, the first batch of MSc (Ag), Plant Pathology was admitted.

The mission, vision, mandate, goal objectives and thrust areas of the college is given below.

Mission

i). To create manpower in area of specialization to Plant Pathology
ii). To achieve sustainable Plant Protection strategies
iii). To train farmers/ extension functionaries on Plant Disease Management

Vision

In accordance with the vision of CAU, Imphal the vision of College of Agriculture, Imphal is to produce world class professionals who are equipped to meet the demands of global outfit, have analytical abilities and entrepreneurship for making career of self-employment and as contributors, to livelihood and food/nutritional security.

Mandate

- Shortage of trained manpower indiscipline(s) of Plant Pathology.
- Utilization of the natural resources for the sustainable agriculture with a special preference to the North East India, a hub of organic farming.

Thrust Areas

With respect to human resource development, research and extension education activities the college has set up following thrust areas;

vi) Human Resource Development

Human resource development in the discipline of Plant Pathology.

vii) Research

- Finding the solution for the hill agriculture with conservation approach having organic base to increase production and productivity of crops by adoption / refinement/development of plant protection measures.
- Adoption/refinement/development of improved Plant disease diagnosis.
- Adoption, promotion and development of improved techniques of plant disease management, in relation to climate change in the region.
- Adoption and promotion of use of different appropriate sustainable sources of Plant protection strategies in relation to crop specific, region specific.

viii) Extension Education

Undertaking variety of extension education activities for transfer of technology through involvement of farmers, researchers, manufactures and extension education functionaries for promoting adoption of improved techniques of Plant disease management strategies for higher productivity and profitability with reduced losses ensuring higher net returns to the farming community of the region.

M. Sc. Degree Programme

The Department of Plant Pathology is one of the major departments under Agricultural teaching system as per the 5th Deans committee. Since the establishment of the College of Agriculture, Iroisemba, the Department of Plant Pathology is engaged in teaching of the BSc (Ag) students as per the course curriculum of ICAR and latest by as per 5th Deans Committee. Later on MSc (Ag), Plant Pathology started with admission of students from ICAR-JRF and as well by CAU entrance examination.

Department of Plant Pathology

The mission of the Plant Pathology Department of COA, Iroisemba to be a Centre of excellence in teaching, research and extension education in the discipline of Plant disease management, diagnosis, so as to reduce losses in crops in NEH region due to Plant pathogens.

With the help of well-established labs including molecular diagnostics, mushroom laboratory and Biocontrol laboratory this Department is contributing for the running of B.Sc. (Agricultural), M. Sc (Plant Pathology) and Ph.D. (Plant Pathology) programme. The MSc. students are getting the following scholarships & Fellowships.

Scholarships & Fellowships

ICAR-JRF including NTS

CAU-University fellowship

Statistics of MSc degree programme (2015-16to2020-21)

Year of Admission	Admitted			Dropped			Passed			Remarks
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	
2015-16	03	03	06	-	-	-	03	03	06	
2016-17	01	03*	04	-	-	-	01	02	03	
2017-18	02	02	04	-	-	-	02	03	05	
2018-19	02	01	03	-	-	-	02	01	03	
2019-20	01	03	04	-	01	01	-	-	-	Yet to complete
2020-21	03	03	06	01	-	01	-	-	-	Yet to complete
Total	12	15	27	01	01	02	08	09	17	

***Taken study leave due to health problem, completed next year**

Award of CAU, GOI & ICAR authorities' Scholarships

MSc. (Pl Path)	Scholarship Type			
	University Scholarship (CAU)	ICAR scholarship (NTS)	SC/ST Fellowship	GOI Scholarship (SC+ST)
2015-16	05	01	-	-
2016-17	03	01	-	-
2017-18	04	-	-	-
2018-19	02	01(JRF)	-	-
2019-20	02	01	-	-
2020-21	04	01	-	-
TOTAL	20	05	-	-

D.

6.4.2. FACULTY STRENGTH

At the Department of Plant Pathology, College of Agriculture, Iroisemba the following Faculty members/Scientists and staffs are associated in teaching and guiding the students of B.Sc (Ag), M.Sc (Ag) and Ph.D. level courses during 2015-2020.

S. No.	Sanctioned Faculty	Faculty in place	Vacant Position	AICRP Scientists/ Guest Faculty/ Teaching Contract
1	Professor	1	1	1(Principal Scientist from ICAR as guest)
2	Associate Professor	1	0	1
3	Assistant Professor	2	0	**4**[1(Scientist-ICAR as guest) 2(Scientist-AICRP) 1(MTCC-VTC)]
	Total	**4**	**1**	**6**

**All the faculty were assigned the responsibility for the multiple programme (Bachelor level ,PG level and Ph.D Levels)*

Information regarding faculties teaching and guiding M.Sc. (Plant Pathology) programme

Classification of Courses	Title of Course	Faculty	Qualification
Major Subject	Mycology	Dr L Nongdrenkhomba Singh, Assoc., Prof.	Ph.D
	Plant Virology	Dr Bireswar Sinha Asst., Prof	Ph.D
	Plant Bacteriology	Dr Ph Sobita Devi, Prof. Dr Sumitra Phurailatpam Asst.Prof.	Ph.D
	Detection and Diagnosis of Plant Diseases	Dr Ph Sobita Devi, Prof.	Ph.D
	Principles Plant Pathology	Dr Ph Sobita Devi, Prof. Dr Bireswar Sinha Asst., Prof	Ph.D
	Diseases of Field and medicinal Crops	Dr Bireswar Sinha, Asst. Prof.	PhD
	Principles of Plant Disease management	Dr L Nongdrenkhomba Singh, Assoc., Prof.	Ph.D
	Diseases of vegetable and Spices Crops	Dr Bireswar Sinha Asst., Prof	Ph.D
Minor Subject	Principles of Integrated Pest Management	Dr K I Singh Assoc. Prof	Ph.D
	Biological Control of crop pests and Weeds	Dr M K Gupta Prof. (Retired 2019)	Ph.D
	Toxicology of Insecticides	Dr S Haldhar Assoc. Prof	Ph.D

		Dr Nilima Karam Scientist-AICRP	PhD
	Pests of Field Crops	Dr K I Singh Assoc.Prof	PhD
Supporting Subjects	Principles of Plant Breeding	Dr N Brojendra Singh Prof.	Ph.D
	Experimental Design	Dr N Okendro Singh Prof	PhD
	Statistical Methods for applied Sciences	Dr N Okendro Singh Prof	PhD
Seminar	Master Seminar-I(1+0)	Dr Bireswar Sinha, Asst., Prof.	Ph.D
Research	Master Research(**0+20**)	Dr Ph Sobita Devi, Prof. Dr L Nongdrenkhomba Singh, Assoc., Prof. Dr Bireswar Sinha, Asst. Prof.	Ph.D Ph.D PhD

6.4.3. TECHNICALANDSUPPORTINGSTAFF

E. Technical Staff of the Department of Plant Pathology are:

S. No.	Name of the Posts & No	Remarks
1	Field cum Lab Assistant- 1	Looking after field works as well as laboratory during practical
2	MTS (Multitasking Staff)-2	Look after extra works on Mushroom Lab and Biocontrol lab.

** The numbers of technical and supporting staff will looks after by the competent authority.

6.4.4. CLASSROOMS & LABORATORY

There are sufficient classrooms in various divisions, which are being used by the students of M. Sc. (Plant Pathology). The smart class room facility is being also utilized by the students of M.Sc. (Plant Pathology). There are various labs which are being utilized by various UG, PG & Ph.D. Programs. These labs are well equipped as per the recommendations of various Dean's Committee.

Details of the Laboratory and the equipment's being used are given below.

S No.	Name of the Laboratory
1.	UG Laboratory (consisting of microscope, herbarium- wet, dry and digital)
2.	PG/PhD (consisting of well-equipped operation lab)
3.	Molecular Plant Pathology Lab (consisting of well equipped molecular biology unit etc.)
4.	Mushroom Unit (consisting of all equipment required for the mushroom spawn and mushroom production with a big seminar hall)
5.	Biocontrol-Trichoderma Laboratory (well established with equipment for Trichoderma mass production)
6.	Green house (One)

7.	Research Plot (Sufficient Research area for MSc students are available)

List of the Equipment's at Department of Plant Pathology, College of Agriculture, CAU, Imphal

S No	Name of the equipment and Model No
1.	Laminar Flow (Model no.-1500c-24-24-24, S.r. no. 112/0705)
2.	Laminar Air Flow(Kenz Flo) (Model no. 15000-36-24-24)
3.	Shaker Cum BOD Incubator Model no. LEIL S.R. NO. 2009400007
4.	Bod Incubator(Orbitek) (30D-350L)
5.	Bod Incubator(Orbitek) (165L)
6.	Bod Incubator(Orbitek)30D-350L
7.	Bod Incubator (Calton)
8.	Hot Air Oven Nsw MODEL NO. 14P S.R. NO. 34164
9.	Autoclave NSW-227(18X24 MLS)
10.	Autoclave NSW-227(16X24 MLS)
11.	Autoclave(Equitron)
12.	Electronoic Balance Anamed Z2000
13.	Centrifuge MODEL NO. MB-2B SR: CCC-256
14.	Hot Water Bath, MODEL –ORBITEK MO, SR. 2009800001
15.	Fermenter, MODEL NO.GX, SR: FGXMG04770071
16.	Lyopholyzer, MODEL NO. 7001000060, S.R.: 06070024
17.	P.C.R. Thermo PX2 SR HBPX220
18.	Double Distillation Unit, Qualizen, Model AODO-20P-08, SR.-0H51006168
19.	pH Meter-Eutech, PRODUCT NO.ECPH70042S
20.	Cold Centrifuge(HermleMicroprocesor), TYPE-Z400K Nr. 50070027
21.	Well Wash(Thermo), REF: 51118170, S.R.: 3550903790
23.	Research Microscope-Olympus-1,Magnus-4
24.	Microscope(Olympus)
25.	Digital Balance(Electronic), (i)SARTORIOUS-(ELEMENT ELT202) (NAIP GINGER), (ii)KERN Cap. 421gm
26.	Digital Balance(Electronic) KERN(ECB1OK10WD090048104) (In Mushroom Lab.)
27.	DNA Gel Electrophoresis Unit With Power Point(DBT Project)
28.	Micro Wave Oven(NAIP Ginger), MAGIC COOK 20S(M)
29.	Phase Contrast With Digital Image Analyzer With Camera (DBT Project) AHN GERMANY
30.	Student Microscope- 45 nos
31.	BOD Orbitek (Mushroom unit) (i) BOD 350L SR NO. 201D1700017 (ii) BOD 350L SR NO. 201D1700018

32.	Laminar Flow Klenz (Mushroom Unit) (i)MODEL NO.-1500C-36-24-24 SR -114/0705 (ii)1500C-36-24-24 SR-223/0810
33.	Autoclave (Equitron) SR.7451STWL.AJF.076 (Mushroom Unit)
34.	Autoclave Vertical NSW227 , SR.229.060913622 (Mushroom Unit)
35.	Jiotech Microprocessor Incubator Code No.AAH2H22K SR R049056,Model No.1B-15G
36.	Orbital shaker (DST) SLM-OS-250D
37.	Refrigerators (i)L.G.Model no. GL-295TMG, (ii)L.G. Model no. GL-244GP, (iii)L.G.-FF & (iv)Godrej Eon, Model no. GFE25/2010(in Mushroom unit)
38.	Elite Pan board
39.	Xerox Canon2420L
40.	Glass House
41.	Laminar flow , project(DBT) (in Trichoderma lab.)
42.	B.O.D. from project (DBT)(in Trichoderma lab.)
43.	Autoclave digital, project (Vocational training on mushroom) (Mushroom unit)
44.	Straw cutter, project (Vocational training on mushroom) (Mushroom unit)

Number of MSc student qualified SRF during the last 5(five) years (2015-2020)

S. No.	Name of the student	ARS /JRF / SRF	Year
1	Mr Ch InaoKhaba(Adm No 17A-15M)	SRF selected without Fellowship at AAU, Jorhat	2017
2	Mr Pratik Ranjan Behera	26thRank SRF, Selected with fellowship at OUAT, Orissa	2017
2	Mr K Dinesh(Adm No 8A-16M)	4rd Rank SRF, Selected with fellowship at UAS, Dharwad	2018
4	Miss Bhubaneswari	16thRank SRF, Selected with fellowship at AAU, Jorhat	2019
3	Miss Poorvasandhya R (Adm No 1A-18M)	SRF without fellowship at HPKV, Himachal Pradesh	2020

MSc Student performing research work in Plant Pathology Laboratory

Awards/Recognition/Certificates (MSc students in last five years)

Year	Name of the Student	Details of the recognition
2019	Mr Kota Chakrapani, M Sc Adm No. 16A-17(M)	Best Master thesis Award-2019 in the 3rd International Conference of GIASE, Trubhuvan University, Katmandu, Nepal
2019	Miss Linda lalduhzuali, MSc	Best Research Scholar Award 2019, at International Conference of AETDS, Kumaun University, Nainital, India.
2020	Miss Poorvasandhya R, MS	Secured III position at the ANVESHAN 2019-20(East Zone), Jadavpur University, Kolkata. (12-13 February 2020).

6.4.5. CONDUCT OF PRACTICAL AND HANDS-ON-TRAINING

There are manageable number of students who are kept in one batch during Theory & Practical classes to ensure better delivery of information, encourage students' participation and active monitoring. Students conducted their practical training in various Laboratory, research field of the college. The MSc students are time to time sent to ICAR institutes for hands on training on modern molecular biotechnology like IARI. We have provided practical as well as hands on training to our students and also various other universities, such as Bharathiar University Coimbatore, Hemwati Nandan Bahuguna Garhwal University etc.

Average number of students in theory and practical classes

S. No.	Name of the degree programme	Batch of student in theory	Batch of student in practical
1.	**M.Sc.(Plant Pathology)**	Full strength	Full strength

F. 6.4.6. SUPERVISION OF STUDENTS IN M.Sc. PROGRAMME

There are sufficient numbers of qualified and experienced faculties who are guiding M.Sc. students in the area of Plant Pathology. The names of the faculties who are entitled to guide M.Sc. students are given below.

S. No.	Name of the faculty	Designation	Qualification	Experience	No. of students guided /guiding	
					Guided	Presently Guiding

1)	Dr. N. I. Singh	Professor (Retired 2017)	Ph.D.	38years	22	Retired (2017)
2)	Dr. Ph Sobita Devi	Professor	Ph.D.	35years	20	-
3)	Dr. L Nongdrenkhomba Singh	Associate Professor	Ph.D.	15 years	3	1
4)	Dr Bireswar Sinha	Asst Prof	Ph D	11 Years	10	2

Eligible criteria for Guidance of PG Research

Master's Programme:

a) Associate Professor and above and their equivalents or

b) Assistant Professor and equivalent with Ph.D. degree in the discipline/ subject who has published two research papers other than his/her Master's and Ph.D. theses. or

c) Assistant Professor and equivalent without Ph.D. degree, provided he/she has at least two years of PG teaching experiences and 5 (five) research papers published in referred journals with minimum NAAS rating of 4 (other than his/her Master's thesis).

Number of students permitted to guide by a teacher

At any given time, Professor, Associate Professor and Assistant Professor shall not be a Chairperson for more than 6, 5 and 4 P.G. students (Master's and Ph.D. combined), respectively. The Chairperson should be a recognized P.G. teacher with 5 years of experience and 5 NAAS rating publications or possesses Ph. D. with good publications, made after joining the University.

Number, name and thesis title of M.Sc. (Ag) Plant Pathology in last five years

Sl No	Thesis Title	Name of the Student
2015-16		
1.	Management of Tikka disease of Groundnut (*Arachis hypogaea*).	Miss Rosangpuii
2.	Reaction of *Albugo candida* to local cultivars of rapeseed and Mustard in Manipur.	Miss Tusichakma
3.	Morphological ,Physiological and Molecular Characterization of *Alternaria alternate* Isolates Causing Brinjal Fruit Rot.	Mr Marjit Chandam
4.	Characterization, Genetic Diversity and Development of Immunocapture-Reverse Transciption -PCR based Diagnostics for *Papaya ring spot virus* , prevalent in Manipur.	Mr Prateek Ranjan Behera
5.	A study on Pod Blight of Soybean (*Glycire max* L.) and its Management by Native *Trichoderma* Spp. In Valley Areas of Manipur.	Miss C. Lalhruaitluangi
6.	Variability & Molecular Characterization of *Pestalotiopsismangiferae* Bult. Causing Grey Leaf Spot of Mango	Mr Ch. InaoKhaba
2016-2017		
1.	Morphological and Molecular Variability of Collectrotrichumcapsici causing Anthracnose of Chilli in Valley Districts of Manipur and its Management	Miss Roseline Salam
2.	Post Harvest Diseases of Mango (*Mangifera indica* L.)	Miss Rahee Bui
3.	Morphological and Molecular Variability of *Sclerotium rolfsii.* Sacc and *in vitro* Management.	Miss K. Dinesh

4.	Morphological and Molecular Characterization of *Alternaria* spp. Causing Alternaria Blight of Marigold an d its Management.	Miss Tokmem Siram
2017-2018		
1.	Studies on Variability of Native *Trichoderma* spp. ad Their *In-vitro* Effect on *Sclerotium rolfsii*Sacc. Causing Collar Rot of Chilli.	Miss V. Bhuvaneswari
2.	Studies on Aggregate Sheath spot disease of Rice and *In-Vitro* Management.	Mr Vignesh P.
3.	Morphological and Molecular Variability of *Rhizoctonia solani* Caused Sheath Blight of Rice and its *in-vitro* management.	Mr Kota Chakrapani
4.	Studies on Tree Bean (*Parkia roxbhurgii*) Decline in Perspective of Plant Pathology in Manipur.	Miss Linda Lalduhzuali
2018-2019		
1.	Effect of Native *Trichoderma* Spp. on Management of Important Fungal Diseases of Potato in Manipur.	Mr Ravi Regar.
2.	Studies on *Fusarium* wilt of Pigeon pea and *In vitr*o Management	Miss Poorvasandhya R.
3.	Effect of Native *Trichoderma* Spp. on Management of Important Fungal Diseases of Tomato in Manipur.	Mr Hanumantha Rao

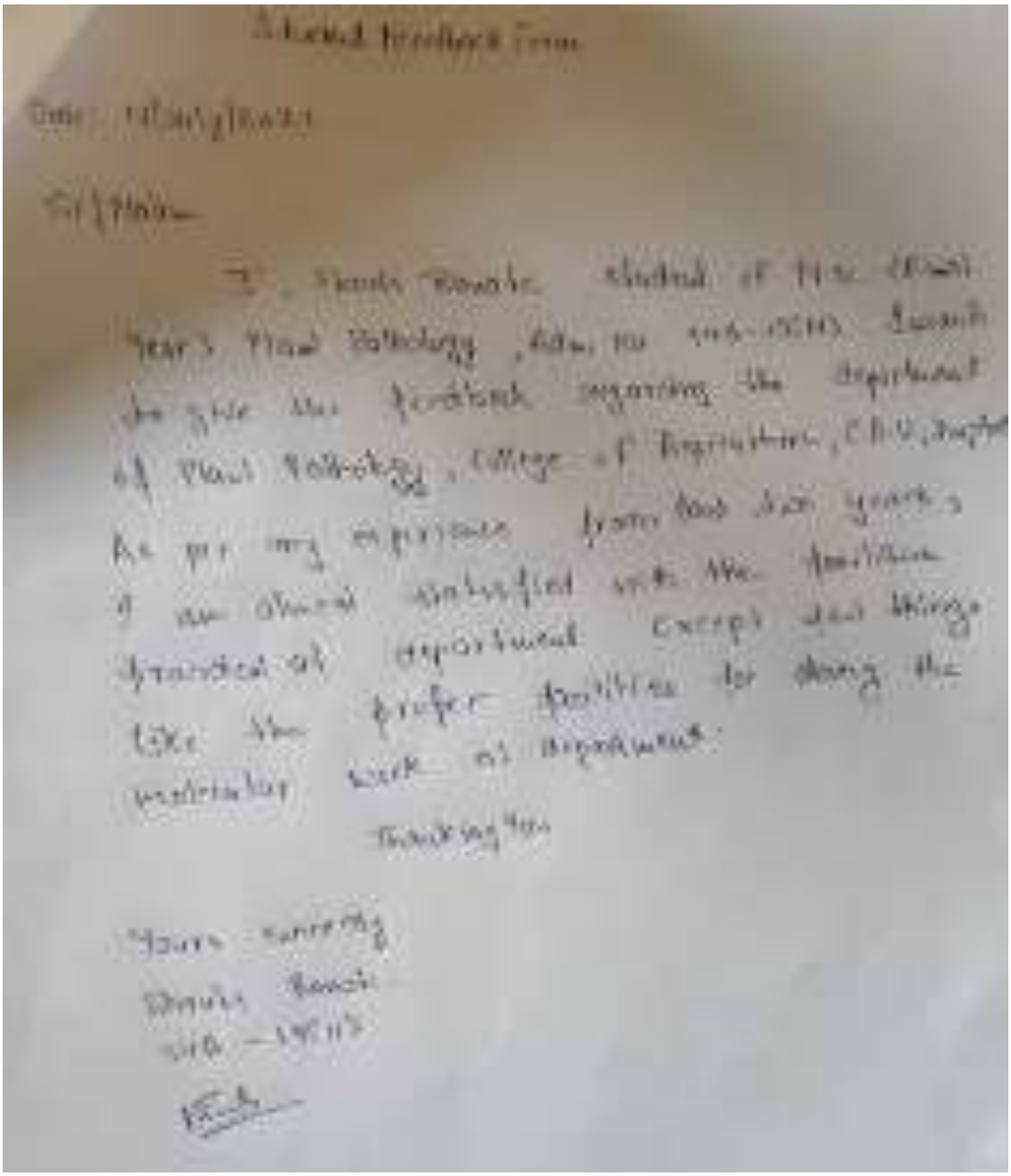
6.4.7 FEEDBACK OF STAKEHOLDERS

In our University most of the faculty members are made Advisor of about 10 students. There has to be at least one meeting (mostly on Saturday) of the students with their Advisors. Students raised their various problems (academic, personal etc.) with the Advisor. The Advisors helped the students to solve their problem. In case, help of some particular faculty member /staff /Dean were needed, Advisors took their help and solved the problem.

There is time to time feedback received from students, parents, staffs as well as stakeholders and farmers. The feed back received from all the sources were analyzed and try to solve in Departmental levels and later submitted to the competent authority which are beyond the Departmental limit. The feed back is used for the understanding the drawbacks of the present system. As a result, it is utilized to improve teaching methods, infrastructure, research any other relevant subjects to improve.

Few feedbacks received from students is attached below:

STUDENT FEEDBACK

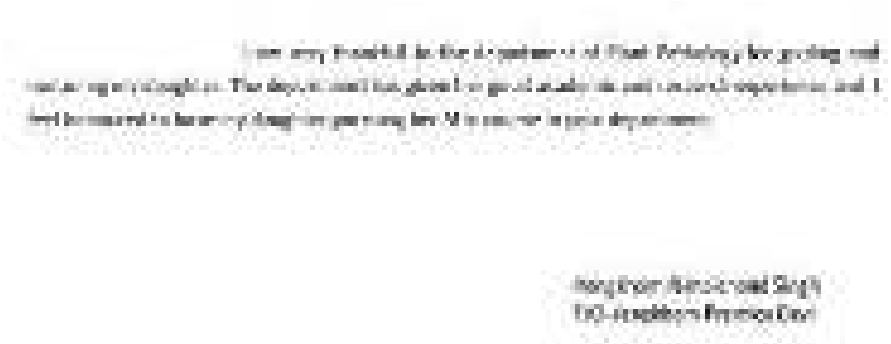


PARENT FEEDBACK

FEEDBACK FORM

STUDENT FEEDBACK

STUDENT FEEDBACK



PARENT FEEDBACK

STUDENT FEEDBACK

6.4.8 STUDEN INTAKE AND ATTRITION IN THE PROGRAMME FOR LAST FIVE YEARS

Name of the Degree Programme	Actual students admitted in last five years						Attrition (%)					
Year / MSc (PP)	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
	06	04	04	03	03	05	06	03	05	03	-	-

6.4.9 ICT APPLICATION IN CURRICULA DELIVERY

College is having a well-equipped Computer Lab with Internet Lan Connection, All the departments and various externally funded Projects are having Computer facilities which were used for teaching, practical, project work analysis etc. of students. The college is having a system (e-collection) through which students deposited their fees etc. online itself. All the funds either from the University or from various funding agencies for various outside funded projects were/are deposited in the college account through Public Finance Management System. Wi-Fi availability and internet services are available in the whole campus (Academic buildings including class rooms, hostels, residential colony).

Our Library is having sufficient Books for use by the Students. It is also having various facilities where student can go through various Journals, Books etc. online either in the Library or Class Rooms or Departments or in their Hostel rooms etc. The Library provides Circulation and reference services. The library has also access to online e-journals through CERA (Consortium for e-Resources in Agriculture) and IP address has been activated to access the online journals through CERA. Photocopying & Printing facilities are also available in the library. Students used all these facilities during the period under report.

6.4.10 The information pertaining to6.4.1to6.4.9hasbeen provided for PG programme *i.e.,* MSc. (Agri,) in Plant Pathology of College of Agriculture, Iroisemba, Manipur is correct.

6.4.11 Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12 Certificates of the Awards

I , the Dean Prof. Indira Sarangthem here by certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date &Seal

M.SC. (Ag) PROGRAMME IN SOIL SCIENCE AND AGRICULTURAL CHEMISTRY

6.4. SELF STUDY REPORT FOR DEGREE PROGRAMME

6.4.1. Brief History of the Degree Programme

Background information

Keeping in view of the potential of applications of agricultural technological interventions in improving the agricultural scenario of the NEH region and to increase the trained human resources in Soil Sc.& Agril. Chemistry the College of Agriculture, CAU, Iroisemba, Imphal was established. Initially, the department started teaching M.Sc.(Agri) in Soil Sc.& Agril. Chemistry in 1999 and subsequently Ph.D.programme started in 2012. The mission, vision, mandate, goal, objectives and thrust areas of the College are as:

Mission

- To create the manpower specialized to the subject,
- To equip the knowledge of soil fertility and sustainability,
- To train the farmers and extension functionaries of the region on soil fertility related to crop production.

Vision : In accordance the vision of the CAU, Imphal is to produce world class professionals who are equipped to meet the demands of global outfit, have analytical abilities and entrepreneurship for making career of self employment and as contributors to livelihood and food/nutritional security.

Mandate : Fill the gap of shortage of manpower in the discipline of Soil Sc.&Agril. Chemistry

- Utilization of natural resources for sustainable agriculture of the region.

Thrust Area

With respect to human resource development, research and extension education activities, College of Agriculture, CAU, Imphal was setup with the following thrust areas:

i) **Human resource development** in the discipline of Soil Sc.&Agril. Chemistry,

ii) **Research**

- Finding the solution to increase economic crop production through balanced fertilization,
- Adoption/refinement and development of critical levels of nutrients in soils and plants for effective fertilization for economic yield and
- Adoption of integrated nutrient management for sustainability.

iii) **Extension Education**

Extension activity is one of the most important techniques for transfer of technology from the improved research findings to the farmers and extension functionaries of the region. The knowledge of this discipline will definitely enhance the economic crop production for long period of time with least environmental pollution.

M.Sc. (Agri) Degree Programme

The Department of Soil Science and Agricultural Chemistry, College of Agriculture, Central Agricultural university, Iroisemba, Imphal is one of the major department under the agricultural teaching system as per 5th Deans' Committee. Since the establishment of the College of Agriculture, CAU, Iroisemba, Imphal, the Department of Soil Science and Agricultural Chemistry is engaged in teaching of B.Sc.(Agri) students as per course curriculum of ICAR and latest by as per 5th Deans' Committee. Later on M.Sc.(Agri) in Soil Science and Agricultural Chemistry started with the admission of students from ICAR-JRF and CAU entrance examination.

Department of Soil Science and Agricultural Chemistry

The mission of the Department of Soil Science and Agricultural Chemistry, College of Agriculture, CAU, Iroisemba, Imphal is to be a centre of excellence in teaching, research and

extension education in the line of nutrition, soil fertility management and diagnosis of nutrients through soil testing.

The department has well-established laboratory with AAS facility for micronutrients analysis. The M.Sc. (Agri) and Ph.D. students are getting the following scholarships and fellowships.

Scholarships and Fellowships

- ICAR-JRF including NTS
- CAU-University fellowship

Statistics of M.Sc. (Agri) degree programme (2015-16 to 2019-20)

Year of Admission	Admitted			Dropped			Passed			Degree /award during the year	Remarks
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total		
2015-16	4		4	-	-	-	4		4	2017-18	
2016-17	4	2	6	-	-	-	4	2	6	2018-19	
2017-18	4	2	6	-	-	-	4	2	6	2019-20	Two students got degree in the year 2020-21
2018-19	3	2	5	-	-	-	2	2	4	2020-21	One student Yet to complete
2019-20	2	2	4	-	-	-				2021-22	Yet to complete
2020-21	2		2	-	-	-				2022-23	Yet to complete
Total	19	8	27	-	-	-	14	6	20		

Award of CAU, GOI and ICAR authorities Scholarship

M.Sc. (Agri)	Scholarship Type			
	University Scholarship (CAU)	ICAR scholarship (NTS)	SC/ST Fellow Ship	GOI Scholarship (SC+ST)
2015-16	3	1	-	-
2016-17	4	2	-	-
2017-18	4	2	-	-
2018-19	4	2	-	-
2019-20	3	1	-	-
2020-21	2	-	-	-

6.4.2. FACULTY STRENGTH

The Department of Soil Science and Agricultural Chemistry, College of Agriculture, CAU, Iroisemba, Imphal have the following faculty and staff associated in teaching B.Sc.(Agri), M.Sc.(Agri) and Ph.D. courses and guiding the students of M.Sc.(Agri) and Ph.D. during 2015-2020.

S. No.	Sanctioned Faculty	Faculty in strength	Vacant position	AICRP Scientists/ Guest Lecturer/ Teaching Contract
1	**Professor**	1	0	2
2	**Assoc. Prof.**	0	1**	-
3	**Asstt. Prof.**	2*	1**	1[DEPT. of Remote Sensing, Govt. of Manipur]
	Total	2	2	3

* One Asstt. Prof. is promoted to Professor under Career Advancement Scheme (CAS)

** One Asstt. Prof. promoted to Prof. and one Assoc. Prof. promoted to Prof. retired in the year 2020

Information regarding faculties teaching and guiding M.Sc. (Agri) in Soil Science and Agricultural Chemistry programme

Area	Course No.	Course Title	No. of Credits	Faculty	Qualification
Major Courses (Core)	SOILS-501	SOIL PHYSICS	2+1=3	Dr. A. Herojit Singh	Ph.D.
	SOILS-502	SOIL FERTILITY AND FERTILIZER USE	3+1=4	Dr. N. Surbala Devi	Ph.D.
	SOILS-503	SOIL CHEMISTRY	2+1=3	Dr. Indira Sarangthem	Ph.D.
	SOILS-504	SOIL MINEROLOGY, GENESIS, CLASSIFICATION AND SURVEY	2+1=3	Dr. R.K. Kumarjit Singh (Retired) and Dr. N. Surbala Devi	Ph.D.
	SOILS-506	SOIL BIOLOGY AND BIOCHEMISTRY	2+1=3	Dr. A. Herojit Singh & Dr. S. Jekendra Singh	Ph.D.
Major Courses (Optional)	SOILS-505	SOIL EROSION AND CONSERVATION	2+1=3	Dr. A. Herojit Singh	Ph.D.
	SOILS-507	GEOMORPHOLOGY AND GEOCHEMISTRY	2+0 =2	Dr. Indira Sarangthem	Ph.D.
	SOILS-509	SOIL, WATER AND AIR POLLUTION	2+1=3	Dr. N. Surbala Devi	Ph.D.
	SOILS-513	MANAGEMENT OF PROBLEMATIC SOILS AND WATER	2+1=3	Dr. N. Surbala Devi	Ph.D.
	SOILS-515	LAND DEGRADATION AND	1+0 =1	Dr. N. Surbala Devi	Ph.D.

		RESTORATION			
Minor Courses	AGRON-501	MODERN CONCEPTS IN CROP PRODUCTION	3+0=3	Prof. K. Nandini Devi	Ph.D.
	AGRON-502	PRINCIPLES AND PRACTICES OF SOIL FERTILITY AND NUTRIENT MANAGEMENT	2+1=3	Dr. M. Sumarjit Singh	Ph.D.
	AGRON-513	PRINCIPLES AND PRACTICES OF ORGANIC FARMING	2+1=3	Dr. M. Sumarjit Singh	Ph.D.
	AGRON-504	PRINCIPLES AND PRACTICES OF WATER MANAGEMENT	2+1=3	Dr. Edwin Luikham	Ph.D.
	AGRON-503	PRINCIPLES AND PRACTICES OF WEED MANAGEMENT	2+1=3	Dr. K. Nandini Devi & Dr. N. Nabachandra Singh	Ph.D.
	AGRON-512	DRY LAND FARMING AND WATERSHED MANAGEMENT	2+1=3	Dr. N. Nabachandra Singh	Ph.D.

Compulsory Courses (Non-Credit)	PGS-501	LIBRARY AND INFORMATION SERVICES	0+1=1	Shri. M. Hemchandra	PG
	PGS-502	TECHNICAL WRITING AND COMMUNICATIONS SKILLS	0+1=1	Dr. MaheshwariKonjengbam	Ph.D.
	PGS-503	INTELLECTUAL PROPERTY AND ITS MANAGEMENT IN AGRICULTURE	1+0=1	Dr. N. Brajendra Singh	Ph.D.
	PGS-504	BASIC CONCEPTS IN LABORATORY TECHNIQUES	0+1=1	Dr. S. Jekendra Singh	Ph.D.
	PGS-505	AGRICULTURAL RESEARCH, RESEARCH ETHICS AND RURAL DEVELOPMENT PROGRAMMES	1+0=1	Dr. N. Brajendra Singh & Dr. M. Kunjaraj Singh	Ph.D.
	PGS-	DISASTER	1+0=1	Dr. Gopeswar	Ph.D.

	506	MANAGEMENT			
Seminar	SOILS -591	MASTER'S SEMINAR	1+0=1	Dr. N. Surbala Devi	Ph.D.
Supporting Courses	STAT-511	STATISTICAL METHODS FOR APPLIED SCIENCES	3+1=4	Shri. N. Gopimohan Singh & Dr. N. Okendro Singh	M.Sc.(Stats) Ph.D.
	STAT-512	EXPERIMENTAL DESIGNS	2+1=3	Shri. N. Gopimohan Singh	M.Sc.
Research	Master Research		0+20=20	Dr. R.K. Kumarjit Singh (Retired), Dr. A. Herojit Singh, Dr. Indira Sarangthem (Dean) and Dr. N. Surbala Devi	Ph.D.

6.4.3. Technical and supporting staff

Sl. No.	Name of the posts and number	Remarks
1.	Field cum Lab. Assistant-2	Looking after the laboratory, field works and PG and Ph.D. research works
2.	MTS -1	-do-
3.	Contractual labour -1	-do-

6.4.4. Classrooms and Laboratory

There are sufficient classrooms which are utilizedfor PG class. The department is having laboratories, one for UG and another for PG and Ph.D. students. Separate rooms for AAS and digestion chamber are also there in the department. These laboratories are well-equipped for soil and plant analyses.

Details of laboratories and equipments

Sl. No.	Name of the laboratory	
1.	**UG & PG laboratory**	AAS, HPLC, Spectrophotometer, Flame photometer, N-analyser, pH meter, EC meter, Hot-air oven, Hot plate, Electronic balances, Electric stirrer, Centrifuge, Hot water bath, Turbidity meter, Yonder sieve shaking machine, Horizontal shaker, Hot water shaker, Quartz double distillation units, Hydrometers, Muffle Furnace, BOD Incubator, Deep freezer, Refrigerator, Centrifuge machine, etc.

Number of M.Sc.(Agri) students qualified during the last 5 (five) years (2015-20)

Sl.No. Name of the student ARS/JRF/SRF Year

NIL

Awards/Recognition/Certificates (M.Sc. students for last five years)

Year	Name of the student	Detail of recognition
2018	Sudip Sarkar	Best poster presentation award in the 1st farm innovation congress, 2018 and national conference on "Innovative farming for food and livelihood security in changing climate" during 12-14th January, 2018 at BCKV, Kalyani, Naia, West Bengal
2021	NakeerthaVenu	Second position in poster presentation in the national seminar on "Conservation and commercialization of citrus biodiversity in NEH region" during 18-19th February, 2021 at College of Agriculture, Imphal, Manipur

6.4.5. CONDUCT OF PRACTICAL AND HAND-ON-TRAINING

The maximum number of student per batch is less than ten including Agronomy students. So, there is no problem for conducting practical class in the laboratory for PG students.

Average number of students in theory and practical classes

S.No.	Name of the degree programme	Theory	Practical
1.	M.Sc.(Agri)	Full strength	Full strength

6.4.6. SUPERVISION OF STUDENTS IN M.Sc. (Agri) PROGRMME

There are sufficient numbers of qualified and experienced faculties who are guiding the PG students in the discipline of Soil Sc. &Agril. Chemistry. The name of the faculties who are entitled to guide the PG students are given below.

S. No.	**Name of the faculty**	**Designation**	**Experience**	**No. of students supervised as major advisor**		**No. of students presently supervising as major advisor**	
				PG	**Ph.D.**	**PG**	**Ph.D.**
1.	Dr. Indira Sarangthem	Professor and Dean	30 years	12	2	1	4
2.	Dr. R. K. Kumarjit Singh	Professor (Retired-2020)	40 years	7	2	Nil	Nil
3.	Dr. A. Herojit Singh	Professor and HOD	32 years	12	1	2	2
4.	Shri. O. Nirmal kumar Singh	Assoc. Prof. (Retired-2020)	40 years	Nil	Nil	Nil	Nil
5.	Dr. N. Surbala Devi	Assistant Professor (Sr. Scale)	10 years	8	Nil	4	Nil

Number, name and thesis title of M.Sc.(Agri) in SSAC for last five years

Sl.No.	**Thesis title**	**Name of the student**
2015-16		
1.	Micronutrient Status of Soils Under Different Landuse System in Manipur	Ningombam Riyabati
2.	Status and different forms of phosphorus in acid soils of Imphal East district, Manipur	Rabichandra Khangembam
2016-17		
3.	Nitrogen Transformation in Paddy Soil Fertilized with Organic Manures and Urea	Khundrakpam Manorama
4.	Effect of Sulphur and Zinc Levels on Growth, Seed Yield and Oil Content of Rapeseed (*Brassica campestris*)	Naorem Chanu Gulleibi
5.	Effect of Integrated Nutrient Management on Soil Fertility and Productivity in Potato in Acid Soil	Dorjee Tsering
2017-18		
6.	Phosphorus Transformation in Paddy Soil Fertilized with Single Super Phosphate and Rock Phosphate	Sudip Sarkar
7.	Phosphorus Transformation in Rock Phosphate Fertilized soil Amended with Organic manures and Lime	Tshering Palden Bhutia
8.	Comparative Efficiency of Zinc with and without organic manure	T. Vikash kumar

	in growth and effect of organic amendments in Zinc Nutrition of Chckpea (*Cicerarietinum*)	
9.	Status and different forms of zinc in soils of Imphal West district, Manipur	Lalramdinpuia Ralte
2018-19		
10.	Nitrogen Transformation in Soil Amended with Humic Acid Derived from Organic Manures	Geeta Nongmeikapam
11.	Distribution of Secondary Macro Nutrients and Estimation of Critical Limits of Magnesium for Green Gram	V. Venkatesh
12.	Comparative Efficacy of Different Manures on Chickpea (CicerarietinumL.)	Vanlalmuanpuia Fanai
13.	Transformation of Zinc in Soils under Submerged Condition and its Relation to Zinc Nutrition of Lowland Rice (*Oryza sativa*)	Konda Reddy
14.	Effect of Zinc and Boron on the Growth and Yield of Tomato (*Solanumlycopersicum*) in Acid Soils	D. Gopal
15.	Vertical distribution of micronutrients in the soils under Jhum land in Chandel district, Manipur	Hrangbung jurist Anal
2019-20		
16.	Boron Transformation in Paddy Soil Fertilized with Boron and FYM	Animesh Sarkar
17.	Forms of Boron and their Relationship with Some Physico-Chemical Properties of Soil	Ann Maria Joseph
18.	Standardization of Soil Test Methods and Establishment of Critical Limits of in Soils of Manipur	Laxmi Ningthoujam
19.	Micronutrients status in the soils of orange orchard (Citrus reticulate Blanco) of Tamenglong district, Manipur	Laikhuram Banarjee Singh
2020-21		
20.	Phosphorus Transformation in Rock Phosphate Fertilized Soil Applied with Phosphorus Solubilizing Bacteria and Farm Yard Manure	AkhilDev Tamalam
21.	Boron Transformation in an Acid Soil Applied with Boron and Lime	Hiren Das
22.	Effect of Nitrogen and Molybdenum on Soil Properties and Yield of Pea (*Pisumsativum* L.)	Ch. Karuna Chanu
23.	Effect of zinc on soil properties and yield under rice-rapeseed sequence	Sanjeev Kumar
24.	Status of zinc in the soils of Imphal East district, Manipur	Pawan Kumar
25.	Status and distribution of zinc in the soils of Thoubal district, Manipur	Lalitha Gollapudi

6.4.7. FEED BACK OF STAKE HOLDERS

In the college, all the faculty members are made advisor of the students. There has at least one advisory meeting with the students. Sometimes the students raised their problems particularly academic matter during the meeting and every advisor tried to solve the problems. If the problem is beyond capacity of the advisor, then the matter is put up to the higher authority to solve the problems.

There is a register with the Student Welfare Officer (SWO) of the College in which any student can raised the problems related to academic, hostel, etc. The SWO brought the problem to the notice of the Dean of the College. The Dean of the College discussed the issues with the students along with the advisor to solve the problems if it is needed.

In every semester, there was a meeting with the student representatives and advisors appointed by the Dean, College of Agriculture to discuss the problems faced by the students to put up to the academic council meeting of the University. Academic Council Meeting was held every year.

CAU organized Inter Collegiate Youth Festival and CAU Agri-Fair every year at different constituent colleges of the University. During the Agri-Fair, there were many technological

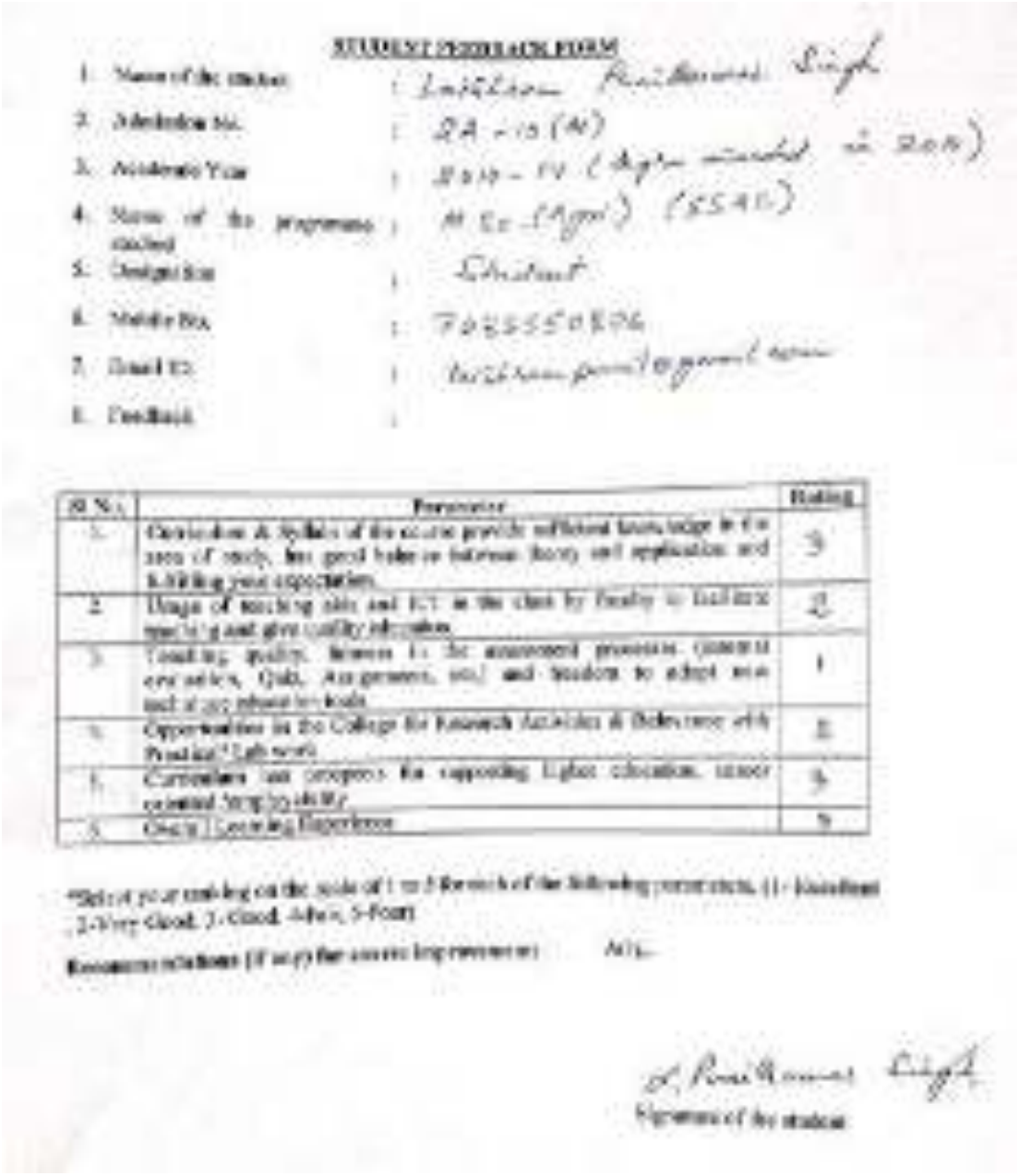
demonstrations in which the farmers/stakeholders made various queries related to agriculture and university authority tried to solve the problem faced by them. There were interaction programme with the farmers and scientists everyday during the Agri-Fair.

Research Council Meeting and Extension Council Meeting were held every year along with the progressive farmers, FPO members, SHGs, related officials of state government, entrepreneurs, etc. and their problems and suggestions were noted for further actions.

The Department of Soil Science & Agricultural Chemistry have trained the extension functionaries of the Directorate of Agriculture, Government of Manipur about the Hands-on-practical on soil testing.

Feedback received from the students, parents and employer are used to improve curriculum delivery, course evaluation process, infrastructure in the laboratories and sections of the department, chemicals and reagent availability and other research facilities.

FEEDBACK FROM STUDENTS AND PARENTS ARE GIVEN BELOW:



STUDENT FEEDBACK FORM

1. Name of the student : Laikham Ruikumar Singh
2. Admission No. : 2A-15(M)
3. Academic Year : 2019-IV (Agri. started in 2015)
4. Name of the programme studied : M.Sc.(Agri.) (SSAC)
5. Designation : Student
6. Mobile No. : 7085550506
7. Email ID : laikham.ruikumar@gmail.com
8. Feedback :

Sl No.	Parameter	Rating
1.	Curriculum & Syllabus of the course provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectations	3
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education	2
3.	Teaching quality, fairness in the assessment processes, quizzes, exercises, Quiz, Assignments, etc) and freedom to adopt new and creative methods/tools	1
4.	Opportunities in the College for Research Activities & Relevance with Practical Laboratory	2
5.	Curriculum has prospects for supporting higher education, career oriented training/skills	3
6.	Overall Learning Experience	3

*Rate (4 point rating on the scale of 1 to 5 the each of the following parameters, (1- Excellent 2-Very Good, 3- Good, 4-Fair, 5-Poor)

Recommendations (If any) for course improvement: Nil.

L. Ruikumar Singh
Signature of the student

PARENTS/GUARDIAN'S FEEDBACK FORM

1. Name of the Parent/Guardian: Loishram Shyamchan Singh
2. Occupation: Agriculture
3. Address: Kakwa Lairik Kshetrimayum
4. Mobile no.: 7005934306
5. Email id:
6. Name of the ward: L. Sunilkumar Singh
7. Feedback (Please tick the appropriate box):

S/No.	Parameters	Excellent (5)	Very good (4)	Good (3)	Fair (2)	Poor (1)
1.	Assessment about the reading / learning process in the institute			✓		
2.	Knowledge and skills acquired by the student			✓		
3.	Rating about the institute discipline		✓			
4.	Overall infrastructural facilities of the institute			✓		
5.	Extra-curricular activities		✓			
6.	Learning resources (Library, Computer, Internet, WIFI)		✓			
7.	Counselling & Guidance			✓		
8.	Overall rating about the institute environment			✓		

Suggestions, if any, to be given by the parents which can help students to perform better:

L Shyamchan Singh

Date: 16/03/2021

Signature of the Parent/Guardian

Scanned with CamScanner

STUDENT FEEDBACK FORM

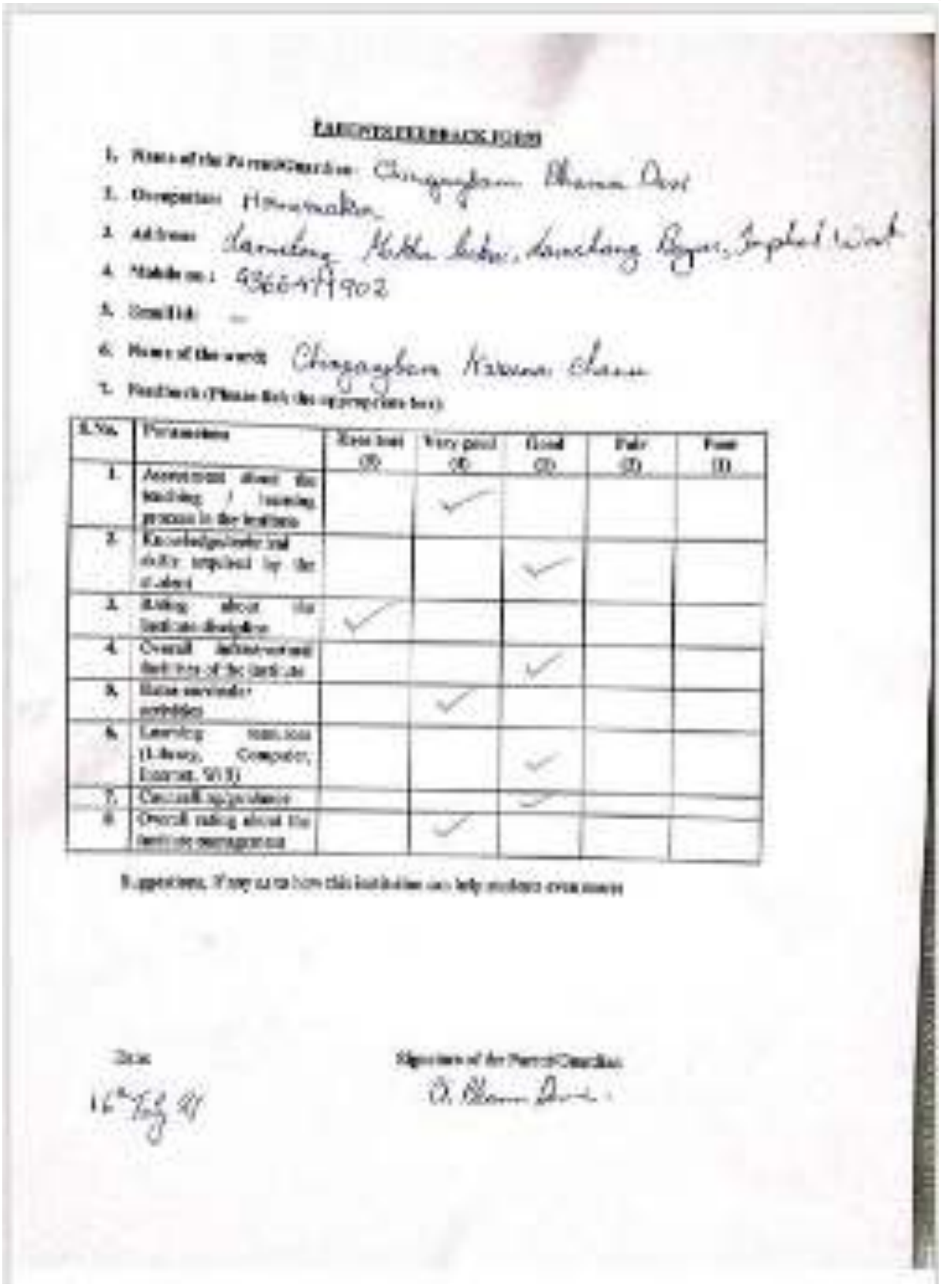
1. Name of the student : Chingangbam Kaumia Devi
2. Admission No. : 2018-18(M)
3. Academic Year : 2018 - 2020
4. Name of the programme studied : M.Sc. (Agri.)
5. Designation : Student
6. Mobile No. : 9856715558
7. Email ID : chingangbamkaumia91@gmail.com
8. Feedback :

Sl.No.	Parameter	Rating
1.	Curriculum & Syllabi of the course provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectations	2
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education	3
3.	Teaching quality, fairness in the assessment processes (internal evaluation, Quiz, Assignments, etc.) and freedom to adopt new technique education tools	1
4.	Opportunities in the College for Research Activities & Relevance with Practical/Lab work	2
5.	Curricular has prospects for supporting higher education, career oriented employment	3
6.	Overall Learning Experience	2

*Select your ranking on the scale of 1 to 5 for each of the following parameters (1- Excellent, 2-Very Good, 3-Good, 4-Fair, 5-Poor)

Recommendations (If any) for course improvement:

Ch. Kaumia Chanu
Signature of the student



PARENTS FEEDBACK FORM

1. Name of the Parent/Guardian: Chingangbam Bhanu Devi
2. Occupation: Homemaker
3. Address: Lamdang Kokha Lichu, Lamdang Bazar, Imphal West
4. Mobile no.: 9366477902
5. Email id: —
6. Name of the ward: Chingangbam Kishan Sharma
7. Feedback (Please tick the appropriate box)

S.No.	Parameters	Excellent (5)	Very good (4)	Good (3)	Fair (2)	Poor (1)
1.	Awareness about the teaching / learning process in the institute		✓			
2.	Knowledge/subject skills imparted by the students			✓		
3.	Ability about the institute discipline	✓				
4.	Overall achievement and facilities of the institute			✓		
5.	Extra curricular activities		✓			
6.	Learning resources (Library, Computer, Internet, Wifi)			✓		
7.	Counselling guidance			✓		
8.	Overall ruling about the institute management		✓			

9. Suggestions, if any on how this institution can help students even more

Date:
16th July 17

Signature of the Parent/Guardian
Ch. Bhanu Devi

6.4.8. STUDENT INTAKE AND ATRITION IN THE PROGRAMME FOR LAST FIVE YEARS

Name of the degree prog.	Actual students admitted in last 5 yrs						Attrition (%)					
Year	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
M Sc. (Ag)	4	6	6	5	4	2	-	-	-	-	-	-

6.4.9. ICT APPLICATION IN CURRICULA DELIVERY

The College is having a well-equipped computer Lab with Internet Lan connection. All the departments are having computer facilities with internet connection. Wi-Fi availability and internet services are available in the whole campus (Academic buildings including class rooms, hostels, guest house, residential colony, etc). Library of the College is having sufficient books and journals for students as well as faculties. The library has also access to online e-journals through CERA (Consortium for e-Resources in Agriculture) and IP address has been activated to access the online journals through CERA.

6.4.10. All the information pertaining to 6.4.1. to 6.4.9. provided for PG students i.e. M.Sc. (Agri) in Soil Science & Agricultural Chemistry, College of Agriculture, Central Agricultural University, Imphal (Manipur) is correct.

6.4.11. Since the accreditation of programme is related to the All India Admission from ICAR and also having weightage of the college accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificates of Awards

I, Prof. Indira Sarangthem, Dean, College of Agriculture, CAU, Iroisemba, Imphal hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college and degree awarding University.

Signature of Dean of the College with Date &Seal

SSR

for

Ph. D. (Ag.) Programme

PH.D. PROGRAMME IN AGRONOMY

6.4. SELF STUDY REPORT FOR DEGREE PROGRAMME

6.4.1Brief History of the Degree Programme

Back ground information

Keeping in view the high potential of applications of agricultural technological interventions in improving the agricultural scenario of NEH region blessed with abundant natural resources and to address to the issues of shortage of trained human resource in Agronomy, the than Manipur Agriculture College was upgraded to College of Agriculture, under Central Agricultural University (CAU) by an act of parliament in 1993. The first batch of PhD programme was started in the year 2015 with admission of two students, one is from ICAR-SRF and another is from CAU entrance examination.

The mission, vision, mandate, goal objectives and thrust areas of the college is given below.

Mission

To be the centre of excellence in teaching, research and extension activities in the discipline of Agronomy for increasing the productivity and quality of crop and maintaining the soil health.

Vision

In accordance with the vision of CAU, Imphal the vision of College of Agriculture, Imphal is to produce world class professionals who are equipped to meet the demands of global outfit, have analytical abilities and entrepreneurship for making career of self-employment and as contributors, to livelihood and food/nutritional security.

Mandate

- Shortage of trained manpower in discipline(s) of Agronomy.
- Utilization of the natural resources for the sustainable agriculture with a special preference to the North East India, a hub of organic farming.

Thrust Areas

With respect to human resource development, research and extension education activities the college has set up following thrust areas;

ix) Human Resource Development

Human resource development in the discipline of Agronomy.

x) Research

- Development of suitable Agro-techniques for different crops to increase the production, quality and income
- Suitable technology for organic farming of selected crops like aromatic black aromatic rice.
- Alternative/ improve system in Jhum cultivation
- Development of suitable cropping system which are remunerative and eco-friendly

xi) Extension Education

Undertaking variety of extension education activities for transfer of technology through involvement of farmers, researchers, manufactures and extension education functionaries for promoting adoption of improved Agro- techniques for higher productivity and profitability to the farming community of the region.

Ph.D. Degree Programme

Agronomy is one of the major departments under Agricultural teaching system as per the 5th Deans committee. Since the establishment of the College of Agriculture, Iroisemba, the Department of Agronomy is engaged in teaching of graduate, Post-graduate and Ph.D students as per the course curriculum of ICAR and latest by as per 5th Deans Committee. In the year 2015, admission of PhD students started with intake of two students.

Department of Agronomy

The mission of the Agronomy Department of COA, Imphal to be a centre of excellence in teaching, research and extension education in the discipline of weed management, water management, nutrient management of different field crops, cropping system, organic farming with special reference to NEH region.

The Ph.D. students are getting the following scholarships &Fellowships.

Scholarships & Fellowships

1. UGC Fellowship- 1
2. ICAR-SRF (Without Fellowship)-
3. CAU university fellowship- 10
4. SC/ST FellowShip -1

Statistics of Doctoral degree programe (2015-16 to 2020-21)

Year of Admission	Admitted			Dropped			Passed			Remarks
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	
2015-16	1	1	2							Completed- 2
2016-17	1	2	3							Completed- 1 Yet to complete-2
2017-18	-`	1	1	-	-	-	-	-	-	Yet to complete-1
2018-19		2	2	-	-	-	-	-	-	Yet to complete-2
2019-20	-	2	2	-	-	-	-	-	-	Yet to complete-2
2020-21		2	2	-	-	-	-	-	-	Yet to complete-2
Total	2	10	12	-	-	-	1	2	3	

Award of CAU, GOI & ICAR authorities' Scholarships

Ph.D. (Agronomy)	Scholarship Type			
	University Scholarship (CAU)	UGC	SC/ST Fellow Ship	GOI Scholarship (SC+ST)
2015-16	1	1	-	-
2016-17	3		-	-
2017-18	1	-	-	
2018-19	2	-	-	-
2019-20	1	-	1	-
2020-21	2	-	-	-
TOTAL	10	1	1	-

35.4.2. FACULTY STRENGTH

At the Department of Agronomy, College of Agriculture, Imphal the following Faculty members/Scientists and staffs are associated in teaching and guiding the students of B.Sc(Ag), M.Sc (Ag) and Ph.D level courses during 2015-2020.

Faculty	Number	Permanent	On contract/from other sister organizations/ guest	Faculties involved in teaching of Ph.D Agronomy
Professor	4	4	-	4
Associate	1	1	-	-

Professor				
Assistant Professor	1	1	-	1

**All the faculty were assigned the responsibility for the multiple programme (Bachelor level, PG level and Ph.D Levels)*

Information regarding the designation and qualification of various faculty members are given below.

Information regarding faculties teaching and guiding Ph.D. (Agronomy) programme

Classification of Courses	Title of Course	Faculty	Qualification
Major Subject	Current trends in Agronomy	Dr. M Sumarjit Singh, Prof. Dr K. Nandini Devi, Prof.	Ph.D
	Crop Ecology	Dr. M Sumarjit Singh, Prof. Dr. Edwin Luikham, Prof.	Ph.D
	Advances in crop growth and productivity	Dr. Edwin Luikham,Prof. Dr. M Sumarjit Singh,Prof.	Ph.D
	Irrigation Management	Dr. Edwin Luikham,Prof. Dr. J. Lhungdim, Asst Prof.	Ph.D
	Advances in weed management	Dr K. Nandini Devi, Prof. Dr L. Nabachandra Singh,Prof	Ph.D
	Soil conservation and watershed management	Dr L. Nabachandra Singh,Prof Dr. J. Lhungdim, Asst Prof.	Ph.D
	Integrated farming system	Dr L. Nabachandra Singh,Prof Dr. J. Lhungdim, Asst Prof Dr K. Nandini Devi, Prof.	PhD
Minor Subject	Fertilizer technology	Dr. N.Surbala Devi Asst. Prof	Ph.D
	Land degradation and restoration	Dr. N.Surbala Devi Asst. Prof	Ph.D
	Land use planning and watershed management	Dr. A Herojit Singh, Prof.	Ph.D
	Advance in soil fertility	Dr. Indira Sarangthem Devi Prof.	Ph.D
Supporting Subjects	Data analysis using statistical packages	Dr. N. Oken Singh .Prof.	Ph.D
	Advances in Breeding of Major field crops	Dr. Ph. Ranjit Sharma, Prof.,Dr EVD Sastry, Prof. Dr. Renuka Assoc. Prof.	PhD
	Plant Bio-security and Bio-safety	Dr. Bireshwor Singha, Asstt. Prof. Dr.Sumitra	PhD
Seminar	Doctoral Seminar-I(1+0)	Dr K.Nandini Devi., Prof.	Ph.D
	Doctoral Seminar-II(1+0)	Dr K.Nandini Devi., Prof.	Ph.D

Research	Doctoral Research(**0+45**)	Dr Edwin Luikham, Prof. Dr L Nabachandra Singh, Prof. Dr M. Sumarjit Singh. Prof. Dr Nandini Devi. Prof. Dr. J. Lhungdim, Astt.Prof.	Ph.D Ph.D PhD PhD

35.4.3. TECHNICAL AND SUPPORTING STAFF

The college is employing staff as per the recommendations of various Dean's Committee. All the Technical, Supporting, Administrative and Ministerial Staffs are having responsibilities for multiple programs (B.Sc, M.Sc and Ph.D.).Along with the various teaching facilities the college is also having well furnished/equipped and well staffed, separate hostels(including Mess) for Boys and Girls, Medical Unit(including one Medical Officer, Pharmacist, Male and Female Nurses), Gymnasium in Boys and Girls Hostel, Sports facilities(Indoor within the college and Out door in College) ,Guest House, Canteen, Auditorium, Mini Auditorium, ATIC, Library, Business Incubator, Academic Unit, Audit & Account Unit, Establishment Unit, Purchase Unit, Vehicle section, Estate Section, Security section, parking space, separate toilets (for ladies and gents)within the buildings and outside the buildings etc. All these facilities are available to the students. The hostels are managed by wardens. There are facilities for Yoga and Meditation, Self Defense etc. A student welfare Officer had guided and helped the students during the period under report. Various laboratory/facilities are having one Field-cum-Lab Assistant and Multi-Tasking Staff. There are various outside funded projects including All India Coordinated Research Projects. Many University projects are also running in the various departments of the college. In these projects many technical personals and Multi Tasking staff are also working. Similarly, many technical and supporting staffs are working in the college on contract. All these staff/manpower are available to the students during course of their Practical Work and Project Work.

35.4.4. CLASS ROOMS & LABORATORY

There are sufficient classrooms in various divisions, which are being used by the students of Ph.D. (Agronomy). There are various labs which are being utilized by different UG, PG & Ph.D. Programs. These labs are well equipped as per the recommendations of various Dean's Committee.

List of the Equipment's at Department of Agronomy, College of Agriculture, CAU(I)

Awards/Recognition/Certificates (PhD students in last five years)

Year	Name of the Student	Details of Award/Recognition
2015	Priyanka Irungbam (1A-15 Ph D)	ICAR-NET Qualified
2017	Priyanka Irungbam (1A-15 Ph D)	Best poster Award, CAU National seminar on Horticulture
2015	Kh. Lenin Singh (7A-15 Ph D)	ICAR-NET Qualified
2017	Anju Keisham (5A-18 Ph D)	ICAR-NET Qualified
2017	Ksh. Manishwari Devi 7A-19(Ph.D)	ICAR-NET Qualified
2018	Ph. Maneka Sharma (6A-18 Ph D)	ICAR-NET Qualified
2018	Keisham Dony Devi 1A-20 (Ph.D)	Gold medalist of CAU 2018 completed
2021	Thoudam Anupama Devi 2A-20 (Ph.D)	3rd Best poster award, CAU conference

35.4.5. CONDUCT OF PRACTICAL AND HANDS-ON-TRAINING

There are manage able number of students who are kept in one batch during Theory & Practical classes to ensure better delivery of information, encourage students 'participation and active monitoring. Students conducted their practical training in Laboratory, research field of the college, visit experimental fields of other institutes.

Average number of students in theory and practical classes

S. No.	Name of the degree programme	Batch of student in theory	Batch of student in practical
1.	**Ph.D.(Agronomy)**	Full strength	Full strength

6.4.6 SUPERVISION OF STUDENTS IN Ph.D. PROGRAMME

There are sufficient numbers of qualified and experienced faculties who are guiding Ph.D. students in the area of Agronomy. The names of the faculties who are entitled to guide Ph.D students are given below.

Sl. No.	Name of the faculty	Designation	Qualification	Experience	No. of students guided/guiding	
					Guided	Guiding
1)	Dr. Edwin Luikham	Professor	Ph.D.	29 years	1	2
2)	Dr. L.Nabachandra Singh	Professor	Ph.D.	31 years	1	2
3)	Dr.M.Sumarjit Singh	Professor	Ph.D.	31 years	1	1
4)	Dr. K. Nandini Devi	Professor	Ph D	16 Years	-	2
5)	Dr. J. Lhungdim	Asstt. Prof.	Ph D	12 Years	-	1

a. Ph.D students completed their degree programme in the last five years

S. No.	Name and admission No.	Thesis title
1.	Priyanka Irungbam 1A-15 (Ph.D)	Effect of integrated weed and nutrient management on weed dynamics and productivity of rice (Direct seeded)- Rapeseed (Zero tilled) cropping system under rainfed condition
2.	Yumnam Sanatombi Devi 6A-16 (Ph.D)	Effect of crop establishment methods and organic manures on the performance of Black aromatic rice-pea cropping system
3.	Khwairakpam Lenin Singh 7A-15 (Ph.D)	Comparative performance of rice establishment methods under different nitrogen management practices in rice- rice cropping system

b. List of students presently pursuing (Ph.D) (Agronomy)programme

1. Ranjam Hijam, 1A-16 (Ph.D)
2. Y.Bebila Chanu, 11A-16 (Ph.D)
3.Meghna Gogoi, 6A-17 (Ph.D)
4.Anju Keisham, 5A-18 (Ph.D)
5.Ph. Menaka Sharma, 6A-18 (Ph.D)
6. Tabuiliu Abonmai, 3A-19 (Ph.D)
7.Kshetrimayum Manishwari, 7A-19 (Ph.D)
8.Keisham Dony Devi, 1A-20 (Ph.D)
9.Thoudam Anupama Devi, 2A-20 (Ph.D)

c. Publication (From student's research work during last five years)

1. Priyanka, I; L.N. Singh; E. Luikham; N.Okendro Singh; H. Punabati and Y.Bebila Chanu (2019) Effect of different weed and nutrient management practices on the growth and yield of kharif rice in Manipur Valley. Int. J. Curr. Microbiol.App.Sci. 8(4): 128 – 137.
2. Singh Khwairakpam Lenin, E. Luikham, K. Nandini Devi and Priyanka Irungbam (2019). Effect of Crop Establishment Methods and Nitrogen Management on Growth, Yield Attribute and Yield of Rice (*Oryza sativa* L.) under Lowland Condition of Manipur Valley. *Int.J.Curr.Microbiol.App.Sci 8*(11): 47-58.
3. Singh Khwairakpam Lenin, E. Luikham and K Nandini Devi (2019). Studies on physiological characteristic of rice (*Oryza sativa* L.) as influence by crop establishment methods and nitrogen management under lowland condition of Manipur valley. *International Journal of Chemical Studies 7(6): 282-287*
4. Yumnam Sanatombi Devi, MS Singh, Indira Sarangthem, N Okendro and Meghna Gogoi *(2019).* Effect of crop establishment methods and organic manures on the yield of black aromatic rice and chemical properties of soil. *IJCS, 7(6):1342-1345*
5. . Yumnam Sanatombi Devi, MS Singh, J Lhungdim, L Nabachandra Singh, Bebila Chanu *(2019),*. Effect of crop establishment methods and organic manures on growth of black aromatic rice. *JPP,8(6):470-474,*

d. Research project completed/ongoing during last five years

1. System approach on Agronomic research for adoption of SRI in Manipur (Funding agency- TATA TRUST)
2. Tribal sub plan project, Enhancing socio-economic status and livelihood security of tribal farmers of NEH states though Agricultural interventions (Funding agency - ICAR)
3. Identification of climate resilient food crops, traditional rice varieties of Manipur and their production enhancement through scientific manipulation having least impact to climate change. (Funding agency -DST)
4. Influence of mulching on production potential and economic of rainfed rice based cropping system in Manipur. (Funding agency - CAU)
5. Weed management study on direct seeded and transplanted rice under lowland condition of Manipur. . (Funding agency -CAU)
6. Field configuration and weed management techniques for Soybean production for enhancing socio-economic status of *Jhum* farmers of Manipur influenced by different tillage systems under rice fallow condition. (Funding agency -CAU)
7. Study on yield and economics of rapeseed-mustard as influenced by different tillage systems under rice fallow condition. (Funding agency -DST)

6.4.7 FEEDBACK OF STAKEHOLDERS

In our University most of the faculty members are made Advisor of students. There has to be at least one meeting of the students with their Advisors. Students raised their various problems (academic, personal etc.) with the Advisor. The Advisors helped the students to solve their problem. In case, help of some particular faculty member/staff/Dean were needed, Advisors took their help and solved the problem.

There was / is a register with the Student Welfare Officer of the College, in which any student can raise their problems (related to academic, hostels etc.). The Student Welfare Officer brought the problem to the notice of the Dean of the College. Dean discussed the issue with the Student/Group of Students/faculties/officials and took remedial measures.

During Farewell of the final year students they sometimes raised the problem faced by them during their stay of four years in the college. After knowing their problems Dean and Faculty tried to implement their suggestions.

In every Semester there was a meeting of Dean with representative of Students to discuss

their problems related to teaching, hostels, etc. Generally Students raised their issue which used to be discussed in the meeting. The issues which can be solved at the College level were settled in the College itself. The issues which needed the attention of the Vice-Chancellor were sent to him for satisfactory solution.

CAU organized Agricultural Fair every year in various states of NEH. During these fair many parents visited these fairs. Many times parents also visited the college or talked to various officials over phone. During these visits and discussions they appreciate the facilities and academic atmosphere of the college. Sometimes they also made various suggestions. Many times college implemented these suggestions. Every Year College also organized Technology Demonstration Mela/ Farmers 'Agriculture Fair. Many farmers of NEH region visited these Mela /Fair. During their visit interaction between various faculties and farmers were held and we got their opinion regarding various academic works, hostels and other facilities of the college.

Extension council meeting of the college and University were regularly held every year. During these meeting, progressive farmers, members of FPO, members of SHG, state government officials, entrepreneurs etc. participated and gave their feedbacks and suggestions.

We have trained (through demonstration, short duration training, vocational training, training in the field etc.) many entrepreneurs & farmers during last five years in Agronomical aspects from various funded external as well as internal project.

Few feedbacks received from students are attached below:

College of Agriculture

Central Agricultural University, Imphal, Manipur

STUDENT FEEDBACK FORM

1. Name of the Student: Thoudam Anupama Devi

2. Admission No: 2A-20(Ph.D)

3. Academic year: 2020-2021

4. Name of the programme studied: Ph.D (Agronomy)

5. Designation: Student

6. Mobile No: 8413006378

7. Email id: anupamathoudam1234@gmail.com

8. Feedback:

S.No.	Parameters	Rating
1.	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation.	2
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education	3
3.	Teaching quality, fairness in the assessment processes (internal evaluation, quiz, assignment etc.) and freedom to adopt new techniques/education tools.	1
4.	Opportunities in the college for research activities& relevance with practical / lab work	2
5.	Curriculum has prospects for supporting higher education career oriented/ employability.	2
6.	Overall learning experience.	2

Select your ranking on the scale of 1 to 5 for each of the above- mentioned parameters

(1-excellent, 2- very good, 3- good, 4- fair, 5- poor)

Recommended if any for course improvement: More focus on practical classes

Signature of student

College of Agriculture

Central Agricultural University, Imphal, Manipur

STUDENT FEEDBACK FORM

1. Name of the Student: Keisham Dony Devi

2. Admission No: 1A-20(PhD)

3. Academic year: 2020-21

4. Name of the programme studied: Ph.D(Agronomy)

5. Designation: Student

6. Mobile No: 7005268445

7. Email id: doniikeisham@gmail.com

8. Feedback:

S.No.	Parameters	Rating
1.	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation.	1
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education	3
3.	Teaching quality, fairness in the assessment processes (internal evaluation, quiz, assignment etc.) and freedom to adopt new techniques/education tools.	2
4.	Opportunities in the college for research activities & relevance with practical / lab work	3
5.	Curriculum has prospects for supporting higher education career oriented/ employability.	2
6.	Overall learning experience.	2

Select your ranking on the scale of 1 to 5 for each of the above- mentioned parameters

(1-excellent, 2- very good, 3- good, 4- fair, 5- poor)

Recommended if any for course improvement:

Signature of student

6.4.10 STUDENT INTAKE AND ATTRITION IN THE PROGRAMME FOR LAST FIVE YEARS

Name of the Degree Programme	Actual students admitted in last five years						Attrition(%)					
Year /	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Ph.D. (Agron)	02	03	01	02	02	02	-	-	-	01	01	01

6.4.11 ICT APPLICATIONIN CURRICULA DELIVERY

College is having a well-equipped Computer Lab with Internet Connection, All the departments and various externally funded Projects are having Computer facilities which were used for teaching, practical, project work analysis etc. of students. The college is having a system(e-collection) through which students deposited their fees etc. online itself. All the funds either from the University or from various funding agencies for various outside funded projects were/are deposited in the college account through Public Finance Management System. Wi-Fi availability and internet services are available in the whole campus (Academic buildings including classrooms, hostels, residential colony).

Our Library is having sufficient Books for use by the Students. It is also having various facilities where student can go through various Journals, Books etc. online either in the Library or Class Rooms or Departments or in their Hostel rooms etc. The Library provides Circulation and reference services. The library has also access to online e-journals through CERA (Consortium for e-Resources in Agriculture) and IP address has been activated to access the online journals through CERA. Photocopying & Printing facilities are also available in the library. Students used all these facilities during the period under report.

6.4.13 The information pertaining to 6.4.1 to 6.4.9 has been provided for PG programme *i.e.,* Ph.D.(Agriculture) in Agronomy of College of Agriculture, Iroisemba, Manipur is correct.

6.4.13. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section6.4 is liable to the verification at any stage.

6.4.14. Certificates of the Awards

I, the Dean Prof. Indira Sarangthem hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signatureof Dean of the College with Date &Seal

PH.D PROGRAMME IN ENTOMOLOGY

6.4. SELF STUDY REPORT FOR DEGREE PROGRAMME

6.4.1. Brief History of the Degree Programme

Background information

Keeping in view the high potential of applications of agricultural technological interventions in improving the agricultural scenario of NEH region and to address to the issues of shortage of trained human resource in Plant Pathology, College of Agriculture, Central Agricultural University (CAU), Imphal. Initially this present Department was named as Zoology and Entomology, later on as per the ICAR-Deans committee norms, changed to Department of Entomology with teaching students of BSc (Agri), MSc (Ag), Entomology and in the Year 2017, first batch of PhD programme was started with admission of two students, one is from ICAR-SRF and another is from CAU entrance examination.

The mission, vision, mandate, goal objectives and thrust areas of the college is given below.

Mission

i) To create manpower in area of specialization to Entomology

ii) To achieve sustainable Plant Protection strategies

iii) To train farmers/ extension functionaries on Insect Pest Management

Vision

In accordance with the vision of CAU, Imphal the vision of College of Agriculture, Imphal is to produce world class professionals who are equipped to meet the demands of global outfit, have analytical abilities and entrepreneurship for making career of self-employment and as contributors, to livelihood and food/nutritional security.

Mandate

- Shortage of trained manpower in discipline(s) of Entomology.
- Utilization of the natural resources for the sustainable agriculture with a special preference to the North East India, a hub of organic farming.

Thrust Areas

With respect to human resource development, research and extension education activities the college has setup following thrust areas;

i) Human Resource Development

Human resource development in the discipline of Entomology.

ii) Research

- Finding the solution for the hill agriculture with conservation approach having organic base to increase production and productivity of crops by adoption/refinement/development of plant protection measures.
- Adoption/refinement/development of improved Insect Pest diagnosis.
- Adoption, promotion and development of improved techniques of plant pest management, in relation to climate change in the region.
- Adoption and promotion of use of different appropriate sustainable sources of Plant protection strategies in relation to crop specific, region specific.

iii) Extension Education

Undertaking variety of extension, education activities for transfer of technology through involvement of farmers, researchers, manufactures and extension education functionaries for promoting adoption of improved techniques of pest management strategies for higher productivity and profitability with reduced losses ensuring higher net returns to the farming community of the region.

Ph.D. Degree Programme

The Department of Entomology is one of the major departments under Agricultural teaching system as per the 5th Deans committee. Since the establishment of the College of Agriculture, Iroisemba, the Department of Entomology is engaged in teaching of the B.Sc. (Ag) students as per the course curriculum of ICAR and latest by as per 5th Deans Committee. Later on there is opening of the M.Sc. (Ag) in Entomology. In the year 2017, admission of Ph.D. students started with intake of two students, one is from ICAR-SRF and another is by CAU entrance examination.

Department of Entomology

The mission of the Entomology Department of COA, Iroisemba tobe a centre of excellence in teaching, research and extension education in the discipline of pest management, diagnosis, so as to reduce losses in crops in NEH region.

With the help of well-established labs including biocontrol laboratory, Insecticide residue laboratory, molecular laboratory and honey bee disease diagnosis laboratory this Department is contributing for the running of B.Sc. (Agricultural), M. Sc (Entomology) and Ph.D. (Entomology) programme. The Ph.D. students are getting the following scholarships & Fellowships.

Scholarships & Fellowships

- **UGC Fellowship- Nil**
- **ICAR-SRF (With Fellowship)-Nil CAU university fellowship- 4**

Statistics of Doctoral degree programme (2015-16 to 2020-21)

Year of Admission	Admitted			Dropped			Passed			Remarks
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	
2015-16	-	-	-	-	-	-	-	-	-	
2016-17	-	-	-	-	-	-	-	-	-	
2017-18	-	1	1	-	-	-	-	-	-	Yet to complete
2018-19	-	1	1	-	-	-	-	-	-	Yet to complete
2019-20	-	1	1	-	-	-	-	-	-	ResearchWork in Progress
2020-21	-	1	1	-	-	-	-	-	-	Yet to start Research Work
Total =	-	04	04	-	-	-	-	-	-	

List of the PhD Pass out students with their present position (Last Five Years) - Nil

Award of CAU, GOI & ICAR authorities' Scholarships

Ph.D. (Ento.)	Scholarship type			
	University Scholarship (CAU)	ICAR scholarship (NTS)	SC/ST FellowShip	GOI Scholarship (SC+ST)
2015-16	-	-	-	-
2016-17	-	-	-	-
2017-18	01	-	-	-
2018-19	01	-	-	-
2019-20	01	-	-	-
2020-21	01	-	-	-
TOTA L	**04**	-	-	-

6.4.2. FACULTY STRENGTH

At the Department of Entomology, College of Agriculture, Iroisemba the following Faculty members/Scientists and staffs are associated in teaching and guiding the students of B.Sc. (Agri), M.Sc. (.Agri) and Ph.D. level courses during 2015-2020.

S. No.	Number	Faculty in place	Vacant Position	AICRP Scientists/Guest Faculty/Teaching Contract
1	Professor	1	-	-
2	Associate Professor	2	-	1 (DDR, CAU, Imphal, Manipur)
3	Assistant Professor	1	-	3 (2 Scientists- AICRP, CAU, Imphal and 1 Scientists- ICAR as guest)
	Total	4	-	4*

** All the faculty were assigned the responsibility for the multiple programme (Bachelor level, PG leveland Ph. D Levels)*

Information regarding faculties teaching and guiding Ph.D. (Entomology) programme

Classification of Courses	Title of Course	Faculty	Qualification
Major Subject	Recent Trends in Biological Control	Dr. K. I. Singh, Associate Professor & Dr. S.M.Haldhar, Associate Professor	Ph.D
	Advanced Insecticide Toxicology	Smt. Th. Bina Devi , Asstt. Pro. (S.G.) & Dr. Nilima Karam(Junior Entomologist, AICRP)	M.Sc.(Agri) & Ph.D.
	Molecular Approaches in Entomological Research	Smt. Th. Bina Devi, Asstt. Prof. (S.G.) , Dr. Nilima Karam(Junior Entomologist, AICRP) & Dr. JetiKonsam, Assistant Entomologist, AICRP)	M.Sc.(Agri) & Ph.D.
	Advanced Insect Physiology	Smt. Th. Bina Devi, Asstt. Prof. (S.G.) & Dr. Arti Ningombam Scientist-ICAR)	M.Sc.(Agri) & Ph.D.
	Advanced Insect Ecology	Smt. Th. Bina Devi, Asstt. Prof. (S.G.) , & Dr. S.M.Haldhar, Associate Professor	M.Sc.(Agri) & Ph.D.
	Advanced Host Plant Resistance	Smt. Th. Bina Devi, Asstt. Prof. (S.G.), Dr. S.M.Haldhar, Associate Professor & Dr. Nilima Karam(Junior Entomologist, AICRP)	M.Sc.(Agri) & Ph.D.
	Advanced Integrated Pest Management	Dr. K. I. Singh, Associate Professor	Ph.D
Minor Subject	Advanced Mycology	Dr L Nongdrenkhomba Singh, Associate Professor	Ph.D
	Plant Biosecurity and Biosafety	Dr Bireswar Sinha Assistant Professor & Dr Sumita Ksh, (Scientist-AICRP)	Ph.D
	Molecular Basis of Host Pathogen Interaction	Dr Bireswar Sinha Assistant Professor & Dr S. K. Shamra(Scientist-ICAR)	Ph.D.

Supporting Subjects	Data analysis using StatisticalPackages	Shri. N. Gopimahon Singh,Associate Professor & Dr. N.Okendro Singh, Professor	M.Sc. & Ph.D.
	Plant biochemistry	Dr. S. Jekendra Singh,Professor	Ph.D.
	Physiology of Crop Plants-Specific Case Studies	Dr. R.K. Bhanisana Devi, Professor	Ph.D.
Seminar	Doctoral Seminar-I (1+0)	Dr. K. I. Singh, Associate Professor	Ph.D
	Doctoral Seminar-II (1+0)	Dr. K. I. Singh, Associate Professor	Ph.D
Research	Doctoral Research (**0+45**)	Dr. M.K.Gupta, Professor (Retired in 2019, Smt. Th. Bina Devi, Asstt. Prof. (S.G.), Dr. K. I. Singh,Associate Professor & Dr. S.M.Haldhar, Associate Professor	Ph.D, M.Sc.(Agri) & Ph.D.

G. 6.4.3. TECHNICAL AND SUPPORTING STAFF

The college is employing staff as per the recommendations of various Dean's Committee. All the Technical, Supporting, Administrative and Ministerial Staffs are having responsibilities for multiple programs (B.Sc, M.Sc and Ph.D.). Along with the various teaching facilities the college is also having well furnished/ equipped and well staffed, separate hostels (including Mess) for Boys and Girls, Medical Unit (including one Medical Officer, Pharmacist, Male and Female Nurses), Gymnasium in Boys and Girls Hostel, Sports facilities (Indoor within the college and Outdoor in College) , Guest House, Canteen, Auditorium, Mini Auditorium, ATIC, Library, Business Incubator, Academic Unit, Audit & Account Unit, Establishment Unit, Purchase Unit, Vehicle section, Estate Section, Security section, parking space, separate toilets(for ladies and gents) within the buildings and outside the buildings etc. All these facilities are available to the students. The hostels are managed by wardens. There are facilities for Yoga and Meditation, Self Defense etc. A student welfare Officer had guided and helped the students during the period under report. Various laboratory/facilities are having one Field-cum-Lab Assistant and Multi- Tasking Staff. There are various outside funded projects including All India Coordinated Research Projects. Many University projects are also running in the various departments of the College. In these projects many technical personals and Multi Tasking staff are also working. Similarly many technical and supporting staffs are working in the college on contract. All these staff/ man power are available to the students during course of their Practical Work and Project Work.

S. No.	Name of the posts and number	Remarks
1.	Field cum Lab. Assistant-1	Looking after the laboratory, field works and PG and Ph.D. research works
2.	MTS -1	-do-
3.	Contractual labour -3	-do-
4.	Contractual SRF-3	-do-
5.	Contractual Bee Professional-1	-do-

6.4.4. CLASSROOMS & LABORATORY

There are sufficient classrooms in various divisions, which are being used by the students of Ph.D. (Entomology). The smart class room facility is being also utilized by the students of Ph.D. (Entomology). There are various labs which are being utilized by different UG, PG & Ph.D. Programs. These labs are well equipped as per the recommendations of various Dean's Committee.

Details of the Laboratory and the equipment's being used are given below:

S. No.	Name of the Laboratory
1.	UG Laboratory (consisting of microscopes, insect display box & plastic boards, dry and digital)
2.	P.G./Ph.D. (consisting of well-equipped operational lab)
3.	Bio-control-*Trichogramma* Laboratory (well established with equipments for *Trichogramma* mass production)
4.	Bio-insecticide preparation Unit (consisting of all facilities required for the uroinsecticide production)
5.	Green house (One)
6.	Net house (Two)
7.	Honey processing Unit -2 (1 for 250 litre capacity & another for 500 litre capacity
8.	Honey bee disease diagnostic Unit-One
9.	One big Training Hall
10.	Research Plot (Sufficient Research area for Ph. D. students are available)

List of the Equipment's at Department of Entomology, College of Agriculture, CAU (I)

Sl. No.	Name of the equipment	Total No.
1.	Laminar Flow	02
2.	BOD Incubator	04
3.	Hot Air Oven	02
4.	Autoclave	01
5.	Electronic Balance	02
6.	Centrifuge	02
7.	Hot Water Bath	02
8.	Rotavator	01
9.	HPLC	01
10.	Spectrophotometer	
11.	Thermo Meter	03
12.	Double Distillation Unit	02
13.	pH Meter	01
14.	Honey processing unit	02
15.	Research Microscope-small	04
16.	Microscope(Lica) with camera	01
17.	Micro Wave Oven	01
18.	Student Microscopes	35
19.	Orbital shaker	01
20.	Refrigerators	02
21.	Elite Panaboard	01
22.	Xerox Canon	01
23.	Honey box packaging machine	01
24.	*Corcyra* egg cleaning machine	01

25.	Deep Freezer	01
26.	Honey bottle packaging machine	02

Photographs

Department of Entomology

Honey processing laboratory

Bio-control laboratory

UG laboratory

Insect museum

Awards/ Recognition / Certificates (PhD students in last five years)- Nil

H. 6.4.5. CONDUCT OF PRACTICAL ANDHANDS-ON-TRAINING

There are manageable number of students who are kept in one batch during Theory & Practical classes to ensure better delivery of information, encourage students' participation and active monitoring. Students conducted their practical training in various Laboratory, research field of the college. The Ph.D. students are time to time sent to ICAR institutes for hands on training on modern molecular biotechnology.

Average number of students in theory and practical classes

Sl. No.	Name of the degree programme	Batch of student in theory	Batch of student in practical
1.	Ph.D. (Entomology)	Full strength	Full strength

35.4.6. SUPERVISION OF STUDENTS IN Ph.D. PROGRAMME

There are sufficient numbers of qualified and experienced faculties who are guiding Ph.D. students in the area of Entomology. The names of the faculties who are entitled to guide Ph. D students are given below.

Sl. No.	Name of the faculty	Designation	Qualification	Experience	No. of students guided/guiding	
					M. Sc	Ph. D
1	Smt. Th. Bina Devi	Assistant Professor(S.G.)	M.Sc. (Agri)	40 years	5	-
2	Dr. K.I. Singh	Associate Professor	Ph.D.	20 years	16	1
3	Dr. K. M. Singh	Professor	Ph.D.	20 years	6	2
4	Dr S.M. Haldhar	Associate Professor	Ph D	15 Years	7	2

35.4.7. FEEDBACK OF STAKE HOLDERS

In our University most of the faculty members are made Advisor of about 10 students. There has to be at least one meeting (mostly on Saturday) of the students with their Advisors. Students raised their various problems (academic, personal etc.) with the Advisor. The Advisors helped the students to solve their problem. In case, help of some particular faculty member/ staff/ Dean were needed, Advisors took their help and solved the problem.

There was / is a register with the Student Welfare Officer of the College, in which any student can raise their problems (related to academic, hostels etc.). The Student Welfare Officer brought the problem to the notice of the Dean of the College. Dean discussed the issue with the Student/ Group of Students/faculties/ officials and took remedial measures.

During Farewell of the final year students they sometimes raised the problem faced by them during their stay of four years in the college. After knowing their problems Dean and Faculty tried to implement their suggestions.

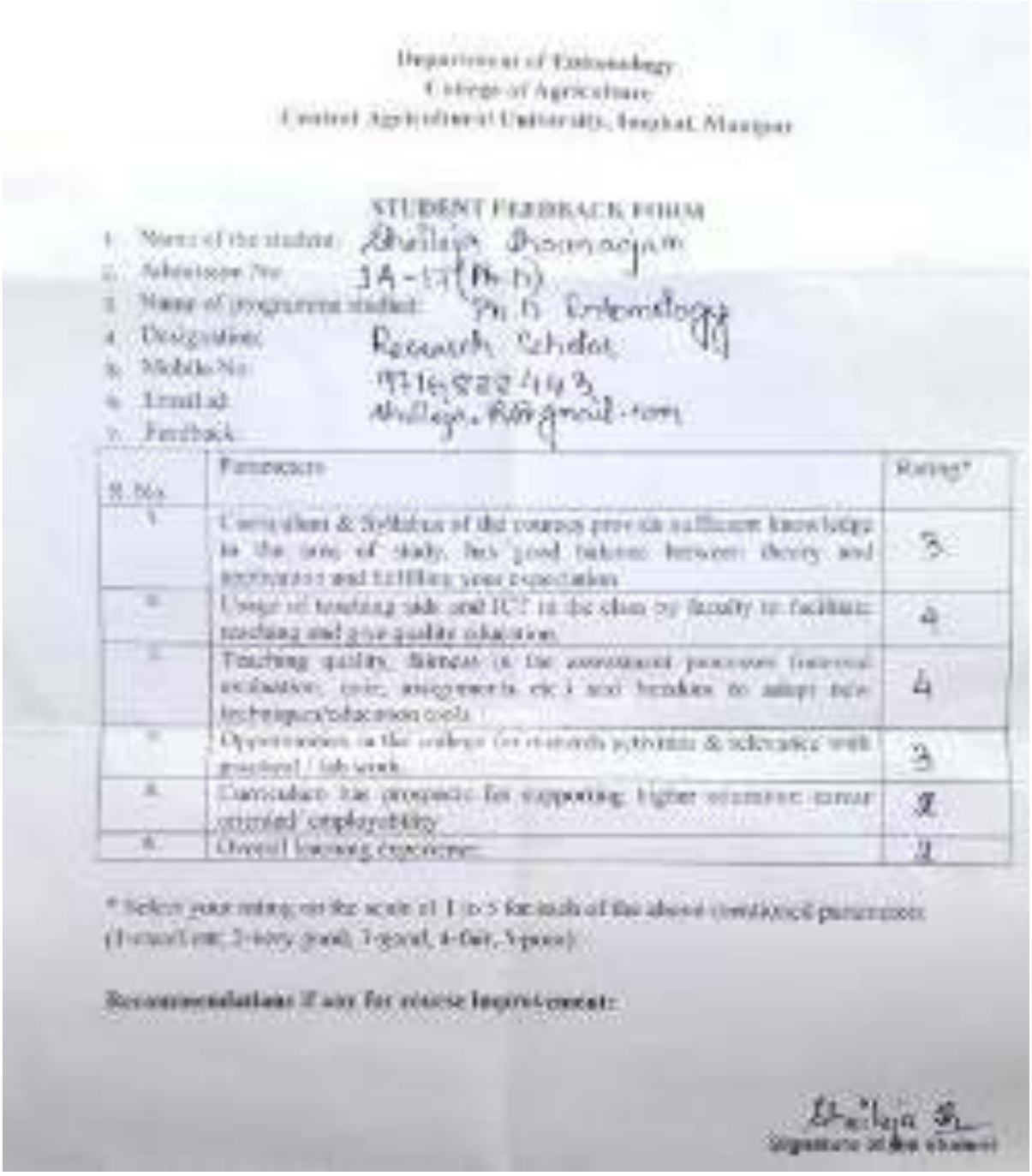
In every Semester there was a meeting of Dean with representative of Students to discuss their problems related to teaching, hostels, etc. Generally Students raised their issue which used to be discussed in the meeting. The issues which can be solved at the College level were settled in the College itself. The issues which needed the attention of the Vice- Chancellor were sent to him for satisfactory solution.

CAU organized Agricultural Fair every year in various states of NEH. During these fair many parents visited these fairs. Many times parents also visited the college or talked to various officials over phone. During these visits and discussions they appreciate the facilities and academic atmosphere of the college. Sometimes they also made various suggestions. Many times college implemented these suggestions. Every Year College also organized Technology Demonstration Mela / Farmers' Agriculture Fair. Many farmers of NEH region visited these Mela /Fair. During their visit interaction between various faculties and farmers were held and we got their opinion

regarding various academic works, hostels and other facilities of the college. Extension council meeting of the college and University were regularly held every year.

During these meeting, progressive farmers, members of FPO, members of SHG, state government officials, entrepreneurs etc. participated and gave their feedbacks and suggestions.

We have trained (through demonstration, short duration training, vocational training, training in the field etc.) many entrepreneurs & farmers (around 1200 numbers) during last five years in plant disease management, biocontrol production, mushroom spawn production and mushroom production from various funded external as well as internal project.



Department of Entomology
College of Agriculture
Central Agricultural University, Imphal, Manipur

STUDENT FEEDBACK FORM

1. Name of the student: Shailaja Dhanarajan
2. Admission No: 2A-17(Ph.D)
3. Name of programme studied: Ph.D Entomology
4. Designation: Research Scholar
5. Mobile No: 9716922193
6. Email id: shailaja.88@gmail.com
7. Feedback

Sl. No.	Parameters	Rating*
1.	Curriculum & Syllabus of the courses provide sufficient knowledge in the area of study, has good balance between theory and assignments and fulfilling your expectation	5
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education	4
3.	Teaching quality, fairness in the assessment processes (internal evaluation, quiz, assignments etc.) and freedom to adopt new technique/education tools	4
4.	Opportunities in the college for research activities & relevance with practical / lab work	3
5.	Curriculum has prospects for supporting higher academic career oriented employability	3
6.	Overall learning experience	3

* Select your rating on the scale of 1 to 5 for each of the above mentioned parameters (1-Poor, 2-Very good, 3-good, 4-fair, 5-poor)

Recommendations if any for course improvement:

Shailaja D.
Signature of the student

Department of Entomology
College of Agriculture
Central Agricultural University, Imphal, Manipur

STUDENT FEEDBACK FORM

1. Name of the student: C N Nidhi
2. Admission No: 14 - 10 (Ph D)
3. Name of programme studied: Ph D
4. Designation: student
5. Mobile No: 9401989183
6. Email id: nidhisheppudan@gmail.com
7. Feedback

S. No.	Parameters	Rating*
1.	Curriculum & Syllabus of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation	2
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	1
3.	Teaching quality, fairness in the assessment process (internal evaluation, quiz, assignments etc.) and freedom to adopt new techniques/education tools.	1
4.	Opportunities in the college for research activities & relevance with practical / lab work.	2
5.	Curriculum has prospects for supporting higher education career oriented/ employability	1
6.	Overall learning experience	2

* Select your rating on the scale of 1 to 5 for each of the above mentioned parameters (1-excellent, 2-very good, 3-good, 4-fair, 5-poor)

Recommendation if any for course improvement: The resource availability of study materials related to entomology in library if increased could improve the learning experience to further extent.

Signature of the student

Department of Entomology

College of Agriculture

Central Agricultural University, Imphal, Manipur

STUDENT FEEDBACK FORM

1. **Name of the student:** Nameirakpam Sunita Devi
2. **Admission No.:** 6A- 19(Ph.D)
3. **Name of programme studied.** Ph.D
4. **Designation:** Student
5. **Mobile No.:** 8575729832
6. **Email id:** nameirakpamsunita@gmail.com
7. **Feedback:**

Sl. No.	Parameters	Rating
1.	Curriculum & Syllabus of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation	1
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education	2
3.	Teaching quality, fairness in the assessment processes (internal evaluation, quiz, assignments etc.) and freedom to adopt new techniques/education tools.	1
4.	Opportunities in the college for research activities & relevance with practical / lab work.	2
5.	Curriculum has prospects for supporting higher education career oriented/ employability.	1
6.	Overall learning experience.	2

- Select your rating on the scale of 1 to 5 for each of the above-mentioned parameters (1-excellent, 2-very good, 3- good, 4-fair, 5-poor)

Recommendations if any for course improvement. Regarding research activities, if our department provides water pump facility to research students doing field work, it will be helpful to students.

N. Sunita

Signature of the student

35.4.8. STUDEN INTAKE AND ATTRITION IN THE PROGRAMMEFOR LAST FIVE YEARS

Name of the Degree Programme	Actual students admitted in last fiveyears						Attrition (%)					
Year / Ph.D. (Ento.)	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
	-	-	01	01	01	01	-	-	-	-	-	-

35.4.9. ICT APPLICATION IN CURRICULA DELIVERY

College is having a well-equipped Computer Lab with Internet Lan Connection, All the departments and various externally funded Projects are having Computer facilities which were used for teaching, practical, project work analysis etc. of students. The college is having a system (e-collection) through which students deposited their fees etc. online itself. All the funds either from the University or
from various funding agencies for various outside funded projects were/are deposited in the college account through Public Finance Management System. Wi-Fi availability and internet services are available in the whole campus (Academic buildings including class rooms, hostels, residential colony).

Our Library is having sufficient Books for use by the Students. It is also having various facilities where student can go through various Journals, Books etc. online either in the Library or Class Rooms or Departments or in their Hostel rooms etc. The Library provides Circulation and reference services. The library has also access to online e-journals through CERA (Consortium for e-Resources in Agriculture) and IP address has been activated to access the online journals through CERA. Photocopying & Printing facilities are also available in the library. Students used all these facilities duringthe period under report.

6.4.10. The information pertaining to 6.4.1 to 6.4.9 has been provided for PG programme *i.e.,* Ph.D. (Agriculture) in Entomology of College of Agriculture, Iroisemba, Manipur is correctly.

Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.11. Certificates of the Awards.

I, the Dean Prof. Indira Sarangthem hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date &Seal

PH. D. PROGRAMME IN GENETICS AND PLANT BREEDING

6.4. SELF STUDY REPORT FOR Ph.D. DEGREE PROGRAMME

6.4.1 Brief History of the Ph. D. (Genetics and Plant Breeding)

Background information

Keeping in view the high potential of applications of agricultural technological interventions in improving the agricultural scenario of NEH region and to address to the issues of shortage of trained human resource in Genetics and Plant Breeding, College of Agriculture, Iroisemba, Central Agricultural University (CAU), Imphal the Ph.D. (Plant Breeding and Genetics) was open in the year 2012. Initially this present Department was named as Plant Breeding and Genetics, later on as per the ICAR-Deans committee norms; it is changed to Department of Genetics and Plant Breeding with teaching students of B.Sc. (Hons) Agriculture; later M.Sc. Ag. (Genetics and Plant Breeding) started with admission of students from All India Competitive Examination for ICAR's JRF and admission to PG programmes of IARI, NDRI, CIFE, CAU and SAU's as well as by CAU, Imphal entrance examination; and Ph.D. (Genetics and Plant Breeding) through CAU, Imphal entrance examination.

The mission, vision, mandate, and thrust areas of the college is given below.

Mission

i) To create manpower in area of specialization to Genetics and Plant Breeding.
ii) To identify and breed varieties suitable to agro-climatic conditions of the state in particular and NE Region in general.
iii) To train farmers/ extension functionaries on adoption and result demonstration of the identified and bred varieties.

Vision

In accordance with the vision of CAU, Imphal the vision of College of Agriculture, Iroisemba is to produce world class professionals who are equipped to meet the demands of global outfit, have analytical abilities and entrepreneurship for making career of self-employment and as contributors, to livelihood and food/nutritional security.

Mandate

- Shortage of trained manpower in discipline(s) of Genetics and Plant Breeding.
- Utilization of the natural resources for the sustainable agriculture with a special preference to the North East India.

Thrust Areas

With respect to human resource development, research and extension education activities the college has setup following thrust areas;

i) Human Resource Development

Human resource development in the discipline of Genetics and Plant Breeding

ii) Research

- Identifying and breeding varieties suitable for different agro-climatic conditions of major crops.
- Maintenance breeding of the released varieties of the University.
- Replacement of age old varieties released by the state department and other Institutes with new varieties.
- Utilization and conservation of vast biodiversity in major crops for identifying and breeding varieties which will solve the problem arises due to climate resilient conditions.
- To undertake basic, applied and adaptive research to seek appropriate solutions to emerging problems in agriculture and develop suitable varieties to improve socio-economic conditions of the farming community.

iii) Extension Education

Undertaking variety of extension education activities for transfer of technology through involvement of farmers, researchers and extension education functionaries for promoting adoption of improved varieties of major crops for higher productivity and profitability ensuring higher net returns to the farming community of the state in particular and NEH region in general. Front line demonstration and result demonstration of the identified and bred varieties of the major crops in the farmers' filed and adopted village of the College so that farmers are convinced themselves to adopt the varieties.

Ph. D. Degree Programme

The Department of Genetics and Plant Breeding is one of the major departments under Agricultural teaching system as per the 5th Deans committee. Since the establishment of the College of Agriculture, Iroisemba, the Department of Genetics and Plant Breeding is engaged in teaching of the B.Sc.(Hons) Agriculture students as per the course curriculum of ICAR and latest by as per 5th Deans Committee. Later on M. Sc. Ag. (Genetics and Plant Breeding) started with admission of students from All India Competitive Examination for ICAR's JRF and admission to Master's programmes of IARI, NDRI, CIFE, CAU and SAU's, as well as by CAU, Imphal entrance examination and Ph.D. (Genetics and Plant Breeding) by CAU, Imphal entrance examination.

Department of Genetics and Plant Breeding

The mission of the Genetics and Plant Breeding Department of College of Agriculture, Iroisemba to be a centre of excellence in teaching, research and extension education in the discipline of crop improvement, adaptive research and strategic research, so as to help in increasing crop productivity in the state in particular and NEH region in general.

With the help of well-established labs including biotechnology laboratory, this Department is contributing for the running of B.Sc. (Hons) Agriculture, M. Sc. Ag. (Genetics and Plant Breeding) and Ph.D. (Genetics and Plant Breeding) programme; and internship programme of students from other Universities.

Statistics of Ph. D. (Genetics and Plant Breeding) programme (2015-16 to 2019-20)

Year of Admission	Admitted			Dropped			Passed			Degree awarded during the year	Remarks
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total		
2015-16	-	-	-	-	-	-	-	-	-	-	-
2016-17	-	2	2	-	-	-	-	-	-	-	Continuing
2017-18		2	2	-	-	-	-	-	-	-	Continuing
2018-19	1	1	2	1	-	1	-	-	-	1	1 Boy student got job
2019-20	2	-	2	-	-	-	-	-	-	1	Continuing
2020-21	-	1	1	-	-	-	-	-	-		Continuing

Award of CAU, GOI & ICAR Authorities' Scholarships

Ph.D. (Genetics and Plant Breeding)	Scholarship Type			
	University Scholarship (CAU)	ICAR Scholarship (NTS)	State SC/ST Fellowship	GOI Scholarship (SC+ST)
2015-16	1	-	-	-
2016-17	1	-	-	-
2017-18	1	-	-	-
2018-19	1	-	-	-
2019-20	1	-	-	-
2020-21	1	-	-	-

6.4.2 FACULTY STRENGTH

At the Department of Genetics and Plant Breeding, College of Agriculture, Iroisemba the following Faculty members/Scientists and staffs are associated in teaching and guiding the students of B.Sc. (Hons) Agriculture, M.Sc. Ag. and Ph.D. level courses during 2015-2020.

S. No.	Sanctioned Faculty	Faculty in place	Vacant position	AICRP Scientists/ Guest Faculty/Teacher contract
1	Professor	1	0	-
2	Associate Professor	2*	0	-
3	Assistant Professor	2*	0	6(5 AICRP Scientists and I guest lecturer from College of Food Technology, Imphal)
	Total	5	0	6

Note: *All the faculties and Scientists were assigned the responsibility for the multiple programme (Bachelor level, PG level and Ph.D. level.)*

** 2 Assistant Professors are promoted to Professor under career advancement scheme (CAS); 1 Assoc. Prof. promoted to Professor has retired on 28th February, 2021.*

Information regarding faculties teaching and guiding Ph.D. (Genetics and Plant Breeding)

Area	Course title and credit hours	Faculty	Qualification
Major Courses (Core)	Genomics in crop improvement [2+1=3]	Dr. N. Brajendra Singh	Ph.D.
	Cellular and chromosomal manipulations in crop improvement[2+1=3]	Dr.EV Divakara Sastry	Ph.D.
	Advanced Plant Breeding systems [2+0=2]	Dr. N. Brajendra Singh (Course Leader); Dr. H.Nanita Devi; Dr. Pusparani Senjam	Ph.D. Ph.D. Ph.D.
Major Courses (Optional)	Plant Genetic Resources and their utilization [2+0=2]	Dr.EV Divakara Sastry	Ph.D.
	Advances in breeding of major field crops [3+0=3]	Dr.Ph.Ranjit Sharma (Course Leader); Dr.Pramesh Khoyumthem; Dr.Samuel Jeberson; Dr.H.Nanita Devi	Ph.D. Ph.D. Ph.D. Ph.D.
	Advances in quantitative genetics [2+1=3]	Dr.EV Divakara Sastry	Ph.D.
	Doctoral seminar I [0+1=1]	Dr. (Mrs.) Th. Renuka Devi	Ph.D.
	Doctoral seminar II[0+1=1]	Dr. (Mrs.) Th. Renuka Devi	Ph.D.
	Doctoral Research [45]	Respective guides	

6.4.3. TECHNICAL AND SUPORTIVE STAFF

S. No.	Name of the post and Number	Remarks
1	Field cum Lab Assistant - 1	Looking after the Field works and Laboratory works for Departmental and P.G. and Ph. D. research
2	Multi tasking staff -1	Looking after the Laboratory works and Field

		works for PG and Ph.D. classes
3	Computer Operator (Contractual) -1	Typing and other official works

6.4.4. CLASSROOMS AND LABORATORY

There are sufficient classrooms in various divisions, which are being used by the students of Ph. D. (Genetics and Plant Breeding). The smart class room facility is being also utilized by the students of Ph. D. (Genetics and Plant Breeding). There are various labs which are being utilized by various UG, PG and Ph.D. Programs. These labs are well equipped as per the recommendations of various Dean's Committee.

S. No.	Name of the laboratory
1	Genetics and Plant Breeding Laboratory
2	Biotech Laboratory

Major Equipments

S. No.	Name of the equipment
	Biotechnology Laboratory
1.	Stereo microscope
2.	Laminar flow
3.	HP computer with Digital and image aids software
4.	Milli Q Gradient
5.	Spectrophotometer
6.	UV Transilluminator
7.	Gel caster
8.	Mini Submarine Electrophoresis unit
9.	Spin win Microcentrifuge
10.	Spinix Vortex Shaker
11.	Magnetic stirrer
12.	Digital P^H Meter
13	Accupippette
14	Electronic Analytical Balance
15.	Mini Submarine Electrophoresis unit
16	Servo stabilizer
17	Dry Ice maker
18	Inverted Research Microscope
19	Refrigerator
20	Hot Air oven
21	Mechanical Shaker
22	Vertical Autoclave
23	Horizontal Autoclave
	Genetics and Plant breeding laboratory
15.	Camera Lucida
16.	Bend Thermometer
17.	Hand Refractometer
18.	Olympus Microscope
19.	Avery balance
20.	Electronic balance
21.	Leaf area meter

22.	Digital P^H Meter
23.	Hot Air Oven
24.	Desssicator
25.	Refrigerator
26.	Electrical water bath
27.	Micro Kjeldahl with accessory
28.	Laminar flow

6.4.5. CONDUCT OF PRACTICAL AND HANDS-ON-TRAINING

There are manageable number of students who are kept in one batch during Theory and Practical classes to ensure better delivery of information, encourage students' participation and active monitoring. Students conducted their practical training in various Laboratories, research field of the college. Exposures trip to the farm and laboratories of the other research institutes and private institutes are regular features. The Ph. D. students are time to time sent to ICAR Research Imphal centre for NE Region for various hands-on- trainings on Modern Techniques of Molecular Biology.

Average number of students in theory and practical classes

S. No.	Name of the degree programme	Batch of student in theory	Batch of student in practical
1.	Ph.D. (Genetics and Plant Breeding)	Full Strength	Full Strength

6.4.6. SUPERVISION OF STUDENTS IN Ph.D. PROGRAMME

There are sufficient numbers of qualified and experienced faculties and scientists who are guiding Ph.D. students in the area of Genetics and Plant Breeding. The names of the faculties and scientists who are currently guiding Ph.D. students are given below:

S.No.	Name of the faculty	Designation	Qualification	Experience	Number of students guiding
1	Dr. EVD Sastry	Professor	Ph.D.	37years	2
2	Dr.Ph.Ranjit Sharma	Professor	Ph.D.	32 years	1
3	Dr. N. Brajendra Singh	Professor	Ph.D.	32 years	3
4	Dr. Th. Renuka Devi	Assoc.Professor	Ph.D.	20 years	3
5	Dr. Samuel Jeberson	Scientist	Ph.D.	15 Years	-
6	Dr. Pramesh Khoyumthem	Scientist	Ph.D.	15 Years	-
7	Dr. H. Nanita Devi	Scientist	Ph.D.	15 Years	-
8	Dr. Sonika Yumnam	Scientist	Ph.D.	8 Years	-
9	Dr. Pushparani Senjam	Scientist	Ph.D.	7 Years	-

Eligible criteria to become research guide:

As per clause no. 2.12.2 of existing Academic regulations the eligible criteria to become research guide is as below:

i). Master's Programme:

a) Associate Professor and above and their equivalents

or

b) Assistant Professor and equivalent with Ph.D. degree in the discipline/ subject who has published two research papers other than his/her Master"s and Ph.D. theses.

or

c) Assistant Professor and equivalent without Ph.D. degree, provided he/she has at least two years of PG teaching experiences and 5 (five) research papers published in referred journals with minimum NAAS rating of 4 (other than his/her Master's thesis).

ii) Ph. D. Programme :

a. Ph.D. in the concerned/related discipline

b. All Professors are eligible to guide Ph.D. students

c. A teacher other than Professor must have must guided or is guiding 2 (two) Master‟s students and has published four research papers in NAAS rated journals (other than his/her Masters‟ or Ph.D. thesis)

or

A teacher must have guided 3 (three) Masters‟ students successfully as a Major Advisor.

Maximum number of student/guide at a time:

According to clause no. 2.8.1 (iii) of the existing academic regulations the maximum number of student/guide at a time is as follow:

At any given time, Professor, Associate Professor and Assistant Professor shall not be a Chairperson for more than 6, 5 and 4 P.G. students (Master‟s and Ph.D. combined), respectively. The Chairperson should be a recognized P.G. teacher with 5 years of experience and 5 NAAS rating publications or possesses Ph. D. with good publications, made after joining the University.

6.4.7. FEED BACK OF STAKE HOLDERS

The feedback is received from the students, parents and employer. The feedback is used to improve the curriculum delivery, course evaluation process, and development of infrastructure in the different laboratories and sections of the department, availability of chemical and reagents and other research facilities.

In our University most of the faculty members are made Advisor of students. There has to be at least one meeting of the students with their Advisors. Students raised their various problems (academic, personal etc.) with the Advisor. The Advisors helped the students to solve their problem. In case, help of some particular faculty member/staff/Dean were needed, Advisors took their help and solved the problem.

There is a register with the Student Welfare Officer of the College, in which any student can raise their problems (related to academic, hostels etc.).The Student Welfare Officer brought the problem to the notice of the Dean of the College. Dean discussed the issue with the Student/Group of Students/faculties/officials and took remedial measures. At the University level there is Student Advisory Council which discuss and solve the appropriate demand raised by the student representatives of different constituent colleges.

In every Semester there was a meeting of Dean with representative of Students to discuss their problems related to teaching, hostels, etc. Generally Students raised their issue which has to be discussed in the meeting. The issues which can be solved at the College level were settled in the College itself. The issues which needed the attention of the Vice-Chancellor were sent to him for satisfactory solution.

Extension council meeting and Interface meeting of the College and University were regularly held every year. During these meeting, progressive farmers, members of Farmer Producer Organization (FPO), members of Shelf Help Groups (SHG), entrepreneurs and officials from line departments of the State Government etc. participated and gave their feedbacks and suggestions.

We have trained (through demonstration, short duration training, vocational training, training in the field etc.) many entrepreneurs, farmers and students from other Universities during last five years in Genetics and Plant Breeding and Tissue culture aspects from various funded external as well as internal projects.

Few feedbacks received from students are attached below:

6.4.8. STUDENT INTAKE AND ATTRITION IN THE PROGRAMME FOR LAST FIVE YEARS

Name of the degree programme	Actual students admitted in last five years						Attrition (%)					
Degree/Year	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Ph.D. (Genetics and Plant Breeding)	-	2	2	2	2	1						

6.4.9. ICT APPLICATION IN CURRICULA DELIVERY

College is having a well-equipped Computer Lab with Internet Lan Connection, All the departments and various externally funded Projects are having Computer facilities which were used for teaching, practical, project work analysis etc of students. The University is having online Academic Management System (AMS) through which students made their online research advisory committee registration. The college is having a system (e-collection) through which students deposited their fees etc. online itself. All the funds either from the University or from various funding agencies for various outside funded projects were/are deposited in the college account through Public

Finance Management System. Wi-Fi availability and internet services are available in the whole campus (Academic buildings including class rooms, hostels, residential colony).

The nodal officer of the Academic Management System conducted regular training for the newly admitted students to use the system effectively. Under the IDP- NAHEP project of CAU, Imphal the faculty were trained by the experts to use the online platform for conducting classes in online mode especially during pandemic.

Our Library is having sufficient Books for use by the Students. It is also having various facilities where student can go through various Journals, Books etc. online either in the Library or Class Rooms or Departments or in their Hostel rooms etc. The Library provides Circulation and reference services. The library has also access to online e-journals through CERA (Consortium for e-Resources in Agriculture) and IP address has been activated to access the online journals through CERA. Photocopying and Printing facilities are also available in the library. Students used all these facilities during the period under report.

To check the percentage of plagiarism the college library has installed the software and student has to get the certificate from the Librarian before initial submission of their thesis.

For data analysis of the students the Department of Agricultural Statistics provide the software for different analysis.

6.4.10. The information pertaining to 6.4.1 to 6.4.9 has been provided for Ph.D. programme *i.e.,* Ph.D. (Genetics and Plant Breeding) of College of Agriculture, Iroisemba, Manipur is correct.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificates of the Awards

I, the Dean Prof. Indira Sarangthem hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding University.

Signature of Dean of the College with Date &Seal

PH.D. PROGRAMME IN PLANT PATHOLOGY

6.4. SELF STUDY REPORT FORDEGREEPROGRAMME

6.4.1. Brief History of the Degree Programme

Back ground information

Keepinginviewthehighpotentialofapplicationsofagriculturaltechnologicalinterventionsinimpro vingtheagriculturalscenario of NEH region and to address to the issues of shortage of trained human resource in Plant Pathology, College of Agriculture, Central Agricultural University (CAU), Imphal. Initially this present Department was named as BPP (Botany and Plant Pathology), later on as per the ICAR-Deans committee norms, changed to Department of Plant Pathology with teaching students of B.Sc (Agri), M.Sc. (Ag), Plant Pathology and in the Year 2015, first batch of PhD programme was started with admission of two students, one is from ICAR-SRF and another is from CAU entrance examination.

The mission, vision, mandate, goal objectives and thrust areas of the college is given below.

Mission

i) To create manpower in area of specialization to Plant Pathology
ii) To achieve sustainable Plant Protection strategies
iii) To train farmers/ extension functionaries on Plant Disease Management

Vision

In accordance with the vision of CAU, Imphal the vision of College of Agriculture, Imphal is to produce world class professionals who are equipped to meet the demands of global outfit, have analytical abilities and entrepreneurship for making career of self-employment and as contributors, to livelihood and food/ nutritional security.

Mandate

- Shortage of trained man power indiscipline (s) of Plant Pathology.
- Utilization of the natural resources for the sustainable agriculture with a special preference to the North East India, a hub of organic farming.

Thrust Areas

With respect to human resource development, research and extension education activities the college has setup following thrust areas

i) Human Resource Development

Human resource development in the discipline of Plant Pathology.

ii) Research

- Finding the solution for the hill agriculture with conservation approach having organic base to increase production and productivity of crops by adoption/ refinement/ development of plant protection measures.
- Adoption/refinement/development of improved Plant disease diagnosis.
- Adoption, promotion and development of improved techniques of plant disease management in relation to climate change in the region.
- Adoption and promotion of use of different appropriate sustainable sources of Plant protection strategies in relation to crop specific, region specific.

iii) Extension Education

Undertaking variety of extension, education activities for transfer of technology through involvement of farmers, researchers, manufactures and extension education functionaries for promoting adoption of improved techniques of Plant disease management strategies for higher productivity and profitability with reduced losses ensuring higher net returns to the farming community of the region.

Ph. D. Degree Programme

The Department of Plant Pathology is one of the major departments under Agricultural teaching system as per the 5th Deans committee. Since the establishment of the College of Agriculture, Iroisemba, the Department of Plant Pathology is engaged in teaching of the BSc(Ag) students as per the course curriculum of ICAR and latest by as per 5th Deans Committee. Later on there is opening of the M.Sc. (Ag) in Plant Pathology. In the year 2015, admission of PhD students started with intake of two students one is from ICAR-SRF and another is by CAU entrance examination.

Department of Plant Pathology

The mission of the Plant Pathology Department of COA, Iroisemba to be a centre of excellence in teaching, research and extension education in the discipline of Plant disease management, diagnosis, so as to reduce losses in crops in NEH region.

With the help of well-established labs including molecular diagnostics, mushroom laboratory and Biocontrol laboratory this Department is contributing for the running of B.Sc. (Agricultural), M. Sc (Plant Pathology) and Ph. D. (Plant Pathology) programme. The Ph.D. students are getting the following scholarships & Fellowships.

Scholarships & Fellowships

UGC Fellowship- 1
ICAR-SRF(Without Fellowship)- 2
CAU university fellowship- 5

Statistics of Doctoral degree programme (2015-16to2020-21)

Year of Admission	Admitted			Dropped			Passed			Remarks
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	
2015-16	1	1	2	-	-	-	1	1	2	
2016-17	-	2	2	-	-	-	-	1	1	Yet to complete
2017-18	-	1	1	-	-	-	-	-	-	Yet to complete
2018-19	-	1	1	-	-	-	-	-	-	Yet to complete
2019-20	-	1	1	-	-	-	-	-	-	Yet to complete
2020-21	1	-	1	-	-	-	-	-	-	Yet to complete
Total	2	06	08	-	-	-	1	2	3	

List of the PhD Pass out students with their present position (Last Five Years)

S No	Name of the Student	Thesis Title	Remarks
1	Mr Y Herojit Singh, Ph D Regd No: CAU/03-PhD(COA)/15	Genetic Diversity of Candidatus Liberibacter asiaticus causing citrus Huanglongbean disease in Manipur and development of efficient diagnostics for onsite detection	Working as Subject Matter Specialist, KVK, Tura
2	Miss W TampakleimaChanu, Ph D RegdNo:CAU/274-A/14(M)	Characterization of Fusarium wilt of pea and its management	Asst. Prof at Arunachal Pradesh

3	Mrs K Sarda Devi	Study on the management of soil borne diseases of rice by Trichoderma and PGPR	Thesis viva voce completed

Award of CAU, GOI & ICAR authorities' Scholarships

Ph.D. (Pl Path)	**Scholarship Type**			
	University Scholarship (CAU)	**ICAR scholarship (NTS)**	**SC/ST Fellow Ship**	**GOI Scholarship (SC+ST)**
2015-16	1	1	-	-
2016-17	1	1	-	-
2017-18	-	-	-	1(UGC)
2018-19	01	-	-	-
2019-20	01	-	-	-
2020-21	01	-	-	-
TOTAL	05	-	-	-

6.4.2. FACULTYSTRENGTH

At the Department of Plant Pathology, College of Agriculture, Iroisemba the following Faculty members/Scientists and staffs are associated in teaching and guiding the students of B.Sc. (Ag), M.Sc. (Ag) and Ph.D. level courses during 2015-2020.

Sl. No.	**Sanctioned Faculty**	**Faculty in place**	**Vacant position**	**AICRP Scientists/Guest Faculty/ Teaching Contract**
1	Professor	1	1	1(Principal Scientist from ICAR as guest)
2	Associate Professor	1	0	1
3	Assistant Professor	2	0	4 [1(Scientist-ICAR as guest) 2(Scientist-AICRP), 1(MTCC-VTC)]
	Total	4	1	6

**All the faculty were assigned the responsibility for the multiple programme (Bachelor level, PG level and Ph.D Levels)*

Information regarding the designation and qualification of various faculty members are given below.

Information regarding faculties teaching and guiding Ph. D. (Plant Pathology) programme

Classification of Courses	**Title of Course**	**Faculty**	**Qualification**
Major Subject	Advanced Mycology	Dr L Nongdrenkhomba Singh, Assoc., Prof.	Ph.D
	Advanced Virology	Dr Bireswar Sinha Asst., Prof	Ph.D
	Advanced Bacteriology	Dr Ph Sobita Devi, Prof. Dr Sumitra Phurailatpam Asst.Prof.	Ph.D
	Molecular Basis of Host Pathogen Interaction	Dr Bireswar Sinha Asst Prof.	Ph.D

		Dr S K Shamra(Scientist-ICAR)	
	Principles and Procedures of Certification	Dr Ph Sobita Devi, Prof. Dr I M Singh Principal Scientist-ICAR	Ph.D
	Plant Biosecurity and Biosafety	Dr Bireswar Sinha, Asst. Prof. Dr Sumita Ksh, Scientist-AICRP	PhD
Minor Subject	Recent Trends in Biological Control	Dr K I Singh Assoc. Prof	Ph.D
	Advanced host Plant Resistance	Dr M K Gupta Prof.(Retired 2019)	Ph.D
	Molecular Approaches in Entomological Research	Dr S Haldhar Assoc. Prof Dr Nilima Karam Scientist-AICRP	Ph.D PhD
	Advanced Integrated Pest Management	Dr K I Singh Assoc. Prof	PhD
Supporting Subjects	Biotechnology for Crop Improvement	Dr N Brojendra Singh Prof.	Ph.D
	Data Analysis Using Statistical Packages	Dr N Okendro Singh Prof	PhD
Seminar	DoctoralSeminar-I(1+0)	Dr L Nongdrenkhomba Singh, Assoc., Prof.	Ph.D Ph.D
	DoctoralSeminar-II(1+0)	Dr L Nongdrenkhomba Singh, Assoc., Prof.	Ph.D Ph.D
Research	DoctoralResearch(**0+45**)	Dr Ph Sobita Devi, Prof. Dr L Nongdrenkhomba Singh, Assoc., Prof. Dr Bireswar Sinha, Asst. Prof.	Ph.D Ph.D PhD

6.4.3. TECHNICAL AND SUPPORTING STAFF

Technical Staff of the Department of Plant Pathology are:

6.4.4. CLASSROOMS & LABORATORY

I. Sl No	**J. Name of the Posts & No**	**K. Remarks**
L. 1	M. Field cum Lab Assistant- 1	N. Looking after field works as well as laboratory during practical
O. 2.	P. MTS (Multitasking Staff)-2	Q. Look after extra works on Mushroom Lab and Biocontrol lab.

There are sufficient class rooms in various divisions, which are being used by the students of Ph.D. (Plant Pathology). The smart class room facility is being also utilized by the students of Ph.D.(Plant Pathology).There are various labs which are being utilized by various UG, PG & Ph.D. Programs. These labs are well equipped as per the recommendations of various Dean's Committee

Details of the Laboratory and the equipments being used are given below.

S. No.	Name of the Laboratory
1.	UG Laboratory (consisting of microscope, herbarium- wet, dry and digital)
2.	PG/PhD (consisting of well-equipped operation lab,
3.	Molecular Plant Pathology Lab (consisting of well equipped molecular biology unit etc.)
4.	Mushroom Unit (consisting of all equipment required for the mushroom spawn and mushroom production with a big seminar hall)
5.	Biocontrol-Trichoderma Laboratory (well established with equipment for Trichoderma mass production)
6.	Green house (One)
7.	Research Plot (Sufficient Research area for PhD students are available)

List of the Equipment's at Department of Plant Pathology, College of Agriculture, CAU(I)

Sl. No.	**Name of the equipment and Model No**
1	Laminar Flow (Model no.-1500c-24-24-24, S.r. no. 112/0705)
2	Laminar Air Flow(Kenz Flo) (Model no. 15000-36-24-24)
3	Shaker Cum BOD Incubator Model no. LEIL S.R. NO. 2009400007
4	Bod Incubator(Orbitek) (30D-350L)
5	Bod Incubator(Orbitek) (165L)
6	Bod Incubator(Orbitek)30D-350L
7	Bod Incubator (Calton)
8	Hot Air Oven Nsw MODEL NO. 14P S.R. NO. 34164
9	Autoclave NSW-227(18X24 MLS)
10	Autoclave NSW-227(16X24 MLS)
11	Autoclave(Equitron)
12	Electronoic Balance Anamed Z2000
13	Centrifuge MODEL NO. MB-2B SR: CCC-256
14	Hot Water Bath, MODEL –ORBITEK MO, SR. 2009800001
15	Fermenter, MODEL NO.GX, SR: FGXMG04770071
16	Lyopholyzer, MODEL NO. 7001000060, S.R.: 06070024
17	P.C.R. Thermo PX2 SR HBPX220
18	Double Distillation Unit, Qualizen, Model AODO-20P-08, SR.-0H51006168
19	pH Meter-Eutech, PRODUCT NO.ECPH70042S
20	Cold Centrifuge(Hermle Microprocesor), TYPE-Z400K Nr. 50070027
21	Well Wash(Thermo), REF: 51118170, S.R.: 3550903790
22	Research Microscope-Olympus-1,Magnus-4
23	Microscope(Olympus)
24	Digital Balance(Electronic), (i)SARTORIOUS-(ELEMENT ELT202) (NAIP GINGER), (ii)KERN Cap. 421gm
25	Digital Balance(Electronic) KERN(ECB1OK10WD090048104) (In Mushroom Lab.)

26	DNA Gel Electrophoresis Unit With Power Point(DBT Project)
27	Micro Wave Oven(NAIP Ginger), MAGIC COOK 20S(M)
27	Phase Contrast With Digital Image Analyzer With Camera (DBT Project) AHN GERMANY
29	Student Microscope- 45 nos
30	BOD Orbitek (Mushroom unit) (i) BOD 350L SR NO. 201D1700017 (ii) BOD 350L SR NO. 201D1700018
31	Laminar FlowKlenz (Mushroom Unit) (i)MODEL NO.-1500C-36-24-24 SR -114/0705 (ii)1500C-36-24-24 SR-223/0810
32	Autoclave (Equitron) SR.7451STWL.AJF.076 (Mushroom Unit)
33	Autoclave Vertical NSW227 , SR.229.060913622 (Mushroom Unit)
34	Jiotech Microprocessor Incubator Code No.AAH2H22K SR R049056,Model No.1B-15G
35	Orbital shaker (DST) SLM-OS-250D
36	Refrigerators (i)L.G.Model no. GL-295TMG, (ii)L.G. Model no. GL-244GP, (iii)L.G.-FF & (iv)Godrej Eon, Model no. GFE25/2010(in Mushroom unit)
37	Elite Panaboard
38	Xerox Canon2420L
39	Glass House
40	Laminar flow , project(DBT) (in Trichoderma lab.)
41	B.O.D. from project (DBT)(in Trichoderma lab.)
42	Autoclave digital, project (Vocational training on mushroom) (Mushroom unit)
43	Straw cutter, project (Vocational training on mushroom) (Mushroom unit)

Awards/Recognition/Certificates (PhD students in last five years)

Year	Name of the Student	Details of Award/Recognition
2017	Mr Y Herojit Singh, Ph D Regd No: CAU/03-PhD(COA)/15	Best poster Award, Indian Phytopathological Society(IPS)
2017	Mr Y Herojit Singh, Ph D Regd No: CAU/03-PhD(COA)/15	ICAR-NET Qualified
2017	Mr Y Herojit Singh, Ph D Regd No: CAU/03-PhD(COA)/15	APS Travel Grant Award- NEZ, Indian Phytopathological Society(IPS)
2019	Miss W Tampakleima Chanu, Ph D RegdNo:CAU/274-A/14(M)	APS Travel Grant Award- NEZ, Indian Phytopathological Society(IPS)
2019	Miss W Tampakleima Chanu, Ph D RegdNo:CAU/274-A/14(M)	Best Poster Award, Indian Society of Seed Technology (ISST)
2019	Mr Y Herojit Singh, Ph D Regd No: CAU/03-PhD(COA)/15	Plantica Best Thesis Award 2019(PhD) , Association of Plant Science Researcher, Plantica

		Foundation, Uttarakhand, India
2019	Mrs K Sarda Devi, PhD student	ICAR-NET Qualified
2019	Mrs Chandrajini Devi, PhD student	ICAR-NET Qualified
2019	Mr Y Herojit Singh, Ph D Regd No: CAU/03-PhD(COA)/15	Selected as SMS, KVK(Tura)
2021	Miss W TampakleimaChanu, Ph D RegdNo:CAU/274-A/14(M)	Selected as Assistant Prof.,(Contact), Arunachal Pradesh
2021	Miss Tusi Chakma, PhD	Selected as SMS, KVK, Dhalai, Govt. of Tripura.

6.4.5. CONDUCTOFPRACTICALANDHANDS-ON-TRAINING

There are manageable number of students who are kept in one batch during Theory & Practical classes to ensure better delivery of information, encourage students' participation and active monitoring. Students conducted their practical training in various Laboratory, research field of the college. The PhD students are time to time sent to ICAR institutes for hands on training on modern molecular biotechnology. We have provided practical as well as hands on training to our students and also various other universities, such as Bharathiar University Coimbatore, Hemwati Nandan Bahuguna Garhwal University etc.

Average number of students in theory and practical classes

S. No.	Name of the degree programme	Batch of student in Theory	Batch of student in practical
1.	**Ph.D.(Plant Pathology)**	Full strength	Full strength

6.4.6 SUPERVISION OF STUDENTS IN Ph.D. PROGRAMME

There are sufficient numbers of qualified and experienced faculties who are guiding Ph.D. students in the area of Plant Pathology. The names of the faculties who are entitled to guide Ph.D students are given below.

S. No.	Name of the faculty	Designation	Qualification	Experience	No. of students guided/guiding	
					Guided (Completed)	Guiding
1)	Dr. N. I. Singh	Professor (Retired 2017)	Ph.D.	38years	3	- (Retired 2017)
2)	Dr. Ph Sobita Devi	Professor	Ph.D.	35years	-	4
3)	Dr.L Nongdrenkhomba Singh	Associate Professor	Ph.D.	15years	1	1
4)	Dr Bireswar Sinha	Asst Prof(Senior Scale)	Ph D	11 Years	2	1

Eligibility criteria for Guidance of PG Research

Ph. D. Programme :

a. Ph.D. in the concerned/related discipline

b. All Professors are eligible to guide Ph.D. students

c. A teacher other than Professor must have must guided or is guiding 2 (two) Master's students and has published four research papers in NAAS rated journals (other than his/her Masters or Ph.D. thesis)

Or

A teacher must have guided 3 (three) Masters‟ students successfully as a Major Advisor.

Number of students permitted to guide by a teacher

At any given time, Professor, Associate Professor and Assistant Professor shall not be a Chairperson for more than 6, 5 and 4 P.G. students (Master‟s and Ph.D. combined), respectively. The Chairperson should be a recognized P.G. teacher with 5 years of experience and 5 NAAS rating publications or possesses Ph. D. with good publications, made after joining the University.

R. 6.4.7 FEEDBACK OF STAKEHOLDERS

In our University most of the faculty members are made Advisor of about 10 students. There has to be at least one meeting (mostly on Saturday) of the students with their Advisors. Students raised their various problems (academic, personal etc.) with the Advisor. The Advisors helped the students to solve their problem. In case, help of some particular faculty member /staff /Dean were needed, Advisors took their help and solved the problem.

There is time to time feedback received from students, parents, staffs as well as stakeholders and farmers. The feed back received from all the sources were analyzed and try to solve in Departmental levels and later submitted to the competent authority which are beyond the Departmental limit. The feed back is used for the understanding the drawbacks of the present system. As a result, it is utilized to improve teaching methods, infrastructure, research any other relevant subjects to improve.

FEEDBACK FORM

STUDENT FEEDBACK FORM

PARENT FEEDBACK FORM

6.6.8 STUDENT INTAKE AND ATTRITION IN THE PROGRAMME FOR LAST FIVE YEARS

Name of the Degree Programme	Actual students admitted in last five years						Attrition(%)					
Year	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Ph.D. (PP)	02	02	01	01	01	01	-	-	-	01	01	01

6.4.9 ICT APPLICATION IN CURRICULA DELIVERY

College is having a well-equipped Computer Lab with Internet Lan Connection, All the departments and various externally funded Projects are having Computer facilities which were used for teaching, practical, project work analysis etc of students. The college is having a system (e-collection) through which students deposited their fees etc. online itself. All the funds either from the University or from various funding agencies for various outside funded projects were/are deposited in the college account through Public Finance Management System. Wi-Fi availability and internet services are available in the whole campus (Academic buildings including class rooms, hostels, residential colony).

Our Library is having sufficient Books for use by the Students. It is also having various facilities where student can go through various Journals, Books etc. on line either in the Library or Class Rooms or Departments or in their Hostel rooms etc. The Library provides Circulation and reference services. The library has also access to online e-journals through CERA (Consortium fore-Resources in Agriculture) and IP address has been activated to access the online journals through CERA. Photocopying & Printing facilities are also available in the library. Students used all these facilities during the period under report.

6.4.10 The information pertaining to6.4.1to6.4.9hasbeen provided for PG programme *i.e.,* Ph.D. in Plant Pathology of College of Agriculture, Iroisemba, Manipur is correctly.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificates of the Awards

I, the Dean Prof. Indira Sarangthem hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date &Seal

PH. D. PROGRAMME IN SOIL SCIENCE & AGRICULTURAL CHEMISTRY

6.4. SELF STUDY REPORT FOR DEGREE PROGRAMME

6.4.1. Brief History of the Degree Programme

Background information

Keeping in view of the potential of applications of agricultural technological interventions in improving the agricultural scenario of the NEH region and to increase the trained human resources in Soil Sc.& Agril. Chemistry the College of Agriculture, CAU, Iroisemba, Imphal was established. The department started Ph.D. programme in the year 2012.

The mission, vision, mandate, goal, objectives and thrust areas of the College are as:

Mission

- To create the manpower specialized to the subject,
- To equip the knowledge of soil fertility and sustainability,
- To train the farmers and extension functionaries of the region on soil fertility related to crop production.

Vision

In accordance the vision of the CAU, Imphal is to produce world class professionals who are equipped to meet the demands of global outfit, have analytical abilities and entrepreneurship for making career of self-employment and as contributors to livelihood and food/nutritional security.

Mandate

- Fill the gap of shortage of manpower in the discipline of Soil Sc.& Agril. Chemistry
- Utilization of natural resources for sustainable agriculture of the region.

Thrust Area

With respect to human resource development, research and extension education activities, College of Agriculture, CAU, Imphal was setup with the following thrust areas:

iv) Human resource development in the discipline of Soil Sc.& Agril. Chemistry,

v) Research

- Finding the solution to increase economic crop production through balanced fertilization,
- Adoption/refinement and development of critical levels of nutrients in soils and plants for effective fertilization for economic yield and
- Adoption of integrated nutrient management for sustainability.

vi) Extension Education

Extension activity is one of the most important techniques for transfer of technology from the improved research findings to the farmers and extension functionaries of the region. The knowledge of this discipline will definitely enhance the economic crop production for long period of time with least environmental pollution.

Ph.D. Degree Programme

The Department of Soil Science and Agricultural Chemistry, College of Agriculture, Central Agricultural university, Iroisemba, Imphal is one of the major department under the agricultural teaching system as per 5th Deans' Committee. Since the establishment of the College of Agriculture, CAU, Iroisemba, Imphal, the Department of Soil Science and Agricultural Chemistry is engaged in teaching of B.Sc.(Agri) students as per course curriculum of ICAR and latest by as per 5th Deans' Committee. Later on M.Sc.(Agri)and Ph.D. in Soil Science and Agricultural Chemistry started with the admission of students from ICAR and CAU entrance examination.

Department of Soil Science and Agricultural Chemistry

The mission of the Department of Soil Science and Agricultural Chemistry, College of Agriculture, CAU, Iroisemba, Imphal is to be a centre of excellence in teaching, research and

extension education in the line of nutrition, soil fertility management and diagnosis of nutrients through soil testing.

The department has well-established laboratory with AAS facility for micronutrients analysis. The M.Sc. (Agri) and Ph.D. students are getting the following scholarships and fellowships.

Scholarships and Fellowships

- ICAR-JRF including NTS
- CAU-University fellowship

Statistics of Ph.D. degree programme (2015-16 to 2019-20)

Year of Admission	Admitted			Dropped			Passed			Degree /award during the year	Remarks
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total		
2015-16	-	1	1	-	-	-	-	1	1	2020-21	Completed
2016-17	1	-	1	-	-	-	-	-	-	2018-19	Ongoing
2017-18	1	-	1	-	-	-	-	-	-	2019-20	Ongoing
2018-19	-	1	1	-	-	-	-	-	-	2020-21	Ongoing
2019-20	2	-	2	-	-	-	-	-	-	2021-22	Ongoing
2020-21	-	1	1	-	-	-	-	-	-	2022-23	Ongoing
Total	4	3	7	-	-	-	-	1	1		

Award of CAU, GOI and ICAR authorities Scholarship

Ph.D.	Scholarship Type			
	University Scholarship (CAU)	ICAR scholarship (NTS)	SC/ST Fellow Ship	GOI Scholarship (SC+ST)
2015-16	1	-	-	-
2016-17	1	-	-	-
2017-18	1	-	-	-
2018-19	-	-	1	-
2019-20	-	-	2	-
2020-21	1	-	-	-

6.4.2. FACULTY STRENGTH

The Department of Soil Science and Agricultural Chemistry, College of Agriculture, CAU, Iroisemba, Imphal have the following faculty and staff associated in teaching B.Sc.(Agri), M.Sc.(Agri) and Ph.D. courses and guiding the students of M.Sc.(Agri) and Ph.D. during 2015-2020.

S. No.	Sanctioned Faculty	Faculty in strength	Vacant position	AICRP Scientists/ Guest Lecturer/ Teaching Contract
1	**Professor**	1	0	2
2	**Assoc. Prof.**	0	1	-
3	**Asstt. Prof.**	2*	1	1[DEPT. of Remote Sensing, Govt. of Manipur]
	Total	2	3	3

* One Asstt. Prof. is promoted to Professor under Career Advancement Scheme (CAS).

Information regarding faculties teaching and guiding Ph.D. in Soil Science and Agricultural Chemistry programme

Area	Course No.	Course Title	No. of Credits	Faculty	Qualification
Major Cours	SOILS-601	ADVANCES IN SOIL PHYSICS	2+0 =2	Prof. A. Herojit Singh	Ph.D.
	SOILS-602	ADVANCES IN SOIL	2+0 =2	Dr. Indira Sarangthem	Ph.D.

		FERTILITY		& Dr. N. Surbala Devi	
	SOILS-603	PHYSICAL CHEMISTRY OF SOILS	2+0 =2	Dr. Indira Sarangthem	Ph.D.
	SOILS-604	SOIL GENESIS AND MICROPEDOLOGY	2+0 =2	Dr. Indira Sarangthem & Prof. Dr. R.K. Kumarjit Singh	Ph.D.
	SOILS-605	BIOCHEMISTRY OF SOIL ORGANIC MATTER	2+0 =2	Dr. Indira Sarangthem & Dr. Lokayesh Kumar Mishra	Ph.D.
	SOILS-606	LAND USE PLANNING AND WATERSHED MANAGEMENT	2+0 =2	Prof. A. Herojit Singh	Ph.D.
Major Courses (Optional)	SOILS-507	GEOMORPHOLOGY AND GEOCHEMISTRY	2+0 =2	Dr. Indira Sarangthem	Ph.D.
	SOILS-509	SOIL, WATER AND AIR POLLUTION	2+1=3	Dr. N. Surbala Devi	Ph.D.
	SOILS-515	LAND DEGRADATION AND RESTORATION	1+0 =1	Dr. N. Surbala Devi	Ph.D.
Minor Courses	AGRON-501	MODERN CONCEPTS IN CROP PRODUCTION	3+0=3	Prof. K. Nandini Devi	Ph.D.
	AGRON-502	PRINCIPLES AND PRACTICES OF SOIL FERTILITY AND NUTRIENT MANAGEMENT	2+1=3	Dr. M. Sumarjit Singh	Ph.D.
	AGRON-513	PRINCIPLES AND PRACTICES OF ORGANIC FARMING	2+1=3	Dr. M. Sumarjit Singh	Ph.D.
	AGRON-504	PRINCIPLES AND PRACTICES OF WATER MANAGEMENT	2+1=3	Dr. Edwin Luikham	Ph.D.
	AGRON-503	PRINCIPLES AND PRACTICES OF WEED MANAGEMENT	2+1=3	Dr. K. Nandini Devi &Dr. N. Nabachandra Singh	Ph.D.
	AGRON-512	DRY LAND FARMING AND WATERSHED MANAGEMENT	2+1=3	Dr. N. Nabachandra Singh	Ph.D.
Compulsory Courses (Non-Credit)	PGS-501	LIBRARY AND INFORMATION SERVICES	0+1=1	Shri. M. Hemchandra	PG
	PGS-502	TECHNICAL WRITING AND COMMUNICATIONS SKILLS	0+1=1	Dr. Maheshwari Konjengbam	Ph.D.
	PGS-503	INTELLECTUAL PROPERTY AND ITS MANAGEMENT IN	1+0=1	Dr. N. Brajendra Singh	Ph.D.

		AGRICULTURE			
	PGS-504	BASIC CONCEPTS IN LABORATORY TECHNIQUES	0+1=1	Dr. S. Jekendra Singh	Ph.D.
	PGS-505	AGRICULTURAL RESEARCH, RESEARCH ETHICS AND RURAL DEVELOPMENT PROGRAMMES	1+0=1	Dr. N. Brajendra Singh & Dr. M. Kunjaraj Singh	Ph.D.
	PGS-506	DISASTER MANAGEMENT	1+0=1	Dr. Gopeswar	Ph.D.
Seminar	SOILS-691	DOCTORAL SEMINAR I	1+0 =1	Dr. N. Surbala Devi	Ph.D.
	SOILS-692	DOCTORAL SEMINAR II	1+0 =1	Dr. N. Surbala Devi	Ph.D.
Supporting Courses	STAT-513	SAMPLING TECHNIQUES	2+1=3	Shri. N. Gopimohan Singh	M.Sc.
	STAT-531	DATA ANALYSIS USING STATISTICAL PACKAGES	2+1=3	Dr. N. Okendro Singh	Ph.D.
Research	Doctoral Research		0+45= 45	Dr. R.K. Kumarjit Singh (**Retired**), Dr. A. Herojit Singh, Dr. Indira Sarangthem (**Dean**) and Dr. N. Surbala Devi	Ph.D.

6.4.3. Technical and supporting staff

S. No.	Name of the posts and number	Remarks
1.	**Field cum Lab. Assistant-2**	**Looking after the laboratory, field works and PG and Ph.D. research works**
2.	**MTS -1**	**-do-**
3.	**Contractual labour -1**	**-do-**

6.4.4. Classrooms and Laboratory

There are sufficient classrooms which are utilized for PG and Ph.D. classes. The department is having laboratories, one for UG and another for PG and Ph.D. students. Separate rooms for AAS and digestion chamber are also there in the department. These laboratories are well-equipped for soil and plant analyses.

Details of laboratories and equipments

Sl. No.	Name of the laboratory	
1.	UG & PG laboratory	AAS, HPLC, Spectrophotometer, Flame photometer, N-analyser, pH meter, EC meter, Hot-air oven, Hot plate, Electronic balances, Electric stirrer, Centrifuge, Hot water bath, Turbidity meter, Yonder sieve shaking machine, Horizontal shaker, Hot water shaker, Quartz double distillation units, Hydrometers, Muffle Furnance, BOD Incubator, Deep freezer, Refrigerator, Centrfuge machine, etc.

Number of Ph.D. students qualified during the last 5 (five) years (2015-20)

Sl.No.	Name of the student	ARS/JRF/SRF	Year
	NIL		

Awards/Recognition/Certificates (Ph.D. students for last five years)

Year	Name of the student	Detail of recognition
	NIL	

6.4.5. CONDUCT OF PRACTICAL AND HAND-ON-TRAINING

The maximum number of student per batch is less than six including Agronomy students. So, there is no problem for conducting practical class in the laboratory for Ph.D. students.

Average number of students in theory and practical classes

Sl.No.	**Name of the degree programme**	**Theory**	**Practical**
1.	Ph.D.	Full strength	Full strength

6.4.6. SUPERVISION OF STUDENTS IN Ph.D. PROGRMME

There are sufficient numbers of qualified and experienced faculties who are guiding the PG students in the discipline of Soil Sc. & Agril. Chemistry.

The name of the faculties who are entitled to guide the PG students are given below.

Sl. No.	**Name of the faculty**	**Designation**	**Experience**	**No. of students supervised as major advisor**		**No. of students presently supervising as major advisor**	
				PG	**Ph.D.**	**PG**	**Ph.D.**
1.	Dr. Indira Sarangthem	Professor and Dean	30 years	12	2	1	4
2.	Dr. R. K. Kumarjit Singh	Professor (Retired-2020)	40 years	7	2	Nil	Nil
3.	Dr. A. Herojit Singh	Professor and HOD	32 years	12	1	2	2
4.	Shri. O. Nirmalkumar Singh	Assoc.Prof. (Retired-2020)	40 years	Nil	Nil	Nil	Nil
5.	Dr. N. Surbala Devi	Assistant Professor (Sr. Scale)	10 years	8	Nil	4	Nil

6.4.7. FEED BACK OF STAKE HOLDERS

In the college, all the faculty members are made advisor of the students. There has at least one advisory meeting with the students. Sometimes the students raised their problems particularly academic matter during the meeting and every advisor tried to solve the problems. If the problem is beyond capacity of the advisor, then the matter is put up to the higher authority to solve the problems.

There is a register with the Student Welfare Officer (SWO) of the College in which any student can raised the problems related to academic, hostel, etc. The SWO brought the problem to the notice of the Dean of the College. The Dean of the College discussed the issues with the students along with the advisor to solve the problems if it is needed.

In every semester, there was a meeting with the student representatives and advisors appointed by the Dean, College of Agriculture to discuss the problems faced by the students to put up to the academic council meeting of the University. Academic Council Meeting was held every year.

CAU organized Inter Collegiate Youth Festival and CAU Agri-Fair every year at different constituent colleges of the University. During the Agri-Fair, there were many technological

demonstrations in which the farmers/stakeholders made various queries related to agriculture and university authority tried to solve the problem faced by them. There were interaction programme with the farmers and scientists everyday during the Agri-Fair.

Research Council Meeting and Extension Council Meeting were held every year along with the progressive farmers, FPO members, SHGs, related officials of state government, entrepreneurs, etc. and their problems and suggestions were noted for further actions.

The Department of Soil Science & Agricultural Chemistry have trained the extension functionaries of the Directorate of Agriculture, Government of Manipur about the Hands-on-practical on soil testing.

Feedback received from the students, parents and employer are used to improve curriculum delivery, course evaluation process, infrastructure in the laboratories and sections of the department, chemicals and reagent availability and other research facilities. Few feedbacks received from students are attached:

College of Agriculture

Central Agricultural University, Imphal, Manipur

STUDENT FEEDBACK FORM

1. Name of the Student:
2. Admission No:
3. Academic year:
4. Name of the programme studied:
5. Dedgarden Session:
6. Mobile No:
7. Email id:
8. Feedback:

S.No.	Parameters	Rating
1.		5
2.	Usage of teaching aids and ICT in the class by faculty to facilitate	2
3.		1
4.		2
5.		3
6.		3

Select your ranking on the scale of 1 to 5 for each of the above mentioned parameters

(1 excellent, 2 very good, 3 good, 4 fair, 5 poor)

Recommendation if any for improvement:

Signature of the student

College of Agriculture

Central Agricultural University, Imphal, Manipur

STUDENT FEEDBACK FORM

1. Name of the Student: Samir Tripura

2. Admission No: **1**A – 19 (M)

3. Academic year: 2020-21

4. Name of the programme studied: Ph.D.(SSAC)

5. Designation: Student

6. Email id: samirssac@gmail.com

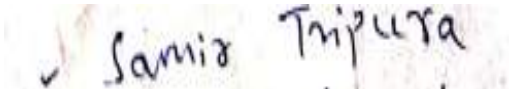
7. Feedback:

S.No.	Parameters	Rating
1.	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation.	**2**
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education	**1**
3.	Teaching quality, fairness in the assessment processes (internal evaluation, quiz, assignment ect.) and freedom to adopt new techniques/education tools.	**1**
4.	Opportunities in the college for research activities& relevance with practical / lab work	**2**
5.	Curriculum has prospects for supporting higher education career oriented/ employability.	**3**
6.	Overall learning experience.	**2**

Select your ranking on the scale of 1 to 5 for each of the above- mentioned parameters

(1-excellent, 2- very good, 3- good, 4- fair, 5- poor)

Recommended if any for course improvement:



6.4.8. STUDENT INTAKE AND ATRITION IN THE PROGRAMME FOR LAST FIVE YEARS

Name of the degree prog.	Actual students admitted in last 5 years						Attrition (%)					
Year / Ph.D.	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
	1	1	1	1	2	1	-	-	-	-	-	-

6.4.9. ICT APPLICATION IN CURRICULA DELIVERY

The College is having a well-equipped computer Lab with Internet Lan connection. All the departments are having computer facilities with internet connection. Wi-Fi availability and internet services are available in the whole campus (Academic buildings including class rooms, hostels, guest house, residential colony, etc). Library of the College is having sufficient books and journals for students as well as faculties. The library has also access to online e-journals through CERA (Consortium for e-Resources in Agriculture) and IP address has been activated to access the online journals through CERA.

6.4.10. All the information pertaining to 6.4.1. to 6.4.9. provided for Ph.D students i.e. Ph.D. in Soil Science & Agricultural Chemistry, College of Agriculture, Central Agricultural University, Imphal (Manipur) is correct.

6.4.11. Since the accreditation of programme is related to the All India Admission from ICAR and also having weightage of the college accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificates of Awards

I, Prof. Indira Sarangthem, Dean, College of Agriculture, CAU, Iroisemba, Imphal hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college and degree awarding University.

Signatureof Dean of the College with Date &Seal

Annexure-A

Accreditaion Committee
College of Agriculture, Central Agricultural University
Iroisemba, Imphal, Manipur

(Constituted vide Order no. CA/CAU/DC-3/97(Vol-VI) Dated 22nd December 2020)

1) Prof. EVD Sastry - Chariman
2) Prof. N Brajendra Singh - Membar
3) Dr. S. M. Feroze - Member
4) Dr. S.M. Haldhar - Member
5) Dr. Ng. Piloo - Member
6) Dr. K Maheshwari Devi - Member
7) Dr. L. K. Mishra - Member Secretary

Annexure B

List of Publications from 2015-16 to 2019-20

S. No.	Details of the Publications	NAAS Rating
	NAAS Rating Above 6.0 – 39 Research Papers	
1.	Mishra, L. K., Sarkar, D., Zwinger, S., and Shetty, K. (2017). Phenolic antioxidant-linked anti-hyperglycemic properties of rye cultivars grown under conventional and organic production systems. Journal of cereal science, 76, 108-115.	9.95
2.	Mishra, L. K., Sarkar, D., Mentreddy, R., and Shetty, K. (2020). Evaluation of phenolic bioactive-linked anti-hyperglycemic and Helicobacter pylori inhibitory activities of Asian Basil (Ocimum spp.) varieties. Journal of Herbal Medicine, 20, 100310.	9.03
3.	M.N. Singh, O.K. Raina, M. Sankar, Ajayta Rialch, M.N. Tigga, G. Ravi Kumar, P.S. Banerjee. (2016). Molecular detection and genetic diversity of Babesia gibsoni in dogs in India. Infection, Genetics and Evolution, 41: 100-106.	9.02
4.	Berwal MK, Haldhar SM, Ram C, Shil S, Kumar R, Gora JS, Singh D, Samadia DK, Kumar M and Mekhemar M. 2021. Calligonum polygonoides L. as novel source of bioactive compounds in hot arid regions: evaluation of phytochemical composition and antioxidant activity. Plants, 10, 1156. https://doi.org/10.3390/plants10061156	8.76
5.	Haldhar SM, Bhargava R, Krishna H, Berwal MK and. SarojPL. 2018. Bottom-up effects of different host plant resistance cultivars on ber (Ziziphus mauritiana)-fruit fly (Carpomyiavesuviana) interactions. Crop Protection, 106: 117-124	8.38
6.	Haldhar SM, Samadia DK, Bhargava R and Singh D. 2017. Host plant genotypes determine bottom-up effect of Cucumis melo var. callosus against melon fruit fly. Crop Protection, 98: 157-165.	8.38
7.	Ajayta Rialcha, O.K. Raina, Mary Nisha Tigga, Arun Anandanarayanan, Zamir Ali Ganaie, Andleeb Aftab, H. Lalrinkima, M. Norjit Singh, A. Varghese, S. Samanta, P.S. Banerjee, Praveen Singh, M.R. Verma. (2018). Evaluation of Echinococcus granulosus recombinant EgAgB8/1, EgAgB8/2 and EPC1 antigens in the diagnosis of cystic echinococcosis in buffaloes. Veterinary Parasitology, 252: 29-34	8.36
8.	Rymbai, D. and Feroze S.M. 2018. The insight of agricultural adaptation to climate change: A case of rice growers in Eastern Himalaya, India.International Journal of Biometeorology, 62(10):1833-1845.	8.20
9.	Krishna H, Kumar L, Haldhar SM, Singh D and Saroj PL. 2018. Phenological growth stages of Indian jujube (Ziziphus mauritiana Lamk.) according to the BBCH scale. Annals of Applied Biology, 1–7. https://doi.org/10.1111/aab.12466	8.50
10.	Mishra, L. K., and Sangma, D. (2017). Quality attributes phytochemical profile and storage stability studies of functional ready to serve (RTS) drink made from blend of Aloe vera, sweet lime, amla and ginger. Journal of food science and technology, 54(3), 761-769.	7.95
11.	Marak, N. R., Malemnganbi, C. C., Marak, C. R., and Mishra, L. K. (2019). Functional and antioxidant properties of cookies incorporated with foxtail millet and ginger powder. Journal of food science and Marak, N. R., Malemnganbi, C. C., Marak, C. R., and Mishra, L. K. (2019). Functional and antioxidant properties of cookies incorporated with foxtail millet and ginger powder. Journal of food science and technology, 56(11), 5087-5096.	7.95
12.	Haldhar SM, Choudhary BR, Bhargava R and Gurjar K. 2015. Host plant resistance (HPR) traits of ridge gourd (Luffa acutangula (Roxb.) L. against melon fruit fly, (Bactrocera cucurbitae (Coquillett)) in hot arid region of India. Scientia Horticulturae, 194: 168–174	7.76
13.	Haldhar SM, Samadia DK, Bhargava R, Choudhary BR and D. Singh. 2018. Host plant accessions determine bottom-up effect of snapmelon (Cucumis melo var. momordica) against melon fly (Bactrocera cucurbitae (Coquillett)). Breeding Science,	7.70

	68: 499-507	
14.	H. Lalrinkima, O.K. Raina, Dinesh Chandra, Siju Susan Jacob, R.K. Bauri, Subhash Chandra,H.S. Yadav, M.N. Singh, A. Rialch, A. Varghese, P.S. Banerjee, Navneet Kaur, Arvind Sharma. (2015). Isolation and characterization of Cu/Zn–superoxide dismutase in Fasciola gigantic. Experimental Parasitology 151–152: 1-7.	7.64
15.	Haldhar SM, Samadia DK, Bhargava R, Choudhary BR and D. Singh. 2018. Host plant accessions determine bottom-up effect of snapmelon (Cucumis melo var. momordica) against melon fly (Bactroceracucurbitae(Coquillett)). Breeding Science, 68: 499-507	7.56
16.	YanglemHerojit Singh, Susheel Kumar Sharma, Bireswar Sinha, Virendra Kumar Baranwal (2019). Genetic variability based on tandem repeat numbers in a genomic locus of CandidatusLiberibacter asiaticus prevalent in North East India-a treasure home of citrus.Plant Pathology Journal (2019) 35 (6), 644.	7.29
17.	Soibam Purnima, Suman Kumaria, Ph. Ranjit Sharma, PrameshKhoyumthem and Pramod Tandon (2019). Nepenthes khasiana Hook f., an endangered tropical pitcher plant of India. Indian Journal of Traditional knowledge , 18 (1):68-75	7.06
18.	J Kumar, M Husain, R Reddy, B Sinha, K Noren(2019) Genotypic and phenotypic dissection of Xanthomonas oryzaepvoryzae from Eastern and North Eastern India. Journal of Environmental Biology 2019; 41(1).	6.73
19.	N. Surbala Devi and D. Saha. (2017). Influence of organic matter vis-à-vis humic acid on the transformation of inorganic and organic forms of nitrogen in a TypicHaplustept soil. Communications in Soil Science and Plant Analysis, 48(9):1042-1051.	6.69
20.	G. Nongmeikapam and N. Surbala Devi (2019). Effect of organic manures and humic acids on changes in hydrolysable organic fractions of nitrogen in a Typic Haploumbrepts soil. Agrochimica, 63(1): 3-14.	6.65
21.	Lala I.P. Ray, P.K. Bora, A.K. Singh, Ram Singh and Feroze S.M. 2019. Dry and wet spell rainfall probabilities in planning rice based cropping system of Meghalaya. Journal ofAgrometeorology 21 (Special issue -"NASA 2014" part-III) : 8-17	6.64
22.	Mog, R., Singh, R. and Feroze, S. M. 2018. Economic appraisal of fish culture: A case study from Gomati District in Tripura. Indian J. Fish. 65(1): 96-100. DOI: 10.21077/ ijf.2018.65.1.62833-15.	6.3
23.	Mishra L. K.,Puspita, D., and Angela, G. (2017). Quality evaluation and storage studies of legume based wadis (traditional delicacies) formulated using Sechium edule–An underutilized vegetable crop of North East India. Research Journal of Biotechnology Vol, 12, 6.	6.24
24.	Sarangi PK, Singh N.J. and Singh A.T. (2015): Bioconversion of pineapple wastes into Biotechnological products. Journal of pure and applied microbiology, 9(20:1155-1162.	6.20
25.	N. J. Singh et al. (2016).Comparative Analysis of α-Amylase Activities of Different Bacillus species Isolated from Various Compost Materials and Process Optimization. Journal Of Pure and Applied Microbiology, 2016, 10(1).	6.20
26.	N. Joykumar, et al. (2016): Comparative Analysis of αα αα α-Amylase Activities of Different Bacillus species Isolated from Various Compost Materials and Process Optimization. Journal Of Pure and Applied Microbiology, 10(1).	6.20
27.	Feroze, S.M., Singh, R. and Sirohi, S. 2016. Profitability and disposal pattern of milk in underdeveloped hill production system of Meghalaya. Indian Journal of Animal Science,86(10):1198-1203.	6.20
28.	CNJS ArangbaMangang, K. Nandini Devi, Kh. Lenin Singh and A. Dorendro Singh (2017). Seasonal incidence of insect pests on soybean in relation to weather parameters. Legume Research 40(6):1139-1140.	6.20
29.	Punitha P, M.A. Anshari, Dileep K. Pandey Daya Ram, Shiv Datt, P.K. Sharma, Monika Aheibam, SSP Jyothi and N. Prakash (2018). Shifting Cultivation in North East India: Social dimension, cross cultural reflection and strategies for improvement. Indian Journal of Agricultural Sciences 88 (6): 3-11	6.20
30.	P.K.Vij, M.S Tantia and Th.Ranadhir Singh (2016): Kaunayen Chicken- a new Indigenous germplasm from Manipur. Indian Journal of Animal Sciences 86(9):1085-	6.19

	1087	
31.	Rekha Sharma, Priyanka Sharma, Sonika Ahlawat, Th.Ranadhir Singh, P.K.Vij, R.K.Vijh and M.S Tantia (2017): Genetic variability and phylogenetic relationship establishes distinctness of Kaunayen Chicken of Manipur. Indian Journal of Animal Sciences. 87(7):871-878	6.19
32.	Kumar, R; E. Luikham; S, Babu and AK Singh (2017). Productivity, nutrient acquisition and economics of summer maize under various levels of phosphorus and potash in valley land of Manipur. Indian J. of Agril. Sci. 87(11): 1572-4	6.17
33.	Thokchom, R and Singh, U.C. (2015) Effect of time and depth of planting on growth, flowering and yield of tuberose (Polianthes tuberosa L.) cv. Single. Indian Journal of Horticulture 72(4): 581-585	6.13
34.	Feroze, S.M., Rahman, S., Singh, KJ, Singh, R.and Dkhar, S.E.2018. Climate change effect on dairy in North Eastern hills of India. Indian Journal of Animal Sciences 89(2): 176-181.	6.13
35.	K. Nandini Devi, Singh, K.L., Mangang, CNJS.A. ,Singh, N.B., Athokpam, H.S.and Singh, A, D. (2016). Effect of weed control practices on weed dynamics, yield and economics of soybean [Glycine max (L.) Merrill]. Legume Research.39(6): 995 – 998.	6.03
36.	SharmaSushma,VeerubommuShanmugam,BrarGaganpreetSingh,ThakurNeelam,ThakurSapna,Thakur Priyanka, Phurailatpam Sumitra and Yadav Ajar Nath.2019. Genetic diversity and phylogenetic profiling of fusarium sp. the causing storage of ginger (Zinger officinale) in Himachal Pradesh and their potential environmental eco-friendly management strategies. Research Journal of Biotechnology,14(5):44-54	6.00
37.	A. IbemhalAsem, R.K. Imotomba, P.B. Mazumdar and J.M.Laishram (2015) Anthocyanin content in the black scented rice (Chakhao): its impact on human health and plant defense. Symbiosis 66(1):	6.00
38.	D. WarepamJeshmi Devi, Yaikhom Vivekananda, Arif Uddin, J.M. Laishram (2020) Morpho-agronomic characterization and evaluation of a gene based marker in three aromatic pigmented Chakhao rice accessions of Manipur. Oryza-An International Journal on Rice. 57(2): 100-107 DOI: 10.35709/ory.2020.57.2.3	6.00
39.	HormichonSareo, H.Nanita Devi, Th. Renuka Devi, T. Sunanda Devi, Nilima Karam and L. Sophia Devi (2018) "Genetic Diversity among Soybean[Glycine max (L) Merrill] genotypes Based on Agro M orphologicalCharacters" Indian Journal of Agricultural Sciences 88 (12): 1839-42	6.00
NAAS Rating above 5.0 – 182 Research Papers		
40.	H. Chandrajini Devi, V. Prasanna Kumari, Ph. Sobita Devi and BireswarSinha(2017) Screening of blackgram genotypes for molecular variability in reaction to Mungbean Yellow Mosaic Virus (MYMV), Indian Phytopathology, 2017, 70(3):353-358.	5.90
41.	Rahee Bui, Bireswar Sinha,Ph.Sobita Devi, K Dinesh and RK. Dilip Singh (2018). First report of Lasiodiplodiatheobromaeassociated with stem-end rot of mango in Manipur" Indian Phytopathology	5.90
42.	Phurailatpam S and Sharma J N. 2015. Evaluation of systemic acquired resistance (SAR) activators for the management of leaf blotch of apple caused by Marssonina coronaria. Indian Phytopathology Vol.68(4)	5.90
43.	Singh, R., Syiem, W., Feroze, S.M., Devarani, L., Ray, LI.P, Singh, A.K., Singh, N.J. and Anurag, T.S. 2015. Impact assessment of mobile based agro-advisory: A case study of tribal farmers of Ri-Bhoi district of Meghalaya. Agricultural Economics Research Review, 28 (4):183:187.	5.90
44.	Debnath, P., Singh, R., Feroze, S.M. and Ray, L.I.P. 2017. Resource Productivity of Rice Cultivation in Tripura: A Spatial Analysis.Agricultural Economics Research Review.30 (1): 173-177 DOI: 10.5958/ 0974-279.2017. 00016.7.	5.90
45.	Dkhar, D.K., Feroze, S. M., Singh, R. and Ray, LIP 2017. Effect of rainfall variability on rice yield in North Eastern Hills of India: A case study. Agricultural Research, DOI 10.1007/ s40003-017-0276-4.	5.90
46.	K.I. Singh and Athokpam Rajshree. 2017. Field efficacy of certain new insecticides against major insect pests of Rice at Manipur. Indian J. Ent.,79(3): 236-243	5.89

47.	SurbalaYumnam, K.I. Singh and D.C.Ray. 2017. Effect of abiotic factors on the Rice caseworm, Nymphuladepunctalis (Guenee) in Manipur. Indian J. Ent., 79(2):181-184.	5.89
48.	M. Ranjeeta Devi, K. I. Singh and D.C. Ray. 2018. Predators and parasitoids of Rice insect pests under Rice ecosystems of Manipur valley. Indian J. Ent., 80(3):789-793.	5.89
49.	Haldhar SM and Behere GT. 2019. Digamahearseyana (Lepidoptera:Noctuidae), a new threat to karonda (Carissa carandus) in Rajasthan. Indian Journal of Entomology, 81(3): 618-622.	5.87
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139.	Ann Maria, R.K. Kumarjit Singh and N. Surbala Devi (2019). Distribution of boron fractions in soils of Imphal West, Manipur. International Journal of Chemical Studies, 7(3): 4873-4877.	5.31
140.	W. HerojitMeetei, R.K. Kumarjit Singh, N. Surbala Devi and T. Sanahanbi Devi (2019). Effect of integrated nitrogen management on macronutrients content in rice. International Journal of Chemical Studies,7(3): 5173-5176	5.31
141.	W. HerojitMeetei, R.K. Kumarjit Singh, N. Surbala Devi and T. Sanahanbi Devi (2019). Effect of integrated nitrogen management on micronutrients content in rice International Journal of Chemical Studies,7(4): 202-205	5.31
142.	Tshering Palden Bhutia, N Surbala Devi and T Sanahanbi Devi (2019). Effect of rock phosphate in presence or absence of organic manures and lime on phosphorus availability and dry matter yield of soybean (Glycine max). International Journal of Chemical Studies, 7(5): 2024-2027	5.31
143.	Animesh Sarkar and N. Surbala Devi. (2020).Effect of boron and farmyard manure application on boron concentration and dry matter yield of paddy.International Journal of Chemical Studies, 8(1): 1374-1376.	5.31
144.	TakhellambamSanahanbi Devi, Herojit Singh Athokpam, NongthombamSurbala Devi, N. Gopimohan Singh and W. HerojitMeetei. (2020). Critical limits of nitrogen for rice in soils of Imphal West district, Manipur, India. International Journal of Chemical Studies, 8(1): 1613-1617.	5.31
145.	TakhellambamSanahanbi Devi, Herojit Singh Athokpam, K. Nandini Devi, N. Surbala Devi and N. Gopimohan Singh (2020). Integrated nutrient management practices on dry matter production, yield and NPK content of transplanted rice. International Journal of Chemical Studies, 8(1): 1618-1622	5.31
146.	Vingnesh P, LNK Singh, BieshwarSinha, Ph.Sobita Devi, K.Sharda Devi and V. Bhubaneshawri. In vitro evaluation of TrichodermaSpp for the management of Rhizoctonia oryzaesativae causing aggregrate seed spot of rice in Manipur. Int. J.Chem. Stud., 2019. 7(1): 2498-2501.	5.31
147.	Ravi Regar, LNK Singh, Bireswar Sinha, Sobita Devi, Gopimohan SinghBhuvaneswari, Vignesh and Poorvasandhya R. (2020). In vitro cultural characteristics and antagonistic efficacy of major fungal diseases of potato in Manipur. International journal of chemical Studies 2020:8(4):2245-2251	5.31
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150.	Piloo, Ng., Singh, S.R., Surmina Devi, N., Bidyarani Devi Senjam and Messar, O. (2019).Studies on physic-chemical, sensory and microbiological evaluation of carambola (Averrhoacarambola L.) nectar under ambient condition. International Journal of Chemical Studies, 7(5):498-501.	5.31
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	for pectin recovery: A path towards waste volarization. International Journal of chemical studies. Vol 8(3): 1212-1214.	
152.	YumnamSanatombi Devi, MS Singh, Indira Sarangthem, N Okendro and Meghna Gogoi (2019).Effect of crop establishment methods and organic manures on the yield of black aromatic rice and chemichal properties of soil . International Journal of Chemical Studies, 7(6):1342-1345,	5.31
153.	KamwenuKamzamba, MS Singh (2020).Effect of integrated nitrogen management on yield of potato (Solanum tuberosum L.), Local cultivar, Alu Amubi. International Journal of Chemical Studies, 7(3):4049-4052	5.31
154.	MS Singh, KshetrimayumManishwari Devi and TabuiliuAbonmai (2020).Effect of chinese neem (Melia azedarach L.) on the storage of pea seeds. International Journal of Chemical Studies, 8(2): 441-442,	5.31
155.	MS Singh, TabuiliuAbonmai and KshetrimayumManishwari Devi (2020). Paediriafoetida- a miracle plant for safe storage of pea seeds under Manipur condition . International Journal of Chemical Studies, 8(1): 3018-3019	5.31
156.	MS Singh (2020).Effect of rice husk ash on controlling insect pests on storage of black gram under Manipur condition. International Journal of Chemical Studies, 8(4): 115-116,	5.31
157.	Lhungdim J et al (2019).Crop-weed interactions and their management under climate change: A review .International Journal of Chemical Studies 7(3): 4498-4505	5.31
158.	Indira Sarangthem,L.Devarishi Sharma, Nivedita Oinam and Punilkumar, L. (2018) Evaluation of Critical Limit of Zinc In Soil and Plant, International Journal of Current Research in Life Sciences,07(03): 2132-43	5.3
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160.	Devi, L., Feroze, S.M., Singh, R. and Sarkar, A. 2017. Sustainability of hill agriculture in North Eastern Himalaya: Evidence from Manipur, India.Journal of Community Mobilization and Sustainable Development,12(2): 286-294.	5.3
161.	J. Lhungdim, Y. S. Devi, K. N. Devi and Y. B. Chanu (2019).Influence of weed control techniques and establishment method on yield and economics of rainfed lowland rice. Journal of Crop and Weed, 15(1): 121-126	5.28
162.	Lhungdim J et al (2019).Influence of different doses of pyrazosulfuron-ethyl and establishment methods on the yield of lowland rice (Oryza sativa L.) Journal of Crop and Weed 15(1): 209-212	5.28
163.	K.Nandini Devi et al. (2019). Influence of weed control techniques and establishment method on yield and economics of rain fed lowland rice. Journal of Crop and Weed, 15(1): 121-126	5.28
164.	Heisnam, P., Moirangthem A.,Keisam, A., Singh, N.I., Athokpam, H.S. and Singh, L.N. (2015). Efficacy of some promising weedicides on shallowland transplanted rice (Oryza sativa L.) under rainfed conditions, The Bioscan 10(1): 459-463.	5.26
165.	Devi, K.N., Devi, KSH.M. Lhungdim, J.,Athokpam, H.S., Chanu,, Y.B., Singh, KH.L. and Singh, A.D. (2017). Foliar application of potassium under water deficit conditions improved the growth and yield of wheat (Triticum aestivumL.). The Bioscan. 12(3): 1777-1781	5.26
166.	Watham, L., Athokpam, H.S., Chongtham, N., Devi, K.N., Singh, N.B., Singh, N.G., Sharma, P.T. and Heisnam, P. (2018). Forms and status of phosphorus in acid soils of Imphal west district, Manipur (India).The Bioscan. 13(1): 323 – 326.	5.26
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168.	Bhuri Singh, M.L.Jakhar, E V Divakara Sastry and H.K.Meena. 2016. Relationship among yield components and selection criterion in late sown condition for yield improvement in pearl millet (Pennisetumglaucum (L.) R. Br.). The Bioscan	5.26

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170.	YumnamSanatombi Devi; E.Luikham; J. Lhungdimand P. Irungbam (2017). Effect of integrated nitrogen management practices on growth and soil fertility in hybrid maize –PAC 740 variety. The Bioscan 12(3): 1503-1507	5.26
171.	Ps. Mariam Anal; Ps. Munsi; E. Luikham (2018).Influence of nitrogen, phosphorus and potassium on growth, yield and quality of okra cv. Prabhanikranti under subtropical condition of Manipur. The Bioscan 13(1): 255-259.	5.26
172.	NgangomMonisha Devi, AbinashMoirangthem, PunabatiHeisnam, Ramananda Singh, RK.Dilip Singh and Ng. Joykumar Singh (2017). Effect of Organic Manures and Varieties on growth, yield and its economics of Banana Cultivation. The Bioscan: Special issue 10: 285-292	5.26
173.	Basudha, Ch., N.G.Singh and Ngachan S.V. (2017).Studies on protein and lipid digestibility co-efficient of different formulated aquatic weed based feeds for Osteobramabelangeri(Val.). Fishery Technology (Accepted).	5.25
174.	Sudip Sarkar, N. Surbala Devi, Abhinandan Singh and YimjenjangLongkumer. (2018). Effect of single super phosphate and rock phosphate on growth and yield of rice. Journal of Pharmacognosy and Phytochemistry. 7(2): 3654-3656	5.21
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176.	LinthoiWatham, Indira Sarangthem, A Herojit Singh, L Nabachandra Singh, N Okendro Singh and L Devarishi Sharma (2019) Distribution of different forms of soil acidity in Imphal East district of Manipur. Journal of Pharmacognosy and Phytochemistry 2019; 8(4): 1262-1264	5.21
177.	Laxmi Ningthoujam, Indira Sarangthem, Edwin Luikham, N. Gopimohan Singh and L Devarishi Sharma (2019). Evaluation of suitable extractant of boron in soil of Manipur. Journal of Pharmacognosy and Phytochemistry 2019; 8(4): 1154-1157	5.21
178.	Chandrajini Devi H., V. Prasanna Kumai, Ph. Sobita Devi, W. TampakleimaChanu and K.Sarda Devi. Response of different blackgram (Vigna mungo (L.) Hepper) genotypes against mungbean mosaic virus and whitefly (Bemisiatabasi. Genn.)J. Pharmacogn. Phytochem., 8(5):1247-1250.	5.21
179.	Sharda Devi K, Ph. Sobita Devi, Bireshwar Sinha, NLK Singh W. TampakleimaChanu, Nimala, M. and H. Chandrajini Devi. Effects of Bio priming of rice seeds with native Trichoderma sp isolated from rice Rhizoshpheric soil. J. Pharmacogn. Phytochem, 2019: 8(4): 1968-1971.	5.21
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184.	S. Phurailatpam, J. N. Sharma, Shweta Shaarma and V. S. Katwal .2017. Biologically mediated systemic resistance against marssonina leaf blotch of apple caused by marssonina coronariacoronaria(Ellis & J.J. Davis) J. J. Davis. Journal of	5.21

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185.	T. Chanu Ng., Y Herojit Singh, Ph.Sumitra, Th Surjit Singh, S. Rakesh Singh, S.S. Roy, N. Prakash, S.K. Sharma.2017. Molecular based indexing of viral disease complex of king chilli (Capsicum chinense J.) in North Eastern Region of India .Journal of Pharmacognosy and Phytochemistry 6(6);2004-2008	5.21
186.	YumnamSanatombi Devi, MS Singh, J Lhungdim, L NabachandraSingh,BebilaChanu (2019).Effect of crop establishment methods and organic manures on growth of black aromatic rice .JPP,8(6):470-474,	5.21
187.	MS Singh, KshetrimayumManishwari Devi and TabuiliuAbonmai (2020). Lantana camera- boon for farmers for save sotorage of pea seeds under Manipur condition.JPP, 9(2): 175-176	5.21
188.	MS Singh and Anupama Devi (2020).Innovative approach for the use of rice husk ash on controlling insect pests on storage of pea seeds (Garden pea-pisum sativum var. Hortense L.) under Manipur condition. JPP, 9(1): 2167-2168,	5.21
189.	Lhungdim J et al (2019).Effect of crop establishment methods and organic manures on the growth of black aromatic rice .Journal of Pharmacognosy and Phytochemistry 8 (6): 470-474	5.21
190.	Ningthoujam Laxmi; Sarangthem, I; Luikham, E; Singh, Gopimohan, N and Sharma, L.D (2019). Evaluation of suitable extractant of boron in soil of Manipur. J. of Pharmacognosy and Phytochemistry 8(4):1154-1157.	5.21
191.	Singh A., Prakash, K.S. and N. Joykumar (2016): Sea buckthorn (Hippophae sp.): Highly potential underutilized plant in Sikkim: A Review Journal of the Bioscan, 10(3): 1413-1417.	5.2
192.	Sarangi P K,Joykumar Ng and Singh T A (2017) Perspectives of Pineapple Wastes for Generation of Value Added Products. Journal of Advanced Microbiology Vol. 3(1) 27-33.	5.2
193.	Joykumar Ng, et al (2017): effect of organic manures and varieties on growth, yield and its economic of banana cultivation. The Bioscan, 10: 285-292	5.2
194.	Nongbri, B., Feroze, S.M., Ray, L.I.P. and Devarani, L. 2016. Assessment of risk due to exposure to drought: A study of farm households of Nagaland.Indian Journal of Agricultural Economics, 71(3):325-334.	5.2
195.	Feroze, S.M., Singh, R. and Sirohi, S. 2017 Fodder and labour for augmenting milk production in hills: A case study of Meghalaya.Indian Journal of Dairy Science, 70(5):491-495.	5.2
196.	K.Nandini Devi et al. (2017). Foliar application of potassium under water stress conditions improved the growth and yield of wheat (Triticum aerstvum L.). The Bioscan 12(3): 1777-1781	5.2
197.	JaneeYumlembam, Yumlembam Chakrabarty Singh and G.D. Rede (2018). Analysis of growth and instability of rice production in N.E India: A case study of Manipur, Multilogic in Science, VII (XXV) : 276 – 279.	5.2
198.	JaneeYumlembam, A.K. Nandi, Yumlembam Chakrabarty Singh and B.K. Bera (2019). An approach to site development for eco-tourism to conserve common pool resource in Thoubal District, Manipur (India), Multilogic in Science, IX (XXX) : 31-35.	5.2
199.	Singh, R. and Feroze, S.M. 2018 Price gap between producers and consumers of ginger: Empirical evidence from North Eastern Hill region.Indian Journal of Agricultural Economics, 73(3): 309-327.	5.15
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201.	N. Okendro Singh (2015).Modeling growth performance of broiler under intensive and backyard systems .International Journal of Agricultural and Statistical Sciences, Year-2015, 11(2): 503-505.	5.13
202.	N. Okendro Singh, N. Gopimohan Singh, L. Nabachandra Singh, Surinder Kumar and A.K. Paul (2020).Forecasting model of potato yield from farmers' fields in Manipur.	5.13

	International Journal of Agricultural and Statistical Sciences,16(1): 401-405.	
203.	Jekendra Singh Salam, N. Surbala Devi, Priyadarshini Salam and RK Dilip Singh. (2017). Comparisons of major biochemical constituents and mineral composition in six cultivars of aromatic rice in Manipur. Indian Journal of Plant Genetic Resources, 30(1): 61-65	5.12
204.	A.K.Phurailatpam, R.Senjam, K.Kartek, P.Ngangbam, T.M.Chanu and P.Heisnam(2017).Underutilized vegetables with medicinal properties used by the Adi tribes of Arunachal Pradesh. Medicinal Plants, 9(4):287-290	5.12
205.	Athokpam, H.S., Vikramjeet, K., Chongtham, N., Devi, K.N., Singh, N.B., Singh, N.G., Sharma, P.T. and Heisnam, P. (2018) Micronutrient cations distribution in the profile of orange orchard of Tamenglong district, Manipur (India). Journal of Experimental Biology and Agricultural Sciences.6(1):108-115	5.07
206.	T Shahena, Bireswar Sinha, T H Renuka Devi, P H Sobita Devi and K H Pramesh (2017) Variability in Albugo candida and its reaction to local rapeseed and mustard in Manipur. Indian Journal of Plant Protection, (2017). 45(2):	5.07
207.	Kh. Lenin Singh, K. Nandini Devi, A.K. Singh and K.S. Sagolshem (2015) Evaluation Of Rice Cultivars Under Various Planting Geometry In Mid Altitude Lowland Condition Of Meghalaya, India. The Ecoscan, 9(1&2): 343-347	5.06
208.	Devi, L.T., Singh, U.C., Devi, A.B.,Athokpam, H.S. and Singh, N.G. (2020). Influence of various potassium rates in growth and yield characteristics of gladiolus corm under the acidic soil condition of Manipur. The Pharma Innovation. 9(3): 01-04.	5.03
209.	LinthoiWatham, Indira Sarangthem, L Devarishi Sharma and Herojit Singh Athokpam (2019) Distribution of different forms of iron (Fe) and aluminium (Al) under different land use system in acid soil. The Pharma Innovation Journal 2019; 8(8): 01-04	5.03
210.	Indira Sarangthem, Kondareddy A.N. and L. Devarishi Sharma (2019). Fractionation of zinc and their association with soil properties of Manipur. The Pharma Innovation J., 2019 8(8): 178-182	5.03
211.	S.P. Barik, AK. Bijaya Devi, A.Ananda and J.Konthoujam (2017). Effect of planting time and spacing on reproductive growth and physiological changes in King chilli (Capsicum chinense) under poly house condition. The Pharma Innovation Journal 6(10): 342-344	5.03
212.	Ashwini Ananda, AK. Bijaya Devi, Abhinandan Singh, Satyaprakash Barik and Mukesh Kumar Bairwa(2017). Cabbage (Brassica oleracea L. var. capitata) cv. Rareball introduction with Knolkhol and Broad bean intercropping: yield efficiency under foot hills of Imphal west. The Pharma Innovation Journal 2017;6 (10): 339-341	5.03
213.	Ichancha, M., Singh, U.C., Singh, A.H. and Devi, R.S. (2019) – Effect of Different sources of nitrogen on the growth, flowering and yield of African Marigold (Tageteserecta L.) cv. Summer Sugat. The Pharma. Innovation Journal 8(7):283-286	5.03
214.	Sweety, R.; Singh, U.C. and Ichancha, M. (2019) Efficacy of foliar spray of IAA, GA3 and daminozide on growth and flowering of gladiolus (Gladiolus grandiflorus L.) cv. Oscar ThePharma Innovation Journal 8(7): 287-289	5.03
215.	Devi, L.T. Singh, U.C.; Devi,A.B.Singh,H. A. and Singh, N. G. (2020) Influence of various potassium rates in growth and yield characteristics of gladiolus corm under the acidic soil condition of Manipur. The Pharma Innovation Journal 9(3): 01-04.	5.03
216.	Sakthivel G., Samuel Jeberson, N. Brajendra Singh, Ph. R. Sharma, Sushil Kumar, VK Jalaj, Bireswar Sinha and N. Okendro Singh (2019). Genetic variability, correlation and path analysis in lentil germplasm (Lens culinaris Medik). The Pharma Innovation Journal, 8(6): 417-420.	5.03
217.	TakhellambamThajasana Devi and Th. Renuka Devi (2019) "Evaluation of quality protein maize hybrids for agro-morphological characters" The Pharma Innovation 8(4):292-296	5.03
218.	Th. Nepolean, MS Jeberson, NB Singh, Ph R Sharma and KS Shashidhar (2018). Study of biological effects of Sodium Azide in M1 generation and estimation of LD50 for growth and reproduction parameters. The Pharma Innovation Journal 2018; 7(10): 291-293,ISSN (E): 2277- 7695, ISSN (P): 2349-8242	5.03

219.	Manish Kumar, MS Jeberson, NB Singh, Ranjit Sharma and Raviraj Singh Patel (2018). Analysis of trait association and principal component of variability in field pea (Pisum sativum L.) genotypes. The Pharma Innovation Journal 2018; 7(8): 437-441, ISSN (E): 2277- 7695 ISSN (P): 2349-8242,	5.03
220.	Lhungdim J et al (2020).Effect of different dates of planting and varieties on the growth and yield of summer mung (Vigna radiata L.) under Manipur valley condition. The Pharma Innovation Journal; 9(4): 87-90	5.03
221.	S. Longjam and N.B. Singh (2019). Assessment of heritability and genetic advance for yield contributing characters in hill rice (Oryza sativa L.) genotypes of Manipur. The Pharma Innovation Journal 8 (4):7-11	5.03

Annexure – C

List of Completed, Ongoing and Newly Sanctioned Externally Funded Research Projects

A. COMPLETED PROJECTS								
S. No.	**Title of the Project**	**Funding organization(State/Regional/National /International)**	**Sanction order & date**	**Duration of the project**	**Project leader/ Principal Investigator & Co-PI**		**Mobile no.**	**Email**
1.	Preference for Agricultural Stream in Higher Education in India: A gendered enquiry and initiative to attract young talent	ICAR	Ag.Edu/17/11/2019 /EMF/HRD/ Dt. 14/03/2019	1year	PI	Dr. Sheikh Mohammad Feroze Associate Professor (Economics)	9612950 579	firoze.eco.coai@cau.ac.in
					Co - PI	Dr.RamSingh,CPGAS, Barapani.	9402197 624	ramsingh.cau@gmail.com
						Dr.Mayank Rai, CPGAS, Barapani.	9436336 008	mrai.cau@gmail.com
						Dr.Lalrinsangpuii, College of Horticulture, Mizoram.	8607202 552	lalrin.agecon@gmail.com
						Dr.Bagishkumar ICAR, RC, for NEH Region, Barapani.	9470404 254	bagishagri@gmail.com
2.	Development of High yielding, Non lodging and Biotic resistant Varieties of Black Scented Rice of Manipur and Joha Rice of	Department of Biotechnology, Govt. of India (National)	DBT-NER/AGRI/29/2015 Dt 19/10/2016		PI	Dr. J.M. Laishram, Professor	7005560 817	jmlaishram@rediffmail.com

	Assam through Biotechnological Intervention				Co - PI	Prof. N. Brajendra Singh (Genetics and Plant Breeding)	7005544 302	brajendracau@gmail.com
3.	Characterization of Manipuri Duck	ICAR -National Bureau of Animal Genetic Resources, Karnal	F.No. NWP/2017/- dated 01.09.2017	3 years	PI	Dr.Th.Ranadhir Singh, Associate Professor	9856144 612	rdthiyam@ yahoo.co.in
4.	MM-1: Technology Mission for integrated development of Horticulture in North Eastern States including Sikkim	ICAR, New Delhi (National)	No. NRC(O)/MM/Acco unts/02-03/89 Dt. 29.04.2002	5 years	PI	Prof. W. Ingo Meitei (Horticulture)	--	--
5.	Studies on nitrate content of vegetables at source and other different methods of storage and environment	Department of Science & Technology, Government of Manipur (State)	No. 57/2/2004 (R&D) DST Dt. 5.5.2005	1 year	PI	Prof. Indira Sarangthem (SSAC)	8731931 772	260 indira_sarangthem@y ahoo.co.in
6.	NAIP project on "Livelihood improvement and empowerment of rural poor through sustainable farming system (production, processing & marketing of important fruit crops of Manipur)" Component-III	ICAR, New Delhi (National)	No. NAIP/SRLS-S/III-16/2006-07/261 Dt. 15.10.07	5 years	PI	Prof. W. Ingo Meitei (Horticulture)	--	--
7.	Spatial Assessment of Soil Carbon Pool of India	Deptt. Of Space , Regional Remote Sensing services Centre, Dehradun-248001 (National)	No. RC/D/GBP/PMB/4 6 (a) 2008 Dt. 25.2.2008	1 year	PI	Prof.. A. Herojit Singh (SSAC)	9436689 624	hathokpam@yahoo.in
8.	Vermicomposting as a part of organic farming for resource poor SC/ST families of six different	DBT, New Delhi (National)	No. BT/PR10582/SPD/ 09/866/2008 Dt. 02.03.2009	3 years	PI	Prof. K. Nandini Devi (Agronomy)	7005730 655	nandinikcau@gmail.com

	villages of Manipur							
9.	AINP on Management of Soft Rot of Ginger	CPRI, Shimla (National)	No. UHF/DR/MM-1-H/09/17934 Dt. 16.03.2009	5 Years	PI	Prof. Ph. Sobita Devi Plant Pathology	7641032479	sobphan@gmail.com
10.	Identification of location specific ginger and turmeric varieties –quality planting materials production, insect pests and disease management, chemical profiling and development of value added products for socio-economic development of NE Region	DBT, New Delhi (National)	No. BT/PR/861/NDB/51/114/2006 Dt.05.06.2009		PI	Prof. W. Ingo Meitei (Horticulture)	--	--
11.	All India Network Project on Onion & Garlic	Directorate of Onion & Garlic Research, Pune, ICAR (National)	No. 2-45/EFC-XI/1007-12/Estt./6163 26.02.2009	5 Years	PI	Prof. W. Ingo Meitei (Horticulture)	--	--
12.	Establishment of Biotech Hubs	Department of Biotechnology (Bioinformatics Division) Government of India (National)	No. BT/157/NE/TBP/2011 Dt. 17.11 2011	3 Years	PI	Prof. J.M.Laishram (Genetics and Plant Breeding)	7005560817	jmlaishram@rediffmail.com
					Co-PI	Prof. N. Brajendra Singh (Genetics and Plant Breeding)	7005544302	brajendracau@gmail.com
13.	Exploration of native *Trichoderma sp.* for their diversity and utilization in	Department of Biotechnology ,Government of	No. BT/157/NE/TBP/2011	3 Years	PI	Dr. Bireswar Sinha (Plant Pathology)	9862149050	bireswarsinha@gmail.com

	management of key soil borne diseases (field pea and cole crops) in North East Region	India (National)	Dt. 17.11.2011					
14.	Marker assisted introgression of LycE gene for enhance proA in maize	Department of Biotechnology ,Government of India (National)	No. BT/166/NE/TBT/2011 Dt. 12.12.2011	3 Years	PI	Prof. J.M.Laishram (Genetics and Plant Breeding)	7005560817	jmlaishram@rediffmail.com
					Co-PI	Prof. N. Brajendra Singh (Genetics and Plant Breeding)	7005544302	brajendracau@gmail.com
15.	Development and evaluation of drying system for important spices of North Eastern States	Department of Science and Technology, Manipur	No. IDP/IND/2012/6 (General) Dt. 18.10.2012	1 year 6 months	PI	Dr. Ng. Joykumar Singh (Agril. Engg.)	9612168301	joyngang@gmail.com
16.	More crop and income per drop of water – a scientific approach for its effective realization	Department of Science and Technology, Government of India	No. DST/TM/WTI/2K13/103(G) 30.04.2014	2 years	PI	Prof. K. Nandini Devi (Agronomy)	7005730655	nandinikcau@gmail.com
					Co-PI	Dr.P.T.Sharma(Agril. Engg.)	8575019672	ptsharma210@gmail.com
17.	Study to create reliable and adequate database of agriculture and allied activities for use in District/State level economic planning of Manipur	Directorate of Economics and Statistics. Government of Manipur	22.04.2015	19months	PI	Prof. L. Nabachandra Singh	9436026544	nabachandra61@gmail.com
18.	Mass production of native *Trichoderma* spp. with locally available agricultural waste or substrates	DST, Govt., of India	SP/YO/075/2016 (G), 26-09-2016	3 years	PI	Dr. Bireswar Sinha (Plant Pathology)	9862149050	bireswarsinha@gmail.com
19.	Empowerment of ST women	DBT, India	--	3 years	PI	Pro. A. Herojit	9436689	hathokpam@yahoo.in

	SHGs through organic cultivation of seasonal vegetables plantation in 5 villages of Mokokchung district in Nagaland.					Singh, (Soil Science)	624	
20.	Propagation with upgradation of local pigs of Keirak for socio-economic upliftment of scheduled caste family of Keirak	Department of Biotechnology ,Government of India (National)	No. Bt/PR9822/SPD/9/ 1229/2014 Dt. 05.06.2015	3 years	PI	Dr. Th. Ranadhir Singh (Animal Sciences	9856144 612	rdthiyam@ yahoo.co.in
21.	Generation of Pony based Animal Energy Utilization in Agricultural Development of Manipur State	Department of Science and Technology, Manipur	DST/SSTP/Manipur/2012-13/12th Plan/134 Dt. 16.03.2015	2 years	PI	Dr. Th. Ranadhir Singh (Animal Sciences)	9856144 612	rdthiyam@ yahoo.co.in
22.	Induced Mutations for improvement of seed and oil yield in locally adapted cultivars of Manipur"	BRNS-DAE-BRAC, Trombay, Mumbai, India	5.06.2014	3 years	PI	Dr. Th. Renuka Devi (Genetics and Plant Breeding)	7005457 390	Renukadevi.pbg.coai@cau .ac.in
23.	Study on yield and economics of rapeseed-mustard as influenced by different tillage systems under rice fallow condition	DST, GOM, Manipur	10/4/2011-R&D/DST/542 dt.25/1/2018	1 year	PI	Dr. J Lhungdim (Agronomy)	9089689 455	ginlhungdim@rediffmail.com
					Co-PI	Prof. K. Nandini Devi (Agronomy)	7005730 655	nandinikcau@gmail.com

B. ONGOING PROJECTS								
S. No.	**Title of the Project**	**Funding organization (State/Regional/National /International)**	**Sanction order & date**	**Duration of the project**	**Project leader/ Principal Investigator & Co-PI**		**Mobile no.**	**Email**
1.	Spice based rural economy and livelihood under climate change in Himalayan region of India	ICSSR	Gen-03/2019-20/ICSSR/Research programme Dated 23-12-2019	2years	PI	Dr. Sheikh Mohammad Feroze Associate Professor (Economics)	9612950579	firoze.eco.coai@cau.ac.in
					Co-PI	Dr. Ram Singh, CPGAS, Barapani.	9436336021	lalipray@rediffmail.com
						Dr.Lala Ray, CPGAS, Barapani.	8607202552	lalrin.agecon@gmail.com
						Dr.Lalrinsangpuii, College of Horticulture, Mizoram.	6005181513	drshbaba@gmail.com
						Dr.S.H.Baba, SKUAST, Kashmir.	9402197624	ramsingh.cau@gmail.com
2.	All India Co-ordinated Research Project (AICRP) on Tuber crops	Central Tuber Crops Research Institute, ICAR, Kerala (National)	No.29(2008-09)/PC/Vol.II Dt.08.06.2009		PI	Dr. AK. Bijaya Devi Prof. (Horticulture)	8787698731	bijaya_devi@rediffmail.com
					Co-PI	Dr.NgangbamPiloo	9436838579	ngpiloo@gmail.com
3.	Conservation of lac Insect Genetic Resources	Indian Institute of Natural Resins and Gums ICAR,	No. Engg./3/3/2011-IA-II(AE)	5 years	PI	Dr. Kh. Ibohal Singh Assoc. Prof.	9436890556	Singhki_ento@yahoo.com

		Namkum, Ranchi	Dt.01.05 2014		Co - PI	Dr. Shravan M. Haldhar Associate Professor	9530218711	haldhar80@gmail.com
4.	All India co-ordinated Research Project (AICRP) on Pig	National Research centre on Pig ICAR, Rani, Guwahati	No.06/A7A/NRCP/ 2008/11518 Dt. 6.10.2014		PI	Dr. Th. Ranadhir Singh Associate Professor	9856144612	rdthiyam@ yahoo.co.in
5.	All India co-ordinated Research Project (AICRP) on Honey Bees & Pollinators	Division of Entomology, IARI, New Delhi	No. 20(2)2014-15/AICRP(HB&P)/ 206 Dt. 30.09.14	5 years	PI	Dr. Shravan M. Haldhar Associate Professor	9530218711	haldhar80@gmail.com
					Co - PI	Dr. Kh. Ibohal Singh Assocaite Professor	9436890556	Singhki_ento@yahoo.com
6.	All India co-ordinated Research Project (AICRP) on Mango	Indian Institute of Horticultural Research, Herraraghatta Lake Post, Bengaluru	No. AICRP(F)/4/Univ. /New Centre/2014-15	-	PI	Dr. R.K.Dilip Singh Prof. (Horticulture)	9402882753	Rkdsingh59@gmail.com
					Co - PI	Dr.NgangbamPiloo	9436838579	ngpiloo@gmail.com
7.	Conservation of Manipur Pony breed	ICAR- National Research Centre on Equines Hisar	F.No. NRCE/PME/NER-NEH Dt. 12.06.15	5years	PI	Dr. Th. Ranadhir Singh Associate Professor	9856144612	rdthiyam@ yahoo.co.in
					Co - PI	Dr. N.Shyamsana Singh, Associate Professor, CVSC, Aizawl.	9436354620	nssagb@rediffmail.com
						Dr.BedangaKonwar, Assistant	9436152323	bedangak7 @gmail.com

						Professor, CVSC, Aizawl		
8.	All India co-ordinated Research Project (AICRP) on MSPE	Indian Institute of Soil Science, Nabibagh, Bhopal	F.No.PCM/CAU dt.26.11.2015		PI	Dr. Indira Sarangthem, Dean	8731931772	266indira_sarangthem@yahoo.co.in
					Co - PI	Dr. N. Surbala Devi Assistant Professor	8974890719	surshakti@gmail.com
9.	Identification of climate resilient food crops, traditional rice varieties of Manipur and their production enhancement through scientific manipulation having least impact to climate change	DST-CCP HICAB Programme, New Delhi		3 years	PI	Prof. L. Nabachandra Singh (Agronomy)	9436026544	nabachandra61@gmail.com
10.	Evaluation of *Trichoderma* against *Fusarium* wilt of Tomato	AMMA(Company), Pune, Maharashtra		2 years	PI	Dr. Bireswar Sinha (Plant Pathology)	9862149050	bireswarsinha@gmail.com
11.	Establishment of CAU-DBT Rural Innovation Cluster for Livelihood security in Chandel District of Manipur for Development of Value added Pineapple products	DBT, New Delhi	BT/PR30861/SPD/9/1322/2018) dated 21st Jan., 2019	2 years	PI	Dr. Ng.Joykumar Singh (Agril. Engg.)	9612168301	joyngang@gmail.com
12.	AICRP-PHET (Post harvest Engineering and Technology)	ICAR, New Delhi	-	Dec. 2014 to till date (continuing)	PI	Dr.Ng.Joykumar Singh (Agril. Engg.)	9612168301	joyngang@gmail.com

C. NEWLY SANCTIONED PROJECTS								
S. No.	**Title of the Project**	**Funding organization (State/Regional/National /International)**	**Sanction order & date**	**Duration of the project**	**Project leader/ Principal Investigator & Co-PI**		**Mobile no.**	**Email**
1.	Enhancing entrepreneurial competence in students to address the emerging challenges in agricultural and allied sector	ICAR-WORLD BANK	CAU/DI/39(ii)/05-06/1205 Dated 24th December 2019	2 years	Nodal Officer	Dr. Indira Sarangthem, Dean	8731931772	dean_collegeagri@yahoo.co.in
					Assoc. Nodal Officer	Dr. Sheikh Mohammad Feroze Associate Professor (Economics)	9612950579	firoze.eco.coai@cau.ac.in
2.	Mobile Based Agro Advisory Services in Manipur (LoumisingiPaojel)	Digital India Corporation, Ministry of Electronics and Information Technology, Govt. of India.	No. DIC/PROJECTS/CAU/DNER/2019-20 Date: 18.09.20	3 years	PI	Dr. AbhinashMoirangthem	7001170578	moirangthemabhinash@gmail.com
					Co-PI	Dr. S.M. Haldhar	9530218711	haldhar80@gmail.com
						Mr. P.T. Sharma	8575019672	ptsharma4@gmail.com
						Dr. Bireswor Sinha	9862149050	bireshwar.patho.coai@cau.ac.in
						Dr. J. Lhungdim	9089689455	ginlhungdim@rediffmail.com
						Dr. M. Deepa Devi	9862996155	deepa.mairembam@gmail.com
						N. Surbala Devi	8974890719	sursakti@gmail.com
						Dr. M. Norjit Singh	8132801441	norjit99@gmail.com
						Dr. Dipak Nath	9863110550	spd020@yahoo.co.in
						Md. Abdul Salam	8414814058	salam555@rediffmail.com
3.	Conservation of Mithun in Arunachal Pradesh, Nagaland and Manipur	NEC, Ministry of DONER, Shillong	No.NEC/AGRI/CAU/MITHUN/2020	First year running	PI	Dr. Th.Ranadhir Singh	9856144612	rdthiyam@yahoo.co.in
					Co-PI	Dr.Mahesh Singh	--	--
						Dr.NeetaLongjam	9366340859	neetavet@gmail.com

SELF STUDY REPORT
For
ICAR ACCREDITATION

Submitted by
College of Veterinary Sciences & Animal Husbandry
CAU(I), Selesih, Aizawl, Mizoram

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6.5. Self study report of College

About the college:

The College of Veterinary Sciences & Animal Husbandry, one of the constituent Colleges of the Central Agricultural University was established through the promulgation of an Ordinance (No. M-2 of 1995; dated 20th February 1995). The College of Veterinary Sciences & Animal Husbandry, is located at Selesih, North Aizawl, i.e., about 12 km away from Aizawl, the capital city of Mizoram. The campus is spread over 168.61 acres of land, mostly of hilly terrain at an altitude of 965 meter above MSL. The climate of Aizawl is very pleasant round the year. The minimum and maximum temperature ranges from 7-8^{0}C to 30-32^{0}C. It rains heavily from May to September with an average annual rainfall of about 2500 mm. The jurisdiction of the college extends to seven North-Eastern Hill states comprising of the states of Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Tripura, Nagaland and Sikkim.

The college became functional with the admission of first batch of B.V.Sc. & A.H. degree programme in the year 1997-98. P.G. programme was introduced from the academic session 2006-07. The College has also started Ph.D. programme from the academic session 2011-12. All the academic programmes i.e. BVSc & AH, MVSc &PhD programmes are accredited by ICAR, New Delhi and VCI, New Delhi. Collaboration with few renounced institutes like IVRI, Izatnagar, NDRI, Karnal, Haryana, Assam Agricultural university, Jorhat ,GADVASU, Ludhiana, ICAR-NRC-Mithun, Nagaland, ICAR-NRC on YAK, Arunachal Pradesh ,ICAR NRC on Pigs, ICAR- NRC on meat, Hyderabad has been established to strengthen the academics and research activity. The College has very good infrastructural facilities, well equipped laboratories and a team of dedicated faculty.

Mandate

- ✓ The mandates of the College of Veterinary Sciences & Animal Husbandry include:
- ✓ To impart education in different branches of Veterinary Sciences & Animal Husbandry;
- ✓ To further the advancement of learning and prosecution of research on Veterinary Sciences & Animal Husbandry;
- ✓ To undertake programmes of extension education in the States under its jurisdiction;
- ✓ To undertake such other activities in the fields of Veterinary Sciences & Animal Husbandry as it may deem fit from time to time.

Vision

The vision of the College is to be a “Centre of Excellence” in teaching, research and extension education in the field of Veterinary and Animal Sciences.

Mission

The mission of the College of Veterinary Sciences & Animal Husbandry, Selesih, Aizawl is to provide teaching, research and extension programmes that benefit the animals, people and environment of the North Eastern Hill states, the Nation and the world, through promotion of animal health, alleviation of animal sufferings, efficient and profitable animal production, conservation of animal species and broader ecological resources and protection of public health.

6.5.1. College Administration: Administartion of teaching, research, extension and other activities of the college is done by Dean of the collge. Teaching, technical and non technical staffs of the college assist Dean to run the collge smoothly.

6.5.1.1. College Dean's Office Establishment:

The Deans post of the college is sanctioned by the appropriate authority as per the ICAR Model act. The present Dean Dr. Lalnuntluangi Hmar was appointed as Dean of the college on 19th January 2019 vide appointed order number VC/CAU/54/95(A)/Vol-V/9138 dated Imphal the 17th January 2019. Her tenure is up to 5 years i.e. 18th January 2024.

Particulars	Response
Date of selection	19/01/2019
Mode of selection	Direct selection by the interview panel and with the approval of the Board of Management, CAU, Imphal.
Tenure of the post	5 years from the date of appointment. Her tenure is up to 5 years i.e. 18th January 2024.

- Staff availablity in the Dean's Secretariat.

Establishment:

Sl. No.	Name of the staff	Designation
1.	L. Kipgen	Head Assistant
2.	Lucy Lalrinchhani	Assistant
3.	H. Lalngaihawma	Multi-Tasking Staff (MTS)
4.	K. Henhnamawai	FCLA

Accounts:

Sl. No.	Name of the staff	Designation
1.	T. Priyo Singh	Accountant
2.	Lalawmpuia	Account Assistant
3.	Hmingthansangi Khiangte	Account Assistant
4.	C. Lalrinzuali	Multi-Tasking Staff (MTS)
5.	C. Lalbiakkunga	Multi-Tasking Staff (MTS)
6.	T. Malsawmzuala	Account Assistant (Contractual)
7.	Nicholas Malsawmtluanga	Account Assistant (Contractual)

Sections:

Name of Section	i/c (number)	Staff	MTS
Academic	9862335446	UDC-1, FCLA-2	2
Accounts	9774215519	Accountant-1, Acctt. Asstt-2	2
Store & Purchase	9436153349	UDC-1	1
Engg. Section	6003582601	JE-2	2
Horticulture Section	8974735538	Horti. Asstt.-1	1
Establishment Section	9436140180	Head Asstt.-1, Asstt.-1, FCLA-1	1

Receipt Section		Security Guard-1	2
Dean's Chamber		FCLA-1	2

Infrastructure/ facilities available in the Dean's Secretariat:

Sl. No.	Infrastructure available/ facilities	Quantity
1	Xerox (Photocopy)	1 (One)
2	Computer system	2 (Two)
3	Printer	2 (Two)

Infrastructure/ facilities available in different sections

	Computers /peripherals	Printer cum Xerox	Xerox	Fax
Intercom	Id printing-1			-
Accounts	3	1	-	-
Store & Purchase	3	1	-	-
Establishment	3	1	-	-
Dean Office	2	-	1	-
Engg. Section	3	-	-	-
Academic Section	6	-	2	-
Horticulture Section	1	1 (printer only)		

6.5.1.2. Monitoring Mechanism for Quality Education (on-line):

At present the college is fulfilling an internal quality assurance system.

Teaching: Academic Management System is being implemented at college level, CVSc. & A.H., CAU Aizawl as part of Student Portal, an initiative of Agricultural Education Division of ICAR. The data generated by the system is used for generating the reports of the university.The registration of the students for all the programme is done at the beginning of the Professional year for BVSc & AH and at the beginning of each semester for MVSc & Ph D programme.

BVSc & AH degree programme

The examination system is a combination of internal and external i.e. (1) Internal assessment (2) External (Annual Composite examination). Examiantion and Evaluation of Annual Comosite examination are done by external examiner from learned faculty members outside the University as per VCI, Minimum standard Veterinary Education, 2008 &2016.

Students are asked to submit assignment in each subject. Academic progress of each student is monitored and supervised by a faculty as Advisor.

PG & Ph D programme:

The examination system is a combination of internal and external (1) internal (Quiz, Midterm examination) and (2) External (End term examination). Evaluation of internal examination done by the course teachers and End term examination evaluation is done by external examiner from learned faculty members/ Scientist outside the University as per CAU Academic regulations for PG & PhD programme,2016. At the end of course work, PG students appear in the Comprehensive Qualifying (written) examination.

Comprehensive Qualifying Examination & evaluation are done by External examiner and on successful completion of Comprehensive theory examination; Viva voce is conducted by Advisory committee along with Dean's nominee for MVSc programme and Advisory committee along with External examiner for PhD programme. Before submission of thesis, thesis is checked for plagiarism status. Thesis evaluation for MVSc & Ph D programme is done by external examiner and Viva voce is conducted by Advisory committee along with Dean's nominee for MVSc programme and Advisory committee along with External examiner for PhD programme

Research: There is an active College Research Advisory Committee (CRAC) has been functioning in the college for monitoring research activities of PG research works, Institutional Research Project and various DBT, DST, ICAR, etc. funded/ sponsored research Projects.
Student's research: Every student presents Synopis and prethesis seminar before faculties, CRAC, PG & PhD students. Student's research work is monitored by chairman of the advisory committe. Periodical review of the research work is done by the Advisory commite members. Publication of researh findings in peer reviewed journals is mandatory for submission of the thesis by the PG students.
Faculty research: Resaerch project proposal submitted by faculty is first evaluated by College Research Advisory Committee.The progress of sanctioned research project is periodically reviewed by College research review committee.

Extension: At college level, Extension advisory committee is functional to monitor the extension related activities conducted by the college. The committee comprises of All HOD/ In-Charges, Directors of all line departments of state Governments, NGO and progressive farmers. According to the resolution of the meeting, College used to organize Animal Health camp and Awareness programme in different districts of the State. Final year and fourth year students of BVSc & AH and MVSc students of related departments are also allowed to take part in the said events. So far, College has completed three (03) Societal development programme sponsored by DBT, Government of India and and one programme sponsored by Ministry of Information & Technology, Government of India entitled 'Mobile Based Agro Advisory System (m4agri) in Mizoram' is ongoing.

Impact of monitoring on students excellance in teaching and research

- ✓ Improved academic performance with higher OGPA.
- ✓ Admission to National Institutes, CAU and reputed SAUs for pursuing higher studies
- ✓ Better performance in national level examinations
- ✓ Better placement records of the passed out sudents.
- ✓ Publications of research finding in journals of national and International repute
- ✓ Bagging Awards by presenting the research finding in Natinal and international Conferences, Symposium etc.

6.5.1.3. CC/Board of Studies:
College has duly constituted Board of studies. Board of studies has been functional since 2010-11. Composition of Board of Studies and major recommendation made by BOS for last five years are annexed in Annexure **6.5.1.3**

6.5.1.4. Anti Ragging Cell: In pursuance to the Judgment of the Hon'ble Supreme Court of India dated 08.05.2009 in Civil Appeal No. 887/2009, the University Grants Commission has framed "UGC Regulations on curbing the menace of ragging in higher educational institutions, 2009" which have been

notified on 4th July, 2009 in the Gazette of India. Accordingly, College has been following this regulation and subsequent guidelines are issued in every year. Every student compulsorily registered to the Anti ragging cell of UGC and submits Affidavit signed by student and parents in this regard. Anti-ragging committees were formed in the last five years (2016-2021) for prohibiting the ragging offenses in the college campus as per the U.G.C. "Regulations on curbing the menace of ragging in Higher Educational Institutions, 2009". The following anti-ragging committees were formed in the last five years (2016-2021) for prohibiting the ragging offenses in the college campus as per the U.G.C. "Regulations on curbing the menace of ragging in Higher Educational Institutions, 2009". Anti ragging squad is constuted every year with Dean as chairman and under the supervision of senior professors, squad members were assigned to monitor the fresher round the clock.

Details of the notification issued to prevent the menace of ragging are annexed in 6.5.1.4

6.5.1.5. Biological waste disposal facility:

The wastes generated after a variety of research, such as chemical, biological, universal and recyclable wastes usually disposed of as per the state government guidelines.

1. The wastes generated after a variety of research, such as chemical, biological, universal and recyclable wastes usually disposed of as per the state government.
2. There is a facility at the college level after postmortem the wastes and carcasses incinerated. One incinerator had been installed under IDP, NAHEP.
3. All the infectious sample/ cell culture of different laboratories of the college are destroyed by the standard protocol of autoclaving.

6.5.1.6. Institutional Ethics Committee for Experiment on Animals:

The college is following the CPCSEA guidelines and constituted an Institutional Ethics Committee for Experiment on Animals (IACEC). The committee has been approved vide order number F.NO. 25/209/2010-AWD dated 12.06.2019 by Ministry of Animal Husbandry, Dairying and Fisheries, Government of India. All the postgraduate students prior to start of their research have to obtain permission from the college IAEC subsequently IAEC issue approval for the same. This is compulsory for all the postgraduate students.

Internal IAEC Members

Sl. No.	Name of the member	Designation	Qualifications	Mobile	Organization
1.	Dr. Lalnuntluangi Hmar	Professor and Dean	Ph.D.	946140180	C.V.Sc. & AH, Aizawl
2.	Dr. Tapan Kumar Dutta	Professor	Ph.D.	9862335294	C.V.Sc. & AH
3.	Dr. K Lalrintluanga	Professor	Ph.D.	9436142669	C.V.Sc. & AH
4.	Dr. Parimal Roychoudhury	Associate Professor	Ph.D.	9436152324	C.V.Sc. & AH
5.	Dr. Panab Chandra Kalita	Professor	Ph.D.	9436365873	C.V.Sc. & AH

CPCSEA Nominee for IAEC

Sl. No.	Name of the Nominee	Designation in IAEC	Address	Organization	Mobile

1.	Dr. Amit Kumar Trivedi	Scientist from outside of the Institute	Assistant Professor, Dept of Zoology, Mizoram University, Aizawl,	Mizoram University	9650883836
2.	Dr. Pritam Mohan	Main Nominee	Associate Professor, Pharmacology & Toxicology, College of Veterinary Science, Assam Agricultural University, Khanapara, Guwahati, Assam	College of Veterinary Science, Member, Veterinary Commission, Eastern Himalayan Ride, endurance event, Member, IAEC, GIPS, Guwahati	09436354207
3.	Dr. Himangshu Baruah	Link Nominee	Dept. Of Pharmacology & Toxicology, College of Veterinary Science, Khannapara, Guwahati - 781022, Assam	College of Veterinary Science, Assam Agricultural University	9678010522
4.	Pavan Kumar Samudrala	Socially aware Nominee	C/o Netes Institute of Technology & Science, NH-37, Shantipur, Mirza, Assam-781125.	National Institute Of Pharmaceutical Education and Research-Guwahati	8876430896

Circular regarding College Institutional Ethic Committee is annexed in Annexure .**6.5.1.6.**

6.5.1.7. Committee for Prevention of Sexual Harassment of Women at Work Places:

There is a committee for Prevention of Sexual Harassment of Women of Works. A Committee for prevention of Sexual Harassment of Women at Workplace was established on 21st September 2005.

Last five-year details of Committee for Prevention of Sexual Harassment of Women of Works:

1. A Committee for prevention of Sexual Harassment of Women at Workplace was established on 21st September 2005.
2. Committee on 'Safety and Security of Girls and Women was constituted on 19th May 2015 to deal with gender-based violence and gender sensitization program to evaluate, assist and support girls and women in this college.

Details of measures taken up by the committee on 'Safety and Security of Girls and Women'

Proceedings of a meeting held on 25-06-2015

1. Duty of security guards for 24 hours in girls' hostels

2. Hostel Gate Closure Time is 6.00 pm in summer and 5.30 pm in winter in girls' hostels. No girls are permitted to go outside the hostel after gate closure without permission from the warden.
3. Security guards to be posted at 4 exits of the campus for 24 hours and night patrolling in the campus.
4. One lady MTS is to be posted in girl's hostel to look after the welfare of the borders in addition to her normal duty as a cook.
5. One non-credit course on 'Women safety in the campus and gender sensitization' B.V. Sc. & A.H.
6. Prof. Zokaitluangi, HOD of Psychology of Mizoram University is to be invited to deliver a lecture on the topic 'Women safety in the campus and gender sensitization'.
7. Regular counseling of girl students by student advisors.
8. One Complaint Register is to be maintained at Dean's office for lodging complaints of sexual harassment.
9. CCTV to be installed at the hostel entrance

Action taken report on 30th June 2015

1. Duty of security guards for 24 hours in girls' hostels
2. Hostel Gate Closure Time is 6.00 pm in summer and 5.30 pm in winter in girls' hostels. No girls are permitted to go outside the hostel after gate closure without permission from the warden.
3. Security guards are posted at 4 exits of the campus for 24 hours and night patrolling in the campus.
4. One non-credit course on 'Women safety in the campus and gender sensitization' has been made compulsory in 1st Year B.V. Sc. & A.H. since 2013 as a part of the implementation of SAKSHAM, prescribed by UGC.
5. Regular counseling of girl students by student advisors has been in practice.
6. Committee also resolved certain measures for the safety of girls and women in the campus

Activities being performed/practiced to prevent Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) in last five years

1. Duty of security guards for 24 hours in girls' hostels
2. Hostel Gate Closure Time is 6.00 pm in summer and 5.30 pm in winter in girls' hostels. No girls are permitted to go outside the hostel after gate closure without permission from the warden.
3. Security guards are posted at 4 exits of the campus for 24 hours and night patrolling in the campus.
4. One non-credit course on 'Women safety in the campus and gender sensitization' has been made compulsory in 1st Year B.V. Sc. & A.H. since 2013 as a part of the implementation of SAKSHAM, prescribed by UGC.
5. One lady MTS is to be posted in girl's hostel to look after the welfare of the borders in addition to her normal duty as a cook.
6. Regular counseling of girl students by student advisors.

6.5.2. Faculty: The College has seventeen departments namely Veterinary Anatomy(VAN), Veterinary Physiology & Biochemistry(VPB), Animal Nutrition(ANN), Animal Genetics & Breeding(AGB), Livestock Production & Management(LPM), Veterinary Parasitology(VPA), Veterinary Pathology(VPP),Veterinary Microbiology(VMC), Veterinary Pharmacology & Toxicology(VPT),

Veterinary Public Health & Epidemiology(VPE), Veterinary Medicine(VMD), Veterinary Surgery & Radiology(VSR), Veterinary Gynaecology & Obstetrics(VGO), Livestock Products Technology(LPT), Veterinary & AH Extension(VAE), Teaching Veterinary Complex(TVC) and Livestock Farm Complex(LFC). All the departments have the regular faculties as per sanctioned strength of the University exceprt TVC & LFC where regular faculties have not been recruited so far.

6.5.2.1. Faculty Strength:

Department-wise Faculty Positions:

Sl. No.	Department	Number of faculty positions sanctioned			Faculty position filled (No)		
		Professors	Assoc. Professors	Assistant Professors	Professors	Assoc. Professors	Assistant Professors
1	Veterinary Anatomy	Nil	1	3	1 (CAS)	NIL	3
2	Veterinary Physiology & Biochemistry	Nil	2	5	1 (CAS)	1	4
3	Veterinary Pharmacology & Toxicology	1	1	1	Nil	Nil	2 (1 contractual)
4	Vetrinary Parasitology	1	1	2	1	Nil	2
5	Veterinary Microbiology	1	1	2	1	1	1
6	Veterinary Pathology	Nil	1	3	1 (CAS)	Nil	2
7	Veterinary Public Health & epidemiology	Nil	1	3	Nil	1	3
8	Animal Nutrition	1	1	2	1	Nil	2
9	Animal Genetics and Breeding	Nil	1	2	Nil	1	2
10	Livestock Production & Management	1	1	3	1	1	2
11	Livestock Production Technology	Nil	1	2	1(contractual)	-	1
12	Gynecology	1	1	2	2 (CAS)	Nil	1

	and Obstetrics						
13	Surgery & Radiology	1	1	3	Nil	1	2
14	Veterinary Medicine	1	2	5	1	1	3
15	Animal Husbandry Extension	Nil	1	2	Nil	1	2
TOTAL		8	17	40	11	8	32

6.5.2.2. Faculty Profile (department wise): Faculty profile of the college is presented below

Sl.No.	Department	Department wise faculty profile		
		Professors	Assoc. Professors	Assistant Professors
1	VAN	1	NIL	3
2	VPB	1	1	4
3	VPT	Nil	Nil	2 (1 contractual)
4	VPA	1	Nil	2
5	VMC	1	1	1
6	VPP	1	Nil	2
7	VPE	Nil	1	3
8	ANN	1	Nil	2
9	AGB	Nil	1	2
10	LPM	1	1	2
11	LPT	1(contractual)	-	1
12	VGO	2	Nil	1
13	VSR	Nil	1	2
14	VMD	1	1	3
15	VAE	Nil	1	2
TOTAL		**11**	**8**	**32**

6.5.2.3. Credentials of the Faculty: At present, the faculty strength of the college is 50. Most of the faculty members are PhD degree holder. There are experienced faculty in almost all the departments. There are mixtures of experienced and young, energetic faculties in the college. Many faculty members have received awards because of their excellance in teacing and research. Highest qualification, related work experiences in the field, honors and awards received by each faculty of different disciplines is annexed in atabluar form in Annexure **6.5.2.3**

6.5.2.4. Technical and Supporting Staff: Department wise distribution of technical, supporting and field staff in the tabular form is given below.

Sl.No.	Department	Technical & supporting staff		
		FCLA (technical)	MTS (Supporting staffs0	Farm staffs(Field staffs0
1	VAN	2	2	Nil

2	VPB	1	2	Nil
3	VPT	1	1	Nil
4	VPA	1	1	Nil
5	VMC	1	Nil	Nil
6	VPP	2	1	Nil
7	VPE	1	1	Nil
8	ANN	1	1	Nil
9	AGB	1	1	Nil
10	LPM	2	5	4
11	LPT	2	1	Nil
12	VGO	1	1	Nil
13	VSR	1	2	Nil
14	VMD	2	1	Nil
15	VAE	1	1	Nil
16	TVCC	1	2	Nil
TOTAL		21	23	04

6.5.3. Learning resources: 04

Information on the following are given below.

6.5.3.1. College Library (digital): Mention the following information

Location : The library is located at College of Veterinary Sciences & A. H, Central Agricultural University, Selesih, Aizawl, Mizoram.

- Present staff position (in place) :

	Position	Present status
1.	I/C Library(Professor & Head, Dept. of Veterinary Anatomy & Histology)	01
2.	Library Assistant	02
3.	MTS	02

- Availability of Wi-Fi: **Yes Available**
- Books and other reading materials, periodicals and research journals available.

1.	Books	Current holdings 10502(09.02.2021)
2.	Other reading materials	Newsletter, Bulletin
3.	Periodicals and research journals	12 (2021)

- Internet with sufficient number of computers, seating capacity, employing the latest technology in library sciences,

1.	Internet with no.of computers	08
2.	Seating capacity	50
3.	Latest technology in library sciences	Library Automation

- Stocking arrangements: Subject wise (DDC Classification)

- Collection of volumes on different subjects, latest publications in the fields of relevant subjects, automation and user services through computer:

1. Collection of volumes on different subjects	Encyclopaedias, Dictionary, Directory, Yearbook
2. Latest pub.in the fields of relevant subject	-
3. Automation and user services through computers	Under Process

- Opening hours: 9:30AM-4:30PM (Winter) and 9:30AM-5:30PM(Summer)
- Subscription of journals of national and international repute, national dailies, magazines etc.

During 2016-17

Sl.	Library Collections	No. of Copies
1	Books	128
2	Journals	10
3	Popular Magazines	04
4	Newpapers	07
5	CDs/DVDs/ebooks	05
6	Misc/Purchased under Imprest Money	05

During 2017-18

Sl.	Library Collections	No. of Copies
1	Books	60
2	Journals	13
3	Popular Magazines	03
4	Newspapers	06
5	CDs/DVDs/e books	-
6	Misc/Purchased under Imprest Money	-

During 2018-19

Sl.	Library Collections	No. of Copies
1	Books	23 titles (39 copies)
2	Journals	14
3	Popular Magazines	04
4	Newspapers	04
5	CDs/DVDs/ebooks	-
6	Misc/Purchased under Imprest Money	-

During 2019-20

Sl.	Library Collections	No. of Copies
1	Books	63 Titles (115 Copies)
2	Journals	13
3	Popular Magazines	04

4	Newpapers	04
5	CDs/DVDs/ebooks	-
6	Misc/Purchased under Imprest Money	-

During 2020-21

Sl.	Library Collections	No. of Copies
1	Books	1 Titles (1 copies)
2	Journals	09
3	Popular Magazines	No subscriptions
4	Newpapers	
5	CDs/DVDs/ebooks	-
6	Misc/Purchased under Imprest Money	-

6.5.3.2. Laboratories, Instructional farm, Workshops, Dairy Plant, Veterinary Clinic, Hatchery, Ponds etc.: Cleary mention about laboratories, instructional farm, workshops, dairy plant, veterinary clinic, hatchery, ponds etc facilities available in the College with its numbers, space, speciality to conduct practical/hands on training.

i. The college is having 17 independent departments and every department having well equipped laboratories to impart teaching undergraduate students and post graduate students and to conduct reasrch works for PG students
ii. Livestock farm complex (LFC). The farm complex (with 1793 Sq.m) having separate unit for each species of animals i.e. cattle, pig, goat and poultry. Each unit is well equipped demonstration/animal examination room/ Trevis. The College is also having one hatchery unit of ten thousand egg capacity incubator.
iii. Veterinary clinical complex (VCC). VCC (with 1094 Sq.m) is having facility of separate OT for small and large animals, in-patient unit, out-patient unit, vaccination unit for small animals, physiotherapy, ultrasonograpy, X-ray, endoscopy, ECG, registration and pharmacy units, one changing room, one doctors' room, one conference hall. TVCC also having well equipped laboratory for sample/specimen evaluation. For smooth functioning of the TVCC, the authority deputed one In-charge of senior Professor, hospital superintendent of senior teacher not below the rank of Associate Professor, In-charge of all imaging units not below the rank of Associate Professor and three faculties from each department of Animal Reproduction, Gynaecology & Obstetrics, Veterinary Medicine and Veterinary Surgery and Radiology.
iv. Lab. animal house (130 Sq.m).

6.5.3.3. Student READY/ In-Plant Training / Internship / Experiential Learning Programmes: The following programmes are being run regularly for the BVSc & AH degree programmes as per VCI (MSVE regulations) 2008 & 2016.

Entrepreneurship: As per VCI (MSVE regulations) 2008, Students of 3rd year undertake Entrepreneurship training programme in the areas of Poultry Farming, Livestock Product Technology and Animal feed Formulation. This training is aimed at developing entrepreneurial skill for self employment. **The collge provide interest free loans out of a revoloving funs to students' groups undertaking a specific entrepreneurial training programme. Technical support and Infra structures are provided by the college. The profit, if any, is kept by the students. Dean of the college along with Entrepreneurship training committee shall evaluate the programme for loss, if any and compensate**

the same, if the reason is anadvertent. The said training programme is supervised teachers of the concerned departments. According to VCI (MSVE regulations) 2016, Entrepreneurial training programme is compulsory component of Internship traing programmes which are being conducted for 1st batch of BVSc & AH students. Each intern shall submit a detailed project report on completion of Entrepreneurship training programme.

Internship:

Every final year students after completing their required compulsory courses, they bound to do internship for six months. Recently the period of internship is increased for one year according to new VCI (MSVE regulations) 2016. The module is implemented by the Dean with the chairmanship of one senior Professor along with members from each clinical, para-clinical, production and ILFC departments. The students admitted to 5th year B.V.Sc. & A.H. degree programme are divided into five groups in where hands on training are given on animal handling, disease diagnosis, treatment, vaccination, sample collection, sample processing, laboratory evaluation of different samples/specimens, animal farm management etc. After completion of six months internship (earlier duration was 3 months) in the college itself; all the interns deputed in their respective State Veterinary Department for five months (earlier duration was 3 months) to learn/handle the clinical cases under field condition. According to VCI, MSVE, 2016 regulation, the interns are deputed to other institution in order to undergo internship programme for the last month of their programme. All the students are provided with an advisor, who guides the students in "Hands-on Training". The evaluations of the interns are conducted by the Internship Evaluation Committee constitute by the Dean.

6.5.3.4. Curricula Delivery through IT (smart class rooms/interactive board etc.):

College has following facilities for the delivery of the curricula through IT

Facilities	Number
Number of class rooms with computers, LCD projectors, Internet connectivity	05
Smart class room	One (70 Capacity)

6.5.4. Student Development:

6.5.4.1. Student Intake and Attrition: The information about student intake, passed out and attrition, for UG, PG and PhD programmes are given below

Students Intake and passed out

1. UG (BVSc & AH Degree programme):

Sl.No.	Degree Programme	Academic Year	Intake Capacity	No. of Student Admitted	No. of Students Passed out
01	Bachelor of Veterinary Sciences & Animal Husbandry (B.V.Sc. & A.H.)	2016-17	77	61	43
		2017-18	76	66	41
		2018-19	76	63	55
		2019-20	80	70	45
		2020-21	80	75	Current Year

2. **PG(MVSc)**

Sl.No.	Degree Programme	Academic Year	Discipline	Intake Capacity	No. of Student Admitted	No. of Students Passed out
01	MVSc.	2016-17	Animal Genetics &	4	3	-
			Animal Nutrition	4	2	-
			Animal Reproduction,	4	4	1
			Veterinary & Animal	3	1	3
			Veterinary Anatomy &	3	2	1
			Livestock Production	4	2	1
			Livestock Products	4	3	-
			Veterinary Medicine	4	4	2
			Veterinary Microbiology	4	3	1
			Veterinary Parasitology	2	1	-
			Veterinary Pathology	4	3	1
			Veterinary Public Health	4	1	2
			Veterinary Surgery &	4	2	2
			Veterinary Physiology	3	-	1
			Veterinary Biochemistry	4	-	-
			Total	**55**	**31**	**15**
02	MVSc.	2017-18	Veterinary Biochemistry	4	-	-
			Veterinary Anatomy	3	-	1
			Animal Reproduction,	4	3	4
			Veterinary Medicine	4	4	3
			Veterinary Parasitology	2	1	3
			Veterinary Pathology	4	4	2
			Veterinary Microbiology	5	5	2
			Veterinary Surgery &	5	5	3
			Veterinary Public Health	4	2	3
			Animal Genetics &	4	2	4
			Animal Nutrition	4	2	2
			Veterinary Physiology	3	-	-
			Livestock Production &	4	4	1
			Livestock Products	4	3	1
			Veterinary & A.H.	3	3	3
			Total	**55**	**38**	**32**
03	MVSc.	2018-19	Veterinary Biochemistry	05	2	-
			Veterinary Anatomy	03	1	2
			Animal Reproduction,	05	5	3
			Veterinary Medicine	05	3	3
			Veterinary Parasitology	02	-	1
			Veterinary Pathology	05	3	2
			Veterinary Microbiology	05	2	2
			Veterinary Surgery and	05	4	1
			Veterinary Public Health	05	4	-
			Animal Genetics and	05	4	2

			Animal Nutrition	05	2	2
			Veterinary Physiology	03	1	-
			Livestock Production and	05	5	2
			Livestock Products	05	3	2
			Veterinary and Animal	03	2	-
			Total	**66**	**41**	**22**
04	MVSc.	2019-20	Veterinary Biochemistry	05	-	-
			Veterinary Anatomy	03	01	-
			Animal Reproduction,	05	04	1
			Veterinary Medicine	05	05	4
			Veterinary Parasitology	02	01	-
			Veterinary Pathology	05	05	4
			Veterinary Microbiology	05	02	2
			Veterinary Surgery and	05	05	5
			Veterinary Public Health	05	01	1
			Animal Genetics &	05	03	-
			Animal Nutrition	05	02	2
			Veterinary Physiology	03	02	-
			Livestock Production and	05	04	4
			Livestock Products	05	02	3
			Veterinary and Animal	03	03	1
			Total	**66**	**40**	**27**
05	MVSc.	2020-21	Veterinary Biochemistry	05	03	2
			Veterinary Anatomy	03	02	1
			Animal Reproduction,	05	03	5
			Veterinary Medicine	05	04	1
			Veterinary Parasitology	02	02	-
			Veterinary Pathology	05	05	3
			Veterinary Microbiology	05	04	2
			Veterinary Surgery and	05	02	4
			Veterinary Public Health	05	06	-
			Animal Genetics and	05	04	5
			Animal Nutrition	05	03	2
			Veterinary Physiology	03	02	1
			Livestock Production and	05	04	4
			Livestock Products	05	05	3
			Veterinary and Animal	03	03	3
			Total	**66**	**51**	**36**

1) Ph.D:

Sl.No.	Degree Programme	Academic Year	Discipline	Intake Capacity	No. of Student Admitted	No. of Students Passed out
01	Ph.D	2016-17	Animal Nutrition	2	-	**-**
			Livestock Production	2	-	**-**
			Veterinary Biochemistry	1	1	**-**

			Veterinary Microbiology	2	-	**-**
			Veterinary Pathology	1	-	**-**
			Veterinary Medicine	2	1	**-**
			Animal Reproduction,	1	1	**-**
			Total	**11**	**03**	**0**
02	Ph.D	2017-18	Animal Nutrition	2	-	1
			Livestock Production &	2	-	-
			Veterinary Biochemistry	1		-
			Veterinary Microbiology	2	-	1
			Veterinary Pathology	1	-	-
			Veterinary Medicine	2	-	-
			Animal Reproduction,	1	-	1
			Total	**11**	**-**	**3**
03	Ph.D	2018-19	Animal Nutrition	2	-	1
			Livestock Production and	2	-	-
			Veterinary Biochemistry	1	-	1
			Veterinary Microbiology	2	1	-
			Veterinary Pathology	1	1	-
			Veterinary Medicine	2	-	-
			Animal Reproduction,	1	-	-
			Veterinary Anatomy and	1	1	-
			Total	**12**	**03**	**2**
04	Ph.D	2019-20	Animal Nutrition	02	-	-
			Livestock Production and	02	-	-
			Veterinary Biochemistry	01	-	-
			Veterinary Microbiology	03	01	-
			Veterinary Pathology	02	01	-
			Veterinary Medicine	02	01	01
			Animal Reproduction,	01	01	-
			Veterinary Anatomy and	01	-	-
			Total	**14**	**04**	**1**
05	Ph.D	2020-21	Animal Nutrition	02	-	
			Livestock Production and	02	-	
			Veterinary Biochemistry	01	-	
			Veterinary Microbiology	02	-	
			Veterinary Pathology	01	01	
			Veterinary Medicine	02	02	
			Animal Reproduction,	01	01	
			Veterinary Anatomy and	01	-	
			Veterinary Parasitology	02	-	
			Total	**14**	**04**	

Students Attrition in different years

Sl.No.	Degree Programme	Academic Year	No. of Student Admitted	Attrition (No. of students)
01	UG	2016-17	61	01

		2017-18	66	04
		2018-19	63	04
		2019-20	70	01
		2020-21	75	02
02	PG	2016-17	31	02
		2017-18	38	08
		2018-19	41	01
		2019-20	40	01
		2020-21	51	-
03	Ph.D	2016-17	03	01
		2017-18	-	-
		2018-19	03	-
		2019-20	04	-
		2020-21	04	-

6.5.4.2. Average Number of Students in Theory and Practical Classes: Mention the Degree Programme-wise number of students sitting in a class for theory and practical, separately in tabular form. **College has intake capcity of 80, 66 and 14 for BVSc & AH, MVSc and Phd respectively in the academic session 2020-21**

Degree Programme	Professional year	Number of students sitting in theory class	Number of students Sitting in practical class(group wise number)
BVSc & AH	1st Professional	75	Gr A:38 students Gr B:37 students
	2nd Professional	79	Gr A :40 Gr B: 39
	3rd Professional	72	Gr A :36 Gr B: 36
	4th Professional	45	Gr A :23 Gr B: 22
	5th Professional	Undergoing Internship training programme	
MVSc	1st & 2nd year	Theory classes are conducted in the respective department. Theory classes of Non-credit compulsory courses are conducted in a common class room with seating capacity of Sixty	Practical classes are conducted in the respective department. Practical classes of Non-credit compulsory courses are conducted in library and class room
PhD	1st, 2nd &3rd year		

6.5.4.3. Admission Process: Clearly give complete mechanism of admission for UG, PG and PhD programmes, fee payment mechanism, registration procedure, academic schedule publication at the start of the semester etc. Write information in one page only.

Admission procedures:

B.V.Sc. & A.H. Degree programme

The present intake capacity is 80 students per academic year. The University allocates the seats and seeks nominations from the respective North Eastern Hill States. The concerned Departments of the respective State Government nominate the students on the basis of competitive entrance examinations conducted by them for the admission. Fifteen per cent of total seats are reserved for the candidates nominated by the Veterinary Council of India, New Delhi through All India Pre Veterinary Test (AIPVT)/NEET for admission to B.V.Sc. & A.H. Degree programme. The reservations of various Degree programme have been adopted by the University as per the directives received from the Ministry of Human Resource Development, Govt. of India. Seat allotment to different N-E States and VCI for UG Programme is as follows

1. Arunachal Pradesh-12
2. Manipur-9
3. Meghalaya-9
4. Mizoram-12
5. Nagaland-4
6. Sikkim-6
7. Tripura-11
8. Veterinary Council of India nominated candidates-12
9. J&K Migrant-2
10. High fee category-03

Students are informed to pay the admission fee through online mode. On payment of admission fee and submission of duly filled in admission form, students are provided with Course registration cards. Students are instructed to submit the duly filled in Registration cards to academic section with in seven days. Academic calendar is published and circulated before the start of the academic year for all degree programmes.

M.V.Sc. Degree programmes:

The candidates for admission to Master's programme must have Bachelor's Degree in Veterinary Science in the concerned discipline from a recognized University with OGPA of 6.00 out of 10.00 or equivalent percentage of marks. SC/ST candidates with OGPA of 5.5 in the Bachelor's degree shall be eligible for admission.

Admission for MVSc programme is done on the basis of all India Competitive Examination conducted by Central Agricultural University, Imphal, Manipur. Candidates are selected based on the performance in the Entrance examination and academic record. All the candidates including sponsored (in-service) for seeking admission to MVSc programme must have to appear in the written Examination. 25 % of seat of MVSc programmes in most of the department are reserved for Candidates qualified in ICAR PG entrance test and subsequently nominated through counselling. The College had introduced M.V.Sc. Degree programmes in all disciplines Veterinary Anatomy, Veterinary Physiology, Veterinary Biochemistry, Animal Nutrition, Animal Genetics & Breeding, Livestock Production & Management, Veterinary Parasitology, Veterinary Pathology,Veterinary Microbiology, Veterinary Pharmacology & Toxicology, Veterinary Public Health & Epidemiology, Veterinary Medicine, Veterinary Surgery & Radiology, Veterinary Gynaecology & Obstetrics, Livestock Product Technology, Veterinary & AH Extension

Ph.D. Degree programme

Taking into consideration the availability of well qualified and competent faculty and state-of-the art laboratory facilities and increasing demand of manpower in region and the country, Ph. D programme in selected disciplines have been introduced from the academic session 2011-12.The candidates for admission to Ph.D programme must have Master's Degree in Veterinary & Animal Science in the concerned discipline from a recognized University with OGPA of 6.50out of 10.00 or equivalent percentage of marks.SC/ST candidates with OGPA of 6.0 in the Master's degree shall be eligible for admission.

Admission for Ph.D programme is done on the basis of all India Competitive Examination conducted by Central Agricultural University, Imphal, Manipur. All the candidates including sponsored (in-service) for seeking admission to MVSc programme must have to appear in the written Examination. Few seats of Ph.D programmes in selected department are reserved for Candidates qualified in ICAR Ph.D entrance test and subsequently nominate through counselling.

Ph.D programmes have been introduced in the following Disciplines i.e, Animal Nutrition, Veterinary Microbiology, Veterinary Pathology, Veterinary Gynaecology & Obstetrics, Livestock Production & Management, Veterinary Medicine, Veterinary Anatomy, Veterinary Biochemistry and Veterinary Parasitogy

6.5.4.4. Conduct of Practical and Hands on Training:

Practical training to the students are designed and planned in such a way that it covers the entire prescribed syllabus and individual student gets hands on training on the subjects. Multiple numbers of specimen are maintained in the department so that students in small group can get access to the materials for study. Most of the practical sessions are conducted by allowing students individually to prepare the reagents and perform analysis individually. Each student are supervised by concerned teacher and discuss about the interpretation of findings. Practical sessions related to basic veterinary science courses are performed in healthy animal populations starting from farm premises to collection of samples and analysis in the laboratory. In Department of Anatomy, skeleton specimens of cattle, horse, pig, dog and bird were displayed for students learning. Skeleton specimen of animals of regional importance such as Yak has also been assembled and displayed in the laboratory for performing practical sessions. Special assignment in small groups were given to the students within the semester for collection, analysis and interpretation of results related to their subjects.Individual students are engaged in the day to day farm practices such as feeding and management of large and small animals including poultry. Practical exposure in Clinical and para-clinical subjects are more focused on clinical cases encountered in the TVCC (teaching veterinary clinical complex). Samples were collected from the clinical cases and are further analysed in the laboratory for conclusive diagnosis. Students were also given training for animal food processing and value addition of animal food products, its packaging and storing of processed food. Maximum exposures are given to the students pursuing clinical courses to access the medicine, surgery and gynaecological intervention required for the diseases animals. X-ray, ultrasound ECG training is included in the clinical training. Students are also trained up for performing artificial insemination in cattle and pigs. Surgical Ambulatory clinical sessions were also conducted to address situation in the farm complex and field conditions.

6.5.4.5. Examination and Evaluation Process: A brief report on examination and evaluation process for UG, PG and PhD is mentioned below

Examination and Evaluation system

BVSc & AH programme:

The examination system is a combination of internal and external i.e. (1) Internal assessment (2) External (Annual Composite examination). Examiantion and Evaluation of Annual Comosite examination are done

by external examiner from learned faculty members outside the University as per VCI, Minimum standard Veterinary Education,2008 &2016. The weightage of theory and practical is in the ratio of 60:40 respectively. The distribution of marks for objective and subjective questions in each subject is in the ratio of 40:60 respectively in annual examinations. There are four professional examinations- one each after 1st, 2nd, and 3rd year, and the fourth after one and half year and these professional examinations shall have only the theory component with external system and the practical component shall be dealt with internally. The examination for Livestock Farm Complex and Veterinary Clinical Complex is conducted twice a year i.e. first practical exam after completion of 50% syllabus and the second one, when the course is completed but the second exam shall comprise of entire syllabus and annual professional examination are held after the completion of 100% course content in each subject and the result of the best of two internal assessments is accounted for. The practical examinations are conducted by a Board of Examiners consisting of concerned Head of the Department, teacher(s) and a representative of the Dean and the teachers while evaluating practical, taking into account the followings,

(i) A record or log book maintained by each student as practical records;

(ii) Written test or observation and recording of the skill with which each student executes the Practical.

(iii) Assessment of the comprehensive skill and knowledge of each student through an oral examination (viva- voce).

The schedule of examination during Bachelor of Veterinary Science and Animal Husbandry course consists of internal assessment and annual examinations as detailed below,

Internal Assessment	**Course coverage**	**Max. Marks**	**Weightage**
First	30%	40	10
Second	60%	40	10
Third	90%	40	10
Annual examination (Theory)	Paper-I	Max. Marks	Weightage 20
	Paper-II	100 Max. Marks 100	Weightage 20
Annual examination (Practical)	Paper-I	Max. Marks 60	Weightage 20
	Paper-II	Max. Marks 60	Weightage 20

The evaluation of answer books of internal examinations shall be done by the concerned teacher(s) whereas evaluation of answer books of annual theory examinations shall be done by the external examiner(s).

PG & Ph. D programme:

The examination system is a combination of internal and external (1) internal (Quiz, Midterm examination) and (2) External (End term examination). Evaluation of internal examination done by the course teachers and End term examination evaluation is done by external examiner from learned faculty members/ Scientist outside the University as per CAU Academic regulations for PG & PhD programme,2016.

Examination

Examination	**MVSc & PhD programme**
Internal (percentage)	a) Theory: Quiz : 20

	Mid Term : 30 b) Practical :30
External (percentage)	End Term : 50 Practical : 70

Student Evaluation

Examination	Evaluation
Quiz	Internal
Mid Term	internal
End Term	External
Comprehensive qualifying examination	Comprehensive Qualifying Examination & evaluation (External) and Viva voce (Advisory committee along with Dean's nominee for MVSc programme) and Advisory committee along with External examiner for PhD programme)
Thesis evaluation	Thesis evalauation(External) and Viva Voce(Advisory committee along with Dean's nominee for MVSc programme) and Advisory committee along with External examiner for PhD programme)

6.5.4.6. NCC/NSS/RVC Units: NSS and NCC activities are being done at college. Details are given below.

Activities of NCC

The strength of NCC in our college is ninety cadets including 50 boys and 40 girls. Enrolment to NCC will be there in every April. *ie*. during the second semester of every academic year. NCC parade or class in NCC subjects will be taken every Monday at 3 pm. The following are the aims of NCC in our college: To develop character, commandership, discipline, leadership, secular outlook, spirit of adventure and the ideals of selfless service amongst the youth of the country and to create a human resource of motivated youth to provide leadership in all walks of life and always available for the service of the nation. The students are attending Annual Training Camp (ATC), Leadership Camps, Rock Climbing Camps, National Integration Camps (NIC) and Army attachment camps. The following training are done for the cadets of our college: Institutional training, camp training, attachment training (Service Unit), social service and community development activities, career counseling and personality development, conduct of 'B' and 'C' certificate examinations and conduct of adventure activities. Further we are conducting the Independence Day and Republic Day activities. The meritorious cadets will be pinned with suitable ranks during these ceremonies. The students who are attending different camps have participated in various events. In 2019, our cadets won two gold medals in individual events. Two cadets from our college scored highest marks in the B certificate examination.

NSS activities of the college (2016-21) : NSS activities conducted by the college during last five years are presented below.

NSS SPECIAL CAMPING (2016 - 2020)

Sl. No.	PLACES & FINANCIAL YEAR	DATE	ACTIVITIES

1.	Selesih village (2016 - 2017)	2nd - 8th March, 2017	1. Free Animal health cum anti-rabies vaccination camp (3 times) 2. Construction of public urinals (9 nos.) 3. Construction of public waiting sheds (2 nos.) 4. Construction of water reservoir (1 no.) 5. Tree plantations (25 nos.) 6. Construction of sitting benches (14 nos) 7. Awareness campaign on zoonotic diseases to public and students (10 times) 8. Distribution of leaflets regarding animal diseases, management, etc (11 times) 9. Cleanliness drives (11 times) 10. Farmers - Scientist's interaction (3 times)
2.	Falkawn village (2016 - 2017)	2nd - 8th February, 2017	
3.	Tuirial village (2016 - 2017)	10th - 16th January, 2017	
4.	Edenthar colony (2017 - 2018)	9th - 15th January, 2018	
5.	Phunchawng village (2017-2018)	19th - 25th February, 2018	
6.	Selesih village (2017 - 2018)	12th - 18th March, 2018	
7.	Mualpui, Aizawl (2018 - 2019)	7th - 13th January, 2019	
8.	ITI colony, Aizawl (2018 - 2019)	1st - 7th, February, 2019.	
9.	Bawngkawn colony, Aizawl (2018 - 2019)	4th - 10th, March, 2019	
10.	North Hlimen village (2019 - 2020)	19th - 25th September, 2019	
11.	Muthi village (2019 - 2020)	22nd - 28th October, 2019	
12.	Leisenzo village (2020 - 2021)	11th - 17th January, 2021	
13.	Selesih village (2020 - 2021)	1st - 7th February, 2021	

Regular NSS activities of college is annexed in **6.5.4.6**

6.5.4.7. Language Laboratory: The college has a well furnished Language Laboratory. At present the language laboratory is equipped with 32 computers, each pre installed with Language learning software. All the computers are connected internet facility (50 Mbps) and with power supply from a 15 KVA online UPS. The Language Laboratory is administered by the Language Instructor, who is taking care of the language proficiency of the students. Apart from the language laboratory learning, regular Language classes are conducted to help the students improve their command in English. The topics which are covered in the language classes include English Grammar, Speaking skills, Phonetics and Writing skills.

6.5.4.8. Cultural Center: Student welfare section headed by a student welfare officer is maintaining cultural center for all round cultural development of the students. Facility created by the section was utilized by the students and staff for practising and organizing cultural programme in the college campus. Considering the students cultural diversity; as most of our students are from different north eastern states of India as well as few are from different states of India, the section is keeping traditional as well as modern electronic instruments as well as costumes. This section is organizing cultural events/contest among the students in various plateform such as annual college week, state festivals etc. They are also responsible for trained up students for participation in the university as well as inter university youth festivals. Cultural center is closely attached with a 250 seater modern auditorium with hi-tech sound

facility for organizing the events. Center also provides a plateform for students, teacher, staff interaction and under the guidance of trained experts different training programmes for drama, mono-acting and modern art are organized time to time.

6.5.4.9. Personality Development: The personality development programme of the students is taken care in the college. The language classes conducted by the language instructed covers the topics of English Grammar, Speaking skills, Phonetics and Writing skills. Besides the language classes the college is conducting many training programmes on like personality development, development of entrepreneurship skills, networking and negotiation skills, development of effective communication skills etc under the IDP-NAHEP project of the college. 15th National Youth Parliament Competition was organized in the college campus on 17th October,2018 to boost up the knowledge on parliamentary activities and to rejuvenate the students potentials.

6.5.5. Physical facilities:

6.5.5.1. Hostels:

S. No.	Name of the Hostel	Area (Sq. m.)	Type of Hostel	Capacity	Students per room accommodated
1	Boys' (Lyon's) Hostel-I	1600 Sq.m	Boys'	82	02
2	Boys' Hostel-II	1508 Sq.m	Boys'	64	02
3	PG Boys' Hostel	690 Sq.m	Boys'	54	02
4	U.G. Girls' Hostel-I	1600 Sq.m+ 1017 Sq.m	Girls'	120	02
5	U.G. Girls' Hostel-II (Temporary)	807 Sq.m	Girls'	40	02
6	P.G. Girls' Hostel (Temporary)	730 Sq.m	Girls'	42	02

All hostels are having spacious kitchen, dining hall, reading room, common room etc. with all facilities like table tennis, carom, chess, TV etc. Each Hostel is having a mess run by the students under the supervision of respective Wardens. The College authority has provided sufficient menials to cook quality and hygienic food in the mess.

Each and every Hostel has been provided with Water Filtration system and other kind of water filters for clean and safe drinking water.Facilities for indoor games are also available in the hostels e.g. carom, chess, T.T., dumbbell etc. Girl hostel is also provided with treadmill over and above the mentioned facilities.All the hostel premises are regularly cleaned by engaged sweepers in the each Hostel.Transport facility is also extended as and when required for all the boarders residing in the Hostel.

Medical facility is available centrally in the College Medical Unit. Moreover, each Hostel is provided with some general medicine in the hands of Sick monitors. For emergency, facilities with well equipped Ambulance service are also available for 24 hours.

6.5.5.2. Examination Hall:

There are total 7 (seven) lecture cum examination hall (area 1410 sq.m.) in the College with capacity of accommodating 420 students at a time for any examination purpose.

6.5.5.3. Sports and recreation Facilities:

The College is having 1 (one) multipurpose indoor stadium (470 sq.m.) with facilities for badminton, T.T., Carrom and multigym. One outdoor playground (2200 Sq.m) with a basketball cum volleyball ground (140 sq.m.).

College has established a student welfare section under supervision of student welfare officer who is looking after different activities like Sports and cultural events, NSS programmes and NCC activities along with placement cell. There are different in-charges for NSS and NCC activities. Different facilities developed at college campus for encouraging the students to participate in different extracurricular and co-curricular activities. The College has represented at University level, at Inter University meet and State level sports meeting.

6.5.5.4. Auditorium:

The College is having a well equipped modern auditorium constructed and inaugurated in the year 2009 with a sitting capacity of approx. 300 persons(568 Sq.m). The facility has been used throughout the year for different activities like celebration of Annual College Week, Freshers' day, Farewell day of the final year students, world veterinary day, world anti rabies day, world milk and egg day, White coat ceremony for the 4th year students, Inauguration of National Seminar, Celebration of Diwali, Pre-Christmas, any training programme inauguration, visit of any high dignitaries etc. The Auditorium is also having a community hall (415 Sq.m) adjacent to it, which is very useful for reception and arrangement of meals for students, faculties and other dignitaries etc.

6.5.5.5. Exhibition Hall/Museum:

The College is having 1 (one) exhibition hall at ATIC building (600 Sq.m). The different College activities and achievement have been displayed in that exhibition hall. All the high dignitaries visiting the College are taken to the unit to briefly apprise about different activities and achievement of the College.

Over and above, the College is also having the following facilities for specific purposes e.g. Administrative block (1592 Sq.m), Academic block-I (4763 Sq.m), Academic block-II (461 Sq.m), Academic block-III (2455 Sq.m), New Academic Block (7000 Sq. m), Library (770 Sq.m),Teaching veterinary clinical complex (1094 Sq.m), Instructional livestock farm complex (1793 Sq.m), Lab. animal house (130 Sq.m), KVK building (2650 Sq.m), ATIC building (600 Sq.m), Guest house (740 Sq.m), Dean's residence (266 Sq.m), Type-V Qtrs 4 units (807 Sq.m),Type IV Qtrs 23 units (2616 Sq.m),Type III Qrts 24 units (2287 Sq.m)Type II Qtrs 20 units (2017 Sq.m), Transit accommodation of 30 units of 2 rooms flat (1460 Sq.m), shopping complex (470 Sq.m), Medical unit (410 Sq.m) and Garage & workshop (205 Sq.m).

6.5.6. Research Facilities

6.5.6.1. Postgraduate Laboratories and Equipments: Clearly mention the department wise PG laboratories and equipment housed in individual laboratory in the Colleges along with any other research unit.

Department	Laboratories and section	High end equipment
Animal Nutrition	**1.**Feed Technology laboratory 2. PG laboratory 3. UG laboratory	Muffle Furnace, Ultrasonic Bath, Microprocessor Based Flame Photometer, Micro Kjeldahl Nitrogen Distillation apparatus, Spectrofluorometer, UV Spectrophotometer, Rotary Vacuum Evaporator, Vacuum Freeze Dryer, High

	4.Mineral Nutrition Laboratory 5.Feed processing and mixing plant 6Complete feed block unit 7.Digestion trial unit	speed Refrigerated Centrifuge, Deep freeze -20°C, Electronic KEL-PLUS, Electronic Automatic KEL PLUS Microprocessor Based Twelve Macro Block Digestion System, Electronic SOCS Plus Automatic Six Place Solvent Extraction System, Electronic Fibra Plus Automatic Six Place Fibre Extraction System, Rusi E Tek, Atomic Absorption Spectrophotometer, Metabolic cages, Urea Mineral Molasses Block making machine, Compressed complete feed block making machine
Department of Animal Reproduction, Gynaecology & Obstetrics	1.Undergraduate laboratory 2.Post graduate laboratory 3.Andrology laboratory	Cold Handling cabinet, Stereozoom Microscope, Trinocular Phase contrast Microscope, CASA, Doppler ultrasound, Electric ejaculator, Pregnancy detector, Heat detector, Laparoscope, Compound microscope
Department of Veterinary Surgery and Radiology	1.Undergraduate laboratory 2.Post graduate laboratory **3.**Small Animal Operation Theatre 4.Large Animal Operation theatre room	Hydraulic Operating Theatre Table for Small Animal Operation,500 mA X-ray machine with Fluoroscopy unit, Computerised Radiography System, USG Unit, Electro Cautory Unit, Small Animal Anaesthesia Machine with Ventilator.
Department of Pharmacology & Toxicology	1.UG Laboratory 2.Experimental Laboratory 3.Analytical Laboratory	HPLC (Binary-Pump) with UV/VIS and Fluorescence detector, Fluorescence –Spectrophotometer, UV/VIS spectrophotometer, ELISA reader, Passive avoidance apparatus, Plethysmometer, Analgesiometers (Tail flick apparatus, hot and cold apparatus), Lyophilizer, Precision digital weighing machine, Centrifuge machines, Cold centrifuge machine, Organ bath with physiograph, Convulsiometer, Ultrasonicator, Microwave digester, Deep freezer..
Department of Animal Genetics and Breeding	1.Molecular laboratory 2.Cytogenetics laboratories 3. Computer section	PCR, Gel Documentation system, UV Trans- illuminator with face shield, High Speed Table Top centrifuge machine, Phase contrast microscope, Deep freezer, Semi Dry Electroblot unit, Laminar Flow, Electrophoresis system, Computer lab. with internet connection (The department is also having the necessary software packages for carrying the data analysis of breeding data as well as molecular genetics data)
Department of Livestock Product Technology	1. Meat processing laboratory 2. Analytical Laboratory 3. Quality Control Laboratory 4. Cooking unit	Food texture analyser, Bowl chopper, Meat mincer, Hamburger forming machine, Meat slicer, Sausage filler, Smoking unit, Captive bolt pistol, Band saw , Deep freezer, Vacuum packaging machine, Defeathering machine, Laminar flow, Bacteriological colony counter, Gerber's centrifuge, Brine injector , Electric stunner ,

	5. Smoke Unit 6. Dairy practical Laboratory	
Department of Veterinary Microbiology	1. Undergraduate Laboratory 2. Bacteriology& immunology Laboratory 3. Virology including tissue/cell culture laboratory 4. Molecular biology laboratory 5. Transboundary animal diseases diagnosis laboratory 6. Institutional biotech Hub laboratory for instrumentation facilities	Biosafety cabinet Class II A2, Biosafety cabinet Class III, Work station Class II A2,Laminar Air Flow, -80C Deep freezer, -20C Deep freezer, Refrigerated centrifuge, High speed centrifuge, Trinoculor microscope, Inverted microscope with fluorescence, Students microscope binocular, PCR machine,Real time PCR, Gel documentation system, Electrophoresis system, Lyophilizer, Phoenix automated bacterial identification system, Shaker incubator, BOD incubator, Hybridization oven,CO2 incubator, Egg incubator, Ultrasonicator, UV Visible multimode reader, Ice flaking machine, Incubation cum hatchery room.
Veterinary Public Health and Epidemiology	1. Milk and meat hygiene 2. food safety and Public Health lab. 3.Zoonoses& Epidemiology lab. 4.Environmental hygiene lab. 5. Under graduate lab.	Thermal Cycler (Bio-RAD-T100), Deep freezer (-20^{0}C), Laminar Flow Chamber (Horizontal), Vertical Midi Gel Electrophoresis System (Regular Model) with Power Supply, Cell Sonicator/Ultrasonic Homogenizer, Trinocular Research Microscope, Refrigerated centrifuge machine.
Animal Husbandry Extension	The ICT lab of the Department established under the project entitled, “Mobile Based Agro Advisory System in Mizoram”, financed by Ministry of Electronics and Information Technology, GOI	Direct Projector, computer, Overhead Projector, Slide Projector, LCD data Projector, Amplifiers Television (coloured), Video Camera (Complete Set), Camera 35 mm, Projection Screens (fixed and portable)
Department of Livestock Production Management	1.UG laboratory 2. PG laboratory 3.Pig Farm 4.Cattle farm 5.Poultry farm 6.Sheep and goat farm	Animal weighing platform. 1000kg capacity, Refrigerator LG 310Lit, Refrigerator LG 350Lit, Deep freezer (-20) vertical, Deep freezer (horizontal), Digital weighning balance, 300kg capacity, Colony counter, Sheep-Goat pregnancy detector, Pregnancy tester with secondary head set, Electronic estrous detector, LCD projector (Ricoh),

		Milking machine, Digital camera, Digital hay tester, Silage tester, Battery brooder (electrically operated), Setter cum hatcher, Incubator (hatcher & setter)
Department of Veterinary Biochemistry	1.Under Graduate Laboratory 2. Post Graduate Laboratory 3.Molecular biology laboratory 4.Analytical biochemistry laboratory 5.Animal cell culture laboratory 6.Biotechnology laboratory 7.Post Graduate Classroom cum Seminar Room	PCR, Transilluminator, Gel electrophoresis (AGE & PAGE), Eelectroporator, Semi-dry western blot, orbital shaker incubator, refrigerated centrifuge, -20 deep freezer, Refrigerator, Water bath,HPLC, Clinical chemistry analyzer, Plate reader, Spectrophotometer, -20 deep freezer, Refrigerator, refrigerated centrifuge, Water bath, Vortex mixer, Incubator, Hot air oven, pH meter, Shaker CO_2 incubator, Biosafety cabinet, Inverted microscope, Double door side-by-side refrigerator, Centrifuge,Isoelectric focusing, Maxi gel electrophoresis apparatus, Refrigerator
Department of Veterinary Medicine	1)Undergraduate Laboratory: 01 No 2)Postgraduate Laboratory : 02 Nos	Laminar Flow , Refrigerator,Deep freeze –02, AAS (Atomic Absorption Spectrophotometer with accessories, Blood Analyzer (Model Ruby Plus), Vertical Autoclave (Hospital Model), BOD Incubator Sanco Make, Elisa Reader (Bio Rad 680), Hot Air Oven, Vortex, Magnetic Stirrer, Centrifuge, Electronic Balance, Vacuum Evaporator, Soxhlet Extractor, Refrigerated Centrifuge, Biochemistry Analyser, Laboratory Centrifuge, Homocytometer, Trinocular Fluorescent Microscope, Computer Sets
Department of Veterinary Parasitology	1.Undergraduate laboratory 2.Post graduate laboratory 3.Molecular Parasitology laboratory	Refrigerated Centrifuge Machine, Gradient Thermal Cycler, Gel Documentation system, Submarine electrophoresis system with power pack, Microscope with photographic facility Online UPS (5 KV), Stereozoom microscope, Compound Microscope, Freeze (-80 and -20^{o} C), BOD incubator, Electronic Balance, Refrigerator
Department of Veterinary Physiology	1.Undergraduate laboratory 2.Post graduate laboratory	PCR, Transilluminator, Gel electrophoresis (AGE & PAGE), Eelectroporator, Semi-dry western blot, orbital shaker incubator, refrigerated centrifuge, -20 deep freezer, Refrigerator, Water bath,HPLC, Clinical chemistry analyzer, Plate reader, Spectrophotometer, -20 deep freezer, Refrigerator, refrigerated centrifuge, Water bath, Vortex mixer, Incubator, Hot air oven, pH meter, Shaker CO_2 incubator, Biosafety cabinet, Inverted microscope, Double door side-by-side refrigerator, Centrifuge,Isoelectric focusing, Maxi gel electrophoresis apparatus, Refrigerator,Automatic Weather Station
Veterinary	1.Gross Anatomy	Cryostat Microtome, Automatic deluxe Semi-Motorized

Anatomy & Histology	laboratory 2.Histology and Histochemistry laboratory	Rotary Microtome, Deep Freezer (-20°C), Digital magnetic Stirrer hot plate, Digital Imaging Device, LCD Multimedia Projector, Automatic tissue processor, Autoclave Vertical, Bone Decalcifier, Centrifuge- Remi, Distillation Apparatus,Digital SLR Camera (E-620), Deep Freezer (-20°C), Electric Weighing balance, Hot Air Oven, Incubator, Microscope (Monocular), Microscope (Binocular), Microscope (Trinocular),Overhead Projector, Octagon Magnetic Stirrer, Paraffin Embedding bath,P^H Meter, Precision Rotary Microtome,Slide Warming table, Tissue Floatation Bath, Bone and meat cutting machine,Cadaver Injector.
Veterinary Pathology	1.UG Laboratory 2.PG Laboratory 3.Molecular Biology Laboratory 4.Cell culture laboratory	Real time PCR machine (Qiagen), Thermal cycler (Eppendorf) , Bio safety level 2 cabin , CO2 incubator , Deep Freeze -80ºC ,Deep Freeze -45ºC ,Lyophilizer,Shaker incubator ,Ice flaker ,Monopan balance ,Gel electrophoresis system ,Cooling centrifuge machine ,Digital water bath ,Gel documentation system,Bio photometer,Trinocular research microtome , Inverted research microscope, Cryostate , Binocular Microscope, Semi-automatic Microtome,Serological water bath, Spectrophotometer , Phase Contrast Microscope with Camera Colour Imaging (CCTV) System, Unit for histopathological work, Post mortem unit for large , small & poultry.

6.5.6.2. Research Contingency: Amount of Research contingency is sufficient to meet the students demand of research work of PG & PhD programme**.** College has the provision of research contingency amounting Rs 50000/ and Rs 200000/- for each MVSc & PhD students.

Research contingency spent by the college for last five years work

Sl.No	Heads of Account	2016-17(Rs)	2017-18(Rs)	2018-19(Rs)	2019-20(Rs)	2020-21(Rs)
1	Resaerch Work	806869.00	1025818.00	965750.00	35100.00	335024.00
2	Lab consumables	3834215.00	3382973.00	2681028.00	314876.00	1324284.00

6.5.7. Outcome/Output

6.5.7.1. Student Performance in National Examinations: Student performance in JRF/SRF/NET/ARS/and other national examinations for last five years is given below.

Particulars	2016-17	2017-18	2018-19	2019-20	2020-21
JRF	06	0	02	02	02
NET	13	07	07	06	04
ARS	-	-	02	01	-

Scientist-C, Wildlife Institute of India, Deradhun	-	-	01	-	-

6.5.7.2. Students Placement Profile:

Every year students passed out from this institute with high spirit and enthuasim join various state and central government organization including teaching institute, defence sector, administrative position as well as in private sectors and render their services in different capacity.Many of the trained up students are placed as Veterinary officer to serve the people in their respective states. Student placement cell, headed by a senior professor has been assisting the newly passed outgraduate and conducting in campus placement opportunity by inviting private sector companies every year. A remarkable numbers of passed out graduate has started their own enterpreuner programme and are establishing clinics, farm complexes as well as slaughtering units and processed food production units.

Placement profile of Passed out is mentioned below

Student's placement (overall since inception)

Sl. No.	Position	Total Number
1	AGRICULTURAL RESEARCH SCIENTIST	14
2	**SCIENTIST C, WILDLIFE INSTITUTE OF INDIA, DEHRADUN**	01
3	ASSISTANT PROFESSOR	44
4	CIVIL SERVANT	20
5	AGRICULTURAL TECHNOLOGY MANAGEMENT AGENCY	17
6	VETERINARY OFFICER	126
7	PROGRAMME COORDINATOR, SMS OF KVK	13
8	RA, SRF, JRF	14
9	FARM MANAGER	01
10	BANK OFFICIALS	07
11	ASSISTANT COMMANDANT (ITBP)	02

DETAILS OF PLACEMENT (year wise):

1. No. of students placed employed in government organizations during the last five years

2015	2016	2017	2018	2019	2020	Total
16	8	21	25	37	9	116

2. No. of students gone for higher studies during the last five years:

2015	2016	2017	2018	2019	2020	Total
32 (30 PG + 2 PhD)	**39** (39 PG)	**23** (23PG)	**22** (19 PG + 3 PhD)	**30** (20 PG + 10 PhD)	**33** (20 PG + 13 PhD)	**179** (PG 151+ PhD28)

6.5.7.3. Awards/Recognitions/Certificates: Awards/recognitions/certificates received by faculties for last five years are mentioned below

2015-16	
Dr. Gunjan Das	Best oral presentation award (2nd) for the presentation on "wound healing prop- erty of two herbal plants by *in vivo* assessment in rats", 34th annual convention of ISVM on "Newer Approaches in diagnosis and management of animal diseases for sustainable health and production" during 17th – 19th February 2016 at GADVASU, Ludhiana, Punjab.
Dr. J. B. Rajesh	Best Teacher award from Rotary International
Dr.Devajani Deka	Best oral research paper award for the paper " Serotyping and antibiotic sensitivity pattern of *Escherichia coli* from chicken and human sources" in National confer- ence on Prospects and Challenges in Indigenous foods and drink sector, 11-12 April, 2015, organized by AFST (I), Manipur chapter at CAU, Imphal. Pp 17.
2016-17	
Dr. P. C. Kalita	**"Reviewer Excellence Award"** as reviewer of Indian Journal of Animal Research and Asian Journal of Dairy and Food Research. ARCC Journals during 2016.
Dr. T. K. Rajkhowa	Overseas Research associateship at University of Connecticut, Storr, CT, USA, awarded by DBT, Ministry of Science and Technology, GOI, New Delhi from 01-09-16 to 30-11-16
Dr A. K.Samanta	Received second best paper(Oral) award for the research paper **"**Effect of Feeding Palm Oil (*Elaeisguineensis*) Sludge as a Partial Replacement of Maize on the Performance of Growing crossbred (Large White Yorkshire xZovawk) Pigs" presented at X Biennial Animal Nutrition Association Conference held at CVSc, Sri Venkateswara Veterinary University, Tirupati w.e.f. 9 th to 11th November,2016.
Dr.Pragati Hazarika	Best Oral Paper Presentation Award in National Seminar on "Food: Safety, Health and Environment" on 25th & 26th February, **2016,** Chennai. Organized by Department of Livestock Products Technology (Meat Science), Madras Veterinary College, Chennai – 600 007.
2017-18	
Dr. Suvendu Kumar Behera	1..Best Oral Presentation in 35th Annual Convention of ISVM 2. Overseas Associateship fellowship, DBT, India 2017
Dr. Gunjan Das	1. Main Nominee of CPCSEA for the Institutional Animal Ethics Committee (IAEC) of CPCSEA of Mizoram University (MZU), Mizoram. 2. Main Nominee of CPCSEA for the Institutional Animal Ethics Committee (IAEC) of CPCSEA of Tripura University, Agartala. 3. Executive Committee member for Indian Veterinary Medicine Association (Mizoram Chapter) election held on 30th May' 2015 during Annual General Body Meeting of IVA-Mizoram for the term 2017 – 2019. 4. Executive Committee member (Gen Secy) for Rotary Club of Aizawl, DI-3240 under Rotary International 5. Executive Committee member (Vice-President) for Rotary Club of Aizawl, DI-3240 under Rotary International.

	Member of Editorial Board: I. Journal of Animal Research and Veterinary Science, Herald Scholarly Open Access, 2561 Cornelia Rd, #205, Herndon, VA 20171, USA. Tel: +1-646-661-6626. II. Associate Editor of International Journal of Agriculture Sciences (ISSN: 0975-3710 EISSN: 0975-9107) - Bioinfo Publications. Source Journal of Veterinary Science (SJVS), 4722 E Bell Rd, Suite # 2159, Phoenix, AZ, USA, Email: contact@researchsource.org.
Dr. Kalyan Sarma	1. Executive member (Regional Secretaries, North East Region) of Indian Society of Veterinary Medicine 2. Member of Project Screening Committee of Govt. of Mizoram underRKVY 3. Level-ll Expert for veterinary Medicine in project entitled "Development and Deployment of Mobile Based Agro-Advisory system in North-East India(m4agriNEl) - Phase II (Garo Hills)", funded by Media Lab Asia, MCIT, GOI, New Delhi 'which was commenced on 4th Ju1y'2015 at College of Home Science, CAU, Tura Meghalaya 4. Member of editorial board of the national and international journal i. Associate Editor of Basic Research Journal of Animal Science ii. Member of the Editorial Bard of Veterinary Research International
Dr. Laltlankimi, Dr. T. K. Rajkhowa, Dr. R. Ravindran	Dr. B. S. Raya award, 2016 for best non- oncology short communication in Indian journal of veterinary pathology.
Dr. Y. Damodar Singh	Bharat JyotiPurskar 2018 (From Best Citizen Publishing House, New Delhi)
Dr Parthasarathi Behera	"Best Oral Presentation award" at the national seminar on Opportunities and Challenges of Translational Research in the Frontier Areas of Animal Biotechnologyheldduring 22nd to 23rd September 2017 at CVSc& A.H., OUAT, Bhubaneswar.
Dr.N. Shyamsana Singh	Awarded by ICAR for breed recognition of "Zovawk"
Dr.N. Shyamsana Singh	Expert member for formulating Mizoram state pig breeding policy
Dr. T.C. Tolenkhomba	Expert member for formulating Manipur state pig breeding policy
Dr. T.C. Tolenkhomba	Member committee to design a new course of M.Sc. in Organic Farming including conservation of precision agriculture and mushrooming bio-diversity along with cooperation with native animal and plant
2018-19	
Dr. Prava Mayengbam	2nd Prize in Poster presentation under 30 during International Conference on Biodiversitry, Environment and Human Health: Innovations and Emerging Trends (BEHIET 2018) on 12-14 November, 2018 held at Mizoram University, Mizoram.
Dr. Y. Damodar Singh	"The Bharat JyotiPuraskar 2018" was conferred by the Best Citizen Publishing House, New Delhi.
Dr.Parimal Roychoudhury	DBT overseas associateship
Dr. O. P. Choudhary,	Late Dr. D. S. Grover Memorial Award for "Clinical Anatomy &

	Multidisciplinary Approach". during XXXIII ANNUAL CONVENTION OF IAVA & NATIONAL SYMPOSIUM at C.V.Sc.& A.H., CAU, Selesih, Aizawl
Dr. DibyajyotiTalukdar	IJRULA Title awards 2018" for best research article. Awarded by, International Journal for Research Under Literal Access
2019-20	
Dr. J. B. Rajesh,	Adarsh Vidya Saraswati Rashtriya Puraskar Glacier Journal Research foundation, Global Management Council: 2019
Dr. J. B. Rajesh,	Young Faculty award from EET, CRS (Academic Brilliance Award): 2020 Best Faculty Award from EET, CRS – 9 th Science and Technology Awards 2020 Veterinarian's Achiever's Award (2020) -- Indian Veterinary Association, Chennai Best PhD Thesis Award from Dr. Ram Avatar Shiksha Samiti, Puranpur, Pilibhit, Uttar Pradesh CPCSEA Nominee of Government of India (2020).
Dr. J. B. Rajesh,	Received 3rd prizefor oral presentation in 38th Annual convention and National Symposium of ISVM, Bengalore
Dr. Suvendu Kumar Behera	DBT overseas associateship
Dr. Chethan G E	1st prize in poster presentation (session 3) under 38th Annual Convention and National Symposium of ISVM (Feb 5th to 7th , 2020) held at Veterinary college, KVAFSU, Hebbal, Bengaluru
Dr. Chethan G E	1st prize in poster presentation (session 4) under 38th Annual Convention and National Symposium of ISVM (Feb 5th to 7th , 2020) held at Veterinary college, KVAFSU, Hebbal, Bengaluru
Dr. M. Ayub Ali	**Best paper Award** in technical session on Clinical and Nutritional Biochemistry during the 4th National seminar and Annual Convention of SVBBI on Current Research in Veterinary Biochemistry and Biotechnology in the improvement of Animal Health and Production held at CVSc, SVVU, Tirupati on 4-5th Feb, 2020. Acted as **Chairman** in technical session on Biochemical interventions and Metabolomics during the 4th National seminar and Annual Convention of SVBBI on Current Research in Veterinary Biochemistry and Biotechnology in the improvement of Animal Health and Production held at CVSc, SVVU, Tirupati on **4-5th Feb, 2020**
Dr. Parthasarathi Behera	1. **Best paper Award** in technical session on Biochemical interventions and Metabolomics during the 4th National seminar and Annual Convention of SVBBI on Current Research in Veterinary Biochemistry and Biotechnology in the improvement of Animal Health and Production held at CVSc, SVVU, Tirupati on 4-5th Feb, 2020. 2. Acted as **Rapporteur** in technical session on Industrial and Environmental Biochemistry during the 4th National seminar and Annual Convention of SVBBI on Current Research in Veterinary Biochemistry and Biotechnology in the improvement of Animal Health and Production

	held at CVSc, SVVU, Tirupati on **4-5th Feb, 2020**
Dr. A. K. Samanta	Received best presentation (oral) award for the research paper entitled 'Effect of Supplementation of Plant Extracts and Essential Oils on Immune Status and Intestinal Microbial Population of Weaned Piglets' in the International Conference of Animal Nutrition 2019 on 'Nutritional strategies for improving farm profitability and clean milk production', 17-19 Dec., 2019 organised by Department of Animal Nutrition, West Bengal University of Animal and Fishery Sciences, Kolkata, India
Dr. Pragati Hazarika	a. 3rd Prize for oral paper presentation on the topic "Effect of Nisin on qualitative and sensory aspects of cured Vawksa Rep – a traditional pork product of Mizoram" in the International Symposium & 9th conference of Indian Meat Science Association" organized by . Dr. G.C. Negi College of Veterinary & Animal Sciences, CSK HPKV, Palampur – HP, India. b. Best Oral Paper Presentation (3rd) in 8h IMSACON and International Symposium on "Advances in production, processing and quality assuranceof muscle foods for improved health and Nutritional security" on 6th to 8th November, 2019, organized by Dr. G.C.Negi College of Veterinary and Animal Sciences , CSK, Himachal Pradesh , Agricultural University, Palampur (H.P.)
Dr. T. K. Rajkhowa Dr. Y. Damodar Singh, Dr. Ravindran R. Dr. Rahul Singh Arya,	IAVP-Savithree Jibachch Sinha Third Best Poster Presentation Award, 2019 for the Poster "Histopathological investigation of pathology of mushy chick disease in Gramapriya and Srinidhi chicks"in Veterinary Pathology Congress-2019 and National symposium on *"Advances in veterinary pathology for fostering one health, food security and environment protection"* Selesih, Aizawl, Mizoram (November 6-8, 2019). (**Authors:**Vanlalnunpuii Khawlhring, Rahul Singh Arya, Jenifa Ahmed, Y. Damodar Singh, Beatrice R. Marak, T.K. Rajkhowa, Ravindran R., Ishita Maity and Pinaki Bhattacharya).
Dr. T. K. Dutta,	Dr. C. M. Singh best research paper award-2020. Awarded by the Indian Association of Veterinary Microbiologists, Immunologists and Specialists in Infectious Diseases (IAVMI) for the research paper published in the Indian Journal of Comparativve Microbiology, Immunology and Infectious Diseases, Vol 40(2), 2019: 90-94
Dr. T. K. Dutta,	Reviewer Excellence Award by the ARCC journal in recognitioin to significant and outstanding contribution to the journal and reviewing the article in January, 2020
Dr. P. K. Subudhi	Awarded best oral presentation for paper "Serum Diagnostic Enzyme Profile of Khaki Campbell Ducks is improved by Eclipta alba as Feed Supplement in the face of Salmonellosis" in technical session II - Clinical and Nutritional Biochemistry in Annual Convention of SVBBI and 4th National Seminar on "Current Research in Veterinary Biochemistry and Biotechnology in the improvement of Animal Health and Production" from 4th – 5th February, 2020; at College of Veterinary Science, SVVU,

	Tirupati – 517502, A.P., India
2020-21	
Dr.Kalyan Sarma	1. Best teacher Award, 2020, Institute of scholar 2. Outstanding Scientist Award, 12th International Scientist Awards on Engineering, Science and Medicine, Vdgood Technology factory,2020 3. Excellence Award by Agriculture Research Communication centre on 16/3/21
Dr.Parthasarathi Behera	Awarded "Best paper Award" for the paper entitled **"**Comparative proteomic analysis of *Salmonella* Typhimurium wild type and its isogenic *fnr* null mutant during anaerobiosis" presented in technical session on Biochemical interventions and Metabolomics during the 4th National seminar and Annual Convention of SVBBI on Current Research in Veterinary Biochemistry and Biotechnology in the improvement of Animal Health and Production held at CVSc, SVVU, Tirupati on 4-5th Feb, 2020.
Dr A K Samanta	Received ANA- Dr M S Rahal Best Resaerch Paper award in Centennial Symposium organized by Animal Nutrition Association of India at ICAR-IVRI, Izatnagar w.ef March 11-12,2021
Dr. P. C. Kalita	Acted as Reviewer for WILEY journal (Anatomia, Histologia Embryologia) and received the reviewer certificate. During 2020. a) " Reviewer Excellence Award" during **2020** as a Reviewer from Indian Journal of Animal Research, ARCC, Karnal, Haryana. b) "Certificate of Appreciation" as a Member of Scientific Advisory Board during 2020-21 from International Journal of Livestock Research.
Dr.Rajat Buragohain	1. Outstanding Scientist Award – 2020 in the field of Animal Nutrition by Agricultural & Environmental Technology Development Society (AETDS), Uttarakhand, India 2. Young Researcher Award – 2020 By Institute of Scholars, Karnataka, India 3. Best Researcher & Innovation Award – 2020 in the fields of teaching, research & publications by IRDP groups of Journal, Chennai, India 4. Academic Excellence Award – 2020 by Institute of Scholars, Karnataka, India 5. Best oral presentation award for the research paper "*Effect of fermented liquid feed on growth, nutrient digestibility and economics of grower-finisher Large White Yorkshire pigs*" presented in the International Web Conference on "*Perspective on agricultural and applied sciences in Covid-19 scenario (PAAS 2020)*" held on 4-6 October, 2020 organised by Environmental Technology Development Society (AETDS), Uttarakhand, India

Awards/Recognitions/Certificates: Awards/recognitions/certificates received by students for last five years are mentioned below

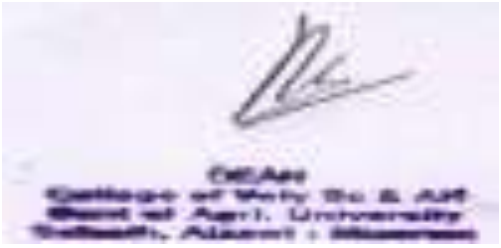
Name of the student	Awards
Dr Nanda Kumar Roy	Received Dr NSR Sastry eight siser Award for best LPM research in NE region(ISAPM-2020, Jaipur)
Dr G Lolinlu Kabui	Received ICAR SRF in Veterinary Pathology in ,2018
Dr Temjennungsang	Received ANA- Dr M S Rahal Best Resaerch Paper award in Centennial Symposium organized by Animal Nutrition Association of India at ICAR-IVRI, Izatnagar w.ef March 11-12,2021
Miss Anu Lakandri	Bagged second position in Badminton at 20th All India Inter Agricultural University games and Sports meet at Tirupati in the year 2019-20

6.5.7.4. Employability: Placement & Counselling cell of the college is actively working to organize expert lectures for improvement of student's employability skills. English Language instructor of the college conducts sessions on preparation of resume and participation in personal interview and group discussions. Alumni of the college interact with the students and share their experience about how to achieve goals in life.As a consequence of sustained efforts of the faculty, many of our passed out students got placement as Assistant Professors, ARS- Scientist, Veterinary Assistant Surgeon, Civil servants etc. Students gain lot of hands on training experience during their Entrepreneurial and internship training programme. During Internship programme, students also gain experience on Organizational set up of various deparrtemnts of Agriculture and Allied sector, Government policies, which become very useful in discharging their duties in future. Field visits, North Eat ad All India Study tour expose the students to widen their thought process enable them for better career option. Students build up their confidence and get motivated to perform better in their future endeavour by participating in different literary, cultural and sports events during college week, Universiry youth festval, Inter University Youth festivals. Differnt expert lectures organized by college are annexed in Annexure **6.5.7.4**

6.5.8. SSR of the College must have the SSR of all its Degree Programmes (following section 6.4), then the report of the Colleges shall be considered. (Attached)

6.5.9. Certificate (Applicable when SSR is submitted for Programmes & College).

I, the Dean, Dr. L Hmar, hereby certify that the information contained in Sections 6.4 and Section 6.5.1 to 6.5.7.4 are furnished as per the records available in the college and degree awarding university.



Signature of the Dean
Date & Seal

Annexure 6.5.1.3

Composition of Board of Studies

Year 2016

1. Dean, College of Veterinary Sciences and Animal Husbandry, Aizawl
2. Director of Instructions, CAU, Imphal
3. Director of Research, CAU, Imphal
4. Director of Extension Education, CAU, Imphal
5. Dean, College of Fisheries, Tripura
6. Dr. R. Roychoudhury, Professor, Deptt of LPM, AAU, Khanapara
7. Dr. Arunasis Goswami, Professor and COE, WBUAFS, Kolkata
8. All the head of the departments\
9. Dr. Satayaki Chakraborty, Final Year PG student Department to VMC, College of Veterinary Sciences and Animal Husbandry, Aizawl.
10. Incharge Academics, College of Veterinary Sciences and Animal Husbandry, Aizawl.

Year 2017

1. Dean, College of Veterinary Sciences and Animal Husbandry, Aizawl
2. Director of Instructions, CAU, Imphal
3. Director of Research, CAU, Imphal
4. Director of Extension Education, CAU, Imphal
5. Dean, College of Fisheries, Tripura
6. Dr. R. Roychoudhury, Professor, Deptt of LPM, AAU, Khanapara
7. Dr. Arunasis Goswami, Professor and COE, WBUAFS, Kolkata
8. All the head of the departments
9. Dr. Mekha Chandran, Final Year PG student Department to VSR, College of Veterinary Sciences and Animal Husbandry, Aizawl.
10. Incharge Academics, College of Veterinary Sciences and Animal Husbandry, Aizawl.

Year 2018

1. Dean, College of Veterinary Sciences and Animal Husbandry, Aizawl
2. Director of Instructions, CAU, Imphal
3. Director of Research, CAU, Imphal
4. Director of Extension Education, CAU, Imphal
5. Dean, College of Fisheries, Tripura
6. Dean, College of Veterinary Sciences and Animal Husbandry, Jalukie, Nagaland
7. Professor, Department of Anatomy, College of Veterinary Sciences and Animal Husbandry, Jalukie, Nagaland.
8. Professor, Department of LPM, College of Veterinary Sciences and Animal Husbandry, Jalukie, Nagaland
9. Dr. R. Roychoudhury, Professor, Deptt of LPM, AAU, Khanapara
10. Dr. Arunasis Goswami, Professor and COE, WBUAFS, Kolkata
11. All the head of the departments
12. Dr. Supritam Das, Final Year PG student, College of Veterinary Sciences and Animal Husbandry, Aizawl.
13. Incharge Academics, College of Veterinary Sciences and Animal Husbandry, Aizawl.

Year 2019

1. Dean, College of Veterinary Sciences and Animal Husbandry, Aizawl
2. Director of Instructions, CAU, Imphal
3. Director of Research, CAU, Imphal
4. Director of Extension Education, CAU, Imphal
5. Dean, College of Fisheries, Tripura
6. Dean, College of Veterinary Sciences and Animal Husbandry, Jalukie, Nagaland
7. Dr. R. Roychoudhury, Professor, Deptt of LPM, AAU, Khanapara
8. Dr. Arunasis Goswami, Professor and COE, WBUAFS, Kolkata
9. All the head of the departments
10. Dr. Gisha Tresa Binny, Final Year PG student, Deptt of ARGO, College of Veterinary Sciences and Animal Husbandry, Aizawl.
11. Incharge Academics, College of Veterinary Sciences and Animal Husbandry, Aizawl.

Year 2020

1. Dean, College of Veterinary Sciences and Animal Husbandry, Aizawl
2. Director of Instructions, CAU, Imphal
3. Director of Research, CAU, Imphal
4. Director of Extension Education, CAU, Imphal
5. Dean, College of Fisheries, Tripura
6. Dean, College of Veterinary Sciences and Animal Husbandry, Jalukie, Nagaland
7. Dr. R. Roychoudhury, Professor, Deptt of LPM, AAU, Khanapara
8. Dr. Arunasis Goswami, Professor and COE, WBUAFS, Kolkata
9. All the head of the departments
10. Dr. Zonthangupii, Final Year PG student, Deptt of AHE, College of Veterinary Sciences and Animal Husbandry, Aizawl.
11. Incharge Academics, College of Veterinary Sciences and Animal Husbandry, Aizawl.

Sl. No	Particulars of the meetings	
1.	**Date of Board of Studies Meeting:** 12th August 2016	
	Agenda	**Resolution/ recommendation**
	Confirmation of Proceedings of Sixth Board of Studies of College of Veterinary Sciences & Animal Husbandry held on 3rd August, 2015 at College of Veterinary Sciences & Animal Husbandry, CAU, Aizawl	The Board of Studies unanimously confirmed the proceedings of confirm the proceedings Sixth Board of Studies of College of Veterinary Sciences & Animal Husbandry
	Review of the actions taken on the decisions of Sixth Board of Studies of College of Veterinary Sciences & Animal Husbandry held on 3rd August, 2015 at College of Veterinary Sciences & Animal Husbandry, CAU, Aizawl	The action taken on various resolutions of the Sixth Board of Studies of College of Veterinary Sciences & Animal Husbandry held on 3rd August, 2015 was presented and Board of Studies took note of it.
	Approval to implement Veterinary Council of India Minimum Standards of Veterinary Education- (Bachelor of Veterinary Science and Animal Husbandry - Degree Course) Regulations, 2016 at the College of Veterinary Sciences & Animal Husbandry, Selesih, Aizawl, Mizoram from the academic session 2016-17.	The Board of Studies approved the proposal to implement Veterinary Council of India Minimum Standards of Veterinary Education- (Bachelor of Veterinary Science and Animal Husbandry - Degree Course) Regulations, 2016 at the College of Veterinary Sciences & Animal Husbandry, Selesih, Aizawl, Mizoram from the academic session 2016-17 and recommended to forward the agenda to next Academic council for approval.
	Approval to start Ph.D Degree Programme in Veterinary Surgery & Radiology form Academic Session 2017-18 at the College of Veterinary Sciences & Animal Husbandry, Selesih, Aizawl, Mizoram.	After detailed deliberations, considering the need of trained persons in the NER and strength of the department, Board of Studies approved the proposal to start Ph.D. degree Programme in Veterinary Surgery & Radiology from the Academic Session 2017-18. proposal and recommended to forward the agenda to next Academic council for approval
	Approval to start One Year Post Graduate Diploma Course in "Veterinary Anaesthesiology and Surgery" (TWO semesters) from Academic Session, 2017-18 at the College of Veterinary Sciences and Animal Husbandry, Selesih, Aizawl, Mizoram.	After detailed discussions on the agenda, Board of studies resolved that introduction of One Year Post Graduate Diploma Course in "Veterinary Anaesthesiology and Surgery" in the department of Veterinary Surgery &Radiology may be deferred considering the less number of faculties available in the said department
	Approval to change the CODE title of the course offered in MVSc & Ph.D Degree Programme in Veterinary Public Health & Epidemiology from Academic Session 2017-18 at College of Veterinary Sciences & A.H., Selesih, Aizawl.	After detailed discussions, Board of Studies resolved not to approve the change the course code as VPH& E instead of present code 'VPE' for MVSc. and Ph.D courses offered in the Department of Veterinary Public Health & Epidemiology.

	Introduction of New Department of Animal Biotechnology under College of Veterinary Sciences & AH, CAU, Aizawl, Mizoram for Postgraduate Degree of MVSc. in Animal Biotechnology	The Board of studies discussed the proposal in details and the expressed their concern over the availability of faculty & staff to run the department. It was resolved not to introduce new Department of Animal Biotechnology under College of Veterinary Sciences & A.H., CAU, Aizawl, Mizoram for postgraduate degree of MVSc. and Ph.D in Animal Biotechnology.
	To decide the core courses for Ph. D degree programme in the department of Veterinary Pathology and Veterinary Biochemistry	The Board of Studies approved the core courses of the Ph.D programme in the department of Veterinary Pathology and Veterinary Biochemistry.
	Approval for creation and filling up the posts of teaching, Technical and supporting staff for the Livestock farm complex and Teaching Veterinary Clinical Complex at C.V.Sc. & A.H., Selesih.	Board of Studies resolved not to approve the proposal considering the agenda is related to policy matter of the University. It was further suggested that Dean may send the proposal to the competent authority of the CAU, Imphal for further necessary action.
	To make provision for attending national seminar and conference for the student of M.V.Sc. & Ph. D. Degree programme once during the during the MVSC/ Ph.D programme	After detailed discussions, Board of Studies resolved not to approve proposal for reimbursement of expenditure incurred (Registration and Travelling) for attending national seminar and conference for the student of M.V.Sc. & Ph. D. Degree programme, as there is no provision for the same in the CAU Academic regulations.
	To increase the existing remuneration of Rs.300/- for question papers setting for MVSc End term Examination paper setter to Rs 500/-.	Board of Studies resolved not to discuss the agenda, as the same has already been considered and incorporated in the revised CAU Academic regulations for PG & Ph.D programme.
	To revise the syllabus and credit hours of the compulsory supporting credit course on statistics entitled “Design of Experiments for Biological Sciences” for M.V.Sc. & Ph. D. Degree	After detailed discussions, Board of Studies resolved not to approve the change in the syllabus and credit hours of the compulsory supporting credit course on statistics entitled “Design of Experiments for Biological Sciences” for M.V.Sc. & Ph. D. Degree.
	Supplementary agenda: To make changes in the procedure to conduct comprehensive qualifying(written) examination for MVSc programme	Board of studies discussed the agenda in details and suggested to send the proposal to next academic council meeting of the University for Kind Perusal and discussion.
2.	**Date of Board of Studies Meeting:** 22nd May 2017	

	Agenda	Resolution/ recommendation
	Confirmation of Proceedings of seventh Board of Studies of College of Veterinary Sciences & Animal Husbandry held on 12th August, 2016 at College of Veterinary Sciences & Animal Husbandry, CAU, Aizawl.	The Board of Studies unanimously confirmed the proceedings of confirm the proceedings Seventh Board of Studies of College of Veterinary Sciences & Animal Husbandry
	Review of the actions taken on the decisions of seventh Board of Studies of College of Veterinary Sciences & Animal Husbandry held on 12th August,2016 at College of Veterinary Sciences & Animal Husbandry, CAU, Aizawl	The action taken on various resolutions of the Seventh Board of Studies of College of Veterinary Sciences & Animal Husbandry held on 12th August, 2016 was presented and Board of Studies took note of it.
	Approval to continue external examination system as per Veterinary Council of India Minimum Standards of Veterinary Education- (Bachelor of Veterinary Science and Animal Husbandry - Degree Course) Regulations, 2008 at the College of Veterinary Sciences & Animal Husbandry, Selesih, Aizawl, Mizoram.	The Board of Studies approved the proposal to continue external examination system as per Veterinary Council of India Minimum Standards of Veterinary Education- (Bachelor of Veterinary Science and Animal Husbandry - Degree Course) Regulations, 2008 at the College of Veterinary Sciences & Animal Husbandry, Selesih, Aizawl, Mizoram for the students of BVSc. & A.H. admitted under the VCI Regulations, 2008 to conduct practical examination and evaluation of theory paper and evaluation of theory paper for 2016-17 admission batch as per VCI Regulation, 2016 and recommended to forward the agenda to next Academic council for approval.
	Approval to start Ph.D degree programme in Veterinary Anatomy from Academic Session, 2017 -18 at College of Veterinary Sciences & A.H., Selesih	The Board of studies discussed the proposal and accord the approval to start Ph. D. Degree Programme in Veterinary Anatomy and Histology from the Academic Session 2017-2018 and recommended to forward the agenda to next Academic council for approval.
	Approval to start Ph.D degree programme in Veterinary and Animal Husbandry extension from Academic Session, 2017 -18 at College of Veterinary Sciences & A.H., Selesih.	The Board of Studies discussed the proposal and accords the approval to start Ph.D. degree programme in Veterinary Extension Education from the academic Session 2017-18 and recommended to forward the agenda to

		next Academic council for approval.
	Request to make changes in the Academic regulation for PG and Ph D programme-2016 with regard to temporary withdrawal of the students	The Board of Studies approved the proposal suggesting that MVSc student may be permitted temporary withdrawal from the University after the successful completion of at least one semester as the regular student of the university and Ph.D. student may be allowed for temporary withdrawal from the university on getting a permanent government job after successful completion of 100% course work and comprehensive exam and recommended to forward the agenda to next Academic council for approval.
	Request for uniform time schedule and guidelines in the Academic regulation for PG and Ph D programme-2016 with regard to submission of thesis by the PG and Ph.D students.	After detailed deliberations, the Board of Studies decided the time schedule for submission of thesis within the minimum prescribed duration shall be: (i) On the last date of 4th semester but not before 15th week of the same semester for Master's degree programme. (ii) On the last date of 6th Semester but not before the 15th week of the same semester for Ph.D degree Programme and recommended to forward the agenda to next Academic council for approval.
	Request to make changes in the existing academic regulation for PG and Ph D programme with regard to comprehensive qualifying examination of PG and Ph.D programmes as per ICAR common academic regulations.	The Board of Studies approved the proposal to make changes in the procedure to conduct comprehensive qualifying (written) examination in respect to Paper –II for only minor courses for PG & PhD as per ICAR common academic regulation and recommended to forward the agenda to next Academic council for approval.
	Request to make provision for award of institutional JRF/SRF at per IVRI and NDRI for MVSc and PhD students	The Board of Studies approved the proposal to make request to Academic Council to enhance the CAU Institutional fellowship at par ICAR Deemed University for MSc/ MVSc and PhD students and recommended to forward the agenda to next Academic council for approval.
	Request to reserve seat for In- service candidate for	The Board of Studies discussed the

	PhD programme at CVSc & AH.	agenda in details and resolved that as member of Academic Council did not approve the same agenda in previous meeting, the proposal need not to be sent again to Academic Council.
	Request for the budgetary provision for construction of examination hall at College of Veterinary Sciences & Animal Husbandry	The Board of Studies approved the proposal to make request to the authority for budgetary provision for construction of common examination hall at college of Veterinary sciences & Animal Husbandry and recommended to forward the agenda to Academic council for approval.
	To change the course title and revise the syllabus of the compulsory supporting credit course on statistics entitled "Design of Experiments for Biological Sciences" for M.V.Sc. & Ph. D. Degree Programme.	The Board of Studies discussed the agenda in details and resolved that course title and syllabus may be followed as such without any change.
	Requirement of a registered institutional email ID at least for the faculty	After detailed deliberations, the Board of Studies approved the proposal and recommended the agenda to send to Academic Council for further discussion and consideration.
	Request to make provision to conduct online examination or more number of entrance examination centre for MSc/ MVSc Programme.	The agenda was discussed in details. Student representative of BOS has also pointed out the problem of appearing in entrance examination at CVSc. & A.H. Mizoram. The Board of Studies approved the proposal and recommended to forward the agenda to Academic council for approval.
	Requirement of a registered institutional email ID at least for the faculty	Board of Studies discussed the agenda and it was resolved that registered institutional email ID to the faculty may be provided by the college in future.
3.	**Date of Board of Studies Meeting:** 18th April 2018	
	Agenda	**Resolution/ recommendation**
	Confirmation of Proceedings of Eight Board of Studies of College of Veterinary Sciences & Animal Husbandry held on 22nd May, 2017 at College of Veterinary Sciences & Animal Husbandry, CAU, Aizawl	The Board of Studies unanimously confirmed the proceedings of confirm the proceedings Eight Board of Studies of College of Veterinary Sciences & Animal Husbandry
	Review of the actions taken on the decisions of Eight Board of Studies of College of Veterinary Sciences & Animal Husbandry held on 22nd May, 2017 at	The action taken on various resolutions of the Eight Board of Studies of College of Veterinary Sciences & Animal

	College of Veterinary Sciences & Animal Husbandry, CAU, Aizawl	Husbandry held on 22nd May, 2017 was presented and Board of Studies took note of it.
	Approval to start Ph.D. degree Programme in Veterinary Extension Education from Academic Session 2018-19 at College of Veterinary Sciences & AH, CAU, Selesih, Aizawl, Mizoram	The Board of studies discussed the proposal and accord the approval to start Ph. D. Degree Programme in Veterinary Extension Education from the Academic Session 2018-2019 and recommended to forward the agenda to next Academic council for approval.
	Approval to start Ph.D Degree Programme in Veterinary Anatomy and Histology from Academic Session 2018-2019 at the College of Veterinary Sciences and Animal Husbandry, Selesih, Aizawl, Mizoram.	The Board of studies discussed the proposal and accord the approval to start Ph. D. Degree Programme in Veterinary Anatomy and Histology from the Academic Session 2018-2019 and recommended to forward the agenda to next Academic council for approval.
	Request for allocation of minimum fund for PG/PhD research	The Board of studies discussed the proposal and resolved that allocation of fund for PG/PhD research may be done by Dean of the college.
	Approval to start Ph.D Programme in Veterinary Public Health & Epidemiology from academic session, 2018-19 at College of Veterinary Sciences & A.H, Selesih.	The Board of studies discussed the proposal and accord the approval to start Ph. D. Degree Programme in Veterinary Public Health & Epidemiology from the Academic Session 2018-2019 and recommended to forward the agenda to next Academic council for approval.
	Approval to start Ph. D. degree programme in Veterinary Surgery and Radiology from the Academic Session, 2018-19 at the College of Veterinary Sciences and A.H., Selesih.	The Board of studies discussed the proposal and resolved that the proposal to start Ph. D. degree Programme in Veterinary Surgery and Radiology may be deferred for the time being as there is shortage of faculty.
	Request to make provision for contingencies for M.V.Sc. & Ph. D. Degree programme to meet out the expenses on travelling.	The Board of Studies discussed the agenda and it was recommended to forward the agenda to next Academic council for approval.
	Proposal to approve to start PhD degree programme in Veterinary Parasitology from the academic session 2018-19 at the College of Veterinary Sciences & AH, CAU, Selesih.	The Board of studies discussed the proposal and accord the approval to start Ph. D. Degree Programme in Veterinary Parasitology from the Academic Session 2018-2019 and recommended to forward the agenda to next Academic council for approval.
	Request for correction/ amendment to Rule 3.4. &	The Board of Studies discussed the

	3.6 in the CAU Academic regulations-2016 for Master and Ph.D degree programmes	agenda and resolved to forward the agenda to next Academic council for kind clarification and direction.
	Request for amendment to Rule 3.5 in the CAU Academic regulations-2016 for Master and PhD degree programmes with regard to conduct of comprehensive qualifying(written) Re-examination	The Board of Studies discussed the agenda and resolved to forward the agenda to next Academic council for kind approval.
	Request for amendment in the format of provisional degree certificate (PDC) for Master and Ph.D degree programmes.	The Board of Studies discussed the agenda and resolved to forward the agenda to next Academic council for kind approval.
	Request for budgetary provision to set up smart Classroom	The Board of Studies discussed the agenda and resolved to forward the agenda to next Academic council for kind approval.
	Budget approval for renovation of PM Laboratory and constructing a carcass disposal pit in the year 2018-2019.	The Board of Studies discussed the agenda and resolved that necessary arrangement may be made by the college to renovate the PM laboratory.
	Requirement of a registered institutional email. ID at least for the faculty.	The Board of Studies discussed the agenda and resolved to forward the agenda to next Academic council for kind further discussion and necessary approval.
	Recruitment of Teaching Associate in the Department of Pharmacology & Toxicology, CVSc & AH, CAU, Selesih, Aizawl	The Board of Studies discussed the agenda in details. It was informed by the Honourable members of BOS that the recruitment of teaching associate is generally allowed only in newly established colleges. However, considering the acute shortage of teaching staff in the said department, it was resolved to forward the agenda to next Academic council for kind further discussion and necessary approval as special case.
	Creation of one Assistant Professor Post in the Department of Pharmacology & Toxicology, CVSc & AH, CAU, Selesih, Aizawl	The Board of Studies discussed the agenda in details. It was resolved that Dean may communicate directly to the competent authority of the University regarding the requirement of teaching faculty for different disciplines of the college.
	Agenda item for Board of Studies– Request to review the 14th meeting of Academic Council and	The Board of Studies discussed the agenda and resolved that the agenda

	subsequent University Notification regarding criteria laid down for promotion under Career Advancement Scheme	may not be forwarded to Academic council as it is not within the direct purview of the Board of Studies.
4.	**Date of Board of Studies Meeting:** 10th May 2019	
	Agenda	**Resolution/ recommendation**
	Confirmation of Proceedings of Ninth Board of Studies of College of Veterinary Sciences & Animal Husbandry held on 18th April, 2018 at College of Veterinary Sciences & Animal Husbandry, CAU, Aizawl	The Board of Studies unanimously confirmed the proceedings of confirm the proceedings Eight Board of Studies of College of Veterinary Sciences & Animal Husbandry
	Review of the actions taken on the decisions of Ninth Board of Studies of College of Veterinary Sciences & Animal Husbandry held on 18th April, 2018 at College of Veterinary Sciences & Animal Husbandry, CAU, Aizawl	The action taken on various resolutions of the Ninth Board of Studies of College of Veterinary Sciences & Animal Husbandry held on 18th April, 2018 was presented and Board of Studies took note of it.
	Approval to start Academic Advisory committee from Academic Session 2019-2020 at the College of Veterinary Sciences and Animal Husbandry, Selesih, Aizawl, Mizoram	The Board of Studies discussed the agenda in details. It was informed by the Honourable members of BOS that as college does have Academic section which is under control of Academic In-Charges; Academic advisory committee may not be required to run the said section smoothly.
	Permission for doing a part of IRP work by the M.V.Sc students of the concerned department	The Board of Studies discussed the agenda and disapproved it.
	Fixing of minimum and maximum budget for research work of MVSc & Ph.D student.	The Board of studies discussed the proposal and resolved that allocation of fund for PG/PhD research may be done by Dean of the college in consultation with Head of Departments.
	Revision of PG5 / Appendix-V (format for submitting results of Comprehensive Qualifying Written Examination	The Board of Studies discussed the agenda and resolved to forward the agenda to next Academic council for kind perusal and necessary revision.
	Requirement of a registered institutional email ID at least for the faculty	The Board of Studies discussed the agenda and resolved that necessary initiative may be taken Dean CVSc & AH in consultation with CAU Head Quarter
	To decide the core courses for Ph.D Degree Programme in the Department of Veterinary	The Board of Studies discussed the agenda and resolved to forward the

	Anatomy & Histology	agenda to next Academic council for kind approval.
	Clarification for allotment of mark for the student participating Inter-Collegiate Sports and Cultural Meets of the University to the 1st, 2nd and 3rd Winner.	The Board of Studies discussed the agenda and DI, CAU informed that Special Recognition of students who participated in Inter-Collegiate and All India Inter-University Competitions and NSS Certificate Holders would be given at the time of admission to any degree programme offered by CAU, Imphal.
	To decide the format for submission of Reports of Thesis Viva-voce Examination for PG & PhD programme.	The Board of Studies discussed the agenda and DI, CAU informed that Latest notification regarding the format for submission of Reports of Thesis Viva-voce Examination for PG & PhD programme should be considered.
	Clarification for payment of late fee for submission of theses in PG and Ph.D Programme.	The Board of Studies discussed the agenda and DI, CAU informed that the students who cannot submit their theses before registration date of the 5th Semester in case of PG programme and 7th Semester in case of Ph.D programme, they may be allowed to submit theses by paying late fee of Rs. 1000/- for PG and 2000/- for Ph.D up to the last date of registration for continuing students as mentioned in CAU Academic regulations for Masters and PhD programme,2016.
	Request for adoption of the present system of ICAR PG entrance test for admission to MVSC degree programme in different disciplines of CVSc &AH, Selesih, Aizawl.	The Board of Studies discussed the agenda and DI, CAU informed that Directorate of Instruction, CAU does not have enough manpower to conduct CAU entrance examination as per ICAR PG entrance test.
	Request to mention the specific guidelines to undertake the course of special problems for PG & PhD students in the CAU Academic regulation, 2016.	The Board of Studies discussed the agenda and resolved to forward the agenda to next Academic council for kind approval.
	Request to mention leave rules applicable to PG & PhD students in the CAU Academic regulations-2016 for master and PhD degree programmes.	The Board of Studies discussed the agenda in details and disapprove the same.
	Request for clarification of the eligibility criteria for the award of Gold medal to the PG & PhD students	The Board of Studies discussed the agenda and DI, CAU informed that Directorate of Instruction, CAU student

		who have submitted the loose bound thesis within the prescribed time period may also be nominated for Gold medal to the Pg & PhD students.
	Formulation of official guideline for doctoral and post-doctoral research by the foreign students or students from other universities in constituent colleges of CAU-Imphal.	The Board of Studies discussed the agenda and resolved to forward the agenda to next Academic council for kind approval.
	Recovery of Fellowship amount and penalty from the PG/PhD students for premature discontinuation of the degree program under CAU-Imphal.	The Board of Studies discussed the agenda and resolved to forward the agenda to next Academic council for kind approval.
	Provision for Moderation of Question Paper for PG & Ph.D. end term external paper	The Board of studies thoroughly discussed the agenda and recommended to forward the agenda to next Academic council for approval.
5.	**Date of Board of Studies Meeting:** 28th April 2020	
	Agenda	**Resolution/ recommendation**
	Proposal to start PhD degree programme in Veterinary Parasitology from the academic session 2020-21 at the College of Veterinary Sciences & AH, CAU, Selesih. Mizoram.	The Board of studies thoroughly discussed the agenda and approved to start PhD degree programme in Veterinary Parasitology from the academic session 2020-21 at the College of Veterinary Sciences & AH, CAU, Selesih, Mizoram and recommended to forward the agenda to next Academic council for approval.
	To change the course title and revise the syllabus of the compulsory supporting credit course on statistics entitled "Design of Experiments for Biological Sciences" for M.V.Sc. & Ph. D. Degree Programme.	The Board of studies thoroughly discussed the agenda and approved to change the course title and revise the syllabus of the compulsory supporting credit course on statistics entitled "Design of Experiments for Biological Sciences" for M.V.Sc. & Ph. D. Degree Programme and recommended to forward the agenda to next Academic council for approval.
	Request to consider NEET merit for admission to BVSc & AH Degree programme at CVSc &AH, Selesih, Aizawl, Mizoram against payment seat	The Board of studies thoroughly discussed the agenda and approved to consider NEET merit for admission to BVSc & AH Degree programme at CVSc &AH, Selesih, Aizawl, Mizoram against payment seat and recommended to forward the agenda to next Academic council for approval.

	Request to reduce intake capacity of P.G. students for the Dept. of Livestock Products Technology of CVSc & AH, C.A.U., Selesih, Aizawl from Academic session 2020-21	The Board of studies thoroughly discussed the agenda and considering the present faculty position Hon'ble members of the Board of Studies was on the opinion to reduce intake capacity of P.G. students to one only provided one adjunct Professor or contractual Assistant Professor is appointed before the start of the Academic Session 2020-21 and recommended to forward the agenda to next Academic council for approval.
	Restarting MVSc programme in Veterinary Pharmacology & Toxicology, College of Veterinary Sciences & Animal Husbandry, Selesih Aizawl from the Academic session 2020-21.	The agenda is recommended to place before Academic council for kind perusal and approval
	Request for permission to conduct Internship Evaluation online	The agenda is placed before Academic council for kind perusal and approval

Annexure :6.5.1.4

OFFICE OF THE DEAN
COLLEGE OV VETERINARY SCIENCES AND ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY
SELESIH, AIZAWL, MIZORAM

No. CVSC/CAU/SWS/AR/2016/ Dated 8th July, 2016

ORDER

As per U.G.C. **"Regulations on curbing the menace of ragging in Higher Educational Institutions, 2009"**, Anti-Ragging Committee comprising of the following members is hereby constituted for the academic session 2016-17 to monitor and prevent the menace of ragging.

1.	Dr. D. Kathiresan, Dean	Chairman
2.	Dr. L. Hmar, Professor, LPM	Member
3.	Dr. H. Prasad, Professor, VCM	Member
4.	Dr. G.D. Rao, Professor, VSR	Member
5.	Dr. Nasiruddin Ahmed, Professor, VPT	Member
6.	Dr. A.K. Samanta, Associate Professor, ANN & Academic i/c	Member
7.	Dr. Jitendar Kumar Chaudhary, Asst. Prof. AGB & Academic i/c, UG	Member
8.	Dr. Fazal Ali Ahmed, Prof., VOG & Warden Boys Hostel No.1	Member
9.	Dr. Girin Kalita, Asso. Prof., LPM & PG Hostels (Boys & Girls)	Member
10.	Dr. Ranjana Goswami, Asst. Prof., LPM, & Warden Girls Hostel	Member
11.	Dr. Rajat Buragohain, Asst.Prof., ANN & Warden Boys Hostel No.2	Member
12.	Dr. Pragati Hazarika, Asst. Prof., LPT & Warden Girls Hostel	Member
13.	O.C. Bawngkawn, Police Station	Member
14.	President, YMA, Selesih Branch	Member
15.	Mr. Lalramtiana f/o Miss Vanlalnunpuii Ralte (BVSc. & AH Student)	Member
16.	Dr. Tukheswar Chutia, PhD Student	Member
17.	Dr. Lalhruaipuii, PhD student	Member
18.	Dr. Nengneikim Baite, PG Girls Hostel	Member
19.	Dr. M.S. Dawngliana, PG Boys Hostel	Member
20.	Mr R. Zosangkima, Monitor, Boys Hostel 2	Member
21.	Mr. Malsawmkima Pachuau, Monotor, Boys Hostel 1	Member
22.	Miss. Yumkhaibam Sovarani, Monitress Girls Hostel	Member
23.	Miss. Saidingpuii Sailo, CCT, Acad. Cell	Member
24.	Mr. R.K. Manisana Singh, CCT, Acad. Cell	Member
25.	Dr. Asheibam Shyam Singh, SWO	Member Secretary

(D. Kathiresan)
Dean

No. CVSC/CAU/SWS/AR/2016/ Dated 8th July, 2016

Copy to:-

1. PA to Hon'ble VC, for kind information of the Hon'ble Vice Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Registrar, CAU, Imphal for kind information
4. All concerned members, for information and necessary action
5. All faculty members & Advisors with a request to kindly keep a vigil on ragging if any and report to the competent authority for taking necessary action.
6. All notice boards, …….
7. Guard file.

(D. Kathiresan)
Dean

OFFICE OF THE DEAN
COLLEGE OV VETERINARY SCIENCES AND ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY
SELESIH, AIZAWL, MIZORAM

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As per U.G.C. **"Regulations on curbing the menace of ragging in Higher Educational Institutions, 2009"**, Anti-Ragging Squad comprising of the following members is hereby constituted for the academic session 2016-17 to monitor and prevent the menace of ragging.

Sl. No	**BOYS' HOSTEL NO. 1**	**Sl. No**	**BOYS' HOSTEL NO.2 & P.G HOSTEL (BOYS)**
1.	**Dr. Fazal Ali Ahmed, Chairman**	**1.**	**Dr. H. Prasad, Chairman**
2.	**Dr. Sanjay Borthakur, Convener**	**2.**	**Dr. Rajat Buragohain, Convener**
3.	Dr. Nasiruddin Ahmed, Member	**3.**	Dr. Ayub Ali, Member
4.	Dr. Tapan Kumar Dutta, Member	4.	Dr. G.D. Rao, Member
5.	Dr. A.K. Samanta, Member	5.	Dr. Tridib Rajkhowa, member
6.	Dr. Saidur, Rahman, Member	6.	Dr. Gunjan Das, Member
7.	Dr. Basanta Saikia, Member	7.	Dr. P.C.Kalita, member
8.	Dr. Bedanga Konwar, Member	8.	Dr. P.K. Subudhi, Member
9.	Dr. C. Lalmuanthanga, Member	9.	Dr. Y. Damodar Singh, Member
10.	Dr. Arup Kalita, Member	10.	Dr. P. Roy Chaudhury, Member
11.	Dr. Samaresh Kumar Das, Member	11.	Dr. Ravindran R, Member
12.	Dr. Biren Kumar Das, Member	12.	Dr. Kevimese Khate, Member
13.	Dr. J.B. Rajesh, Member	13.	Dr. Suvendu Kumar Behera, Member
14.	Dr. Parthasarthi Behera, Member	14.	Dr. Jagan Mohan Rao, Member
15.	Dr. Probal Jyoti Doley, Member	15.	Dr. Rahul Singh Arya, Member
16.	Dr. Asheibam Shyam Singh, Member	16.	Dr. Asheibam Shyam Singh, Member
17.	Dr. Hemen Das, Member	17.	Dr. Om Prakash Choudhury, Member
18.	Mr. Malsawmkima Pachuau, UG student	18.	Dr. Jitendra Kumar Chaudhary, Member
19.	Mr. A. Khozhiio Kayina, UG student	19.	Dr. Tukheswar Chutia, PhD Scholar

20.	Mr. Zomawia, UG student	20.	Dr. M.S. Dawngliana, PG Scholar
21.	Mr. Tadang Rai, UG student	21.	Mr R. Zosangkima, Monitor
		22.	Mr. C. Vanlalpianpuia, UG student
		23.	Mr. Ronald Panmei, UG student
		24.	Mr. Nikhil Raj Rai, UG student
Sl. No	**GIRLS' HOSTEL (OLD BUILDING)**	**Sl. No**	**GIRLS HOSTEL (NEW BUILDING) & P.G. HOSTEL**
1.	**Dr. L. Hmar, Chairman**	1.	**Dr. L. Hmar, Prof., LPM, Chairman**
2.	**Dr. Ranjana Goswami, Convener**	2.	**Dr. Girin Kalita, Convener**
3.	Dr. N. Shyamsana Singh, Member	3.	Dr. E. Motina, Member
4.	Dr. K. Lalrintluanga, Member	4.	Dr. T. C. Tolenkhomba, Member
5.	Dr. Pragati Hazarika, Member	5.	Dr. Lallawmzuali Ralte, Member
6.	Dr. Debjani Deka, Member	6.	Dr. Prava Mayengbam, Member
7.	Dr. Hitesh Bayan, Member	7.	Dr. Zosangpuii, Member
8.	Dr. Prasanta Saikia, Member	8.	Dr. Nengneikim Baite, PG student
9.	Miss. Kangabam Bidyalaxmi, UG student	9.	Miss. Yumkhaibam Sovarani, Monitress Girls Hostel
10.	Miss. Zothanpuii, UG student	10.	Miss. Aswini Pradhan, UG student
11.	Miss. Yumbi Kamdak, UG student	11.	Miss. Nikita T. Chanu, UG student
12.	Miss. Ibandamer Wanniang, UG student	12.	Miss. Lalnunpuii Ngente, UG student

1. All the members of the different squads must make daily surprise visits to the hostels and remain in touch with fresher's, hostel warden and hostel monitors/monitress
2. All the members are requested to take all possible steps to curb ragging of fresher's
3. The squads shall submit daily report about the incidences of ragging if any, and steps taken to prevent the same
4. In care of need for vehicle please contact In-charge Vehicles.

(D. Kathiresan)
Dean

No. CVSC/CAU/SWS/AR/2016/ Dated 8th July, 2016

Copy to:-

1. P.A to Hon'ble V.C., for kind information of the Hon'ble Vice Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Registrar, CAU, Imphal for kind information
4. All concerned members, for information and necessary action
5. All faculty members & Advisors with a request to kindly keep a vigil on ragging if any and report to the competent authority for taking necessary action.
6. All notice boards, …….
7. Guard file.

(D. Kathiresan)
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OFFICE OF THE DEAN
COLLEGE OV VETERINARY SCIENCES AND ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY
SELESIH, AIZAWL, MIZORAM

No. CVSC/CAU/SWS/AR/2017/01 Dated 25th July, 2017

ORDER

As per U.G.C. "Regulations on curbing the menace of ragging in Higher Educational Institutions, 2009", Anti-Ragging Committee comprising of the following members is hereby constituted for the academic session 2017-18 to monitor and prevent the menace of ragging.

1	Dr. D. Kathiresan, Dean	Chairman
2	Dr. L. Hmar, Professor	Member
3	Dr. Ayub Ali, Professor	Member
4	Dr. H. Prasad, Professor	Member
5	Dr. A.K. Samanta, Associate Professor, & PG Academic i/c	Member
6	Dr. Jitendar Kumar Chaudhary, Asst. Prof. & UG Academic i/c	Member
7	Dr. Fazal Ali Ahmed, Prof. & Chief Hostel Warden	Member
8	Dr. Girin Kalita, Asso. Prof. & Warden PG Boys & Girls Hostels	Member
9	Dr. Ranjana Goswami, Asst. Prof. & Warden Girls Hostel	Member
10	Dr. Pragati Hazarika, Asst. Prof. & Warden Girls Hostel	Member
11	Dr. Ravindran R, Asst. Prof. & Warden Boys Hostel-II	Member
12	Dr. (Mrs) Prava Mayengbam, Asst. Prof. & Warden PG Girls Hostel	Member
13	Dr. Hemen Das, Asst. Prof. & Warden Boys Hostel-I	Member
114	O.C. Bawngkawn, Police Station	Member
15	President, YMA, Selesih Branch	Member
16	Mr. Lalramtiana f/o Miss Vanlalnunpuii Ralte (BVSc. & AH Student)	Member
17	Dr. Ankan De, PhD Student	Member
18	Dr. Amy Zorinkimi, PhD student	Member
19	Dr. Vanlalrozami, PG Girls Hostel	Member
20	Dr. K. Lalchhanhima, PG Boys Hostel	Member
21	Mr. C. Vanlalpianpuia, Monitor, Boys Hostel 2	Member
22	Mr. Jonathan Lalremsanga, Monotor, Boys Hostel 1	Member
23	Miss. Aswini Pradhan, Monitress Girls Hostel	Member
24	Miss. Saidingpuii Sailo, Acad. Cell	Member
25	Mr. R.K. Manisana Singh, Acad. Cell	Member
26	Dr. Asheibam Shyam Singh, SWO	Member Secretary

(D. Kathiresan)

Dean

No. CVSC/CAU/SWS/AR/2017/01 **Dated 25th July, 2017**

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2.	**Dr. Hemen Das, Convener**	26.	**Dr.Ravindran R, Convener**
3.	Dr. Tapan Kumar Dutta, Member	27.	Dr. Ayub Ali, Member
4.	Dr. A.K. Samanta, Member	28.	Dr. Tridib Rajkhowa, member
5.	Dr. Sanjay Borthakur, Member	29.	Dr. Gunjan Das, Member
6.	Dr. Saidur, Rahman, Member	30.	Dr. P.C.Kalita, member
7.	Dr. Basanta Saikia, Member	31.	Dr. P.K. Subudhi, Member
8.	Dr. Bedanga Konwar, Member	32.	Dr. Y. Damodar Singh, Member
9.	Dr. S. Mukherjee, Member	33.	Dr. Kalyan Sharma, Member
10.	Dr. C. Lalmuanthanga, Member	34.	Dr. P. Roy Chaudhury, Member
11.	Dr. Samaresh Kumar Das, Member	35.	Dr. Gautam Patra, Member
12.	Dr. Biren Kumar Das, Member	36.	Dr. Ravindran R, Member
13.	Dr. Parthasarthi Behera, Member	37.	Dr. Kevimese Khate, Member
14.	Dr. Probal Jyoti Doley, Member	38.	Dr. Suvendu Kumar Behera, Member
15.	Dr. Asheibam Shyam Singh, Member	39.	Dr. Jagan Mohan Rao, Member
16.	Dr. Hemen Das, Member	40.	Dr. Rahul Singh Arya, Member
17.	Mr. Jonathan Lalremsanga, UG student	41.	Dr. Om Prakash Choudhury, Member
18.	Mr. A. Khozhiio Kayina, UG student	42.	Dr. Jitendra Kumar Chaudhary, Member
19.	Mr. Zomawia, UG student	43.	Dr. Ankan De, PhD Scholar

20.	Mr. Tadang Rai, UG student	44.	Dr. K. Lalchhanhima, PG Scholar
21.	Mr. Zomuanpuia Fanai ,UG student	45.	Mr. C. Vanlalpianpuia, Monitor
		46.	Mr. Ronald Panmei, UG student
		47.	Mr. Nikhil Raj Rai, UG student
		48.	Mr. Sam Lalhruaia Chhangte, UG student
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14.	**Dr. Ranjana Goswami, Convener**	14.	**Dr. Girin Kalita, Convener**
15.	Dr. N. Shyamsana Singh, Member	15.	Dr. E. Motina, Member
16.	Dr. K. Lalrintluanga, Member	16.	Dr. T. C. Tolenkhomba, Member
17.	Dr. Pragati Hazarika, Member	17.	Dr. Prava Mayengbam, Member
18.	Dr. M. C. Lallianchhunga	18.	Dr. Zosangpuii, Member
19.	Dr. Debjani Deka, Member	19.	Dr. Amy Zorinkimi, PhD Scholar
20.	Miss. Zothanpuii, UG student	20.	Dr. Vanlalrozami, PG student
21.	Miss. Yumbi Kamdak, UG student	21.	Miss. Aswini Pradhan, Monitress Girls Hostel
22.	Miss. Ibandamer Wanniang, UG student	22.	Miss. Nikita T. Chanu, UG student
23.	Miss. Vanlalhriati, UG student	23.	Miss. Lalnunpuii Ngente, UG student
		24.	Miss. Vanlalhmangaihi UG student

1. All the members of the different squads must make daily surprise visits to the hostels and remain in touch with fresher's, hostel warden and hostel monitors/monitress
2. All the members are requested to take all possible steps to curb ragging of fresher's
3. The squads shall submit daily report about the incidences of ragging if any, and steps taken to prevent the same
4. In care of need for vehicle please contact In-charge Vehicles.

(D. Kathiresan)
Dean

No. CVSC/CAU/SWS/AR/2017/ 01 Dated 25th July, 2017

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7. Guard file.

(D. Kathiresan)
Dean

OFFICE OF THE DEAN
COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY
SELESIH, AIZAWL, MIZORAM

Phone No. 0389-2362908
Fax No: 0389-2361748
E-mail:-vcofficecau@yahoo.in

No. CVSC/CAU/SWS/AR/2018-19/ Dated 6th July, 2018

OFFICE ORDER

As per U.G.C. "Regulations on curbing the menace of ragging in Higher Educational Institutions, 2009", the following Vigilance Committee and Anti Ragging Squads are constituted for the Academic year 2018-19 to curb menace of the Ragging in the College Campus.

Vigilance Committee:

1	Dr. Lalnuntluangi Hmar, Dean	Chairman
2	Dr. Ayub Ali, Professor	Member
3	Dr. H. Prasad, Professor	Member
4	Dr. K. Lalrintluanga, Professor	Member
5	Dr. A.K. Samanta, Professor, & Academic i/c	Member
6	Dr. Jitendar Kumar Chaudhary, Asst. Prof. & UG Academic i/c	Member
7	Dr. Fazal Ali Ahmed, Professor & Chief Hostel Warden	Member
8	Dr. Devjani Deka, Asst. Prof. & Warden PG Girls Hostel	Member
9	Dr. Parimal Roy Chaudhury, Assoc. Professor & Warden Girls Hostel (Type V & Deans Residence)	Member
10	Dr. Basanta Saikia, Asst. Prof. & Warden Boys Hostel-II	Member
11	Dr. (Mrs) Prava Mayengbam, Assoc. Prof. & Warden Girls Hostel (Old building)	Member
12	Dr. Parthasarathi Behera, Asst. Prof. & Warden Boys Hostel-I	Member
13		
14	O.C. Bawngkawn, Police Station	Member
15	President, YMA, Selesih Branch	Member
16	Mr. Lalzika, f/o Mr. Lalthafamkima (2nd Year BVSc. & AH Student)	Member
17	Dr. Monesh Thakur, PhD Student	Member
18	Dr. Amy Zorinkimi, PhD student	Member
19	Dr. Vanlalhruaii, PG Girls Hostel	Member
20	Dr. Jimmy Lalremsanga, PG Boys Hostel	Member
21	Mr. Zomawia, Monitor Boys Hostel 2	Member
22	Mr. Zomuana, Monotor Boys Hostel 1	Member
23	Miss. Nikita Thingom Chanu, Monitress Girls Hostel	Member
24	Dr. Asheibam Shyam Singh, SWO	Member Secretary

Responsibilities: Overall supervision for better maintenance of discipline to oversee the Anti Ragging measures taken and implemented in the campus.

Anti Ragging Squad – I (Boys Hostel –I):

1	Dr. Fazal Ali Ahmed, Professor	Chairman
2	Dr. Hemen Das, Asst. Professor	Convener
3	Dr. Tapan Kumar Dutta, Professor	Member
4	Dr. A.K. Samanta, Professor	Member

5	Dr. Sanjay Borthakur, Assoc. Professor	Member
6	Dr. Saidur, Rahman, Assoc. Professor	Member
7	Dr. Bedanga Konwar, Assoc. Professor	Member
8	Dr. C. Lalmuanthanga, Asst. Professor	Member
9	Dr. Arup Kalita, Asst. Professor	Member
10	Dr. Samares Kumar Das, Asst. Professor	Member
11	Dr. Parthasarthi Behera, Asst. Professor	Member
12	Dr. Probal Jyoti Doley, Asst. Professor	Member
13	Dr. Joy Lalmuanpuia Kataria, Asst. Professor	Member
14	Dr.Lalhumliana Tochhawng, Asst. Professor	Member
15	Mr. Zomuana, UG student	Member
16	Mr.Laldintluanga, UG student	Member
17	Mr. Laltluangkima Sailo, UG student	Member
18	Mr. Amson Lalnunmawia, UG students	Member

Responsibilities:

1. Regularly visiting (as per the visiting time table) the Boys Hostel –I and its premises to prevent Ragging and proper maintenance of discipline.
2. Every squad members shall enter their attendance in the visiting register as per the Schedule. The members are requested to take all possible steps to curb ragging of fresher's.
3. The squads shall submit daily report about the incidences of ragging if any, and steps taken to prevent the same

Anti Ragging Squad – II (Boys Hostel –II & PG Boys Hostel):

1	Dr. K. Lalrintluanga, Professor	Chairman
2	Dr. Basanta Saikia, Asst. Professor	Convener
3	Dr. Tridib Rajkhowa, Professor	Member
4	Dr. P.C.Kalita, Professor	Member
5	Dr. Girin Kalita, Assoc. Professor	Member
6	Dr. P.K. Subudhi, Asst. Professor	Member
7	Dr. Gautam Patra, Asst. Professor	Member
8	Dr. Rajat Buragohain, Asst. Professor	Member
9	Dr. Ravindran R., Asst. Professor	Member
10	Dr. Jagan Mohan Rao, Asst. Professor	Member
11	Dr. Rahul Singh Arya, Asst. Professor	Member
12	Dr. Jitendra Kumar Chaudhary, Asst. Professor	Member
13	Dr. Om Prakash Choudhary, Asst. Professor	Member
14	Dr. Dibyajoti Talukdar, Asst. Professor	Member
15	Dr. Chethan G.E., Asst. Professor	Member
16	Dr. H. Lalrinkima, Asst. Professor	Member
17	Dr. Monesh Thakur, PG Scholar	Member
18	Dr. Jimmy Lalremsanga, PG Scholar	Member
19	Mr. Zomawia, Monitor, UG Student	Member
20	Mr. Malsawmhlua, UG student	Member
21	Mr. Sam Lalhruaia Chhangte, UG student	Member
22	Mr. Lalthafamkima, UG student	Member

Responsibilities:

1. Regularly visiting (as per the visiting time table) the Boys Hostel –II, PG Boys Hostel and its premises to prevent Ragging and proper maintenance of discipline.
2. Every squad members shall enter their attendance in the visiting register as per the schedule. The members are requested to take all possible steps to curb ragging of fresher's.
3. The squads shall submit daily report about the incidences of ragging if any, and steps taken to prevent the same

Anti Ragging Squad – III (Girls Hostel Old and New Building):

1	Dr. P. Roy Chaudhury, Assoc. Professor	Chairman
2	Dr. Ranjana Goswami, Asst. Professor	Convener
3	Dr. N. Shyamsana Singh, Assoc. Professor	Member
4	Dr. Pragati Hazarika, Asst. Professor	Member
5	Dr. M. C. Lallianchhunga, Asst. Professor	Member
6	Dr. Debjani Deka, Asst. Professor	Member
7	Dr. Prasanta Saikia, Asst. Professor	Member
8	Miss. Vanlalhmangaihi, UG student	Member
9	Miss. Lalnunpuii Ngente, UG student	Member
10	Miss. Vanlalhriati, UG student	Member
11	Miss. Vanlalrinpuii, UG student	Member

Responsibilities:

1. Regularly visiting (as per the visiting time table) the Girls Hostel –old & new building and its premises to prevent Ragging and proper maintenance of discipline.
2. Every squad members shall enter their attendance in the visiting register as per the schedule. The members are requested to take all possible steps to curb ragging of fresher's.
3. The squads shall submit daily report about the incidences of ragging if any, and steps taken to prevent the same

Anti Ragging Squad – IV (PG Girls Hostel):

1	Dr. Ayub Ali, Professor	Chairman
2	Dr. Prava Mayengbam, Assoc. Professor	Convener
3	Dr. E. Motina, Assoc. Professor	Member
4	Dr. T. C. Tolenkhomba, Asst. Professor	Member
5	Dr. Hitesh Bayan, Asst. Professor	Member
6	Dr. Vanlalhruaii, PG student	Member
7	Miss. Nikita T. Chanu, UG student	Member
8	Miss. Ibandamer Wanniang, UG student	Member
9	Mis. Sengsime G. Momin, UG student	Member
10	Miss. Aparajita Saha, UG student	Member

Responsibilities:

1. Regularly visiting (as per the visiting time table) the PG Girls hostel (Transit building) and premises to prevent Ragging and proper maintenance of discipline.
2. Every squad members shall enter their attendance in the visiting register as per the schedule. The members are requested to take all possible steps to curb ragging of fresher's.

3. The squads shall submit daily report about the incidences of ragging if any, and steps taken to prevent the same

Anti Ragging Squad – V (Dean's residence & Type V):

1	Dr. H. Prasad, Professor	Chairman
2	Dr. Suvendu Kumar Behera, Asst. Professor	Convener
3	Dr. Altaf Hussain Malik, Professor	Member
4	Dr. Kalyan Sharma, Assoc. Professor	Member
5	Dr. Y. Damodar Singh, Asst. Professor	Member

Responsibilities:

1. Regularly visiting (as per the visiting time table) the Dean's residence building, Type V building and its premises to prevent Ragging and proper maintenance of discipline.
2. Every squad members shall enter their attendance in the visiting register as per the schedule. The members are requested to take all possible steps to curb ragging of fresher's.
3. The squads shall submit daily report about the incidences of ragging if any, and steps taken to prevent the same.

(L. Hmar)
i/c Dean

No. CVSC/CAU/SWS/AR/2018-19/ Dated 6th July, 2018

Copy to:-

1. P.A to Hon'ble V.C., for kind information of the Hon'ble Vice Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Registrar, CAU, Imphal for kind information
4. All concerned members, for information and necessary action
5. All faculty members & Advisors with a request to kindly keep a vigil on ragging if any and report to the competent authority for taking necessary action.
6. All notice boards
7. Guard file.

(L. Hmar)
i/c Dean

OFFICE OF THE DEAN
COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY
SELESIH, AIZAWL, MIZORAM

Phone No. 0389-2362908
Fax No: 0389-2361748
E-mail:-vcofficecau@yahoo.in

No. CVSC/CAU/SWS/AR/2019-20/ Dated 29th July, 2019

OFFICE ORDER

As per U.G.C. "Regulations on curbing the menace of ragging in Higher Educational Institutions, 2009", the following Vigilance Committee and Anti Ragging Squads are constituted for the Academic year 2019-20 to curb menace of the Ragging in the College Campus.

Vigilance Committee:

1	Dr. Lalnuntluangi Hmar, Dean	Chairman
2	Dr. Ayub Ali, Professor	Member
3	Dr. H. Prasad, Professor	Member
4	Dr. K. Lalrintluanga, Professor	Member
5	Dr. A.K. Samanta, Professor, & Academic i/c	Member
6	Dr. Jitendar Kumar Chaudhary, Asst. Prof. & UG Academic i/c	Member
7	Dr. Fazal Ali Ahmed, Professor & Chief Hostel Warden	Member
8	Dr. Devjani Deka, Asst. Prof. & Warden PG Girls Hostel	Member
9	Dr. Parimal Roy Chaudhury, Assoc. Professor & Warden Girls Hostel (Type V & Deans Residence)	Member
10	Dr. Basanta Saikia, Asst. Prof. & Warden Boys Hostel-II	Member
11	Dr. (Mrs) Prava Mayengbam, Assoc. Prof. & Warden Girls Hostel (Old building)	Member
12	Dr. Parthasarathi Behera, Asst. Prof. & Warden Boys Hostel-I	Member
13	O.C. Bawngkawn, Police Station	Member
14	President, YMA, Selesih Branch	Member
15	Mr. R. Lalrohlua, f/o Mr. Zohlimpuia (2nd Year BVSc. & AH Student)	Member
16	Dr. Sanjeev Kumar, PhD Student	Member
17	Dr. C. Vanlalpianpuia, PG Boys Hostel	Member
18	Dr. F.C.Beiroki, PG Girls Hostel	Member
19	Mr. Malsawmhlua, Monitor Boys Hostel 2	Member
20	Mr. Zomuanpuia Fanai, Monotor Boys Hostel 1	Member
21	Miss. Lalnunpuii Ngente, Monitress Girls Hostel	Member
22	Dr. Asheibam Shyam Singh, SWO	Member Secretary

Responsibilities: Overall supervision for better maintenance of discipline to oversee the Anti Ragging measures taken and implemented in the campus.

Anti Ragging Squad – I (Boys Hostel –I):

1	Dr. K. Lalrintluanga, Professor	Chairman
2	Dr. Parthasarthi Behera, Asst. Professor	Convener
3	Dr. A.K. Samanta, Professor	Member
4	Dr. Sanjay Borthakur, Assoc. Professor	Member

5	Dr. Saidur, Rahman, Assoc. Professor	Member
6	Dr. Bedanga Konwar, Assoc. Professor	Member
7	Dr. C. Lalmuanthanga, Asst. Professor	Member
8	Dr. Ravindran R, Asst. Professor	Member
9	Dr. Biren Kumar Das, Asst. Professor	Member
10	Dr. J.B. Rajesh, Asst. Professor	Member
11	Dr. Jitendra Kumar Chaudhary, Asst. Professor	Member
12	Dr. Joy Lalmuanpuia Kataria, Asst. Professor	Member
13	Dr.Lalhumliana Tochhawng, Asst. Professor	Member
14	Mr. Zomuanpuia Fanai, UG student	Member
15	Mr.Laldintluanga, UG student	Member
16	Mr. Laltluangkima Sailo, UG student	Member
17	Mr. Zohlimpuia, UG students	Member

Responsibilities:

4. Regularly visiting (as per the visiting time table) the Boys Hostel –I and its premises to prevent Ragging and proper maintenance of discipline.
5. Every squad members shall enter their attendance in the visiting register as per the Schedule. The members are requested to take all possible steps to curb ragging of fresher's.
6. The squads shall submit daily report about the incidences of ragging if any, and steps taken to prevent the same

Anti Ragging Squad – II (Boys Hostel –II & PG Boys Hostel):

1	Dr. Fazal Ali Ahmed, Professor	Chairman
2	Dr. Basanta Saikia, Asst. Professor	Convener
3	Dr. Tridib Rajkhowa, Professor	Member
4	Dr. P.C.Kalita, Professor	Member
5	Dr. Girin Kalita, Assoc. Professor	Member
6	Dr. P.K. Subudhi, Asst. Professor	Member
7	Dr. Gautam Patra, Asst. Professor	Member
8	Dr. Rajat Buragohain, Asst. Professor	Member
9	Dr. Jagan Mohan Rao, Asst. Professor	Member
10	Dr. Rahul Singh Arya, Asst. Professor	Member
11	Dr. Om Prakash Choudhary, Asst. Professor	Member
12	Dr. Hemen Das, Asst. Professor	Member
13	Dr. Dibyajoti Talukdar, Asst. Professor	Member
14	Dr. Chethan G.E., Asst. Professor	Member
15	Dr. H. Lalrinkima, Asst. Professor	Member
16	Dr. Sanjeev Kumar, PG Scholar	Member
17	Dr. C. Vanlalpianpuia, PG Scholar	Member
18	Mr. Malsawmhlua, Monitor, UG Student	Member
19	Mr. Sam Lalhruaia Chhangte, UG student	Member
20	Mr. Ramdinpuia, UG student	Member

Responsibilities:

4. Regularly visiting (as per the visiting time table) the Boys Hostel –II, PG Boys Hostel and its premises to prevent Ragging and proper maintenance of discipline.
5. Every squad members shall enter their attendance in the visiting register as per the schedule. The members are requested to take all possible steps to curb ragging of fresher's.
6. The squads shall submit daily report about the incidences of ragging if any, and steps taken to prevent the same

Anti Ragging Squad – III (Girls Hostel Old and New Building):

1	Dr. Ayub Ali, Professor	Chairman
2	Dr. Prava Mayengbam, Assoc. Professor	Convener
3	Dr. Ranjana Goswami, Asst. Professor	Member
4	Dr. N. Shyamsana Singh, Assoc. Professor	Member
5	Dr. Pragati Hazarika, Asst. Professor	Member
6	Dr. M. C. Lallianchhunga, Asst. Professor	Member
7	Dr. Debjani Deka, Asst. Professor	Member
8	Miss. Lalnunpuii Ngente, UG student	Member
9	Miss. Vanlalhriati, UG student	Member
10	Miss. Vanlalrinpuii, UG student	Member
11	Esther Lalnuntluangi, UG student	Member

Responsibilities:

4. Regularly visiting (as per the visiting time table) the Girls Hostel –old & new building and its premises to prevent Ragging and proper maintenance of discipline.
5. Every squad members shall enter their attendance in the visiting register as per the schedule. The members are requested to take all possible steps to curb ragging of fresher's.
6. The squads shall submit daily report about the incidences of ragging if any, and steps taken to prevent the same

Anti Ragging Squad – IV (PG Girls Hostel):

1	Dr. E. Motina, Assoc. Professor	Chairman
2	Dr. Devjani Deka, Asst. Prof. & Warden PG Girls Hostel	Convener
3	Dr. T. C. Tolenkhomba, Asst. Professor	Member
4	Dr. Hitesh Bayan, Asst. Professor	Member
5	Dr. Dr. F.C.Beiroki, PG student	Member
6	Miss. Ibandamer Wanniang, UG student	Member
7	Mis. Suhana Parvin Muquit	Member
8	Miss. Prarthana Thapa, UG student	Member
9	Miss. Anu Lakandri, UG student	Member
10	Miss. Ester Lalnuntluangi, UG student	Member

Responsibilities:

4. Regularly visiting (as per the visiting time table) the PG Girls hostel (Transit building) and premises to prevent Ragging and proper maintenance of discipline.
5. Every squad members shall enter their attendance in the visiting register as per the schedule. The members are requested to take all possible steps to curb ragging of fresher's.

6. The squads shall submit daily report about the incidences of ragging if any, and steps taken to prevent the same

Anti Ragging Squad – V (Dean's residence & Type V):

1	Dr. Tapan Kumar Dutta, Professor	Chairman
2	Dr. P. Roy Chaudhury, Assoc. Professor	Convener
3	Dr. H. Prasad, Professor	Member
4	Dr. Altaf Hussain Malik, Professor	Member
5	Dr. Kalyan Sharma, Assoc. Professor	Member
6	Dr. Y. Damodar Singh, Asst. Professor	Member
7	Dr. Asheibam Shyam Singh, SWO	Member

Responsibilities:

4. Regularly visiting (as per the visiting time table) the Dean's residence building, Type V building and its premises to prevent Ragging and proper maintenance of discipline.
5. Every squad members shall enter their attendance in the visiting register as per the schedule. The members are requested to take all possible steps to curb ragging of fresher's.
6. The squads shall submit daily report about the incidences of ragging if any, and steps taken to prevent the same.

(F.A. Ahmed)
i/c Dean

No. CVSC/CAU/SWS/AR/2019-20/ Dated 29th July, 2019

Copy to:-

8. P.A to Hon'ble V.C., for kind information of the Hon'ble Vice Chancellor, CAU, Imphal
9. Director of Instruction, CAU, Imphal for kind information
10. Registrar, CAU, Imphal for kind information
11. All concerned members, for information and necessary action
12. All faculty members & Advisors with a request to kindly keep a vigil on ragging if any and report to the competent authority for taking necessary action.
13. All notice boards
14. Guard file.

(F.A. Ahmed)
i/c Dean

OFFICE OF THE DEAN
COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY
SELESIH, AIZAWL, MIZORAM

Phone No. 0389-2362908
Fax No: 0389-2361748
E-mail:-vcofficecau@yahoo.in

No. CVSC/CAU/SWS/AR/2020-21/ Dated 8th Feb, 2021

OFFICE ORDER

As per U.G.C. "Regulations on curbing the menace of ragging in Higher Educational Institutions, 2009", the following Vigilance Committee and Anti Ragging Squads are constituted for the Academic year 2020-21 to curb menace of the Ragging in the College Campus.

Vigilance Committee:

1	Dr. Lalnuntluangi Hmar, Dean	Chairman
2	Dr. Ayub Ali, Professor	Member
3	Dr. H. Prasad, Professor	Member
4	Dr. K. Lalrintluanga, Professor	Member
5	Dr. A.K. Samanta, Professor, & PG Academic i/c	Member
6	Dr. Jitendar Kumar Chaudhary, Asst. Prof. & UG Academic i/c	Member
7	Dr. Fazal Ali Ahmed, Professor, Chief Hostel Warden & PG Boys Hostel Warden	Member
8	Dr. Parimal Roy Chaudhury, Assoc. Professor & Warden Girls Hostel (Type V & Deans Residence)	Member
9	Dr. Prava Mayengbam, Assoc. Prof. & Warden Girls Hostel	Member
10	Dr. Basanta Saikia, Asst. Prof. & Warden Boys Hostel-II	Member
11	Dr. Devajani Deka, Asst. Prof. & Warden PG Girls Hostel	Member
12	Dr. Parthasarathi Behera, Asst. Prof. & Warden Boys Hostel-I	Member
13	O.C. Bawngkawn, Police Station	Member
14	President, YMA, Selesih Branch	Member
15	Mrs.Barnadeth, m/o Miss. Agnes Zodinsangi (2nd Year BVSc & AH Student)	Member
16	Dr. Swarup Debroy, PhD Student	Member
17	Dr. Joseph Stevenson, Monitor PG Boys Hostel	Member
18	Dr. Vanlalnunpuii, Monitress PG Girls Hostel	Member
19	Mr.Lalthafamkima, Monitor Boys Hostel 2	Member
20	Mr. Chhuansanga, Monitor Boys Hostel 1	Member
21	Miss.Vanlarinpuii, Monitress Girls Hostel	Member
22	Dr. Asheibam Shyam Singh, SWO	Member Secretary

Responsibilities: Overall supervision for better maintenance of discipline to oversee the Anti Ragging measures taken and implemented in the campus.

Anti Ragging Squad – I (Boys Hostel –I):

1	Dr. K. Lalrintluanga, Professor	Chairman
2	Dr. Parthasarthi Behera, Asst. Professor	Convener
3	Dr. A.K. Samanta, Professor	Member

4	Dr. Sanjay Borthakur, Assoc. Professor	Member
5	Dr. Saidur, Rahman, Assoc. Professor	Member
6	Dr. Bedanga Konwar, Assoc. Professor	Member
7	Dr. C. Lalmuanthanga, Asst. Professor	Member
8	Dr. Biren Kumar Das, Asst. Professor	Member
9	Dr. J.B. Rajesh, Asst. Professor	Member
10	Dr. Jitendra Kumar Chaudhary, Asst. Professor	Member
11	Dr. Joy Lalmuanpuia Kataria, Asst. Professor	Member
12	Dr. Lalhumliana Tochhawng, Asst. Professor	Member
13	Dr. Asheibam Shyam Singh, SWO	Member
14	Mr. Chhuansanga, UG student	Member
15	Mr. Lawmsanga, UG student	Member
16	Mr.Vanlalnghaka, UG students	Member

Responsibilities:

7. Regularly visiting (as per the visiting time table) the Boys Hostel –I and its premises to prevent Ragging and proper maintenance of discipline.
8. Every squad members shall enter their attendance in the visiting register as per the Schedule. The members are requested to take all possible steps to curb ragging of fresher's.
9. The squads shall submit daily report about the incidences of ragging if any, and steps taken to prevent the same.

Anti Ragging Squad – II (Boys Hostel –II & PG Boys Hostel):

1	Dr. Fazal Ali Ahmed, Professor	Chairman
2	Dr. Basanta Saikia, Asst. Professor	Convener
3	Dr. P.C.Kalita, Professor	Member
4	Dr. Girin Kalita, Assoc. Professor	Member
5	Dr. P.K. Subudhi, Asst. Professor	Member
6	Dr. Gautam Patra, Asst. Professor	Member
7	Dr. Rajat Buragohain, Asst. Professor	Member
8	Dr. Jagan Mohan Rao, Asst. Professor	Member
9	Dr. Rahul Singh Arya, Asst. Professor	Member
10	Dr. Om Prakash Choudhary, Asst. Professor	Member
11	Dr. Hemen Das, Asst. Professor	Member
12	Dr. Dibyajoti Talukdar, Asst. Professor	Member
13	Dr. Chethan G.E., Asst. Professor	Member
14	Dr. H. Lalrinkima, Asst. Professor	Member
15	Dr. Swarup Debroy, PhD Scholar	Member
16	Dr. Joseph Stevenson, PG Scholar	Member
17	Mr. Lalthafamkima, UG Student	Member
18	Mr. Lalrinkima, UG student	Member
19	Mr. V.L. Rinchhana, UG student	Member

Responsibilities:

7. Regularly visiting (as per the visiting time table) the Boys Hostel –II, PG Boys Hostel and its premises to prevent Ragging and proper maintenance of discipline.
8. Every squad members shall enter their attendance in the visiting register as per the schedule. The members are requested to take all possible steps to curb ragging of fresher's.
9. The squads shall submit daily report about the incidences of ragging if any, and steps taken to prevent the same.

Anti Ragging Squad – III (Girls Hostel):

1	Dr. Ayub Ali, Professor	Chairman
2	Dr. Prava Mayengbam, Assoc. Professor	Convener
3	Dr. N. Shyamsana Singh, Assoc. Professor	Member
4	Dr. Ranjana Goswami, Asst. Professor	Member
5	Dr. Pragati Hazarika, Asst. Professor	Member
6	Dr. M. C. Lallianchhunga, Asst. Professor	Member
7	Miss. Vanlalrinpuii, UG student	Member
8	Miss. Esther Lalnuntluangi	Member
9	Miss. Remsangpuii, UG student	Member
10	Miss Agnes Zodingsangi, UG student	Member

Responsibilities:

7. Regularly visiting (as per the visiting time table) the Girls Hostel –old & new building and its premises to prevent Ragging and proper maintenance of discipline.
8. Every squad members shall enter their attendance in the visiting register as per the schedule. The members are requested to take all possible steps to curb ragging of fresher's.
9. The squads shall submit daily report about the incidences of ragging if any, and steps taken to prevent the same.

Anti Ragging Squad – IV (PG Girls Hostel):

1	Dr. Tapan Kumar Dutta, Professor	Chairman
2	Dr. Devajani Deka, Asst. Prof. & Warden PG Girls Hostel	Convener
3	Dr. E. Motina, Assoc. Professor	Member
4	Dr. T. C. Tolenkhomba, Asst. Professor	Member
5	Dr. Hitesh Bayan, Asst. Professor	Member
6	Dr. Vanlalnunpuii Khawlhring, PhD student	Member
7	Dr. Malsawmtluangi Ralte, PhD student	Member

Responsibilities:

7. Regularly visiting (as per the visiting time table) the PG Girls hostel (Transit building) and premises to prevent Ragging and proper maintenance of discipline.
8. Every squad members shall enter their attendance in the visiting register as per the schedule. The members are requested to take all possible steps to curb ragging of fresher's.
9. The squads shall submit daily report about the incidences of ragging if any, and steps taken to prevent the same.

Anti Ragging Squad – V (Type V & Dean's residence):

1	Dr. H. Prasad, Professor	Chairman

2	Dr. P. Roy Choudhury, Assoc. Professor & Warden Type V & Dean's residence	Convener
3	Dr. Kalyan Sharma, Assoc. Professor	Member
4	Dr. Y. Damodar Singh, Asst. Professor	Member
5	Dr. Suvendu Kumar Behera	Member

Responsibilities:

7. Regularly visiting (as per the visiting time table) the Dean's residence building, Type V building and its premises to prevent Ragging and proper maintenance of discipline.
8. Every squad members shall enter their attendance in the visiting register as per the schedule. The members are requested to take all possible steps to curb ragging of fresher's.
9. The squads shall submit daily report about the incidences of ragging if any, and steps taken to prevent the same.

(Lalnuntluangi Hmar)
Dean

No. CVSC/CAU/SWS/AR/2020-21/ **Dated 8th Feb, 2021**

Copy to:-

15. P.A to Hon'ble V.C., for kind information of the Hon'ble Vice Chancellor, CAU, Imphal
16. Director of Instruction, CAU, Imphal for kind information
17. Registrar, CAU, Imphal for kind information
18. All concerned members, for information and necessary action
19. All faculty members & Advisors with a request to kindly keep a vigil on ragging if any and report to the competent authority for taking necessary action.
20. All notice boards
21. Guard file.

(Lalnuntluangi Hmar)
Dean

Annexure :6.5.1.6

OFFICE OF THE DEAN
COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY
SELESIH : AIZAWL :MIZORAM-796014

No. CVSC/CAU/IAEC/11-12/ Dated 18th June,2019

CIRCULAR

This is for information to all the faculty that College Institutional Ethic Committee has been reconstituted and approved by CPCSEA vide letter No.F.No.: 25/209/2010-AWD, dated:12/June /2019. Following are the details of the new registration number and committee members.

New Registration Number: 1476/GO/Re/SL/11/CPCSEA

Sl. No.	**Name and Designation**	**IAEC designation**
1.	Dr.Lalnuntluangi Hmar, Dean	Chairperson, Scientist from different biological discipline
2.	Dr. Tapan Kumar Dutta, Professor & Head, Department of Veterinary Microbiology	Biological Scientist
3.	Dr. K. Lalrintluanga, Professor, Department of Animal Reproduction Gynecology and Obstetrics	Veterinarian
4.	Dr.Pranab Chandra Kalita, Professor & Head, Department of Veterinary Anatomy and Histology	Scientist In-charge of Animal House Facility
5.	Dr. Parimal Roychoudhury, Associate Professor, Department of Veterinary Microbiology	Member Secretary, Scientist from different biological discipline
6.	Dr. Pritam Mohan, Associate Professor, Pharmacology & Toxicology, College of Veterinary Science, Assam Agricultural University, Khanapara, Guwahati, Assam	Main Nominee
7.	Dr. Himangshu Baruah Dept. Of Pharmacology & Toxicology, College of Veterinary Science, Khannapara, Guwahati, Assam	Link Nominee
8.	Dr. Amit Kumar Trivedi Assistant Professor, Dept of Zoology, Mizoram University, Aizawl, Mizoram	Scientist from outside the Institute
9.	Pavan Kumar Samudrala Netes Institute of Technology & Science, NH-37, Shantipur, Mirza, Assam.	Socially Aware Nominee

(Dr.Lalnuntluangi Hmar)
DEAN

Copy for information to

1. All Internal members
2. All Faculty

(Dr.Lalnuntluangi Hmar)
DEAN

Annexure :6.5.2.3

Faculty credentials

Sl. No.	**Deptt**	**Name of the faculties**	**Highest Academic Qualification**	**Work experiences**	**Honours, awards and achievements/patent**	**No. of students guided (Pg & PhD)** (2016-21)	**No. of publications (2016-21)**
1	VAN	Dr. P. C. Kalita	PhD	a) Teaching, Research and Extension since 1998 (23 years)	a)"DBT Overseas Associateship" (Short Term) to Works on Alternate Animal Use Technology at Cummings School of Veterinary Medicine, Department of Biomedical Sciences, 200 Westboro Road North Grafton, MA01536, Tufts University of United States of America during 2014. b) "Reviewer Excellence Award" from Agricultural Research Communication Center, Karnal, Haryana during 2016	MVSc=04	41
		Dr. Arup Kalita	PhD	Teaching, Research and Extension since 21-08-2001(20 years)	NIL	-	41
		Dr. P.J. Doley	MVSc	Teaching, Research and Extension since 17-09-2012(09 years)	NIL	-	38

		Dr. O. P. Choudhury	PhD	Teaching, Research and Extension since 28-12-2015(06 years)	"Late Dr. D. S. Grover Memorial Award for Clinical Anatomy and Multidisciplinary Approach Clinical Anatomy of the Head Region of the Local Pig(Zovawk) of Mizoram" during XXXIII Annual Convention of IAVA & National Symposium organized at C. V. Sc & A. H., CAU, Selesih, Aizawl, Mizoram w. e. f. 28/11/2018 to 30/11/2018 on the topic " Veterinary Anatomy from Novices to Expert: Supporting Development of Professional Skills in Doubling Farmer's Income".	MVSc=01	41
2	VPB	Dr.M.A.Ayub Ali	PhD	22 years	Best oral research paper award in the Annual Convention of Society of Veterinary Biochemist and Biotechnologist of India & 4th National Seminar on "Current Research in Veterinary Biochemistry and Biotechnology in the improvement of Animal Health and Production held at CVSc, Sri Venkateswara	PG-02 PhD-01 (+2 as co-Major Advisor, so total 03)	51

					Veterinary University, Tirupati on 4th and 5thFebruary, 2020. 2. Reviewers Excellence Award from Agriculture Research Communication Centre for reviewing research articles. 3. Chair the Technical session-I: Biochemical Interventions and Metabolomics of the Annual Convention of Society of Veterinary Biochemist and Biotechnologist of India & 4thNational Seminar on "Current Research in Veterinary Biochemistry and Biotechnology in the improvement of Animal Health and Production held at CVSc, Sri Venkateswara Veterinary University, Tirupati on 4th and 5th February, 2020. 4. Co-Chair of the National Seminar on "Opportunities and Challenges of		
		Dr. Prava Mayengbam	PhD	11 years 5 five months	2nd Best poster (above 30 years) in International	MVSc=02	38

					conference on Biodiversity, Environment and Human Health: Innovation and Emerging Trend held at Mizoram University on 12th to 14th November, 2018.		
		Dr.M.C.Lallian chhunga	PhD	15 years	Nil		3
		Dr.Parthasathi Bahera	PhD	8 years 7 months	1. Awarded "Best Oral Presentation award" at the national seminar on Opportunities and Challenges of Translational Research in theFrontier Areas of Animal Biotechnologyhelddu ring 22nd to 23rd September 2017at CVSc& A.H., OUAT, Bhubaneswar. 2. Invited as a lead speaker to deliver on the topic entitled "Changing the codon usage: An emerging tool towards vaccine development" at 17th Annual convocation of National Academy Of Veterinary sciences(India)and National seminar on "Livestock sector towards one Health, Food security andsafety" held at CVSc& A.H., OUAT, Bhubaneswar	MVSC =01	22

					during 19th-20th Dec, 2018. 3. Awarded "Best paper Award"for the paper entitled **"**Comparative proteomic analysis of *Salmonella* Typhimurium wild type and its isogenic *fnr* null mutant during anaerobiosis" presented in technical session on Biochemical interventions and Metabolomics during the 4th National seminar and Annual Convention of SVBBI on Current Research in Veterinary Biochemistry and Biotechnology in the improvement of Animal Health and Production held at CVSc, SVVU, Tirupati on 4-5th Feb, 2020. 4. Acted as Rapporteur in technical session on Industrial and Environmental Biochemistry during the 4th National seminar and Annual Convention of SVBBI on Current Research in Veterinary Biochemistry and Biotechnology in the improvement of		

					Animal Health and Production held at CVSc, SVVU, Tirupati on 4-5th Feb, 2020.		
		Dr.J.M.Gali	PhD	8 years 6 months	Awards:1	MVSC=01	40
		Dr.Hemen Das	PhD	12 years	-	-	30
3	VPT	Dr.C.Lalmuanthanga	PhD	18 years	Award=01	Nil	07
		Dr.C.Lalchhandama(contractual)	MVSc	Teaching – 3 Years 7 Months Research – 4 Years	NIL	Nil	10
4	VPA	Dr.S.K.Borthakur	PhD	20 years	NIL	MVSc=02	30
		Dr.Gautam Patra	PhD	20 years	NIL	MVSc=01	37
		Dr.H.Lalrinkima	PhD	3 years	NIL	Nil	05
5	VMC	Dr.T.K.Dutta	PhD	20 years in Teaching, Research and Extension	AWARDS AND SCHOLARSHIPS 1.Dr. C. M. Singh Best Research Paper Award-2020. By Indian Association of Veterinary Microbiologist, Immunologist and Specialists in Infectious Diseases. 2.Overseas Associate Fellowship 2009-10. By Department of Biotechnology, Ministry of Sciences and Technology, Government of India for 06 months research and training at Kansas State University, Kansas, USA 3.BOYSCAST Fellowship 2006-07.	MVSc=05 PhD=01	57

					By Ministry of Sciences and Technology, Government of India for 12 months research and training at University of Minnesota, Minneapolis, USA. 4.Dr. D. R. Uppal Gold Medal for the best Ph D thesis in Veterinary Bacteriology/Veterinary Virology for the year 2000-01 by Indian Veterinary Research Institute, Izatnagar, Bareilly (UP), India.		
		Dr. Parimal Rouchaudhury	PhD	19 ears	1.Overseas Associate Fellowship 2017-18. By Department of Biotechnology, Ministry of Sciences and Technology, Government of India for 06 months research and training at The Pirbright Institute, UK	MVSc=01	35
		Dr.P.K.Subhudi	PhD		Nil	MVSc=03	29
6	VPP	Dr.T.K.Rajkhowa	PhD	22years experience in teaching and as HOD.	1.Award of biotechnology overseas research associateship in Department of Pathobiology and Veterinary Science, University of Connecticut, College of Agriculture and Natural Resources,61 North Eagleville Road Unit 3089,	MVSc=09	29

					Storrs, Connecticut 06269-3089, USA, web: www.uconn.edu. 2.Dr. Patri Rama Rao award for best Ph. D. thesis by Indian Association of Veterinary Pathologists (IAVP) in the year 2009. 3.Award for Excellence in poster presentation for the poster entitled as "Diagnosis of PMWS by DIG- In Situ hybridization technique" by Indian Association of Veterinary Pathologists (IAVP) in the year 2009. 4.Dr. B. S. Rajya award, 2016 for best non- oncology short communication in Indian journal of veterinary pathology by Indian Association of Veterinary Pathologists (IAVP). IAVP-SavithreeJibachchSinha 5.Third Best Poster Presentation Award, 2019 for the Poster "Histopathological investigation of pathology of mushy chick disease in Gramapriya and Srinidhi chicks" in Veterinary Pathology Congress-2019 by Indian Association of		

					Veterinary Pathologists (IAVP). 6.Award for best presentation of research paper entitled "Effect of supplementation of plant extract & essential oils on immune status & intestinal microbial population of weaned piglet", in the International conference on Animal Nutrition 2019 by Animal Nutrition Society of India		
		Dr.Y.Damodar Singh	PhD	7½ years field experience; 19½ years of exp. In teaching, research & extension	-	MVSC=05	21
		Dr.Rahul Singh Arya	PhD	10 months 22 days field experience, 8 years 1 month experience in teaching, research and extension		MVSc=01	27
7	VPE	Dr.E. Motina	PhD	18 years and 5 months 1. As Assistant Professor – 7 years (2002 – 2009) (at NDUAT, Faizabad, UP)	National =01	MVSc=07	11

				2. As Assosiate Professor 11 years and 5 months (30thOct, 2009 to till date) at CVSC & AH, CAU, Imphal			
		Dr. Devjani Deka	PhD	As Assistant Professor - 15 years(2006 to – till date) at CVSC & AH, CAU, Imphal)	Two best research paper presentation (oral) awards	MVSc=05	18
		Dr.Lallawmzuali Ralte	PhD	15 years and 5 months 1. As Veterinary Officer (V.O) for 3 years (2005 – 2008) at A.H. & Vety department, Government of Mizoram. 2. As Assistant Professor 12 years and 5 months (Oct, 2008 – till date) at CVSC & AH, CAU, Imphal)	1.Letter of appreciation was from Commissioner and Secretary, Higher & Technical Education Department, Govt. of Mizoram for active excellence guiding and conducting the NSS Unit of the CVSc & AH, CAU, Selesih as NSS Programme Officer of the college in connection with the Swachh Bharat Abhiyan (mission) in the year 2015.	MVSc=01	7
		Dr. Joy Lalmuanpuia Kataria	PhD	1.Senior Research Fellowship: [Project: Molecular	1.Awarded DR. V.N. BACHHIL YOUNG SCIENTIST AWARD, National Symposium & XII	MVSc =01	5

				and Serological Epidemiology of CSFV Depart of Veterinary Pathology, College of Veterinary Sciences and Animal Husbandry,CAU, Selesih, Aizawl]. 11 months, 21 days 2. Research Associate: [Project: Outreach Programme on Zoonotic Diseases Division of Veterinary Public Health, IVRI, Bareilly, U.P.] 9 months, 18 days 3. Research Associate: [Project: Advanced Animal Diagnostics and Service on Animal Health and	Annual Conference of IAVPHS 4th and 5th February, 2014, CVSc, AAU, Khanapara, Guwahati-22 3.Letter of appreciation from Public Health Foundation of India for helping in field data collection of the EcoHealth study "Identifying sources, pathways and risk drivers in ecosystems of Japanese Encephalities in an epidemic- prone North Indian district" in the year 2012 4.Best poster presentation award, 10-12 feb, XIII Annual Confrences of IAVPHS & National Symposium on "Safety of foods of animals origin for Domestic and Export Markets: Legal Perspectives"		

				Diseases Department of Veterinary Microbiology, College of Veterinary Sciences and Animal Husbandry, CAU,Selesih, Aizawl.] 6 months, 1 days 4.Teaching Associate: [Department of Veterinary Public Health, College of Veterinary Sciences and Animal Husbandry, CAU, Selesih, Aizawl] 2 years, 4 months, 21 days 5. Assistant professor: 3 years, 5 days (13 .03.2018 - till date) at CVSC & AH, CAU, Imphal)			
8	ANN	Dr. A.K.Samanta	PhD	20 years	National:04	MVSc = 07 students PhD = 02 students	26

		Dr.Rajat Buragohain	PhD	14 years	National :01	MVSc = 01	21
		Dr. Biren Kumar Das	MVSc	14 years	nil	MVSc =01	02
9	AGB	Dr.N.Shyamsana Singh	PhD	20 ears	1.Registered the indigenous pig 'Zovawk' of Mizoram as a breed in the country in 2017 2.Acted as a Member of the Expert Committee for framing Pig Breeding Policy for the Govt. of Mizoram during 2017-18. 3.Awarded 'Bharat Gaurav Puraskar' by Best Citizen Publishing House' Delhi (email: bestcitizenpublishinghouse@gmail.com) for remarkable contribution to the society in the field of Animal Genetics and Breeding. 4.Awarded third position in 21 days training programmehed on Feb. 21 to March 2, 2005 at CARI, Izatnagar	MVSc=06	29
		Dr.T.C.Tolenkhomba	PhD	14 ears	1.3rd prize in "Rajbhasha Pakhawada Samaroh" organized by NDRI, Karnal 2.Acted as a Member of the Expert Committee for framing Pig Breeding Policy for the Govt. of Manipur during	MVSc=05	53

					2018-19.		
		Dr. Jitendra Kr. Chaudhary	PhD	5 years	Nil	MVSc=01	39
10	LPM	Dr.Lalnuntluangi Hmar	PhD	28 yrs	1.Best participant in ITCPH training (Philippines) – 1996 (4 months) 2.Best participant in Winter School attended in August 2006 at ICAR, Barapani, Meghalaya 3.Best Oral Presentation Award at the ISAPM National Symposium at Khanapara, Guwahati. Dated 11-13th November 2010. 4."Eight Sisters N.E Best LPM Research Award" at the National symposium – 2011 5. Received Fellow National of Animal Production and Management Award 6.Best Oral Presentation award at National Symposium. Organized AAU, Anand, Gujarat 28-30 January, 2014	MVsc=01	31
		Dr.Girin Kalita	PhD	22 yrs	Best paper award, ISAPM in 2018.	MVSC=07	30
		Dr.Ranjana Goswami	PhD	19 yrs	Nil	MVSC=05	15
		Dr.Abhisek Paul	MVSc	1.5 yrs	Nil	nil	05
11	LPT	Dr.Vivek Vinayak	PhD	35 years	1.Best teacher award 2010 by TANUVAS,		

		Kulkarni			Chennai in 2010 2.Fellow award by Indian Meat Science Association 2017 Citation award by Bombay Veterinary College Alumni Association 2014 3.Member, Executive Council Maharashtra Animal and Fishery Sciences University (MAFSU), Nagpur (2014-2019) 4.Chairman of Food and Agriculture division -18 of BIS on slaughterhouse up-gradation ,Govt. of India(2014-2017) 5.Chairman Scientific panel on meat and meat products, FSSAI, Govt. of India(2015-2020) 6.Member , Board of Management of Sir Venkateshwara Veterinary University, Tirupati (2013-2016) 7.Chairman, Animals Disease monitoring committee, Govt. of Telangana 8.President, Indian Meat Science Association(2013-2018) 8.Expert member on scientific panel for pesticide and antibiotic residues of FSSAI, Govt. of		

					India (2015) 9.Member, Research project approval committee, Dept. of Science and Technology, Govt. of India.(2015-2017) 10.Technical expert of APEDA team for export slaughterhouses(since 2005) 11.Member National Meat and Poultry Processing Board, MOFPI, New Delhi(2012-2017) 12.Member Academic council, P.V. Narasimha Rao Veterinary University, Hyderabad (2015-2017) 13.Member Research council, P.V. Narasimha Rao Veterinary University, Hyderabad (2016-2017) 14.Panel member for National program for organic production (NPOP), APEDA, New Delhi (2015-2017) 15.Expert member slaughterhouse monitoring committee, GHMC, Hyderabad (2016-2017) 16.Expert member		

					Livestock production committee, TANUVAS(2014-2016) 17.Expert panel member to Karnataka Sheep Federation on slaughterhouse construction(2015) 18.Expert panel member for Piggery development in Andra Pradesh(2016) 19.Expert member for consultative group of geographical indications of goods by Geographical Indications Registry of IPR, New Delhi (2014) 20.Member Institute Management Committee (IMC) for ICAR-CIFT, Cochin(2014-2017) 21.Member Research Advisory Committee , ICAR- DPR, Hyderabad, member RAC for ICAR - NRC pig and ICAR-CARI, Izatnagar(2014-2017) 22.Member, Quinquennial Review Committee, ICAR-CARI, Izatnagar(2019) Patents applied – 4		
		Dr. Pragati	PhD	15 years	Best Oral Paper Presentation Award – 3 Nos.	MVSc=08	07

12	VGO	Dr.F.A.Ahmed	PhD	Teaching & Research : 18yrs	Best paper by ISBD	MVSC =08 PhD =01	27
		Dr.K.Lalrintluanga		1) VAS/SDVO: 8 yrs. & 7 months 2) Teaching & Research: 23yrs	Nil	MVSc =06	26
		Dr.Dibyajoti Talukdar	PhD	Teaching & Research: 3 years	Ijrula Title Award 2018 for Best Article.	MVSc=01	31
13	VSR	Dr.Bedanga Konwar	PhD	21 years	1.Best Award with the Gold Medal for the paper entitled "Successful management of electrocution injury in a pair of Hoolock Gibbon" presented at 35th Annual Congress of Indian Society for Veterinary Surgery and International Symposium on "Nanobiomaterials in Biomedical Research: Their Application in Veterinary Surgery" organized by the Department of Veterinary Surgery and Radiology, Faculty of Veterinary and Animal Sciences, West Bengal University of Animal and Fishery Sciences, Kolkata, from 11th to 13th November, 2011 in Zoo and Wild Animal Surgery Session Award	MVSC=06	22

					(2011).		
		Dr.Basanta Saikia	PhD	19 ears	1.Best Award with the Gold Medal for the paper entitled "Successful management of electrocution injury in a pair of Hoolock Gibbon" presented at 35th Annual Congress of Indian Society for Veterinary Surgery and International Symposium on "Nanobiomaterials in Biomedical Research: Their Application in Veterinary Surgery" organized by the Department of Veterinary Surgery and Radiology, Faculty of Veterinary and Animal Sciences, West Bengal University of Animal and Fishery Sciences, Kolkata, from 11th to 13th November, 2011 in Zoo and Wild Animal Surgery Session Award (2011).	MVSc=05	35
		Dr. Hitesh Bayan	PhD	14 ears	1.Best Award with the Gold Medal for the paper entitled "Successful management of electrocution injury in a pair of Hoolock Gibbon" presented at 35th Annual Congress of Indian Society for Veterinary Surgery	MVSC=02	12

					and International Symposium on "Nanobiomaterials in Biomedical Research: Their Application in Veterinary Surgery" organized by the Department of Veterinary Surgery and Radiology, Faculty of Veterinary and Animal Sciences, West Bengal University of Animal and Fishery Sciences, Kolkata, from 11th to 13th November, 2011 in Zoo and Wild Animal Surgery Session Award (2011).		
14	VMD	Dr. H. Prasad	PhD	33 years	National =03	MVSc =09 PhD=01	20
		Dr Gunjan Das	PhD	17 years	National=02	MVSc=06	10
		Dr. Kalyan Sharma	PhD	20 years	1. Overseas Research Fellowship Award 2. Best Teacher Award 2020 3. Outstanding Scientist Award	MVSc=07	30
		Dr. J. B. Rajesh	PhD	20 years	1.Appreciation award (2011) from Indian Society for Veterinary Medicine 2.Best Teacher award by Rotary Club of Aizawl in 2015 3.Lieutenant Rank: Ministry of Defence (Associate NCC Officer in NCC Service): 2014 4.Best Third Paper presented in ISVM, Bengaluru (2020) 5.Veterinarian's	Nil	24

					Achiever's Award (2020) -- Indian Veterinary Association, Chennai 6.Best PhD Thesis Award from Dr. Ram Avatar Shiksha Samiti, Puranpur, Pilibhit, Uttar Pradesh 7.CPCSEA Nominee of Government of India (2020) 8.Appreciation award from CVSc & AH Patent: One		
		Dr.Suvendu K. Behera	PhD	9 years 4 months as Assistant Professor (present and past work experience)	1.Best oral presentation award for the paper "Epidemiological and Hemato-Patho-Biochemical Study of Canine Parvovirus-2 infection in Dogs from Aizawl, Mizoram" during 35th Annual Convention of ISVM and National Symposium held from 22nd to 24th February, 2017 at Department of Veterinary Medicine, Veterinary College and Research Institute, Tirunelveli, Tamil Nadu. 2.DBT Overseas associateship for the scientists of North Eastern Region 2017-18 to Department of Population Health & Pathobiology, College of Veterinary	MVSc=01	10

					Medicine, North Carolina State University, Raleigh, NC, USA from 14-5-2019 to 13-11-2019. 3."Certificate of Appreciation" for valuable contribution in service of scientific community as "Member of Scientific Advisory Board" of International Journal of Livestock Research for the year 2018-19.		
		Dr. Chetan G.E	PhD	3 years	First Prize in poster presentation (ISVM)	Nil	10
15	VAE	Dr.Saidur Rahman	PhD	19 Years 6 months	Nil	MVSc=08	15
		Dr.Lalhumliana Tochhawng	PhD	3 years	Nil	MVSC=01	03
		Dr. Nancy Laldinpuii	MVSc	1 year 6 months	Nil	Nil	

Annexure :6.5.4.6

NSS ACTIVITIES (2016 – 2020)

ACTIVITIES	PLACE/VILLAGES	DATE	Remarks
1. Free Animal Health cum Anti-rabies vaccination camp	1. Sesawng village	24th August 2016	
	2. Sairang village	14th September 2016	
	3. Sihphir village	21st November 2016	
	4. Kelsih village	29th December 2016	
	5. Durtlang Ramthar	29th April 2017	
	6. Luangmual, Aizawl	15th January 2018	• 220 animals treated • 4 animals operated • 75 dogs vaccinated
	7. Ailawng village	9th February 2018	• 117 animals treated • 9 dogs vaccinated • 4 animals operated
	8. Sihphir village	27th February 2018	• 283 animals treated • 8 dogs vaccinated
	9. Chungtlang &Rulpuihlim villages	24th May, 2018	
	10. ITI colony	23rd March, 20019	
	11. Recreation Hall, 3rd Battalion MAP, Mualpui	29th March, 20019	
	12. Durtlang Ramthar	27th April, 20019	World Veterinary Day
	13. Lengte village	18th September, 2019	
	14. Sakawrtuichhun, Aizawl	30th January, 2020	
	15. Tuirial village	19th February, 2020	
	16. Nisapui village	6th March, 2020	
	17. Thingdawl village	15th October, 2020	
	18. Nausel village	11th November, 2020	
2. Free Antirabies vaccination	1. Hlimen village	25th May, 2016	18 dogs vaccinated
	2. Durtlang	6th July, 2016	21 dogs vaccinated
	3. Ramhlun N' community Hall, Aizawl	28th September 2016	75 dogs vaccinated
	4. MC Hall, Durtlang village	5th July 2017	63 dogs vaccinated

	5. Ramhlun N' community Hall, Aizawl	28th September 2017	82 dogs vaccinated
	6. Leitan village	6th July 2018	76 dogs vaccinated (World Zoonoses Day)
	7. MC Hall, Durtlang	5th July, 2019	111 dogs vaccinated (World Zoonoses Day)
	8. YMA Hall, Republic Veng, Aizawl	28th September, 2019	119 dogs vaccinated
3. Voluntary Blood donation	1. Community Hall, C.V.Sc & AH, Selesih	10th November 2017	35 units of blood donated to Synod Hospital, Durtlang
	2. Civil Hospital, Aizawl	18th June, 2020	16 units of blood donated to Civil Hospital, Aizawl
	3. Civil Hospital, Aizawl	27th January	21 units of blood donated to Civil Hospital, Aizawl
4. Cleanliness drive	1. Hlimen village	25th May, 2016	
	2. Phunchawng village	18th July, 2016	
	3. C.V.Sc & AH, Selesih	15th August, 2016	Swacchata campaign
	4. Sairang village	14th September, 2016	
	5. C.V.Sc & AH, Selesih	1st October 2016	Eve of Gandhi Jayanti
	6. Selesih village	31st October 2016	
	7. Sihphir village	21st November 2016	
	8. Chanmari to Bazaar, Aizawl	22nd September 2017	NSS Day observation
	9. C.V.Sc & AH, Selesih	26th September 2017	
	10. C.V.Sc & AH, Selesih	15th January 2018	
	11. C.V.Sc & AH, Selesih	5th May 2018	
	12. C.V.Sc & AH, Selesih	13th September 2018	
	13. C.V.Sc & AH, Selesih	3rd November 2018	
	14. C.V.Sc & AH, Selesih	18th January, 2019	
	15. C.V.Sc & AH, Selesih	16th March 2019	
	16. C.V.Sc & AH, Selesih	16th March 2019	
	17. C.V.Sc & AH, Selesih	14th August, 2019	Swacchta Pakhwada
	18. C.V.Sc & AH, Selesih	7th September, 2019	
	19. C.V.Sc & AH, Selesih	2nd October, 2019	Swatch campus & Jal Shakti campus & Jal Shakti gram
	20. C.V.Sc & AH, Selesih	29th September, 2020	

	21. C.V.Sc & AH, Selesih	19th February, 20212	
5. Installation of iron benches	1. C.V.Sc & AH, Selesih	17th July 2018	
6. Help desk for newly admitted B.V.Sc. & A.H. students	CVSc & AH (2016 - 2020)	1st August, 2016 1st August, 2017 1st August, 2018 1st August, 2019 16th September, 2020	
7. TTree plantations	1. CCVSc & AH (2016)	5th June, 2016	30 saplings planted
	2. Damdiai	11th June 2019	Green Mizoram Day
8. FFencing and cleaning of plantation sites	3. Damdiai (2016)	3rd June, 2016	25 saplings planted
	4. Damdiai (2017)	24th February 2017	
9. AAwareness campaigns	1. KSelesih (2017)	29th December 2016	
	2. HHoly Angels School, Sihphir	3rd February, 2020	Soil Borne Parasitic diseases
	3. MSelesih	10th February, 2020	Soil Borne Parasitic diseases (National Deworming day)
	4. CCVSc & AH	11th – 13th March, 2020	Three (3) days training of butchers on the theme 'Hygienic slaughter of food animals and control of food borne zoonoses'
	5. CCollege of Horticulture, CAU	2nd December, 2017	Awareness campaign on NSS by NSS PO
10. WWhitewashing of cement benches	CVSc & AH	3rd December, 2019	
11. RRenovation of public urinals	Selesih village	12th January, 2021	
12. CCleaning and repair of drainage system	CVSc & AH		
13. FFarmers Visit	Durtlang North	7th August, 2020	
14. OObservation of World Milk Day	Special Blind School, Durtlang & Hermon Children's Home, Durtlang	1st June 2019	
15. DDistribution of leaflets regarding animal diseases, management, etc.	1. SSelesih	31st October 2016	
	2. KSelesih	29th December 2016	
16. PParticipation in	Itanagar, Arunachal	6th – 10th March, 2017	4 NSS volunteers

North East NSS Festival, 2017, Itanagar	Pradesh		participated. Thyam Vrubranata (3rd year) bagged 1st prize in Extempore speech
17. PProgramme officer training	Guwahati	12th – 18th. June, 2016	Dr. Lallawmzuali Ralte attended the training

Annexure :6.5.7.4

List of Entrepreneurial training, Motivational organized by college

Sl. No.	Social theme/ concept	Name of the facilitators
01	Entrepreneurship Development (4-Days Training programme on 1. Entrepreneurship: Need, Relevance, Facts and constrains. 2. Scope and Prospects of Entrepreneurship development to boost rural economy. 3. Motivation for Entrepreneurship and Successful Entrepreneurs. 4. Business Entrepreneurship with special reference to local vs vocal)	Dr. Pradip Kumar Sarmah Dr. AshisSaikia Dr. Pankaj Bharati Mr. Tonmoy Chatterjee
02	Motivational Talk (Vaccinology: An Overview)	Dr. Jonathan Vanlalsiamthara
03	Motivational Talks 1. Veterinarians Beyond Boundary 2.Cytokine Storm	Dr. Thokchom Santa Dr. RinmuanpuiiRalte
04	Motivational Talk on Personality Development	Mr. Anurag Zomuana
05	Interaction with Entrepreneur	Dr. Priya Chettri Dr. PadamlalLutiel
06	Innovation and Leadership Development (7-Days Training grogramme on Intellectual Property Rights)	Dr. M. Ayub Ali (An overview of Intellectual Property Rights)
		Dr. Parthasarathi Behera (Basic features of IPR and its Prospects in India)
		Mr. C. Laltlanzuala (Overview of IPR: With Special Emphasis to Patent)
		Dr. Pritam Mohan (Geographical Indicators)
		Dr. Sudhir Mehrotra (Intellectual Property Rights and its relevance in Modern Era)
		Dr. Pritam Mohan (Technology Transfer)

07	Communication Skill Development (21st Century Media and Communication Strategies)	Mr. Pratik Ali
08	Motivational Talk (International Webinar on "Broadly neutralizing anti-HIV monoclonal antibody prophylaxis confers long-term protection against SHIV infection in macaques"	Dr. Rajiv Gautam
09	Communication Skills and Personality Development (4-Days training programme)	Mrs. Radha Sangkarnarayan 3 Habits, 3 thirty-minute rule
		Mrs. Radha Sangkarnarayan How to set Goals
		Mrs. Radha Sangkarnarayan How to Achieve Goals
		Mrs. Radha Sangkarnarayan How to Achieve Goals
10	Motivational Talk (International Webinar on "Antimicrobial Resistance and Potential Challenges of Superinfection with COVID 19")	Dr. Sidhartha Thakur
11	Motivational Talk (International Webinar on "Canine babessiosis: A perspective on clinical complication, biomarkers, diagnosis anf treatment")	Dr. Gad Baneth
12	Motivational Talk (International Webinar on "Importance of Nanobiotechnology with Development of Advanced Technological tools in Modern Society")	Dr. GolapKalita
13	Motivational Talk (Opportunities in Foreign for Veterinarians) (Rabies)	Dr. JullyGogoi Tiwari Dr. Harish Tiwari

14	Motivational Talk (From College to Career)	Dr. PranjalKalita
15	Entrepreneurship Development (5-Days Training Programme)	Dr. Mahesh Chader (Entrepreneurship opportunities in Livestock sector)
		Dr. SanjitMaiti (Opportunities of Integrated Livestock Farming in NEH region of India)
		Dr. Sunil Kumar (Prospects and Potentiality of improving pig farming in NEH region)
		Dr. Lalchamliani (Prospects of Meat and Milk products and their business opportunities in NEH region)
		Dr. Vivek Kumar Nayek (Role of Banking Institutions in promoting employment opportunities)
16	Motivational Talk (International Webinar on "Living with Hepes Simplex Virus")	Dr. BapiPahar
17	Entrepreneurship Development	Dr. M.O. Kurien
18	Networking and Negotiation Skills	Mr. Anurag Zomuana
19	Entrepreneurship Development 3-Days Training programme on 1. Values and Developments in Agripreneurs. 2. Networking and Negotiation skills. 3. Business management skills	Dr. Kushal Raut
20	Innovation and Leadership Development (Opportunities of Veterinarians and Pig Farming in New Zealand)	Dr. Shaji Antony
21	Workshop on Entrepreneurship and Startup	Dr. Saravanan Raj

	(3-Days Training Programme)	Dr. Bishor Ibrahim Dr. Sagar Deshmukh Dr. Jose James
22	Gender Analysis Skills (2-Days Training Programme)	Dr. Surya Rathore Dr. Veenita Kumari
23	Motivational Talk (2 days Training Programme)	Dr. N.N Pandey *"Opportunities for Veterinarians"*
		Dr. Rajesh Chandra
24	Entrepreneurship Development (4-Days Training Programme on Disease Investigation with Diagnostic Tools	Dr. S.K. Borthakur (Role of endoparasites in disease pathogenesis and its diagnosis with various methods)
		Dr. Hemen Das (Application of biochemical techniques for disease diagnosis)
		Dr. T.K. Dutta (Molecular diagnostic technique for diagnosis of disease)
		Dr. Rahul Singh Arya (Pathological investigation to diagnose a disease with various tools and techniques)
		Dr. BedangaKonwar (Imaging techniques for diagnosis of disease)
		Dr. K. Lalrintluanga (Dystocia and its management)
		Dr. Kalyan Sarma (Diagnosis of haemoprotozoan disease in livestock and companion animals and its management)
		Dr. J.B. Rajesh (Prevention and control of infectious diseases in livestock)

Self study report of the UG (BVSc &AH) programme

For

ICAR ACCREDITATION

Submitted
By

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (Imphal)
SELESIH, AIZAWL, MIZORAM.

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6.4. Self study report of the UG (BVSc &AH) programme

6.4.1.Brief history of the degree programme

The College of Veterinary Sciences & Animal Husbandry, one of the constituent Colleges of the Central Agricultural University, Imphal catering to the need of 7 North Eastern Hill states (Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Sikkim , Tripura and Nagaland) of India under its jurisdiction was established through the promulgation of an Ordinance (No. M-2 of 1995; dated 20th February 1995). The College is located at Selesih, 12 kilometers North of Aizawl, the capital city of Mizoram state on the Aizawl-Sihphir-Silchar state highway. The Campus of the College is spread over 168.61 acres of land, mostly hilly terrain, at an altitude of 965 meters above the mean sea level. The climate of Aizawl is very pleasant, generally cool in summer and not very cold in winter. The minimum and maximum temperature ranges from 7-8º C to 30-34 º C. It rains heavily from May to September and the average annual rainfall is about 2500 mm.

The college became functional with the admission of first batch of 10 students to B.V.Sc. & A.H. degree programme in the year 1997. The intake capacity of the students in BVSc &AH per year has risen to 80 in the academic session 2020-21.During the year 1998, the campus formally started functioning at present location, Selesih in 24 Assam Type Houses taken over from the Department of Animal Husbandry and Vet.erinary, Govt. of Mizoram with 5 Assistant Professor deputed from the state department. At present the college is having a total faculty strength of 50 (Professors-10, Associate Professors-08, Assistant Professor-32). The College has seventeen departments namely Veterinary Anatomy, Veterinary Physiology & Biochemistry, Animal Nutrition, Animal Genetics & Breeding, Livestock Production & Management, Veterinary Parasitology, Veterinary Pathology,Veterinary Microbiology, Veterinary Pharmacology & Toxicology, Veterinary Public Health & Epidemiology, Veterinary Medicine, Veterinary Surgery & Radiology, Veterinary Gynaecology & Obstetrics, Livestock Products Technology, Veterinary & Animal Husbandry Extension, Teaching Veterinary Complex and Livestock Farm Complex. The college is recognized by Veterinary Council of India.

Students Intake and passed out

1. UG (BVSc & AH Degree programme):

Sl.No.	Degree Programme	Academic Year	Intake Capacity	No. of Student Admitted	No. of Students Passed out
01	Bachelor of Veterinary Sciences & Animal Husbandry (B.V.Sc. & A.H.)	2016-17	77	61	43
		2017-18	76	66	41
		2018-19	76	63	55
		2019-20	80	70	45
		2020-21	80	75	Current Year. Not yet completed degree degree

Present enrolment in different professional year of BVSc & Ah degree programme

Major achievements during last five years

a) No of students graduated during last 5 years: Total 232 students completed their graduation in last 5years.
b) Number students secured JRF for PG programme through ICAR entrance examination: Total 133 students got qualified in ICAR Entrance examination during last 5 years and 12 students have been awarded with ICAR JRF for pursuing MVSc programme in different institute.
c) Placement of passed students in last 5 years:Total 100 passed out students have been employed in various state and central government institution/ organization during last five years. Two

students have joined ICAR –ARS service and one student joined in Wild life Institute of India as Scientist –C. During the reporting period ten (10) students have been employed as Assistant professor in different SAU and Central Agricultural University. Others are employed in State Veterinary departments, BSF, ITBP, SMS, state civil services.

d) Research paper published by the faculty & students and patent granted during last five years: Total 600 research articles have been published in referred national and international journal by the students and faculty of the college in last five years. One patent (Patent number: 2020102879, Patent office of Australia dated 2nd December, 2020) is granted to one faculty for the invention of 'Diagnostic assay for Porcine Circovirus2 infection in pigs' during this period

e) Recognition and awards received by the students and faculty in last 5 years: Faculty and students have received 30 awards conferred by different Professional Society and Association in recognition of their academic & research excellence. Five faculties have been selected for Overseas Associate ship programme sponsored by DBT, GOI, India for laboratory exposure in abroad.

6.4.2. Faculty strength

Sl.No.	**Department**	**Department wise faculty profile**		
		Professors	**Assoc. Professors**	**Assistant Professors**
1	Veteriary Anatomy	1	NIL	3
2	Veterinary Physiology & Biochemistry	1	1	4
3	Veterinary Pharmacology & Toxicology	1	Nil	2 (1 contractual)
4	Veterinary Parasitology	1	Nil	2
5	Veterinary Microbiology	1	1	1
6	Veterinary Pathology	1	Nil	2
7	Veterinary Public Health & Epidemiology	Nil	1	3
8	Animal Nutrition	1	Nil	2
9	Animal Genetics & Breeding	Nil	1	2
10	Livestock Production & Management	1	1	2
11	Livestock Products Technology	1(contractual)	-	1
12	Veterinary Gynaecology & Obstetrics	2	Nil	1
13	Veterinary Surgery & Radiology	Nil	1	2
14	Veterinary Medicine	1	1	3
15	Veterinary & Aniaml	Nil	1	2

	Husbandry Extension			
TOTAL		**12**	8	32

6.4.3. Technical & supporting staffs

Technical staffs			
Sl. No	**Sanctioned**	**Filled up**	**Vacant**
1	**27**	**24**	**3**
Supporting staffs			
Sl. No	**Sanctioned**	**Filled up**	**Vacant**
1	**142**	**91**	**52**

6.4.4. Classrooms and Laboratories

i. Classrooms: There are total 7 (seven) lecture cum examination hall in the College with capacity of accommodating 420 students at a time for any examination purpose.All the classrooms are equipped with computer and LCD projectors and connected with internet.

ii. Laboratories : The college is having 17 independent departments and every department having well equipped laboratories to impart teaching undergraduate students. All the department have required equipments as prescribed by Veterinary Council of India to impart undergraduate teaching leading to BVSc & Ah degree.Most of the department have sophicticated equipments for teaching and research of PG & PhD prgrammes

iii. Livestock farm complex (LFC). The farm complex having separate unit for each species of animals i.e. cattle, pig, goat and poultry. Each unit is well equipped demonstration/animal examination room/ Trevis. The College is also having one hatchery unit of ten thousand egg capacity incubator.

iv. Veterinary clinical complex (VCC). VCC is having facility of separate OT for small and large animals, in-patient unit, out-patient unit, vaccination unit for small animals, physiotherapy, ultrasonograpy, X-ray, endoscopy, ECG, registration and pharmacy units, one changing room, one doctors' room, one conference hall. VCC also having well equipped laboratory for sample/specimen evaluation. For smooth functioning of the VCC, the authority deputed one In-charge of senior Professor, hospital superintendent of senior teacher not below the rank of Associate Professor, In-charge of all imaging units not below the rank of Associate Professor and three faculties from each department of Animal Reproduction, Gynaecology & Obstetrics, Veterinary Medicine and Veterinary Surgery and Radiology.

6.4.5. Conduct of practical and Hands on training

Practical training to the students are designed and planned in such a way that it covers the entire prescribed syllabus and individual student gets hands on training on the subjects. Multiple numbers of specimen are maintained in the department so that students in small group can get access to the materials for study. Most of the practical sessions are conducted by allowing students individually to prepare the reagents and perform analysis individually. Each student are supervised by concerned teacher and discuss about the interpretation of findings. Practical sessions related to basic veterinary science courses are performed in healthy animal populations starting from farm premises to collection of samples and analysis in the laboratory. In Department of Anatomy, skeleton specimens of cattle, horse, pig, dog and bird were displayed for students learning. Skeleton specimen of animals of regional importance such as Yak has also

been assembled and displayed in the laboratory for performing practical sessions. Special assignment in small groups were given to the students within the semester for collection, analysis and interpretation of results related to their subjects. Individual students are engaged in the day to day farm practices such as feeding and management of large and small animals including poultry. Practical exposure in Clinical and para-clinical subjects are more focused on clinical cases encountered in the TVCC (teaching veterinary clinical complex). Samples were collected from the clinical cases and are further analysed in the laboratory for conclusive diagnosis. Students were also given training for animal food processing and value addition of animal food products, its packaging and storing of processed food. Maximum exposures are given to the students pursuing clinical courses to access the medicine, surgery and gynaecological intervention required for the diseases animals. X-ray, ultrasound ECG training is included in the clinical training. Students are also trained up for performing artificial insemination in cattle and pigs. surgical Ambulatory clinical sessions were also conducted to address situation in the farm complex and field conditions.

6.4.6. Supervision of the students

There is a provision of advisory systems for Undergraduate degree programme. The Dean of the college nominates a teacher as the advisor for a group of 5-10 students within 10 days of the admission. The advisor once nominated continues till the concerned students complete their degree programme. The advisor explains students about various academic regulations and guides them in planning their academic programme. The meeting of individual advisory group of the UG students under each teacher is conducted for one hour in every week by the advisor. Combined meeting of all advisory group of individual departments is conducted by HOD once in two months. Combined meeting of all advisory group of all departments is conducted by Dean in each semester.

6.4.7. Feed back of stakeholders: The feedback is received from the students, parents, employer and other stake holders. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, development of amenities in the hostel and library facilities. College is also getting feedback from Department of Veterinary & Animal Husbandry of different NE states during their Internship programme as well as during their permanent posting in state (Annexure 6.4.7)

6.4.8. Students intake and attrition in the programme: Number of students who left the programme is very less. It is observed that very few students left the degree programme in order to join Medical or Engineering courses

Degree Programme	Academic Year	No. of Student Admitted	No. of students who left the degree programme	Attrition %
BVSc & AH	2016-17	61	01	1.63
	2017-18	66	04	6.06
	2018-19	63	04	6.34
	2019-20	70	01	1.42
	2020-21	75	02	2.66

6.4.9. **ICT application in Curricula delivery**: Various ICT tools are being used for conducting Theory and practical classes of BVSc & AH degree programme. All the faculties of the department are digitally literate.

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for UG Degree Programmei.e.,B.Sc (Hons.) Horticulture, College of Horticulture, CAU (Imphal), Thenzawl, Mizoram is given correctly.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate (Applicable when SSR is submitted for Programme)

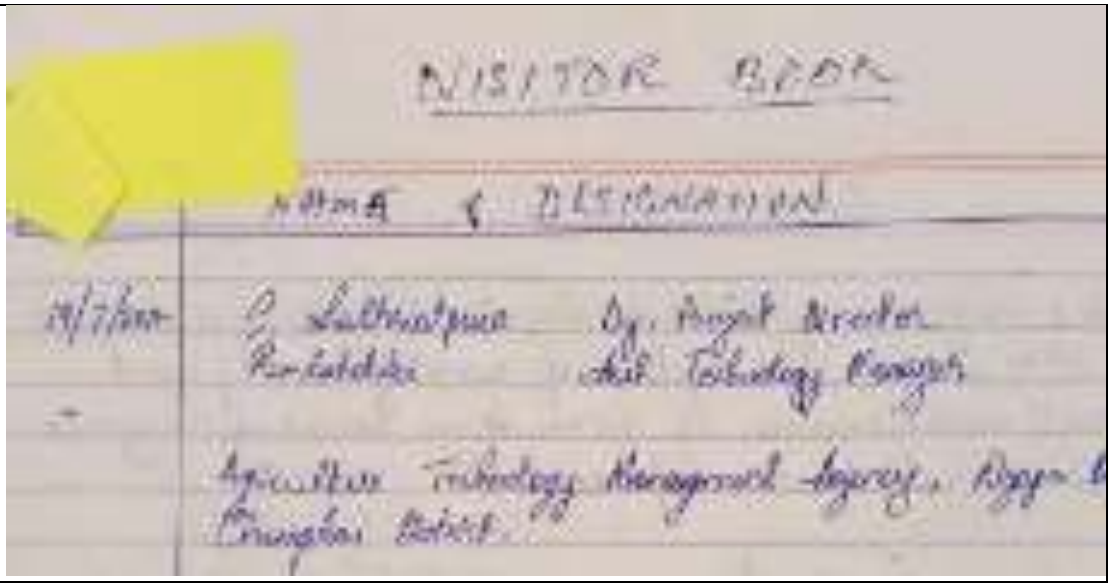
I, the Dean, College of Veterinary Sciences & Animal Husbandary, Aizawl hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

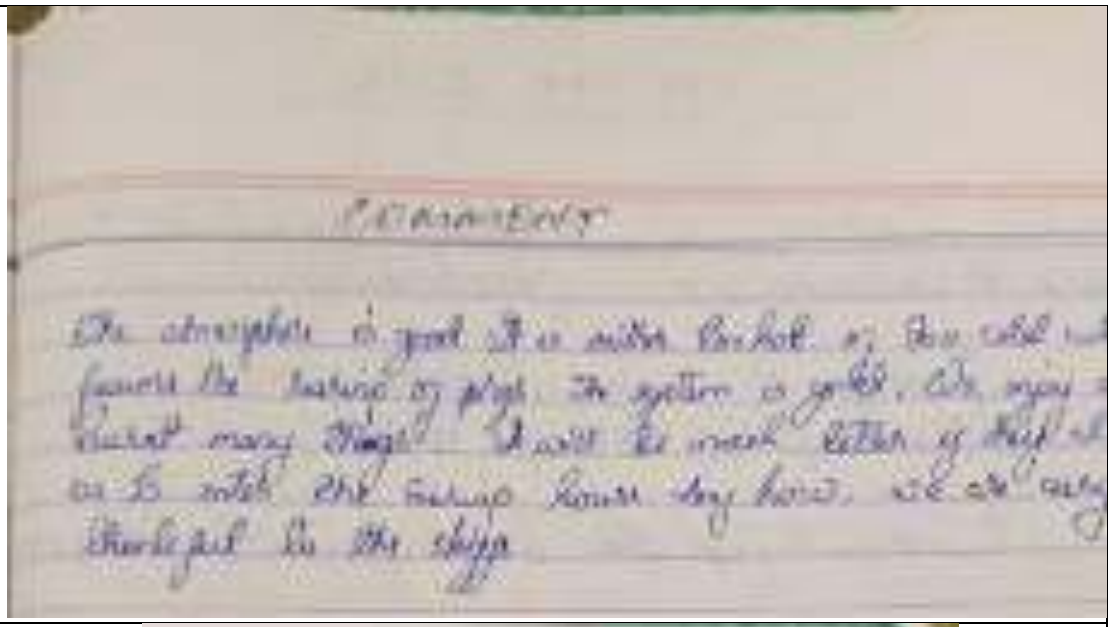
Signature of Dean of the College with Date & Seal

Annexure 6.4.7

6.4.7. Feedback of stakeholders:

Visitors		
Dr. S. Ayyapan, Ex DG ICAR, Secretary DARE	Mr. C. Lalhriatpuia, Dy Project director, Agriculture Technology management agency, Champhai, Mizoram	Mrs.Remlaldiki, Asstt. Project manager, Agriculture Technology management agency, Champhai, Mizoram
Mr. Vanlal Chhuanga, Commissioner & Secretary, Govt. of Mizoram	Dr. H. R. khanna, Assistant Commissioner, Dept. of Animal Husbandry & Fishery, Govt. of India	Dr. K. Rajukumar, Principal Scientist, NISHAD, Bhopal
Farmers, pigfed society Mizoram	Farmer visitor in Health camp organized by the college	

1		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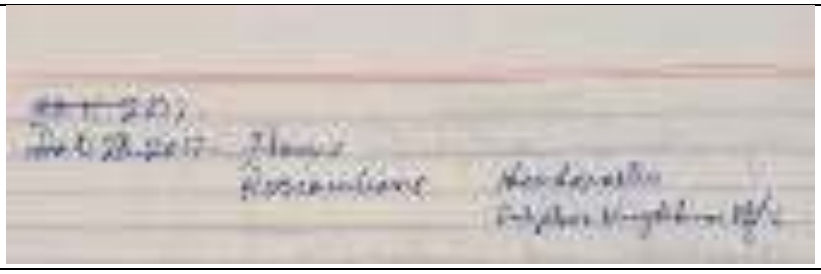
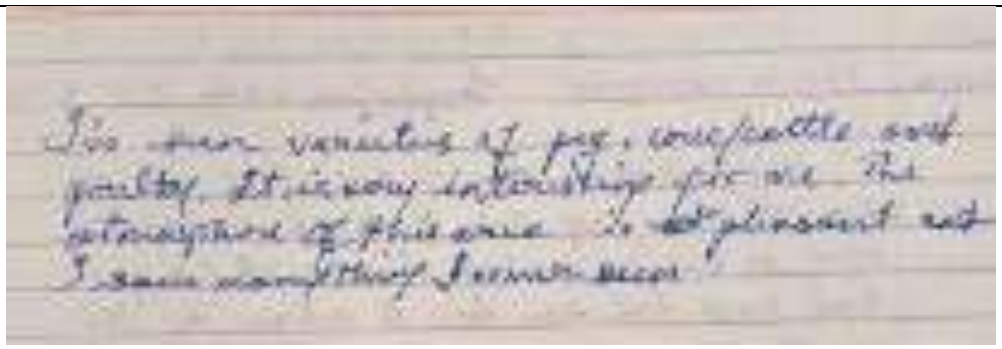
3	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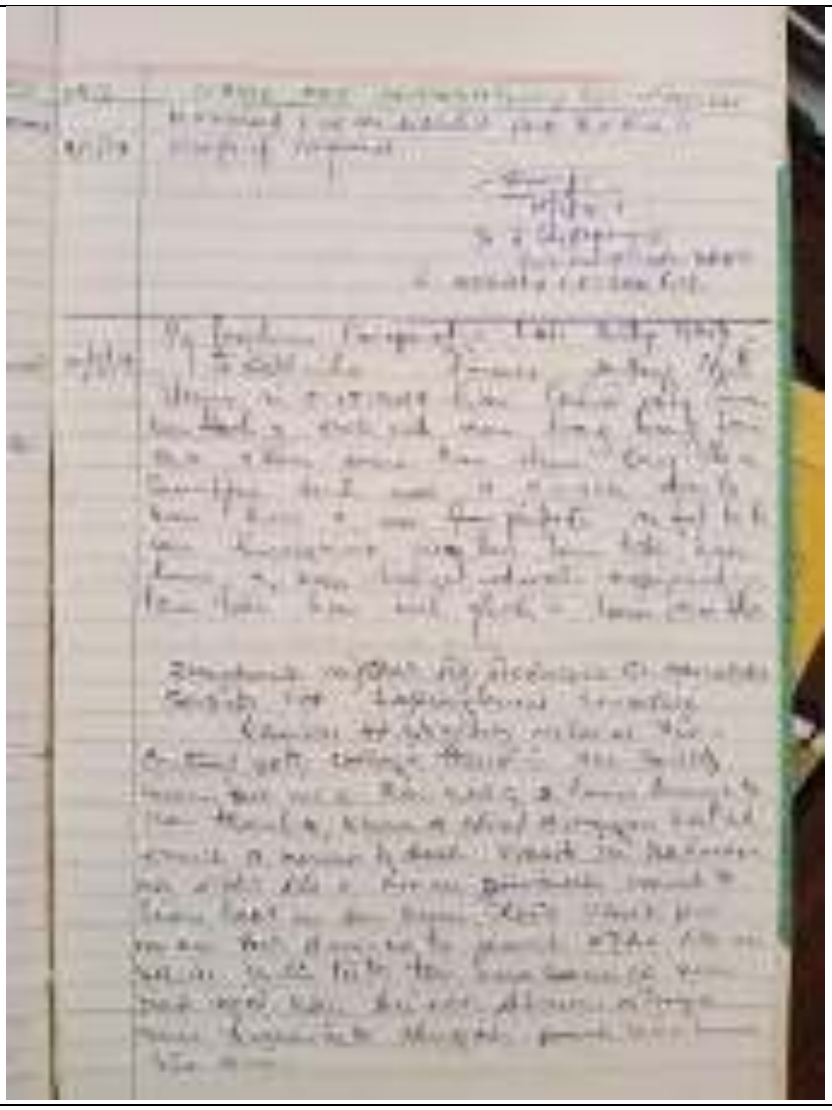
7,8		

9.& 10		

Self study report of the PG (MVSc) programme

For

ICAR ACCREDITATION

Submitted
By

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (Imphal)
SELESIH, AIZAWL, MIZORAM.

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6.4 Self study report for PG programme

The College of Veterinary Sciences & Animal Husbandry, one of the constituent Colleges of the Central Agricultural University, Imphal catering to the need of 7 North Eastern Hill states (Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Sikkim and Tripura and Nagaland) of India under its jurisdiction was established through the promulgation of an Ordinance (No. M-2 of 1995; dated 20th February 1995).
The college became functional with the admission of first batch of B.V.Sc. & A.H. degree programme in the year 1997-98. P.G. programme was introduced from the academic session 2006-07. The College has also started Ph.D. programme from the academic session 2011-12. All the academic programmes i.e. BVSc & AH, MVSc &PhD programmes are accredited by ICAR, New Delhi and VCI, New Delhi. Collaboration with few renounced institutes like IVRI, Izatnagar, NDRI, Karnal, Haryana, Assam Agricultural university, Jorhat ,GADVASU, Ludhiana, ICAR-NRC-Mithun, Nagaland, ICAR-NRC on YAK, Arunachal Pradesh ,ICAR NRC on Pigs, ICAR- NRC on meat, Hyderabad has been established to strengthen the academics and research activity.
The College had introduced M.V.Sc. Degree programmes in all disciplines Veterinary Anatomy, Veterinary Physiology, Veterinary Biochemistry, Animal Nutrition, Animal Genetics & Breeding, Livestock Production & Management, Veterinary Parasitology, Veterinary Pathology,Veterinary Microbiology, Veterinary Pharmacology & Toxicology, Veterinary Public Health & Epidemiology, Veterinary Medicine, Veterinary Surgery & Radiology, Veterinary Gynaecology & Obstetrics, Livestock Product Technology, Veterinary & AH Extension

DEPARTMENT OF ANIMAL NUTRITION

6.4.1. Brief History of degree programme: The department of Animal Nutrition has been offering Courses of BVSc & AH as per guidelines of Minimum Standards of Veterinary Education (BVSc &AH regulations),2008 &2016 since the inception i.e 1997-98..MVSc programme was introduced in the year **2007** and thereafter PhD programme in **2011-12**. ICAR revised and restructured curricula, 2009 are being followed for MVSc &PhD programme. The nomenclature of the degree programme is also same as prescribed ICAR.

Accomplishments:

a) Following MVSc & PhD students have completed their degree programme

MVSc (Animal Nutrition)

Sl. No.	Name & Admission No.	Thesis title
1	Dr. Pawar Shivaji Pandurang 2007-V-07(M)	Studies on mineral status of soil, plant-animal system for augmenting livestock productivity in Aizawl District of Mizoram
2	Dr. Suzanne Malsawmthangi 2009-V-06(M)	Effect on the growth performance, nutrient utilization and carcass characteristics of indigenus growing pigs by feeding diet containing sweet potato (*Ipomoea batatas*) meal
3	Dr. James Lalthansanga 2009-V-07(M)	Effect of feeding chayote (*Sechium edule*) fruits and leaves on growth, nutrient utilization and carcass characteristics of indigenous breed of pigs
4	Dr. K. Lalrinsangi 2009-V-10(M)	Growth performance, nutrient utilization and carcass characteristics of broilers fed diet containing cassava meal as a substitute of maize
5	Dr. P.C. Lalsangzuala 2009-V-11(M)	A study on nutritional constraints and possibilities for augmentation of pig production in Mizoram.
6	Dr. Y. Mery Chanu 2012-V-11(M)	Performance of Local Growing Pig (Zovawk) Fed on Maize-replaced Wheat Bran and Rice Bran Based Diet.
7	Dr. Salem Lallawmawmi 2013-V-03(M)	Effect of Low Crude Protein Diets Supplemented with Synthetic Amino Acids on Performance of Growing Cross-Bred (Yorkshire and Zovawk) Pigs
8	Dr. Eneth Lalhuthangi 2013-V-04(M)	Performance of Growing Pigs (Large White Yorkshire) Fed Rations with Varying levels of Japn Hlo (*Mikania micrantha Kunth*) Meal as Protein Source.
9	Dr. Kekiepeu Nza 2015-V-05(M)	Study on the performance of broioler chicken fed on partially Maize replaced diet with Palm oil (*Elaeis guineensis*) sludge
10	Dr. Jagadish Hazarika 2015-V-34(M)	Effect of dietary supplementation or organic acids blend and garlic on performance of broiler birds
11	Dr.Pebam Chandrima Devi	Effect of plant extracts and essential oil blend as alternatives to

	2016-V-04(M)	antibiotic growth promoters on performance of broiler birds
12	Dr.Sagarika Barman 2016-V-05(M)	Effect of dietary supplementation of probiotic and aloe vera on performance of broiler birds
13	Dr.Vaisakh V.P. 2017-V-03(M)	Effect of fermented dried feed on growth performance, nutrient utilization and carcass characteristics of Broiler birds.
14	Dr David Lalthlamuana 2017-V-04(M)	Effect of dietary supplementation of Chicory root powder (Cichorium Intybus) and Probiotic on the growth performance, nutrient utilization and carcass characteristics of broiler birds.
15	Dr Juli Chakma 2018-V-04(M)	Effect of *Moringa oleifera* leaf extract and clove bud oil as alternative to Antibiotic growth promoter on performance of broiler birds.
16	Dr Diptanu Das 2018-V-06(M)	Effect of feeding rubber seed (*Hevea brasiliensis*) meal on growth, nutrient utilization & blood biochemical parameters in growing pigs
Ph D (Animal Nutrition)		
1.	Dr. Suzanne Malsawmthangi 2012-V-01(D)	Studies on Soil-Plant-Animal Interrelationship in Relation to Macro and Micro Mineral status and effect of formulated area specific mineral mixture supplementation on production performance of Dairy Cattle in Mizoram.
2.	Dr. Temjennungsang 2015-V-01(D)	Effect of feeding palm oil (Elaeis guineensis) sludge as a partial replacement of maize on the performance of growing – finishing Pigs.

b) List of students presently pursuing MVSc(Animal Nutrition) programme

1. Dr. Jayanta Banik
2. Dr. Suraj Das
3. Dr Pankaj Prasad
4. Dr Akash Paul
5. Dr Gourav Debbarma

c) Publication (From student's research work)

1. Lalthansanga, J. and Samanta, A.K. (2015). Effect of feeding chayote (Sechium edule) meal on growth performance and nutrient utilization in indigenous pig (Zovawk) of Mizoram. Veterinary World. 8(7): 918-923.
2. Malsawmthangi, S., Kukde. R.J. and Samanta. A.K. (2016). Effect of diet containing sweet potato (Ipomoea batatas) meal on nutrient utilization and growth performance of indigenous growing pigs. Indian Journal of Animal Research. 50(5):717-720
3. Mery Chanu, Y and Samanta, A.K. (2016) Influence of substitution of maize with wheat bran and rice bran in the rations on growth performance and nutrient utilization in local pig (Zovawk) of Mizoram. Indian journal of Animal Nutrition,33(2) :197-202.
4. Malsawmthangi, S and Samanta, A.K. (2017). Feeding management, mineral status and blood biochemical profile of dairy cattle in Mizoram. Indian journal of Animal Nutrition, 34(3):256 -263.
5. Malsawmthangi, S and Samanta, A.K. (2017). Mineral interrelationship among soil, forage and dairy cattle in temperate sub-alpine zone of Mizoram Asian Journal of Dairy &Food research, 36(3):184-190.

6. Chandrima Devi, P., Samanta, A.K., Das, B.K., Kalita, G.,Behra, P.S. and. (2018).Effect of plant extracts and essential oil blend as alternatives to antibiotic growth promoters on growth performance, nutrient utilization and carcass characteristics of broiler chicken. Indian Journal of Animal Nutrition. 35 (4): 421-427.
7. Barman, S., Samanta, A.K. and Boro, P. (2019). Effect of dietary supplementation of Aloe vera and Lactobacillus acidophilus on hematological, biochemical and immune parameters of broiler birds. International Journal of Chemical Studies, 7(1): 1604-1611.
8. Lalthansanga, L. and Samanta A.K. (2018) Effect of feeding Chayote (Sechium edule) fruits and leaves on carcass characteristics of indigenous pig of Mizoram (Zovawk). Indian Vterinary Journal. 95(04) :20-22.
9. Temjennungsang and Samanta.A.K. (2019). Effect of Partial Replacement of Maize with Palm Oil Sludge on Growth Performance, Nutrient Digestibility and Blood Profiles of Finishing Pigs. Animal Nutrition and Feed Technology, 19 : 229-240.
10. Lalthlamuana,D., Samanta, A.K., Hmar, L., Behera, P., Buragohain,R., Ayub Ali M. and Vaisakh, V P.(2019) Effect of Dietary Supplementation of Chicory Root Powder and Avian Specific Lactobacillus spp on the Hematology, Blood Biochemical, Lipid, Enzyme and Antioxidant Profile of Broiler Birds Int.J.Curr.Microbiol.App.Sci. 8(10): 1511-1521.
11. Barman,S., A. K. Samanta,A.K., Biren Das,B.K., Goswami,R., Gali, J. M. R. and P.Chandrima Devi,P. (2019) Effect of Dietary Supplementation of Aloe vera and Lactobacillus acidophiluson Growth Performance, Nutrient Utilization and Carcass Characteristics Of Broiler Birds. International Journal of Livestock Research, 9(5): 102-112.
12. Vaisakh, V.P., Samanta,A.K., Buragohain, R., Goswami,R., Gali,J.M.R., Ayub Ali, M. and Lalthlamuana, D.(2019). Effect of Solid State Fermented Dried Feed with Avian Specific Lactobacillus species and Bacillus subtilis on Haematological, Blood Biochemical and Anti-oxidant Profile of Broiler Birds Int.J.Curr.Microbiol.App.Sci . 8(9): 150-160
13. Lalhuthangi, E and Buragohain, R (2020). Effect of *Mikania micrantha* Kunth. Meal as protein source on the performance of growing Large White Yorkshire pigs in Mizoram, India. *Journal of Entomology and Zoology Studies*. 8(1): 425-428.
14. Temjennungsang, Samanta, A K., Ali, M A., Das, B. K and Kalita, G(2020) Effect of Feeding Palm Oil Sludge as Partial Replacement of Maize in Growing-Finishing Pigs on the Growth Performance, Nutrient Digestibility and Blood Profiles Journal of Oil Palm Research (Accepted)DOI: https://doi.org/10.21894/jopr.2020.0000.
15. Chakma,J.,Samanta A.K.,Dutta, T.K and Arya, R.S.(2020) Effect of supplementing Moringa oleifera leaf extract and clove bud oil to the diet on microflora population and intestinal morphology of broiler birds. Indian Journal of Animal Health.59(2)-special issue:222-227.

d) Research Projects by the faculties (completed) :

1. Evaluation of tree fodders used as livestock feed in Mizoram. (University funded)
2. Identification and Evaluation of indigenous/local feed resources of pig and formulation of economic balanced ration for sustainable productivity in Aizawl District of Mizoram. (University funded)
3. Evaluation of wild sunflower (Tithonia diversifolia) as substitute of conventional feed ingredients for broiler in Mizoram. (University funded)
4. Effect of feeding compressed complete feed block on nutrient utilization, blood biochemical constituents and milk production in lactating cow (University funded)
5. Studies on phytochemical properties of tree leaves commonly fed to milch cattle/buffaloes in Mizoram (University funded).

6. Development of Small Scale Bamboo-Based Silage Making Technology and Effect of Feeding Silage on Performance of Growing Cattle (University funded)
7. Role of phytobiotics as alternative to antibiotic growth promoters on performance of weanling pig and poultry (Funding agency: DBT,Govt. of India)

6.4.2. Faculty strength of the department

Sl. No.	Faculty in place	Vacant position	Faculty recommended by VCI, 2016
1. Professor	01	Nil	01
2. Associate Professor	01	01	01
3. Assistant Professor	02	Nil	01

6.4.3. Technical and supporting staffs of the department

S No	Staff in position	Vacant position	Staffs recommended by VCI, 2016
1. FCLA	01	Nil	Not specified
2. MTS	01	nil	Not specified

6.4.4. Laboratories :

Name of the functional laboratories and major equipments

a.Under graduate laboratory

S.No.	Name of Equipments
1	Hot Air Oven
2	Muffle Furnace
3	Laboratory Feed Grinder
4	Electronic Balance
5	Ultrasonic Bath
6	Microprocessor Based Flame Photometer

b. Post Graduate laboratory

S.No.	Name of Equipments
1	Clinical Centrifuge
2	Suction Pump 0.5 HP Precivac-ISP85
3	Micro Kjeldahl Nitrogen Distillation apparatus (
4	Digital pH Meter
5	Muffle Furnace

6	Spectrofluorometer
7	Hot Air Oven
8	Incubator
9	Water Bath Incubator Shaker
10	UV Spectrophotometer
11	Rotary Vacuum Evaporator
12	Vacuum Freeze Dryer
13	High speed Refrigerated Centrifuge
14	Deep freeze -20ºC

c. Feed Technology laboratory

S. No.	Name of Equipments
1	Electronic KEL-PLUS
2	Electronic Automatic KEL PLUS Microprocessor Based Twelve Macro Block Digestiion System.
3	Electronic SOCS Plus Automatic Six Place Solvent Extraction System (
4	Electronic Fibra Plus Automatic Six Place Fibre Extraction System
5	Rusi E Tek
6	Electronic Balance

d. Mineral Nutrition Laboratory

S. No.	Name of Equipments
1	Atomic Absorption Spectrophotometer

e. Other Units of Department of Animal Nutrition

Sl. No	Units	Name of Equipments
1	Feed processing and mixing plant	1. Feed grinder (Hammer mill)
		2. Feed mixer (Horizontal)
2	Complete feed block unit	1. Feed and Fodder mixer
		2. Compressed complete feed block making machine
		3. Urea Mineral Molasses Block making machine

3.	Digestion trial unit	1. Metabolic cages

6.4.5. Conduct of practical and hands on training: The practical class is of two hours duration for all the courses offered to students of PG & PhD programme. Students used to do the practicals by themselves under the supervision of the faculty/ course instructor. Students used to record their observations in practical manual. Students are also taken to feed mill and complete feed block preparation unit to get practical exposure about the operational procedure of different feed mill machinaries. Demonstration of conducting feeding experiments and digestion trial are also done in the concerned courses practical classes.

6.4.6. Supervision of students in PG / PhD programme: Number of students being supervised by faculty in case of Masters/ PhD programme (as per ICAR guidelines).

Recognition for guiding of students (PG & PhD research) as per clause no. 2.12.2 of CAU Academic regulations-2016 for Master and PhD degree programmes

Master's Programme:

Associate Professor and above and their equivalents OR Assistant Professor and equivalents with Ph. D. degree in the discipline/ subject who has published two research papers other than his /her Master's and Ph. D. thesis OR Assistant Professor and equivalents without Ph. D. degree, provided he/she has at least two years of PG teaching experiences and 5 (Five) research papers published in referred journals with minimum NAAS rating of 4 (other than his /her Master's thesis.

Maximum number of students to be guided by faculty

As per clause no. 2.8.1(iii) of CAU Academic regulations-2016 for Master and PhDdegree programmes, at any given time, Professor, Associate Professor and Assistant Professor shal not be a chairperson for more than 6, 5 and 4 PG students(Master's and PhD combined0 respectively

Name of the faculty	Programme	Number of students supervised as major Advisor	Number of students being supervised as major advisor
Dr A K Samanta, Prof & Head	MVSc	11	03
	PhD	02	01
Dr Rajat Buragohain, Assistant Prof (SS)	MVSc	01	02
	PhD	nil	Nil
Dr Biren Kr Das, Assistant Prof	MVSc	01	Nil
	PhD	nil	Nil

6.4.7. Feedback of stakeholders: The college through a structured feedback mechanism (copy of feedback format attached as **Annexure -I)** from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students

are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are made by the Head of the departments and Dean of the college. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, avaialbility chemical and reagents and research facilities. Feedback is also received from parents, other institutes, Concerned Directorate of State Government time to time.

6.4.8. Students intake and attrition in programme for last five years (Programme wise)

MVSc programme

	2016-17	2017-18	2018-19	2019-20	2020-21
Sanctioned seat	05	05	05	05	05
Actual admitted	02	02	02	02	05
Attrition %	0	0	0	0	40%*

*Two students got PG seat at the university of their respective states

6.4.9. **ICT application in Curricula delivery**: Various ICT tools are being used for conducting Theory and practical classes of BVSc, MVSc & PhD programme. All the faculties of the department are digitally literate. The department uses CD-ROMs for better understanding animal feeding and nutrition by postgraduate students. The department also informs students about various websites related to feeding and Nutrition of livestock and poultry. Students are informed about the use of modern information technology to record growth and feed conversion efficiency of livestocks. Animal Nutrition ebooks are made available to the students for better understanding of Animal Nutrition subjects. Students are also informed about use of different software and mobile App to calculate nutrient requirements and prepaeration of ration for livestock and poultry.

Signature of Dean of the College with Date and Seal

DEPARTMENT OF ANIMAL GENETICS AND BREEDING

6.4.1. Brief History of degree programme:

a)	Year in which the degree programme was initiated,	:	2011-12
b)	whether nomenclature, curricula or syllabus of the degree programme as per guidelines of ICAR,2009	:	Yes
c)	Accomplishments in brief.	:	

i) MVSc students passed out since introduction of the programme

	Name & Admission No.	**Thesis title**	**Year**
1.	Nakambam Manoranjan Singh	DNA polymorphism in milk protein genes in local cattle of North-east India	2013
2.	Andrew Lalremruata	Phenotypic characterization of Mizo Desi (Zovawk) pig in its home tract in Mizoram	2013
3.	Kshetrimayum Mahesh Singh	Phenotypic characterization of local chicken of Manipur in its home tract	2013
4.	Warngam Anal	Phenotypic characterization of local cattle (*Bos indicus*) of Mizoram	2015
5.	Lisham Anandakumar Singh	Morphological characterization of indigenous (Zovawk) and its crosses with Large White Yorkshire under organised farm condition	2016
6.	Timothy Lalmalsawma	Genetic characterization of native cattle of Manipur, Nagaland and Assam using DNA microsatellite markers	2017
7.	Rebecca Lalkhawngaihsangi	Genetic characterization of Meghalaya, Mizoram and Assam indigenous cattle using DNA microsatellite markers	2017
8.	Chukham Gohain	Genetic polymorphism of Toll like receptor 4 gene in indigenous cattle of North east India *vis-a-vis* crossbred cattle	2018
9.	Lalhruaitluangi	Polymorphism of genes associated with production traits in local cattle of North east India *vis-a-vis* crossbred cattle	2018
10.	Keyolenu Yore	Polymorphism of genes associated with reproductive traits in local cattle of North East India vis-à-vis crossbred cattle	2018
11.	Kaiho Kaisa	Characterization of Toll-like receptor-4 (TLR-4) gene in Swamp buffalo of Manipur (*Bubalus bubalis*) of Manipur	2019
12.	C. Lalhlimpuia	Phenotypic characterisation of local chicken of Mizoram in its home tract	2020
13.	Arindom Bora	Genetic polymorphisms of reproductive and productive genes in swamp buffalo (*Bubalus bubalis*) of Assam and Manipur, India	2020

14.	Princelina Bora	Polymorphism of genes associated with Economic Traits in Native Chicken 'ZOAR' (*Gallus gallus domesticus*) of Mizoram	2020
15.	Surita Majumder	Phenotypic characterization of local cattle (*Bos indicus*) of Tripura, India	2020
16.	Rohit Sharma	Regression tree analysis on lactation milk yield and forecasting of milk production in crossbred cows	2020

ii) Ph. D. students passed out since introduction of the programme: Nil (Ph. D. Programme is yet to be introduced in the department).

iii) Publications

(a) Research articles:

1. Gohain, C., Yore, K., Renthlei, L., Mayengbam, P., Singh, N., & Tolenkhomba, T.C. (2018). SNP1 (G-1539A) of Toll- like Receptor 4 Gene polymorphism in Indigenous Cattle of North East India visa-vis Crossbred Cattle. *International Journal of Livestock Research*, 8(12), 58-63. doi:10.5455/ijlr.20180616060026
2. Chaudhary, J., Singh, N., Tolenkhomba, T.C, Behera, S., & Vanlalchhuanga (2019). Analysis of Morbidity and Mortality of Important Diseases of Swine in Mizoram State of India. International Journal of Livestock Research, 9(1), 324-335. doi: 10.5455/ijlr.20180901045842
3. Lalhtruaitluangi, Chukham Gohain, Keyolenu Yore, N. Shyamsana Singh, Prava Mayengbam & T.C. Tolenkhomba (2019). Prolactin gene polymorphism in indigenous and crossbred cattle of north east India. *Indian Journal of Animal Sciences* 89(2): 212–214
4. Keyolenu Yore Gohain, C., Renthlei, L., Mayengbam, P., N. Shyamsana Singh, & Tolenkhomba, T. C. (2019). Growth Hormone Gene Polymorphism in Indigenous Cattle of North East India vis-a-vis Crossbred Cattle. *International Journal of Livestock Research* 9(2): 49-54.
5. Chaudhary, J.K., Singh, N., Tolenkhomba, T.C, Behera, S., and Vanlalchhuanga (2019). Estimation of economic losses due to classical Swine fever in pigs in Mizoram. *Indian Journal of Animal Sciences*, 89(3): 229-232.
6. Sharma, R., Chaudhary, J., Singh, N., Tolenkhomba, T., Kalita, G., Mayengbam, P., Lalramliana, A. & Hada, R. (2020). Path analysis of effective factors affecting milk yield of crossbred dairy Cattle by using Structural Equation Modeling (SEM). *International Journal of Livestock Research*, 10(10), 169-174. doi: http://dx.doi.org/10.5455/ ijlr.20200427120140.
7. Keyolenu Yore, N Shyamsana Singh, P Mayengbam and Tolenkhomba TC (2020). Bovine pituitary specific transcription factor 1 (PIT-1) gene polymorphism in indigenous cattle of north east India vis-a-vis crossbred cattle. *Ruminant Science* 9 (1), 87-90
8. Kaiho Kaisa, N Shyamsana Singh, P Mayengbam and TC Tolenkhomba (2021). Exon 3 (A-3642C) of toll- like receptor 4 gene polymorphism in swamp buffalo of Manipur. *Journal of Entomology and Zoology Studies*. 9(1): 1437-1439
9. Arindom Bora, Princelina Bora, N. Shyamsana Singh, Prava Mayengbam [a]nd [T].C. Tolenkhomba (2021) Polymorphism in Fatty Acid Synthase (FASN) gene in Swamp buffalo of Assam and Manipur, India. *Journal of Entomology and Zoology Studies.* 9(1): 1621-1624.

10. C. Lalhlimpuia, N. Shyamsana Singh, P. Mayengbam, JK Chaudhary and T.C. Tolenkhomba (2021) Phenotypic characterization of native chicken 'Zoar' of Mizoram, India in its home tract. *Journal of Entomology and Zoology Studies*. 9(1): 1756-1759.
11. T.C. Tolenkhomba, Warngam Anal, N. Shyamsana Singh, and P. Mayengbam (2021) Principal Component Analysis of Body Measurements of Zobawng Bulls - a Local hill Cattle of Mizoram, India. *Journal of Entomology and Zoology Studies*. 9(1): 2022-2026.
12. C. Lalhlimpuia, N. Shyamsana Singh, P. Mayengbam and T.C. Tolenkhomba (2021) Physical characteristics of Zoar: The indigenous chicken of Mizoram, India. *Journal of Entomology and Zoology Studies*. 9(1): 1982-1984.
13. T.C. Tolenkhomba, N. Shyamsana Singh, and P. Mayengbam (2021) Association of porcine growth hormone gene with growth performance in "Zovawk": A hill pig of Mizoram, India. *Journal of Entomology and Zoology Studies*. 9(1): 2183-2185.
14. Princelina Bora, Arindom Bora, Jitendra Kumar Chaudhary, N. Shyamsana Singh, Ranjana Goswami, Parimal Roychoudhury, Prava Mayengbam and T.C. Tolenkhomba (2021) Polymorphism of Prolactin (PRL) gene in Native Chicken, '*ZO-AR*' of Mizoram, India. *International Journal of Livestock Research*, ...(Accepted and assigned for publication in March issue)
15. Arindom Bora, Princelina Bora, Surita Majumder, Jitendra Kumar Chaudhary, N. Shyamsana Singh, Girin Kalita, Parthasarathi Behera, Prava Mayengbam and T.C. Tolenkhomba (2021) Genetic polymorphism of Melatonin receptor (MTNR1A) gene in Swamp buffalo of Assam and Manipur, India. *International Journal of Livestock Research*, ...(Accepted and assigned for publication in March issue)
16. C. Lalhlimpuia, N. Shyamsana Singh, P. Mayengbam, Ranjana Goswami and T.C. Tolenkhomba (2021) Production Performance of 'Zo ar' a Local Chicken of Mizoram in its Home Tract. *International Journal of Livestock Research*..... .....(Accepted and assigned for publication in April issue)

(b) Popular articles:

1. Chukham Gohain, N. Shyamsana Singh and **Tolenkhomba T.C.** (2018) Genetic disorders in cattle. *The North-east Veterinarian,* XVII (3): 30-33.
2. N. Shyamsana Singh, T. C. Tolenkhomba, J. K. Chaudhary and E. Motina (2019). Recognised breeds of Animal Genetic Resources of North East Region of India. In Souvenir of Central Agricultural University Regional Agri Fair 2019 – 20, held on Nov. 11 – 13, 2019 at College of Horticulture and Forestry, Pasighat, Arunachal Pradesh. Page – 94 – 99.

iv). Any other accomplishment which will justify the degree programme to be accrediatated by ICAR (Mostly academic and research related accomplishments)

a). The MVSc students who passed out could get the placement such as Assistant Professor, SMS, Public Service commission etc.

PLACEMENT RECORD OF PG & PhD STUDENTS (Since inception):

Sl. No.	Name of the student/ Registration No. / Email address/ contact no.	Year of placement	Designation/ Rank	Address of the institution/ organization where placed
1.	Kshetrimayum Mahesh Singh , Regd No. CAU/202-V/06(B),	01.08.2016	Assistant Professor	Dept. of Animal Genetics & Breeding, CVSc & AH, CAU ,Jalukie, Peren, Nagaland
2.	Nakambam Manoranjan Singh Regd. No. Cau/201-V/06(B)/2011-V-08(M),	2019	SMS (Animal Science)	KVK, Dima Hasao, Gadain Razi road, Near Govt. Boy's High School, Assam, 788819
3.	Andrew Lalremruata, Admn. No. 2011-V-10 (M),	2015 to 2020 (died)	BDO)	Govt. of Mizoram
4.	Lisham Anandakumar Singh, Regd. No.-CAU/200-V/06(B),	26.10.2015 to 30.09.2019	SRF	AICRP on pig, Livestock Production Division, ICAR, Barapani, Meghalaya
		01.10.2019	Consultant (Vety. & AH)	Agriculture and Allied Sector, NEC Secretariat, Govt. of India, Ministry of DoNER, Shillong, Meghalaya
5.	Rebecca Lalkhawngaihsangi , Regd. No.-CAU/47-V/15(M),	15.10.2020	State Resource Person	FAO, Mizoram
6.	Chukham Gohain , Regd. No.-CAU/83-V/16(M),	09.01.2019	VO	AH & Vety. Dept., Assam
7.	Lalhruaitluangi , Regd. No.-CAU/465-V/11(B),	20.7.2018	Project Associate	NEIDA
8.	Keyolenu Yore , Regd. No. CAU/84-V/16,	05.07.2018	Assistant Prof. (Contractual)	Dept. of LFC, CVSc & AH, CAU ,Jalukie,
9.	C. Lalhlimpuia, Admn. No. 2017-V-02 (M),	08.03.2021	Manager	Boar Semen Station, DVO Champhai, FOCUS, Govt. of Mizoram

b). Many of the passed out MVSc students got admission in reputed Deemed Universities like IVRI, NDRI and other State Universities.

RECORD ON HIGHER STUDIES OF PG / PhD STUDIES:

Sl. No.	Name of the student/ Registration No. / Email address/ contact no.	Academic session of the student	Degree programme of higher studies enrolled for	Address of the institution/ organization where enrolled
1.	Kshetrimayum Mahesh Singh , Regd No. CAU/202-V/06(B),	2013-14 to 2015-16	Ph. D.	Dept. of Animal Genetics & Breeding, NDRI, Karnal
2.	Warngam Anal, Regd. No. CAU/289-V/08(B) ,	2015-16 onward	Ph. D.	AGB Dept., IVRI, Bareilly, UP

3.	Kaiho Kaisa, Admn. No. 2017-V-01 (M),	2019-20 onward	Ph. D.	AGB Dept., IVRI, Bareilly, UP
4.	Timothy Lalmalsawma , Regd. No.-CAU/424-V/10(B),	2018-20 onward	Ph. D.	AGB Dept., CVSc & AH, Guwahati
5.	Surita Majumder, Admn. No. 2018-V-03 (M),	2020-2021 onward	Ph. D.	Dept. of AGB, CVSC, Odisha
6.	Rohit Sharma, Admn. No. 2018-V-43 (M),	2020-21 onward	Ph. D.	Lala Lajpat Rai Univ. Of Vety. & AS, Hisar, Haryana

c). The MVSc Degree programme is very helpful to the department in carrying out the researchable issues of NE region of the country. Due to their research activities along with the research projects of the faculty members, the labs. are under the working conditions.

Research Projects completed by the Faculty Members:

1. Investigation on growth hormone gene polymorphism and its association with performance trait in Mizoram Local Pig "Zovawk" (University funded)
2. Physical characterization of local cattle of North East India (DBT funded)
3. Molecular characterization and development of breed signature of indigenous cattle of North-east India (ICAR funded)
4. TLR-Ligands: to design novel vaccines adjuvants against New Castle Disease in indigenous chicken (DBT funded)
5. ICAR- AICRP on pig (ICAR funded)
6. Estimation of economic losses and analysis of morbidity and mortality of important diseases of swine in Mizoram state

6.4.2. Faculty strength of the department

S No	Faculty in position	Vacant position	Faculty recommended by VCI, 2016
4. Professor	Nil	One	One
5. Associate Professor	One	Nil	One
6. Assistant Professor	Two	Nil	One

6.4.3. Technical and supporting staffs of the department

S No	Sanctioned	Vacant position	Staffs recommended by VCI, 2016
3. FCLA	One	Nil	Not specified
4. Farm Manager	Nil	Nil	Not specified
5. MTS	One	Nil	Not specified

6.4.4. Laboratories :

a) Mention the functional laboratories and justify if it is sufficient to meet the course curricula requirement.

i) The department is having one molecular and one cytogenetics laboratories. The molecular lab. is well equipped to carry out the PG student's research. However, time to time upgradation with the latest equipments will provide better facilities for carrying out the research.

ii) The department is also having the necessary software packages for carrying the data analysis of breeding data as well as molecular genetics data.

b) List of major equipment, instructional units and facilities.

Sl. No.	Name of the equipment		Qty.
1.	PCR	:	02
2.	Gel Documentation system	:	01
3.	UV Trans- illuminator with face shield	:	01
4.	High Speed Table Top centrifuge machine	:	01
5.	Phase contrast microscope	:	01
6.	Deep freezer	:	01
7.	Regrigerator	:	01
8.	Semi Dry Electroblot unit	:	01
9.	Laminar Flow	:	01
10.	Electrophoresis system	:	01
11.	Computer lab. with internet connection	:	01

6.4.5. Conduct of practical and hands on training: The practical classes are is of two hours duration for all the courses offered to students of PG programme. Students are explained before doing the practical by themselves about the importance and procedures to be followed. Then they used to do the practical by themselves under the supervision of the faculty/ course instructor. The practical topics completed are noted in the practical manual, which are checked regularly by the concerned instructor. Students are also taken to the College farm to get practical exposure about the livestock / poultry breeds and also about the selection of superior animals for breeding use.

6.4.6. Supervision of students in PG / PhD programme: Number of students being supervised by faculty in case of Masters/ PhD programme (as per ICAR guidelines).

Recognition for guiding of students (PG & PhD research) as per clause no. 2.12.2 of CAU Academic regulations-2016 for Master and PhD degree programmes.

Master's Programme:

Associate Professor and above and their equivalents OR Assistant Professor and equivalents with Ph. D. degree in the discipline/ subject who has published two research papers other than his /her Master's and Ph. D. thesis OR Assistant Professor and equivalents without Ph. D. degree, provided he/she has at least two years of PG teaching experiences and 5 (Five) research papers published in referred journals with minimum NAAS rating of 4 (other than his /her Master's thesis.

Maximum number of students to be guided by faculty

As per clause no. 2.8.1(iii) of CAU Academic regulations-2016 for Master and PhDdegree programmes, at any given time, Professor, Associate Professor and Assistant Professor shal not be a chairperson for more than 6, 5 and 4 PG students(Master's and PhD combined respectively

Name of the faculty	Programme	Number of students supervised as major Advisor	Number of students being supervised as major advisor
Dr. N. Shyamsana Singh	MVSc	8	3
	PhD	Nil	Nil
Dr. T. C. Tolenkhomba	MVSc	7	2
	PhD	Nil	Nil
Dr. J. K. Chaudhary*	MVSc	1	2
	PhD	Nil	Nil

*Joined the Department in 2016; No Ph. D. Programme in the Department

6.4.7. Feedback of stakeholders: The college through a structured feedback mechanism (copy of feedback format attached as Annexure -I) from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are made by the Head of the departments and Dean of the college. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, avaialbility chemical and reagents and research facilities. Feedback is also received from parents, other institutes, Concerned Directorate of State Government time to time.

6.4.8. Students intake and attrition in programme for last five years(Programme wise)

	2016-17	2017-18	2018-19	201920	2020-21
Sanctioned seat	5	5	5	5	5
Actual admitted	3	2	4	3	4
Attrition %	0	0	0	0	0

6.4.9. ICT application in Curricula delivery:

ICT applications which are being used in curricula delivery in the department of Animal Genetics and Breeding are as follow:

a. LCD for offline teaching

b. Google meet / zoom for conducting online classes, online viva-voce etc.

c. WhatsApp Groups of faculty and students for exchanging the reading, research etc. materials and other related information.

d. Computer lab. with internet facilities for accessing academic information by the students

e. Softwares packages such as SPSS, R, Systat, Harvey for practical learning of the students.

f. Bioinformatic tools for analysing the molecular genetics data.

Signature of Dean of the College with Date and Seal

DEPARTMENT OF VETERINARY ANATOMY & HISTOLOGY

6.4.1. Brief History of degree programme:

a) Degree Programmme initiated: **M. V. Sc. 2013-2014; Ph.D. 2018**

b) Curricula or syllabus of the degree programme followed **as per guidelines of ICAR,2009**

c) Accomplishments in brief.

i) Four M. V. Sc. Student passed out and **two students** are continuing.

i) **One Ph. D.** Student is continuing since introduction (2018).

ii) **Eighteen Research Publication** made by P.G. Student**.**

A. M. V. Sc: 12 (Twelve)

1. Lalramliana A, Kalita PC, Kalita A, Choudhary OP, Doley PJ, Das H (2018). Electron microscopic studies on the skin of Zovawk (Mizo Local Pig). *International Journal of Livestock Research*. 8(4): 202-205.
2. Lalramliana A, Kalita PC, Kalita A, Doley PJ, Das H and Choudhary OP (2018). Light microscopic studies on the skin thickness of Zavawk pig. *Life Sciences Leaflets*, 100: 14-18.
3. Vanlalrozami, Kalita PC, Doley PJ, Kalita A, Choudhary OP, Das H, and Singh S (2018). Gross morphological studies on the harderian gland of Zovawk (Mizo local pig). *International Journal of Agriculture Sciences*. 10(15): 6815-6816.
4. Singh TS, Kalita PC, Choudhary OP, Kalita A, Doley PJ (2019). Histomorphological studies on the testis of local pig (Zovawk) of Mizoram. *Indian Journal of Animal Research*. 53(11): 1455-1458.
5. Debroy S, Kalita A, Doley PJ, Choudhary OP, Das H, Kalita PC (2019). Liver and pancreas of Mizo local pig (Zovawk): A histomorphological and histochemical analysis. *International Journal of Livestock Research*. 9(01): 150-156. DOI: 10.5455/ijlr.20180512115737
6. Keneisenuo, Choudhary OP, Arya RS, Kalita PC, Doley PJ, Rajkhowa TK, Kalita A (2019). Comparative gross morphological studies on the Os-coxae of Crested Serpent eagle *(Spilornis cheela*) and Brown Wood owl *(Strix leptogrammica*). *Journal of Animal Research*. 9(3): 439-442.
7. Keneisenuo, Choudhary OP, Arya RS, Kalita PC, Rajkhowa TK, Kalita A, Doley PJ (2019). Comparative gross anatomical studies on the humerus of crested serpent eagle *(Spilornis cheela*) and brown wood owl *(Strix leptogrammica*). *Indian Journal of Veterinary Anatomy*. 31(2): 95-96.
8. Singh TS, Kalita PC, Choudhary OP, Doley PJ, Kalita A (2019). Gross morphological, histological and histochemical studies on the epididymis of local pig (Zovawk) of Mizoram. *Journal of Animal Research*. 9(6): 855-861.
9. Singh TS, Kalita PC, Kalita A, Doley PJ Choudhary OP and Vanlalrozami (2019). Comparative Gross Anatomical Studies on the Testes of Zovawk (Mizo Local Pig) and Large White Yorkshire Pig. *International Journal of Livestock Research*, 9(2): 49-52. (1. doi: 10.5455/ijlr.20180726105045).
10. Keneisenuo, Choudhary OP, Debroy S, Arya RS, Kalita PC, Doley PJ, Rajkhowa TK, Kalita A (2020). Comparative gross anatomical studies on the shoulder girdle of crested serpent eagle *(Spilornis cheela*) and brown wood owl *(Strix leptogrammica*). *Indian Journal of Animal Research*. 54(5): 570-572. *DOI: 10.18805/ijar.B-3819.*
11. Singh TS, Kalita PC, Choudhary OP, Kalita A, Doley PJ (2020). Histological, micrometrical and histochemical studies on the testes of Large White Yorkshire pig *(Sus scrofa domesticus*). *Indian Journal of Animal Research*. DOI: 10.18805/ijar.B-3914.
12. Keneisenuo, Choudhary OP, Priyanka, Kalita PC, Kalita A, Doley PJ, Chaudhary JK (2020). Applied anatomy and clinical significance of the maxillofacial and mandibular regions of the

barking deer *(Muntiacus muntjak*) and sambar deer *(Rusa unicolor*). *Folia Morphologica*. DOI: 10.5603/FM.a2020.0061.

B. Ph. D : 06 (Six)

1. Kalita A, Sarma K, Talukdar M, Deka A, Kalita PC (2017). Gut Integrity of neonatal piglets: A histomorphological analysis. *Journal of Animal Research*. 7(6): 1115-1121. (
2. Kalita A, Sarma K, Talukdar M, Kalita PC, Doley PJ, Choudhary OP (2018). Histo-enzymatic characterization of small intestine of neonatal piglets. *Journal of Animal Research*. 8(3): 455-458.
3. Kalita A, Kalita PC, Doley PJ, Choudhary OP, Das H (2018). Haematological and serum enzyme profile of neonatal Hampshire piglets. *International Journal of Agriculture Sciences*. 10(12): 6436-6437.
4. Kalita A, Talukdar M, Sarma K, Kalita PC, Gautam C, Choudhary OP, Doley PJ, Keneisenuo, Sarkar R (2020). Alterations of small intestinal morphology on villi and crypts after feeding probiotic and zinc in pre and post-weaned piglets. *Indian Journal of Animal Research.*
5. Kalita A, Talukdar M, Sarma K, Kalita PC, Gali JM, Tamuli S, Choudhary OP, Doley PJ, Debroy S, Keneisenuo (2020). Impact of probiotic and zinc on brush-border enzyme and histoenzymatic profile in the small intestine of pre and post-weaned piglets. *Indian Journal of Animal Research.*
6. Kalita A, Talukdar M, Sarma K, Kalita PC, Roychoudhury P, Kalita G, Choudhary OP, Chaudhary JK, Doley PJ, Debroy S (2020). Small intestinal mucosal cells in piglets fed with probiotic and zinc: a qualitative and quantitative microanatomical study. *Folia Morphologia.* DOI: 10.5603/FM.a2020.0091.

iii) Other accomplishment which will justify the degree programme to be accreditated by ICAR (Mostly academic and research related) accomplishments):

The College of Veterinary Sciences and Animal Husbandry, one of the constituent College of the Central Agricultural University was established through the promulgation of an Ordinance (No. M-2 of 1995; dated 20th February 1995) and became functional with the admission of first batch of students to B. V. Sc. and A.H. degree programme in the year 1997. During the year 1998, the campus formally started functioning at present location, Selesih in 24 Assam Type Houses taken over from the Department of Animal Husbandry and Veterinary, Govt. of Mizoram with 5 Assistant Professor deputed from the state department. Dr. P. C. Kalita was appointed as first Assistant Professor in the department of Veterinary Anatomy and Histology on adhoc basis in November 1998 (15/11/1998). The Department of Veterinary Anatomy and Histology trains students of undergraduate, postgraduate and doctorate level. Keeping with the National mainstream, the department is imparting B.V.Sc. & A.H. degree programme according to the curriculum of the Veterinary Council of India (MSVE, 2016). The students came to appreciate immediately the power of knowing basic anatomical details in clinical practice whenever they are exposed to live animals. These efforts provide a strong educational environment and foundation of support for students. Through the regional teaching, the faculty are embracing new ways to foster engagement in the classroom, assist with deep understanding and improved information retrieval, and promote successful life-long learning. Post Graduate programme was started in the academic session 2013-2014. It is the year 2018, the competent authority has given the approval to start the Ph. D. degree programme. The department is imparting M. V. Sc. and Ph.D. degree programme as per guidelines of ICAR, 2009. Till date four M.V.Sc students (i.e. Dr. A. Lalramliana, Dr. Swarup Debroy, Dr. Thokchom Shitarjit Singh and Dr.Vanlalrozami) have completed their postgraduate studies and presently one Ph. D. student (Dr. Swarup Debroy) and two M. V. Sc student (Dr. Keneisenuo and Dr. Rupan Sarkar) are undergoing for their degree programme. At the department, teaching and research are closely linked, and there is continuous supervision for graduate and postgraduate students. The department houses an extensive collection of anatomical specimens of domestic and wild animals. During the year 1999 few skeletons of cattle, horse,

pig, dog and bird were purchased from Nagpur Veterinary College who were running a ICAR project for skeleton preparation under the dynamic leadership of Dr. V. R. Bhamburkar, Professor and Head cum General Secretary, IAVA. Thereafter, Dr. P. C. Kalita mounted the skeleton of Yak and Mithun in the department during 2005 and 2010 after collection of bones from carcasses of the NRC on Yak, Dirang, Arunachal Pradesh and NRC on Mithun, Jharnapani, Nagaland.

The research focus of the department is on establishing a database of the specific anatomy of Zo-Vawk (Mizo local pig), Mithun, Yak, Sloth Bear, Sun Bear, Hoolock Gibbon and Slow –Loris. The department has successfully completed eight intramural research projects of central Agricultural University including four on Zo-Vawk, the unique animal of Mizoram. The faculty of the department has published more than 115 research paper in journal of National and International repute. Dr. P. C. Kalita acted as a referee for Anatomia Histologia Embryologia (published by Wiley Online Library), Indian Journal of Animal Sciences (published by ICAR), and Indian Journal of Agricultural Research (published by ARCC); and Dr. Arup Kalita acted a referee for Indian Journal of Animal Sciences and Indian Journal of Agricultural Research. Dr. P. C.Kalita has been working as Consultant Indian Wuildlife Year Book since 2010 to till date.

The histology and Histochemistry laboratory provides biopsy, histochemistry, and high quality slide preparation. In 2003, Dr. P. C. Kalita and his co-worker Dr. H. C. Kalita and late Dr. R. N. Bhattacharyaa has been awarded the IAVA best paper award at the Anand Convention. In 2009, Dr. Arup Kalita has been awarded the coveted Md. Hiffiudin award for Best paper in Gross Anatomy. In 2010, Dr. P. C. Kalita has been awarded Dr. A. M. Srivastava Gold Medal in recognition of his best Ph.D thesis at IAVA, Puducherry Convention. In 2014, Dr. P. C. Kalita has been awarded with DBT overseas fellowship to work on alternate animal use technology at TUFT University Cummings School of Veterinary Medicine, Massachusetts, Boston, United States of America. The XXXIII ANNUAL CONVENTION OF INDIAN ASSOCIATION OF VETERINARY ANATOMISTS & NATIONAL SYMPOSIUM was organized during 28th-30th November, 2018 by the Department of Veterinary Anatomy & Histology in collaboration with Indian Association of Veterinary Anatomists. Dr. H. D. Sarma from Bhaba Atomic Research Centre, Trombay delivered a talk on Bioethics and Animal Experimentation during the Symposium to Students, Faculty and Participants. The faculty of the department are also offering their expertise pertaining to various aspects of Veterinary Anatomy including clinical Anatomy, histochemistry and Ultrastructure to other departments, Mizoram University, RIPAN, NEHU and Forensic Science Laboratory.

Dr. P.C. Kalita, Professor and Head of the department, has published 89 publications with a total SCI citation 116 (since 2015) with an H index of 6, i-10 index-2. RG Score- 17.95. He is also a reviewer of various prestigious national and international journals. Dr. Arup Kalita, Assistant Professor (SG), published 107 research publications with a total of SCI citation 138 with an H index of 6, i-10 index-2. He also published his recent publication with an impact factor of 0.94 in the prestigious journal Folia Morphologica published from Poland. RG score- 19.13. Dr. O.P. Choudhary, Assistant Professor, published 92 publications with a total of SCI citations 293 as with an H index-10, i-10 index-10. He has also published two recent articles as a corresponding author with an impact factor of 4.589 equivalent to NAAS 10.59 in the prestigious journal Travel Medicine and Infectious Diseases published from Zurich, Switzerland. RG score- 21.53. He is a member of the International Advisory Board of the International Journal of Morphology with an impact factor of 0.499 published from Chile. Dr. P.J. Doley also published various national and international publications in the prestigious journal. He is also a reviewer of various prestigious national and international journals.

Therefore, the ICAR may give accreditation to the M. V. Sc. And Ph. D. Programme of the department considering the above mention human resources pertaining to the academic and research activities.

6.4.2.Faculty strength of the department

S No		Faculty in position	Vacant position	Faculty recommended by VCI, 2016 (MSVE, 2016 Regulation for B. V. Sc. & A. H.)
7.	Professor	One	Nil	One
8.	Associate Professor	-	One	One
9.	Assistant Professor	Three	Nil	Two

6.4.3. Technical and supporting staffs of the department

S No		Sanctioned	Vacant position	Staffs recommended by VCI, 2016
7.	FCLA	Two	Nil	Two
8.	Farm Manager	Nil	Nil	Nil
9.	MTS	One	Nil	One

6.4.4. Laboratories:

a. Name of Laboratory: **Gross Anatomy laboratory**
   i. Bone and meat cutting machine
   ii. Cadaver Injector

b. Name of Laboratory: **Histology and Histochemistry laboratory**
   i. Cryostat Microtome, Automatic deluxe
   ii. Semi-Motorized Rotary Microtome
   iii. Deep Freezer (-20°C)
   iv. Digital magnetic Stirrer hot plate
   v. Digital Imaging Device
   vi. LCD Multimedia Projector
   vii. Automatic tissue processor
   viii. Autoclave Vertical
   ix. Bone Decalcifier
   x. Centrifuge- Remi
   xi. Distillation Apparatus
   xii. Digital SLR Camera (E-620)
   xiii. Deep Freezer (-20°C)
   xiv. Electric Weighing balance
   xv. Hot Air Oven
   xvi. Incubator
   xvii. Microscope (Monocular)
   xviii. Microscope (Binocular)
   xix. Microscope (Trinocular)
   xx. Overhead Projector
   xxi. Octagon Magnetic Stirrer
   xxii. Paraffin Embedding bath
   xxiii. P^H Meter
   xxiv. Precision Rotary Microtome
   xxv. Slide Warming table
   xxvi. Tissue Floatation Bath

6.4.5. Conduct of practical and hands on training: The practical clas is of two hours duration for all the courses offererred to students of PG programme. Students used to do the practicals by themselves under the supervision of the faculty/ course instructor. Students used to record their observations in practical manual.

6.4.6. Supervision of students in PG / PhD programme: Number of students being supervised by faculty in case of Masters/ PhD programme (as per ICAR guidelines).
Guidance of PG (Master's Programme; CAU, Academic Regulations-2016, clause 2.12.2):: Associate Professor and above and their equivalents **OR** Assistant Professor and equivalents with Ph. D. degree in the discipline/ subject who has published two research papers other than his /her Master's and Ph. D. thesis **OR** Assistant Professor and equivalents without Ph. D. degree, provided he/she has at least two years of PG teaching experiences and 5 (Five) research papers published in referred journals with minimum NAAS rating of 4 (other than his /her Master's thesis.

Maximum number of student/guide (CAU, Academic Regulations-2016, clause 2.8.1. iii):: At any given time**, Professor, Associate Professor** and **Assistant Professor** shall not be a **Chairperson for more than Six, Five and Four P.G. students (Master's and Ph. D. Combined), respectively.**

Name of the faculty	**Programme**	**Number of Students supervised as a Major Advisor**	**Number of Students being supervise as a Major Advisor**
Dr. P. C, Kalita	**M. V. Sc.**	**Four**	**One**
	Ph. D.	No	**One**
Dr. Arup Kalita	**M. V. Sc.**	No	**Two**
	Ph. D.	No	No
Dr. O. P. Choudhary	**M. V. Sc.**	**One**	No
	Ph. D.	No	No

Sl. No.	**Name of Student**	**Name of Adviser**	**Degree Programme**	**Remarks**
01.	Dr. A. Lalramliana	Dr. P. C, Kalita	**M. V. Sc.**	Completed in **2016**
02.	Dr. Swarup Debroy	Dr. P. C. Kalita	**M. V. Sc.**	Completed in **2017**
03.	Dr. Thokchom Shitarjit Singh	Dr. P. C. Kalita	**M. V. Sc.**	Completed in **2018**
04.	Dr. Vanlalrozami	Dr. P. C. Kalita	**M. V. Sc.**	Completed in **2018**
05.	Dr. Swarup Debroy	Dr. P. C. Kalita	**Ph. D.**	Continuing
06..	Dr. Keneisenuo	Dr. O. P. Choudhary	**M. V. Sc.**	Completed in **2020**
07.	Dr. Rupan Sarkar	Dr. Arup Kalita	**M. V. Sc.**	Continuing
08.	Dr. Lalrinawma Khiangte	Dr. P. C, Kalita	**M. V. Sc.**	Continuing

09.	Dr.Monalisha Debbarma	Dr. Arup Kalita	**M. V. Sc.**	Continuing

6.4.7. Feedback of stakeholders: The college through a structured feedback mechanism (copy of feedback format attached as **Annexure -I**) from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are made by the Head of the departments and Dean of the college. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, avaialbility chemical and reagents and research facilities. Feedback is also received from parents, other institutes, Concerned Directorate of State Government time to time.

6.4.8. Students intake and attrition in programme for last five years (MVSC Programme)

	2016-17	2017-18	2018-19	2019-20	2020-21
Sanctioned seat	03	03	03	03	03
Actual admitted	02	nil	01	01	03
Attrition %	0%	NA	0%	0%	33.34

6.4.9. ICT application in Curricula delivery: The Department of Veterinary Anatomy and Histology is using various ICT tools for a better understanding of theories, principles, ideas and concepts. The department uses CD-ROMs for a better understanding of the histological and embryological slides by undergraduate and postgraduate students. The department is also using various websites for the students to understand better gross anatomy (in 3D mode). The department faculty members also provided the link (https://play.google.com/store/apps/details?id=net.imaios.vetanatomy&hl=en_IN&gl=US) for the app IMAIOS vet-Anatomy, which is an atlas of veterinary anatomy for veterinary physicians, radiologists, teachers, veterinary students. During Covid-19 pandemic (w. e. f. March, 2020 to September,2020) the theory and practical clases were conducted through Google meet, goggle classroom and Zoom.

Signature of Dean of the College with Date and Seal

DEPARTMENT OF VETERINARY BIOCHEMISTRY

6.4.1. Brief History of degree programme: The Department of Veterinary Biochemistry has been offering courses of BVSc & AH since the inception of this college i.e. 1998-99. MVSc programme was introduced in the year 2011-12 and thereafter PhD programme in 2016-17 though the Department is offering the minor courses to MVSc students of other Departments since 2007. The nomenclature of the degree programme and syllabi of MVSc & PhD programme is as per ICAR Revised Postgraduate Course Curricula-2009. The department is well equipped with some state-of-the-art facilities viz. High performance liquid chromatography, clinical chemistry analyzer, CO_2 incubator, isoelectric focusing, plate reader, PCR etc.

a) List of the MVSc & PhD students passed out

MVSc (Veterinary Biochemistry)		
Sl. No.	**Name & Admission No.**	**Thesis title**
1	Dr. Lalsangpuii 2011-V-01(M)	Studies on Haemato-Biochemical Profile of Mizoram strain female Mithun (*Bos frontalis*).
2	Dr. P. Kirthika 2012-V-12(M)	Dynamics of Mitogen stimulated cytokine gene expression in peripheral blood mononuclear cells of local and exotic breeds of pigs reared in MIzoram
3	Dr. Laxmi Noatia 2018-V-16(M)	Assessment of *in vitro* growth kinetics and pathogenicity of recorded mutant of *Salmonella Typhimurium.*
4	Dr. Monti Das 2018-V-17 (M)	Comparative salivary proteome analysis to identify early pregnancy-specific protein biomarkers in pigs.
Ph D (Veterinary Biochemistry)		
1.	Dr. Ankan De 2016-V-03(D)	Exploration of serum protein biomarkers for early pregnancy diagnosis in pigs.

b) List of students presently pursuing MVSc (Veterinary Biochemistry) programme

1. Dr. Ashmita Debnath, 2020-V-44(M)
2. Dr. Kekungwi Newmai, 2020-V-46(M)
3. Dr. R. Zapaw Azyu, 2020-V-47(M)

c) Publication: Out of MVSc & PhD research works: 07

1. Lalsangpuii, Ali M.A., Devi L.I., Behera P. and Ralte L. **2015**. Effect of age and season on the thyroid hormone activity of Mizoram strain female mithun (*Bos frontalis*). ***Veterinary World***, 8(12): 1375-1378.

2. Kirthika, P., Ali M.A., Behera P, Subudhi, P.K., Tolenkhomba, T.C., Gali, J.M. **2017.** Dynamics of cytokine gene expression in peripheral blood mononuclear cells of indigenous and exotic breeds of pigs in India. ***Animal Science Journal***, 88, 1794–1800.

3. Lalsangpuii, Ali M.A. and Devi L.I. **2018**. Serum biochemical profile of Mizoram strain female Mithun (*Bos frontalis*) at different age and season. ***Biological Rhythm Research*.** https://doi.org/10.1080/09291016.2018.1474989

4. De, A., Ali, M.A., Chutia, T., Onteru, S.K., Behera, P., Kalita, G., Kumar, S., Gali, J.M. **2018**. Comparative serum proteome analysis reveals potential early pregnancy-specific protein biomarkers in pigs. ***Reproduction, Fertility and Development***, 31(3): 613-631.

5. De, A., Dutta, T.K., Ali, M.A., Behera, P., Gali, J.M. **2019**. Systematic evaluation of species-independent serum pre-fractionation strategies revealed cost-effective methods to reduce proteome complexity. ***Analytical Biochemistry***, 584: 113388.

6. De, A., Ali, M.A., Behera, P., Chutia T., Das, H., Hmar, L., Gali, J.M. (2020). Generation of reference serum proteome map for monitoring swine health. ***Indian Journal of Animal Sciences*** 90 (6): 871–872.

7. De, A., Ali M.A., Behera P, Chutia, T., Saikia, P., Das, H., Mayengbam, P., Gali, J.M. **2017.** Analysis of serum biochemical constituents during early pregnancy in pigs. ***International Journal of Livestock Research***, 7 (12): 43-48.

d) Achievements of passed out PG & PhD students:

Dr. Lalsangpuii – Currently working as Assistant Professor at CVSc, CAU, Jalukie, Nagaland

Dr. P. Kirthika – Currently working as post-doctoral research Scientist College of veterinary medicine, Jeonbuk National University, Iksan, Republic Korea.

Dr. Ankan De - Currently working as Assistant Professor at CVSc, R.K.Nagar, Tripura.

e)Research Projects by the faculties:

Ongoing:

PI or Co-PI	Extramural or intramural	Funding agency	Title of the project	Duration	Total budget
Principal Investigator	Extramural	ICAR	All India Network Project on Pesticide Residues	Continuing since 2011	Allotted yearly
Principal investigator	Extramural	SERB, DST	Identification of key determinant(s) of immune competence of pigs through proteomic approach	2019-22	Rs. 51,86,695/-
Co-PI	Extramural	SERB, DST	Molecular epidemiological studies of canine parvovirus-2 variant(s) from clinical cases of dogs and cats in seven	2019-22	51.43 lakhs

			North Eastern States of India and its management.		
Co-PI	Extramural	DBT	Evaluation of anti-diarrhoeal properties of herbs and its therapeutic potential on pig performance	2017-2020	
Principal investigator	Intra-mural	CAU	Evaluation of blood biochemical profile and antioxidant status of Mizo non-descript local cattle *(Zobawng)"*	2019-20	Rs. 1,98,550.00

Completed:

PI or Co-PI	**Extramural or intramural**	**Funding agency**	**Title of the project**	**Duration**	**Total budget**
PI	Extramural	DBT	Hemoglobin variants and hemoglobinopathies screening in Mizoram population	2012-15	60.45 lakhs
Co-PI	Extramural	DBT	Genetic Characterization of indigenous cattle of North East India	2013	8.92 lakhs
Co-PI	Extramural	DBT	TLR-ligands: To design novel vaccines adjuvant in indigenous chicken	2014-17	64.82 lakhs
Co-PI	Extramural	ICAR-NASF	Alfatoxin resistant Duck strain development in North East region	2017-20	56.23 lakhs
PI	Extramural	DBT	Manipulating the anaerobic respiration to attenuate the pathogenicity of Salmonella Typhimurium".	2017-20	60.73 lakhs
Co-PI	Extramural	DBT	Advanced Animal Diseases Diagnosis and Management Consortium (ADMaC)	2014-19	Rs. 2.37 crores
Co-PI	Extramural	DBT	Role of phyto-biotics as alternative to antibiotic growth promoters on performance of weanling pig and poultry	2015-18	Rs. 61.57 lakhs
PI	Intra-mural	CAU	Evaluation of fodders in Aizawl district for their lectin content	2010-11	Rs. 1.13 lakhs
PI	Intra-mural	CAU	Comparative serum proteome analysis of pigs during different stages of early pregnancy	2019-20	Rs. 1.98 lakhs
PI	Intra-mural	CAU	Pregnancy diagnosis in pigs by analyzing salivary progesterone levels during early pregnancy	2015-16	Rs. 1.48 lakhs
Co-PI	Intra-mural	CAU	Effect of season and age on selected haemato-biochemical profile of local	2010-11	Rs. 1.50 lakhs

			pig (*Zovawk*) of Mizoram		
Co-PI	Intra-mural	CAU	Screening of some medicinal plants in Mizoram for their immunomodulatory and/ or growth promoting activity in chicken	2004-05	Rs. 34,500.00
Co-PI	Intra-mural	CAU	Evaluation of wild sunflower (*Tithonia divercifolia*) as substitute of conventional feed ingredient in broiler in Mizoram		
Co-PI	Intra-mural	CAU	Development of PCR based (real time and multiplex) diagnostic technique for diagnosis of PRRS and differential diagnosis with CSF and PCVAD	2015-16	
PI	Intra-mural	CAU	Isolation of Salmonella species from chicken and their virulence gene detection.	2016-17	1.97 lakhs.
PI	Intra-mural	CAU	Effect of age, sex and different physiological stages on hematological and biochemical profile of Mizo local pig- 'Zovawk' (*Sus Scrofa Scrofa*)	2017-18	1.74 LAKHS
Co-PI	Intra-mural	CAU	Clinico-epidemiological and patho-biochemical studies on canine parvovirus-2 infection in dogs	2014-15	1.47 lakhs
Co-PI	Intra-mural	CAU	Molecular characterization of Canine parvo virus in clinical cases of dogs	2017-18	64.83 lakhs

- **Total number of research articles published by the faculty members: 166**
- **Number of training programmes organized by the department: 01**
- **Number of training programmes attended by the faculty members: 06**
- **Number of national awards received by the faculty members: 03**

6.4.2. Faculty strength of the department

S No	Sanctioned Faculty	Current Position	Faculty recommended by VCI, 2016*	Vacant position
Professor	-	01	01	-
Associate Professor	01	-	01	-
Assistant Professor	03	03	03	-

* Faculty recommended mentioned here is the combine for Veterinary Physiology & Veterinary Biochemistry and strength shown (sactioned Faculty, Current position) is for Veterinary Biochemistry only (exclusive of Veterinary Physiology).

6.4.3. Technical and supporting staffs of the department

S No	Present position	Vacant	Staffs recommended by VCI, 2016
FCLA	01	-	Not specified
Farm Manager	-	-	Not specified
MTS	01	-	Not specified

6.4.4. Laboratories:

c) Mention the functional laboratories and justify if it is sufficient to meet the course curricula requirement.

Name of the laboratory	**Remarks**
Under Graduate Laboratory	For conducting the Practical classes of the undergraduate students
Post Graduate Laboratory	For conducting the Practical classes of the Post graduate students
Molecular biology laboratory	All the laboratories mentioned are functional and routinely used for ongoing PG and Ph.D. research works and also research works of projects of Veterinary Biochemistry department as well as other departments. They are sufficient to meet the course curricula requirement.
Analytical biochemistry laboratory	
Animal cell culture laboratory	
Biotechnology laboratory	
Post Graduate Classroom cum Seminar Room	For conducting departmental seminars and also conducting the Post graduate classes.

d) List of major equipment, instructional units and facilities.

Name of the laboratory	Major equipment	Remarks
Molecular biology lab	PCR, Transilluminator, Gel electrophoresis (AGE & PAGE), Eelectroporator, Semi-dry western blot, orbital shaker incubator, refrigerated centrifuge, -20 deep freezer, Refrigerator, Water bath	High-end equipments mentioned are functional and routinely used for ongoing PG research and project research work of Veterinary Biochemistry department as well as other departments.
Analytical biochemistry lab	HPLC, Clinical chemistry analyzer, Plate reader, Spectrophotometer, -20 deep freezer, Refrigerator, refrigerated centrifuge, Water bath, Vortex mixer, Incubator, Hot air oven, pH meter, Shaker	
Animal cell culture lab	CO_2 incubator, Biosafety cabinet, Inverted microscope, Double door side-by-side refrigerator, Centrifuge	
Biotechnology lab	Isoelectric focusing, Maxi gel electrophoresis apparatus, Refrigerator	

6.4.5 Conduct of practical and hands on training: The practical clas is of two hours duration for all the courses offerered to students of PG & PhD programme. Students used to do the practicals by themselves under the supervision of the faculty/ course instructor. Students used to record their observations in practical manual.

6.4.6. Supervision of students in PG / PhD programme: Number of students being supervised by faculty in case of Masters/ PhD programme (as per ICAR guidelines).

Recognition for guiding of students (PG & PhD research) as per clause no. 2.12.2 of CAU Academic regulations-2016 for Master and PhD degree programmes
Master's Programme:
Associate Professor and above and their equivalents **OR** Assistant Professor and equivalents with Ph. D. degree in the discipline/ subject who has published two research papers other than his /her Master's and Ph. D. thesis **OR** Assistant Professor and equivalents without Ph. D. degree, provided he/she has at least two years of PG teaching experiences and 5 (Five) research papers published in referred journals with minimum NAAS rating of 4 (other than his /her Master's thesis.

Maximum number of students to be guided by faculty
As per clause no. 2.8.1(iii) of CAU Academic regulations-2016 for Master and PhDdegree programmes, at any given time, Professor, Associate Professor and Assistant Professor shal not be a chairperson for more than 6,5 and 4 PG students (Master's and PhD combined) respectively

Name of the faculty	Programme	Number of students supervised as major Advisor	Number of students being supervised as major advisor
Dr M. Ayub Ali	MVSc	2	2
	PhD	1	-
Dr Parthasarathi Behera	MVSc	01	-
	PhD	nil	Nil
Dr Jagan Mohanarao Gali	MVSc	01	-
	PhD	nil	Nil
Dr Hemen Das	MVSc	nil	1
	PhD	nil	nil

a) No. of Ph. D. Students guided by Faculty members as Major Advisor: **01**
b) No. of Ph. D. Students guided by Faculty members as Member Advisory committee: **09**
c) No. of MVSc Students guided by Faculty members as Major Advisor: **04 (2 pursuing)**

d) No. of MVSc. Students guided by Faculty members as Member Advisor committee: **71**

6.4.7. Feedback of stakeholders: The college through a structured feedback mechanism (copy of feedback format attached as Annexure -I) from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are made by the Head of the departments and Dean of the college. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, avaialbility chemical and reagents and research facilities. Feedback is also received from parents, other institutes, Concerned Directorate of State Government time to time.

6.4.8. Students intake and attrition in programme for last five years (MVSCProgramme)

	2016-17	2017-18	2018-19	2019-20	2020-21
Sanctioned seat	4	4	5	5	5
Actual admitted	-	-	2	-	03
Attrition %	-	-	0	-	0

6.4.9. ICT application in curricula delivery:

All the teachers of the department are digitally literate and trained to use ICT. All the teachers have been utilizing a diverse set of ICT tools to communicate, disseminate, and manage information to undergraduate, post-graduate and Ph.D. students. These approaches can lead to higher order thinking skills, provide creative and individualized options for students to express their understandings, and leave students better prepared to deal with ongoing technological change in society and the workplace.

Signature of Dean of the College with Date and Seal

DEPARTMENT OF VETERINARY PHYSIOLOGY

6.4.1. Brief History of degree programme: The department of Veterinary Physiology has been offering courses of BVSc & AH since the inception i.e 1998-99. MVSc programme was introduced in the year 2013-14. The nomenclature of the degree programme and syllabi of MVSC & PhD programme are as per ICAR Revised Postgraduate Course Curricula-2009. There is so far no PhD programme in in the department. The department is well equipped with some state-of-the-art facilities viz. high-performance liquid chromatography, clinical chemistry analyzer, CO_2 incubator, isoelectric focusing, plate reader, PCR, Automatic Weather Station, etc.

a. **List of the MVSc student passed out**

MVSc (Veterinary Physiology)		
Sl. No.	**Name & Admission No.**	**Thesis title**
1	Dr. Vanlalngilneii Ralte 2014-V-12(M)	Expression analysis of HSPs and TLR of indigenous chicken of Mizoram in response to heat and cold stress

b. **List of students presently pursuing MVSc (Veterinary Physiology) programme**

i. Dr. Joycy Seiba Khukhodziinai 2018-V-31(M)

ii. Dr. Sopun Jyoti Bhuyan 2019-V-34(M)

iii. Dr. Sushmita Majumder 2019-V-35(M)

c. <u>Achievements of passed out PG & PhD student</u>

Dr. VanlalngilneiiRalte is presently pursuing PhD at CVScKhanapara, AAU, Guwahati, Assam through placement under SRF, ICAR.

d. **<u>Research Projects by the faculties:</u>**

Ongoing:

PI or Co-PI	**Extramural or intramural**	**Funding agency**	**Title of the project**	**Duration**	**Total budget**
Co-Principal investigator	Extramural	ICAR	All India Network Project on Pesticide Residue (Voluntary Centre for North East Region) and Monitoring of Pesticide Residues at National Level (MRPNL)	Since 2011	Funds are allocated year wise
Principal	Intramural	CAU,	Analysis of seasonal variation in	2018-21	1.999

investigator		Imphal	expression of stress marker genes of Aseel and local indigenous chicken of Mizoram		lakhs

Completed:

PI or Co-PI	Extramural or intramural	Funding agency	Title of the project	Duration	Total budget
Principal investigator	Intramural	CAU, Imphal	Effect of Season and Age on the Selected Haemato-biochemical profile of Local pig (Zovawk) of Mizoram.	2011-2012	1.5 lakh
Co-PI	Extramural	DBT	Physical characterization of indigenous cattle of North eastern region of India	2014-15	8.93
Co-PI	Extramural	DBT	TLR Ligands: To Design Novel Vaccines Adjuvants against New Castle Disease in Indigenous Chicken	2014-18	64.99
PI	Intramural	CAU, Imphal	Effect of age on selected haemato-biochemical profile of local chicken of Mizoram.	2015-2017	1.5 lakh
Co-PI	Extramural	ICAR	Molecular characterization and development of breed signature of indigenous cattle of north-east India.	2016-17	30 lakh

- **Total number of research articles published by the faculty members: 64**
- **Number of training programmes attended by the faculty members: 7**
- **Number of international awards received by the faculty members: 01**
- **Number of national awards received by the faculty members: 02**

6.4.2 Faculty strength of the department

S No	Sanctioned Faculty	Current Position	Faculty recommended by VCI, 2016	Vacant position
Professor	-	01	01*	-
Associate Professor	01	01	01	-
Assistant Professor	02	01	02	01

* Faculty recommended mentioned here is combined for Veterinary Physiology & Veterinary Biochemistry

6.4.3 Technical and supporting staffs of the department

S No	Sanctioned	Present position	Staffs recommended by VCI, 2016
FCLA		01	Not specified
Farm Manager		-	Not specified
MTS		01	Not specified

6.4.4 Laboratories

Mention the functional laboratories and justify if it is sufficient to meet the course curricula requirement.

Name of the laboratory	**Remarks**
Under Graduate Laboratory	For conducting the Practical classes of the undergraduate students
Post Graduate Laboratory	For conducting the Practical classes of the Post graduate students
Molecular biology laboratory	All the laboratories mentioned are functional and routinely used for ongoing PG and Ph.D. research works and also research works of projects of Veterinary Biochemistry department as well as other departments. They are sufficient to meet the course curricula requirement.
Analytical biochemistry laboratory	
Animal cell culture laboratory	
Biotechnology laboratory	
Post Graduate Classroom cum Seminar Room	For conducting departmental seminars and also conducting the Post graduate classes.

e) List of major equipment, instructional units and facilities.

Name of the laboratory	Major equipment	Remarks
Molecular biology lab	PCR, Transilluminator, Gel electrophoresis (AGE & PAGE), Eelectroporator, Semi-dry western blot, orbital shaker incubator, refrigerated centrifuge, -20 deep freezer, Refrigerator, Water bath	High-end equipments mentioned are functional and routinely used for ongoing PG research and project research work of Veterinary Physiology as well as other departments.
Analytical biochemistry lab	HPLC, Clinical chemistry analyzer, Plate reader, Spectrophotometer, -20 deep freezer, Refrigerator, refrigerated centrifuge, Water bath, Vortex mixer, Incubator, Hot air oven, pH meter, Shaker	
Animal cell culture lab	CO_2 incubator, Biosafety cabinet, Inverted microscope, Double door side-by-side refrigerator, Centrifuge	
Biotechnology lab	Isoelectric focusing, Maxi gel electrophoresis apparatus, Refrigerator	
Instructional unit above college library building	Automatic Weather Station	

6.4.5 Conduct of practical and hands on training: The practical clas is of two hours duration for all the courses offererred to students of PG & PhD programme. Students do the practicals by themselves under the supervision of the faculty/ course instructor. Students record their observations in practical manual.

6.4.6. Supervision of students in PG / PhD programme: Number of students being supervised by faculty in case of Masters/ PhD programme (as per ICAR guidelines).

Recognition for guiding of students (PG & PhD research) as per clause no. 2.12.2 of CAU Academic regulations-2016 for Master and PhD degree programmes

Master's Programme:

Associate Professor and above and their equivalents **OR** Assistant Professor and equivalents with Ph. D. degree in the discipline/ subject who has published two research papers other than his /her Master's and Ph. D. thesis **OR** Assistant Professor and equivalents without Ph. D. degree, provided he/she has at least two years of PG teaching experiences and 5 (Five) research papers published in referred journals with minimum NAAS rating of 4 (other than his /her Master's thesis.

Maximum number of students to be guided by faculty

As per clause no. 2.8.1(iii) of CAU Academic regulations-2016 for Master and PhDdegree programmes, at any given time, Professor, Associate Professor and Assistant Professor shal not be a chairperson for more than 6,5 and 4 PG students (Master's and PhD combined) respectively

Name of the faculty	Programme	Number of students supervised as major Advisor	Number of students being supervised as major advisor
Dr Prava Mayengbam, Associate Professor	MVSc	1	03
	PhD	Nil	Nil
Dr M.C. Lallianchhunga, Assistant Prof	MVSc	Nil	2
	PhD	Nil	Nil

6.4.7. Feedback of stakeholders: The college through a structured feedback mechanism (copy of feedback format attached as Annexure -I) from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are made by the Head of the departments and Dean of the college. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, avaialbility chemical and reagents and research facilities. Feedback is also received from parents, other institutes, Concerned Directorate of State Government time to time.

6.4.8 .Students intake and attrition in programme for last five years (Programme wise)

	2016-17	2017-18	2018-19	2019-20	2020-21
Sanctioned seat	3	3	3	3	03
Actual admitted	-	-	1	2	02
Attrition %	-	-	0%	0	0

6.4.9. ICT application in curricula delivery:

All the teachers of the department are digitally literate and trained to use ICT. All the teachers have been utilizing a diverse set of ICT tools to communicate, disseminate, and manage information to undergraduate, post-graduate and Ph.D. students. These approaches can lead to higher order thinking skills, provide creative and individualized options for students to express their understandings, and leave students better prepared to deal with ongoing technological change in society and the workplace.

Signature of Dean of the College with Date and Seal

DEPARTMENT OF LIVESTOCK PRODUCTION MANAGEMENT

6.4.1. Brief history of the Department

Dr. Lalnuntluangi Hmar was appointed on deputation as first Assistant Professor in the department of Livestock Production Management (LPM) in November 1998. Besides teaching all the courses, she started to build up the department. First few years, Department was in the old Assam Type buildings (presently college canteen and broiler farm buildings) and later on (in 2001) it was shifted to present Academic Block along with other departments of the college. Three sitting rooms and one practical room were allotted for the department of LPM. In 2001, Dr. Lalnuntluangi Hmar joined as permanent member in the college and two more faculty members namely Dr. Girin Kalita and Dr. (Mrs) Ranjana Goswami joined the department. All the members of the department started to plan for development of the department as well as the livestock farm buildings. Floor plan of the present Cattle, Poultry, Pig and Goat farms were drawn along with consultation of the construction company during the year 2003-04. In the year 2008, construction some of the farm buildings are completed and handed over to the college and in the same year, department was shifted to one of the farm building in the farm complex (present one). In the year 2007, Dr. Lalnuntluangi Hmar promoted to the rank of Associate Professor. Dr. Prasant Saikia joined as Assistant Professor in October 2009 and further strengthens the department. From August 2009 to July 2012, Dr. Girin Kalita and from August 2011 to July 2014 Dr.(Mrs) Ranjana Goswami was on study leave for their Ph.D. study. During their leave, Dr. Hmar and Dr. Saikia have taught all the courses of the department and other office works.

Far imparting practical training, pigggery unit was initiated with only five animals (Burmese pig) during 2002-03 and were reared in the old Assam type sheds as new sheds were constructed at that time. Few more Large White Yorkshire and Zovawk (local pig of Mizoram) pigs were purchased in the year 2007-08 to increase the strength. The stock was increased up to about 80 animals and was shifted to new pig farm sheds in 2007-08. To avoid inbreeding, 10 more pigs (Burmese pig) was purchased in 2009. However, do to outbreak of swine fever in the farm, whole stock of pigs was disposed and new stock of Large White Yorkshire pigs were brought to the farm in the year 2010. Mentionably, during that year, there was wide spread outbreak of swine fever in state of Mizoram and in the country as a whole and thousands of pigs were lost. Presently more than 150 pigs (Large White Yorkshire) are there in the pig farm. Establishment of AICRP on pig centre in the College also further strengthen the pig farm. Dairy unit of the department was initiated with purchase of 5 animals from the local market. After construction of dairy cattle shed, few more animals (crossbred Holstein Friesian and Jersey) were purchased for the farm in the year 2010-11. Presently the dairy farm is having more than 30 animals (including cows, calves, heifers, bull) with 70-100 litres of milk production per day. Poultry unit of the department was initiated with rearing of broilers for teaching purposes from 2002-03 and were reared in the old Assam Type shed. With the help of DBT funded project, small hatchery and Quail unit was established during 2004-05. The poultry farm shed (present poultry farm shed) was constructed during 2010-2011 and stocks of dual-purpose poultry birds like Giriraja, Banraja were purchased with a motto to distribute dual purpose chicks to the farmers. Presently more than 2000 poultry birds are reared in the farm. For imparting practical training, few goats were purchased during 2003-04 and were reared in the old Assam Type Shed. The Department is having small unit of sheep and goat with a capacity of 40 animals. Along with the faculty members of the department, faculties of other related departments namely Dr. Biren Kumar Das (Asstt. Prof.,Department of Animal Nutrition), Dr. T.C. Tolenkhoma (Asstt. Prof.,Department of Animal Genetics and Breeding and Dr. N.S. Singh (Assoc. Prof.,Department of Animal Genetics and Breeding) are also worked or working as I/C Farm or Farm Manager and helping in managing the different livestock farms. Supports of the other faculty members of the College and staff of AICRP on pigs and the persons related with other research projects of the department are also enormous in maintaining the livestock farms.

M.V.Sc. programme was started with only one student in the academic session 2006–07 and so far, 20 students were awarded the M.V.Sc. degree and 6 students are pursuing M.V.Sc. under the department. In the year 2012, Dr. L. Hmar promoted to the rank of Professor, and the authority has given the approval to start the Ph.D. programme in the year 2013. So far no student has enrolled for Ph.D. programme in the

department. However, Ph.D. courses have been offered for students taken LPM as minor subject. Presently, department is following the ICAR syllabus for the post graduate students.

Along with M.V.Sc. research work, few other research projects (intramural and extramural) have been completed in the department. Main focus of research work of the department is to study the livestock production systems followed in the North Eastern States and to evolve new technologies to improve the livestock production. Besides this, faculty members of the department are involved in many other research projects as member of advisory committee or as Co-PI of research projects.

As a part of extension programme, department is organizing short term (2-3 days) , long term (14-50 days) and Vocational training programmes on regular basis in the field of livestock management. Hand on training on broiler farming was started since 2004, where in undergraduate students are trained in practical aspects of broiler farming. As per new VCI syllabus, entrepreneurship training programme on broiler farming was started in the department since 2010, wherein inputs are given to rear the broiler birds, so that the students can learn the practical aspects of management. The programme is run in whole year, where in different batches of broilers are reared by the students under the supervision of one of the faculty members of the department and the profit earn from sale of broilers are distributed equally among the participating students. Every year 20-25 students of 3rd Year register for the programme.

- Year of introduction of MVSc : 2006
- Year of introduction of PhD : 2013
- Number of MVSc students passed out: 20 nos.
- Number of MVSc students on roll: 6 nos.

6.4.2. Faculty strength of the department

S No	Sanctioned Faculty	Current Position	Faculty recommended by VCI, 2016*	Vacant position
Professor	1	00	01	1
Associate Professor	01	1	01	Nil
Assistant Professor	03	02	02	1

6.4.3. Technical and supporting staffs of the department

S No	Present position	Vacant position	Staffs recommended by VCI, 2016
FCLA	01	-	Not specified
Farm Manager	-	-	Not specified
MTS	01	-	Not specified

6.4.4. Laboratories:

a) Mention the functional laboratories and justify if it is sufficient to meet the course curricula requirement.

Name of the laboratory	**Remarks**
Under Graduate Laboratory	For conducting the Practical classes of the undergraduate students
Post Graduate Laboratory	For conducting the Practical classes of the Post graduate students

b) Equipments:

Sl no	Equipment	Qnty
1.	Animal weighing platform. 1000kg capacity	1
2.	Refrigerator LG 310Lit	1
3.	Refrigerator LG 350Lit	2
4.	Deep freezer (-20) vertical Yorco	1
5.	Deep freezer (horizontal)	4
6.	Digital weighning balance, 300kg capacity	1
7.	Colony counter	1
8.	Sheep-Goat pregnancy detector	1
9.	Pregnancy tester with secondary head set	1
10.	Electronic estrous detector	1
11.	LCD projector (Ricoh)	1
12.	Milking machine	2
13.	Digital camera	1
14.	Digital hay tester	1
15.	Silage tester	1
16.	Battery brooder (electrically operated)	2
17.	Setter cum hatcher	1
18.	Incubator (hatcher & setter)	1

7. Research project and publication from PG and Ph.D research work

i) Research project undertaken in the Department of LPM

Sl. No.	Title of the project/Programme	Principal Investigator	Funding organization	Duration of the project	Present status
1	Study of potential of quails farming in Mizoram	Dr. L.Hmar	DBT	4 years	Completed

3	Augmenting pig production through effective microbial technolgy	Dr. Prasanta Saikia	DBT	3 years	Completed
4	Skill Enhancement and Generation of Sustainable Livelihood for Pig Farmers in Kolasib District of Mizoram	Dr.Prasanta Saikia	DBT	3 years	Completed
5	Techno-economic empowerment of rural woman through piglet production	Dr. Girin Kalita	DBT	3 years	Completed
6	Studies on performance of pigs in low input traditional system	Dr.Prasanta Saikia	CAU	1 year	Completed
7	Effect of early weaning management on performance of Yorkshire sow and piglets	Dr. Girin Kalita	CAU	1 year	Completed
8	Effect of maize and rice based-heat treated and untreated diets on performance of young pigs during nursing and post weaning period	Dr. Girin Kalita	CAU	1 year	Completed
9	Performance of Goats under Field Conditions of Mizoram	Dr Ranjana Goswami	CAU	1 year	Completed

ii) Research project of PG students

Sl no	Name of student	Research title
1.	Dr Rody Lalrinfeli Fanai	Comparisons of Broiler performance under intensive system and backyard system
2.	Dr H.Lalliankimi	Effect of Zinc supplementation on the performance of Japanese Quails
3.	Dr Jamlianthang	Effect of water quality and its sources on the performance of Broilers
4.	Dr C.Lalremruata	Performance of piglets under filed condition of Mizoram
5.	Dr Aba Liptos Marak	A study on management practices of Local pigs under field condition of West Garo Hills district if Meghalaya
6.	Dr F. Laldinthara	Effect of early weaning on the performance of Piglets and sow in Mizo Local pig (Zovawk)
7.	Dr Elizabeth Lalbiaknungi Leihang	Effect of feeding frequency on the performance of broilers
8.	Dr Elangbam Shitaljit Singh	Studies on pig farming systems under field condition in Imphal West district of Manipur
9.	Dr C. Lalchhuanawma	Studies on backyard Fattener pig production system in Aizawl and Kolasib district of Mizoram
10.	Dr Angela L. Renthlei	Effect of age and rearing system in the performance of Broilers
11.	Dr Kha Lovingson	Performance of early weaned pigs under cage system of rearing.
12.	Dr Menalsh Laishram	Use of effective Microbial Technology in fattening pigs

		in deep litter housing system
13.	Dr Karuna Saikia	Effect of early weaning management on performance of Large White Yorkshire pigs
14.	Dr Sharon Vikram Pratap Dewan	Studies on performance and behaviour of growing kids managed with or without concentrate supplementation.
15.	Dr Chandra Debbarma	Effect storage period and egg weight on hatchability of Japanese Quail eggs and subsequent growth performance of chicks
16.	Dr Lakshya Jyoti Kakati	"Effect of herbal supplement Shatavari (*Asparagus racemosus*) on performance of Large White Yorkshire Sow
17.	Dr Nanda Kumar Roy	Effect of Nutritional Supplementation of Neonatal Pig on Growth and Survivability during Pre-weaning Period
18.	Dr Vanlalhmangaihsanga	Comparative Efficacy of Different Methods of Castration on the Growth Performance and Certain Carcass Characteristics of Growing Finishing Pigs
19.	Dr Malsawmkima Pachuau	Effect of Dietary supplementation of garlic and ginger on the performance of weaner pigs
20.	Dr Bidyut Sarma	Effect of Dietary Supplementation of Vitamin E on Egg Quality, Hatchability and Growth Performance of Quail Chicks

iii) Research Publications

Sl. No.	*Author/Authors*	*Title of an Article*	*Name of Journal, Year,Volume, Page Nos.*
1.	C.Lalremruata, L.Hmar, P.Saikia, Joy L.Kataria and Jonathan Lalsiamthara	Pre-weaning mortality of piglets and its causes in the field condition of Aizawl	*Post Symposium Compendium, ISAPM, 11-13.11.2010,Pg. 68-69*
2.	C. Lalremruata , L. Hmar , K. Sharma and Rosangzuali	Lactational weight loss of sows reared under field condition of Aizawl	*The Indian Journal of Field Veterinarians, Vol. 9 Accepted 20-8-2013*
3.	C.Lalremruata and L.Hmar	Weaning to estrus interval of sows reared under field condition of Aizawl.	*Indian J.Anim.Prod.Mgmt. Vol.29(1-2) 110-112 (2013).*
4.	Fanai R., Hmar L., Kalita G., Khate K. and Samanta A.K.	Carcass qualities of broiler under intensive and backyard system of management in Mizoram	*Indian J. Anim. Prod. Mgmt.30(3-4):52-56*
5.	Fanai R., Hmar L., Kalita G., Khate K. and Samanta A.K.	Economics of broiler rearing under intensive and backyard system of management in Mizoram	*Indian J.Anim.Prod.Mgmt. 31(1-2): 104-106 (2015)*
6.	Fanai R., Hmar L., Kalita G., Khate K. and Samanta A.K.	Economics of broiler rearing under intensive and backyard system of management in Mizoram	*Indian J. Anim.Prod. Mgmt.31(1-2):104-106*
7.	Lalremruata C., Hmar L. and Kalita G.	Study on the growth performance and mortality in	*Indian J. Anim. Res., 49 (2) 2015: 262-264*

		pre-weaning Burmese piglets reared under field condition of Aizawl, India	
8.	K. Saikia, Kalita G., Hmar L., Samanta A. K., Goswami R., Tolenkhomba T. C., Talukdar D. and Chutia T.	Effect of Early and Split Weaning Management on Reproductive Performance of Large White Yorkshire Pigs	*International Journal of Livestock Research, Vol 7 (12):59-64*
9.	Laishram M., Saikia P., Kalita G., Hmar L, Roy Choudhury P and Panda S.	Performance evaluation of fattening pigs under Deep Litter housing system employing effective microbial technology.	*International Journal of Livestock Research, 7 (11) :77-88*
10.	H.Lalliankimi, Gautam Patra, Lalnuntluangi Hmar, Zosangpuii and Rody L. Fanai	Evaluation of growth performance and effect of quality of eggs of Japanese Quails at different levels of Zinc supplementation under agro-climtic condition of Mizoram, India	*International Journal of Poultry Science, 16(8):317-322,2017*
11.	Saikia K., Kalita G., Ghorai S., Buragohain M, Boruah K. and Barman K.C.	Effect of early weaning on mortality, incidence of diseases and haemato-biochemical parameters of large white Yorkshire pigs	*Journal of Entomology and Zoology Studies 2018; 6(1): 235-239*
12.	Hmar L., Renthlei A., Ali A., Goswami R., Das H., Kalita G., Burogohain R. and Rahman S.	Effect of age and rearing system on the haemato-biochemical profile of broilers reared under agro-climatic condition of Mizoram	*International Journal of Agriculture Sciences 10(17):-7037-7039*
13.	Lovingson K., Kalita G., Hmar L., Das H., Goswami R., Saikia P.,Sarma K. and Buragohain R.	Blood biochemical profile of early weaned Large White Yorkshire pig under cage system of rearing	*J. Exp. Zool. Indi. 21(2): 953-956*
14.	Jamlianthang, Goswami R., Hmar L., Kalita G., Buragohain R.,Das H. and Khate K.	Effect of different sources of water on the performance of broilers in Mizoram	*International Journal of Chemical Studies 2018; 6(6): 1152-1155*
15.	Saikia K., Kalita G., Hmar L., Goswami R., Talukdar D., Samanta A.K. and Tolenkhomba T.C.	Effect of early and split weaning management on growth performance of Large White Yorkshire pigs	*Indian Journal of Animal Sciences 89(2): 172–175*
16.	Kakati, L., Kalita, G., Hmar, L., Samanta, A., Tolenkhomba, T., Das, H., & Talukdar, D.	Effect of Dietary Supplementation of *Shatavari* (*Asparagus racemosus*) Root Powder on Reproductive Performance of Large White Yorkshire Sow	*International Journal of Livestock Research, 9(2), 110-113.*

8. Placement of passed out PG students

Sl.No	Name of student	Placement
1.	Dr Rody Lalrinfeli Fanai	Livestock/ Farm Assistant, CVSc & AH,Selesih, Aizawl, Mizoram
2.	Dr H.Lalliankimi	SRF, AICRP on Pigs, CVSc & AH,Selesih, Aizawl, Mizoram
3.	Dr Jamlianthang	Field-cum-Lab. Assistant, CVSc & AH,Selesih, Aizawl, Mizoram
4.	Dr C.Lalremruata	SMS, KVK, Mizoram
5.	Dr Aba Liptos Marak	Veterinary Officer, Govt. of Meghalaya
6.	Dr F. Laldinthara	State Mission Manager, Mizoram State Rural Livelihood Mission, Rural Development Department, Govt. of Mizoram
7.	Dr Elizabeth Lalbiaknungi Leihang	Clerical staff, State Referral Hospital,Falkawn, Govt. of Mizoram
8.	Dr Elangbam Shitaljit Singh	Veterinary Officer, Govt. of Manipur
9.	Dr C. Lalchhuanawma	Block Technology Manager, Agricultural Technology Management Agency, Mizoram
10.	Dr Angela L. Renthlei	State Co-ordinator, Agricultural Technology Management Agency, Mizoram
11.	Dr Kha Lovingson	Farm Manager, KVK, Tripura
12.	Dr Karuna Saikia	Assistant Professor, College of Vety. Sc, Assam Agriculture University, North Lakhimpur
13.	Dr Sharon Vikram Pratap Dewan	Mobile Veterinary Service, Kolkata
14.	Dr Chandra Debbarma	SRF, NICRA, ICAR, Lembucherra, Tripura.
15.	Dr Vanlalhmangaihsanga	JRF, CVSc & AH, Selesih, Aizawl, Mizoram
16.	Dr Malsawmkima Pachuau	Animal Husbandry Manager, IFAD, FOCUS, Mizoram
17.	Dr Bidyut Sarma	Veterinary Officer, Dudhdhara Dairy Co-operative, Bharuch, Gujarat

6.4.5 Conduct of practical and hands on training: The practical clas is of two hours duration for all the courses offerered to students of PG & PhD programme. Students used to do the practicals by themselves under the supervision of the faculty/ course instructor. Students used to record their observations in practical manual.

6.4.6. Supervision of students in PG / PhD programme: Number of students being supervised by faculty in case of Masters/ PhD programme (as per ICAR guidelines)

Recognition for guiding of students (PG & PhD research) as per clause no. 2.12.2 of CAU Academic regulations-2016 for Master and PhD degree programmes

Master's Programme:
Associate Professor and above and their equivalents **OR** Assistant Professor and equivalents with Ph. D. degree in the discipline/ subject who has published two research papers other than his /her Master's and Ph. D. thesis **OR** Assistant Professor and equivalents without Ph. D. degree, provided he/she has at least two years of PG teaching experiences and 5 (Five) research papers published in referred journals with minimum NAAS rating of 4 (other than his /her Master's thesis.

Maximum number of students to be guided by faculty

As per clause no. 2.8.1(iii) of CAU Academic regulations-2016 for Master and PhDdegree programmes, at any given time, Professor, Associate Professor and Assistant Professor shal not be a chairperson for more than 6,5 and 4 PG students (Master's and PhD combined) respectively

The faculty members supervised 20 MVSc students since inception of the programme. So far , No students got admitted in PhD programme of the department

Sl no	Name of student	Name of Supervizer
1.	Dr Rody Lalrinfeli Fanai	Dr. L.Hmar
2.	Dr H.Lalliankimi	Dr. L.Hmar
3.	Dr Jamlianthang	Dr. R.Goswami
4.	Dr C.Lalremruata	Dr. L.Hmar
5.	Dr Aba Liptos Marak	Dr. P. Saikia
6.	Dr F. Laldinthara	Dr. P. Saikia
7.	Dr Elizabeth Lalbiaknungi Leihang	Dr. L.Hmar
8.	Dr Elangbam Shitaljit Singh	Dr. P. Saikia
9.	Dr. C. Lalchhuanawma	Dr. G.Kalita
10.	Dr Angela L. Renthlei	Dr. L.Hmar
11.	Dr Kha Lovingson	Dr. G.Kalita
12.	Dr Menalsh Laishram	Dr. P. Saikia
13.	Dr Karuna Saikia	Dr. G.Kalita
14.	Dr Sharon Vikram Pratap Dewan	Dr. R.Goswami
15.	Dr Chandra Debbarma	Dr. R.Goswami
16.	Dr Lakshya Jyoti Kakati	Dr. G.Kalita
17.	Dr Nanda Kumar Roy	Dr. G.Kalita
18.	Dr Vanlalhmangaihsanga	Dr. L. Hmar
19.	Dr Malsawmkima Pachuau	Dr. G.Kalita
20.	Dr Bidyut Sarma	Dr. R.Goswami

6.4.7 Feedback of stakeholders: The college through a structured feedback mechanism (copy of feedback format attached as Annexure -I) from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are made by the Head of the departments and Dean of the college. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, avaialbility chemical and reagents and research facilities. Feedback is also received from parents, other institutes, Concerned Directorate of State Government time to time.

6.4.8. Students intake and attrition in programme for last five years (Programme wise)

	2016-17	2017-18	2018-19	2019-20	2020-21
Sanctioned seat	4	4	5	5	5
Actual admitted	2	4	5	4	4
Attrition %	0	0	0	0	0

6.4.9 ICT application in Curricula delivery: Various ICT tools are being used for conducting Theory and practical classes of M.V.Sc. programme. To explain different farm practicals, Video CD is also shown time to time. Excel sheets in computers are frequently used to teach least cost ration formulation, record keeping and farm economic evaluation practicals. Soft copies of different study materials are shared at regular intervals. All the faculties of the department are digitally literate to use ITC in teaching.

Signature of Dean of the College with Date and Seal

DEPARTMENT OF VETERINARY & ANIMAL HUSBANDRY EXTENSION

6.4.1 Brief History of degree programme:

The Department of Veterinary & Animal Husbandry Extension Education has been started with the joining of one Assistant Professor in 2001. It is imparting teaching on Veterinary and Animal Husbandry Extension Education at Undergraduate level since its inception. Presently it is offering 4 (3+1) credits hour at Undergraduate level. The MVSc degree programme in Veterinary Extension Education has been introduced from academic session 2013-14. At present 5 (five) students are pursuing MVSc degree. The Department has been offering minor courses and supporting courses for the MVSc students of other disciplines since 2011-12. The Department is having qualified and experienced faculty members to conduct teaching and research works of Ph.D. programme. Nomenclature, curricula or syllabus of the degree programme are as per guidelines of ICAR,2009

Accomplishments in brief.

i) MVSc students passed out since introduction of the programme:

Sl. No.	Name of students	Topics of Research
1.	Dr. Reuben Malsawmdawngliana 2013-V-09(M)	Status of Dairy Farming in Mizoram: An Exploratory Study
2.	Dr. Francis Lalrinmawia Sailo 2013-V-11(M)]	Backyard Poultry Farming in Mizoram: An Exploratory Study
3.	Dr. Hmingthanzuala 2013-V-10(M)]	A study on Self-help Groups engaged in pig rearing in Mizoram
4.	Dr. (Ms.) Debbie Lalngaihawmi 2014-V-11(M)	Information Needs of the Piggery Farmers of Aizawl District of Mizoram
5.	Dr. Lalruatfela Sailo 2014-V-10(M)	Status of Broiler Farming in Mizoram: An Exploratory Study
6	Dr. Dorothy Lalchhanhimi 2015-V-17(M)	The Role of Rural Women in Household Food Security Activities in Mizoram
7	Dr. Lalhmunmawia 2015-V-16(M)	A Study on Social Structure, Animal Husbandry and Livelihood in a Village of Mizoram
8	Dr. Supritam Das 2016-V-10(M)	Navigation of Duck Farming System in Tripura
9	Dr. Biswajit Chutia 2017-V-05(M)	Utilization of Information and Communication Technology (ICT)Tools by Krisihi Vigyan Kendra Functionaries in Mizoram
10	Dr. K. Joshua Kath 2017-V-07(M)	A Study on Animal Husbandry Practices of *Tenyivo* Pig Farmers of Nagaland
11	Dr. Zothanpuii 2018-V-08(M)	Critical Success Factors of Small Scale Piglet production in Mizoram
12	Dr. Nancy Lalruatfeli 2018-V-09(M)	Dairy Farming Practices amongst Cooperative Milk Producers in Aizawl District of Mizoram: An analysis.

ii) PhD students passed out since introduction of the programme: NA

iii) Publications

1	Rahman S, Kima R., Kath K. J, Chutia B, and Tochhawng L. (2018). Utilisation of Information Technology by the Students: A Study from a Veterinary College. Journal of Global Communication, 11 (2): 139-144 (NAAS Rating- 2019 4.50)
2	Sailo F.L., and Rahman, S. 2017. Marketing Practices and Constraints in Backyard Poultry Farming in the hills of Mizoram. International Journal of Livestock Research. 7(11):200-205. (NAAS Rating- 2020-5.36)
3	Lalngaihawmi, D. and Rahman, S. 2017. Information Needs of Tribal Pig Farmers of Aizawl District of Mizoram. International Journal of Livestock Research. 7(3), 63-69. (NAAS Rating- 2020-5.36)
4	Malsawmdangliana, R. and Rahman, S., 2016. Management practices followed by the dairy farmers of Mizoram, India. Journal of Livestock Science .7: 220-225 (NAAS Rating- 2019-3.92)
5	Hmingthanzuala, Das, S.K., Rahman, S., Tolenkhomba, T.C. and Saikia, P. (2016). Impact of SHG on Income of Pig Farmers in Mizoram of North East India. International Journal of Bio-resource Stress Management. 7(3):10.5958/0976-4038.2016.00078.6 (NAAS Rating- 2019-4.5)
6	Lalchhanhimi, D., and Rahman , S.(2018). The Role of Rural Women in Household food Security Activities and Livestock management in Mizoram. Journal of Global Communication, 11 (1): 59-64(J264/4.50) (NAAS Rating- 2019-5.36)
7	Sailo F.L., and Rahman, S. (2017). Marketing channel followed by Backyard Poultry Farmers of Mizoram. CAU Research Newsletter 7(2):30
8	Kath, J., Rahman, S., Tochhawng, L., Goswami, R., and Chutia, B. (2019): Socio-economic Status of Tenyi-vo pig farmers of Nagaland, India, International Journal of Livestock Research. 9 (11): 196-203. (NAAS Rating- 2020-5.36)
9	Das, S., and Rahman, S. (2019). Duck Farming Practices in Tripura. International Journal of Livestock Research. 9 (1): 157-165. (NAAS Rating- 2020-5.36)
10	Chutia, B. Rahman, S., Tolenkhomba T.C., Kalita G and Kath, J., (2019): Utilization of Information and Communication Technology tools by the KVK functionaries in Mizoram. Submitted to Journal of Global Communication, (NAAS Rating- 2019-5.36)
11	Das, S., and Rahman, S. Das, S.., kalita, G., and Tolenkhomba, T.C.(2020). A Socio-Economic Analysis of the Duck Farmers of Tripura International Journal of Livestock Research. 10 (10): 144-151. (NAAS Rating- 2020-5.36)

iv) Any other accomplishment which will justify the degree programme to be accredited by ICAR(Mostly academic and research related accomplishments)

a. Research Project:

Sl. no.	Title of the Project	As PI/ Co-PI	Duration	Funding Agency	Budget Lakh Rs.	Status
1	Study of prevailing management practices vis-à-vis adoption of recommended technology by pig farmers of Aizawl District of Mizoram	PI	I year	CAU, Imphal	0.11	Completed
2	Morphometric characteristics, reproductive and productive performance of local cattle	PI	2 years	-do-	1.17	Completed

	(Zobawng) of Mizoram in field condition					
3	Sustainable Livelihood Generation for Rural Women through Improved Backyard Poultry Farming	PI	3 Years	DBT, New Delhi	71.85	Completed
4	Mobile Based agro-advisory System in Mizoram	PI	3 Years	MeitY, New Delhi	177.86	Ongoing
5	Evaluation of wild sunflower (*Tithoniadiversifolia*) as substitute of conventional feed ingredients for broiler in Mizoram	Co-PI	I year	CAU, Imphal	1.47	Completed
6	Climate change impacts on hill agriculture in Northeast Himalaya: A socio-economic analysis.	Co-PI	2 years	ICSSR, New Delhi	20.00	Completed
7	Physical Characterization of Indigenous Cattle of North-east India	Co-PI	1 & 1/2 years	DBT, New Delhi	8.95	Completed
8	Techno-economic empowerment of rural women through sustainable piglet production units in Aizawl districts of Mizoram	Co-PI	3 Years	DBT, New Delhi	91.334	Completed
9	Enhancement & Pilot Testing of Digital Solutions for the Weavers/Digital Solutions for the Weavers/Designers and Artisans of NE Regions (Mizoram)-	Co-PI	1 & 1/2 years	DIC New Delhi	40.07	Ongoing
10	Performance of Goats under field Condition of Mizoram	Co-PI	2 years years	CAU, Imphal. Grant:	1.97	Completed

b. Placement of Students

Sl. No	Name of the Student	Educational qualification	Employment details			
			Post held	Department	From	To
1.	Dr. Reuben Malsawmdawngliana	MVSc	Manager (Technical)	PIGFED Ltd, Aizawl	2017	Till date
2.	Dr. Francis Lalrinmawia Sailo	MVSc	Staff at Circle (SAC)	Dept. of Agri. FOCUS project	2018	Till date
3.	Dr. Hmingthanzuala	MVSc	District Information Officer	I &RPR Dept Govt. of Mizoram	2018	Till date
4.						
5.	Dr. Lalruatfela Sailo	MVSc	Animal Husbandry Manager	Dept. of Agri. FOCUS project	2020	Till date

6.	Dr. (Ms). Dorothy Lalchhanhimi	MVSc	Consultant/ Visiting Doctor	JB Paws/ Dept of Pharmacy, RIPANS	2018	Till date
7	Dr. Lalnunmawia	MVSc	Staff at Circle	Dept. of Agri. FOCUS project	2018	Till date
8	Dr. Supritam Das	MVSc	Scientist,	KVK, Dholai, Tripura	2021	Till date
9	Dr. Biswajit Chutia	MVSc	Veterinary Officer,	Primium Hatchery	2020	Till date
10	Dr. K. Joshua Kath	MVSc	JRF	ICAR, AICRP on Pig	2019	Till date

6.4.2.Faculty strength of the department

Sl. No.	Faculty in position	Vacant position	Faculty recommended by VCI, 2016
Professor	Nil	NA	1
Associate Professor	1	Nil	1
Assistant Professor	2	Nil	1

6.4.3.Technical and supporting staffs of the department

S No	Sanctioned	Vacant position	Staffs recommended by VCI, 2016
1. FCLA (Audio-visual Technician)	1	Nil	Not specified
2. Farm Manager	Nil	Vacant	Not specified
3. MTS	1	Nil	Not specified

6.4.4.Laboratories :

f) Mention the functional laboratories and justify if it is sufficient to meet the course curricula requirement.
   i. Audio-Visual Lab,
   ii. ICT Lab
   iii. Group Discussion room

g) List of major equipment, instructional units and facilities.

Sl. No.	**Item***	**Available Quantity**
1	Computer	3 Nos.
2	Direct Projector	1 No.
3	Overhead Projector	1 No.
4	Slide Projector	2 Nos.
5	LCD data Projector	1 No.
6	Amplifiers	3 Nos.
7	Television (coloured)	1 No.
8	Video Camera (Complete Set)	1 no.
9	Camera 35 mm	1 No.
10	Projection Screens (fixed and portable)	2 No.

6.4.5 Conduct of practical and hands on training: The practical class is of two hours duration for all the courses offered to students of PG & PhD programme. Students used to do the practical by themselves under the supervision of the faculty/ course instructor. Students used to record their observations in practical manual.

6.4.6. Supervision of students in PG / PhD programme: Number of students being supervised by faculty in case of Masters/ PhD programme (as per ICAR guidelines)

Recognition for guiding of students (PG & PhD research) as per clause no. 2.12.2 of CAU Academic regulations-2016 for Master and PhD degree programmes

Master's Programme:

Associate Professor and above and their equivalents **OR** Assistant Professor and equivalents with Ph. D. degree in the discipline/ subject who has published two research papers other than his /her Master's and Ph. D. thesis **OR** Assistant Professor and equivalents without Ph. D. degree, provided he/she has at least two years of PG teaching experiences and 5 (Five) research papers published in referred journals with minimum NAAS rating of 4 (other than his /her Master's thesis.

Maximum number of students to be guided by faculty

As per clause no. 2.8.1(iii) of CAU Academic regulations-2016 for Master and PhDdegree programmes, at any given time, Professor, Associate Professor and Assistant Professor shal not be a chairperson for more than 6,5 and 4 PG students (Master's and PhD combined) respectively

The faculty members supervised 12 students since inception and presently guiding 5 students.

Name of the faculty	Programme	Number of students supervised as major Advisor	Number of students presently supervising as major advisor
Dr. Saidur Rahman	MVSc	08	03
Dr. Samares Kumar Das*	MVSc	03	-
Dr. Lalhumliana Tochhawng	MVSc	01	02

* Presently working in College of Veterinary Sciences & AH, CAU, Jalukie, Nagaland

** Joined in the Department in 2018.

6.4.7 Feedback of stakeholders: The college through a structured feedback mechanism (copy of feedback format attached as **Annexure -I**) from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are made by the Head of the departments and Dean of the college. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, avaialbility chemical and reagents and research facilities. Feedback is also received from parents, other institutes, Concerned Directorate of State Government time to time.

6.4.8. Students intake and attrition in programme for last five years (Programme wise)

	2016-17	2017-18	2018-19	2019-20	2020-21
Sanctioned seat	3	3	3	3	3
Actual admitted	1	3	2	3	3

Attrition %	0	0	0	0	0

6.4.9.ICT application in Curricula delivery: The Department is conducting classes and presentation through online platform. The ICT lab of the Department established under the project entitled, "**Mobile Based Agro-Advisory System in Mizoram",** financed by Ministry of Electronics and Information Technology, GOI, is used for teaching.

Signature of Dean of the College with Date and Seal

DEPARTMENT OF VETERINARY MICROBIOLOGY

6.4.1 Brief History of degree programme: Please mention the following

1) Year in which the degree programme was initiated: 2009-10
2) whether nomenclature, curricula or syllabus of the degree programme as per guidelines of ICAR, 2009: Yes
3) Accomplishments in brief.
   i) MVSc students passed out since introduction of the programme: 18
   ii) PhD students passed out since introduction of the programme: 04
   iii) Publications by students and faculty members of the department:
      - Research articles: 127
      - Review articles: 13
      - Popular articles: 05
      - Research reports: 13
      - Laboratory manuals: 04
      - Books and chapters: 04
   iv) Any other accomplishment which will justify the degree programme to be accredited by ICAR (Mostly academic and research related accomplishments):
      - Externally funded research projects concluded: 08
      - Externally funded research projects under progress: 01
      - Externally funded research projects approved: 02
      - Externally funded research projects under review: 02
      - University funded research projects concluded: 04
      - DBT funded Star College Scheme is in effect for BVSc&AH degree program.

6.4.2. Faculty strength of the department

Sl No	Faculty in position	Vacant position	Faculty recommended by VCI, 2016
10. Professor	01	00	1
11. Associate Professor	01	00	1
12. Assistant Professor	01	01	2

6.4.3. Technical and supporting staffs of the department

Sl No	Staff in position	Vacant position	Staffs recommended by VCI, 2016
1. FCLA	01	00	Not specified
2. Farm Manager	00	00	NA
3. MTS	02	00	Not specified

6.4.4. Laboratories:

h) Mention the functional laboratories and justify if it is sufficient to meet the course curricula requirement.
   - Undergraduate Laboratory
   - Bacteriology & immunology Laboratory
   - Virology including tissue/cell culture laboratory
   - Molecular biology laboratory
   - Transboundary animal diseases diagnosis laboratory

- Institutional biotech Hub laboratory for instrumentation facilities
- Washing and sterilization room
- Conference hall
- Office rooms for faculties
- Office room
- Students' sitting room

The entire office and laboratory space is optimum to conduct the teaching and research work for BVSc&Ah, MVSc (Microbiology) and PhD (Microbiology) courses.

i) List of major equipments, instructional units and facilities.

Major Equipments

- Biosafety cabinet Class II A2: 03
- Biosafety cabinet Class III: 01
- Work station Class II A2: 01
- Laminar Air Flow: 01
- -80C Deep freezer: 02
- -20C Deep freezer: 04
- Refrigerator: 08
- Refrigerated centrifuge: 04
- High speed centrifuge: 02
- Clinical centrifuge: 01
- Trinoculor microscope: 02
- Inverted microscope with fluorescence: 01
- Students microscope binocular: 02
- Students microscope: 10
- PCR machine: 03
- Real time PCR: 01
- Gel documentation system: 03
- Electrophoresis system: 03
- Lyophilizer: 01
- Phoenix automated bacterial identification system: 01
- Shaker incubator: 02
- BOD incubator: 02
- Universal incubator: 02
- Hot air oven: 02
- Autoclave: 03
- Hybridization oven: 01
- CO2 incubator: 02
- Egg incubator: 01
- Ultrasonicator: 01
- UV Visible multimode reader: 02
- Ice flaking machine: 01

Instructional Units

- Undergraduate Laboratory: to conduct the practical classes of BVSc&AH students

- Bacteriology & immunology Laboratory: To carry out the practical classes of MVSc & PhD students and conducting the research work of the post graduate students for bacteriology and immunology.
- Virology including tissue/cell culture laboratory: To carry out the practical classes of MVSc & PhD students and conducting the research work of the post graduate students for virology.
- Molecular biology laboratory: To carry out the practical classes of MVSc & PhD students and conducting the research work of the post graduate students for molecular biology and biotechnology.
- Transboundary animal diseases diagnosis laboratory: To conduct the research work of the post graduate students on transboundary animal diseases.
- Institutional biotech Hub laboratory for instrumentation facilities: To provide the basic instrumentation facilities to the UG and PG students for instruction, demonstration and research work.
- Washing and sterilization room: For washing the laboratory wares, sterilization, packaging and preparation of reagents, media etc.
- Conference hall: To conduct the meetings, seminars, theory classes of PG students.
- Office rooms for faculties: Separate office rooms for each faculty to carry out the official work.
- Office room: Departmental office work.
- Students' sitting and study room: Separate space for PG students for their study and leisure

Other facilities

- Incubation cum hatchery room: Facility for hatching the eggs
- Store room: To store the laboratory wares and other materials
- Laboratory animal room: To maintain the laboratory animals including mice, rat, rabbits etc. for experimental work.

6.4.5 Conduct of practical and hands on training: The practical clas is of two hours duration for all the courses offererred to students of PG & PhD programme. Students used to do the practicals by themselves under the supervision of the faculty/ course instructor. Students used to record their observations in practical manual.

6.4.6. Supervision of students in PG / PhD programme: Number of students being supervised by faculty in case of Masters/ PhD programme (as per ICAR guidelines)

As per the Central Agricultural University Academic Regulation-2016 for Master and PhD degree programs vide Clause No. 2.8.1.iii, the chairperson (major advisor) should be a PG tacher with 5 years experience and 5 NAAS rating publications or possesses PhD degree with good publications, made after joining the University.

At any given time, Professor, Associate Professor and Assistant Professor shall not be a Chairperson for more than 6, 5 and 4 PG students (Master's and PhD combined), respectively.

Name of the faculty members	Designation	MVSc students guided	PhD students guided

Dr. T. K. Dutta	Professor & Head	Awarded: 09 On Roll: 03	Awarded: 04 On Roll: 01
Dr. P. Roychoudhury	Associate Professor	Awarded: 04 On Roll: 02	Nil
Dr. P. K. Subudhi	Assistant Professor (SS)	Awarded: 03 On Roll: 01	On Roll: 01

6.4.7 Feedback of stakeholders: The college through a structured feedback mechanism (copy of feedback format attached as **Annexure -I**) from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format. Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are made by the Head of the departments and Dean of the college. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, avaialbility chemical and reagents and research facilities. Feedback is also received from parents, other institutes, Concerned Directorate of State Government time to time.

6.4.8. Students intake and attrition in programme for last five years (Programme wise)
MVSc programme

	2016-17	2017-18	2018-19	2019-20	2020-21
Sanctioned seat	5	5	5	5	5
Actual admitted	3	5	2	2	4
Attrition %	0	60	0	0	0

6.4.9. **ICT application in Curricula delivery**:
The information and communication tools were used for all the courses judiciously for most effective way of communication as mentioned below-

- The PG students are being taught to explore the webs for visiting various websites to search the scientific publications, nucleic acid and protein sequence services.
- Exploration of e-books, e-journals and in-silico techniques for effective learning.
- Training on Bioinformatic tools including DNA STAR, NCBI-PubMed and analysis of DNA sequence data through online tools.
- Designining of primers using online tools.

Signature of Dean of the College with Date and Seal

DEPARTENT OF VETERINARY PATHOLOGY

6.4.1 Brief History of degree programme:

The department of veterinary pathology, CVSc & AH, CAU, Selesih, Aizawl, Mizoram started was initiated in 12th February 1999, with the joining of Dr. T. K. Rajkhowa, Assistant Professor as the first faculty in the Department. Since then, the Department has progressed to the level of accreditation for PhD programme by ICAR, GOI, from 2017 to 2021 . Through different externally funded projects and with continuous support of the CAU, the department has improved the infrastructure and laboratory facilities for research to the level of cell culture work and molecular characterization of pathogens. Besides, the department is actively involved in providing diagnostic services to the farmers of NER, India. The department has in its credit of reporting first outbreak of PRRS, in India, in the year 2013. Recently, the department has also reported the first outbreak of ASF in pig population of Mizoram.

1) Year in which the degree programme was initiated : **1999**
2) Whether nomenclature, curricula or syllabus of the degree programme as per guidelines of ICAR, 2009 : **Yes**
3) Accomplishments in brief.
   - **i)** M.V.Sc. students passed out since introduction of the programme : **19**
   - ii) Ph.D. students passed out since introduction of the programme: **Nil (3 students in different academic year are pursuing PhD presently)**
   - iii) Publications:

     Books : **9** Book chapters : **7**

     Research articles : **100** Popular articles : **2**
   - iv) Any other accomplishment which will justify the degree programme to be accreditated by ICAR (Mostly academic and research related accomplishments)
     a) Completed five externally funded research projects.
     b) Presently running **R&D project funded by National Agricultural Science Fund (NASF)**, ICAR with budget allotment of Rs. 201 lakhs for three years.
     c) **Reported first outbreak of Porcine reproductive and respiratory syndrome (PRRS) outbreak in India**.
     d) Reported **PCV2g genotype for the first time in India**.
     e) Reported prevalence of **very virulent Infectious bursal disease** for the first time in NER, India.
     f) **Reported first outbreak of African swine fever (ASF) in pig population of Mizoram** in the year Aril 2021.
     g) A total of 19 students have completed their M. V. Sc. Degree in veterinary pathology from the department.
     h) Presently three students are pursuing their PhD in the department. All the students joined the department through ICAR counselling.

6.4.2 Faculty strength of the department

Sl. No.	Faculty in position	Vacant position	Faculty recommended by VCI, 2016
1. Professor	1	-	1
2. Associate Professor	-	1	2
3. Assistant Professor	3	1 (on lien for one year and joined GADVASU)	3

6.4.3.Technical and supporting staffs of the department

Sl. No.	Staff in position	Vacant position	Staffs recommended by VCI, 2016
4. FCLA (Lab. Technician / Specimen Curator)	2	-	2
5. Lab. Assistant / Attendant	1	-	2
6. Post Mortem/Animal attendant	-	-	2
7. Sweeper-cum-attendant	-	-	1

The deficient supporting staffs are managed through the project assistant recruited under different externally funded projects.

6.4. 4. Laboratories :

j) Mention the functional laboratories and justify if it is sufficient to meet the course curricula requirement.

Sl. No.	Name of laboratory	Justifications
1	UG Laboratory	All requirements are provided
2	PG Laboratory	-do-
3	Molecular Biology Laboratory	-do-
4	Cell culture laboratory	-do-

k) List of major equipment, instructional units and facilities.

Sl. No.	Name of the Equipment
1	Real time PCR machine (Qiagen) - 1
2	Thermal cycler (Eppendorf) - 2
3	Bio safety level 2 cabin - 4
4	CO2 incubator - 2
5	Deep Freeze -80ºC - 2
6	Deep Freeze -45ºC - 2
7	Lyophilizer - 1
8	Shaker incubator -1
9	Ice flaker - 1
10	Monopan balance -1
11	Gel electrophoresis system – 3 sets
12	Cooling centrifuge machine - 2
13	Digital water bath - 1
14	Gel documentation system - 1
15	Bio photometer (Eppendorf)
16	Trinocular research microtome - 1
17	Inverted research microscope -1
18	Cryostate - 1
19	Binocular Microscope
20	Semi-automatic Microtome
21	Serological water bath
22	Spectrophotometer (Jenway)
23	Phase Contrast Microscope with Camera
24	Colour Imaging (CCTV) System

25	Unit for histopathological work
26	Post mortem unit for large , small & poultry.

6.4.5 Conduct of practical and hands on training:

The practical class is of two hours duration for all the courses offered to students of PG & PhD programme. Different practical are first demonstrated in the laboratory by trained laboratory assistant and also by the SRF/ RA working in different externally funded projects in the department. Later, students are allowed to conduct the practical's by themselves under the supervision of the faculty/ course instructor/ RA/ SRF/ FCLA. Students used to record their observations in practical manual.

6.4.6. Supervision of students in PG / PhD programme : Number of students being supervised by faculty in case of Masters/ PhD programme (as per ICAR guidelines)

Recognition for guiding of students (PG & PhD research) as per clause no. 2.12.2 of CAU Academic regulations-2016 for Master and PhD degree programmes

Master's Programme:

Associate Professor and above and their equivalents **OR** Assistant Professor and equivalents with Ph. D. degree in the discipline/ subject who has published two research papers other than his /her Master's and Ph. D. thesis **OR** Assistant Professor and equivalents without Ph. D. degree, provided he/she has at least two years of PG teaching experiences and 5 (Five) research papers published in referred journals with minimum NAAS rating of 4 (other than his /her Master's thesis.

Maximum number of students to be guided by faculty

As per clause no. 2.8.1(iii) of CAU Academic regulations-2016 for Master and PhDdegree programmes, at any given time, Professor, Associate Professor and Assistant Professor shal not be a chairperson for more than 6,5 and 4 PG students (Master's and PhD combined) respectively

Sl. No.	Name of faculty & designation	No. of M.V.Sc. students guided	No. of Ph.D. students guided
1	Dr. T.K. Rajkhowa Professor & Head	8	3 Pursuing
2	Dr. Y. Damodar Singh Assistant Professor (SG)	5	Nil
3	Dr. Ravindran R. Assistant Professor (SS)	5	Nil
4	Dr. Rahul Singh Arya Assistant Professor	1	Nil

6.4.7 Feedback of stakeholders: The college through a structured feedback mechanism (copy of feedback format attached as **Annexure -I**) from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format. Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are made by the Head of the departments and Dean of the college. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, avaialbility chemical and reagents and research facilities. Feedback is also received from parents, other institutes, Concerned Directorate of State Government time to time.

6.4.8 .Students intake and attrition in programme for last five years (Programme wise)

	2016-17	2017-18	2018-19	2019-20	2020-21
Sanctioned seat	MVSc = 5	MVSc = 5	MVSc = 5	MVSc = 5	MVSc = 5
Actual admitted	MVSc = 3	MVSc = 4	MVSc = 3	MVSc = 5	MVSc = 5
Attrition %	MVSc= 0%	MVSc=0%	MVSc=0%	MVSc=0%	MVSc=0%

6.4.9. ICT application in Curricula delivery: All the faculties of the department are digitally literate. Various ICT tools are being used for conducting Theory and practical classes of BVSc & AH, MVSc & PhD programme. The information and communication tools were used for all the courses judiciously for most effective way of communication between.

Signature of Dean of the College with Date and Seal

DEPARTMENT OF VETERINARY PHARMACOLOGY & TOXICOLOGY

6.4.1 Brief History of the Department:

The mandate of the Department of Pharmacology & Toxicology is teaching, research and extension activities. The department is having three different laboratories having ample space which are well furnished with almost all the necessary equipments to conduct practical classes and also to run many different research works. This department is offering UG and PG courses. Postgraduate programme was started in the year 2007. As of now, a total of nine Post Graduate students of this department successfully completed their course and all of them got good placement in different sectors.

Besides teaching, the department is also engaged in research and extension activities regularly. So far, one intra-mural and three extra-mural projects have been sanctioned and conducted in this department. Out of which, two extra-mural projects are still running in the department.

The prioritize researchable areas of this department are herbal medicine, drug and pesticide residue analysis and pharmacokinetic and pharmacodynamic studies of drugs.

Year of Introduction of M.V.Sc./Ph.D Programme : 2007

4. No. of M.V.Sc. and Ph.D students passed out : 09

5. No. of M.V.Sc. and Ph.D students on roll : Nil

Research Project and Publication from PG and Ph.D research work

Research Projects:

i) Analysis of Selected Antimicrobial Drug Residues in Meat Samples collected from Aizawl Local Markets
ii) Outreach Programme on Ethnoveterinary Medicine, ICAR
iii) All India Network Project(AINP) on Pesticide Residue and Monitoring of Pesticide Residues at National Level (MPRNL)
iv) To develop standardized poly-herbal formulation of medicinal plants for use as anti-coccidial agent for poultry

Publications:

i) W. Ramdas Singh, Tridib K. Rajkhowa, KH. Victoria Chanu, M. Ayub Ali, C. Lalmuanthanga, Pritam Mohan and M. A. Ayub Shah. Histopathological changes caused by accidental avocado leaves toxicity in rabbits. Int. J. Res. Pharm. Sci. Vol-1, Issue-4, 517-520, 2010
ii) C. Lalchhandama, M.A. Ayub Shah, Pritam Mohan, C. Lalmuanthanga, S. Mukherjee and Lalrinpuia, 2012: Evaluation of wound healing properties of methanolic extract of *Mikania micrantha* on excision wound model in rats Participated in East Zonal Indian Pharmacological Society Conference-2012 at CVSc, Khanapara, Guwahati on 3rd & 4th Nov., 2012 organized by IPS, Assam Branch in collaboration with CVSc, AAU, Khanapara and Gauhati Medical College, NIPER, Guwahati
iii) R. Lalbiaksangi, M.A. Ayub Shah, Pritam Mohan, C. Lalmuanthanga, H. Prasad, Lalrinpuia, and C. Lalchhandama, 2012: Antihyperglycemic effect of methanolic extract of *Mikania micrantha* and *Centella asiatica* in experimentally induced type-2 diabetic rat Participated in East Zonal Indian Pharmacological Society Conference-2012 at CVSc, Khanapara, Guwahati on 3rd & 4th Nov., 2012 organized by IPS, Assam Branch in collaboration with CVSc, AAU, Khanapara and Gauhati Medical College, NIPER, Guwahati

iv) R. Lalbiaksangi, M.A. Ayub Shah, C. Lalmuanthanga, Pritam Mohan, H. Prasad, C. Lalchhandama and Lalrinpuia, 2012: Antihyperglycemic effect of methanolic extract of *Mikania micrantha* and *Centella asiatica* in experimentally induced type-I diabetic rat Participated in East Zonal Indian Pharmacological Society Conference-2012 at CVSc, Khanapara, Guwahati on 3rd & 4th Nov., 2012 organized by IPS, Assam Branch in collaboration with CVSc, AAU, Khanapara and Gauhati Medical College, NIPER, Guwahati

v) Lalrinpuia and Lalmuanthanga, C. (2015). Pharmacokinetics of ceftriazone following intravenous administration in mizo local pig (Zovawk). Indian Veterinary Journal. Submitted and accepted for publication.

vi) Binita Angom, C. Lalmuanthanga and Pritam Mohan (2015): Analgesic and Anti-Inflammatory Effect of an Aqueous Extract of *Dendrocnide Sinuata* (Blume) Chew. Explor. Anim. Med. Res., Vol.5, Issue - 2, 2015, p. 133-141.

vii) Lalrinpui and C.Lalmuanthanga (2015): Pharmacokinetics of Ceftriaxone Following Intraveneous Administration in Mizo Local Pig (Zovawk). Indian Vet. J., October 2015, 92 (10): 81-83.

viii) Binita Angom, Pritam Mohan, C Lalmuanthanga, Prabhakar Maurya and Khangembam Victoria Chanu (2018). Hepatoprotective activity of aqueous extract of *Dendrocnide sinuata*, (Blume) Chew. J. Pharmacogn & Phytochem. 7(3): 1072-1077

Placement of passed out PG ands Ph.D Students:

i) Bijargi Shriharsh R. : Investigator, Pre-clinical Sciences for Novartis Institute of Biomedical research, Hyderabad

ii) W. Ramdas Singh : Assistant Professor, Department of Pharmacology & Toxicology, CVSc & AH, CAU, Jaluki, Nagaland

iii) Anwar Hussain Hazarika : Veterinary Officer, Department of AH & Veterinary, Government of Assam.

iv) Gracia Lalchamzuali : Veterinary Officer, Department of AH & Veterinary, Government of Mizoram

v) Snigdha Hazarika : Assistant Professor, Department of Pharmacology & Toxicology, CVSc, AAU, Lakhimpur

vi) Binita Angom : Assistant Professor, Department of Pharmacology & Toxicology, CVSc, Tripura

vii) C.Lalchhandama : Assistant Professor, Department of pharmacology & Toxicology, CVSc & AH, CAU, Selesih, Aizawl

viii) H.Lalbiaksangi : Gender Coordinator, State Nodal Cell, ATMA,

ix) Dr.Lalrinpuia : Research Officer, CCRAS, Ministry of AYUSH, Government of India,

6.4.2 Faculty strength of the department

S No	Faculty in position	Vacant position	Faculty recommended by VCI, 2016
1. Professor	Nil	1	1
2. Associate	Nil	1	1

Professor			
3. Assistant Professor	2 (permanent-1, contractual-1)	Nil	1

6.4.3 Technical and supporting staffs of the department

S No	Staff in position	Vacant position	Staffs recommended by VCI, 2016
1. FCLA	1	Nil	2
2. Farm Manager	Nil	Nil	Nil
3. MTS	1	Nil	1

6.4.4 Laboratories

l) 1 Mention the functional laboratories and justify if it is sufficient to meet the course curricula requirement:

i) UG Laboratory
ii) Experimental/PG Laboratory
iii) Analytical Laboratory

The laboratories in the department of pharmacology & toxicology are well equipped with the following list of equipments and each laboratory is having ample space. All the three laboratories are also having continuous water supply. Power back-up provision is available for most of the equipments.

m) List of major equipment, instructional units and facilities.

The major equipments available in the department are as follows:

1) HPLC (Waters)
2) Spectrophotometer (UV/VIS)
3) Fluorescent spectrophotometer
4) Ultrasonicator
5) Automatic Clinical Analyser
6) Lyophilizer
7) Power-Lab with organ bath
8) Passive avoidance apparatus
9) Plethysmometer
10) Analgesiometers (Tail flick apparatus, hot and cold apparatus)
11) Convulsiometer
12) ELISA reader
13) Microwave digester
14) Oven
15) Deep Freeze
16) Weighing machines including precision digital weighing machin
17) Centrifuge machine including Cold centrifuge machine

6.4.5 Conduct of practical and hands on training: The practical class is of two hours duration for all the courses offered to students of PG programme. Students used to do the practicals by themselves under the supervision of the faculty/ course instructor. Students used to record their observations in practical manual.

6.4.6. Supervision of students in PG / PhD programme : Number of students being supervised by faculty in case of Masters/ PhD programme(as per ICAR guidelines)

Recognition for guiding of students (PG & PhD research) as per clause no. 2.12.2 of CAU Academic regulations-2016 for Master and PhD degree programmes
Master's Programme:
Associate Professor and above and their equivalents **OR** Assistant Professor and equivalents with Ph. D. degree in the discipline/ subject who has published two research papers other than his /her Master's and Ph. D. thesis **OR** Assistant Professor and equivalents without Ph. D. degree, provided he/she has at least two years of PG teaching experiences and 5 (Five) research papers published in referred journals with minimum NAAS rating of 4 (other than his /her Master's thesis.

Maximum number of students to be guided by faculty
As per clause no. 2.8.1(iii) of CAU Academic regulations-2016 for Master and PhDdegree programmes, at any given time, Professor, Associate Professor and Assistant Professor shal not be a chairperson for more than 6,5 and 4 PG students (Master's and PhD combined) respectively

Name of the faculty	Programme	Number of students supervised as major Advisor	Number of students being supervised as major advisor
Dr.C.Lalmuanthanga	MVSc	1	Nil
	PhD	Nil	Nil
Dr.C.Lalchhandama	MVSc	Nil	Nil
	PhD	Nil	Nil

6.4.7 Feedback of stakeholders: The college through a structured feedback mechanism (copy of feedback format attached as **Annexure -I**) from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format. Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are made by the Head of the departments and Dean of the college. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, avaialbility chemical and reagents and research facilities. Feedback is also received from parents, other institutes, Concerned Directorate of State Government time to time.

6.4.8 .Students intake and attrition in programme for last five years (Programme wise): The programme is kept in abeyance because of sudden demise of Prof and Head of the department.

6.4.9. ICT application in Curricula delivery: Various ICT tools are being used for conducting Theory and practical classes of BVSc, MVSc & PhD programme. All the faculties of the department are digitally literate.

Signature of Dean of the College with Date and Seal

DEPARTMENT OF VETERINARY PUBLIC HEALTH AND EPIDEMIOLOGY

6.4.1 Brief History of degree programme:

a)	Year in which the degree programme was initiated	*:*	In the year 2007 and stop admission for some time in the department and again started from 2012-2013.
b)	whether nomenclature, curricula or syllabus of the degree programme as per guidelines of ICAR,2009	**:**	Yes with slight modification
c)	Accomplishments in brief.		
	i)MVSc students passed out since introduction of the programme	*:*	16 (Sixteen)
	ii)PhD students passed out since introduction of the programme		*Nil as* PhD is not yet started in the department.
	iii)Publication		

Research articles:

A. Research Papers:

1.Tapan Kumar Dutta, Parimal Roychoudhury, Lallianpuii Kawlni, **Joy Lalmuanpuia**, Ankan Dey, Dhanavelu Muthuchelvan, Rajkumari Mandakini, Arunava Sarkar, Muthannan Andavar Ramakrishnan and Prasant Kumar Subudhi. (**2018**). An outbreak of *Goatpox virus* infection in Wild Red Serow (*Capricornis rubidus*) in Mizoram, India. *Transboundary and Emerging Diseases.* 1-5. DOI: 10.1111/tbed.

2. Malay Das, **E.Motina**, **D.Deka**, N.S. Singh, TK Dutta & S.Chakraborty (**2018**). Bacteriological quality of raw pork sold in retailed butcher shops of Aizawl and Imphal. *International Journal of Livestock Research.*

3. Papia Biswas **, Devajani Deka**, **E. Motina**, TK Dutta and N.S.Singh (2018 submitted). Studies on detection ,prevalence and antibiotic sensitivity pattern of Listeria monocytogenes from cattle,rawcow milk and milk products from Tripura,India. *International Journal ofChemical Studies.*

4. L. Hnamte, **E. Motina**, P. Roychoudhury and **J.L. Kataria**. (2018) **.** Bacteriological Quality Assessment and Molecular Detection of Shiga Toxin-Producing *Escherichia coli* (STEC) from Milk and Meat Based Fast Foods from Mizoram (India). ***Int.J.Curr.Microbiol.App.Sci*** **(2018)** ***7*****(9): 2636-2639**

5. Deka D, Bayan H and Rajkhowa T K (2020). Epidemiology of Village Chicken Diseases and Associated Risk Factors in Mizoram, India. International Journal of Livestock Research. 10 (9):43-53. (NAAS: 5.36)

6. Deka D, Rajesh JB, Bayan H and **Ralte** L (2020). A Comprehensive Study on Conventional Poultry Production System in Mizoram. International Journal of Livestock Research, 10 (6):149-157. (NAAS: 5.36)

7. Deka D, Roychoudhury P, Motina E and Bayan H (2020). Detection of antimicrobial drug resistance in Listeria monocytogenes of cattle origin. International Journal of Chemical Studies. 8(1): 2825-2829. .(NAAS: 5.31)

8. Hmar V, **Deka D** and Roychoudhury P (2020). Conventional and molecular detection of *Salmonella typhimurium* in sources of chicken origin and its antimicrobial resistance pattern in Mizoram (India). Journal of Entomology and Zoology Studies. 8(3): 1270-1276.

9. Deka D, Das M and Bayan H (2020). Molecular detection of *Salmonella* Typhimurium and its antibiogram from marketed raw fish of inland fisheries sold in Aizawl, Mizoram, India. Journal of Entomology and Zoology Studies. 8(4): 301-305

10. FC Beihroki FC, Deka D, Dutta TK, **Ralte L**, Tolenkhomba TC, Motina E and Rao JM (2021)Molecular detection of *Enterococcus* with special reference to *Enterococcus faecalis* from water sources and its antimicrobial resistance. Journal of Entomology and Zoology Studies 2021; 9(2): 287-294

11. J. L. Kataria, T. K. Datta and P. Roychoudhury. (2017). Virulence gene(s) Gamut of Enteropathogenic *Escherichia coli* (EPEC) and Shiga Toxin-Producing *Escherichia coli* (STEC) in Piglets with or without Diarrhoea in Mizoram (India). *Int. J. Curr. Microbiol. App. Sci*. 6(11): 1983-1987

12. Lalnunfela, **J. Lalmuanpuia**, E. Motina, D. Deka and G. J. Lallawmkimi. (2021). Molecular Detection of Staphylococcal enterotoxin C (SEC) and Staphylococcal enterotoxin D (SED) from the Cattle Nares in Aizawl, Mizoram (India). *Int. J. Curr. Microbiol. App. Sci.* 10(02): 1250-1253

13. Anannya Das, Pragati Hazarika, **Lallawmzuali Ralte**, Jitendra Kumar Choaudhary, Keshab Debnath and Sandeep Kumar (2020). Effect of oatmeal and oester mushroom on the quality and sensory characteristics of pork momo. *Journal of Entomology and Zoology Studies.* 8(6):1905-1908.

14. G. J. Lallawmkimi, **E. Motina, L. Ralte** and **J. Lalmuanpuia**. (2021). Detection of Shiga Toxin-Producing *Escherichia coli* (STEC) from Smoked Pork sold in Local Markets of Aizawl, Mizoram (India) . *Int. J. Curr. Microbiol. App. Sci.* 10(02): 1246-1249.

B. Book Chapters : 6

Sl No	Publication	Title, Name of the books and it's chapter with authors
1.	Book Chapter on Training Manual	**Dr. Lallawmzuali Ralte** (2018) Chap "BawnghnuteHrisellehThianghlimTharchhuah" on Training Manual on Title – *"Sk Training of Rural Youths on Clean Milk Production"* published by KVK, CVSc& A Page 17 -22.
2.	Book chapter	**Lallawmzuali Ralte (2019)** Food safety, *Sekibuhchhuak*1st Edition, Mizoram, Indi Veterinary Association, Mizoram Branch. Pp. 13 – 20.
3.	Book chapter	**Lallawmzuali Ralte (2019)** One Health- A Unifying Approach for Improving Glob Health, *1st Report of Mizoram State Vety Council*, Mizoram, ISBN No. 078-81-94087 2-1, Mizoram State Vety Council. Pp. 34 - 44.
4.	Book chapter	**Dr (Mrs) Lallawmzuali Ralte** (2020). Prevention of Post Slaughter contamination Carcass and Preservation of Raw Meat. *Safety of animal origin food and management.* ISBN No. 978-613-8-93142-3. Chapter 7. Pp 76 – 88.
5.	Book chapter	**Dr (Mrs) Lallawmzuali Ralte** (2020). Sampling and detection of Microbiologic criteria of food and common food pathogens. *Safety of animal origin food and management.* ISBN No. 978-613-8-93142-3. Chapter 8. Pp 89 – 103
6.	Book chapter on Training Manual	**Dr. Lallawmzuali Ralte.**(2020). Risk management and care in veterinary practic *Animal Health Worker*. ISBN No. 978-93-5426-098-8. Chapter 9. Pp 38 -41.
7	Book chapter on	**Dr. Joy Lalmuanpuia (2018).** ***Bawnghnute atanga natna inkaichhan theih***" w published in SKILL TRAINING OF RURAL YOUTHS ON CLEAN MIL PRODUCTION (Training Manual) 08th -13th Oct.Pp 5-7.

		Training Manual	
	8	Book chapter	**Joy Lalmuanpuia (2019).** Environment and parasites, fish and meat borne parasitic diseases and relationship of feeding habits of certain ethnic tribes in NE India with possible parasitic infection thereof, **Pp 11-15**. Trends and Perspective for Management of Common Parasitic Diseases of Animals, ISBN 978-81-940870-5-2
	9	Book chapter	**Joy Lalmuanpuia** (2019). Mizote leh sa. Sekibuhchhuak, First Edition, Indian Veterinary Association, Pp. 55-56
	10	Book chapter on Training Manual	**Dr. Joy Lalmuanpuia.** (2020).Assisting Government Agencies in Animal Disease Control. Animal *Animal Health Worker*. ISBN No. 978-93-5426-098-8. Chapter 15. Pp 65 -69.

iv)Any other accomplishment which will justify the degree programme to be accrediatated by ICAR (Mostly academic and research related accomplishments)

- The MVSc students who pass out could get the placement such as Assistant Professor,V.O. ,SMS ,etc .Annexure -1
- The MVSc degree programme is very helpful to the department in carrying out the researchable issues of NE region of the country and due to their research activities along with the research projects of the faculty members ,the laboratories of the department are under the working condition.

6.4.2. Faculty strength of the department

Sl No	Faculty Post	Faculty in position	Vacant position	Faculty recommended by VCI, 2016
1.	Professor	Nil	Nil	One
2.	Associate Professor	One	Nil	One
3.	Assistant Professor	Three	Nil	One

6.4.3. Technical and supporting staffs of the department

Sl No	Name of the post	Technical and supporting staffs in position	Vacant position	Staffs recommended by VCI, 2016
1.	FCLA	One	Nil	N.A
2.	Farm Manager	Nil	Nil	N.A
3.	MTS	One	Nil	N.A

6.4.4. Laboratories:

n) Mention the functional laboratories and justify if it is sufficient to meet the course curricula requirement.

The department is having the following laboratories to carry out the U.G students classes and P.G.students research :

a) Milk and meat hygiene , food safety and Public Health lab.

b) Zoonoses & Epidemiology lab.

c) Environmental hygiene lab.
d) Under graduate lab.
e) Post graduate lab.

However ,time to time upgradation with the latest equipments will provide better facilities for carrying out the research work .

o) List of major equipment, instructional units and facilities.

Sl. No.	Name of the equipments	Qty.
1	Deep freezer (-20^{0}C).	1
2	Thermal Cycler (Bio-RAD-T100)	1
3	Laminar Flow Chamber (Horizontal)	1
4	Vertical Midi Gel Electrophoresis System (Regular Model) with Power Supply (PS-500)	1
5	Cell Sonicator/Ultrasonic Homogenizer (OMNI RUPTOR-400)	1
6	Trinocular Research Microscope	1
7	Refrigerated centrifuge machine.	1
8	Revolutionary Centrifuge machine.	1

6.4.5 Conduct of practical and hands on training:

The course VPH is taught in 3rd year and the content in practical is divided in four units namely Unit I (Veterinary Public Health and Food safety), Unit II (Veterinary epidemiology), Unit III (Zoonotic diseases) and Unit IV (Environmental hygiene). Practical classes are mostly taken by hands on training in the laboratory on different units.

The unit I and IV are started with collection of samples of different foods of animal origin (milk, meat, fish and their products) and water and air samples. The different practicals are conducted for detection of microbiological qualities, detection of specific pathogens, drug residues, preservatives and adulteration of milk and meat, detection of mastitis, antimicrobial sensitivity of common pathogens etc. The demonstration of hygienic slaughtering practice, purification and milk and milk product processing is regularly done by visiting the organized slaughter house(at Mualpui), milk processing plant (MULCO at Thuampui)and water purification plant(at Tlawng river) under Govt of Mizoram.

The Unit II mostly emphasizes on the sampling in population for disease investigation and research, use of different epidemiological tools for estimating or measuring the disease occurrence, detection of sensitivity and specificity of diagnostic tests and detection of efficacy of vaccines, methods of displaying the epidemiological data, disease outbreak investigation, preparation of questionnaire for disease outbreak investigation, soft wares used for digital collection and transmission of disease status by different national and international agencies. The mathematical formulae for estimations of rates, ratios, proportion , sensitivity and specificity and vaccine efficacy are being practiced by the students with real time problems in field.

The students used to conduct an epidemiological survey on different zoonotic diseases of Aizawl as hands on training.

In Unit III, the methods of collection, preservation and dispatch of samples for bacterial, viral, parasitic and protozoal zoonotic diseases and detection of important bacterial and parasitic zoonoses are demonstrated in the laboratory. However, the viral zoonoses are discussed through online/ offline vidoes.

The students are also given assignments and seminars on related topics after collection of samples from the nearby areas and analysis by them as hands on training.

6.4.6. Supervision of students in PG / Ph.D programme : Number of students being supervised by faculty in case of Masters/ PhD programme(as per ICAR guidelines)

The eligible criteria to become research guide of PG student

a) Associate Professor and above and their equivalents

or

b) Assistant Professor and equivalent with Ph.D.degree in discipline/subject who has published two research papers others than his or her Masters and Ph.D.theses.

or

c) Assistant Professor and equivalent with Ph.D. degree provided he/she has atleast two tears of PG teaching experiences and 5 (five) research papers published in referred journals with minimum NAAS rating of 4 (other than his/her Master's thesis).

The Number of students being supervised by faculty in case of Masters/ PhD programme(as per ICAR guidelines)

Sl.no.	Name of faculty	Programme	Number.of students supervised as major advisor	Number.of students being supervised as major advisor
1.	Dr. E. Motina	M. V. Sc	7	2
		Ph.D		
2.	Dr. Devajani Deka	M. V. Sc	5	2
		Ph.D		
3.	Dr. L.Ralte	M. V. Sc	1	2
		Ph.D		
4.	Dr. Joy Lalmuanpuia	M. V. Sc	1	1
		Ph.D		

Name of the students and their Major Advisers are as follows:

SL. No.	Name of Student	Name of Adviser	Degree Programme	Remarks
01.	Dr. Joy Lalmuanpuia Kataria	Dr. T.K.Dutta	M. V. Sc.	Completed in 2009
02.	Dr. L. Sailo	Dr. T.K.Dutta	M. V. Sc.	Completed in 2009
03.	Dr. H. Lalruatfela	Dr. E. Motina	M. V. Sc.	Completed in 2016
04.	Dr. Laltlanmawii Hnamte	Dr. E. Motina	M. V. Sc.	Completed in 2016
05.	Dr. Mujesh Debbarma	Dr. Devajani Deka	M. V. Sc.	Completed in 2016
06..	Dr. Danima Ering	Dr. L.Ralte	M. V. Sc.	Completed in 2017
07.	Dr. Malay Das	Dr. E. Motina	M. V. Sc.	Completed in 2017
08.	Dr. Prasenjit Das	Dr. Devajani Deka	M. V. Sc.	Completed in 2017
09.	Dr.Th. Leena Roy	Dr. E. Motina	M. V. Sc.	Completed in 2017
10.	Dr. Papia Biswas	Dr. Devajani Deka	M. V. Sc.	Completed in 2018
11.	Dr.H.Vanlalhruaii	Dr. Devajani Deka	M. V. Sc.	Completed in 2019
12.	Dr.Dipanjali Paul	Dr. E. Motina	M. V. Sc.	Completed in 2019
13.	Dr.Lalnunfela	Dr. Joy Lalmuanpuia	M. V. Sc.	Completed in 2021
14.	Dr F.C.Beihroki	Dr. Devajani Deka	M. V. Sc.	Completed in 2021
15.	Dr. G.J Lallawmkimi	Dr. E. Motina	M. V. Sc.	Completed in 2021
16.	Dr. Naik Arpita	Dr. E. Motina	M. V. Sc.	Completed in 2021

17.	Dr.Kuldeep Kalita	Dr. Devajani Deka	M. V. Sc.	Ongoing
18.	Dr. K. Venkatesh	Dr. L.Ralte	M. V. Sc.	Ongoing
19.	Dr. Febron K.L.Lyngkhei	Dr. E. Motina	M. V. Sc.	Ongoing
20.	Dr. Chow M.S. Chowpu	Dr. Joy Lalmuanpuia	M. V. Sc.	Ongoing
21.	Dr. Binipi Debbarma	Dr. L.Ralte	M. V. Sc.	Ongoing
22.	Dr. Gowtham M	Dr. Devajani Deka	M. V. Sc.	Ongoing
23.	Dr. Elisetti N. P. Sneha	Dr. E. Motina	M. V. Sc.	Ongoing

6.4.7: Feed back of stakeholders(students, parents, industries, employers, farmers etc):
The college through a structured feedback mechanism (copy of feedback format attached as **Annexure -I**) from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format. Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are made by the Head of the departments and Dean of the college. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, avaialbility chemical and reagents and research facilities. Feedback is also received from parents, other institutes, Concerned Directorate of State Government time to time.

6.4.8:Students intake and attrition in programme for last five years(Programme wise):

	2016-17	2017-18	2018-19	2019-20	2020-21
Sanctioned seat	4	4	4	4	6
Actual admitted	3	1	2	1	6
Attrition %	0	0	0	0	0

6.4.9 ICT application in Curricula delivery :

1. LCD projector.-Classes were taken by using LCD projector wherever necessary.
2. Computer -By using computer informations were collected from Net for updating the class notes.
3. Online classes were taken during the lock down period and whenever necessary

Signature of Dean of the College with Date and Seal

DEPARTMENT OF LIVESTOCK PRODUCTS TECHNOLOGY

6.4.1 Brief History of degree programme: Pl. mention the following

1) Year in which the degree programme was initiated, : M.V.Sc. programme in 2011
2) whether nomenclature, curricula or syllabus of the degree programme as per guidelines of ICAR,2009 : Yes
3) Accomplishments in brief.
   i) MVSc students passed out since introduction of the programme: 12 till date
   ii) PhD students passed out since introduction of the programme: Yet to be introduced
   iii) Publication: 5
   iv) Any other accomplishment which will justify the degree programme to be accrediatated by ICAR(Mostly academic and research related accomplishments)

6.4.2. Faculty strength of the department

S No	Faculty in position	Vacant position	Faculty recommended by VCI, 2016
1. Professor	1 (Contractual)	1	1
2. Associate Professor	Nil	1	1
3. Assistant Professor	1	1	2

There were two Assistant Professors(Dr. Pragati Hazarika and Dr. Kevimese Khate) upto March, 2018. Dr. Kevimese Khate was transferred to C.V.Sc & A.H. Jalukie, Nagaland in the month of April 2018 and a Professor (Dr. Altaf Hussain Malik) was appointed on contract basis w.e.f. June 2018 to January 2020. Recently, Dr. V.V. Kulkarni, Professor, has joined on February, 2021, on contract basis and all of them have been helping in taking undergraduate and postgraduate classes and also in guiding M.V.Sc scholars.

6.4.3. Technical and supporting staffs of the department

Sl. No.	Staff in position	Vacant position	Staffs recommended by VCI, 2016
1. FCLA	2	-	
2. Farm Manager	-	-	
3. MTS	2	-	

6.4.4. Laboratories :

p) Mention the functional laboratories and justify if it is sufficient to meet the course curricula requirement.
   i) Meat processing laboratory
   ii) Analytical Laboratory
   iii) Quality Control Laboratory
   iv) Cooking unit
   v) Smoke Unit
   vi) Dairy practical Laboratory

q) List of major equipment, instructional units and facilities.
   i) Food texture analyser

ii) Bowl chopper
iii) Meat mincer
iv) Hamburger forming machine
v) Meat slicer
vi) Sausage filler
vii) Smoking unit
viii) Captive bolt pistol
ix) Band saw
x) Deep freezer
xi) Vacuum packaging machine
xii) Defeathering machine
xiii) Laminar flow
xiv) Bacteriological colony counter
xv) Gerber's centrifuge
xvi) Centrifuge
xvii) Distillation apparatus
xviii) Brine injector
xix) Electric stunner
xx) Incubator

6.4.5 Conduct of practical and hands on training: The practical class is of two hours duration for all the courses offered to students of PG & PhD programme. Students used to do the practicals by themselves under the supervision of the faculty/ course instructor. Students used to record their observations in practical manual.

6.4.6.Supervision of students in PG / PhD programme : Number of students being supervised by faculty in case of Masters/ PhD programme(as per ICAR guidelines)

Recognition for guiding of students (PG & PhD research) as per clause no. 2.12.2 of CAU Academic regulations-2016 for Master and PhD degree programmes
Master's Programme:
Associate Professor and above and their equivalents **OR** Assistant Professor and equivalents with Ph. D. degree in the discipline/ subject who has published two research papers other than his /her Master's and Ph. D. thesis **OR** Assistant Professor and equivalents without Ph. D. degree, provided he/she has at least two years of PG teaching experiences and 5 (Five) research papers published in referred journals with minimum NAAS rating of 4 (other than his /her Master's thesis.

Maximum number of students to be guided by faculty
As per clause no. 2.8.1(iii) of CAU Academic regulations-2016 for Master and PhDdegree programmes, at any given time, Professor, Associate Professor and Assistant Professor shal not be a chairperson for more than 6,5 and 4 PG students (Master's and PhD combined) respectively

Name of faculty member	2015-16	2016-17	2017-18	2018-19	2019-20
Dr. Pragati Hazarika, Ph. D. in Livestock Products Technology		1	1	3	3
Dr. Kevimese Khate, Ph. D. in Livestock Products Technology*	1		1		

- Transferred to C.V.Sc. & A.H., C.A.U., Jalukie, Nagaland, in 2018

6.4.7 Feedback of stakeholders: The college through a structured feedback mechanism (copy of feedback format attached as **Annexure -I**) from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format. Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are made by the Head of the departments and Dean of the college. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, avaialbility chemical and reagents and research facilities. Feedback is also received from parents, other institutes, Concerned Directorate of State Government time to time.

6.4.8. Students intake and attrition in programme for last five years(Programme wise)

	2016-17	2017-18	2018-19	2019-20	2020-21
Sanctioned seat	4	4	5	5	5
Actual admitted	1	2	3	3	4
Attrition %	0	0	0	0	40

6.4.9. ICT application in Curricula delivery :

- Use to take classes supported with visual presentation by detail PowerPoint slides
- Showing videos of related topics
- Students are asked to present class seminars with the help of material collected by them from the Internet, e journals and books

Updated and modern technologies available in Internet are informed to the students by providing the sites to visit.

Signature of Dean of the College with Date and Seal

DEPARTMENT OF VETERINARY SURGERY AND RADIOLOGY

6.4.1. Brief History of degree programme: Pl. mention the following

1. Year in which the degree programme was initiated: **In the year 2006.**
2. Whether nomenclature, curricula or syllabus of the degree programme as per guidelines of ICAR, 2009. **Yes.**
3. Accomplishments in brief.
   a) MVSc students passed out since introduction of the programme: **24 numbers.**
   b) PhD students passed out since introduction of the programme: **Not yet started**
   c) Publication: **16**
   d) Any other accomplishment which will justify the degree programme to be accrediatated by ICAR (Mostly academic and research related accomplishments): **Three students already cleared the NET examination conducted by ICAR for the subject and.**

Accomplishments:

Following MVSc students have completed their degree programme

MVSc (Veterinary Surgery and radiology)		
Sl. No.	**Name of the student**	**Thesis title**
1	***Dr. Thangzadinga***	Management of wounds and wounds infection in veterinary patients
2	***Dr. Kalpana Deb Barma***	Pre-emptive use of analgesics in anaesthesia and pain management in pigs.
3	***Dr. V. Lalzawmliana***	Comparative evaluation of diazepam and midazolam as preanaesthetic to xylazine and ketamine for balance anaesthesia in pigs
4	***Dr. Vanlalchhandama***	Evaluation of lignocaine, bupivacaine, ketamine and bupivacaine-ketamine combination of epidural anaesthesia in pigs.
5	***Dr. Ashimi Das***	Evaluation of propofol and its combination with preanaesthetics for total intravenous anaesthesia (TIVA) in cat.
6	***Dr. John Bezalaisa Khithie***	Studies of incidence and surgical management of canine neoplasm
7	***Dr. Daniel Kakki***	Wound healing potential of ***Bidens pilosa*** and ***Cassia tora*** leaves in rabbits.
8	***Dr. Nayan Bagawati***	Ventral hernia in pigs with special reference to their surgical management using herniorrhaphy and hernioplasty techniques
9	***Dr. Andrew Lalremruata***	Studies on incidence and surgical management of canine bone fracture
10	***Dr. L.H.Lalrosanga***	Acepromazine and midazolam with butorphanol as preanaesthetics to propofol anaesthesia in pigs
11	***Dr. Tage Rina***	Evaluation of acepromazine and midazolam as preanaesthetics to ketamine in yak
12	***Dr. Mekha Chandran***	Continuous rate infusion (cri) of dexmedetomidine with isoflurane in dexmedetomidine-butorphanol premedicated dogs
13	***Dr. Meme Cheda***	Risperidone-butorphanol as premedicants to propofol and isoflurane anaesthesia in dogs.
14	***Dr. Nengneikim Baite***	Intralesional application of bone marrow derived mononuclear cells (BMMNCs) embedded with hydroxyapatite (HA) scaffold in canine long bone fracture management

15	***Sr. Sherin Shah S***	Comparison of ovariectomy by laparoscopic and conventional open methods in dogs
16	***Dr. M. Lalhmangaihzuala***	Diagnosis and surgical management of pyometra in bitches
17.	***Dr. Analisha Debbarma***	Comparison of right flank and caudal midline approaches for ovariectomy in gilts.
18.	***Dr. Nirmali Sarma.***	Contrast enhanced ultrasonography (CEUS) for diagnosing urinary system disorders in canine
19.	***Dr. Chang L***	Intraperitoneal Application of Honey and Pectin-Honey Hydrogel (phhs) for Preventing Postoperative Peritoneal Adhesion in Rabbits
20.	***Dr. Rahul Paul***	Evaluation of Propofol, Ketofol and Etomidate as Induction Agent in Dogs Premedicated with Glycopyrrolate and Maintained with Isoflurane Anaesthesia.
21.	***Dr. Thangjam Reena Devi***	Total Intravenous Anaesthesia (TIVA) with Propofol and Ketofol in Glycopyrrolate and Dexmedetomidine premedicated Pigs
22.	***Dr. Chaithra S N***	Pre-emptive Analgesia with Tramadol, Pentazocine lactate and Meloxicam in Pain Management of Canine Ovariohysterectomy
23.	***Dr. Champak Jyoti Das***	Lumbosacral Myelography with or without Ultrasound-Guidance to Detect Spinal Cord Abnormalities in Canines and Their Management with Special Reference to Physiotherapy
24.	***Dr. H. Zorinpuii***	Epidural Analgesia using Dexmedetomidine with or without Lidocaine and Ropivacaine for Elective Ovariohysterectomy in Dogs

6.4.2. Faculty strength of the department

S No	Sanctioned Faculty (Faculty in place)	Vacant position	Faculty recommended by VCI, 2016
1. Professor	**Nil**	**1**	**1**
2. Associate Professor	**1**	**Nil**	**1**
3. Assistant Professor	**2**	**1**	**3**

6.4.3. Technical and supporting staffs of the department

S No	Staff in position	Vacant position	Staffs recommended by VCI, 2016
1. FCLA	**1**	**0**	Not specified
2. Farm Manager	**0**	**0**	NA
3. MTS	**2**	**0**	Not specified

3.4.3. Laboratories :

r) Mention the functional laboratories and justify if it is sufficient to meet the course curricula requirement.

a) **Two fully equipped Small Animal Operation Theatre.**
b) **One Large Animal Operation theatre room.**
c) **One X-ray room.**
d) **One Computerised Radiography System room.**
e) **One dark room for X-ray processing.**

s) List of major equipment, instructional units and facilities.

i) **Hydraulic Operating Theatre Table for Small Animal Operation- one**.
ii) **Shadowless lamp- two**

iii) **500 mA X-ray machine with Fluoroscopy unit- one.**
iv) **Computerised Radiography System- one.**
v) **USG Unit- one.**
vi) **Electro Cautory Unit- one.**
vii) **Small Animal Anaesthesia Machine with Ventilator- one.**

6.4.5 Conduct of practical and hands on training: The practical class is of two hours duration for all the courses offered to students of PG programme. Students used to do the practicals by themselves under the supervision of the faculty/ course instructor. Students used to record their observations in practical manual.

6.4.6 Supervision of students in PG / PhD programme: Number of students being supervised by faculty in case of Masters / PhD programme (as per ICAR guidelines):

Recognition for guiding of students (PG & PhD research) as per clause no. 2.12.2 of CAU Academic regulations-2016 for Master and PhD degree programmes
Master's Programme:
Associate Professor and above and their equivalents **OR** Assistant Professor and equivalents with Ph. D. degree in the discipline/ subject who has published two research papers other than his /her Master's and Ph. D. thesis **OR** Assistant Professor and equivalents without Ph. D. degree, provided he/she has at least two years of PG teaching experiences and 5 (Five) research papers published in referred journals with minimum NAAS rating of 4 (other than his /her Master's thesis.

Maximum number of students to be guided by faculty
As per clause no. 2.8.1(iii) of CAU Academic regulations-2016 for Master and PhDdegree programmes, at any given time, Professor, Associate Professor and Assistant Professor shal not be a chairperson for more than 6,5 and 4 PG students (Master's and PhD combined) respectively

Number of studenys completed the MVSc in Veterinary Surgery and radiology: **24**

Number of studenys continuing the MVSc in Veterinary Surgery and radiology: **7**

Total students guided by the faculty:

Name of the faculty	Programme	Number of students supervised as major Advisor	Number of students being supervised as minor advisor
Dr Bedanga Konwar	MVSc	8 (Completed) 2 (Continuing)	10 (Completed) 9 (Continuing)
	PhD	Nil	2 (Continuing)
Dr Basanta Saikia	MVSc	7 (Completed) 2 (Continuing)	8 (Completed) 6 (Continuing)
	PhD	Nil	Nil
Dr Hitesh Bayan	MVSc	4 (Completed) 3 (Continuing)	5 (Completed) 3 (Continuing)
	PhD	Nil	Nil

Following 24 MVSc students had completed and 7 have continuing their degree programme in Veterinary Surgery and Radiology

Sl. No.	Name of the PG student	Major Subject	Year of completion	Superviser
1.	*Dr. Thangzadinga*	Veterinary Surgery and Radiology	2008	Dr. Gaj Raj Singh
2	*Dr. Kalpana Deb Barma*	-do-	2009	Dr. Gaj Raj Singh
3	*Dr. V. Lalzawmliana*	-do-	2012	Dr. Bedanga Konwar
4	*Dr. Vanlalchhandama*	-do-	2013	Dr. Satyendra Kumar
5	*Dr. Ashimi Das*	-do-	2013	Dr. Basanta Saikia
6	*Dr. John Bezalaisa Khithie*	-do-	2014	Dr. Hitesh Bayan
7	*Dr. Daniel Kakki*	-do-	2014	Dr. Bedanga Konwar
8	*Dr. Nayan Bagawati*	-do-	2015	Dr. Hitesh Bayan
9	*Dr. Andrew Lalremruata*	-do-	2016	Capt. Dr. G. D. Rao
10	*Dr. L.H.Lalrosanga*	-do-	2016	Dr. Hitesh Bayan
11	*Dr. Tage Rina*	-do-	2016	Dr. Hitesh Bayan
12	*Dr. Mekha Chandran*	-do-	2017	Dr. Bedanga Konwar
13	*Dr. Meme Cheda*	-do-	2017	Capt. Dr. G. D. Rao
14	*Dr. Nengneikim Baite*	-do-	2018	Dr. Bedanga Konwar
15	*Sr. Sherin Shah S*	-do-	2018	Dr. Basanta Saikia
16	*Dr. M. Lalhmangaihzuala*	-do-	2019	Dr. Basanta Saikia
17	*Dr. Analisha Debbarma*	-do-	2019	Dr. Basanta Saikia
18	*Dr. Nirmali Sarma.*	-do-	2019	Dr. Bedanga Konwar
19.	*Dr. Chang L*	-do-	2019	Dr. Bedanga Konwar
20.	*Dr. Rahul Paul*	-do-	2019	Dr. Basanta Saikia
21.	*Dr. Thangjam Reena Devi*	-do-	2020	Dr. Basanta Saikia
22.	*Dr. Chaithra S N*	-do-	2020	Dr. Basanta Saikia
23.	*Dr. Champak Jyoti Das*	-do-	2021	Dr. Bedanga Konwar
24.	*Dr. H. Zorinpuii*	-do-	2021	Dr. Bedanga Konwar
25.	*Dr. Debajyoti Pal*	-do-	Continuing	Dr. Basanta Saikia
26.	*Dr. Palash Jyoti Sonowal*	-do-	Continuing	Dr. Basanta Saikia
27.	*Dr. Sourav Debnath*	-do-	Continuing	Dr. Hitesh Bayan
28	*Dr. Gakul Raj S*	-do-	Continuing	Dr. Hitesh Bayan
29.	*Dr. Swadhin Bisai*	-do-	Continuing	Dr. Bedanga Konwar
30.	*Dr. Anagha Sunilkumar C*	-do-	Continuing	Dr. Hitesh Bayan
31.	*Dr. Mahima Sharma*	-do-	Continuing	Dr. Bedanga Konwar

6.4.7 Feedback of stakeholders: The college through a structured feedback mechanism (copy of feedback format attached as **Annexure -I**) from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format. Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are made by the Head of the departments and Dean of the college. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, avaialbility chemical and reagents and research facilities. Feedback is also received from parents, other institutes, Concerned Directorate of State Government time to time.

6.4.8. Students intake and attrition in programme for last five years(Programme wise)

	2016-17	2017-18	2018-19	2019-20	2020-21
Sanctioned seat	**5**	**5**	**5**	**5**	**5**
Actual admitted	**2**	**5**	**4**	**5**	**3**
Attrition %	**0**	**0**	**0**	**0**	**0**

6.4.9. ICT application in Curricula delivery: All the classes are taken through the power point presentation. PG students are presenting their class seminar through the power point presenta

Signature of Dean of the College with Date and Seal

DEPARTMENT OF VETERINARY MEDICINE

6.4.1 **Brief History of the Department**:

6.4.1 Brief History of degree programme: Please mention the following

1) Year in which the degree programme was initiated: 2009-10

2) whether nomenclature, curricula or syllabus of the degree programme as per guidelines of ICAR, 2009: Yes

3) Accomplishments in brief.

v) MVSc students passed out since introduction of the programme: 21

vi) PhD students passed out since introduction of the programme: 01

vii) Publications by students and faculty members of the department:

- **Research articles**: 18

1.Ali Ayub M, Prasad H, Lyngdoh WM, Gunjan Das, Prava M, Victoria Chanu KH, Tolenkhomba TC, Damodar Singh Y, Ralte L, Inaotombi Devi L(2013). Biochemical profile of broiler chickens expeprimentally infected with *Ascaridia galli. Indian J. Anim. Res.* 47 (1):17 – 22.

2. Ali MA, Inaotombi Devi L, Lyngdoh WM, Das G, Prasad H, Chanu KhV, Parva M, Tolenkhomba TC, Damodar Singh Y, Lallianchhunga MC (2011) Comparative Biochemical Profile of *Ascaradia galli* infected Broiler Chickens on Administration of Pineapple and Neem Leaves and Piperazine. *International Journal of Poultry Science.* **10**(7): 542

3. Patra G, Prasad H, Lalsiamthara J, Kataria JL, Malsawmkima D, Lalrinkima H (2013) Prevalence of *Histomonas meleagridis* in Broiler Chicken in different Parts of Mizoram, India. *International Journal of Poultry Science.* **12**(2): 98-101.

4. Prasad H, Sarma K, Das G, Rajesh JB, Behera SK (2014) Clinico- pathological changes in Babesiosis in livestock and dogs and its diagnosis and therapeutic management. Chapter in a book ISBN 978-3-639-71132- 5 Page No.49-60

5. Prasad H, Gunjan Das, Sarma K, Rajesh JB, Behera SK (2015) Mastitis – a headache for dairy farmers. CAU Farm Magazine. **5**(2)38-39

6. Ghorai, S., Sarma, K., Roychoudhury, P., Das, G., Singh, D., Kalita, G., & Choudhury, J. (2018). Anti-Diarrhoeal Activity and Toxicity Trial of Methanolic Fruit-Pulp Extract of Aegle Marmelos (L.) Correa in Sprague-Dawle Rats. *International Journal of Livestock Research*. 8(9), 326-337. doi: 10.5455/ijlr.20180215113413

7. Tungnunga IB, Sarma K, Roychoudhury P, Borthakur SK, Das G, Prasad H, et al. (2016).Therapeutic evaluation of homoeopathic drug Crotalus horridus 200C against Ehrlichiosisinfected dogs in Mizoram. *Indian J Res Homoeopathy*. 10:42-51.

8. Nirali Piyush Shah, Dhrubajyoti Borpojari , Kalyan Sarma , M. Ayub Ali, Basanta Saikia, Hitesh Bayan, Fazal Ali Ahmed and Gunjan Das.(2018). Psoroptes mites infestation in a captive Burmese Red Serow (Capricornis sumatraensis subspecies rubidus) of Indo-Burma bio-Diversity hotspot. *J Parasit Dis*. https://doi.org/10.1007/s12639-018-0989-8

9. Moneesh Thakur, Hriyadesh Prasad, Kalyan Sarma, Radhika Thakur, A.K. Samanta, Albert Debbarma, Arindam Bhowmik, Prasenjit Debnath and Abhijit Deka (2018). Haemato-

Biochemical Changes in Canine Demodicosis. *Int.J.Curr.Microbiol.App.Sci.*7 (11): 2958-2962

10. Moneesh Thakur, Hriyadesh Prasad, R.S. Arya, Y.D. Singh, Jayappa Kiran, Abhijit Deka, Kalyan Sarma, Albert Debbarma, Arindam Bhowmik and PrasenjitDebnath(2019).Histopathological Changes in Canine Demodicosis. *Int.J.Curr.Microbiol.App.Sci*8(3):2176-2179. Doi.org/10.20546/ijcmas.2019.803.260

11. L.N. Singh, Gunjan Das, K. Sarma, H. Prasad and S.K. Behera (2018). Incidences of Gastro-intestinal ailments and efficacy of two herbal ITK against diarrhoea in farm animals of Manipur. *Indian J. Vet. Public Hlth*. 5 (1): 58-72

12. Chamniugongliu Gonmei, Kalyan Sarma, Parimal Roychoudhury, M. Ayub Ali, Damodar Singh, H.Prasad, F.A. Ahmed, Rebecca Lalmuanpuii, Nirali Shah, Ningthoujam Suraj Singh and Jitendra Kumar Choudhury(2018). Molecular diagnosis and Clinico- hamato-biochemical alterations and oxidant–antioxidant biomarkers in Babesia-infected dogs of Mizoram. Accepted for publication in Journal of Vector born disease

13. Gonmei, C., Sarma,K., Mukharjee, S., Ahmed, F.A., Singh, Y.D., Prasad, H., Lalmuanpuii,R., Shah, P.N. and Singh, N.S (2018). *Babesia gibsoni* voucher VMD/Dog/2085 small subunit ribosomal RNA gene, partial sequence; mitochondrial gi|1425895169|gb|MH620356.1|

14. Thakur, M., Prasad, H., Sarma, K., Roychoudhury, P., Ghosh, S., Singh, R.K., Bora, N. and Sharma, N. (2019). *Demodex canis* isolate VMD/D.canis/MT/1 small subunit ribosomal RNA gene, partial sequenceGenBank: MK177513.1

15. Rebecca Lalmuanpuii, H. Prasad, Kalyan Sarma, Chethan G.E., Bedanga Konwar, S.K. Behera, Basanta Saikia, J.B. Rajesh, R. Ravindran, Nirali Pyush Shah, Chamniugongliu Gonmei, N. and Suraj Singh(2019). Ultrasonographic evaluation of the urinary tract diseases in dogs and its correlation with other diagnostic procedures. *Journal of Entomology and Zoology studies*. 7(5): 1384-1389.

16. Ongtang Kupmei Phom, Kalyan Sarma , Rahul Singh Arya, S. K. Behera, Bedanga Konwar, B. Saikia, Jitendra Kumar Chaudhary, J. B. Rajesh, H. Prasad, Chethan G E , Hemen Das, Sikder Jabidur Islam and Prasenjit Debnath (2019). Ascites and hepato-renal syndrome in cirrhosis in dog. *Journal of Entomology and Zoology studies*. 7(5): 313-321.

17. Prasenjit Debnath, Kalyan Sarma, Rahul Singh Arya, Chethan G.E., Basanta Saikia, H. Prasad, J.B. Rajesh, Jitendra Kumar Chaudhary, Albert Debbarma, Arindam Bhowmik, O. Kupmei Phom, Biswadeep Behera And Swarup Debroy (2019). Seroprevalence and dermatopathology of Sarcoptic scabiei var suis infestation in pigs. Accepted for publication in *Indian Journal of Animal Research*.

18. Arindom Bhowmik, Gunjan Das, H. Prasad, Kalyan sarma, A.K. Samanta, Bikash Debnath, J. K. Chaudhury, Prasenjit Debnath, Albert Debbarma, and Moneesh Thakur (2019). Minerals and Electrolytes Status in cows Fed on ration supplemented with anionic salts in pre-partum period in prevention of milk fever. *Int. J. curr. Microbiol. App. Sci*. 8(7); 2530-2536

- Review articles: 00
- Popular articles: 10
- Research reports: 11

- Laboratory manuals: 06
- Books and chapters: 06

viii) Any other accomplishment which will justify the degree programme to be accredited by ICAR (Mostly academic and research related accomplishments):

- Externally funded research projects concluded: 03
- Externally funded research projects under progress: 04
- Externally funded research projects approved: 00
- Externally funded research projects under review: 01
- University funded research projects concluded: 08
- DBT funded Star College Scheme is in effect for BVSc & AH degree program.

6.4.2 Staff Strength:

Sl No	Faculty in position	Vacant position	Faculty recommended by VCI, 2016
Professor	01	00	
Associate Professor	01	00	
Assistant Professor	03	00	

6.4.3 Technical and supporting staffs of the department

Sl No	Staff inposition	Vacant position	Staffs recommended by VCI, 2016
4. FCLA	01	00	Not specified
5. MTS	02	00	Not specified

6.4.4 Laboratories
Infrastructure availabilities:

1) Name of Laboratory	1) Undergraduate Laboratory : 01 No 2) Postgraduate Laboratory : 02 Nos
2) Equipments	1) Laminar Flow – 02 Nos. 2) Refrigerator – 03 nos. 3) Vestfrost – 02 Nos. 4) AAS (Atomic Absorption Spectrophotometer with accessories 5) Blood Analyzer (Model Ruby Plus) 6) Vertical Autoclave (Hospital Model) 7) BOD Incubator Sanco Make 8) Elisa Reader (Bio Rad 680) 9) Hot Air Oven 10) Vortex 11) Magnetic Stirrer 12) Centrifuge 13) Electronic Balance 14) Vacuum Evaporator

		15) Soxhlet Extractor 16) Refrigerated Centrifuge 17) Biochemistry Analyser 18) Laboratory Centrifuge 19) Homocytometer 20)Trinocular Fluorescent Microscope 21) Computer Sets : 05 Nos.

6.4.5. **Conduct of practical and hands on training**: The practical class is of two hours duration for all the courses offered to students of PG & PhD programme. Students used to do the practicals by themselves under the supervision of the faculty/ course instructor. Students used to record their observations in practical manual.

6.4.6. **Supervision of students in PG / PhD programme**: Number of students being supervised by faculty in case of Masters/ PhD programme (as per ICAR guidelines)

Recognition for guiding of students (PG & PhD research) as per clause no. 2.12.2 of CAU Academic regulations-2016 for Master and PhD degree programmes

Master's Programme:

Associate Professor and above and their equivalents **OR** Assistant Professor and equivalents with Ph. D. degree in the discipline/ subject who has published two research papers other than his /her Master's and Ph. D. thesis **OR** Assistant Professor and equivalents without Ph. D. degree, provided he/she has at least two years of PG teaching experiences and 5 (Five) research papers published in referred journals with minimum NAAS rating of 4 (other than his /her Master's thesis.

Maximum number of students to be guided by faculty

As per clause no. 2.8.1(iii) of CAU Academic regulations-2016 for Master and PhDdegree programmes, at any given time, Professor, Associate Professor and Assistant Professor shal not be a chairperson for more than 6,5 and 4 PG students (Master's and PhD combined) respectively

Name of the faculty	Number of students supervised as major Advisor MVSc	Number of students supervised as major Advisor PhD
Dr. Hridayesh Prasad	Awarded: 9 On Roll:	Awarded: 1 On Roll: 2
Dr. Gunjan Das	Awarded: 6 On Roll:	0
Dr. Kalyan Sarma	Awarded: 7 On Roll: 2	Awarded: 0 On Roll: 2
Dr. S. K. Behera	Awarded: 1 On Roll: 1	0
Dr. J. B. Rajesh	Awarded: 0 On Roll: 3	0

6.4.7. Feedback of stakeholders: The college through a structured feedback mechanism (copy of feedback format attached as **Annexure -I**) from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format. Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are

made by the Head of the departments and Dean of the college. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, avaialbility chemical and reagents and research facilities. Feedback is also received from parents, other institutes, Concerned Directorate of State Government time to time.

6.4.8. Students intake and attrition in programme for last five years(MVSC Programme)

	2016-17	2017-18	2018-19	2019-20	2020-21
Sanctioned seat	4	4	5	5	5
Actual admitted	4	3	3	4	2
Attrition %	0	0	0	0	0

6.4.9. ICT application in Curricula delivery: Various ICT tools are being used for conducting Theory and practical classes of BVSc, MVSc & PhD programme. All the faculties of the department are digitally literate. LCD projectors are used for teaching in the classroom. The students are provided with reading material as softcopy. PPT presentations were also shared to the students through their email.

Signature of Dean of the College with Date and Seal

DEPARTMENT OF VETERINARY PARASITOLOGY

6.4.1. Brief History of the Departments:

The Department of Veterinary Parasitology, College of Veterinary Sciences and Animal Husbandry, Selesih, has been functioning since 1998 for under graduate studies. The department has been offering Veterinary Parasitology courses strictly as per VCI guidelines for UG programme. Further, the department has been offering minor and supporting courses for MVSc programme since 2008-2009. Subsequently, PG courses leading to MVSc degree programme in Veterinary Parasitology has been approved by the competent authority of CAU, Imphal. This was notified vide Memo No. CAU.Rag/550/ATR/04(Vol-I)/2796 dated 9th December, 2013 to start the MVSc degree programme from the academic year 2014-15 with three seats including ICAR nominee.

Major Achievements

1. Year of introduction of M.V.Sc. / Ph.D Programme: MVSc degree was introduced in the year, 2014-2015.
2. PhD degree courses programme has been approved from the academic session 2020-21
3. Number of MVSc. and Ph.D students passed out: Till date, 3 scholars have obtained MVSc degree in Veterinary Parasitology.
4. Number of MVSc. And Ph.D students on roll : 0ne (1) MVSc scholar on roll.

Till date, three (3) PG scholars have obtained MVSc degree from this department including 1 deputed Veterinary Officer from Government of Manipur. At present, one (1) PG scholar is undergoing MVSc degree programme in this department.

The department of Veterinary Parasitology, College of Veterinary Sciences and Animal Husbandry, CAU, Selesih is well equipped with spacious UG and PG laboratories having modern instrumentation including studies on molecular technologies.

Research Project:

Externally Funded Projects

PI/Co-PI/Other	Title	Year of sanction	Amount	Funding Agency	Status of the Project
PI	Molecular and sero diagnosis of surra in Livestock in North Eastern States of India	2017 Vide Sanction No. T/PR16895/NER/95/342/2015 Dated 12/01/2017	57.22 Lakh	DBT	Completed
Co-PI	NER Centre for Advanced Animal Disease Diagnosis and Management Consortium	2014 Vide Sanction No DBT-NER/LIVS/11/2012	215 Lakh	DBT	Completed

Inter-Institutional Projects

PI/Co-PI/Other	Title	Institution	Year of Sanction	Duration	Amount	Funding Agency	Status of the Project
PI	Surveillance of helminthic fauna and helminth related disease in cattle and pig in Aizawl district of Mizoram	CVSc&AH, Selesih, Aizawl	2003-04	01 year	Rs.33,619/-	CAU	Completed
Co-PI	Arthropods of Veterinary importance and arthropod borne protozoan diseases in Aizawl District of Mizoram.	CVSc&AH, Selesih, Aizawl	2003-04	01 year	Rs.29,675/-	CAU	Completed
Co-PI	Seroprevalence and therapeutic management of sarcoptic infestation of Pig in Aizawl District of Mizoram and its effect on pathological, haemato-biochemical and oxidative stress	CVSc&AH, Selesih, Aizawl	2013-14	01 year	Rs. 1,47,000/-	CAU	Completed
PI	"Molecular detection of haemoparasites of canine in Aizawl, Mizoram".	CVSc& AH, Selesih, Aizawl	2015-16	01 year	Rs. 1.5 Lakh	CAU	Completed
PI	Assessment of zoonotic helminth contamination of environment in Aizawl, Mizoram".	CVSc& AH, Selesih, Aizawl	2015-16	01 year	Rs. 1.5 Lakh	CAU	Completed

Research topic completed under MVSc programme:

1. Surveillance of parasitic fauna and parasitic diseases of pigs in Mizoram.
2. Parasitic fauna and diseases in manipuri ponies with special reference to cutaneous habronemiosis.
3. Studies on ticks and tick-borne haemoprotozoa of cattle in Aizawl and Kolasib Districts of Mizoram.

Research Publication:

a. Out of MVSc thesis: 04 nos (Three National and one international publication)
b. Departmental publication: About 50 nos.

Placement of passed out PG and Ph. D students:

Sl. No	Name	Year of Passing	Placement
1.	Dr. Freedy H Siamthara	2017	Private Veterinary Practitioner / establishing self Veterinary Clinic
2.	Dr. Chirom Nishita Devi	2017	Veterinary Officer in State Disease Diagnostic Laboratory, Gov't of Manipur.
3.	Dr. Subhamoy Ghosh	2018	Veterinary Officer in Animal Resources Development Departmet, Gov't of West Bengal.

6.4.2. Faculty strength of the department: At present the department of Veterinary Parasitology, College of Veterinary Sciences and Animal Husbandry, CAU, Selesih is running with the following teaching staffs with Ph.D

Sl. No.	Sanctioned Faculty	Current Position	Faculty recommended by VCI, 2016*	Vacant position
Professor	01	01 Having more than 19 years of teaching experiences.	01	Nil
Associate Professor	01	Nil	01	01
Assistant Professor	02	**02** One is having more than 19 years of teaching experiences & Another is having more than 03 years of teaching experiences	02	Nil

* Faculty recommended mentioned here is as per MSVE-2016 (BVSc & AH Degree Courses) published in the Gazette Notification Part-III, section IV page No. 147

6.4.3. Technical and supporting staffs of the department

Sl. No.	Present position	Vacant position	Staffs recommended by VCI, 2016
FCLA	01	0	Not specified
MTS	01	0	Not specified

6.4.4. Infrastructure availabilities:

1) Name of the Laboratory:
    a. Undergraduate Laboratory : 1
    b. Postgraduate Laboratory : 1
    c. Molecular Parasitology Laboratory : 1
2) Equipments
    a. Refrigerated Centrifuge Machine
    b. Gradient Thermal Cycler
    c. Gel Documentation system
    d. Submarine electrophoresis system with power pack
    e. Microscope with photographic facility
    f. Online UPS (5 KV)
    g. Stereozoom microscope
    h. Compound Microscope
    i. Freeze (-80 and -20°C)
    j. BOD incubator
    k. Electronic Balance
    l. Refrigerator

6.4.5. Conduct of practical and hands on training: The practical class is of two hours duration for all the courses offered to students of PG & PhD programme. Students used to do the practicals by themselves under the supervision of the faculty/ course instructor. Students used to record their observations in practical manual.

6.4.6. Supervision of students in PG / PhD programme: Number of students being supervised by faculty in case of Masters/ PhD programme (as per ICAR guidelines)

This is presently being followed as per guidelines of CAU's Academics Regulations-2016 for Master and Ph.D. Degree Programmes vide clause No. 2.8.1(at any given time, Professor, Associate Professor and Assistant Professor shall not be a chairperson for more than 6, 5 and 4 P.G. students(Masters and PhD combined) and 2.12.2: Guidance of PG Research

Name of the faculty	Programme	Number of students supervised as major Advisor	Number of students being supervised as major advisor/chairperson	Eligible Criteria to become research guide
Dr Sonjoy Kumar Borthakur, PhD Professor & HoD	MVSc	02	01	Professor
Dr Gautam Patra, PhD Assistant Professor(SG)	MVSc	01	01	Assistant Professor with PhD and published more than two (02) research papers other than his Master's and PhD thesis.
Dr H Lalrinkima, PhD Assistant Professor	MVSc	-	01	Assistant Professor with PhD and published more than two (02) research papers other than his

				Master's and PhD thesis.

6.4.7. Feedback of stakeholders: The college through a structured feedback mechanism (copy of feedback format attached as **Annexure -I**) from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format. Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are made by the Head of the departments and Dean of the college. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, avaialbility chemical and reagents and research facilities. Feedback is also received from parents, other institutes, Concerned Directorate of State Government time to time.

6.4.8. **Students intake and attrition in programme for last five years(Programme wise)**

MVSc programme

	2016-17	2017-18	2018-19	2019-20	2020-21
Sanctioned seat	03	03	03	03	03
Actual admitted	01	01	-	01	02
Attrition %	0	100	0	0	0

6.4.9. ICT application in Curricula delivery: Various ICT tools are being used for conducting Theory and practical classes of BVSc , MVSc. All the faculties of the department are digitally literate.

Signature of Dean of the College with Date and Seal

DEPARTMENT OF ANIMAL REPRODUCTION, GYNAECOLOGY AND OBSTETRICS

6.4.2. Brief History of degree programme:

The Department of Animal Reproduction, Gynaecology & Obstetrics has been offering Courses of B.V.Sc. & A.H. degree programme since the inception i.e 1997-98. M.V.Sc. degree programme was introduced in the year 2011 and thereafter Ph.D programme in 2014-15. The nomenclature of the degree programme and syllabi of M.V.Sc. & Ph.D. programme has been adopted as per ICAR Revised Postgraduate Course Curricula-2009. The Department is well equipped with some state of the art facilities viz. Computer Assisted Sperm Analyser, Laparoscope, Trinocular Research Microscope, Cryocans, Phantom Box, Draminisky Pregnancy and Heat Detector, Doppler Ultrasound Machine, Colour Doppler USG etc. The faculty of this department have completed 4 Intra Mural Research Project (IRP) funded by CAU Imphal as PI.

a) List of the MVSc & PhD students passed out

Sl. No.	Name & Regd. No. of the students	Topics of the thesis with year of submission	Major Advisor	Year of completion
	MVSc Programme:			
1.	**Dr. Peter Malsawmtluanga** 2011-V-15(M)	"Periparturient behavioural, physical and haemato-biochemical characteristics in female Mithun (*Bos frontalis)* of Mizoram" (2013).	Dr. F.A. Ahmed	2013
2.	**Dr. Amy Zorinkimi** 2011-V-14(M)	"Characteristics and preservation on Mongrel Dog Semen in Mizoram" (2014).	Dr. F.A. Ahmed	2014
3.	**Dr. Lalhruaitlunga** 2011-V-13(M)	"Characteristics and preservation of semen of Mizo local pig *(Zovawk)* in liquid state"	Dr. K. Lalrintluanga	2014
4.	**Dr. Anup Kumar Das** 2012-V-13(M)	"Semen cryopreservation of indigenous pig *(Zovawk)* of Mizoram "	Dr. K. Lalrintluanga	2014
5.	**Dr. Vanlalhriatpuia** 2013-V- 05 (M)	"Effect of Antibiotic and Prostaglandin on Involution of Uterus in Crossbred Dairy Cows"	Dr. F.A. Ahmed	2016
6	**Dr. Nekibuddin Ahmed** 2013-V-06 (M)	"Effect of Ovsynch and Ovsynch based GnRH treatments on conception rate in repeat breeding crossbred cows"	Dr. D. Kathiresan (Dean)	2015
7	**Dr. Aniyang Lego** 2014-V-13 (M)	"Induction of oestrus and its effect on conception in acyclic female yaks (*Poephagus grunniens L.*)"	Dr. K. Lalrintluanga	2016
8	**Dr. K. Lalchhanhima** 2015-V-07 (M)	"Effect of Semen Packaging Materials and A.I. Catheters on Fertility of Sows"	Dr. K. Lalrintluanga	2017
9	**Dr. M.S. Dawngliana** 2015-V-06 (M)	"Effect of melatonin on quality of boar semen during liquid preservation"	Dr. F.A. Ahmed	2017

10	**Dr. Moon Moon Haji** 2015-V-07 (M)	"Application of colour Doppler ultrasonography for diagnosis of pregnancy in bitch (*canis familiaris*)"	Dr. F.A. Ahmed	2017
11	**Dr. Dhrubajyoti Borpujari** 2016-V-06 (M)	"Assessment of Postpartum Health Status for Cyclicity and effect of Ovsynch and G6G Protocol on conception rate in Crossbred Anestrus Cow"	Dr. F.A. Ahmed	2018
12	**Dr. John Rozarliana** 2016-V-07 (M)	"Effect of Amides on Cryopreservation of Boar Semen".	Dr. K. Lalrintluanga	2018
13	**Dr. Ng. Saratchandra** 2016-V-08 (M)	"Application of B-mode and colour Doppler ultrasonography in early pregnancy detection in doe (*capra hircus)*"	Dr. K. Lalrintluanga	2019
14	**Dr. N. Linda** 2017-V- 23 (M)	"Study on Certain Aspects of Reproduction in female Manipuri ponies (*Equus ferus caballus)"*	Dr. F.A. Ahmed	2019
15	**Dr. Gisha Tresa Binny** 2017-V- 38 (M)	"An Approach to Predict the Date of Parturition in Canine"	Dr. F.A. Ahmed	2019
16	Dr. Sushmita Das 2018-V- 25 (M)	Studies of Reproductive Parameters in Local Female Cattle of Mizoram (Zobawng)	Dr. F.A. Ahmed	
17	Dr. Ashiho Kayina 2018-V- 26 (M)	Studies on sexual behaviour and semen characteristics of indigenous cattle of Mizoram.	Dr. K. Lalrintluanga	
18	Dr. Utpal Boro 2018-V- 27 (M)	Assessment of suitable protocols for fixed time A.I. *vis-à-vis* early pregnancy diagnosis on crossbred cattle.	Dr. D. Talukdar	
19	Dr. Dhanu Kumar Murasing 2018-V- 28 (M)	Studies on albumin separation of sperm to improve the quality of cross-bred boar semen	Dr. K. Lalrintluanga	
20	Dr. Saddamhusen M.N. 2018-V- 40 (M)	Studies on characteristics and freezability of mithun semen collected through electro-ejaculator.	Dr. F.A. Ahmed	
		Ph.D. Programme:		
1	**Dr. Tukheswar Chutia** 2015-V-02 (D)	"Reproductive performance of weaned sows after fixed time artificial insemination"	Dr. F.A. Ahmed	2018

b) List of students presently pursuing MVSc programme

1. Dr. Ningthoukhongjam Linda- 2019-V-02 (D)
2. Dr. Value Debbarma- 2020-V- 05(D)
3. Dr. Roland R. Songate - 2019-V- 25 (M)
4. Dr. Athokpam Donin Luwang - 2019-V- 27 (M)

5. Dr. Bhagiratha D. Sharma - 2019-V- 28 (M)
6. Dr. Anurag Garg- 2019-V- 48 (M)
7. Dr. Dipan Rudra Paul- 2020-V- 33(M)
8. Dr. Esther Vanlalchhanchhuahi- 2020-V- 35(M)
9. Dr. Atokali Sumi- 2020-V- 36(M)

c) Publication: Out of MVSc & PhD research works

i. Amy Zorinkimi, F.A. Ahmed, K. Lalrintluanga and Neithono Kuotsu (2017) Characterization of Mongrel Dog Semen of Mizoram . *Int.J.Curr.Microbiol.App.Sci* (2017) *6*(12): 1140-1145

ii. T. Chutia , K. Lalrintluanga, F.A. Ahmed And A. Lego(2017).Use Of 'Wooden Dummy Sow' For Training Of Boar For Semen Collection And The Semen Quality Of Trained Boar *Indian Journal of Animal Reproduction* **38** (2): 6-8

iii. Amy Zorinkimi, F.A. Ahmed and K. Lalrintluanga (2017). Effect of Different Extenders on the Quality of Mongrel Dog Semen Preserved at 5°C on the Basis of Hypo-Osmotic Sperm Swelling Test (HOSST) . *Int.J.Curr.Microbiol.App.Sci* (2017) ***6***(12): 961-964

iv. T. Chutia, D. J. Talukdar, B. Konwar, F. A. Ahmed, K. Lalrintluanga and G. Das (2016). Management of Incomplete Uterine Inertia in a Labrador Bitch - A Case Report. *International Journal of Livestock Research* 6(**9**): 28-31.

v. Ahmed N, Kathiresan D, Ahmed FA, Lalrintluanga K, Mayengbam P, Gali JM (2016) Pattern of induced estrus and conception rate following Ovsynch and Ovsynch based gonadotropin-releasing hormone treatments initiated on day 6 of estrous cycle in repeat breeding crossbred cows, *Veterinary World,* **9**(4): 342-345

vi. Nekibuddin Ahmed, Vanlalhriatpuia, F. A. Ahmed, K. Lalrintluanga (2016). "Therapeutic Management of Postpartum Uterine Prolapse in a Crossbred Holstein Friesian Cow". *The North East Veterinarian*

vii. Das, A.K., Ahmed, N., Lalrintluanga,K. and Deuri, D. (2016). Effect of different extenders on quality of frozen smen of Mizo local Boar (Zovawk). *International Journal of Agricultural Science and Research (IJASR)* **6**(3):65-70.

viii. Dhrubajyoti Borpujari, Fazal Ali Ahmed**,** K. Lalrintluanga, M. Ayub Ali, Dibyajyoti Talukdar and Gunjan Das.(2018). Body Condition Score with Relation to Various Physiological Blood Parameters for Postpartum Cyclicity of Crossbred Cows. *Theriogenology Insight*: **8** (2): 63-67

ix. Moon Moon Haji, F. A. Ahmed, K. Lalrintluanga, D. J. Talukdar, P. J. Doley, S. K.Behera and K. Sarma. (2018). The Role of Estrogen and Progesterone Hormone on Vaginal Cytology in Bitch. *International Journal of Livestock Research,* **8**(9), 241-247.

x. T. Chutia, D. J. Talukdar, B. Konwar, F. A. Ahmed, K. Lalrintluanga and G. Das (2016). Management of Incomplete Uterine Inertia in a Labrador Bitch - A Case Report. *International Journal of Livestock Research* 6(**9**): 28-31.

xi. Nekibuddin Ahmed, K Lalrintluanga, Vanlalhriatpuia, F A Ahmed[3] (2016). "A Rare Case of Unilateral Uterine Horn Prolapse with Retained Fetus in a Bitch " *The North East Veterinarian.*

xii. Chutia, T., Ghorai, S., Sarma,K., Das, G., Behera,S.K., Konwar, B., Ahmed F.A., and Lalrintluanga,K.(2016).Therapeutic management of Ascites in a Bitch-Case Report *International Journal of Livestock Research* 6**(12)**: 71-73

xiii. Ahmed, N., Bayan,H., Vanlalhriatpuia, Ahmed F.A., and Lalrintluanga, K. (2017). Surgical management of Dystocia in a Pug Bitch. *The North East Veterinarian* **XVI**(4): 33-34.

xiv. Tukheswar Chutia, FazalAli Ahmed, Khawlhring Lalrintluanga, Girin Kalita, Jagan MohanaRao Gali, Parimal Roy Choudhury, Prava Mayengbam and Jitendra Kumar Choudhury (2019). Training and Libido assessment in boar during semen collection. *Haryana Vet* (April 2019) **58**:50-52.

xv. Tukheswar Chutia, Fazal Ali Ahmed, Khawlhring Lalrintluanga, Girin Kalita, Jagan MohanaRao Gali, Parimal Roy Choudhury, Prava Mayengbam and Jitendra Kumar Choudhury (2019).Comparative analysis of seminal characters of exotic and crossbred boar. *Haryana Vet* (April 2019) **58**:53-55.

xvi. Dhrubajyoti Borpujary, Abhijit Deka, Fazal Ali Ahmed, K.Lalrintluanga and Rahul Singh Arya (2019). Caesarean section in a bitch to relieve of dystocia due to deformity in the vertebral column (Foetal monstar). Int. J. Chem. Stud. 7(2):1538-1540

xvii. Linda, N., Ahmed, F. A., Lalrintluanga, K., Ali, M. A., Kalita, G., Singh, R., Tolenkhomba, T. C. and Talukdar, D. J. (2019). Physical and palpable changes of female genitalia during normal oestrous cycle of Manipuri ponies (Equus ferus caballus). Journal of Entomology and Zoology Studies, 7 (5): 76-77

xviii. Borpujari D, K Sarma, FA Ahmed, K Lalrintluanga (2019). Effects of clinical mastitis on reproductive performance in crossbred cows during transitional period. Journal of Entomology and Zoology Studies; 7(1): 580-582

xix. Borpujari D, FA Ahmed, K Lalrintluanga, MA Ali, D Talukdar, G Das (2019). Blood metabolite concentrations and body condition score in relation to postpartum resumption of ovarian cyclicity in crossbred cows. Indian Journal of Animal Sciences 89 (7), 37-41

xx. Dhrubajyoti Borpujari, **Fazal Ali Ahmed**, K. Lalrintluanga, M. Ayub Ali, Dibyajyoti Talukdar and Gunjan Das. (2018). Body condition score with relation to various physiological blood parameters for post partum cyclicity of crossbred cows. Theriogenolohy Insight, 8 (2) 63-67

d) Acheivement of Passed out PG & PhD students:

State Civil Service	=1	
Faculty		=3
Scientist (KVK)	=1	
Pursuing Higher Studies	=4	
VO		=2
Private Clinics		=8

e) Research Projects by the faculties (completed) :

1. "Studies on characteristics and preservation of semen of local Mizo pig (Zovawk)"
2. Studies on success of A.I. in Pigs in field condition of Mizoram.
3. Studies on successof A.I. in cattle in field condition of Mizoram.
4. Pregnancy diagnosis in pigs with available techniques.

6.4.2. Faculty strength of the department

S No	Faculty in position	Vacant position	Faculty recommended by VCI, 2016
13. Professor	02	Nil	01
14. Associate Professor	-	01	01
15. Assistant Professor	01	Nil	03

6.4.3. Technical and supporting staffs of the department

S No	Staff inposition	Vacant position	Staffs recommended by VCI, 2016
10. FCLA	01	nil	
11. MTS	01	nil	

6.4.4. Laboratories:

Name of the functional laboratories and major equipments

i) Under graduate laboratory

1. Electrical Sterilizer
2. Cold Handling cabinet
3. Triple glass distillation set
4. Heat detector
5. Water bath
6. Hot air oven
7. Obstetrical instruments
8. Gynaecological instrument
9. Surgical instruments
10. AI equipments
11. Compound microscope
12. Cryocans
13. Electronic weighing balance
14. Ph meter
15. Autoclaves etc.

ii) Post Graduate laboratory

1. Trinocular Phase contrast Microscope
2. CASA
3. BOD incubator
4. Laparoscope
5. Stereozoom Microscope
6. Doppler ultrasound
7. Electric ejaculator
8. Pregnancy detector

6.4.5 Conduct of practical and hands on training: The practical class is of two hours duration for all the courses offered to students of PG & PhD programme. Students used to do the practical's by themselves under the supervision of the faculty/ course instructor. Students used to record their observations in practical manual.

6.4.6 Supervision of students in PG / PhD programme: Number of students being supervised by faculty in case of Masters/ PhD programme(as per ICAR guidelines)

Recognition for guiding of students (PG & PhD research) as per clause no. 2.12.2 of CAU Academic regulations-2016 for Master and PhD degree programmes

Master's Programme:

Associate Professor and above and their equivalents **OR** Assistant Professor and equivalents with Ph. D. degree in the discipline/ subject who has published two research papers other than his /her Master's and Ph. D. thesis **OR** Assistant Professor and equivalents without Ph. D. degree, provided he/she has at least two years of PG teaching experiences and 5 (Five) research papers published in referred journals with minimum NAAS rating of 4 (other than his /her Master's thesis.

Maximum number of students to be guided by faculty

As per clause no. 2.8.1(iii) of CAU Academic regulations-2016 for Master and PhDdegree programmes, at any given time, Professor, Associate Professor and Assistant Professor shal not be a chairperson for more than 6,5 and 4 PG students (Master's and PhD combined) respectively

Name of the faculty	Programme	Nos. of students supervised as Major Advisor	No. of students being supervised
Dr. F.A. Ahmed, Professor & HOD	MVSc	10	03
	PhD	01	01
Dr. K. Lalrintluanga Professor	MVSc	08	02
	PhD	Nil	01
Dr. D. Talukdar Assistant Professor	MVSc	01	02
	PhD	Nil	Nil

6.4.7. Feedback of stakeholders: The college through a structured feedback mechanism (copy of feedback format attached as **Annexure -I**) from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format. Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are made by the Head of the departments and Dean of the college. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, avaialbility chemical and reagents and research facilities. Feedback is

also received from parents, other institutes, Concerned Directorate of State Government time to time.Some students feedback are annexed .

6.4.8. Students intake and attrition in programme for last five years (Programme wise)

MVSc programme

	2016-17	2017-18	2018-19	2019-20	2020-21
Sanctioned seat	4	4	5	5	5
Actual admitted	3	3	5	4	3
Attrition %	0	33%	0	0	0

6.4.9. ICT application in Curricula delivery: Various ICT tools are being utilised for conducting online classes for UG, PG and Ph.D. students. All the faculties of the Department are having sufficient ICT knowledge for application in curricula delivery.

Signature of Dean of the College with Date and Seal

Annexure-I

FEEDBACK FORMAT

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department :
Name of the Student :
Registration No. :
Degree Programme :

I. Students' feed back on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory (1)	Good (2)	Very Good (3)	Excellent (4)
1	CAU academic regulation for PG and PhD programme,2008 & 2016				
2	Lecture schedules as per the ICAR revised syllabus.				
3	Allocation of hours and credits to the courses (Theory & Practical)				
4	Laboratory experiments for courses				
5	Course evaluation and assessment				
6	Research facilities in the department				

II. Students' feedback on faculty of the department

	Particulars	Satisfactory (1)	Good (2)	Very Good (3)	Excellent (4)
1	Subject command of the faculty				
2	Quality of teaching				
3	Use of innovative teaching aids & resources				
4	Coverage of syllabus				
5	Transparency and impartial in evaluation				

III. Students' feedback on Infrastructures

Particulars	Satisfactory	Good	Very	Excellent

			(1)	(2)	Good (3)	(4)
1	Curricular based	Classroom				
		Laboratory				
		Internet facility				
		ICT enabled classroom				
		CIF facility				
2	Co curricular based	E-learning centers				
		Seminar hall				
		Technical hub				
3	Extra Curricular based	Sports				
		Gym				
		NSS/NCC				
		Cultural Club				
4	General	Stationery Stores				
		Medical Centre				
		Guest House				
		Auditorium				
		Canteen				
		Bank with ATM facility				
		Hostel facilities				
		Campus environment				

Suggestions for improvement (If any):

Signature :

Name :

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH AIZAWL, MIZORAM 796015

Department : Department of Animal Nutrition

Name of the Student : Dr. Vanlemboon Mary Chonu

Registration No. : CAU/28-V/12(M)

Degree Programme : Master of Veterinary Sciences in Animal Nutrition

Students' feed back on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulations for PG and PhD programme:2018 & 2016	✓			
2	Lecture schedules as per the ICAR revised syllabus			✓	
3	Allocation of hours and credits to lectures (Theory & Practical)			✓	
4	Laboratory experiments for courses		✓		
5	Course evaluation and assessment		✓		
6	Research facilities in the department		✓		

1. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty			✓	
2	Quality of teaching			✓	
3	Use of innovative teaching aids & techniques		✓		
4	Coverage of syllabus			✓	
5	Transparency and impartial in evaluation			✓	

II. Students' feedback on Infrastructure

Particulars			Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular based	i) Classrooms	✓			
		ii) Laboratory		✓		
		iii) Internet facility	✓			
		iv) ICT enabled classrooms	✓			
		v) LIB facility	✓			
2	Co-curricular based	i) E-learning centre	✓			
		ii) Seminar hall		✓		
		iii) Technical hall		✓		
3	Extra Curricular based	i) Sports		✓		
		ii) Gym	✓			
		iii) NSS/NCC	✓			
		iv) Cultural Club	✓			
4	General	i) Stationery Store	✓			
		ii) Medical Centre	✓			
		iii) Guest House		✓		
		iv) Auditorium		✓		
		v) Canteen	✓			
		vi) Bank with ATM facility	✓			
		vii) Hostel facilities			✓	
		viii) Campus environment			✓	

Suggestions for improvement (If any):

Signature :

Name : Vendrasham Mary Chanu

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department : ANIMAL NUTRITION

Name of the Student : DR. SAGARIKA BARMAN

Registration No. : CAU/86/V/16(M)

Degree Programme : MASTER IN VETERINARY SCIENCES

I. Students' feed back on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulation for PG and PhD programme 2008 & 2016				✓
2	Lecture schedules as per the ICAR revised syllabus				✓
3	Allocation of hours and credits to the courses (Theory & Practical)				✓
4	Laboratory experiments for course				✓
5	Course evaluation and assessment				✓
6	Research facilities in the department				✓

II. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty				✓
2	Quality of teaching				✓
3	Use of innovative teaching aids & resources				✓
4	Coverage of syllabus				✓
5	Transparency and impartial in evaluation				✓

III. Students' feedback on Infrastructure

Particulars			Not Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricula based	i) Classroom				✓
		ii) Laboratory				✓
		iii) Internet facility			✓	
		iv) ICT enabled classroom				✓
		v) CIF facility				✓
2	Co curricula based	i) E-learning centers				✓
		ii) Seminar hall			✓	
		iii) Technical hub				✓
3	Extra Curricula based	i) Sports			✓	
		ii) Gym			✓	
		iii) NSS/ N.C.C			✓	
		iv) Cultural Club				✓
4	General	i) Stationery Stores			✓	
		ii) Medical Centre			✓	
		iii) Guest House				✓
		iv) Auditorium				✓
		v) Canteen			✓	
		vi) Bank and ATM facility				✓
		vii) Hostel facilities				✓
		viii) Sports complex/stadium				✓

Suggestions for improvement (If any):

Signature

Name : Sagarika Barman

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department : Animal Genetics and Breeding

Name of the Student : Dr. Keyolem Yore

Registration No. : CAU/M-V/16/M

Degree Programme : Master of Veterinary Science

I. Students' feedback on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(2)	Good(3)	Very Good(3)	Excellent(4)
1	CAU academic regulation for M.Sc and PhD programme 2016 & 2016			3	
2	Lecture schedule as per the CAU revised syllabus			3	
3	Allocation of hours and credits to the courses (Theory & Practical)			3	
4	Laboratory experiments for courses			3	
5	Course evaluation and assessment			3	
6	Research facilities in the department			3	

II. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty			3	
2	Quality of teaching				4
3	Use of innovative teaching aids & resources			3	
4	Coverage of syllabus			3	
5	Transparency and impartial in evaluation				4

III. Students' feedback on Infrastructure:

	Particulars		Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular level	i) Classroom				4
		ii) Laboratory			3	
		iii) Internet facility			3	
		iv) ICT enabled classroom			3	
		v) CR facility		2		
2	Co curricular level	i) E-learning center		2		
		ii) Seminar hall			3	
		iii) Technical club			3	
3	Extra Curricular level	i) Sports				4
		ii) Gym			3	
		iii) NSS/NCC			3	
		iv) Cultural Club			3	
4	General	i) Stationery Stores		2		
		ii) Medical Center			3	
		iii) GuestHouse			3	
		iv) Auditorium				4
		v) Canteen		2		
		vi) Bank with ATM facility		2		
		vii) Hostel facilities			3	
		viii) Campus environment				4

Suggestions for improvement (If any): Nil

Signature :

Name : KEYOLENU YORE

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM 796015

Department : Animal Genetics and Breeding

Name of the Student : Dr. Arunkan Roy

Registration No. : 2018-V-01(M)

Degree Programme : Masters of Veterinary Science

Students' feed back on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulation for PG and PhD programme,2018 & 2016				✔
2	Lecture schedules as per the ICAR revised syllabus.			✔	
3	Allocation of hours and credits to the courses (Theory & Practical)		✔		
4	Laboratory experiments for courses			✔	
5	Course evaluation and assessment			✔	
6	Research facilities in the department			✔	

I. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty				✔
2	Quality of teaching				✔
3	Use of innovative teaching aids & methods				✔
4	Coverage of syllabus			✔	
5	Transparency and impartial in evaluation				✔

II. Students' feedback on Infrastructure

Particulars			Satisfactory (1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular based	i) Classroom			✔	
		ii) Laboratory		✔		
		iii) Internet facility	✔			
		iv) ICT enabled classroom		✔		
		vi) CIF facility			✔	
2	Co curricular based	i) E-learning centers		✔		
		ii) Seminar hall			✔	
		iii) Technical hub		✔		
3	Extra Curricular based	i) Sports			✔	
		ii) Gym	✔			
		iii) NSS/NCC		✔		
		iv) Cultural Club		✔		
4	General	i) Stationary Stores	✔			
		ii) Medical Centre	✔			
		iii) Guest House			✔	
		iv) Auditorium			✔	
		v) Canteen	✔			
		vi) Bank with ATM facility	✔			
		vii) Hostel facilities			✔	
		viii) Campus environment				✔

Suggestions for improvement (If any):

Signature : Arindam Bera

Name : Arindam Bera

COLLEGE OF VETERINARY SCIENCE & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM 796015

Department : [illegible]

Name of the Student : [illegible]

Registration No. : CAU/17-[illegible]

Degree Programme : [illegible]

I. Students' feedback on Course Curriculum, academic regulations, research facilities

	Particulars	Satisfactory(3)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulations for PG and PhD programmes,2008 & Nos			✓	
2	Lecture schedules as per the CAU prospectus of the			✓	
3	Allocation of hours and credits to the courses (Theory & Practical)			✓	
4	Laboratory experiments for practical			✓	
5	Course evaluation and assessment			✓	
6	Research facilities in the department			✓	

II. Students' feedback on faculty of the department

	Particulars	Satisfactory(3)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty				✓
2	Cycle of teaching				✓
3	Use of [illegible] teaching aids in classroom				✓
4	Coverage of syllabus				✓
5	Timeliness and topical in evaluation				✓

III. Student's feedback on Infrastructure

Particulars			Satisfactory(3)	Good(3)	Very Good(3)	Excellent(4)
1	Curricular Need	i) Classroom			✓	
		ii) Laboratory			✓	
		iii) Internet facility			✓	
		iv) ICT enabled classroom		✓		
		v) CIF facility	✓			
2	Co curricular Areas	i) E-learning facility		✓		
		ii) Seminar hall			✓	
		iii) Technical hall		✓		
3	Extra Curricular Area	i) Sports			✓	
		ii) Gym		✓		
		iii) NSS/NCC				✓
		iv) Cultural Club			✓	
4	General	i) Stationary Store	✓			
		ii) Medical Centre			✓	
		iii) Guest House				✓
		iv) Auditorium				✓
		v) Canteen		✓		
		vi) Hostel with ATM facility		✓		
		vii) Boys' facilities		✓		
		viii) Campus environment			✓	

Suggestions for improvement (If any): IT WILL BE VERY BENEFICIAL FOR STUDENTS IF THE DEPARTMENT HAS IMMUNOHISTOCHEMISTRY FACILITY AND CELL RESEARCH LABORATORY. FACILITY FOR ELECTRONMICROSCOPY FOR RESEARCH RELATED WORK ALSO HELP TO MOVE IN THIS REGARD.

Signature : Sk. Shafiq Singh

Name : Thokchom Jiyabati Devi

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department : Department of Veterinary Anatomy & Histology

Name of the Student. : Dr. Swarup Debroy

Registration No. : 2015-V-15 (M)

Degree Programme : M.V.Sc.

I. Students' feed back on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulation for PG and PhD programme,2009 & 2016			3	
2	Lecture schedules as per the ICAR revised syllabus				4
3	Allocation of hours and credits to the courses (Theory & Practical)				4
4	Laboratory experiments for course				4
5	Course evaluation and assessment				4
6	Research facilities in the department				4

II. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty				4
2	Quality of teaching				4
3	Use of innovative teaching aids & resources				4
4	Coverage of syllabus				4
5	Transparency and impartiality in evaluation				4

II. Students' feedback on infrastructures

Particulars			Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular based	i) Classroom				4
		ii) Laboratory				4
		iii) Internet facility		2		
		iv) ICT enabled classroom		2		
		vi) DF facility	1			
2	Co curricular based	i) E-learning centers				4
		ii) Seminar hall				4
		iii) Technical hub			3	
3	Extra Curricular based	i) Sports				4
		ii) Gym	1			
		iii) NSS/NCC			3	
		iv) Cultural Club				4
4	General	i) Stationery Stores	1			
		ii) Medical Centre	1			
		iii) Good Hostel			3	
		iv) Auditorium				4
		vi) Canteen	1			
		vi) Bank with ATM facility		2		
		vii) Hostel facilities		2		
		viii) Campus environment				4

Suggestions for improvement (If any):

Signature :

Name : Dr. Swarup Debroy

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department : Veterinary Physiology & Biochemistry

Name of the Student : Dr. Lalsangpui

Registration No. : CAU/2015/V/06 (B)

Degree Programme : M.V.Sc

I. Students' feed back on Course Curriculum, academic regulations, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulation for PG and PhD programme 2008 & 2015	-	-	Very Good	-
2	Lecture schedule as per the ICAR revised syllabus	-	-	Very Good	-
3	Allocation of hours and credits to the courses (Theory & Practical)	-	-	Very Good	-
4	Laboratory experiments for courses	-	-	Very Good	-
5	Course evaluation and assessment	-	-	Very Good	-
6	Research facilities in the department	-	-	Very Good	-

II. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty	-	-	Very Good	-
2	Quality of teaching	-	-	Very Good	-
3	Use of innovative teaching aids & resources	-	-	Very Good	-
4	Coverage of syllabus	-	-	Very Good	-
5	Time taken by individual in evaluation	-	-	Very Good	-

III. Students' feedback on Infrastructures

Particulars			Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular level	i) Classroom	-	-	Very Good	-
		ii) Laboratory	-	-	Very Good	-
		iii) Internet facility	-	Good	-	-
		iv) ICT enabled classroom	-	-	Very Good	-
		v) CIF facility	-	-	-	-
2	Co curricular level	i) E-learning centre		Good		
		ii) Seminar hall	-	-	Very Good	-
		iii) Technical Fair	-	-	Very Good	-
3	Extra Curricular level	i) Sports	-	Good	-	-
		ii) Gym	-	-	Very Good	-
		iii) NSS/NCC	-	-	Very Good	-
		iv) Cultural Club	-	-	-	-
4	General	i) Stationery/ Stores	-	Good	-	-
		ii) Medical Centre	-	Good	-	-
		iii) Guest House	-	-	Very Good	-
		iv) Auditorium	-	-	-	Excellent
		v) Canteen	-	Good	-	-
		vi) Bank with ATM facility	-	Good	-	-
		vii) Hostel facilities	-	-	Very Good	-
		viii) Campus environment	-	-	Very Good	-

Suggestions for improvement (If any): I would like to suggest there can be an improvement in internet and CIF facility.

Signature :

Name : Lalrengpuii

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department : Veterinary Anatomy

Name of the Student : P Kirthika

Registration No. : 2012-V-1230

Degree Programme : MVSc

I. Students' feed back on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulations for PG and PhD programme 2009 & 2016				✓
2	Lecture schedules as per the ICAR revised syllabus				✓
3	Allocation of hours and credits to the courses (theory & Practical)				✓
4	Laboratory experiments for students				✓
5	Course evaluation and assessment				✓
6	Research facilities in the department				✓

II. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject knowledge of the faculty				✓
2	Quality of teaching				✓
3	Use of innovative teaching aids & methods				✓
4	Coverage of syllabus				✓
5	Transparency and impartial in evaluation				✓

III. Students' feedback on Infrastructures

	Particulars		Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular based	i) Classroom			✓	
		ii) Laboratories			✓	
		iii) Internet facility	✓			
		iv) ICT enabled classroom			✓	
		v) CCTV facility			✓	
2	Co curricular based	i) E-learning centers			✓	
		ii) Seminar hall			✓	
		iii) Technical fest				✓
3	Extra Curricular based	i) Sports				✓
		ii) Gym				✓
		iii) NSS/NCC				✓
		iv) Cultural Club				✓
4	General	i) Stationery Stores				✓
		ii) Medical Centre				✓
		iii) Guest House				✓
		iv) Auditorium			✓	
		v) Canteen			✓	
		vi) Bank with ATM facility			✓	
		vii) Postal facilities			✓	
		viii) Campus environment				✓

Suggestions for improvement (If any): NA

Signature : P Kirthika

Name : P. Kirthika

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department : Veterinary Physiology

Name of the Student : Dr. Vanlalngilneii Ralte

Registration No. : CAU/74-V/14 (M)

Degree Programme : Master of Veterinary Science

I. Students' feed back on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulation for PG and PhD programme,2008 & 2016			√	
2	Lecture schedules as per the ICAR revised syllabus.				√
3	Allocation of hours and credits to the courses (Theory & Practical)			√	
4	Laboratory experiments for courses			√	
5	Course evaluation and assessment				√
6	Research facilities in the department			√	

II. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty			√	
2	Quality of teaching				√
3	Use of innovative teaching aids & resources			√	
4	Coverage of syllabus				√
5	Transparency and impartial in evaluation				√

IV. Students' feedback on Infrastructures

Particulars			Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular based	vi) Classroom			√	
		vii) Laboratory		√		
		viii) Internet facility		√		
		ix) ICT enabled classroom	√			
		x) CIF facility	√			
2	Co curricular based	iv) E-learning centers		√		
		v) Seminar hall			√	
		vi) Technical hub		√		
3	Extra Curricular based	viii) Sports			√	
		ix) Gym		√		
		x) NSS/NCC			√	
		xi) Cultural Club			√	
4	General	vi) Stationery Stores		√		
		vii) Medical Centre		√		
		viii) Guest House			√	
		ix) Auditorium				√
		x) Canteen	√			
		xii) Bank with ATM facility		√		
		xiii) Hostel facilities		√		
		xiv) Campus environment			√	

Suggestions for improvement (If any): Updating service centers like health center, student counseling services to care about mental and physical well-being. Better access and retrieval of packages convenient for students, staff and faculty to improve experience in the campus. And also keeping the campus grounds clean.

Signature :

Name : Vanlalngilneii Ralte

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department **:Veterinary Physiology & Biochemistry**

Name of the Student **:Joycy Seiba Khukhodziinai**

Registration No. **:2018-VK-31(M)**

Degree Programme **:MVSc**

I. Students feedback on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulation for PG and PhD programme,2008 & 2016			☑	
2	Lecture schedules as per the ICAR revised syllabus.				☑
3	Allocation of hours and credits to the courses (Theory & Practical)				☑
4	Laboratory experiments for courses				☑
5	Course evaluation and assessment				☑
6	Research facilities in the department				☑

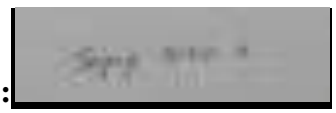
II. Students feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty				☑
2	Quality of teaching				☑
3	Use of innovative teaching aids & resources				☑
4	Coverage of syllabus				☑
5	Transparency and impartial in evaluation				☑

III. Students feedback on Infrastructures

Particulars			Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular based	i) Classroom			✔	
		ii) Laboratory			✔	
		iii) Internet facility	✔			
		iv) ICT enabled classroom		✔		
		v) CIF facility		✔		
2	Co curricular based	i) E-learning centers			✔	
		ii) Seminar hall				✔
		iii) Technical hub	✔			
3	Extra Curricular based	i) Sports		✔		
		ii) Gym	✔			
		iii) NSS/NCC		✔		
		iv) Cultural Club		✔		
4	General	i) Stationery Stores	✔			
		ii) Medical Centre			✔	
		iii) Guest House			✔	
		iv) Auditorium			✔	
		v) Canteen		✔		
		v) Bank with ATM facility	✔			
		vi) Hostel facilities		✔		
		vii) Campus environment				✔

Suggestions for improvement (If any):

Signature : 

Name : JOYCY SEIBA KHUKHODZIINAI

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department :Livestock Production & Management

Name of the Student :Dr. Nanda Kumar Roy

Registration No. :C-(2-MIZ-01-19)-M-V-001

Degree Programme :MVSc

I. Students' feed back on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulation for PG and PhD programme 2016 & 2019.			3	
2	Course schedules as per the ICAR revised syllabus.			3	
3	Allocation of hours and credits to the courses(Theory & Practical)				4
4	Laboratory experiments for courses				4
5	Course evaluation and assessment.				4
6	Research facilities in the department				4

II. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty			3	
2	Quality of teaching				4
3	Use of innovative teaching aids & resources			3	
4	Coverage of syllabus				4
5	Transparency and impartial in evaluation				4

III. Students feedback on Infrastructures

Particulars			Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular level	i) Classroom			3	
		ii) Laboratory				4
		iii) Internet facility		2		
		iv) ICT enabled classroom			3	
		v) OE facility			3	
2	Co curricular level	i) E-learning centers			3	
		ii) Seminar hall				4
		iii) Technical hub				4
3	Extra Curricular level	i) Sports			3	
		ii) Gym		2		
		iii) NSS/NCC			3	
		iv) Cultural Club			3	
4	General	i) Stationary Shops			3	
		ii) Medical Centre		3		
		iii) Guest House				4
		iv) Auditorium				4
		v) Canteen			3	
		vi) Bank with ATM facility			3	
		vii) Hostel facilities			3	
		viii) Campus environment				4

Suggestions for improvement if any:

Signature :
Name : Dr. Nanda Kumar Roy

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department : LIVESTOCK PRODUCTION AND MANAGEMENT

Name of the Student : R. [illegible] KAPUR

Registration No. : U-IF-MZ-21-DOC-[illegible]

Degree Programme : MASTER OF VETERINARY SCIENCE (M.V.Sc.)

I. Students' feedback on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulation for PG and PhD programme,2018 & 2021		2		
2	Lecture schedule as per the CAU academic norms		2		
3	Allocation of hours and credits to the courses (Theory & Practical)	1			
4	Laboratory experiments for courses	1			
5	Course evaluation and assessment		2		
6	Research facilities in the department		2		

II. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject matter knowledge of the faculty				4
2	Quality of teaching				4
3	Use of innovative teaching aids & resources		2		
4	Coverage of syllabus			3	
5	Transparency and timeliness in evaluation			3	

III. Students' feedback on infrastructure

	Particulars		Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular based	i) Classrooms		2		
		ii) Laboratory	1			
		iii) Seminar facility	1			
		iv) ICT enabled classroom	1			
		v) Off faculty	1			
2	Co-curricular based	i) Library	1			
		ii) Sports facilities		2		
		iii) Hostel facilities	1			
3	Extra Curricular based	i) Sports		2		
		ii) Gym	1			
		iii) NSS/NCC	1			
		iv) Cultural Club	1			
4	General	i) Stationery Stores	1			
		ii) Medical Centre	1			
		iii) Hotel Rooms		2		
		iv) Auditorium		2		
		v) Canteen	1			
		vi) Facilities for ATM facility		2		
		vii) Hostel facilities		2		
		viii) Campus environment				4

Suggestion for improvement (If any): To improve the library hours so that the students can study and to supply more books & to provide Reliable during the Examination time & normal times.

Signature :

Name : A. KAILASH BABU

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM 796015

Department : Department of Veterinary And All Extension

Name of the Student : Dr Supriyo Das

Registration No. : 2016-V-10(M)

Degree Programme : MVSc

I. Students' feed back on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulation for PG and PhD programme 2008 & 2016			✓	
2	Lecture schedule as per the ICAR revised syllabus			✓	
3	Allocation of hours and credits to the courses (Theory & Practical)			✓	
4	Laboratory experiments for courses				✓
5	Course evaluation and assessment			✓	
6	Research facilities in the department			✓	

II. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty			✓	
2	Quality of teaching				✓
3	Use of innovative teaching aids & resources			✓	
4	Coverage of syllabus			✓	
5	Transparency and impartial in evaluation			✓	

III. Students' feedback on Infrastructures

Particulars			Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular based	i) Classroom				✓
		ii) Laboratory				✓
		iii) Internet facility				✓
		iv) ICT enabled classroom			✓	
		v) CIF facility			✓	
2	Co curricular based	i) E-learning centre			✓	
		ii) Seminar hall				✓
		iii) Technical lab				✓
3	Extra Curricular based	i) Sports				✓
		ii) Gym				✓
		iii) NSS/NCC				✓
		iv) Cultural Club				✓
4	General	i) Stationery Stores			✓	
		ii) Medical Centre			✓	
		iii) Guest House			✓	
		iv) Auditorium			✓	
		v) Canteen			✓	
		vi) Bank and ATM facility			✓	
		vii) Hostel facilities			✓	
		viii) Campus environment			✓	

Suggestions for improvement (If any):

Signature : Supratim Das

Name : Supratim Das

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH AIZAWL MIZORAM 796015

Department : AHE

Name of the Student :K. JOSHUA KATH

Registration No. : 2017-V-07 (M)

Degree Programme :MVSc

I. Students' feed back on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU Academic regulations for PG and PhD programme,2009 & 2016		*		
2	Lecture schedules as per the ICAR revised syllabus		*		
3	Allocation of hours and credits to the courses (Theory & Practical)		*		
4	Laboratory experiments for courses		*		
5	Course evaluation and assessment		*		
6	Research facilities in the department		*		

II. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty		*		
2	Quality of teaching		*		
3	Use of innovative teaching aids & resources	*			
4	Coverage of syllabus		*		
5	Transparency and impartial in evaluation		*		

III. Students' feedback on Infrastructure:

Particulars			Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular issues	i) Classroom		*		
		ii) Laboratory		*		
		iii) Internet facility	*			
		iv) ICT enabled classroom	*			
		v) CIF facility	*			
2	Co curricular issues	i) E-learning centers	*			
		ii) Seminar hall	*			
		iii) Technical lab	*			
3	Extra Curricular issues	i) Sports	*			
		ii) Gym	*			
		iii) NSS/NCC	*			
		iv) Cultural Club	*			
4	General	i) Stationery store	*			
		ii) Medical Centre	*			
		iii) Guest House	*			
		iv) Auditorium		*		
		v) Canteen	*			
		vi) Bank with ATM facility	*			
		vii) Hostel facilities	*			
		viii) Campus environment		*		

Suggestions for improvement (If any):

Signature :

Name :K. Jashoda Rath

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department : MICROBIOLOGY

Name of the Student : HK SABITRI MARKAM

Registration No. : CAU/16/V14(M)

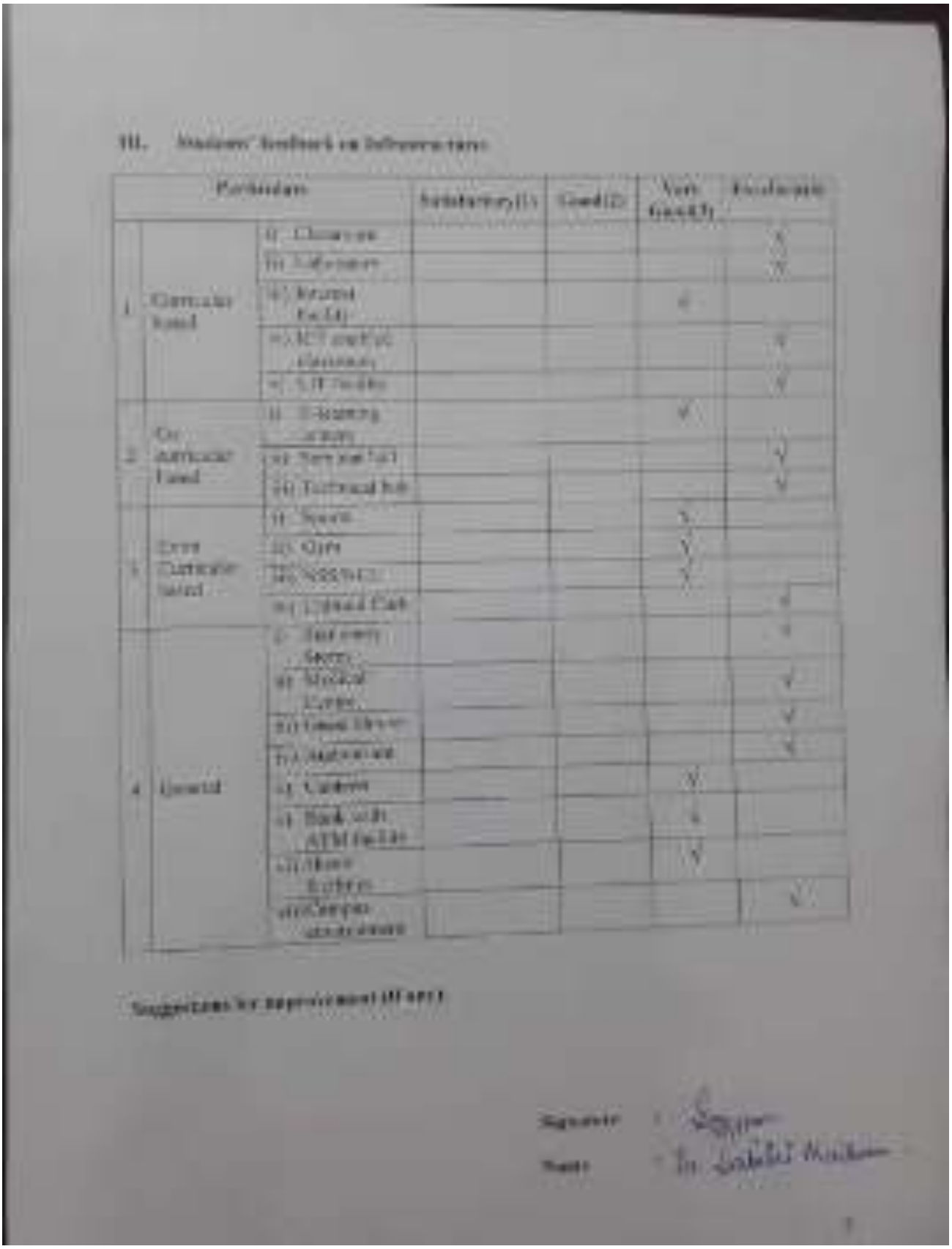
Degree Programme : MVSc

I. Students' feedback on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CGU curriculum applicable to ICFC and PME programme, 2008 & 2016				√
2	Course schedule as per the CAU revised syllabus				√
3	Allocation of hours for each unit in the course (theory & Practical)				√
4	Library resources for course				√
5	Course evaluation and grievance				√
6	Research facilities in the department				√

II. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject knowledge of the faculty				√
2	Quality of teaching				√
3	Use of innovative teaching aids & resources				√
4	Coverage of syllabus				√
5	Transparency and impartiality in evaluation				√



III. Students' feedback on different items

Particulars		Satisfactory(1)	Good(2)	Very Good(3)	Excellent
1 Curricular Load	i) Classes				√
	ii) Laboratory				√
	iii) Research Field			√	
	iv) ICT enabled classes				√
	v) Lift facility				√
2 Co curricular Load	i) Literary activity			√	
	ii) Sports facility				√
	iii) Technical fest				√
3 Extra Curricular Load	i) Sports			√	
	ii) Quiz			√	
	iii) NSS/NCC			√	
	iv) Cultural Fest				√
4 General	i) Internet facility				√
	ii) Medical Facility				√
	iii) Grievance Cell				√
	iv) Admission				√
	v) Canteen			√	
	vi) Bank with ATM facility			√	
	vii) Hostel facility			√	
	viii) Campus environment				√

Suggestions for improvement (if any)

Signature : Sujan

Name : Dr Sabitri Mishra

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department : Veterinary Microbiology

Name of the Student : Dr. Maheswaranayakini Colney

Registration No. : CAU/M-V/16/01

Degree Programme : Master of veterinary Science

I. Students' feed back on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulation for PG and PhD programme,2008 & 2016			☒	
2	Lecture schedules as per the ICAR revised syllabus.		☒		
3	Allocation of hours and credits to the courses (Theory & Practical)		☒		
4	Laboratory experiments for courses		☒		
5	Course evaluation and assessment			☒	
6	Research facilities in the department			☒	

II. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty			☒	
2	Quality of teaching			☒	
3	Use of innovative teaching aids & resources			☒	
4	Coverage of syllabus		☒		
5	Transparency and impartial in evaluation				☒

III. Students' feedback on Infrastructures

Particulars			Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular based	i) Classroom		☑		
		ii) Laboratory			☑	
		iii) Internet facility	☑			
		iv) ICT enabled classroom		☑		
		v) LIF facility	☑			
2	Co curricular based	i) E-learning center	☑			
		ii) Seminar hall		☑		
		iii) Technical hub		☑		
3	Extra Curricular based	i) Sports	☑			
		ii) Gym	☑			
		iii) NSS/NCC		☑		
		iv) Cultural Club	☑			
4	General	i) Stationary Store	☑			
		ii) Medical Centre	☑			
		iii) Food Stores		☑		
		iv) Auditorium			☑	
		v) Canteen		☑		
		vi) Bank with ATM facility	☑			
		vii) Postal facilities	☑			
		viii) Campus environment			☑	

Suggestions for improvement (If any):

Signature :

Name :

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department : Veterinary Pathology

Name of the Student : Lalthanzirtsi

Registration No. : CAU(221-V/Ph(B)

Degree Programme : M.V.Sc

I. Students' feed back on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulation for PG and PhD programme 2018 & 2021			3	
2	Course schedules as per the ICAR curriculum			3	
3	Allocation of hours and credits to the courses (Theory & Practical)			3	
4	Laboratory experiments for courses			3	
5	Course evaluation and assessment			3	
6	Research facilities in the department				4

II. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty			3	
2	Quality of teaching			3	
3	Use of innovative teaching aids & techniques			3	
4	Coverage of syllabus			3	
5	Transparency and impartial in evaluation				4

1

III. Student feedback on Infrastructure

Particulars			Satisfactory (1)	Good (2)	Very Good (3)	Excellent (4)
1	Curricular based	i) Classroom			3	
		ii) Laboratory			3	
		iii) Internet facility				
		iv) ICT enabled classroom			3	
		v) CIF facility				
2	Co curricular based	i) E-learning centers			3	
		ii) Seminar hall			3	
		iii) Technical lab				
3	Extra Curricular based	i) Sports			3	
		ii) Gym			3	
		iii) NSS/NCC			3	
		iv) Cultural Club			3	
4	General	i) Stationary Stores			3	
		ii) Medical Centre			3	
		iii) Guest House				4
		iv) Auditorium				4
		v) Canteen			3	
		vi) Bank with ATM facility				
		vii) Hostel facilities				4
		viii) Campus environment				4

Suggestions for improvement (If any):

If central instrumentation facility and the internet facility in the campus can be improved.

Signature :

Name :Lalitambika

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM 796015

Department : Veterinary Pathology

Name of the Student : Dr. Abhijit Deka

Registration No. : 2016A-26

Degree Programme : MVSc

I. Students' feed back on Course Curriculum, academic regulation, research facilities

Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1. [illegible]			Yes	
2. [illegible]			Yes	
3. [illegible]			Yes	
4. [illegible]				Yes
5. [illegible]			Yes	
6. [illegible]				Yes

II. Students' feedback on faculty of the department

Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1. [illegible]				Yes
2. [illegible]				Yes
3. [illegible]			Yes	
4. [illegible]			Yes	
5. [illegible]				Yes

III. Students' feedback on Infrastructure

Particulars		Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1 Curricular level	i) Classroom			Yes	
	ii) Laboratory				Yes
	iii) Internet facility		Yes		
	iv) ICT enabled classroom	Yes			
	v) LCD facility	Yes			
2 Co-curricular level	i) Learning resource	Yes			
	ii) Seminar hall	Yes			
	iii) Technical fair	Yes			
	iv) Sports	Yes			
3 Extra Curricular level	i) Gym	Yes			
	ii) NSS/NCC	Yes			
	iii) Cultural Club			Yes	
4 Others	i) Stationary Store		Yes		
	ii) Medical Center		Yes		
	iii) Guest House		Yes		
	iv) Auditorium		Yes		
	v) Canteen		Yes		
	vi) Bank with ATM facility	Yes			
	vii) Hostel facilities			Yes	
	viii) Campus environment				Yes

Suggestions for improvement (If any):

Signature : Abhijit Deka

Name : Dr Abhijit Deka

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM 796015

Department : Veterinary Pharmacology & Toxicology

Name of the Student : Wangkhairakpam Ramdas Singh

Registration No : CAU/2015/03(B)

Degree Programme : MVSc

I. Students' feed back on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulations for PG and PhD programme 2008, 2010			3	
2	Lecture schedules as per the ICAR revised syllabus			3	
3	Allocation of hours and credits to lectures (Theory & Practical)			3	
4	Laboratory experiments for courses		2		
5	Course evaluation and examination			3	
6	Research facilities in the department			3	

II. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty				4
2	Quality of teaching			3	
3	Use of innovative teaching aids & resources		2		
4	Coverage of syllabus			3	
5	Transparency and impartial in evaluation				4

III. Students' feedback on Infrastructures

Particulars			Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular based	i) Classroom			3	
		ii) Laboratory			3	
		iii) Internet facility			3	
		iv) ICT enabled classroom		2		
		v) CIF facility				
2	Co curricular based	i) E-learning centres		2		
		ii) Seminar hall		2		
		iii) Technical hall		2		
3	Extra Curricular based	i) Sports			3	
		ii) Gym		2		
		iii) NSS/NCC		2		
		iv) Cultural Club			3	
4	General	i) Stationery Stores		2		
		ii) Medical Centre		2		
		iii) Guest House			3	
		iv) Auditorium			3	
		v) Canteen		2		
		vi) Bank with ATM facility	1			
		vii) Hostel facilities			3	
		viii) Campus environment		2		

Suggestions for improvement (If any):

Signature :

Name : Wangkheimayum Ranabir Singh

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department : Department of Pharmacology & Toxicology

Name of the Student : Dr. Snigdha Hazarika

Registration No : CAU06-V/08 (M)

Degree Programme : MVSc

I. Students' feed back on Course Curriculum, academic regulation, research facilities

Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1 CAU academic regulation for PG and PhD programme(2019 & 2016		2		
2 Lecture schedules as per the ICAR revised syllabus			3	
3 Allocation of hours and credits to the courses (Theory & Practical)		2		
4 Laboratory experiments for courses			3	
5 Course evaluation and assessment			3	
6 Research facilities in the department			3	

II. Students' feedback on faculty of the department

Particulars		Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty				4
2	Quality of teaching			3	
3	Use of innovative teaching aids & resources			3	
4	Coverage of syllabus			3	
5	Transparency and impartial in evaluation				4

III. Students' feedback on Infrastructures

Particulars			Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular need	i) Classroom			3	
		ii) Laboratory			3	
		iii) Library facility			3	
		iv) ICT enabled classroom			3	
		v) CIF facility			3	
2	Co curricular need	i) E-learning centre		2		
		ii) Seminar hall			3	
		iii) Technical lab		2		
3	Extra Curricular need	i) Sports			3	
		ii) Gym			3	
		iii) NSS/NCC			3	
		iv) Cultural Club			3	
4	General	i) Stationery Store		2		
		ii) Medical Centre			3	
		iii) Guest House			3	
		iv) Auditorium			3	
		v) Canteen		2		
		vi) Bank with ATM facility	1			
		vii) Hostel facilities			3	
		viii)Canteen(Outsource)				4

Suggestions for improvement (If any):

Signature : S. Hazarika

Name : Dr. Sangita Hazarika

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department Veterinary Public Health and Epidemiology

Name of the Student K.Jennifer Lallawmkimi

Registration No. 2018-V-84(M)

Degree Programme MVSC

I. **Students' feed back on Course Curriculum, academic regulation, research facilities**

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulation for PG and PhD programming,2009 & 2016				√
2	Lecture schedules as per the ICAR revised syllabus			√	
3	Allocation of hours and credits to the courses (Theory & Practical)			√	
4	Laboratory experiments for courses				√
5	Course evaluation and assessment				√
6	Research facilities in the department			√	

II. **Students' feedback on faculty of the department**

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty			√	
2	Quality of teaching				√
3	Use of innovative teaching aids & resources			√	
4	Coverage of syllabus				√
5	Transparency and impartial in evaluation				√

III. Students' feedback on infrastructures

Particulars			Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular based	i) Classroom			√	
		ii) Laboratory				√
		iii) Internet facility		√		
		iv) ICT enabled classroom			√	
		v) DF facility		√		
2	Co curricular based	i) E-learning centers			√	
		ii) Seminar hall			√	
		iii) Technical club		√		
3	Extra Curricular based	i) Sports		√		
		ii) Gym		√		
		iii) NSS/NCC				√
		iv) Cultural Club			√	
4	General	i) Stationery Stores		√		
		ii) Medical Centre		√		
		iii) Guest House			√	
		iv) Auditorium			√	
		v) Canteen			√	
		vi) Bank with ATM facility			√	
		vii) Hostel facilities		√		
		viii) Campus environment				√

Suggestions for improvement (If any):

Signature : Jenny

Name : G.Jennifer Lalawmkimi

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department : Veterinary Public Health and Epidemiology

Name of the Student : F.C.Sailo(a)

Registration No. : 2018-V-33(M)

Degree Programme : Msc

I. Students' feed back on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulation for PG and PhD programmes 2018 & 2019			✓	
2	Lecture schedules as per the ICAR revised syllabus			✓	
3	Allocation of hours and credits to the courses (Theory & Practical)			✓	
4	Laboratory experiments for courses		✓		
5	Course evaluation and assessment			✓	
6	Research facilities in the department		✓		

II. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty		✓		
2	Quality of teaching		✓		
3	Use of innovative teaching aids & resources	✓			
4	Coverage of syllabus		✓		
5	Transparency and impartial mechanism		✓		

II. Students' feedback on Infrastructures

Particulars			Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curriculum based	i) Classroom			√	
		ii) Laboratory		√		
		iii) Internet facility	√			
		iv) ICT enabled classroom	√			
		v) CF facility		√		
2	Co-curriculum based	i) E-learning centre	√			
		ii) Seminar hall			√	
		iii) Technical fests			√	
3	Extra Curricular based	i) Sports			√	
		ii) Gym			√	
		iii) NSS/NCC			√	
		iv) Cultural Club	√			
4	General	i) Stationary Stores	√			
		ii) Medical Centre	√			
		iii) Guest House	√			
		iv) Auditorium		√		
		v) Canteen	√			
		vi) Bank with ATM facility	√			
		vii) Hostel facilities	√			
		viii) Campus environment			√	

Suggestions for Improvement (If any):

Signature : Fo

Name : F.C.Baihroki

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
[illegible]

Department : Livestock Products Technology (LPT)

Name of the Student : Dr. Kushab Debnath

Registration No. : U-18-MZ-01-803-M-V-023

Degree Programme : M.V.Sc

I. **Students' feed back on Course Curriculum, academic regulation, research facilities**

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulation for PG and PhD programme,2008 & 2016				4
2	Course schedules as per the ICAR revised syllabus				4
3	Allocation of hours and credits to the courses (Theory & Practical)				4
4	Laboratory experiments for courses				4
5	Course evaluation and assessment				4
6	Research facilities in the department			3	

II. **Student's feedback on faculty of the department**

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty				4
2	Quality of teaching				4
3	Use of innovative teaching aids & resources				4
4	Coverage of syllabus				4
5	Transparency and impartial in evaluation				4

18/07/2021

III. Students' feedback on Infrastructure

Particulars			Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular based	i) Classroom				4
		ii) Laboratory				4
		iii) Internet facility	1			
		iv) ICT enabled classroom				4
		v) CIF facility				4
2	Co curricular based	i) E-learning centers		2		
		ii) Seminar hall				4
		iii) Technical club				4
3	Extra Curricular based	i) Sports		2		
		ii) Gym		2		
		iii) NSS/NCC		2		
		iv) Cultural Club			3	
4	General	i) Stationery Stores			3	
		ii) Medical Centre			3	
		iii) Guest House		2		
		iv) Auditorium				4
		v) Canteen		2		
		vi) Bank with ATM facility		2		
		vii) Hostel facilities			3	
		viii) Campus environment			3	

Suggestions for improvement (If any): Needs to improve internet facility, Canteen and hostel facility. Thank You.

Signature : 18/07/2024

Name : Dr. Kushab Debnath

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department : Department of Veterinary Surgery and Radiology

Name of the Student :Dr. Tage Rina

Registration No. :CAU/41-V/14(M)

Degree Programme :MVSc

V. Students' feed back on Course Curriculum, academic regulation, research facilities

Particulars		Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulation for PG and PhD programme,2008 &2016	1			
2	Lecture schedules as per the ICAR revised syllabus.	1			
3	Allocation of hours and credits to the courses (Theory & Practical)	1			
4	Laboratory experiments for courses	1			
5	Course evaluation and assessment	1			
6	Research facilities in the department		2		

VI. Students' feedback on faculty of the department

Particulars		Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty		**2**		
2	Quality of teaching		2		
3	Use of innovative teaching aids & resources	1			
4	Coverage of syllabus	1			
5	Transparency and impartial in evaluation		2		

VII. Students' feedback on Infrastructures

Particulars			Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular based	xi) Classroom		2		
		xii) Laboratory		2		
		xiii) Internet facility	1			
		xiv) ICT enabled classroom	1			
		xv) CIF facility		2		
2	Co curricular based	vii) E-learning centers	1			
		viii) Seminar hall		2		
		ix) Technical hub		2		
3	Extra Curricular based	xv) Sports		2		
		xvi) Gym	1			
		xvii) NSS/NCC		2		
		xviii) Cultural Club			3	
4	General	xi) Stationery Stores		2		
		xii) Medical Centre	1			
		xiii) Guest House		2		
		xiv) Auditorium			3	
		xv) Canteen		2		
		xix) Bank with ATM facility	1			
		xx) Hostel facilities		2		
		xxi) Campus environment			3	

Suggestions for improvement (If any):

Signature : Tage Rina

Name :Tage Rina

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department: Department of Veterinary Surgery and Radiology

Name of the Student: Dhampak Jyoti Das

Registration No: 2018-V-36(M)

Degree Programme: M.V.Sc (PG)

I. Students' feed back on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory (1)	Good(2)	Very Good (3)	Excellent (4)
1	CAU academic regulation for PG and PhD programme 2088 & 2015		✓		
2	Lecture schedules as per the ICAR/revised syllabus			✓	
3	Allocation of hours and credits to the courses (Theory & Practical)			✓	
4	Laboratory experiments for courses		✓		
5	Course evaluation and assessment		✓		
6	Research facilities in the department		✓		

II. Students' feedback on faculty of the department

	Particulars	Satisfactory (1)	Good(2)	Very Good(3)	Excellent (4)
1	Subject command of the faculty			✓	
2	Quality of teaching			✓	

3	Use of innovative teaching aids & resources		✓		
4	Coverage of syllabus			✓	
5	Transparency and impartial in evaluation			✓	

II. Students' feedback on Infrastructures

Particulars			Satisfactory (1)	Good(2)	Very Good(3)	Excellent (4)
1	Curricular based	i) Classroom		✓		
		ii) Laboratory		✓		
		iii) Internet facility	✓			
		iv) ICT enabled classroom		✓		
		v) CF facility	✓			
2	Co curricular based	i) E-learning centers	✓			
		ii) Seminar hall			✓	
		iii) Technical hub		✓		
3	Extra Curricular based	i) Sports		✓		
		ii) Gym	✓			
		iii) NSS/NCC		✓		
		iv) Cultural Club			✓	
4	General	i) Stationery Stores	✓			
		ii) Medical Centre	✓			
		iii) Guest house		✓		
		iv) Auditorium			✓	
		v) Canteen	✓			
		vi) Bank with ATM facility	✓			
		vii) Hostel facilities			✓	
		viii) Campus environment		✓		

Suggestions for improvement (If any):

Signature :

Name : Champak Jyoti Das

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department : Veterinary Medicine

Name of the Student : Dr Dhruba Das

Registration No. : 2018-V-41(M)

Degree Programme : 2018-2020

VIII. Students' feed back on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulation for PG and PhD programme,2008 &2016			**Very Good(3)**	
2	Lecture schedules as per the ICAR revised syllabus.				**Excellent(4)**
3	Allocation of hours and credits to the courses (Theory & Practical)			**Very Good(3)**	
4	Laboratory experiments for courses			**Very Good(3)**	
5	Course evaluation and assessment			**Very Good(3)**	
6	Research facilities in the department			**Very Good(3)**	

IX. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty				**Excellent(4)**
2	Quality of teaching				**Excellent(4)**
3	Use of innovative teaching aids & resources				**Excellent(4)**
4	Coverage of syllabus				**Excellent(4)**
5	Transparency and impartial in evaluation			**Very Good(3)**	

X. Students' feedback on Infrastructures

Particulars			Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular based	xvi) Classroom		**Good(2)**		
		xvii) Laboratory			**Very Good(3**	
		xviii) Internet facility			**Very Good(3**	
		xix) ICT enabled classroom			**Very Good(3**	
		xx) CIF facility			**Very Good(3**	
2	Co curricular based	x) E-learning centers		**Good(2)**		
		xi) Seminar hall		**Good(2)**		
		xii) Technical hub		**Good(2)**		
3	Extra Curricular based	xxii) Sports	**Satisfactory(1)**			
		xxiii) Gym	**Satisfactory(1)**			
		xxiv) NSS/NCC			**Very Good(3**	
		xxv) Cultural Club				**Excellent(4)**
4	General	xvi) Stationery Stores	**Satisfactory(1)**			
		xvii) Medical Centre	**Satisfactory(1)**			
		xviii) Guest House		**Good(2)**		
		xix) Auditorium			**Very Good(3)**	
		xx) Canteen				
		xxvi) Bank with ATM facility	**Satisfactory(1)**			
		xxvii) Hostel facilities	**Satisfactory(1)**			
		xxviii) Campus environment			**Very Good(3)**	
		xxix)				

Suggestions for improvement (If any): Hostel facilities are improve little bit

Signature : Dhruba Das

Name : Dr Dhruba Das

COLLEGE OF VETERINARY SCIENCE & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department : Department of Veterinary Medicine

Name of the Student : Dr. Mihirbahal Bora

Registration No. : C-16/M2-VC-006-M-V-16P

Degree Programme : M.V.Sc

I. Students' feed back on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory (3)	Good (2)	Very Good (1)	Excellent (4)
1	CAU Academic regulation for PG and PhD programmes (guide & title			✓	
2	Lecture schedule as per the ICAR revised syllabus		✓		
3	Allocation of hours and credits to the courses (Theory & practical)			✓	
4	Laboratory experiments for courses				✓
5	Course evaluation and assessment				✓
6	Research facilities in the department				✓

II. Students' feedback on faculty of the department

	Particulars	Satisfactory (3)	Good (2)	Very Good (1)	Excellent (4)
1	Subject command of the faculty				✓
2	Punctuality of teaching			✓	
3	Use of innovative teaching aids & methods		✓		
4	Coverage of syllabus		✓		
5	Approachability and helpfulness to students				✓

III Students' perspective on Infrastructure

Particulars			Satisfactory(3)	Good(4)	Very Good(5)	Excellent(6)
I	Curricular based	i) Classroom		✓		
		ii) Laboratory				✓
		iii) Internet facility				
		iv) Seminar/ Conference Classroom	✓			
		v) ICT facility				
II	Co-curricular based	i) E-learning centers				
		ii) Research lab	✓			
		iii) Technical club	✓			
III	Extra Curricular based	i) Sports			✓	
		ii) Gym	✓			
		iii) NSS/NCC				
		iv) Cultural Club				✓
IV	General	i) Stationery Stores	✓			
		ii) Medical Centre	✓			
		iii) Guest House			✓	
		iv) Auditorium				✓
		v) Canteen		✓		
		vi) Bank with ATM facility	✓			
		vii) Postal facilities	✓			
		viii) Campus environment				✓

Suggestions for improvement (if any)

There is no internet facility which is actually very much required for research work or e-learning center present. Deteriorating condition of hostels. No CIF facility or technical lab present, needs upgradation of stationary stores, medical centre. There is no bank facility in the University. Requires upgradation of gym and indoor stadium. Upgradation of the above mentioned points would help students to focus more and do better work.

Signature :

Name : Nikhilesha Dora

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH AIZAWL, MIZORAM, 796015

Department : VETERINARY PARASITOLOGY

Name of the Student : Dr. SUBHADEEP GHOSH

Registration No. : CAUVM-V/18/01

Degree Programme : MVSc

I. Students' feed back on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulation for PG and PhD programme 2008 & 2018			√	
2	Course schedules as per the ICAR revised syllabus			√	
3	Allocation of hours and credits to the courses (Theory & Practical)				√
4	Laboratory experiments for courses				√
5	Course evaluation and assessment				√
6	Research facilities in the department				√

II. Students' feedback on faculty of the department

	Particulars	Satisfactory (1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty				√
2	Quality of teaching				√
3	Use of innovative teaching aids & resources				√
4	Coverage of syllabus				√
5	Transparency and impartial in evaluation				√

III. Students' feedback on Infrastructure

Particulars			Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular level	i) Classroom			√	
		ii) Laboratory				√
		iii) Internet facility			√	
		iv) ICT enabled classroom			√	
		v) LIS facility			√	
2	Co curricular level	i) E-learning centre		√		
		ii) Seminar hall			√	
		iii) Technical hub			√	
3	Extra Curricular level	i) Sports				√
		ii) Gym				√
		iii) NSS/NCC				√
		iv) Cultural Club				√
4	General	i) Stationary Store			√	
		ii) Medical Centre			√	
		iii) Guest House				√
		iv) Auditorium				√
		v) Canteen		√		
		vi) Banking ATM facility			√	
		vii) Hostel facilities			√	
		viii) Campus environment				√

Suggestions for Improvement (If any):

Signature :
Name : Dr. Subhasree Ghosh

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department : VETERINARY PARASITOLOGY

Name of the Student : Dr. TELDIN H. SIAMTHARA

Registration No : (CAU)047 V/2018)

Degree Programme : MVSc

I. Students' feed back on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulation for PG and PhD programme 2009 & 2016			√	
2	Lecture schedules as per the ICAR revised syllabus			√	
3	Allocation of hours and credits in the courses (Theory & Practical)				√
4	Laboratory experiments for courses				√
5	Course evaluation and assessment				√
6	Research facilities in the department				√

II. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty				√
2	Quality of teaching				√
3	Use of innovative teaching aids & resources				√
4	Coverage of syllabus				√
5	Interactivity and impartial in evaluation				√

III. Students' feedback on Infrastructure

Particulars			Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular based	i) Classroom			√	
		ii) Laboratory			√	
		iii) Internet facility		√		
		iv) ICT enabled classroom		√		
		v) CIF facility		√		
2	Co curricular based	i) Playing grounds		√		
		ii) Seminar hall			√	
		iii) Technical hall			√	
3	Extra Curricular based	i) Sports				√
		ii) Gym		√		
		iii) NSS/NCC				√
		iv) Cultural Club		√		
4	General	i) Stationery Stores			√	
		ii) Medical Centre		√		
		iii) Guest House			√	
		iv) Auditorium			√	
		v) Canteen		√		
		vi) Bank with ATM facility		√		
		vii) Hostel facilities			√	
		viii)Campus environment				√

Suggestions for improvement (If any):

Signature :

Name : Dr. Freddy H. Stanthara

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department : Animal Reproduction, Gynaecology and Obstetrics

Name of the Student : Dr. NINGTHOUKHONGJAM LENIBA

Registration No. : 2017-V-230(M)

Degree Programme : MVSc

I. Students' feedback on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulation for PG and PhD programme 2018 & 2015				✓
2	Course contents as per the ICAR revised syllabus				✓
3	Allotment of hours and credits to the courses (Theory & Practical)				✓
4	Laboratory experiments for courses		✓		
5	Course evaluation and assessment				✓
6	Research facilities in the department		✓		

II. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty				✓
2	Quality of teaching				✓
3	Use of innovative teaching aids & resources		✓		
4	Coverage of syllabus				✓
5	Transparency and impartial in evaluation				✓

III. Students' feedback on Infrastructures

Particulars		Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1 Curricular based	(i) Classroom			✓	
	(ii) Laboratory			✓	
	(iii) Internet facility				
	(iv) ICT (eGlobal) classrooms				
	(v) CIF facility				
2 Co curricular based	(i) Co curricular activities				
	(ii) Sports facilities			✓	
	(iii) Technical facilities				
3 Extra Curricular based	(i) Sports			✓	
	(ii) Gym			✓	
	(iii) NSS/NCC			✓	
	(iv) Cultural Club				
4 General	(i) Stationary Stores				✓
	(ii) Medical Centre	✓			
	(iii) Guest House			✓	
	(iv) Auditorium			✓	
	(v) Canteen	✓			
	(i) Bank with ATM facility				✓
	(vi) Hostel facilities		✓		
	(vii) Campus environment				✓

Suggestions for improvement if any:

a) Consideration of an extension for water tanks (6 months maximum) for researchers.

b) Set up of a pharmaceutical agency in the campus premises.

Signature: N Linda

Name : Dr. Negbenkhengjoi Linda

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department : Animal Reproduction, Gynaecology & Obstetrics

Name of the Student : Dr. Nekibuddin Ahmed

Registration No. : CAU/2015-VM13(M)

Degree Programme : MVSc

I. Students' feed back on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulation for PG and PhD programme 2018 & 2016			*	
2	Course syllabus as per the ICAR revised syllabus			*	
3	Allocation of hours and credits to the courses (Theory & Practical)			*	
4	Laboratory experiments for courses			*	
5	Course evaluation and assessment				*
6	Research facilities in the department			*	

II. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty				*
2	Quality of teaching				*
3	Use of innovative teaching aids & resources		*		
4	Coverage of syllabus			*	
5	Transparency and impartial in evaluation			*	

III. Students' feedback on Infra-structures

Particulars			Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular based	i) Classroom			*	
		ii) Laboratory			*	
		iii) Internet facility		*		
		iv) ICT enabled classroom		*		
		v) CIF facility		*		
2	Co curricular based	i) E-learning system			*	
		ii) Seminar hall			*	
		iii) Technical lab			*	
3	Extra Curricular based	i) Sports		*		
		ii) Gym	*			
		iii) NSS/NCC		*		
		iv) Cultural Club		*		
4	General	i) Stationery Stores		*		
		ii) Medical Centre		*		
		iii) Guest House			*	
		iv) Auditorium			*	
		vi) Canteen		*		
		v) Bank with ATM facility	*			
		vii) Book facilities			*	
		viii)Campus environment				*

Suggestions for improvement (If any):

Self study report of the PhD programme

For

ICAR ACCREDITATION

Submitted
By

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (Imphal)
SELESIH, AIZAWL, MIZORAM.

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6.4. Self study report for PhD programme

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The College of Veterinary Sciences & Animal Husbandry, one of the constituent Colleges of the Central Agricultural University, Imphal catering to the need of 7 North Eastern Hill states (Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Sikkim and Tripura and Nagaland) of India under its jurisdiction was established through the promulgation of an Ordinance (No. M-2 of 1995; dated 20th February 1995).
The college became functional with the admission of first batch of B.V.Sc. & A.H. degree programme in the year 1997-98. P.G. programme was introduced from the academic session 2006-07. The College has also started Ph.D. programme from the academic session 2011-12. All the academic programmes i.e. BVSc & AH, MVSc &PhD programmes are accredited by ICAR, New Delhi and VCI, New Delhi. Collaboration with few renounced institutes like IVRI, Izatnagar, NDRI, Karnal, Haryana, Assam Agricultural university, Jorhat ,GADVASU, Ludhiana, ICAR-NRC-Mithun, Nagaland, ICAR-NRC on YAK, Arunachal Pradesh ,ICAR NRC on Pigs, ICAR- NRC on meat, Hyderabad has been established to strengthen the academics and research activity.
Ph.D programmes have been introduced in the following Disciplines i.e, Animal Nutrition, Veterinary Microbiology, Veterinary Pathology, Veterinary Gynaecology & Obstetrics, Livestock Production & Management, Veterinary Medicine, Veterinary Anatomy, Veterinary Biochemistry and Veterinary Parasitology

DEPARTMENT OF ANIMAL NUTRITION

6.4.1.Brief History of degree programme: The department of Animal Nutrition has been offering Courses of BVSc & AH as per guidelines of Minimum Standards of Veterinary Education (BVSc &AH regulations),2008 &2016 since the inception i.e 1997-98.PhD programme was introduced in the year in **2011-12**. ICAR revised and restructured curricula, 2009 is being followed for PhD programme. The nomenclature of the degree programme is also same as prescribed ICAR.

Accomplishments:

iv) **Sixteen M. V. Sc.** Students passed out and **five students** are continuing.

v) **Two Ph. D.** Student have completed their degree programme.

Following PhD students have completed their degree programme

PhD (Animal Nutrition)

Sl. No.	Name of the student	Thesis title
1.	Dr. Suzanne Malsawmthangi 2012-V-01(D)	Studies on Soil-Plant-Animal Interrelationship in Relation to Macro and Micro Mineral status and effect of formulated area specific mineral mixture supplementation on production performance of Dairy Cattle in Mizoram.
2.	Dr. Temjennungsang 2015-V-01(D)	Effect of feeding palm oil (Elaeis guineensis) sludge as a partial replacement of maize on the performance of growing – finishing Pigs.

iii) Publications (From student's research work)

16. Lalthansanga, J. and Samanta, A.K. (2015). Effect of feeding chayote (Sechium edule) meal on growth performance and nutrient utilization in indigenous pig (Zovawk) of Mizoram. Veterinary World. 8(7): 918-923.
17. Malsawmthangi, S., Kukde. R.J. and Samanta. A.K. (2016). Effect of diet containing sweet potato (Ipomoea batatas) meal on nutrient utilization and growth performance of indigenous growing pigs. Indian Journal of Animal Research. 50(5):717-720
18. Mery Chanu, Y and Samanta, A.K. (2016) Influence of substitution of maize with wheat bran and rice bran in the rations on growth performance and nutrient utilization in local pig (Zovawk) of Mizoram. Indian journal of Animal Nutrition,33(2) :197-202.
19. Malsawmthangi, S and Samanta, A.K. (2017). Feeding management, mineral status and blood biochemical profile of dairy cattle in Mizoram. Indian journal of Animal Nutrition, 34(3):256 -263.
20. Malsawmthangi, S and Samanta, A.K. (2017). Mineral interrelationship among soil, forage and dairy cattle in temperate sub-alpine zone of Mizoram Asian Journal of Dairy &Food research, 36(3):184-190.
21. Chandrima Devi, P., Samanta, A.K., Das, B.K., Kalita, G.,Behra, P.S. and. (2018).Effect of plant extracts and essential oil blend as alternatives to antibiotic growth promoters on growth performance, nutrient utilization and carcass characteristics of broiler chicken. Indian Journal of Animal Nutrition. 35 (4): 421-427.
22. Barman, S., Samanta, A.K. and Boro, P. (2019). Effect of dietary supplementation of Aloe vera and Lactobacillus acidophilus on hematological, biochemical and immune parameters of broiler birds. International Journal of Chemical Studies, 7(1): 1604-1611.

23. Lalthansanga, L. and Samanta A.K. (2018) Effect of feeding Chayote (Sechium edule) fruits and leaves on carcass characteristics of indigenous pig of Mizoram (Zovawk). Indian Vterinary Journal. 95(04) :20-22.
24. Temjennungsang and Samanta.A.K. (2019). Effect of Partial Replacement of Maize with Palm Oil Sludge on Growth Performance, Nutrient Digestibility and Blood Profiles of Finishing Pigs. Animal Nutrition and Feed Technology, 19 : 229-240.
25. Lalthlamuana,D., Samanta, A.K., Hmar, L., Behera, P., Buragohain,R., Ayub Ali M. and Vaisakh, V P.(2019) Effect of Dietary Supplementation of Chicory Root Powder and Avian Specific Lactobacillus spp on the Hematology, Blood Biochemical, Lipid, Enzyme and Antioxidant Profile of Broiler Birds Int.J.Curr.Microbiol.App.Sci. 8(10): 1511-1521.
26. Barman,S., A. K. Samanta,A.K., Biren Das,B.K., Goswami,R., Gali, J. M. R. and P.Chandrima Devi,P. (2019) Effect of Dietary Supplementation of Aloe vera and Lactobacillus acidophiluson Growth Performance, Nutrient Utilization and Carcass Characteristics Of Broiler Birds. International Journal of Livestock Research, 9(5): 102-112.
27. Vaisakh, V.P., Samanta,A.K., Buragohain, R., Goswami,R., Gali,J.M.R., Ayub Ali, M. and Lalthlamuana, D.(2019). Effect of Solid State Fermented Dried Feed with Avian Specific Lactobacillus species and Bacillus subtilis on Haematological, Blood Biochemical and Anti-oxidant Profile of Broiler Birds Int.J.Curr.Microbiol.App.Sci . 8(9): 150-160
28. Lalhuthangi, E and Buragohain, R (2020). Effect of *Mikania micrantha* Kunth. Meal as protein source on the performance of growing Large White Yorkshire pigs in Mizoram, India. *Journal of Entomology and Zoology Studies*. 8(1): 425-428.
29. Temjennungsang, Samanta, A K., Ali, M A., Das, B. K and Kalita, G(2020) Effect of Feeding Palm Oil Sludge as Partial Replacement of Maize in Growing-Finishing Pigs on the Growth Performance, Nutrient Digestibility and Blood Profiles Journal of Oil Palm Research (Accepted)DOI: https://doi.org/10.21894/jopr.2020.0000.
30. Chakma,J.,Samanta A.K.,Dutta, T.K and Arya, R.S.(2020) Effect of supplementing Moringa oleifera leaf extract and clove bud oil to the diet on microflora population and intestinal morphology of broiler birds. Indian Journal of Animal Health.59(2)-special issue:222-227.

iv) Research Projects by the faculties (completed)

1. Evaluation of tree fodders used as livestock feed in Mizoram. (University funded)
2. Identification and Evaluation of indigenous/local feed resources of pig and formulation of economic balanced ration for sustainable productivity in Aizawl District of Mizoram. (University funded)
3. Evaluation of wild sunflower (Tithonia diversifolia) as substitute of conventional feed ingredients for broiler in Mizoram. (University funded)
4. Effect of feeding compressed complete feed block on nutrient utilization, blood biochemical constituents and milk production in lactating cow (University funded)
5. Studies on phytochemical properties of tree leaves commonly fed to milch cattle/buffaloes in Mizoram (University funded).
6. Development of Small Scale Bamboo-Based Silage Making Technology and Effect of Feeding Silage on Performance of Growing Cattle (University funded)
7. Role of phytobiotics as alternative to antibiotic growth promoters on performance of weanling pig and poultry (Funding agency: DBT,Govt. of India)

15.4.2. Faculty strength of the department

S No	Faculty in place	Vacant position	Faculty recommended by VCI, 2016
7. Professor	01	Nil	01
8. Associate Professor	01	01	01
9. Assistant Professor	02	Nil	01

15.4.3. Technical and supporting staffs of the department

S No	Staff in position	Vacant position	Staffs recommended by VCI, 2016
6. FCLA	01	Nil	Not specified
7. MTS	01	nil	Not specified

6.4.10. Laboratories :

Name of the functional laboratories and major equipments

a. Under graduate laboratory

S.No.	Name of Equipments
1	Hot Air Oven
2	Muffle Furnace
3	Laboratory Feed Grinder
4	Electronic Balance
5	Ultrasonic Bath
6	Microprocessor Based Flame Photometer

b. Post Graduate laboratory

S.No.	Name of Equipments
1	Clinical Centrifuge
2	Suction Pump 0.5 HP Precivac-ISP85
3	Micro Kjeldahl Nitrogen Distillation apparatus (
4	Digital pH Meter
5	Muffle Furnace
6	Spectrofluorometer
7	Hot Air Oven

8	Incubator
9	Water Bath Incubator Shaker
10	UV Spectrophotometer
11	Rotary Vacuum Evaporator
12	Vacuum Freeze Dryer
13	High speed Refrigerated Centrifuge
14	Deep freeze -20°C

c. Feed Technology laboratory

S. No.	Name of Equipments
1	Electronic KEL-PLUS
2	Electronic Automatic KEL PLUS Microprocessor Based Twelve Macro Block Digestiion System.
3	Electronic SOCS Plus Automatic Six Place Solvent Extraction System
4	Electronic Fibra Plus Automatic Six Place Fibre Extraction System
5	Rusi E Tek
6	Electronic Balance

d. Mineral Nutrition Laboratory

S. No.	Name of Equipments
1	Atomic Absorption Spectrophotometer

e. Other Units of Department of Animal Nutrition

S No	Units	Name of Equipments
1	Feed processing and mixing plant	3. Feed grinder (Hammer mill)
		4. Feed mixer (Horizontal)
2	Complete feed block unit	4. Feed and Fodder mixer
		5. Compressed complete feed block making machine
		6. Urea Mineral Molasses Block making machine
3.	Digestion trial unit	2. Metabolic cages

6.4.11. Conduct of practical and hands on training: The practical class is of two hours duration for all the courses offered to students of PG & PhD programme. Students used to do the practicals by

themselves under the supervision of the faculty/ course instructor. Students used to record their observations in practical manual. Students are also taken to feed mill and complete feed block preparation unit to get practical exposure about the operational procedure of different feed mill machineries. Demonstration of conducting feeding experiments and digestion trial are also done in the concerned courses practical classes.

6.4.12. Supervision of students in PG / PhD programme : Number of students being supervised by faculty in case of Masters/ PhD programme(as per ICAR guidelines)

Recognition for guiding of students (PhD research) as per clause no. 2.12.2 of CAU Academic regulations-2016 for Master and PhD degree programmes

Ph. D. Programme :

a. All Professors are eligible to guide Ph. D. students. A teachers other than Professor must guided or guiding 2 (two) Master's students and has published four research papers in NAAS rated journals (other than his/her Master's or Ph. D. thesis) **OR** A teacher must have guided 3 (three) Master's students successfully as a Major Advisor.

Maximum number of students to be guided by faculty

As per clause no. 2.8.1(iii) of CAU Academic regulations-2016 for Master and PhD degree programmes, at any given time, Professor, Associate Professor and Assistant Professor shall not be a chairperson for more than 6,5 and 4 PG students(Master's and PhD combined) respectively

Name of the faculty	Programme	Number of students supervised as major Advisor	Number of students being supervised as major advisor
Dr A K Samanta, Professor	MVSc	11	03
	PhD	02	01*
Dr Rajat Buragohain, Assistant Prof.(SS)	MVSc	01	02
	PhD	nil	Nil
Dr Biren Kr Das, Assistant Prof.	MVSc	01	Nil
	PhD	nil	Nil

*As Co- major Advisor

6.4.13. Feedback of stakeholders: The college through a structured feedback mechanism (copy of feedback format and filled up feedback of students attached as **Annexure -I**) from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are made by the Head of the departments and Dean of the college. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, availability chemical

and reagents and research facilities. Feedback is also received from parents, other institutes, Concerned Directorate of State Government time to time.

6.4.14. Students intake and attrition in programme for last five years (PhD Programme)

	2016-17	2017-18	2018-19	2019-20	2020-21
Sanctioned seat	02	02	02	02	02
Actual admitted	-	-	-	-	-
Attrition %	NA	NA	NA	NA	NA

6.4.15. **ICT application in Curricula delivery**: Various ICT tools are being used for conducting Theory and practical classes of BVSc, MVSc & PhD programme. All the faculties of the department are digitally literate. The department uses CD-ROMs for better understanding Animal feeding and nutrition by postgraduate students. The department also inform students about various websites related to feeding and Nutrition of livestock and poultry. Students are informed about the use of modern information technology to record growth and feed conversion efficiency of livestocks. Animal Nutrition e-books are made available to the students for better understanding of Animal Nutrition subjects. Students are also informed about use of different software and mobile App to calculate nutrient requirements and preparation of ration for livestock and poultry.

Signature of Dean of the College with Date and Seal

DEPARTMENT OF VETERINARY ANATOMY & HISTOLOGY

11.4.1. Brief History of degree programme:

d) Degree Programmme initiated: **M. V. Sc. 2013-2014; Ph.D. 2018**

e) Curricula or syllabus of the degree programme followed **as per guidelines of ICAR,2009**

f) Accomplishments in brief.

vi) **Four M. V. Sc.** Student passed out and **two students** are continuing.

vii) **One Ph. D.** Student is continuing since introduction (2018).

viii) **Eighteen Research Publication** made by P.G. Students

C. M. V. Sc: 12 (Twelve)

13. Lalramliana A, Kalita PC, Kalita A, Choudhary OP, Doley PJ, Das H (2018). Electron microscopic studies on the skin of Zovawk (Mizo Local Pig). *International Journal of Livestock Research*. 8(4): 202-205.
14. Lalramliana A, Kalita PC, Kalita A, Doley PJ, Das H and Choudhary OP (2018). Light microscopic studies on the skin thickness of Zavawk pig. *Life Sciences Leaflets*, 100: 14-18.
15. Vanlalrozami, Kalita PC, Doley PJ, Kalita A, Choudhary OP, Das H, and Singh S (2018). Gross morphological studies on the harderian gland of Zovawk (Mizo local pig). *International Journal of Agriculture Sciences*. 10(15): 6815-6816.
16. Singh TS, Kalita PC, Choudhary OP, Kalita A, Doley PJ (2019). Histomorphological studies on the testis of local pig (Zovawk) of Mizoram. *Indian Journal of Animal Research*. 53(11): 1455-1458.
17. Debroy S, Kalita A, Doley PJ, Choudhary OP, Das H, Kalita PC (2019). Liver and pancreas of Mizo local pig (Zovawk): A histomorphological and histochemical analysis. *International Journal of Livestock Research*. 9(01): 150-156. DOI: 10.5455/ijlr.20180512115737
18. Keneisenuo, Choudhary OP, Arya RS, Kalita PC, Doley PJ, Rajkhowa TK, Kalita A (2019). Comparative gross morphological studies on the Os-coxae of Crested Serpent eagle *(Spilornis cheela*) and Brown Wood owl *(Strix leptogrammica*). *Journal of Animal Research*. 9(3): 439-442.
19. Keneisenuo, Choudhary OP, Arya RS, Kalita PC, Rajkhowa TK, Kalita A, Doley PJ (2019). Comparative gross anatomical studies on the humerus of crested serpent eagle *(Spilornis cheela*) and brown wood owl *(Strix leptogrammica*). *Indian Journal of Veterinary Anatomy*. 31(2): 95-96.
20. Singh TS, Kalita PC, Choudhary OP, Doley PJ, Kalita A (2019). Gross morphological, histological and histochemical studies on the epididymis of local pig (Zovawk) of Mizoram. *Journal of Animal Research*. 9(6): 855-861.
21. Singh TS, Kalita PC, Kalita A, Doley PJ Choudhary OP and Vanlalrozami (2019). Comparative Gross Anatomical Studies on the Testes of Zovawk (Mizo Local Pig) and Large White Yorkshire Pig. *International Journal of Livestock Research*, 9(2): 49-52. (1. doi: 10.5455/ijlr.20180726105045).
22. Keneisenuo, Choudhary OP, Debroy S, Arya RS, Kalita PC, Doley PJ, Rajkhowa TK, Kalita A (2020). Comparative gross anatomical studies on the shoulder girdle of crested serpent eagle *(Spilornis cheela*) and brown wood owl *(Strix leptogrammica*). *Indian Journal of Animal Research*. 54(5): 570-572. *DOI: 10.18805/ijar.B-3819*.
23. Singh TS, Kalita PC, Choudhary OP, Kalita A, Doley PJ (2020). Histological, micrometrical and histochemical studies on the testes of Large White Yorkshire pig *(Sus scrofa domesticus*). *Indian Journal of Animal Research*. DOI: 10.18805/ijar.B-3914.

24. Keneisenuo, Choudhary OP, Priyanka, Kalita PC, Kalita A, Doley PJ, Chaudhary JK (2020). Applied anatomy and clinical significance of the maxillofacial and mandibular regions of the barking deer *(Muntiacus muntjak*) and sambar deer *(Rusa unicolor*). *Folia Morphologica*. DOI: 10.5603/FM.a2020.0061.

D. Ph. D : 06 (Six)

7. Kalita A, Sarma K, Talukdar M, Deka A, Kalita PC (2017). Gut Integrity of neonatal piglets: A histomorphological analysis. *Journal of Animal Research*. 7(6): 1115-1121. (
8. Kalita A, Sarma K, Talukdar M, Kalita PC, Doley PJ, Choudhary OP (2018). Histo-enzymatic characterization of small intestine of neonatal piglets. *Journal of Animal Research*. 8(3): 455-458.
9. Kalita A, Kalita PC, Doley PJ, Choudhary OP, Das H (2018). Haematological and serum enzyme profile of neonatal Hampshire piglets. *International Journal of Agriculture Sciences*. 10(12): 6436-6437.
10. Kalita A, Talukdar M, Sarma K, Kalita PC, Gautam C, Choudhary OP, Doley PJ, Keneisenuo, Sarkar R (2020). Alterations of small intestinal morphology on villi and crypts after feeding probiotic and zinc in pre and post-weaned piglets. *Indian Journal of Animal Research*.
11. Kalita A, Talukdar M, Sarma K, Kalita PC, Gali JM, Tamuli S, Choudhary OP, Doley PJ, Debroy S, Keneisenuo (2020). Impact of probiotic and zinc on brush-border enzyme and histoenzymatic profile in the small intestine of pre and post-weaned piglets. *Indian Journal of Animal Research*.
12. Kalita A, Talukdar M, Sarma K, Kalita PC, Roychoudhury P, Kalita G, Choudhary OP, Chaudhary JK, Doley PJ, Debroy S (2020). Small intestinal mucosal cells in piglets fed with probiotic and zinc: a qualitative and quantitative microanatomical study. *Folia Morphologia.* DOI: 10.5603/FM.a2020.0091.

ix) Any other accomplishment which will justify the degree programme to be accreditated by ICAR (Mostly academic and research related accomplishments):

The College of Veterinary Sciences and Animal Husbandry, one of the constituent College of the Central Agricultural University was established through the promulgation of an Ordinance (No. M-2 of 1995; dated 20th February 1995) and became functional with the admission of first batch of students to B. V. Sc. and A.H. degree programme in the year 1997. During the year 1998, the campus formally started functioning at present location, Selesih in 24 Assam Type Houses taken over from the Department of Animal Husbandry and Veterinary, Govt. of Mizoram with 5 Assistant Professor deputed from the state department. Dr. P. C. Kalita was appointed as first Assistant Professor in the department of Veterinary Anatomy and Histology on adhoc basis in November 1998 (15/11/1998). The Department of Veterinary Anatomy and Histology trains students of undergraduate, postgraduate and doctorate level. Keeping with the National mainstream, the department is imparting B.V.Sc. & A.H. degree programme according to the curriculum of the Veterinary Council of India (MSVE, 2016). The students came to appreciate immediately the power of knowing basic anatomical details in clinical practice whenever they are exposed to live animals. These efforts provide a strong educational environment and foundation of support for students. Through the regional teaching, the faculty are embracing new ways to foster engagement in the classroom, assist with deep understanding and improved information retrieval, and promote successful life-long learning. Post Graduate programme was started in the academic session 2013-2014. It is the year 2018, the competent authority has given the approval to start the Ph. D. degree programme. The department is imparting M. V. Sc. and Ph.D. degree programme as per guidelines of ICAR, 2009. Till date four M.V.Sc students (i.e. Dr. A. Lalramliana, Dr. Swarup Debroy, Dr. Thokchom Shitarjit Singh and Dr.Vanlalrozami) have completed their postgraduate studies and presently one Ph. D. student (Dr. Swarup

Debroy) and two M. V. Sc student (Dr. Keneisenuo and Dr. Rupan Sarkar) are undergoing for their degree programme. At the department, teaching and research are closely linked, and there is continuous supervision for graduate and postgraduate students. The department houses an extensive collection of anatomical specimens of domestic and wild animals. During the year 1999 few skeletons of cattle, horse, pig, dog and bird were purchased from Nagpur Veterinary College who were running a ICAR project for skeleton preparation under the dynamic leadership of Dr. V. R. Bhamburkar, Professor and Head cum General Secretary, IAVA. Thereafter, Dr. P. C. Kalita mounted the skeleton of Yak and Mithun in the department during 2005 and 2010 after collection of bones from carcasses of the NRC on Yak, Dirang, Arunachal Pradesh and NRC on Mithun, Jharnapani, Nagaland.

The research focus of the department is on establishing a database of the specific anatomy of Zo-Vawk (Mizo local pig), Mithun, Yak, Sloth Bear, Sun Bear, Hoolock Gibbon and Slow –Loris. The department has successfully completed eight intramural research projects of central Agricultural University including four on Zo-Vawk, the unique animal of Mizoram. The faculty of the department has published more than 115 research paper in journal of National and International repute. Dr. P. C. Kalita acted as a referee for Anatomia Histologia Embryologia (published by Wiley Online Library), Indian Journal of Animal Sciences (published by ICAR), and Indian Journal of Agricultural Research (published by ARCC); and Dr. Arup Kalita acted a referee for Indian Journal of Animal Sciences and Indian Journal of Agricultural Research. Dr. P. C.Kalita has been working as Consultant Indian Wuildlife Year Book since 2010 to till date.

The histology and Histochemistry laboratory provides biopsy, histochemistry, and high quality slide preparation. In 2003, Dr. P. C. Kalita and his co-worker Dr. H. C. Kalita and late Dr. R. N. Bhattacharyaa has been awarded the IAVA best paper award at the Anand Convention. In 2009, Dr. Arup Kalita has been awarded the coveted Md. Hiffiudin award for Best paper in Gross Anatomy. In 2010, Dr. P. C. Kalita has been awarded Dr. A. M. Srivastava Gold Medal in recognition of his best Ph.D thesis at IAVA, Puducherry Convention. In 2014, Dr. P. C. Kalita has been awarded with DBT overseas fellowship to work on alternate animal use technology at TUFT University Cummings School of Veterinary Medicine, Massachusetts, Boston, United States of America. The XXXIII ANNUAL CONVENTION OF INDIAN ASSOCIATION OF VETERINARY ANATOMISTS & NATIONAL SYMPOSIUM was organized during 28th-30th November, 2018 by the Department of Veterinary Anatomy & Histology in collaboration with Indian Association of Veterinary Anatomists. Dr. H. D. Sarma from Bhaba Atomic Research Centre, Trombay delivered a talk on Bioethics and Animal Experimentation during the Symposium to Students, Faculty and Participants. The faculty of the department are also offering their expertise pertaining to various aspects of Veterinary Anatomy including clinical Anatomy, histochemistry and Ultrastructure to other departments, Mizoram University, RIPAN, NEHU and Forensic Science Laboratory.

Dr. P.C. Kalita, Professor and Head of the department, has published 89 publications with a total SCI citation 116 (since 2015) with an H index of 6, i-10 index-2. RG Score- 17.95. He is also a reviewer of various prestigious national and international journals. Dr. Arup Kalita, Assistant Professor (SG), published 107 research publications with a total of SCI citation 138 with an H index of 6, i-10 index-2. He also published his recent publication with an impact factor of 0.94 in the prestigious journal Folia Morphologica published from Poland. RG score- 19.13. Dr. O.P. Choudhary, Assistant Professor, published 92 publications with a total of SCI citations 293 as with an H index-10, i-10 index-10. He has also published two recent articles as a corresponding author with an impact factor of 4.589 equivalent to NAAS 10.59 in the prestigious journal Travel Medicine and Infectious Diseases published from Zurich, Switzerland. RG score- 21.53. He is a member of the International Advisory Board of the International Journal of Morphology with an impact factor of 0.499 published from Chile. Dr. P.J. Doley also published

various national and international publications in the prestigious journal. He is also a reviewer of various prestigious national and international journals.

Therefore, the ICAR may give accreditation to the M. V. Sc. And Ph. D. Programme of the department considering the above mention human resources pertaining to the academic and research activities.

6.4.2.Faculty strength of the department

S No	Faculty in position	Vacant position	Faculty recommended by VCI, 2016 (MSVE, 2016 Regulation for B. V. Sc. & A. H.)
16. Professor	One	Nil	One
17. Associate Professor	-	One	One
18. Assistant Professor	Three	Nil	Two

6.4.3. Technical and supporting staffs of the department

S No	Staff in position	Vacant position	Staffs recommended by VCI, 2016
12. FCLA	Two	Nil	Two
13. Farm Manager	Nil	Nil	Nil
14. MTS	One	Nil	One

6.4.4.Laboratories :

c. Name of Laboratory: **Gross Anatomy laboratory**

iii. Bone and meat cutting machine
iv. Cadaver Injector

d. Name of Laboratory: **Histology and Histochemistry laboratory**

xxvii. Cryostat Microtome, Automatic deluxe
xxviii. Semi-Motorized Rotary Microtome
xxix. Deep Freezer (-20°C)
xxx. Digital magnetic Stirrer hot plate
xxxi. Digital Imaging Device
xxxii. LCD Multimedia Projector
xxxiii. Automatic tissue processor
xxxiv. Autoclave Vertical
xxxv. Bone Decalcifier
xxxvi. Centrifuge- Remi
xxxvii. Distillation Apparatus
xxxviii. Digital SLR Camera (E-620)
xxxix. Deep Freezer (-20°C)
xl. Electric Weighing balance
xli. Hot Air Oven
xlii. Incubator
xliii. Microscope (Monocular)
xliv. Microscope (Binocular)
xlv. Microscope (Trinocular)
xlvi. Overhead Projector

xlvii. Octagon Magnetic Stirrer
xlviii. Paraffin Embedding bath
xlix. P^H Meter
l. Precision Rotary Microtome
li. Slide Warming table
lii. Tissue Floatation Bath

6.4.5.Conduct of practical and hands on training: The practical class is of two hours duration for all the courses offered to students of PG programme. Students used to do the practicals by themselves under the supervision of the faculty/ course instructor. Students used to record their observations in practical manual.

6.4.6. Supervision of students in PG / PhD programme : Number of students being supervised by faculty in case of Masters/ PhD programme(as per ICAR guidelines)

Eligible criteria to become research guide, and maximum number of student/guide of Ph. D. Programme (CAU, Academic Regulations-2016, clause 2.12.2): All Professors are eligible to guide Ph. D. students. A teachers other than Professor must guided or guiding 2 (two) Master's students and has published four research papers in NAAS rated journals (other than his/her Master's or Ph. D. thesis) **OR** A teacher must have guided 3 (three) Master's students successfully as a Major Advisor.

Maximum number of student/guide (CAU, Academic Regulations-2016, clause 2.8.1. iii):: At any given time**, Professor, Associate Professor** and **Assistant Professor** shall not be a **Chairperson for more than Six, Five and Four P.G. students (Master's and Ph. D. Combined), respectively.**

Name of the faculty	**Programme**	**Number of Students supervised as a Major Advisor**	**Number of Students being supervise as a Major Advisor**
Dr. P. C, Kalita	**M. V. Sc.**	**Four**	**One**
	Ph. D.	No	**One**
Dr. Arup Kalita	**M. V. Sc.**	No	**Two**
	Ph. D.	No	No
Dr. O. P. Choudhary	**M. V. Sc.**	**One**	No
	Ph. D.	No	No

Serial No.	**Name of Student**	**Name of Adviser**	**Degree Programme**	**Remarks**
01.	Dr. A. Lalramliana	Dr. P. C, Kalita	**M. V. Sc.**	Completed in **2016**
02.	Dr. Swarup Debroy	Dr. P. C. Kalita	**M. V. Sc.**	Completed in **2017**
03.	Dr. Thokchom Shitarjit Singh	Dr. P. C. Kalita	**M. V. Sc.**	Completed in **2018**
04.	Dr. Vanlalrozami	Dr. P. C. Kalita	**M. V. Sc.**	Completed in **2018**
05.	Dr. Swarup Debroy	Dr. P. C. Kalita	**Ph. D.**	Continuing
06..	Dr. Keneisenuo	Dr. O. P. Choudhary	**M. V. Sc.**	Completed in

				2020
07.	Dr. Rupan Sarkar	Dr. Arup Kalita	**M. V. Sc.**	Continuing
08.	Dr. Lalrinawma Khiangte	Dr. P. C, Kalita	**M. V. Sc.**	Continuing
09.	Dr.Monalisha Debbarma	Dr. Arup Kalita	**M. V. Sc.**	Continuing

6.4.7. Feedback of stakeholders: The college through a structured feedback mechanism (copy of feedback format attached as **Annexure -I**) from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are made by the Head of the departments and Dean of the college. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, availability chemical and reagents and research facilities. Feedback is also received from parents, other institutes, Concerned Directorate of State Government time to time.

6.4.8. Students intake and attrition in programme for last five years (PhD Programme)

	2016-17	2017-18	2018-19	2019-20	2020-21
Sanctioned seat	Not introduced		01	01	01
Actual admitted			01	nil	nil
Attrition %			0	NA	NA

6.4.9. ICT application in Curricula delivery: The Department of Veterinary Anatomy and Histology is using various ICT tools for a better understanding of theories, principles, ideas and concepts. The department uses CD-ROMs for a better understanding of the histological and embryological slides by undergraduate and postgraduate students. The department is also using various websites for the students to understand better gross anatomy (in 3D mode). The department faculty members also provided the link (https://play.google.com/store/apps/details?id=net.imaios.vetanatomy&hl=en_IN&gl=US) for the app IMAIOS vet-Anatomy, which is an atlas of veterinary anatomy for veterinary physicians, radiologists, teachers, veterinary students.

Signature of Dean of the College with Date and Seal

DEPARTMENT OF VETERINARY BIOCHEMISTRY

6.4.1.Brief History of degree programme: The Department of Veterinary Biochemistry has been offering courses of BVSc & AH since the inception of this college i.e. 1998-99. MVSc programme was introduced in the year 2011-12 and thereafter PhD programme in 2016-17 though the Department is offering the minor courses to MVSc students of other Departments since 2007. The nomenclature of the degree programme and syllabi of MVSc & PhD programme is as per ICAR Revised Postgraduate Course Curricula-2009. The department is well equipped with some state-of-the-art facilities viz. High performance liquid chromatography, clinical chemistry analyzer, CO_2 incubator, isoelectric focusing, plate reader, PCR etc.

c) List of the MVSc & PhD students passed out

MVSc (Veterinary Biochemistry)		
Sl. No.	**Name & Admission No.**	**Thesis title**
1	Dr. Lalsangpuii 2011-V-01(M)	Studies on Haemato-Biochemical Profile of Mizoram strain female Mithun (*Bos frontalis*).
2	Dr. P. Kirthika 2012-V-12(M)	Dynamics of Mitogen stimulated cytokine gene expression in peripheral blood mononuclear cells of local and exotic breeds of pigs reared in MIzoram
3	Dr. Laxmi Noatia 2018-V-16(M)	Assessment of *in vitro* growth kinetics and pathogenicity of recorded mutant of *Salmonella Typhimurium.*
4	Dr. Monti Das 2018-V-17 (M)	Comparative salivary proteome analysis to identify early pregnancy-specific protein biomarkers in pigs.
Ph D (Veterinary Biochemistry)		
1.	Dr. Ankan De 2016-V-03(D)	Exploration of serum protein biomarkers for early pregnancy diagnosis in pigs.

d) List of students presently pursuing MVSc (Veterinary Biochemistry) programme

3. Dr. Ashmita Debnath, 2020-V-44(M)
4. Dr. Kekungwi Newmai, 2020-V-46(M)
3. Dr. R. Zapaw Azyu, 2020-V-47(M)

c) Publication: Out of MVSc & PhD research works: 07

8. Lalsangpuii, Ali M.A., Devi L.I., Behera P. and Ralte L. **2015**. Effect of age and season on the thyroid hormone activity of Mizoram strain female mithun (*Bos frontalis*). ***Veterinary World***, 8(12): 1375-1378.
9. Kirthika, P., Ali M.A., Behera P, Subudhi, P.K., Tolenkhomba, T.C., Gali, J.M. **2017.** Dynamics of cytokine gene expression in peripheral blood mononuclear cells of indigenous and exotic breeds of pigs in India. ***Animal Science Journal***, 88, 1794–1800.
10. Lalsangpuii, Ali M.A. and Devi L.I. **2018**. Serum biochemical profile of Mizoram strain female Mithun (*Bos frontalis*) at different age and season. ***Biological Rhythm Research*.** https://doi.org/10.1080/09291016.2018.1474989

11. De, A., Ali, M.A., Chutia, T., Onteru, S.K., Behera, P., Kalita, G., Kumar, S., Gali, J.M. **2018**. Comparative serum proteome analysis reveals potential early pregnancy-specific protein biomarkers in pigs. ***Reproduction, Fertility and Development***, 31(3): 613-631.
12. De, A., Dutta, T.K., Ali, M.A., Behera, P., Gali, J.M. **2019**. Systematic evaluation of species-independent serum pre-fractionation strategies revealed cost-effective methods to reduce proteome complexity. ***Analytical Biochemistry***, 584: 113388.
13. De, A., Ali, M.A., Behera, P., Chutia T., Das, H., Hmar, L., Gali, J.M. (2020). Generation of reference serum proteome map for monitoring swine health. ***Indian Journal of Animal Sciences*** 90 (6): 871–872.
14. De, A., Ali M.A., Behera P, Chutia, T., Saikia, P., Das, H., Mayengbam, P., Gali, J.M. **2017.** Analysis of serum biochemical constituents during early pregnancy in pigs. ***International Journal of Livestock Research***, 7 (12): 43-48.

e) Achievements of passed out PG & PhD students

Dr. Lalsangpuii – Currently working as Assistant Professor at CVSc, CAU, Jalukie, Nagaland

Dr. P. Kirthika – Currently working as post-doctoral research Scientist College of Veterinary Medicine, Jeonbuk National University, Iksan, Republic Korea.

Dr. Ankan De - Currently working as Assistant Professor at CVSc, R.K.Nagar, Tripura.

e) Research Projects by the faculties:

Ongoing:

PI or Co-PI	Extramural or intramural	Funding agency	Title of the project	Duration	Total budget
Principal Investigator	Extramural	ICAR	All India Network Project on Pesticide Residues	Continuing since 2011	Allotted yearly
Principal investigator	Extramural	SERB, DST	Identification of key determinant(s) of immune competence of pigs through proteomic approach	2019-22	Rs. 51,86,695/-
Co-PI	Extramural	SERB, DST	Molecular epidemiological studies of canine parvovirus-2 variant(s) from clinical cases of dogs and cats in seven North Eastern States of India and its management.	2019-22	51.43 lakhs
Co-PI	Extramural	DBT	Evaluation of anti-diarrhoeal properties of herbs and its therapeutic	2017-2020	

			potential on pig performance		
Principal investigator	Intra-mural	CAU	Evaluation of blood biochemical profile and antioxidant status of Mizo non-descript local cattle *(Zobawng)"*	2019-20	Rs. 1,98,550.00

Completed:

PI or Co-PI	**Extramural or intramural**	**Funding agency**	**Title of the project**	**Duration**	**Total budget**
PI	Extramural	DBT	Hemoglobin variants and hemoglobinopathies screening in Mizoram population	2012-15	60.45 lakhs
Co-PI	Extramural	DBT	Genetic Characterization of indigenous cattle of North East India	2013	8.92 lakhs
Co-PI	Extramural	DBT	TLR-ligands: To design novel vaccines adjuvant in indigenous chicken	2014-17	64.84 lakhs
Co-PI	Extramural	ICAR-NASF	Alfatoxin resistant Duck strain development in North East region	2017-20	56.23 lakhs
PI	Extramural	DBT	Manipulating the anaerobic respiration to attenuate the pathogenicity of Salmonella Typhimurium".	2017-20	60.73 lakhs
Co-PI	Extramural	DBT	Advanced Animal Diseases Diagnosis and Management Consortium (ADMaC)	2014-19	Rs. 2.37 crores
Co-PI	Extramural	DBT	Role of phyto-biotics as alternative to antibiotic growth promoters on performance of weanling pig and poultry	2015-18	Rs. 61.57 lakhs
PI	Intra-mural	CAU	Evaluation of fodders in Aizawl district for their lectin content	2010-11	Rs. 1.13 lakhs
PI	Intra-mural	CAU	Comparative serum proteome analysis of pigs during different stages of early pregnancy	2019-20	Rs. 1.98 lakhs
PI	Intra-mural	CAU	Pregnancy diagnosis in pigs by analyzing salivary progesterone levels during early pregnancy	2015-16	Rs. 1.48 lakhs
Co-PI	Intra-mural	CAU	Effect of season and age on selected haemato-biochemical profile of local pig (*Zovawk*) of Mizoram	2010-11	Rs. 1.50 lakhs
Co-PI	Intra-mural	CAU	Screening of some medicinal plants in Mizoram for their immunomodulatory and/ or growth promoting activity in chicken	2004-05	Rs. 34,500.00

Co-PI	Intra-mural	CAU	Evaluation of wild sunflower (*Tithonia divercifolia*) as substitute of conventional feed ingredient in broiler in Mizoram		
Co-PI	Intra-mural	CAU	Development of PCR based (real time and multiplex) diagnostic technique for diagnosis of PRRS and differential diagnosis with CSF and PCVAD	2015-16	
PI	Intra-mural	CAU	Isolation of Salmonella species from chicken and their virulence gene detection.	2016-17	1.97 lakhs.
PI	Intra-mural	CAU	Effect of age, sex and different physiological stages on hematological and biochemical profile of Mizo local pig- 'Zovawk' (*Sus Scrofa Scrofa*)	2017-18	1.74 LAKHS
Co-PI	Intra-mural	CAU	Clinico-epidemiological and patho-biochemical studies on canine parvovirus-2 infection in dogs	2014-15	1.47 lakhs
Co-PI	Intra-mural	CAU	Molecular characterization of Canine parvo virus in clinical cases of dogs	2017-18	64.85 lakhs

- **Total number of research articles published by the faculty members: 166**
- **Number of training programmes organized by the department: 01**
- **Number of training programmes attended by the faculty members: 06**
- **Number of national awards received by the faculty members: 03**

6.4.2. Faculty strength of the department

S No	Sanctioned Faculty	Current Position	Faculty recommended by VCI, 2016*	Vacant position
Professor	-	01	01	-
Associate Professor	01	-	01	-
Assistant Professor	03	03	03	-

* Faculty recommended mentioned here is the combine for Veterinary Physiology & Veterinary Biochemistry and strength shown (sactioned Faculty, Current position) is for Veterinary Biochemistry only (exclusive of Veterinary Physiology).

6.4.3. Technical and supporting staffs of the department

S No	Sanctioned	Present position	Staffs recommended by VCI, 2016
FCLA		01	Not specified
Farm Manager		-	Not specified
MTS		01	Not specified

6.4.4. Laboratories:

t) Mention the functional laboratories and justify if it is sufficient to meet the course curricula requirement.

Name of the laboratory	Remarks
Under Graduate Laboratory	For conducting the Practical classes of the undergraduate students
Post Graduate Laboratory	For conducting the Practical classes of the Post graduate students
Molecular biology laboratory	All the laboratories mentioned are functional and routinely used for ongoing PG and Ph.D. research works and also research works of projects of Veterinary Biochemistry department as well as other departments. They are sufficient to meet the course curricula requirement.
Analytical biochemistry laboratory	
Animal cell culture laboratory	
Biotechnology laboratory	
Post Graduate Classroom cum Seminar Room	For conducting departmental seminars and also conducting the Post graduate classes.

u) List of major equipment, instructional units and facilities.

Name of the laboratory	Major equipment	Remarks
Molecular biology lab	PCR, Transilluminator, Gel electrophoresis (AGE & PAGE), Eelectroporator, Semi-dry western blot, orbital shaker incubator, refrigerated centrifuge, -20 deep freezer, Refrigerator, Water bath	High-end equipments mentioned are functional and routinely used for ongoing PG research and project research work of Veterinary Biochemistry department as well as other departments.
Analytical biochemistry lab	HPLC, Clinical chemistry analyzer, Plate reader, Spectrophotometer, -20 deep freezer, Refrigerator, refrigerated centrifuge, Water bath, Vortex mixer, Incubator, Hot air oven, pH meter, Shaker	
Animal cell culture lab	CO_2 incubator, Biosafety cabinet, Inverted microscope, Double door side-by-side refrigerator, Centrifuge	
Biotechnology lab	Isoelectric focusing, Maxi gel electrophoresis apparatus, Refrigerator	

6.4.5 Conduct of practical and hands on training: The practical class is of two hours duration for all the courses offered to students of PG & PhD programme. Students used to do the practicals by themselves under the supervision of the faculty/ course instructor. Students used to record their observations in practical manual.

6.4.6. Supervision of students in PG / PhD programme: Number of students being supervised by faculty in case of Masters/ PhD programme (as per ICAR guidelines).

Eligible criteria to become research guide, and maximum number of student/guide of Ph. D. Programme (CAU, Academic Regulations-2016, clause 2.12.2): All Professors are eligible to guide Ph. D. students. A teachers other than Professor must guided or guiding 2 (two) Master's students and has published four research papers in NAAS rated journals (other than his/her Master's or Ph. D. thesis) **OR** A teacher must have guided 3 (three) Master's students successfully as a Major Advisor.

Maximum number of student/guide (CAU, Academic Regulations-2016, clause 2.8.1. iii):: At any given time**, Professor, Associate Professor** and **Assistant Professor** shall not be a **Chairperson for more than Six, Five and Four P.G. students (Master's and Ph. D. Combined), respectively.**

Name of the faculty	Programme	Number of students supervised as major Advisor	Number of students being supervised as major advisor
Dr M. Ayub Ali	MVSc	2	2
	PhD	1	-
Dr Parthasarathi Behera	MVSc	01	-
	PhD	nil	Nil
Dr Jagan Mohanarao Gali	MVSc	01	-
	PhD	nil	Nil
Dr Hemen Das	MVSc	nil	1
	PhD	nil	nil

e) No. of Ph. D. Students guided by Faculty members as Major Advisor: **01**
f) No. of Ph. D. Students guided by Faculty members as Member Advisory committee: **09**
g) No. of MVSc Students guided by Faculty members as Major Advisor: **04 (2 pursuing)**
h) No. of MVSc. Students guided by Faculty members as Member Advisory committee: **71**

6.4.7. Feedback of stakeholders: The college through a structured feedback mechanism (copy of feedback format and filled up format from students attached as **Annexure -I**) from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are made by the Head of the departments and Dean of the college. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, availability chemical and reagents and research facilities. Feedback is also received from parents, other institutes, Concerned Directorate of State Government time to time.

6.4.8. Students intake and attrition in programme for last five years (PhD Programme)

	2016-17	2017-18	2018-19	2019-20	2020-21
Sanctioned seat	1	1	1	1	1
Actual admitted	1	-	-	-	-
Attrition %	0	NA	NA	NA	NA

6.4.9. ICT application in curricula delivery:

All the teachers of the department are digitally literate and trained to use ICT. All the teachers have been utilizing a diverse set of ICT tools to communicate, disseminate, and manage information to undergraduate, post-graduate and Ph.D. students. These approaches can lead to higher order thinking skills, provide creative and individualized options for students to express their understandings, and leave students better prepared to deal with ongoing technological change in society and the workplace.

Signature of Dean of the College with Date and Seal

DEPARTMENT OF LIVESTOCK PRODUCTION MANAGEMENT

6.4.1. Brief history of the Department

Dr. Lalnuntluangi Hmar was appointed on deputation as first Assistant Professor in the department of Livestock Production Management (LPM) in November 1998. Besides teaching all the courses, she started to build up the department. First few years, Department was in the old Assam Type buildings (presently college canteen and broiler farm buildings) and later on (in 2001) it was shifted to present Academic Block along with other departments of the college. Three sitting rooms and one practical room were allotted for the department of LPM. In 2001, Dr. Lalnuntluangi Hmar joined as permanent member in the college and two more faculty members namely Dr. Girin Kalita and Dr. (Mrs) Ranjana Goswami joined the department. All the members of the department started to plan for development of the department as well as the livestock farm buildings. Floor plan of the present Cattle, Poultry, Pig and Goat farms were drawn along with consultation of the construction company during the year 2003-04. In the year 2008, construction some of the farm buildings are completed and handed over to the college and in the same year, department was shifted to one of the farm building in the farm complex (present one). In the year 2007, Dr. Lalnuntluangi Hmar promoted to the rank of Associate Professor. Dr. Prasant Saikia joined as Assistant Professor in October 2009 and further strengthens the department. From August 2009 to July 2012, Dr. Girin Kalita and from August 2011 to July 2014 Dr.(Mrs) Ranjana Goswami was on study leave for their Ph.D. study. During their leave, Dr. Hmar and Dr. Saikia have taught all the courses of the department and other office works.

Far imparting practical training, pigggery unit was initiated with only five animals (Burmese pig) during 2002-03 and were reared in the old Assam type sheds as new sheds were constructed at that time. Few more Large White Yorkshire and Zovawk (local pig of Mizoram) pigs were purchased in the year 2007-08 to increase the strength. The stock was increased up to about 80 animals and was shifted to new pig farm sheds in 2007-08. To avoid inbreeding, 10 more pigs (Burmese pig) was purchased in 2009. However, do to outbreak of swine fever in the farm, whole stock of pigs was disposed and new stock of Large White Yorkshire pigs were brought to the farm in the year 2010. Mentionably, during that year, there was wide spread outbreak of swine fever in state of Mizoram and in the country as a whole and thousands of pigs were lost. Presently more than 150 pigs (Large White Yorkshire) are there in the pig farm. Establishment of AICRP on pig centre in the College also further strengthen the pig farm. Dairy unit of the department was initiated with purchase of 5 animals from the local market. After construction of dairy cattle shed, few more animals (crossbred Holstein Friesian and Jersey) were purchased for the farm in the year 2010-11. Presently the dairy farm is having more than 30 animals (including cows, calves, heifers, bull) with 70-100 litres of milk production per day. Poultry unit of the department was initiated with rearing of broilers for teaching purposes from 2002-03 and were reared in the old Assam Type shed. With the help of DBT funded project, small hatchery and Quail unit was established during 2004-05. The poultry farm shed (present poultry farm shed) was constructed during 2010-2011 and stocks of dual-purpose poultry birds like Giriraja, Banraja were purchased with a motto to distribute dual purpose chicks to the farmers. Presently more than 2000 poultry birds are reared in the farm. For imparting practical training, few goats were purchased during 2003-04 and were reared in the old Assam Type Shed. The Department is having small unit of sheep and goat with a capacity of 40 animals. Along with the faculty members of the department, faculties of other related departments namely Dr. Biren Kumar Das (Asstt. Prof.,Department of Animal Nutrition), Dr. T.C. Tolenkhoma (Asstt. Prof.,Department of Animal Genetics and Breeding and Dr. N.S. Singh (Assoc. Prof.,Department of Animal Genetics and Breeding) are also worked or working as I/C Farm or Farm Manager and helping in managing the different livestock farms. Supports of the other faculty members of the College and staff of AICRP on pigs and the persons

related with other research projects of the department are also enormous in maintaining the livestock farms.

M.V.Sc. programme was started with only one student in the academic session 2006–07 and so far, 20 students were awarded the M.V.Sc. degree and 6 students are pursuing M.V.Sc. under the department. In the year 2012, Dr. L. Hmar promoted to the rank of Professor, and the authority has given the approval to start the Ph.D. programme in the year 2013. So far no student has enrolled for Ph.D. programme in the department. However, Ph.D. courses have been offered for students taken LPM as minor subject. Presently, department is following the ICAR syllabus for the post graduate students.

Along with M.V.Sc. research work, few other research projects (intramural and extramural) have been completed in the department. Main focus of research work of the department is to study the livestock production systems followed in the North Eastern States and to evolve new technologies to improve the livestock production. Besides this, faculty members of the department are involved in many other research projects as member of advisory committee or as Co-PI of research projects.

As a part of extension programme, department is organizing short term (2-3 days) , long term (14-50 days) and Vocational training programmes on regular basis in the field of livestock management. Hand on training on broiler farming was started since 2004, where in undergraduate students are trained in practical aspects of broiler farming. As per new VCI syllabus, entrepreneurship training programme on broiler farming was started in the department since 2010, wherein inputs are given to rear the broiler birds, so that the students can learn the practical aspects of management. The programme is run in whole year, where in different batches of broilers are reared by the students under the supervision of one of the faculty members of the department and the profit earn from sale of broilers are distributed equally among the participating students. Every year 20-25 students of 3rd Year register for the programme.

- Year of introduction of MVSc : 2006
- Year of introduction of PhD : 2013
- Number of MVSc students passed out: 20 nos.
- Number of MVSc students on roll: 6 nos.

6.4.2. Faculty strength of the department

S No	Sanctioned Faculty	Current Position	Faculty recommended by VCI, 2016*	Vacant position
Professor	1	00	01	1
Associate Professor	01	1	01	Nil
Assistant Professor	03	02	02	1

6.4.3.Technical and supporting staffs of the department

S No	Present position	Vacant position	Staffs recommended by VCI, 2016
FCLA	01	-	Not specified
Farm Manager	-	-	Not specified
MTS	01	-	Not specified

6.4.4. Laboratories:

b) Mention the functional laboratories and justify if it is sufficient to meet the course curricula requirement.

Name of the laboratory	Remarks

Under Graduate Laboratory	For conducting the Practical classes of the undergraduate students
Post Graduate Laboratory	For conducting the Practical classes of the Post graduate students

b) Equipments:

Sl no	Equipment	Qnty
19.	Animal weighing platform. 1000kg capacity	1
20.	Refrigerator LG 310Lit	1
21.	Refrigerator LG 350Lit	2
22.	Deep freezer (-20) vertical Yorco	1
23.	Deep freezer (horizontal)	4
24.	Digital weighning balance, 300kg capacity	1
25.	Colony counter	1
26.	Sheep-Goat pregnancy detector	1
27.	Pregnancy tester with secondary head set	1
28.	Electronic estrous detector	1
29.	LCD projector (Ricoh)	1
30.	Milking machine	2
31.	Digital camera	1
32.	Digital hay tester	1
33.	Silage tester	1
34.	Battery brooder (electrically operated)	2
35.	Setter cum hatcher	1
36.	Incubator (hatcher & setter)	1

7. Research project and publication from PG and Ph.D research work

i) Research project undertaken in the Department of LPM

Sl. No.	Title of the project/Programme	Principal Investigator	Funding organization	Duration of the project	Present status
1	Study of potential of quails farming in Mizoram	Dr. L.Hmar	DBT	4 years	Completed
3	Augmenting pig production through effective microbial technolgy	Dr. Prasanta Saikia	DBT	3 years	Completed
4	Skill Enhancement and Generation of Sustainable Livelihood for Pig Farmers in Kolasib District of Mizoram	Dr.Prasanta Saikia	DBT	3 years	Completed
5	Techno-economic empowerment of rural woman through piglet production	Dr. Girin Kalita	DBT	3 years	Completed
6	Studies on performance of pigs in low input traditional system	Dr.Prasanta Saikia	CAU	1 year	Completed

7	Effect of early weaning management on performance of Yorkshire sow and piglets	Dr. Girin Kalita	CAU	1 year	Completed
8	Effect of maize and rice based-heat treated and untreated diets on performance of young pigs during nursing and post weaning period	Dr. Girin Kalita	CAU	1 year	Completed
9	Performance of Goats under Field Conditions of Mizoram	Dr Ranjana Goswami	CAU	1 year	Completed

ii) Research project of PG students: No students have taken admission in PhD in LPM so far.

iv) Research Publications

	Author/Authors	*Title of an Article*	*Name of Journal, Year,Volume, Page Nos.*
17.	C.Lalremruata, L.Hmar, P.Saikia, Joy L.Kataria and Jonathan Lalsiamthara	Pre-weaning mortality of piglets and its causes in the field condition of Aizawl	*Post Symposium Compendium, ISAPM, 11-13.11.2010,Pg. 68-69*
18.	C. Lalremruata , L. Hmar , K. Sharma and Rosangzuali	Lactational weight loss of sows reared under field condition of aizawl	*The Indian Journal of Field Veterinarians, Vol. 9 Accepted 20-8-2013*
19.	C.Lalremruata and L.Hmar	Weaning to estrus interval of sows reared under field condition of Aizawl.	*Indian J.Anim.Prod.Mgmt. Vol.29(1-2) 110-112 (2013).*
20.	Fanai R., Hmar L., Kalita G., Khate K. and Samanta A.K.	Carcass qualities of broiler under intensive and backyard system of management in Mizoram	*Indian J. Anim. Prod. Mgmt.30(3-4):52-56*
21.	Fanai R., Hmar L., Kalita G., Khate K. and Samanta A.K.	Economics of broiler rearing under intensive and backyard system of management in Mizoram	*Indian J.Anim.Prod.Mgmt. 31(1-2): 104-106 (2015)*
22.	Fanai R., Hmar L., Kalita G., Khate K. and Samanta A.K.	Economics of broiler rearing under intensive and backyard system of management in Mizoram	*Indian J. Anim.Prod. Mgmt.31(1-2):104-106*
23.	Lalremruata C., Hmar L. and Kalita G.	Study on the growth performance and mortality in pre-weaning Burmese piglets reared under field condition of Aizawl, India	*Indian J. Anim. Res., 49 (2) 2015: 262-264*
24.	K. Saikia, Kalita G., Hmar	Effect of Early and Split	*International Journal of Livestock*

	L., Samanta A. K. , Goswami R., Tolenkhomba T. C., Talukdar D. and Chutia T.	Weaning Management on Reproductive Performance of Large White Yorkshire Pigs	*Research, Vol 7 (12):59-64*
25.	Laishram M., Saikia P., Kalita G., Hmar L, Roy Choudhury P and Panda S.	Performance evaluation of fattening pigs under Deep Litter housing system employing effective microbial technology.	*International Journal of Livestock Research, 7 (11) :77-88*
26.	H.Lalliankimi, Gautam Patra, Lalnuntluangi Hmar, Zosangpuii and Rody L. Fanai	Evaluation of growth performance and effect of quality of eggs of Japanese Quails at different levels of Zinc supplementation under agro-climtic condition of Mizoram, India	*International Journal of Poultry Science, 16(8):317-322,2017*
27.	Saikia K., Kalita G., Ghorai S., Buragohain M, Boruah K. and Barman K.C.	Effect of early weaning on mortality, incidence of diseases and haemato-biochemical parameters of large white Yorkshire pigs	*Journal of Entomology and Zoology Studies 2018; 6(1): 235-239*
28.	Hmar L., Renthlei A., Ali A., Goswami R., Das H., Kalita G., Burogohain R. and Rahman S.	Effect of age and rearing system on the haemato-biochemical profile of broilers reared under agro-climatic condition of Mizoram	*International Journal of Agriculture Sciences 10(17):-7037-7039*
29.	Lovingson K., Kalita G., Hmar L., Das H., Goswami R., Saikia P.,Sarma K. and Buragohain R.	Blood biochemical profile of early weaned Large White Yorkshire pig under cage system of rearing	*J. Exp. Zool. Indi. 21(2): 953-956*
30.	Jamlianthang, Goswami R., Hmar L., Kalita G., Buragohain R.,Das H. and Khate K.	Effect of different sources of water on the performance of broilers in Mizoram	*International Journal of Chemical Studies 2018; 6(6): 1152-1155*
31.	Saikia K., Kalita G., Hmar L., Goswami R., Talukdar D., Samanta A.K. and Tolenkhomba T.C.	Effect of early and split weaning management on growth performance of Large White Yorkshire pigs	*Indian Journal of Animal Sciences 89(2): 172–175*
32.	Kakati, L., Kalita, G., Hmar, L., Samanta, A., Tolenkhomba, T., Das, H., & Talukdar, D.	Effect of Dietary Supplementation of *Shatavari* (*Asparagus racemosus*) Root Powder on Reproductive Performance of Large White Yorkshire Sow	*International Journal of Livestock Research, 9(2), 110-113.*

8. Placement of passed out PG students

Sl no	*Name of student*	*Placement*
18.	Dr Rody Lalrinfeli Fanai	Livestock/ Farm Assistant, CVSc & AH,Selesih, Aizawl, Mizoram
19.	Dr H.Lalliankimi	SRF, AICRP on Pigs, CVSc & AH,Selesih, Aizawl, Mizoram
20.	Dr Jamlianthang	Field-cum-Lab. Assistant, CVSc & AH,Selesih, Aizawl, Mizoram
21.	Dr C.Lalremruata	SMS, KVK, Mizoram
22.	Dr Aba Liptos Marak	Veterinary Officer, Govt. of Meghalaya
23.	Dr F. Laldinthara	State Mission Manager, Mizoram State Rural Livelihood Mission, Rural Development Department, Govt. of Mizoram
24.	Dr Elizabeth Lalbiaknungi Leihang	Clerical staff, State Referral Hospital,Falkawn, Govt. of Mizoram
25.	Dr Elangbam Shitaljit Singh	Veterinary Officer, Govt. of Manipur
26.	Dr C. Lalchhuanawma	Block Technology Manager, Agricultural Technology Management Agency, Mizoram
27.	Dr Angela L. Renthlei	State Co-ordinator, Agricultural Technology Management Agency, Mizoram
28.	Dr Kha Lovingson	Farm Manager, KVK, Tripura
29.	Dr Karuna Saikia	Assistant Professor, College of Vety. Sc, Assam Agriculture University, North Lakhimpur
30.	Dr Sharon Vikram Pratap Dewan	Mobile Veterinary Service, Kolkata
31.	Dr Chandra Debbarma	SRF, NICRA, ICAR, Lembucherra, Tripura.
32.	Dr Vanlalhmangaihsanga	JRF, CVSc & AH, Selesih, Aizawl, Mizoram
33.	Dr Malsawmkima Pachuau	Animal Husbandry Manager, IFAD, FOCUS, Mizoram
34.	Dr Bidyut Sarma	Veterinary Officer, Dudhdhara Dairy Co-operative, Bharuch, Gujarat

6.4.5 Conduct of practical and hands on training: The practical clas is of two hours duration for all the courses offered to students of PG & PhD programme. Students used to do the practicals by themselves under the supervision of the faculty/ course instructor. Students used to record their observations in practical manual.

6.4.6. Supervision of students in PG / PhD programme :

No students got admitted in PhD programme of the department.

Eligible criteria to become research guide, and maximum number of student/guide of Ph. D. Programme (CAU, Academic Regulations-2016, clause 2.12.2): All Professors are eligible to guide Ph. D. students. A teachers other than Professor must guided or guiding 2 (two) Master's students and has published four research papers in NAAS rated journals (other than his/her Master's or Ph. D. thesis) **OR** A teacher must have guided 3 (three) Master's students successfully as a Major Advisor.

Maximum number of student/guide (CAU, Academic Regulations-2016, clause 2.8.1. iii):: At any given time**, Professor, Associate Professor** and **Assistant Professor** shall not be a **Chairperson for more than Six, Five and Four P.G. students (Master's and Ph. D. Combined), respectively.**

6.4.7 Feedback of stakeholders: The college through a structured feedback mechanism (copy of feedback format attached as **Annexure -I**) from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are made by the Head of the departments and Dean of the college. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, availability chemical and reagents and research facilities. Feedback is also received from parents, other institutes, Concerned Directorate of State Government time to time.

6.4.8. Students intake and attrition in programme for last five years(PhD Programme)

	2016-17	2017-18	2018-19	2019-20	2020-21
Sanctioned seat	02	02	02	02	02
Actual admitted	-	-	-	-	-
Attrition %	NA	NA	NA	NA	NA

6.4.9 ICT application in Curricula delivery: Various ICT tools are being used for conducting Theory and practical classes. To explain different farm practicals, Video CD is also shown time to time. Excel sheets in computers are frequently used to teach least cost ration formulation, record keeping and farm economic evaluation practicals. Soft copies of different study materials are shared at regular intervals. All the faculties of the department are digitally literate to use ITC in teaching.

Signature of Dean of the College with Date and Seal

DEPARTMENT OF VETERINARY MICROBIOLOGY

6.4.1 **Brief History of degree programme**: Please mention the following

4) Year in which the degree programme was initiated: 2009-10
5) whether nomenclature, curricula or syllabus of the degree programme as per guidelines of ICAR, 2009: Yes
6) Accomplishments in brief.
   ix) MVSc students passed out since introduction of the programme: 18
   x) PhD students passed out since introduction of the programme: 04
   xi) Publications by students and faculty members of the department:
   - Research articles: 127
   - Review articles: 13
   - Popular articles: 05
   - Research reports: 13
   - Laboratory manuals: 04
   - Books and chapters: 04

   xii) Any other accomplishment which will justify the degree programme to be accredited by ICAR (Mostly academic and research related accomplishments):
   - Externally funded research projects concluded: 08
   - Externally funded research projects under progress: 01
   - Externally funded research projects approved: 02
   - Externally funded research projects under review: 02
   - University funded research projects concluded: 04
   - DBT funded Star College Scheme is in effect for BVSc&AH degree program.

6.4.3. Faculty strength of the department

Sl No	Faculty in position	Vacant position	Faculty recommended by VCI, 2016
19. Professor	01	00	1
20. Associate Professor	01	00	1
21. Assistant Professor	01	01	2

6.4.3.Technical and supporting staffs of the department

Sl No	Sanctioned	Vacant position	Staffs recommended by VCI, 2016
6. FCLA	01	00	
7. Farm Manager	00	00	
8. MTS	02	02	

6.4.4. Laboratories :

v) Mention the functional laboratories and justify if it is sufficient to meet the course curricula requirement.

- Undergraduate Laboratory
- Bacteriology & immunology Laboratory
- Virology including tissue/cell culture laboratory
- Molecular biology laboratory
- Transboundary animal diseases diagnosis laboratory
- Institutional biotech Hub laboratory for instrumentation facilities
- Washing and sterilization room
- Conference hall
- Office rooms for faculties
- Office room
- Students' sitting room

The entire office and laboratory space is optimum to conduct the teaching and research work for BVSc&Ah, MVSc (Microbiology) and PhD (Microbiology) courses.

w) List of major equipments, instructional units and facilities.

Major Equipments

- Biosafety cabinet Class II A2: 03
- Biosafety cabinet Class III: 01
- Work station Class II A2: 01
- Laminar Air Flow: 01
- -80C Deep freezer: 02
- -20C Deep freezer: 04
- Refrigerator: 08
- Refrigerated centrifuge: 04
- High speed centrifuge: 02
- Clinical centrifuge: 01
- Trinoculor microscope: 02
- Inverted microscope with fluorescence: 01
- Students microscope binocular: 02
- Students microscope: 10
- PCR machine: 03
- Real time PCR: 01
- Gel documentation system: 03
- Electrophoresis system: 03
- Lyophilizer: 01
- Phoenix automated bacterial identification system: 01
- Shaker incubator: 02
- BOD incubator: 02
- Universal incubator: 02
- Hot air oven: 02
- Autoclave: 03

- Hybridization oven: 01
- CO2 incubator: 02
- Egg incubator: 01
- Ultrasonicator: 01
- UV Visible multimode reader: 02
- Ice flaking machine: 01

Instructional Units

- Undergraduate Laboratory: to conduct the practical classes of BVSc&AH students
- Bacteriology & immunology Laboratory: To carry out the practical classes of MVSc & PhD students and conducting the research work of the post graduate students for bacteriology and immunology.
- Virology including tissue/cell culture laboratory: To carry out the practical classes of MVSc & PhD students and conducting the research work of the post graduate students for virology.
- Molecular biology laboratory: To carry out the practical classes of MVSc & PhD students and conducting the research work of the post graduate students for molecular biology and biotechnology.
- Transboundary animal diseases diagnosis laboratory: To conduct the research work of the post graduate students on transboundary animal diseases.
- Institutional biotech Hub laboratory for instrumentation facilities: To provide the basic instrumentation facilities to the UG and PG students for instruction, demonstration and research work.
- Washing and sterilization room: For washing the laboratory wares, sterilization, packaging and preparation of reagents, media etc.
- Conference hall: To conduct the meetings, seminars, theory classes of PG students.
- Office rooms for faculties: Separate office rooms for each faculty to carry out the official work.
- Office room: Departmental office work.
- Students' sitting and study room: Separate space for PG students for their study and leisure

Other facilities

- Incubation cum hatchery room: Facility for hatching the eggs
- Store room: To store the laboratory wares and other materials
- Laboratory animal room: To maintain the laboratory animals including mice, rat, rabbits etc. for experimental work.

6.4.5 Conduct of practical and hands on training: The practical clas is of two hours duration for all the courses offerered to students of PG & PhD programme. Students used to do the practicals by themselves under the supervision of the faculty/ course instructor. Students used to record their observations in practical manual.

6.4.6. Supervision of students in PG / PhD programme: Number of students being supervised by faculty in case of Masters/ PhD programme (as per ICAR guidelines)

Eligible criteria to become research guide, and maximum number of student/guide of Ph. D. Programme (CAU, Academic Regulations-2016, clause 2.12.2): All Professors are eligible to guide Ph. D. students. A teachers other than Professor must guided or guiding 2 (two) Master's students and has published four research papers in NAAS rated journals (other than his/her Master's or Ph. D. thesis) **OR** A teacher must have guided 3 (three) Master's students successfully as a Major Advisor.

Maximum number of student/guide (CAU, Academic Regulations-2016, clause 2.8.1. iii):: At any given time**, Professor, Associate Professor** and **Assistant Professor** shall not be a **Chairperson for more than Six, Five and Four P.G. students (Master's and Ph. D. Combined), respectively.**

Name of the faculty members	Designation	MVSc students guided	PhD students guided
Dr. T. K. Dutta	Professor & Head	Awarded: 09 On Roll: 03	Awarded: 04 On Roll: 01
Dr. P. Roychoudhury	Associate Professor	Awarded: 04 On Roll: 02	Nil
Dr. P. K. Subudhi	Assistant Professor (SS)	Awarded: 03 On Roll: 01	On Roll: 01

6.4.7 Feedback of stakeholders: The college through a structured feedback mechanism (copy of feedback format attached as **Annexure -I**) from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are made by the Head of the departments and Dean of the college. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, availability chemical and reagents and research facilities. Feedback is also received from parents, other institutes, Concerned Directorate of State Government time to time.

6.4.8. Students intake and attrition in programme for last five years (PhD Programme)

	2016-17	2017-18	2018-19	2019-20	2020-21
Sanctioned seat	3	3	3	3	3
Actual admitted	0	0	1	1	0
Attrition %	NA	NA	0	0	NA

6.4.9. **ICT application in Curricula delivery**:

The information and communication tools were used for all the courses judiciously for most effective way of communication as mentioned below-

- The PG students are being taught to explore the webs for visiting various websites to search the scientific publications, nucleic acid and protein sequence services.

- Exploration of e-books, e-journals and in-silico techniques for effective learning.
- Training on Bioinformatic tools including DNA STAR, NCBI-PubMed and analysis of DNA sequence data through online tools.
- Designing of primers using online tools.

Signature of Dean of the College with Date and Seal

DEPARTENT OF VETERINARY PATHOLOGY

6.4.1 Brief History of degree programme:

The department of veterinary pathology, CVSc & AH, CAU, Selesih, Aizawl, Mizoram started was initiated in 12th February 1999, with the joining of Dr. T. K. Rajkhowa, Assistant Professor as the first faculty in the Department. Since then, the Department has progressed to the level of accreditation for PhD programme by ICAR, GOI, from 2017 to 2021. Through different externally funded projects and with continuous support of the CAU, the department has improved the infrastructure and laboratory facilities for research to the level of cell culture work and molecular characterization of pathogens. Besides, the department is actively involved in providing diagnostic services to the farmers of NER, India. The department has in its credit of reporting first outbreak of PRRS, in India, in the year 2013. Recently, the department has also reported the first outbreak of ASF in pig population of Mizoram.

4) Year in which the degree programme was initiated : **1999**

5) Whether nomenclature, curricula or syllabus of the degree programme as per guidelines of ICAR, 2009 : **Yes**

6) Accomplishments in brief.

v) M.V.Sc. students passed out since introduction of the programme : **19**

vi) Ph.D. students passed out since introduction of the programme: **Nil (3 students in different academic year are pursuing PhD presently)**

vii) Publications:

Books	: **9**	Book chapters	: **7**
Research articles	: **100**	Popular articles	: **2**

viii) Any other accomplishment which will justify the degree programme to be accreditated by ICAR (Mostly academic and research related accomplishments)

i) Completed five externally funded research projects.

j) Presently running **R&D project funded by National Agricultural Science Fund (NASF)**, ICAR with budget allotment of Rs. 201 lakhs for three years.

k) **Reported first outbreak of Porcine reproductive and respiratory syndrome (PRRS) outbreak in India**.

l) Reported **PCV2g genotype for the first time in India**.

m) Reported prevalence of **very virulent Infectious bursal disease** for the first time in NER, India.

n) **Reported first outbreak of African swine fever (ASF) in pig population of Mizoram** in the year Aril 2021.

o) A total of 19 students have completed their M. V. Sc. Degree in veterinary pathology from the department.

p) Presently three students are pursuing their PhD in the department. All the students joined the department through ICAR counselling.

6.4.2 Faculty strength of the department

Sl. No.	Faculty in position	Vacant position	Faculty recommended by VCI, 2016
1. Professor	1	-	1
2. Associate Professor		1	2
3. Assistant Professor	3	1 (on lien for one	3

		year and joined GADVASU)	

6.4.3.Technical and supporting staffs of the department

Sl. No.	Staff in position	Vacant position	Staffs recommended by VCI, 2016
8. FCLA (Lab. Technician / Specimen Curator)	2	-	2
9. Lab. Assistant / Attendant	1	-	2
10. Post Mortem/Animal attendant	-	-	2
11. Sweeper-cum-attendant	-	-	1

6.4. 4. Laboratories :

x) Mention the functional laboratories and justify if it is sufficient to meet the course curricula requirement.

Sl. No.	Name of laboratory	Justifications
1	UG Laboratory	All requirements are provided
2	PG Laboratory	-do-
3	Molecular Biology Laboratory	-do-
4	Cell culture laboratory	-do-

y) List of major equipment, instructional units and facilities.

Sl. No.	Name of the Equipment
1	Real time PCR machine (Qiagen) - 1
2	Thermal cycler (Eppendorf) – 2
3	Bio safety level 2 cabin – 4
4	CO2 incubator – 2
5	Deep Freeze -80ºC – 2
6	Deep Freeze -45ºC – 2
7	Lyophilizer – 1
8	Shaker incubator -1
9	Ice flaker – 1
10	Monopan balance -1
11	Gel electrophoresis system – 3 sets
12	Cooling centrifuge machine – 2
13	Digital water bath – 1
14	Gel documentation system – 1
15	Bio photometer (Eppendorf)
16	Trinocular research microtome - 1
17	Inverted research microscope -1
18	Cryostate – 1
19	Binocular Microscope
20	Semi-automatic Microtome
21	Serological water bath
22	Spectrophotometer (Jenway)
23	Phase Contrast Microscope with Camera

24	Colour Imaging (CCTV) System
25	Unit for histopathological work
26	Post mortem unit for large , small & poultry.

6.4.5 Conduct of practical and hands on training:

The practical class is of two hours duration for all the courses offered to students of PG & PhD programme. Different practical are first demonstrated in the laboratory by trained laboratory assistant and also by the SRF/ RA working in different externally funded projects in the department. Later, students are allowed to conduct the practical's by themselves under the supervision of the faculty/ course instructor/ RA/ SRF/ FCLA. Students used to record their observations in practical manual.

6.4.6. Supervision of students in PG / PhD programme : Number of students being supervised by faculty in case of Masters/ PhD programme (as per ICAR guidelines)

Eligible criteria to become research guide, and maximum number of student/guide of Ph. D. Programme (CAU, Academic Regulations-2016, clause 2.12.2): All Professors are eligible to guide Ph. D. students. A teachers other than Professor must guided or guiding 2 (two) Master's students and has published four research papers in NAAS rated journals (other than his/her Master's or Ph. D. thesis) **OR** A teacher must have guided 3 (three) Master's students successfully as a Major Advisor.

Maximum number of student/guide (CAU, Academic Regulations-2016, clause 2.8.1. iii):: At any given time**, Professor, Associate Professor** and **Assistant Professor** shall not be a **Chairperson for more than Six, Five and Four P.G. students (Master's and Ph. D. Combined), respectively.**

Sl. No.	Name of faculty & designation	No. of M.V.Sc. students guided	No. of Ph.D. students guided
1	Dr. T.K. Rajkhowa Professor & Head	8	3 Pursuing
2	Dr. Y. Damodar Singh Assistant Professor (SG)	5	Nil
3	Dr. Ravindran R. Assistant Professor (SS)	5	Nil
4	Dr. Rahul Singh Arya Assistant Professor	1	Nil

6.4.7 Feedback of stakeholders: The college through a structured feedback mechanism (copy of feedback format attached as **Annexure -I**) from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are made by the Head of the departments and Dean of the college. This feedback is used to improve the

curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, availability chemical and reagents and research facilities. Feedback is also received from parents, other institutes, Concerned Directorate of State Government time to time.

6.4.8 .Students intake and attrition in programme for last five years (Programme wise)

	2016-17	2017-18	2018-19	2019-20	2020-21
Sanctioned seat	2	2	2	2	2
Actual admitted	Nil	nil	1	1	1
Attrition %	NA	NA	0	0	0

6.4.9. ICT application in Curricula delivery: Various ICT tools are being used for conducting Theory and practical classes of BVSc, MVSc & PhD programme. All the faculties of the department are digitally literate.

Signature of Dean of the College with Date and Seal

DEPARTMENT OF VETERINARY MEDICINE

6.4.1 **Brief History of the Department**:

6.4.1 Brief History of degree programme: Please mention the following

7) Year in which the degree programme was initiated: 2009-10

8) whether nomenclature, curricula or syllabus of the degree programme as per guidelines of ICAR, 2009: Yes

9) Accomplishments in brief.

xiii) MVSc students passed out since introduction of the programme: 21

xiv) PhD students passed out since introduction of the programme: 01

xv) Publications by students and faculty members of the department:

- Research articles: 18
- Review articles: 00
- Popular articles: 10
- Research reports: 11
- Laboratory manuals: 06
- Books and chapters: 06

xvi) Any other accomplishment which will justify the degree programme to be accredited by ICAR (Mostly academic and research related accomplishments):

- Externally funded research projects concluded: 03
- Externally funded research projects under progress: 04
- Externally funded research projects approved: 00
- Externally funded research projects under review: 01
- University funded research projects concluded: 08
- DBT funded Star College Scheme is in effect for BVSc & AH degree program.

6.4.2 **Staff Strength**:

Sl No	Faculty i position	Vacant position	Faculty recommended by VCI, 2016
Professor	01	00	
Associate Professor	01	00	
Assistant Professor	03	00	

6.4.3

Sl No	Sanctioned	Vacant position	Staffs recommended by VCI, 2016
9. FCLA	01	00	
10. MTS	02	00	

6.4.4 Laboratories

Infrastructure availabilities:

1) Name of Laboratory	1) Undergraduate Laboratory : 01 No 2) Postgraduate Laboratory : 02 Nos
2) Equipments	1) Laminar Flow – 02 Nos. 2) Refrigerator – 03 nos. 3) Vestfrost – 02 Nos.

		4) AAS (Atomic Absorption Spectrophotometer with accessories 5) Blood Analyzer (Model Ruby Plus) 6) Vertical Autoclave (Hospital Model) 7) BOD Incubator Sanco Make 8) Elisa Reader (Bio Rad 680) 9) Hot Air Oven 10) Vortex 11) Magnetic Stirrer 12) Centrifuge 13) Electronic Balance 14) Vacuum Evaporator 15) Soxhlet Extractor 16) Refrigerated Centrifuge 17) Biochemistry Analyser 18) Laboratory Centrifuge 19) Homocytometer 20)Trinocular Fluorescent Microscope 21) Computer Sets : 05 Nos.

6.4.8. Conduct of practical and hands on training: The practical class is of two hours duration for all the courses offered to students of PG & PhD programme. Students used to do the practical's by themselves under the supervision of the faculty/ course instructor. Students used to record their observations in practical manual.

6.4.9. Supervision of students in PG / PhD programme: Number of students being supervised by faculty in case of Masters/ PhD programme (as per ICAR guidelines)

Eligible criteria to become research guide, and maximum number of student/guide of Ph. D. Programme (CAU, Academic Regulations-2016, clause 2.12.2): All Professors are eligible to guide Ph. D. students. A teachers other than Professor must guided or guiding 2 (two) Master's students and has published four research papers in NAAS rated journals (other than his/her Master's or Ph. D. thesis) **OR** A teacher must have guided 3 (three) Master's students successfully as a Major Advisor.

Maximum number of student/guide (CAU, Academic Regulations-2016, clause 2.8.1. iii):: At any given time**, Professor, Associate Professor** and **Assistant Professor** shall not be a **Chairperson for more than Six, Five and Four P.G. students (Master's and Ph. D. Combined), respectively.**

Name of the faculty	Number of students supervised as major Advisor MVSc	Number of students supervised as major Advisor PhD
Dr. Hridayesh Prasad	Awarded: 9 On Roll:	Awarded: 1 On Roll: 2
Dr. Gunjan Das	Awarded: 6 On Roll:	0
Dr. Kalyan Sarma	Awarded: 7 On Roll: 2	Awarded: 0 On Roll: 2

Dr. S. K. Behera	Awarded: 1 On Roll: 1	0
Dr. J. B. Rajesh	Awarded: 0 On Roll: 3	0

6.4.10. Feedback of stakeholders: The college through a structured feedback mechanism (copy of feedback format attached as **Annexure -I**) from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are made by the Head of the departments and Dean of the college. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, availability chemical and reagents and research facilities. Feedback is also received from parents, other institutes, Concerned Directorate of State Government time to time.

6.4.9. Students intake and attrition in programme for last five years(PhD Programme)

	2016-17	2017-18	2018-19	2019-20	2020-21
Sanctioned seat	02	02	02	02	02
Actual admitted	01	0	0	01	02
Attrition %	0	NA	NA	0	0

6.4.9. ICT application in Curricula delivery: Various ICT tools are being used for conducting Theory and practical classes of BVSc, MVSc & PhD programme. All the faculties of the department are digitally literate. LCD projectors are used for teaching in the classroom. The students are provided with reading material as softcopy. PPT presentations were also shared to the students through their email.

Signature of Dean of the College with Date and Seal

DEPARTMENT OF VETERINARY PARASITOLOGY

6.4.1. Brief History of the Departments:

The Department of Veterinary Parasitology, College of Veterinary Sciences and Animal Husbandry, Selesih, has been functioning since 1998 for under graduate studies. The department has been offering Veterinary Parasitology courses strictly as per VCI guidelines for UG programme. Further, the department has been offering minor and supporting courses for MVSc programme since 2008-2009. Subsequently, PG courses leading to MVSc degree programme in Veterinary Parasitology has been approved by the competent authority of CAU, Imphal. This was notified vide Memo No. CAU.Rag/550/ATR/04(Vol-I)/2796 dated 9th December, 2013 to start the MVSc degree programme from the academic year 2014-15 with three seats including ICAR nominee.

Major Achievements

5. Year of introduction of M.V.Sc. / Ph.D Programme: MVSc degree was introduced in the year, 2014-2015.
6. PhD degree courses programme has been approved from the academic session 2020-21
7. Number of MVSc. and Ph.D students passed out: Till date, 3 scholars have obtained MVSc degree in Veterinary Parasitology.
8. Number of MVSc. And Ph.D students on roll : 0ne (1) MVSc scholar on roll.

Till date, three (3) PG scholars have obtained MVSc degree from this department including 1 deputed Veterinary Officer from Government of Manipur. At present, one (1) PG scholar is undergoing MVSc degree programme in this department.

The department of Veterinary Parasitology, College of Veterinary Sciences and Animal Husbandry, CAU, Selesih is well equipped with spacious UG and PG laboratories having modern instrumentation including studies on molecular technologies.

PI/Co-PI/Other	Title	Year of sanction	Amount	Funding Agency	Status of the Project
PI	Molecular and sero diagnosis of surra in Livestock in North Eastern States of India.	2017 Vide Sanction No. T/PR16895/NER/95/342/2015 Dated 12/01/2017	57.22 Lakh	DBT	Completed
Co-PI	NER Centre for Advanced Animal Disease Diagnosis and Management Consortium	2014 Vide Sanction No DBT-NER/LIVS/11/2012	215 Lakh	DBT	Completed

Research Project:

Externally Funded Projects

Inter-Institutional Projects

PI/Co-PI/Other	Title	Institution	Year of Sanction	Duration	Amount	Funding Agency	Status of the Project
PI	Surveillance of helminthic fauna and helminth related disease in cattle and pig in Aizawl district of Mizoram	CVSc&AH,Selesih,Aizawl	2003-04	01 year	Rs.33,619/-	CAU	Completed
Co-PI	Arthropods of Veterinary importance and arthropod borne protozoan diseases in Aizawl District of Mizoram.	CVSc&AH,Selesih,Aizawl	2003-04	01 year	Rs.29,675/-	CAU	Completed
Co-PI	Seroprevalence and therapeutic management of sarcoptic infestation of Pig in Aizawl District of Mizoram and its effect on pathological, haemato-biochemical and oxidative stress	CVSc&AH,Selesih,Aizawl	2013-14	01 year	Rs. 1,47,000/-	CAU	Completed
PI	"Molecular detection of haemoparasites of canine in Aizawl, Mizoram".	CVSc& AH, Selesih, Aizawl	2015-16	01 year	Rs. 1.5 Lakh	CAU	Completed
PI	Assessment of zoonotic helminth contamination	CVSc& AH, Selesih, Aizawl	2015-16	01 year	Rs. 1.5 Lakh	CAU	Completed

	of environment in Aizawl, Mizoram".						

Research topic completed under MVSc programme:

1. Surveillance of parasitic fauna and parasitic diseases of pigs in Mizoram.
2. Parasitic fauna and diseases in manipuri ponies with special reference to cutaneous habronemiosis.
3. Studies on ticks and tick-borne haemoprotozoa of cattle in Aizawl and Kolasib Districts of Mizoram.

Research Publication:

c. Out of MVSc thesis: 04 nos (Three National and one international publication)
d. Departmental publication: About 50 nos.

Placement of passed out PG and Ph. D students:

Sl. No	Name	Year of Passing	Placement
1.	Dr. Freedy H Siamthara	2017	Private Veterinary Practitioner / establishing self Veterinary Clinic
2.	Dr. Chirom Nishita Devi	2017	Veterinary Officer in State Disease Diagnostic Laboratory, Gov't of Manipur.
3.	Dr. Subhamoy Ghosh	2018	Veterinary Officer in Animal Resources Development Departmet, Gov't of West Bengal.

6.4.2. **Faculty strength of the department:**

At present the department of Veterinary Parasitology, College of Veterinary Sciences and Animal Husbandry, CAU, Selesih is running with the following teaching staffs with Ph.D

S No	Sanctioned Faculty	Current Position	Faculty recommended by VCI, 2016*	Vacant position
Professor	01	01 Having more than 19 years of teaching experiences.	01	Nil
Associate Professor	01	Nil	01	01
Assistant Professor	02	**02** One is having more than 19 years of teaching experiences & Another is having more than 03 years of	02	Nil

		teaching experiences		

* Faculty recommended mentioned here is as per MSVE-2016(BVSc & AH Degree Courses) published in the Gazette Notification Part-III, section IV page No. 147

6.4.3. Technical and supporting staffs of the department

S No	Present position	Vacant position	Staffs recommended by VCI, 2016
FCLA	01	-	Not specified
MTS	01	-	Not specified

6.4.4. Infrastructure availabilities:

3) Name of the Laboratory:
   a. Undergraduate Laboratory : 1
   b. Postgraduate Laboratory : 1
   c. Molecular Parasitology Laboratory : 1
4) Equipments
   a. Refrigerated Centrifuge Machine
   b. Gradient Thermal Cycler
   c. Gel Documentation system
   d. Submarine electrophoresis system with power pack
   e. Microscope with photographic facility
   f. Online UPS (5 KV)
   g. Stereozoom microscope
   h. Compound Microscope
   i. Freeze (-80 and -20◦C)
   j. BOD incubator
   k. Electronic Balance
   l. Refrigerator

6.4.5. Conduct of practical and hands on training: The practical class is of two hours duration for all the courses offered to students of PG & PhD programme. Students used to do the practicals by themselves under the supervision of the faculty/ course instructor. Students used to record their observations in practical manual.

6.4.6. Supervision of students in PG / PhD programme : Number of students being supervised by faculty in case of Masters/ PhD programme(as per ICAR guidelines)

This is presently being followed as per guidelines of CAU's Academics Regulations-2016 for Master and Ph.D. Degree Programmes vide clause No. 2.8.1(at any given time, Professor, Associate Professor and Assistant Professor shall not be a chairperson for more than 6, 5 and 4 P.G. students(Masters and PhD combined) and 2.12.2: Guidance of PG Research

Name of the faculty	Programme	Number of students supervised as major Advisor	Number of students being supervised as major advisor/chairperson	Eligible Criteria to become research guide
Dr Sonjoy Kumar Borthakur, PhD Professor & HoD	MVSc	02	01	Professor
Dr Gautam Patra, PhD Assistant Professor(SG)	MVSc	01	01	Assistant Professor with PhD and published more than two (02) research papers other than his Master's and PhD thesis.
Dr H Lalrinkima, PhD Assistant Professor	MVSc	-	01	Assistant Professor with PhD and published more than two (02) research papers other than his Master's and PhD thesis.

6.4.7. Feedback of stakeholders: The college through a structured feedback mechanism (copy of feedback format attached as **Annexure -I**) from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are made by the Head of the departments and Dean of the college. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, availability chemical and reagents and research facilities. Feedback is also received from parents, other institutes, Concerned Directorate of State Government time to time.

6.4.8. Students intake and attrition in programme for last five years(Programme wise)

PhD programme

	2016-17	2017-18	2018-19	2019-20	2020-21
Sanctioned seat	Not Introduced				02
Actual admitted	NA	NA	NA	NA	Nil
Attrition %	NA	NA	NA	NA	NA

6.4.9. ICT application in Curricula delivery: Various ICT tools are being used for conducting Theory and practical classes of BVSc , MVSc. All the faculties of the department are digitally literate.

Signature of Dean of the College with Date and Seal

DEPARTMENT OF ANIMAL REPRODUCTION, GYNAECOLOGY AND OBSTETRICS

6.4.1. Brief History of degree programme:

The Department of Animal Reproduction, Gynaecology & Obstetrics has been offering Courses of B.V.Sc. & A.H. degree programme since the inception i.e 1997-98. M.V.Sc. degree programme was introduced in the year 2011 and thereafter Ph.D programme in 2014-15. The nomenclature of the degree programme and syllabi of M.V.Sc. & Ph.D. programme has been adopted as per ICAR Revised Postgraduate Course Curricula-2009. The Department is well equipped with some state of the art facilities viz. Computer Assisted Sperm Analyser, Laparoscope, Trinocular Research Microscope, Cryocans, Phantom Box, Draminisky Pregnancy and Heat Detector, Doppler Ultrasound Machine, Colour Doppler USG etc. The faculty of this department have completed 4 Intra Mural Research Project (IRP) funded by CAU Imphal as PI.

d) List of the MVSc & PhD students passed out

Sl. No.	Name & Regd. No. of the students	Topics of the thesis with year of submission	Major Advisor	Year of completion
	MVSc Programme:			
1.	**Dr. Peter Malsawmtluanga** 2011-V-15(M)	"Periparturient behavioural, physical and haemato-biochemical characteristics in female Mithun (*Bos frontalis)* of Mizoram" (2013).	Dr. F.A. Ahmed	2013
2.	**Dr. Amy Zorinkimi** 2011-V-14(M)	"Characteristics and preservation on Mongrel Dog Semen in Mizoram" (2014).	Dr. F.A. Ahmed	2014
3.	**Dr. Lalhruaitlunga** 2011-V-13(M)	"Characteristics and preservation of semen of Mizo local pig *(Zovawk)* in liquid state"	Dr. K. Lalrintluanga	2014
4.	**Dr. Anup Kumar Das** 2012-V-13(M)	"Semen cryopreservation of indigenous pig *(Zovawk)* of Mizoram "	Dr. K. Lalrintluanga	2014
5.	**Dr. Vanlalhriatpuia** 2013-V- 05 (M)	"Effect of Antibiotic and Prostaglandin on Involution of Uterus in Crossbred Dairy Cows"	Dr. F.A. Ahmed	2016
6	**Dr. Nekibuddin Ahmed** 2013-V-06 (M)	"Effect of Ovsynch and Ovsynch based GnRH treatments on conception rate in repeat breeding crossbred cows"	Dr. D. Kathiresan (Dean)	2015
7	**Dr. Aniyang Lego** 2014-V-13 (M)	"Induction of oestrus and its effect on conception in acyclic female yaks (*Poephagus grunniens L.*)"	Dr. K. Lalrintluanga	2016
8	**Dr. K. Lalchhanhima** 2015-V-07 (M)	"Effect of Semen Packaging Materials and A.I. Catheters on Fertility of Sows"	Dr. K. Lalrintluanga	2017
9	**Dr. M.S. Dawngliana**	"Effect of melatonin on quality of	Dr. F.A.	2017

	2015-V-06 (M)	boar semen during liquid preservation"	Ahmed	
10	**Dr. Moon Moon Haji** 2015-V-07 (M)	"Application of colour Doppler ultrasonography for diagnosis of pregnancy in bitch (*canis familiaris*)"	Dr. F.A. Ahmed	2017
11	**Dr. Dhrubajyoti Borpujari** 2016-V-06 (M)	"Assessment of Postpartum Health Status for Cyclicity and effect of Ovsynch and G6G Protocol on conception rate in Crossbred Anestrus Cow"	Dr. F.A. Ahmed	2018
12	**Dr. John Rozarliana** 2016-V-07 (M)	"Effect of Amides on Cryopreservation of Boar Semen".	Dr. K. Lalrintluanga	2018
13	**Dr. Ng. Saratchandra** 2016-V-08 (M)	"Application of B-mode and colour Doppler ultrasonography in early pregnancy detection in doe (*capra hircus)*"	Dr. K. Lalrintluanga	2019
14	**Dr. N. Linda** 2017-V- 23 (M)	"Study on Certain Aspects of Reproduction in female Manipuri ponies (*Equus ferus caballus)"*	Dr. F.A. Ahmed	2019
15	**Dr. Gisha Tresa Binny** 2017-V- 38 (M)	"An Approach to Predict the Date of Parturition in Canine"	Dr. F.A. Ahmed	2019
16	Dr. Sushmita Das 2018-V- 25 (M)	Studies of Reproductive Parameters in Local Female Cattle of Mizoram (Zobawng)	Dr. F.A. Ahmed	
17	Dr. Ashiho Kayina 2018-V- 26 (M)	Studies on sexual behaviour and semen characteristics of indigenous cattle of Mizoram.	Dr. K. Lalrintluanga	
18	Dr. Utpal Boro 2018-V- 27 (M)	Assessment of suitable protocols for fixed time A.I. *vis-à-vis* early pregnancy diagnosis on crossbred cattle.	Dr. D. Talukdar	
19	Dr. Dhanu Kumar Murasing 2018-V- 28 (M)	Studies on albumin separation of sperm to improve the quality of cross-bred boar semen	Dr. K. Lalrintluanga	
20	Dr. Saddamhusen M.N. 2018-V- 40 (M)	Studies on characteristics and freezability of mithun semen collected through electro-ejaculator.	Dr. F.A. Ahmed	
		Ph.D. Programme:		
1	**Dr. Tukheswar Chutia** 2015-V-02 (D)	"Reproductive performance of weaned sows after fixed time artificial insemination"	Dr. F.A. Ahmed	2018

e) List of students presently pursuing MVSc programme

10. Dr. Ningthoukhongjam Linda- 2019-V-02 (D)
11. Dr. Value Debbarma- 2020-V- 05(D)
12. Dr. Roland R. Songate - 2019-V- 25 (M)
13. Dr. Athokpam Donin Luwang - 2019-V- 27 (M)
14. Dr. Bhagiratha D. Sharma - 2019-V- 28 (M)
15. Dr. Anurag Garg- 2019-V- 48 (M)
16. Dr. Dipan Rudra Paul- 2020-V- 33(M)
17. Dr. Esther Vanlalchhanchhuahi- 2020-V- 35(M)
18. Dr. Atokali Sumi- 2020-V- 36(M)

f) <u>Publication: Out of MVSc & PhD research works</u>

xxi. Amy Zorinkimi, F.A. Ahmed, K. Lalrintluanga and Neithono Kuotsu (2017) Characterization of Mongrel Dog Semen of Mizoram . *Int.J.Curr.Microbiol.App.Sci* (2017) *6*(12): 1140-1145

xxii. T. Chutia , K. Lalrintluanga, F.A. Ahmed And A. Lego(2017).Use Of 'Wooden Dummy Sow' For Training Of Boar For Semen Collection And The Semen Quality Of Trained Boar *Indian Journal of Animal Reproduction* **38** (2): 6-8

xxiii. Amy Zorinkimi, F.A. Ahmed and K. Lalrintluanga (2017). Effect of Different Extenders on the Quality of Mongrel Dog Semen Preserved at 5°C on the Basis of Hypo-Osmotic Sperm Swelling Test (HOSST) . *Int.J.Curr.Microbiol.App.Sci* (2017) ***6***(12): 961-964

xxiv. T. Chutia, D. J. Talukdar, B. Konwar, F. A. Ahmed, K. Lalrintluanga and G. Das (2016). Management of Incomplete Uterine Inertia in a Labrador Bitch - A Case Report. *International Journal of Livestock Research* 6(**9**): 28-31.

xxv. Ahmed N, Kathiresan D, Ahmed FA, Lalrintluanga K, Mayengbam P, Gali JM (2016) Pattern of induced estrus and conception rate following Ovsynch and Ovsynch based gonadotropin-releasing hormone treatments initiated on day 6 of estrous cycle in repeat breeding crossbred cows, *Veterinary World,* **9**(4): 342-345

xxvi. Nekibuddin Ahmed, Vanlalhriatpuia, F. A. Ahmed, K. Lalrintluanga (2016). "Therapeutic Management of Postpartum Uterine Prolapse in a Crossbred Holstein Friesian Cow". *The North East Veterinarian*

xxvii. Das, A.K., Ahmed, N., Lalrintluanga,K. and Deuri, D. (2016). Effect of different extenders on quality of frozen smen of Mizo local Boar (Zovawk). *International Journal of Agricultural Science and Research (IJASR)* **6**(3):65-70.

xxviii. Dhrubajyoti Borpujari, Fazal Ali Ahmed**,** K. Lalrintluanga, M. Ayub Ali, Dibyajyoti Talukdar and Gunjan Das.(2018). Body Condition Score with Relation to Various Physiological Blood Parameters for Postpartum Cyclicity of Crossbred Cows. *Theriogenology Insight*: **8** (2): 63-67

xxix. Moon Moon Haji, F. A. Ahmed, K. Lalrintluanga, D. J. Talukdar, P. J. Doley, S. K.Behera and K. Sarma. (2018). The Role of Estrogen and Progesterone Hormone on Vaginal Cytology in Bitch. *International Journal of Livestock Research,* **8**(9), 241-247.

xxx. T. Chutia, D. J. Talukdar, B. Konwar, F. A. Ahmed, K. Lalrintluanga and G. Das (2016). Management of Incomplete Uterine Inertia in a Labrador Bitch - A Case Report. *International Journal of Livestock Research* 6(**9**): 28-31.

xxxi. Nekibuddin Ahmed, K Lalrintluanga, Vanlalhriatpuia, F A Ahmed[3] (2016). "A Rare Case of Unilateral Uterine Horn Prolapse with Retained Fetus in a Bitch " *The North East Veterinarian.*

xxxii. Chutia, T., Ghorai, S., Sarma,K., Das, G., Behera,S.K., Konwar, B., Ahmed F.A., and Lalrintluanga,K.(2016).Therapeutic management of Ascites in a Bitch-Case Report *International Journal of Livestock Research* 6(**12**): 71-73

xxxiii. Ahmed, N., Bayan,H., Vanlalhriatpuia, Ahmed F.A., and Lalrintluanga, K. (2017). Surgical management of Dystocia in a Pug Bitch. *The North East Veterinarian* **XVI**(4): 33-34.

xxxiv. Tukheswar Chutia, FazalAli Ahmed, Khawlhring Lalrintluanga, Girin Kalita, Jagan MohanaRao Gali, Parimal Roy Choudhury, Prava Mayengbam and Jitendra Kumar Choudhury (2019). Training and Libido assessment in boar during semen collection. *Haryana Vet* (April 2019) **58**:50-52.

xxxv. Tukheswar Chutia, Fazal Ali Ahmed, Khawlhring Lalrintluanga, Girin Kalita, Jagan MohanaRao Gali, Parimal Roy Choudhury, Prava Mayengbam and Jitendra Kumar Choudhury (2019).Comparative analysis of seminal characters of exotic and crossbred boar. *Haryana Vet* (April 2019) **58**:53-55.

xxxvi. Dhrubajyoti Borpujary, Abhijit Deka, Fazal Ali Ahmed, K.Lalrintluanga and Rahul Singh Arya (2019). Caesarean section in a bitch to relieve of dystocia due to deformity in the vertebral column (Foetal monstar). Int. J. Chem. Stud. 7(2):1538-1540

xxxvii. Linda, N., Ahmed, F. A., Lalrintluanga, K., Ali, M. A., Kalita, G., Singh, R., Tolenkhomba, T. C. and Talukdar, D. J. (2019). Physical and palpable changes of female genitalia during normal oestrous cycle of Manipuri ponies (Equus ferus caballus). Journal of Entomology and Zoology Studies, 7 (5): 76-77

xxxviii. Borpujari D, K Sarma, FA Ahmed, K Lalrintluanga (2019). Effects of clinical mastitis on reproductive performance in crossbred cows during transitional period. Journal of Entomology and Zoology Studies; 7(1): 580-582

xxxix. Borpujari D, FA Ahmed, K Lalrintluanga, MA Ali, D Talukdar, G Das (2019). Blood metabolite concentrations and body condition score in relation to postpartum resumption of ovarian cyclicity in crossbred cows. Indian Journal of Animal Sciences 89 (7), 37-41

xl. Dhrubajyoti Borpujari, **Fazal Ali Ahmed**, K. Lalrintluanga, M. Ayub Ali, Dibyajyoti Talukdar and Gunjan Das. (2018). Body condition score with relation to various physiological blood parameters for post partum cyclicity of crossbred cows. Theriogenolohy Insight, 8 (2) 63-67

d) Acheivement of Passed out PG & PhD students:

State Civil Service	=1
Faculty	=3
Scientist (KVK)	=1
Pursuing Higher Studies	=4
VO	=2
Private Clinics	=8

e) Research Projects by the faculties (completed) :

5. "Studies on characteristics and preservation of semen of local Mizo pig (Zovawk)"
6. Studies on success of A.I. in Pigs in field condition of Mizoram.
7. Studies on successof A.I. in cattle in field condition of Mizoram.
8. Pregnancy diagnosis in pigs with available techniques.

6.4.2. Faculty strength of the department

S No	Faculty in position	Vacant position	Faculty recommended by VCI, 2016
22. Professor	02	Nil	01
23. Associate Professor	-	01	01
24. Assistant Professor	01	Nil	03

6.4.3. Technical and supporting staffs of the department

S No	Staff in position	Vacant position	Staffs recommended by VCI, 2016
15. FCLA	01	nil	
16. MTS	01	nil	

6.4.4. Laboratories:

Name of the functional laboratories and major equipments

iii) Under graduate laboratory

16. Electrical Sterilizer
17. Cold Handling cabinet
18. Triple glass distillation set
19. Heat detector
20. Water bath
21. Hot air oven
22. Obstetrical instruments
23. Gynaecological instrument
24. Surgical instruments
25. AI equipments
26. Compound microscope
27. Cryocans
28. Electronic weighing balance
29. Ph meter
30. Autoclaves etc.

iv) Post Graduate laboratory

9. Trinocular Phase contrast Microscope
10. CASA
11. BOD incubator
12. Laparoscope
13. Stereozoom Microscope
14. Doppler ultrasound
15. Electric ejaculator
16. Pregnancy detector

6.4.5 Conduct of practical and hands on training: The practical class is of two hours duration for all the courses offered to students of PG & PhD programme. Students used to do the practical's by themselves under the supervision of the faculty/ course instructor. Students used to record their observations in practical manual.

6.4.6. Supervision of students in PG / PhD programme: Number of students being supervised by faculty in case of Masters/ PhD programme(as per ICAR guidelines)

Recognition for guiding of students (PhD research) as per clause no. 2.12.2 of CAU Academic regulations-2016 for Master and PhD degree programmes

Ph. D. Programme :

a. All Professors are eligible to guide Ph. D. students. A teachers other than Professor must guided or guiding 2 (two) Master's students and has published four research papers in NAAS rated journals (other than his/her Master's or Ph. D. thesis) **OR** A teacher must have guided 3 (three) Master's students successfully as a Major Advisor.

Maximum number of students to be guided by faculty

As per clause no. 2.8.1(iii) of CAU Academic regulations-2016 for Master and PhD degree programmes, at any given time, Professor, Associate Professor and Assistant Professor shall not be a chairperson for more than 6,5 and 4 PG students(Master's and PhD combined) respectively

Name of the faculty	Programme	Nos. of students supervised as Major Advisor	No. of students being supervised
Dr. F.A. Ahmed, Professor & HOD	MVSc	10	03
	PhD	01	01
Dr. K. Lalrintluanga Professor	MVSc	08	02
	PhD	Nil	01
Dr. D. Talukdar Assistant Professor	MVSc	01	02
	PhD	Nil	Nil

6.4.7 Feedback of stakeholders: The college through a structured feedback mechanism (copy of feedback format attached as **Annexure -I**) from passed out students ensures quality teaching learning process and research work in the area of Veterinary and Animal sciences. The distribution, collection and analysis of filled feedback form passed out UG, PG & PhD students are done through online / offline mode. Students provide their feedback on Course curriculum, academic regulation, examination system, research facilities, quality of teaching and availability of infrastructures in the college by filling up a prescribed format Feedbacks are taken into consideration with utmost sincerity and corrective measures / improvements are made by the Head of the departments and Dean of the college. This feedback is used to improve the curriculum delivery, course evaluation process, development of infrastructure in the different laboratories and sections of the department, availability chemical and reagents and research facilities. Feedback is also received from parents, other institutes, Concerned Directorate of State Government time to time.

6.4.8. Students intake and attrition in programme for last five years (PhD Programme)

	2016-17	2017-18	2018-19	2019-20	2020-21
Sanctioned seat	01	01	01	01	01
Actual admitted	01	0	0	01	01
Attrition %	100	NA	NA	0	0

6.4.9. ICT application in Curricula delivery: Various ICT tools are being utilised for conducting online classes for UG, PG and Ph.D. students. All the faculties of the Department are having sufficient ICT knowledge for application in curricula delivery.

Signature of Dean of the College with Date and Seal

Annexure-I

FEEDBACK FORMAT

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department :
Name of the Student :
Registration No. :
Degree Programme :

XI. Students' feed back on Course Curriculum, academic regulation, research facilities

Particulars		Satisfactory (1)	Good (2)	Very Good (3)	Excellent (4)
1	CAU academic regulation for PG and PhD programme,2008 & 2016				
2	Lecture schedules as per the ICAR revised syllabus.				
3	Allocation of hours and credits to the courses (Theory & Practical)				
4	Laboratory experiments for courses				
5	Course evaluation and assessment				
6	Research facilities in the department				

XII. Students' feedback on faculty of the department

Particulars		Satisfactory (1)	Good (2)	Very Good (3)	Excellent (4)
1	Subject command of the faculty				
2	Quality of teaching				
3	Use of innovative teaching aids & resources				
4	Coverage of syllabus				
5	Transparency and impartial in evaluation				

XIII. Students' feedback on Infrastructures

Particulars			Satisfactory (1)	Good (2)	Very Good (3)	Excellent (4)
1	Curricular based	) Classroom				
		i) Laboratory				
		ii) Internet facility				
		v) ICT enabled classroom				
		) CIF facility				
2	Co curricular based	) E-learning centers				
		) Seminar hall				
		Technical hub				
3	Extra Curricular based	x) Sports				
		xi) Gym				
		xii) NSS/NCC				
		xiii) Cultural Club				
4	General	) Stationery Stores				
		i) Medical Centre				
		ii) Guest House				
		v) Auditorium				
		) Canteen				
		xiv) Bank with ATM facility				
		xv) Hostel facilities				
		Campus environment				

Suggestions for improvement (If any):

Signature :

Name :

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM 796015

Department : Animal Nutrition

Name of the Student : Dr Saranne Malsawmtluangi

Registration No : CAU(DA)/2009(X1)

Degree Programme : PhD

I. Students' feed back on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulation for PG and PhD programme 2018 & 2016				4
2	Lecture schedule as per the ICAR revised syllabus			3	
3	Allocation of hours and credits to the courses (Theory & Practical)				4
4	Laboratory experiments for courses				4
5	Course evaluation and assessment				4
6	Research facilities in the department			3	

II. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty			3	
2	Quality of teaching				4
3	Use of innovative teaching aids & resources			3	
4	Coverage of syllabus				4
5	Timeliness and reports in evaluation				4

III. Students' feedback on Infrastructures

Particulars			Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular based	i) Classroom				4
		ii) Laboratory				4
		iii) Internet facility			3	
		iv) ICT enabled classroom			3	
		v) OH facility			3	
2	Co curricular based	i) E-learning facility			3	
		ii) Seminar hall				4
		iii) Technical hub			3	
3	Extra Curricular based	i) Sports			3	
		ii) Gym			3	
		iii) NSS/NCC			3	
		iv) Cultural Club			3	
4	General	i) Stationery Stores				4
		ii) Medical Centre				4
		iii) Guest House			3	
		iv) Auditorium				4
		v) Canteen			3	
		vi) Bank with ATM facility			3	
		vii) Postal facilities				4
		viii) Campus environment				4

Suggestions for improvement (If any):

Signature :

Name : Dr Saurabh Mahavaradhary)

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM 796015

Department : Animal Nutrition

Name of the Student : Dr. Lenjanang-ang

Registration No. : CAU/05-Vet/8

Degree Programme : PhD

I. Students' feed back on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulation for PG and PhD programme,2009 &2016				√
2	Lecture schedules as per the ICAR revised syllabus			√	
3	Allocation of hours and credits to the courses (Theory & Practical)			√	
4	Laboratory experiments for courses			√	
5	Course evaluation and assessment			√	
6	Research facilities in the department			√	

II. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty			√	
2	Quality of teaching			√	
3	Use of innovative teaching aids & resources			√	
4	Coverage of syllabus			√	
5	Timely activity and updation in evaluation				√

III. Students' feedback on Infrastructure

Particulars			Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular level	i) Classroom		√		
		ii) Laboratory		√		
		iii) Internet facility	√			
		iv) ICT enabled classroom		√		
		v) CE facility	√			
2	Co curricular level	i) E-learning centers		√		
		ii) Seminar hall		√		
		iii) Technical Hub	√			
3	Extra Curricular level	i) Sports		√		
		ii) Gym	√			
		iii) NSS/NCC			√	
		iv) Cultural Club	√			
4	General	i) Stationary Stores		√		
		ii) Medical Centre		√		
		iii) Guest House		√		
		iv) Auditorium			√	
		v) Canteen	√			
		vi) Bank with ATM facility	√			
		vii) Postal facilities		√		
		viii) Gardens and ecosystem			√	

Suggestions for Improvement (If any):
Promote quality education along with skill and entrepreneurship development. Augmenting the density in the government colleges. Emphasis on ICT in classrooms to increase the motivation of the students.

Signature :

Name : Dr. Temjenmongsang

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department : Veterinary Biochemistry

Name of the Student : Dr. Ankan De

Registration No. : CAU/M-V/16 (PhD)

Degree Programme : Ph. D.

1. Students' feed back on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulation for PG and PhD programme 2009 & 2016			Yes	
2	Lecture schedule as per the ICAR revised syllabus				Yes
3	Allocation of hours and credits to the courses (Theory & Practical)			Yes	
4	Laboratory experiments for courses				Yes
5	Course evaluation and assessment				Yes
6	Research facilities in the department				Yes

2. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty				Yes
2	Quality of teaching			Yes	
3	Use of innovative teaching aids & methods			Yes	
4	Coverage of syllabus			Yes	
5	Transparency and impartial in evaluation				Yes

III Student' feedback on Infrastructure

Particulars			Satisfactory (1)	Good(2)	Very Good(3)	Excellent (4)
1	Classroom based	i) Classroom			Yes	
		ii) Laboratory				Yes
		iii) Library facility		Yes		
		iv) ICT enabled classroom			Yes	
		v) ITF facility				Yes
2	Co curricular (use)	i) Extracurriculum		Yes		
		ii) Seminar hall				Yes
		iii) Technical club			Yes	
3	Time Outside (use)	i) Sports			Yes	
		ii) Gym			Yes	
		iii) NSS/NCC			Yes	
		iv) Other Club			Yes	
4	General	i) Stationery Store			Yes	
		ii) Medical Centre				Yes
		iii) Guest House				Yes
		iv) Auditorium				Yes
		v) Canteen		Yes		
		vi) Bank with ATM facility		Yes		
		vii) Hostel facilities				Yes
		viii) Campus environment			Yes	

Suggestions for improvement (If any):

Signature :

Name : Ankan De

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM 796015

Department : VETERINARY MICROBIOLOGY

Name of the Student : Dr. RATHINAM MANDAKINI DEVI

Registration No. : CAU/CS-V/11 (Ph.D)

Degree Programme : Ph.D

I. Students' feed back on Course Curriculum, academic regulation, research facilities

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulations for M.Sc. and Ph.D programme,2005 & 2010				✓
2	Lecture schedules as per the ICAR revised syllabus				✓
3	Allocation of hours and credits to the courses (Theory & Practical)				✓
4	Laboratory experiments for courses				✓
5	Course evaluation and assessment				✓
6	Research facilities in the department				✓

II. Students' feedback on faculty of the department

	Particulars	Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty				✓
2	Quality of teaching				✓
3	Use of innovative teaching aids & methods				✓
4	Coverage of syllabus				✓
5	Transparency and impartial in evaluation				✓

III. Students' feedback on Infrastructure

Particulars			Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Curricular need	i) Classroom			✓	
		ii) Laboratory				✓
		iii) Internet facility			✓	
		iv) ICT enabled classroom			✓	
		v) CIF facility			✓	
2	Co curricular need	i) E-learning centers			✓	
		ii) Seminar hall			✓	
		iii) Technical hub			✓	
3	Extra Curricular need	i) Sports		✓		
		ii) Gym		✓		
		iii) NSS/NCC		✓		
		iv) Cultural Club			✓	
4	General	i) Stationary Stores		✓		
		ii) Medical Centre		✓		
		iii) Guest House			✓	
		iv) Auditorium			✓	
		v) Canteen			✓	
		vi) Bank with ATM facility				
		vii) Hostel facilities			✓	
		viii)Campus environment				✓

Suggestions for improvement (If any):

Signature :

Name : Rajkumari Mandakini Devi

COLLEGE OF VETERINARY SCIENCES & ANIMAL HUSBANDRY
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
SELESIH, AIZAWL, MIZORAM, 796015

Department : Veterinary Microbiology

Name of the Student : Hosterson Kylla

Registration No. : CAU/04-V/12 (PhD)

Degree Programme : Ph.D

I. Students' feed back on Course Curriculum, academic regulation, research facilities

Particulars		Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	CAU academic regulation for PG and PhD programme, 2008 & 2016				Excellent
2	Lecture schedules as per the ICAR revised syllabus.				Excellent
3	Allocation of hours and credits to the courses (Theory & Practical)				Excellent
4	Laboratory experiments for courses				Excellent
5	Course evaluation and assessment				Excellent
6	Research facilities in the department				Excellent

II. Students' feedback on faculty of the department

Particulars		Satisfactory(1)	Good(2)	Very Good(3)	Excellent(4)
1	Subject command of the faculty				Excellent
2	Quality of teaching				Excellent
3	Use of innovative teaching aids & resources				Excellent

4	Coverage of syllabus				Excellent
5	Transparency and impartial in evaluation				Excellent

III. Students' feedback on Infrastructure

Particulars			Satisfactory(1)	Good(2)	Very Good(3)	Excellent (4)
1	Classroom based	i) Classrooms				Excellent
		ii) Laboratory				Excellent
		iii) Internet facility			Very Good	
		iv) ICT enabled classroom			Very Good	
		v) CIF facility			Very Good	
2	Co curricular based	i) Library			Very Good	
		ii) Seminar hall			Very Good	
		iii) Technical hub			Very Good	
3	Extra Curricular based	i) Sports			Very Good	
		ii) Gym		Good		
		iii) NSS/NCC			Very Good	
		iv) Cultural Club			Very Good	
4	General	i) Stationary Stores		Good		
		ii) Medical Centre		Good		
		iii) Canteen			Very Good	
		iv) Auditorium				Excellent
		v) Common			Very Good	
		vi) Boys with ADH facility		Good		
		vii) Hostel facilities			Very Good	
		viii) Campus environment				Excellent

Suggestions for improvement (If any): Sport infrastructure including gymnasium, bathing facilities, medical facilities, canteen and stationery stores need to be upgraded.

Signature :

Name : Dr. Bhaskaran Kutty, Ph.D

SELF-STUDY REPORT
FOR THE COLLEGE

Submitted to

National Agricultural Education Accreditation Board

College of Fisheries
CENTRAL AGRICULTURAL UNIVERSITY, Imphal

Lembucherra, Agartala, Tripura

Website: www.cofcau.nic.in E-mail: cofcau.agt-tr@gov.in

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6.5. Self-Study Report for the College (College of Fisheries, Lembucherra)

The North Eastern region of India is well known for its rich biological and cultural diversity. People in the region are mainly dependent on agricultural and allied activities to meet their livelihood necessities. With varied climatic conditions in the region, the need for well-trained manpower to meet the regional needs and the development of location specific agricultural technologies best suited to the varying climatic conditions were considered as an urgent necessity. As such the Government of India, recognizing these needs established the Central Agricultural University (CAU) with its headquarters at Imphal, Manipur through the Central Agricultural Act. 1992, No. 40 dated 26th December 1992, the act passed in the parliament made necessary the establishment of Agricultural Education Institutes in the North Eastern States of India, covering the states of Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.

Fisheries as a sunshine sector has contributed substantially to the country's food basket, apart from augmenting livelihood status of the people. The northeast India has enormous scope for fisheries development with the gifted bio-resources in both flora and fauna. The continuous development of the fisheries sector in the region is possible only through wise planning towards resource utilization through adoption of scientific technologies in varied climatic and topographical horizons. For this reason, trained and sound scientific/technical human resources need to be parallel to achieve an overall productivity and production enhancement. Hence, to develop efficient human resources to impart fisheries-based function in three major domains (teaching, research and education), the College of Fisheries was established in the state of Tripura, as one of the constituent colleges of the Central Agricultural University (CAU), Imphal. Initially, the college started functioning from 3rd October, 1998 at the SIPARD Building, Camper Bazar, Agartala, Tripura and became the 12th Fisheries College of the country established under the Agricultural University Education System. Thereafter, the college was shifted to its present campus at Lembucherra during September, 2001. The campus is about 10 km away from the MBB International Airport, and 15 km from the Agartala Railway Station. The campus is stretched to a total area of 54.72 acres. The college since its inception has an outstanding performance in various national level examinations which is an outcome of the quality teaching and skill-oriented training of the students. The course curriculum and syllabi for the degree programme strictly follows model academic regulations and syllabi as laid down by the 5th Dean

Committee. Curriculum are designed taking into consideration the specific theoretical and practical knowledge to meet new challenges and emerging opportunities at national and international level.

Objective of the degree programme

- To produce globally competitive graduates and post graduates in fisheries sciences.
- To promote the advancement of learning and persuasion of research in fisheries sciences.
- To undertake programmes of extension education in the states under the jurisdiction.
- To undertake such others activities as it may deem fit from time to time.
- To meet the well-trained manpower needs of the North eastern states.

6.5.1 College Administration

The overall administration of the college pertaining to the academic, research, extension and other activities including the infrastructure development is headed by the Dean of the College and he is duly assisted by various teaching, technical and non-technical staff of the institution.

6.5.1.1. College Dean's Office Establishment:

S. No.	Particulars		Response
1.	Whether Dean's post is sanctioned as per ICAR model Act/UGC guidelines	:	Yes
2.	Date of selection of current Dean	:	12.05.2021
3.	Mode of selection	:	Open interview
4.	Tenure	:	5 years
5.	Total No. of Staff in Dean's office	:	
	a. Technical	:	4
	b. Non-technical	:	2
6.	Infrastructure facilities (Details on infra and networking facilities available)	:	The college has Dean's chamber and office for PA to Dean. The staff of the Dean's office include one PA to Dean, two assistants and

	one driver. Office of the Dean is equipped with computer and copier enabled with internet facility. Biometric attendance system is followed in this College to monitor the attendance of the staff. The office is also enabled with CCTV camera surveillance.

6.5.1.2. Monitoring Mechanism for Quality education (On-Line):

The college has a systematic internal quality assurance system in place, with appropriate structure and process, to ensure quality education.

TEACHING

Undergraduate degree programme

- Quizzes, mid-semester theory, and end-semester theory and practical examination are conducted to assess the students.
- Assignments related to curriculum are given to the students.
- External system of evaluation is followed for end-term examination of each course.
- Faculties are assigned for academic counselling (as advisor) for a group of students.

Postgraduate teaching programme

- Quizzes, mid-semester theory, and end-semester theory and practical examination are conducted to evaluate the students.
- Assignments related to curriculum are given to the students.
- External system of evaluation is followed for end-term examination of each course.
- Periodic assignments and seminar presentation related to the course curriculum are done by the students.
- The comprehensive qualifying written and viva-voce examination is conducted at the end of the course work to evaluate the student's understanding about the entire courses.
- Two committees (synopsis and thesis evaluation) are in place for critical evaluation before final submission of synopsis and thesis to minimize error.
- The thesis submitted by the M.F.Sc. and Ph.D. Scholars are evaluated by one and two external experts, respectively.

- The final thesis viva-voice for the M.F.Sc. and Ph.D. programme is conducted through open defense mode.

RESEARCH

Student Research

- The plan of research work is finalized after presentation in front of Advisory committee members with inputs from other faculty members.
- The students' research work is monitored by the chairman of the Advisory committee on daily basis.
- Midterm evaluation and final evaluation of research work of the students are made by Advisory committee members.
- Communication/publications of research work in peer reviewed well rated journals is mandatory.

Faculty Research

- The College Research Advisory Committee evaluates the research proposals at college level.
- The research proposals should be within the research thrust areas mandated for each department.
- Periodic review of the research progress is done by the Dean, Director of Research and the Vice Chancellor.
- The annual review and finalization of action plan is done by the CAU Research Council.

EXTENTION

- The College Extension Advisory Committee formulate and monitor the extension activities of the college.
- The evaluation of action taken (for previous year's recommended activities) and finalization of future action plans are formulated by the committee.
- Periodic review of the extension activities is done by the Dean, Director of Extension Education and the Vice Chancellor.
- The annual review and finalization of action plan is done by the CAU Extension and Education Council.

Impact of monitoring on students' excellence in academics, research and extracurricular activities

ACADEMIC

- Achieving substantially good number of students cracking ICAR JRF examination.
- More number of students qualifying for ICAR-SRF examinations for Ph.D. programme in national institutes of repute
- Higher academic performance of students with improved OGPA.
- Improved enrollment of students in post graduate programme from states other than NE states.
- Participation and selection in competitive examinations.
- Improved placement record of the students.

RESEARCH

- Publications of research results in high impact factor peer reviewed journals by the PG and PhD students and faculty members.
- Winning research proposals from external funding agencies (DBT, SERB, NFDB etc.) and bagging awards for outstanding research by the faculty members.
- Developing technologies contributed by both student and faculty research.
- In line to this, 18 farmer friendly technologies has been generated considering the existing agro-climatic regime of NE India.

EXTRACURRICULAR

- Participating in Inter-University level sports and cultural activities at state and national levels and bagging awards.
- A total of 14 students represented the university and took part at the 18th AGRI-UNIFEST 2017-18 held at Sri Venkateswara Veterinary University, Tirupati. Mr. Sourav Debnath of the stood 2nd position in Quiz team event.
- College of Fisheries, CAU team participated at the State Level Inter College & University Science Drama Competition organized by Tripura State Council for Science and Technology, Tripura.
- The students of the college won the "Overall Team Champion" title at the 4th CAU Inter Collegiate Youth Festival.

6.5.1.3. CC/Board of Studies:

The college has a Board of Studies in place comprising of two external experts in the field of fisheries and aquaculture.

Year	Date of meeting conducted	Composition	Major recommendations
2016	10/08/2016	• Dean, CoF - Chairperson ***Members:*** • Director of Instruction, CAU • Director of Research, CAU • Director of Extension & Education, CAU • All HoDs • Nominee - Academic Council Member • Nominee – Two eminent Scientist from Agri Edu System outside CAU • One final Year PG student • Assistant Registrar (Academic) – Member Secy.	• Ph.D. students of AAH can take minor courses from FGB
2017	22/05/2017		• Shifting of Student READY Experiential Module from VIII semester to VII semester in B.F.Sc. Programme • Creation of UG/PG/Ph.D. payment seats for Agri-Allied courses for students of both National and International
2018	23/04/2018		• Starting of Ph.D. programme in Fish processing Technology • Shifting of courses of B.F.Sc. from different semesters
2019	17/05/2019		• Starting of Ph.D. programme in Aquaculture
2020	23/04/2020		• Implementation of student READY

6.5.1.4 Anti Ragging Cell:

The college follow the "UGC regulations on curbing the menace of ragging in higher educational institutions, 2009" and subsequent guidelines issued in the matter in letter and spirit. For newly admitted students, an Anti-Ragging Committee (members are selected based on the stipulated guidelines of UGC) is formed every year for implementing the regulations before the admission of the new batch students. A separate anti-ragging squad is also formed each year to physically visit and monitor the hostel and campus premises on regular basis for at least 2 months after the admission of the new students vide order No. CAU-CF/4/21/Anti-Ragg./2015-Acad/Vol-2/6781, dated 02/01/2021. The ant-ragging committee Chaired by the Dean comprises the Sub-Divisional Magistrate, Mohanpur; Addl. Superintendent of Police, Agartala; SDPO, Mohanpur; Social workers; NGOs; faculty/staff; parents and student representative. Following measures have been undertaken to curb the menace.

- Separate accommodation for the new entrants
- Mandatory affidavit to be submitted by all students and their parents
- Regular counselling of students

- Awareness and general meetings to sensitize the students
- Daily monitoring of the hostels to avoid any unwanted activities in any form of ragging

6.5.1.5. Biological waste disposal facility:

The college has in place a committee chaired by a senior faculty to manage the safe disposal of chemical and hazardous substances arising out of research activities. Following measures has been undertaken in this respect:

- Separate waste disposal pits have been dug out for disposing chemicals
- Separate solid and liquid waste disposal cemented soak-pit are constructed under the NAHEP project
- State Municipality Corporation has been linked for disposing hazardous chemicals to distant and safe locations.

6.5.1.6. Institutional Ethics Committee for Experimental on Animals:

The college is following CPCSEA guidelines and an Institutional Animal Ethics Committee (IAEC) is in place. The committee is chaired by a senior faculty member and following activities are undertaken:

- Guidelines and protocols adhering to experiment s with live fishes is been circulated to researchers for strict compliance

- A register is maintained with the Chairman to document committee approval and certification for ethics on live fishes while submitting the thesis/manuscripts.

- Welfare of live specimens and euthanization process are instructed for compliance

6.5.1.7. Committee for prevention of Sexual Harassment of Women at Work Places:

The college is adhering the Prevention, Prohibition and Redressal Act, 2013 related to the sexual harassment of women at workplace in letter and spirit. An 'Internal Complaint Committee' in this regard has been constituted comprising faculty members, staff of the college (including four women members) and an advocate. However, no proceedings have been conducted in last five year. The committee arrange interactive workshop from time to time to sensitize women on safety and empowerment.

6.5.2 Faculty

6.5.2.1. Faculty strength:

As per faculty recommended by ICAR Fifth Deans' Committee the faculty strength of College of Fisheries, Lembucherra is sufficient for academic requirement of the college.

S. No.	Sanctioned faculty		Faculty in place	Vacant position	Faculty recommended by the **ICAR**/UGC/ VCI/ other regulatory bodies
1	Professor	5	2	3	7
2	Associate Professor	10	7*	3	11
3	Assistant Professor	28	22	6	20
Total		**43**	**31**	**12**	**38**

* 2 promoted as Professor under CAS

6.5.2.2. Faculty profile (Department wise) in position:

Sl. No.	**Name of Department**	**Professor**	**Associate Professor**	**Assistant Professor**	**Total**
1	Aquaculture	1	1	3	**5**
2	Aquatic Health and Environment	-	1*	4	**5**
3	Fish Processing Technology & Engg.	-	1*	4	**5**
4	Extension & Social Sciences	1	2	4	**7**
5	Fish Genetics & Reproduction	-	1	4	**5**
6	Fisheries Resource Management	-	1	3	**4**
Total		**2**	**7**	**22**	**31**

* Promoted as Professor under CAS

6.5.2.3. Credentials of the Faculty:

1. **Department of Aquaculture**

Sl. No.	**Name of Faculty**	**Post Held**	**Highest qualification**	**Teaching/ work experience (in years)**	**Honours & awards**	**No. of students guided (PG/PhD separately)**	**No. of publications in NAAS rated journals**
1	Dr. A.B.	Professor	Ph.D.,	21 years	03	PG-10	Research

	Patel	& Head	Post Doc. (Japan)				Paper – 35
2	Dr. G. Waikhom	Associate Professor	Ph.D., Post Doc. (USA)	19 years	01	-	Research Paper – 14
3	Dr. Pradyut Biswas	Assistant Professor	Ph.D., Post Doc. (Japan)	12 years	03	PG-06	Research Paper – 19
4	Dr. S. Khogen Singh	Assistant Professor	Ph.D.	9 years	05	-	Research Paper – 24
5	Dr. Sampa Baidya	Assistant Professor	Ph.D.	7 years	01	-	Research Paper – 09

2. Department of Aquatic Health and Environment

Sl. No.	Name of faculty	Post held	Highest qualification received	Teaching/ Work experience (in years)	Honors and awards	No. of students guided (PG/PhD separately)	Publication
1	Dr. Ratan Kumar Saha	Professor & Head	Ph.D.	> 35 years	10	PG-02	Research papers- 50
2	Dr. Dibyendu Kamilya	Assistant Professor	Ph.D.	14 years	05	PG-04	Research Paper – 39
3	Dr. Himadri Saha	Assistant Professor	Ph.D.	9 years	05	PG-03	Research Paper – 30
4	Mr. Tanmoy Gon Choudhury	Assistant Professor	M.F.Sc.	11 years	08	-	Research Paper – 30

3. Department of Fish Processing Technology and Engineering

Sl. No	Name of faculty	Post held	Highest qualification received	Teaching/ Work experience	Honors and awards	No. of students guided (PG/Ph.D. separately)	Publication
1	Dr. Ranendra Kumar Majumdar	Professor & Head	Ph.D.	>22 years	-	PG-05	Research papers: 63
2	Dr. M. Bhargavi	Assistant Professor	Ph.D.	12 years	01	PG-01	Research Paper – 15

	Priyadarshini						
3	Ms. Bahni Dhar	Assistant Professor	M.F.Sc.	12 years	02	PG-01	Research Paper – 21
4	Dr. Sudhansu Shekhar Mahanand	Assistant Professor	Ph.D.	9 years	05	PG-04	Research Paper – 15
5	Dr. Naresh Kumar Mehta	Assistant Professor	Ph.D.	4 years	02	PG-03	Research Paper – 18

4. Department of Fish Genetics and Reproduction

Sl. No.	**Name of faculty**	**Post held**	**Highest qualification received**	**Teaching/ Work experience (in years)**	**Honors and awards**	**No. of students guided (PG/PhD separately)**	**Publication**
1	Dr. Sagar Chandra Mandal	Associate Professor & Head	Ph.D.	19 years	01	PG-09	Research Paper – 46
2	Dr. Himanshu Priyadarshi	Assistant Professor	Ph.D.	12 years	-	PG-02	Research Paper – 18
3	Dr. Anindya Sundar Barman	Assistant Professor	Ph.D.	11 years	-	PG-05	Research Paper – 18
4	Dr. Janmejay Parhi	Assistant Professor	Ph.D., Post Doc. (Spain)	11 years	11	PG-05	Research Paper – 43

5. Department of Extension and Social Sciences

Sl. No.	**Name of faculty**	**Post held**	**Highest qualification**	**Teaching/ Work experience (in years)**	**Honors and awards**	**No. of students guided (PG/Ph.D. separately)**	**No. of Publications in NAAS rated journals**
1	Dr. Jitendra Kumar Chauhan	Professor	Ph.D.	31 years	06	PG-	Research Paper – 95
2	Dr. A.D. Upadhyay	Associate Professor	Ph.D.	25 Years	03	-	Research Paper – 72
3	Dr. Biswajit	Associate Professor	Ph.D.	14 years	06	PG-01	Research Paper – 25

	Lahiri						
4	Mr. Y. Jackie Singh	Assistant Professor	M.F.Sc.	9 years	04	PG-06	Research Paper – 23
5	Dr. Prasenjit Pal	Assistant Professor	Ph.D.	9 years	02	-	Research Paper – 64
6	Dr. Amitava Ghosh	Assistant Professor	Ph.D.	4 Years	10	PG-01	Research Papers- 29

6. Department of Fisheries Resource Management

Sl. No.	**Name and designation**	**Post held**	**Highest qualification received**	**Teaching/ Work experience (in years)**	**Honors and awards**	**No. of students guided (PG/Ph.D. separately)**	**Publication**
1	Dr. Mrinal Kanti Datta	Associate Professor & Head	Ph.D.	>23 years	01	PG-05	Research Papers - 24
2	Dr. (Mrs) Pampa Bhattacharjee Assistant Professor (SS)	Assistant Professor	Ph.D.	>23 years	-	PG-03	Research Paper-25
3	Dr. K.V. Radhakrishnan Assistant Professor (SS)	Assistant Professor	Ph.D., Post Doc. (China)	10 years	03	PG-05	Research Papers -21

6.5.2.4. Technical and Supporting Staff:

Department	**Technical and Supporting Staff**
1. Aquaculture	06
2. Aquatic Health & Environment	05
3. Fish Processing Technology and Engineering	05
4. Fish Genetics & Reproduction	07
5. Extension and Social Sciences	06
6. Fisheries Resource Management	06
Total	**35**

6.5.3. Learning resources:

6.5.3.1. College Library:

Location of Library	Presently Library is housed in a single room of **22.5 x 8 mts.(180sq.mts)** at the top floor of the administrative building. The new Library extension building is still under construction.
Present staff position (in Place)	3 (Female) Library Assistant, 1 MTS
Availability of Wi-Fi	No
Books/reading material (in Number)	8737
Periodicals/ research journals(in number)	28
Internet facility	Yes
No. of computers	3
Seating capacity	30
Latest technology in the Library	None
Stocking arrangement	DDC
Collection of volumes on different subject	ASFA & Aquaculture
Latest publication in the field of relevant subject	None
Automation & users services through computer	No
Opening hours	9:30 am to 4:30pm on all working days

Subscription of journals of national & international repute national dailies magazines (provide list)

Journals	**Magazines**	**Newspaper**
1. Aqua International 2. Down to earth 3. Environment and ecology 4. Fishery technology 5. Fishing chimes 6. Indian society of agricultural marketing 7. Indian J. of biochemistry & biophysics 8. Indian J. of marine science 9. Indian J. of agriculture economics 10. Indian food industry 11. Indian research J. of extension education 12. Indian J. of Fisheries 13. J. of communication studies 14. J. of inland fisheries society of India 15. J. of global communication 16. Science and Culture	1. Competitive success 2. India Today 3. Readers Digest 4. Science Reporter 5. Sport Star 6. Employment news 7. Wisdom 8. Outlook 9. Frontline 10. The week 11.Competition Refresher 12. Pragyogita Kiran 13. Sharita (Hindi)	***National papers*** 1. The Times of India 2. Telegraph 3. Sambhad (Hindi) ***Local paper*** 1. Tripura times 2. Dainik Sambad (Bengali)

6.5.3.2 Laboratories, Instructional farm, Workshops, Dairy Plant, Veterinary Clinic, Hatchery, Ponds etc.:

A total of 38 functional laboratories/Instructional farm/Workshops/Hatchery/Ponds/units are available in the college. All the academic departments have their own laboratories for conducting practical classes. The details are given below:

S. No.	Name of the Lab / Facility	Major Equipment available/Particulars
1	UG Laboratory (6 nos.) PG Laboratory (6 nos.) Water and Soil Chemistry Laboratory (1no.) Microbiology Laboratory (2 nos.) Biochemistry Laboratory (1no.) Fish Processing and Engineering Laboratory (4 nos.)	• Inorganic nutrient flow-analyzer, • UV-VIS Lux-meter. • Analytical Balance, • Moisture meter, • Muffle furnace, • Bomb calorimeter, • Multimode spectrophotometer, • Laminar Flow Bench, • CO2 incubator, • Multi Parameter Water Analyser, • Refrigerator, • Nitrogen evaporator, • Solid phase extraction unit, • Flame Photometer, • pH Meter, • S-T-C Meter, • BOD incubator, • Deep freeze -20ºC, • Bacteriological Incubator, • Auto Blood Analyzer, • Refrigerated centrifuge, • Tissue Homogenizer, • Ice-flacking machine, • TS Extruder, • Muscle Texture Analyzer, • Silent cutter, • Complete canning line, • Airblast Freezer, • Ellab thermal validation system, • Overpressure retort, • Rotary vac. Evaporator
2	Central Laboratory and Centre of Excellence Laboratory (Molecular Biology Laboratory - 2 nos.)	• HPLC, • Histopathology unit, • Fluorescent microscope, • Gene sequencer • Research Microscopes with photography, • Refrigerated Centrifuge, • ELISA reader, • High Seeped Centrifuge,

		• Gradient PCR, • Real-Time PCR, • Gel-Doc system, • Electrophoresis Unit,
3	Aquacultural Engineering workshop	• Centrifugal Pumps, • Submersible Pumps, • Engineering Tools, • Different parts of Refrigerator, • Different parts of 2 stroke engine and 4 stroke engine, • Single wheel Paddle aerators, • Double wheel paddle aerators etc.
4	Wet Laboratory (2 nos.)	• FRP Tank (1000 L) – 60 nos. • FRP Tank (500 L) – 55 nos. • Glass Aquariums – 260 nos. of different sizes
5	Freshwater Fish Farm	• Twenty-six (26) Earthen Ponds of different sizes with total water area of 2.1 ha, • Paddle Wheel Aerators, • FRP boat, • Integrated Fish Farming Models with Pig and Poultry sheds, • Water pump sets, • Nets etc.
6	Hatchery Facilities	• Carp Eco-Hatchery – 2 sets • Prawn Hatchery
7	Outdoor Research/Cement tank Facility	• Cement Tanks (20 sq. m) – 54 nos. • Cement tank (10-15 sq. m) –21 nos. • Cement Tanks (2-3 sq. m) – 30 nos. • FRP Tank (200 L) – 30 nos.
8	Feed Mill	• Twin-Screw Extruder, • Grinder, • Mixer, • Dryer, • Oil Sprayer, • Drum Roller etc.
9	Biofloc Demonstration Unit	• One Unit
10	Pabda Broodstock Unit	• Cemented Pools (10,000 L) – 3 nos. • FRP Tanks (500 L) – 12 nos.
11	Simulated poly-house breeding Unit	• Flow-through lotic simulated riverine system, • Incubation pool housed in plastic poly-house
12	Bioinformatics Lab	• 12 no. of Desktop, • Server - 2, • 5 KVA UPS, • Scanner, • Photocopier • Application software (SPSS-22, R software)

		• ASFA Database, • Bioinformatics Software • Seating facilities for 20 students • High-speed internet connectivity
13	Computer Lab	• 15 no. of Desktop, • 5 KVA UPS • Seating facilities for 30 students • High-speed internet connectivity
14	Language Lab	• 30 no. of Desktop, • 10 KVA UPS, • Language Software, • Microphone, • Computer Table and Chair with Seating capacity of 30 students • High-speed internet connectivity
15	ATIC	• Reception counter, • product sale counter, • Technology display, • Conference Room with all facilities, • Training Hall, • Fish Museum, • Fish Aquarium, • Faculty rooms, • Staff room, • High speed internet connectivity
16	Fish Museum including a barcoded fish museum	• The fish museum has 326 finfish and shellfish species • Displayed with scientific identification information. • The barcode museum contains 297 fish species.
17	Mobile Fish Clinic	• A dedicated vehicle fully furnished with water & soil quality analysis as well as disease diagnosis tools for field/mobile monitoring
18	Automated Weather Station	• A complete Automated Weather Station with Digital Monitor

6.5.3.3. Student READY/In-Plant Training/Internship/Experiential Learning Programme:

The College of Fisheries has adopted Students READY (Rural and Entrepreneurship Awareness Development Yojana) programme for B.F.Sc. students as per the Fifth Dean's Committee Report. It includes Experiential Learning programme, Rural Fisheries Work Experience Programme, In-plant Attachment, Study Tour, Skill Development and Project Work. The B.F.Sc students of the college undergo students READY Programme in Seventh and Eighth Semesters. With regard to the Experiential Learning Programme (ELP) intended to deliver

practical based entrepreneurship enthusiasm among students once they graduate from the college, the college has been performing extraordinarily well. Since its inception, the programme is run under three major modules namely Integrated Semi-intensive Aqua farming, Post-harvest Technology of Fish and Seed production of carp and fresh water prawn. This programme has been running in business mode with the guidance of faculties. As per the profit-sharing mechanism sanctioned by ICAR, the students, college and staff get 75%, 20% and 5% of the profits, respectively. The students take key roles in input purchase, production, and marketing of the produce. The decent amount of profit made by individual student is one of the key indicators of the success of the programme, besides the field knowledge acquired by the students.

6.5.3.4. Curricula Delivery through IT (smart class rooms/interactive board etc.):

Besides the regular 4 classrooms, one (**01**) smart classroom (with a seating capacity of 64) has recently been developed with all modern ICT-enabled facilities including digital podium, interactive touch panel, two movable cameras, lecture platform and CCTV.

6.5.4. Student Development

6.5.4.1. Student intake and Attrition:

Name of the degree programme	Actual student admitted in the last five years					Attrition (%)				
	2016-17	2017-18	2018-19	2019-20	2020-21	2016-17	2017-18	2018-19	2019-20	2020-21
B.F.Sc.	31	40	45	44	48	9.67%	15%	11.11%	9.09%	18.75%
M.F.Sc. (AQC)	05	05	03	04	05	0%	0%	0%	0%	0%
M.F.Sc. (AAH)	05	05	04	05	05	40%	40%	25%	0%	0%
M.F.Sc. (FPT)	03	05	03	05	05	0%	60%	0%	20%	20%
M.F.Sc. (FRM)	05	05	04	05	05	0%	0%	0%	0%	0%
M.F.Sc. (FEX)	05	04	04	05	05	40%	25%	25%	20%	0%
M.F.Sc. (FGB)	05	05	04	07	06	0%	20%	75%	0%	0%
Ph.D. (AAH)	02	02	02	02	03	0%	50%	0%	50%	0%

6.5.4.2. Average Number of Students in Theory and Practical Classes:

Sl. No	Name of the Degree programme	Batch of students in theory class	Batch of students in practical class
1.	B.F.Sc.	1	2
2.	M.F.Sc. (Aquaculture)	1	1
3.	M.F.Sc. (Aquatic Animal Health)	1	1
4	M.F.Sc. (Fish Processing Technology)	1	1
5	M.F.Sc. (Fish Resource Management)	1	1
6	M.F.Sc. (Fisheries Extension)	1	1
7	M.F.Sc. (Fish Genetics & Breeding)	1	1

6.5.4.3. Admission Process:

Bachelor of Fisheries Science (B.F.Sc.)

The four-year Bachelor of Fisheries Science (B.F.Sc.) degree program which comprises Student READY programme is being implemented as per the guidelines of ICAR, specifically the course curriculum, syllabi and other recommendations of the ICAR Fifth Deans' Committee. The Experiential Learning Programme (ELP) of the college has performed extraordinarily with consistently higher profit margins.

For admission to the B.F.Sc. course, the candidate should pass 10+2 examination with 50 % marks for UR and 40 % marks for ST/SC in PCB, should be a permanent resident or domicile of any one of the seven North East State of India namely Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. Different NE states send their nominee on the basis of marks/common entrance examination held by the concerned NE states. Fifteen percent (15%) of the approved number of seats is filled up by the candidates nominated by ICAR, selected on the basis of All India Entrance Test (AIET) conducted by the ICAR or as amended from time to time by ICAR. In addition, another ten (10) seats for the B.F.Sc. programme are higher fee payment seats open to Indians and selected based on mark basis.

Master of Fisheries Science (M.F.Sc.)

Candidate with bachelor degree in concerned/related subject from recognized university with OGPA of 6.00 out of 10.00 or equivalent percentage of marks are eligible for admission to

master degree programme. SC/ST candidates with OGPA of 5.00 in bachelor degree shall be eligible for the admission. The basis of selection for admission to Master' degree programme shall be the merit in the qualifying entrance examination held by CAU, Imphal.

Twenty-five (25) per cent of total seats in each department shall be reserved for SC and ST candidates selected by ICAR through All India Entrance Test (AIET). Fifteen per cent (15%) and 7.5% of the total number of seats are reserved for SC and ST candidates, respectively. In case enough candidates are not available, SC/ST categories seats can interchange. Twenty-seven (27) per cent of the total numbers of seats are reserved for OBC candidates, excluding creamy layer.

Doctor of Philosophy (Ph.D.)

For admission to the Ph.D. programme course, the candidate should pass M.F.Sc. in the concern discipline from a recognized university with OGPA of 6.00 out of 10.00 or equivalent % or marks. On the basis of the result of entrance test conducted by the university (Minimum qualifying OGPA of 6.0 in 10 pt. scale or 55% marks in the traditional system at the undergraduate level for General & OBC categories and 5.50 in 10 pt. scale or 50% marks in the traditional system at the undergraduate level for SC/ST/PH categories in his/her M.F.Sc. examination from an ICAR recognized institution), merit list is prepared and candidates are admitted. The selected candidates are admitted for the degree programme after submitting the required documents and paying the requisite admission fee. During the admission date itself, the students register themselves for all the semester courses given to them in the form of Registration Card.

6.5.4.4. Conduct of Practical and Hands on Training:

The departments of the college are equipped with state-of-the-art laboratory facilities to carry out basic practical classes and hands-on training of the students as per prescribed guidelines. Each department has well trained support technical staffs to assist the faculty in conducting the classes smoothly. Besides, the designated UG laboratories, several other specific laboratories available with the departments are effectively utilized for imparting hands-on practical exposure to the students. Additionally, one state-of-the-art central laboratory and laboratory facilities under the Centre of Excellence (COE) project supports hands-on practical exposure to the students. Under the compulsory course work allotted, the students are trained on various need-based and curriculum oriented hands-on practical on various aspects. On a routine

basis the students are further exposed to field level curricula off the campus and assigned projects to orient their field-based knowledge. Besides, the students are imparted short-term trainings on operational and functional knowledge of key modern equipment under the Institute-level Biotech Hub and Bio-informatics laboratory. Overall, the on-campus and in-plant skill learning trainings enables them to build confidence for higher studies.

6.5.4.5. Examination and Evaluation Process:

Student Examination

Examination	UG	PG	Ph. D.
Internal component (percentage)	50%	50%	50%
External component (percentage)	50%	50%	50%

Frequency of Student Evaluation (Percent Weightage)

Frequency	UG	PG	Ph. D.
Monthly	20%	20%	20%
Mid-term	30%	30%	30%
End-term	50%	50%	50%

Mode of Student Evaluation (Percent Weightage)

Mode	UG	PG	Ph. D.
Quiz/ Test	20%	20%	20%
Assignment *	-	-	-
Term Papers	50%	50%	50%
Seminars*	-		
Mid-Term	30%	30%	30%

*Inclusive in course work.

6.5.4.6 NCC/NSS/RVC Units:

The college has a National Service Scheme (NSS) unit where participation of all the students has been made compulsory. NSS helps the student to grow individually and also as a group. It makes the students confident, develop leadership skills, and gain knowledge about different people from different walks of life. Students also learn other skills that help them lead a better life in various situations. It teaches them to be disciplined and organized.

Under the directive measures for initiating Swachh Bharat Abhiyan at the educational institute, the College has taken up the responsive challenge of implementing the said programme at the campus under the NSS activities. The programme flagged off on 8th February, 2015 at the Bagbari Village, Lembucherra, Bamutia R.D. Block. Major activities undertaken by the unit are highlighted below:

Sl. No.	Name of the programme and details	Activities undertaken	Participants
1.	World Environment Day (5th August, 2015)	➢ 75 plant saplings (*Casia fistula,Punica granatum* and *Citrus limetta*) were planted at the campus, in addition to 25 plant saplings planted by the NSS volunteers at the adopted village ➢ Drawing competition for children	All staffs/faculty, students and scholars, children of faculty/staff
2.	NSS Special camping (03-09 June, 2015) Location: Bagbari village, Bamutia block	➢ Cleaning of village premises ➢ Plantation programme at village site ➢ Health and hygiene sensitization drive	Students of B.F.Sc. 4th year
3.	Medical Check-up Camp (4th April, 2015)	➢ Over 200 persons were screened by doctors and consultation-cum-follow-up was provided to participants in cardiology, orthopaedics, gynaecology, gastroenterology and general medicine	All staffs/faculty, students and scholars, children of faculty/staff
4.	Swachh Bharat Abhiyan (2nd October, 2015)	➢ Various cleanliness programme were taken up by the faculty, staff and students of the college under the supervision of the respective HODs/Section in-charge	All staffs/faculty, students and scholars, children of faculty/staff

		➢ The hostel premises were also cleaned under the NSS regular activity ➢ A mini marathon race was also ran to execute a wide scale awareness to the public	
5.	NSS Special camping programme (4-10 June 2016) Location: Shankar Senapatipara village, Mohanpur Block, Tripura	➢ Cleaning work at the village site ➢ Plantation programme ➢ Visit to orphanage home and distribution of essential items ➢ Games and sports ➢ Health check-up camp along with distribution of free medicines ➢ Interaction with the villagers on technical know-how on scientific fish farming	Students of B.F.Sc. 4th year
6.	Swachhata Pakhwada (21-31, October 2016) Location: College campus and Bagbari village	➢ Cleaning of hostel and Indoor complex ➢ Debate competition ➢ Slogan writing competition ➢ Cleaning of departments/sections and its premises ➢ Cleaning of Adopted village (Bagbari village) ➢ Mass awareness rally on "cleanliness"	All staffs/faculty, students and scholars
7.	Swacchata Pakhwada (4-18, June, 2016)	➢ Respective departments/sections including the hostels were cleaned under the supervision of HODs/section in-charge, wardens.	Faculty, staff and students of the college
8.	Awareness programme on HIV/AIDS (29 April, 2016)	➢ The Red Ribbon Club in association with the Medical Unit of the college organized an awareness programme on HIV/AIDS for the students of the college to sensitize the students with the deadly disease	Students of the college
9.	World Environment Week (5-11 June, 2016) Location: College campus and Sankar Senapatipara village	➢ During the plantation drive, initiated by the NSS unit of the college, various plant saplings were planted in the college premises by the faculty, staff and NSS volunteers of the college. The volunteers also planted the plant saplings at the Sankar Senapatipara village during their	Faculty/staff, scholars and students of B.F.Sc.4th Year

		7 days NSS special camping programme	
10.	Sewa Diwas under "Swachhata Hi Sewa" campaign (17 August, 2017) Location: College campus	➢ During the cleaning programme, various departments, sections, class rooms, farm areas, feed mill, college premises, hostel and its surrounding, main road of the college were cleaned	Participated by more than 200 faculty, staff, student and scholars
11.	Swachh Bharat Mission (01October, 2017) Location: Agartala town	➢ Cleaning of Heritage park, Agartala which is maintained by the Tripura Forest Department ➢ Award of selected participants with "OutstandingPerformer" title	120 participants comprising faculty, staff, students and scholars
12.	World Environment Day (5 June, 2018)	➢ Plantation programme ➢ Slogan writing ➢ Cartooningand painting competition	All staffs/faculty, students scholarsand children
13.	World Environment Day (5 June, 2019)	➢ More than 400 tree saplings of Ashoka (*Polyalthia longifolia*) were planted	Faculty, staff and students of the college and staffs of Krishi Vigyan Kendra, Sipahijala

6.5.4.7. Language Laboratory:

The college has one language laboratory in place and it is a 'Computer Assisted Language Laboratory' supported by 30 Desktops, 10 KVA UPS, Language Software, Microphone, Computer Table and Chair with Seating capacity for 30 students and high-speed internet connectivity.

6.5.4.8. Cultural Center:

The college has a cultural unit that support and encourage students to showcase their cultural diversity. During the "Annual College Week" and "Youth festival", students take part in various cultural competitions. Apart from this scheduled event, the students also take part in related programmes organized in the college and university from time to time. The college has adequate musical instrumental and other facilities for carrying out the activities. In addition, a centralized air-conditioned auditorium (seating capacity of 300) is available for conducting the cultural programme from time to time.

6.5.4.9. Personality Development:

The college has been dedicatedly undertaking/offering some exclusive courses on Communication Skills/Personality Development/Technical Writing both for UG and PG students, covering different aspects like functional grammar, verbal and non-verbal communication skills, practical exposures to personality development and communication exercises and management games, group discussion skills, and technical know-how on scientific writing. These efforts have resulted in increased professionalism and academic performances of the students which in turn led to higher employability. Further, under the ICAR-NAHEP initiative, the college has been conducting different workshops/specialized training programmes on business communication, aiming to foster the entrepreneurial possibilities among the students.

6.5.5. Physical facilities:

6.5.5.1. Hostels:

The college has two (02) boys' and two (02) girls' hostels with total capacity of 116 rooms and one (01) transit hostel with a capacity of 24 rooms. In each hostel, two students are accommodated in each room. All the hostels are accommodated with mess, drinking water, indoor games and some other facilities (refrigerator, washing machine, geyser etc.). The hostel premises are regularly cleaned. A college bus, that ply twice a week to the city is specifically provided to the students for marketing and other purposes. The college has a Medical Centre (supplemented with ambulance) located nearby the hostels.

6.5.5.2. Examination hall:

The college has a big examination hall with a seating capacity of 100 students. Besides, 2-3 rooms are used as a makeshift examination hall whenever required.

6.5.5.3. Sports and Recreation Facilities:

The college has one indoor sport complex facility in which students regularly play badminton, basketball and table tennis. In addition to that, GYM facilities are also available to the students inside the indoor sports complex. The college also have outdoor sport facility (playing field) for playing cricket, football, volleyball, athletic events such as running etc.

6.5.5.4. Auditorium:

Yes, the college has an auditorium which was constructed in 2012 with a seating capacity of 256. The auditorium is frequently used for different college function, special lectures etc.

6.5.5.5. Exhibition Hall/Museum:

The department of Fisheries Resource Management of College of Fisheries holds a referral fish museum with 326 finfish and shellfish species displayed with scientific identifying data, collected from all over India specially covering all the states of NE India covering 322 habitats (23,036 samples) as well as from Indian marine sources which regularly cater the needs of students, researchers and scientists even from various allied institutes/ school/colleges etc. which Probably, this is the largest referral fish museum of North East India. Another remarkable achievement is establishment of a separate barcode museum, where 297 fish species (collected and identified systematically from various aquatic systems of NE India) out of which 162 species

were systematically identified with conventional and molecular methods (bar-coded) and displayed.

6.5.6. Research Facilities

6.5.6.1. Postgraduate Laboratories and Equipments:

Department of Aquaculture

S. No.	Name of the Lab / Facility	Major Equipments available/Particulars
1	PG Research Lab	• Inorganic nutrient flow-analyzer, • Kjeltec, • Soxtec, • Fibertec, • YSI multi-water quality sonde, • UV-VIS Spectrophotometer, • DO-meter, • pH-meter, • Lux-meter, • Hot Air Oven, • Muffle Furnace, • Electronic Balance, • Microscopes etc.
2	Wet Lab / Ornamental Fish Lab	• FRP Tank (1000 L) – 50 nos. • FRP Tank (500 L) – 30 nos. • Glass Aquariums – 130 nos. of different sizes
3	Freshwater Fish Farm	• Eleven (11) Earthen Ponds of different sizes with total water area of 1.3 ha, • Paddle Wheel Aerators, • FRP boat, • Integrated Fish Farming Models with Pig and Poultry sheds, • Water pump sets, • Nets etc.
4	Outdoor Research/cement tank Facility	• Cement Tanks (20 sq.m) – 54 nos. • Cement tank (10-15 sq. m) --21nos. • Cement Tanks (2-3 sq.m) – 30nos.

5	Feed Mill	• Twin-Screw Extruder, • Grinder, • Mixer, • Dryer, • Oil Sprayer, • Drum Roller etc.
6	Biofloc Demonstration Unit	• One Unit
7	Pabda Broodstock Unit (Shared facility with Dept. of FGR)	• Cemented Pools (10,000 L) – 3 nos. • FRP Tanks (500 L) – 12 nos.
8	Simulated poly-house breeding Unit	• Flow-through lotic simulated riverine system, • Incubation pool housed in plastic poly-house

Department of Aquatic Health and Environment

Name of the laboratory	**Major Equipment available/Particulars**
1. PG Teaching Laboratory	• Analytical Balance, • Moisture meter, • Muffle furnace, • Bomb calorimeter, • Multimode spectrophotometer, • ELISA reader, • CO2 incubator, • Research Microscopes with photography, • Auto Blood Analyzer, • Tissue Homogenizer.
2. Water and Soil Chemistry Laboratory	• Multi Parameter Water Analyzer, • High Seeped Centrifuge, • Refrigerator, • Nitrogen evaporator, • Solid phase extraction unit, • Flame Photometer, • pH Meter, • S-T-C Meter,

	• BOD incubator, • Deep freezer (-20ºC)
3. Microbiology Laboratory	• Laminar Flow Bench, • Bacteriological incubator, • freeze, • Cold Centrifuge,
4. Molecular Biology Laboratory	• Refrigerated centrifuge, • Gradient PCR, • Real-Time PCR, • Gel-Doc system, • Electrophoresis Unit, • Ice-flacking machine
5. Wet Laboratory	• Aquarium with stand and aeration facilities, • FRP tanks

Department of Fish Processing Technology& Engineering

Name of the laboratory	Major Equipment available/Particulars
1. PG Research laboratory for biochemistry 2. PG Research laboratory for microbiology 3. Ph.D. Research laboratory 4. UG Laboratory for Fishery Microbiology & Quality Control 5. Laboratory for fish processing and value addition 6. Laboratory for sophisticated instruments	• TS Extruder, • Muscle Texture Analyzer, • Silent cutter, • Complete canning line, • Airblast Freezer, • Ellab thermal validation system, • Overpressure retort, • Rotary vac. Evaporator, • Spectrocolorimeter, Laminar airflow, • Gradient thermal PCR, • Gel Documentation System, • Soxtec, Microcentrifuge, • Electrophoresis unit (Vertical and horizontal), • Muffle Furnace

Fish Genetics and Reproduction

S. No.	Name of the Lab / Facility	Major Equipments available/Particulars
1	PG Research Lab	• Molecular spectrophotometer, • Electrophoresis apparatus, • Gel doc, • PCR machine, • Cooling centrifuge, • pH meter, incubator, • Micropipettes, • Realtime PCR, • Blotting apparatus, • Microinjector, • water bath, • Laminar flow
2	Hatchery and wet lab	• Cistern Carp eco-hatchery • Prawn hatchery • FRP tank (500-1000L):20 nos. • Glass Aquariums – 60 nos. of different sizes
3	Freshwater Fish Farm	• Eleven (15) Earthen Ponds of different sizes with total water area of 0.8 ha, • Paddle Wheel Aerators, • FRP boat, • Water pump sets, • Nets etc.

Department of Extension and Social Sciences

Sl.No	Name of the facility	Facilities Available
1	Fisheries Extension Laboratory	• Seating facilities 30 students with white board, • Audio-Visual Aids, • OHP, • internet connectivity.
2	Fisheries	• Seating facilities 30 students with white board,

	Economics/Statistics Laboratory	• calculators and • internet connectivity.
3	Language Lab	• 30 no. of Desktop, • 10 KVA UPS, • Language Software, • Microphone, • Computer Table and Chair with Seating facilities 30 students and • high-speed internet connectivity

Dept. of Fisheries Resource Management

S. No.	Name of the Lab / Facility	Major Equipments available/Particulars
1	PG Research Lab	• Bacteriological incubator, • Blood cell counter, • Electronic balance, • Centrifuge, • Deep Freezer, • Camera Lucida, • Hot plate, • Heating mantle, • Hot air oven, • Hot water bath, • Lux meter, • Microscope • Refrigerator. • Rotamental, • UV-VIS Spectrophotometer, • Salinometer, • Scale Reader, • Dissecting microscope
2	Referral Fish Museum	• The department of Fisheries Resource Management of College of Fisheries holds a referral fish museum with 326 finfish and shellfish species displayed with scientific

		identifying data, collected from all over India specially covering all the states of NE India covering 322 habitats (23,036 samples) as well as from Indian marine sources.
3	Fish DNA Barcode Museum	• Established of a separate barcode museum with 297 fish species, collected and identified systematically from various aquatic systems of NE India and out of which 162 species were systematically identified with conventional and molecular methods (bar-coded) and displayed.
4	Fish molecular biology Lab	• All modern facilities for fish DNA bar coding

6.5.6.2 Research Contingency:

The College has a provision of research contingency of 1.5 lakhs per department per year to meet the student's research demands. However, if required, amount in excess of the stipulated one is also provided.

6.5.7 Outcome/Output:

6.5.7.1. Students Performance in Nation Examinations:

Students' performance in ICAR-JRF examinations in last five years

Sl. No.	Year	No. of students appeared for ICAR-JRF Exam	No of students selected for JRF	Total No of students joined CIFE, Mumbai with JRF/ Institutional Fellowship
1.	2016*	24	04	06
2.	2017	23	02	08
3.	2018	22	02	06
4.	2019*	26	03	07
5.	2020	27	01	06

*** ICAR-JRF All India Rank #1 in 2013, 2016 & 2019**

Student's performance in ICAR-NET Examination for last five years

SL. No.	Year of Examination	No. of students qualified
1.	2016	4
2.	2017	6
3.	2018	19
4.	2019	10

Sl. No.	Year	No. of students appeared for ICAR-SRF Exam	No of students selected for SRF	Total No of students joined CIFE, Mumbai SRF/ Institutional Fellowship
1.	2016	23	01	01
2.	2017	26	00	00
3.	2018	23	01	01
4.	2019	22	01	03
5.	2020	17	05	05

Student's performance in ICAR-SRF Examination in last five years

6.5.7.2. Students Placement profile (during past 5 Year):

Placement Profile	2016	2017	2018	2019	2020
Deputy Director of Instructions, CAU/ Associate Professor	1	-	-	1	-
Assistant Professor	-	4	3	5	-
ARS Scientist	1	1	-	-	-
Entrepreneurs	-	-	-	3	-
Deputy Manager/ Asst. Manager in Banks	-	1	-	-	-
Bank Officer	-	-	1	1	-
Subject Matter Specialist, KVKs	-	3	2	3	3

Assistant Director of Fisheries/ District Fisheries Officer	-	-	-	9	2
Fishery Officer/ Fishery Extension Officer	40	6	-	-	-
Assistant Fishery Officer/ Research Associate/ Fishery Assistant	5	-	1	1	16
Fishery Inspector	5	1	-	1	5
Farm Manager/ Programme Manager/ Panchayat Secy/ LDC	2	2	-	1	4
Livestock & Farm Assistant	-	-	2	2	-
Research Analyst/ Others	2	1	3	1	7

Selection of students passed out from the college (either graduated or obtained M.F.Sc. degree) to the Agricultural Research Service (ARS)

Sl. No.	Year	Number of students selected in ARS	Obtained B.F.Sc.	Obtained M.F.Sc.
1.	2016	01	-	01
2.	2017	01	01	-

6.5.7.3. Awards/ Recognitions/Certificates:

Information on awards/Recognitions/Certificate for faculty in the last five years:

Sl.No	Year	Name of the faculty	Awards
1.	2016	Dr. Atanu Sarkar Professor	Rastriya Gaurab Award
2.	2016	Dr. Dibyendu Kamilya Assistant Professor	Awarded "Certificate of Outstanding contribution in reviewing" for the Elsevier journal 'Fish and Shellfish Immunology' in 2016 by Elsevier, The Netherlands.
3.	2017	Dr. Dibyendu Kamilya Assistant Professor	(i) Dr. M.S Swaminathan award for Best Indian Fisheries Scientist award by Professional Fisheries Graduate Forum, India (ii) Awarded "Certificate of Outstanding contribution in reviewing" for the Elsevier journal

			'Aquaculture' in 2017 by Elsevier, The Netherlands.
4.	2017	Dr. Arun Bhai Patel Professor	(i) Invited member of expert panel "GAqP for fresh water Aquaculture, under Fish Fisheries and Aquaculture Sectional Committee,FAD 12 (ii) Certificate of outstanding contribution in reviewing in recognition of contributions from Aquaculture (Elsevier) made to the quality of the journal.
5.	2017	Dr. Naresh Kumar Mehta Assistant Professor	Best Ph.D. Thesis Award from CIFE, Mumbai.
6.	2018	Dr. Anindya Sundar Barman Assistant Professor	Zoology Congress Medal
7.	2018	Dr. S. Khogen Singh Assistant Professor	Zoology Congress Medal
8.	2018	Mrs. Bhani Dhar Assistant Professor	2nd prize for oral presentation on International Symposium.
9.	2018	Dr. S.S. Mahananda Assistant Professor	2nd prize for oral presentation on International Symposium.
10.	2019	Dr. Himadri Saha Assistant Professor	Young Scientist Award
11.	2019	Dr. Amitava Ghosh Assistant Professor	CWSS - Young Scientist Award.
12	2019	Mr. Tanmoy Gon Choudhury Assistant Professor	Best (first) participate in the winter school on "Advanced Molecular Techniques in Fish Disease Diagnosis and Management in Freshwater Aquaculture, Bhubaneshwar.
13.	2019	Dr. Anindya Sundar Barman Assistant Professor	Best oral presentation award in National Seminar on Biodiversity- issue challenges and opportunity.

14.	2020	Dr. Janmejay Parhi Assistant Professor	(i) Prof. Harswaruo Medal. (ii) Dr. S. Ayyappan Gold Medal.

Awards/recognition/certificates for students:

Sl. No.	Year	Events	Awards
1	2016	3rd CAU Inter Collegiate Youth Festival 2016	Runners up
2.	2017	18th AGRI-UNIFEST 2017-18	Mr. Sourav Debnath of the stood 2nd position in Quiz team event.
3.	2017	4th CAU Inter Collegiate Youth Festival	Overall Team Champion

6.5.7.4. Employability:

The foremost requisite for a professional student to succeed in their carrier is the personality development alongside, a thorough understanding of the subject with respect to their skills. The students of the college are exposed to theoretical as well as practical understanding of the subjects with the available infrastructure and laboratory facilities. The students are also very much exposed to the industry related programs during their in-plant attachment. It is also to be noted that the students' READY program, which is a part of the academic curriculum, is entrusted to learning cum doing exercise to attain self confidence in organizing and successfully running an aquaculture enterprise and to enable skill-oriented activities once they are absorbed in various organizations. Apart from this, the college also organizes various personality cum skill development short training workshops exclusively for the students to enhance their skill and to impart confidence and discipline which are necessary for appearing in various interviews. On a large, students have given a positive feedback and suggestion for more program in future too. A very important thing to mention related to this subject is the importance of rural awareness programme of the student which is targeted towards understanding the rural situation and to strengthen their decision-making abilities with respect to various socio-economic program ahead in their future career. In short, the training, skills and personality development programs imparted to the students during the entire course tenure have resulted in an enhanced employability.

I, **Prof. Ratan Kumar Saha** the Dean, College of Fisheries, Lembucherra, hereby certify that the information contained in Sections 6.4 and Section 6.5.1 to 6.5.7.4. are furnished as per the records available in the College and degree awarding university.

Signature of the Dean of the College with Date & Seal

SELF-STUDY REPORT

for the Undergraduate (B.F.Sc.) Programme

Submitted to

National Agricultural Education Accreditation Board

College of Fisheries

CENTRAL AGRICULTURAL UNIVERSITY, IMPHAL

Lembucherra, Agartala, Tripura

Website: www.cofcau.nic.in E-mail: cofcau.agt-tr@gov.in

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6.4. Self-Study Report for the Undergraduate (B.F.Sc.) Programme

The four-year undergraduate programme i.e., Bachelor of Fisheries Science (B.F.Sc.) is offered by the College of Fisheries, CAU, Tripura. The programme comprises of ICAR-approved common course curriculum, syllabi, Student READY programme, Experiential Learning Programme (ELP), and other recommendations of the ICAR Fifth Deans' Committee. The programme is being implemented as per the guidelines issued by the ICAR from time to time with the due approval of the Board of Studies and Academic Council of the University. As per the stipulated guidelines, the details of the self-study report in respect of the B. F. Sc. programme are given below:

6.4.1. Brief history of the degree programme

The fisheries degree programme is being offered by the Central Agricultural University (CAU) in one of the constituent Colleges at Lembucherra, Tripura. Since Tripura has rich traditions and greater potentialities of fisheries as compared to all other North-Eastern states under its jurisdiction, the CAU, Imphal decided to establish the College of Fisheries in the state of Tripura. As per the CAU Ordinance/Statute/Act. 1992, No. 40 dated 26th December 1992, the College of Fisheries started functioning from 3rd October, 1998 at SIPARD Building, Camper Bazar, Agartala and became the 12th Fisheries College of the country established under the Department of Agricultural Research and Education (DARE), Ministry of Agriculture and Farmers' Welfare, Govt. of India. The college was shifted to its campus at Lembucherra in September 2001. The present campus of the college at Lembucherra has a total area of 54.72 acres and is about 10 km from Agartala International Airport and 15 km from the Agartala Railway Station. The college has been imparting quality education, research, and extension activities in different disciplines of fisheries and aquaculture as envisaged by the agricultural education system.

For admission to the B.F.Sc. course, the candidate should pass 10+2 examination with 50 % marks for UR and 40 % marks for ST/SC in PCB, should be a permanent resident or domicile of any one of the seven North East State of India namely Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura. As per the allotted seats, different NE states send their nominee based on marks/common entrance examination conducted by the concerned NE states. Fifteen percent (15%) of the approved number of seats is filled up by the candidates nominated by ICAR, selected based on the All-India Entrance Test (AIET) conducted by the ICAR, or as amended from time to time by ICAR. In addition, another ten (10) seats for the B.F.Sc. programme is higher fee payment seats open to Indians and selected based on mark basis.

Objective of the degree programme

- To produce globally competitive graduates and post-graduates in fisheries sciences.
- To promote the advancement of learning and persuasion of research in fisheries sciences.
- To make the graduates competent to impart extension services to the stakeholders.
- To meet the requirement of well-trained skilled manpower in the North-Eastern states.
- To facilitate the startups, aqua-entrepreneurship, and also to undertake such other activities as it may deem fit from time to time.

Accomplishments

The College, which started with just five (5) students as the first batch with nine (9) faculties on deputation from the Department of Fisheries, Government of Tripura in 1998, has emerged as one of the best fisheries colleges of the country within a relatively short period, as evident by large numbers of its graduates topping/cracking ICAR-JRF examination and securing PG admission in one of the premier fisheries institutions, ICAR-CIFE, Mumbai and in other colleges/Universities as well. A large number of alumni (UG – 37; PG – 4; Total 41 nos.) of this college have also joined the highly competitive Agricultural Research Services (ARS) of the country besides occupying important positions in the developmental organizations. The college has steadfastly been catering to the diverse research needs of sustainable fisheries and aquaculture, and allied fields including value addition, value chain analysis, and socio-economic upliftment of farmers. The research efforts have resulted in the development and/or improvement of several technologies and packages of practices for improving yield and enhancing the farmers' income. On the other hand, the thematic framework of outreach components of the college has effectively contributed to the social empowerment, economic empowerment, multi-institutional partnership mode intervention, and policy advisory for addressing various issues of fisheries and aquaculture in the region.

Placement of Students Who Graduated from this College (2002 - 2020)

Batch	Scientist (ARS)	Assoc. Prof./ Dy. Director/ DFDO/Asst.	Asst. Prof.	KVK-SMS	ATMA	Banking	Superintendent of Fisheries/ Fishery Officer/ Technical	Ph.D./ PDF/ Project Scholar	PG Scholar	Pvt. Jobs/ Entrepreneurs/ Misc.	**Total**
1998-02	1	1					1			2	**5**
1999-03	1	1	1	2		1	3			1	**10**
2000-04	1		3	2		4	3	1			**14**
2001-05	3		1	1		5		1			**11**
2002-06	2		1				3	2		1	**9**
2003-07	4	1	3		1	1	2	1			**13**
2004-08	4		2	1	1		2			1	**11**
2005-09	4		1		1		10	2		1	**19**
2006-10	7					1	6			4	**18**
2007-11	6		1	1			7	2		2	**19**
2008-12	3			2			16	4		8	**33**
2009-13	1		2	1		1	12	2		3	**22**
2010-14			2		1		14	3		4	**24**
2011-15				1			9	6		8	**24**
2012-16		1	1	1			7	9		5	**24**
2013-17							5	9		11	**24**
2014-18							1	2	20	2	**23**
2015-19						1			18	6	**25**
2016-20									22		**22**
Total	**37**	**4**	**18**	**12**	**4**	**14**	**101**	**44**	**60**	**60**	**350**

6.4.2. Faculty strength

As per faculty recommended by ICAR Fifth Deans' Committee the faculty strength of College of Fisheries, Lembucherra is sufficient for academic requirement of the college.

S. No.	Sanctioned faculty	Faculty in place	Vacant position	Faculty recommended by the **ICAR**/UGC/ VCI/ other regulatory bodies
1	Professor	2	3	7
2	Associate Professor	7*	2	11
3	Assistant Professor	18	4	20
Total		**27**	**9**	**38**

*2 promoted as Professor under CAS

6.4.3. Technical and supporting staff

The technical staff and other supporting staff of College of Fisheries, Lembucherra are attached with the Dean's office for administrative, convenience and are being allotted to other departments as per requirements. Other than these staffs Skilled and Unskilled labours are hired on contractual basis. The administrative and accounts staff are centralized in the college and are operating under the direct control of the Dean as part of Dean's office.

Department	Technical and Supporting Staff
1. Aquaculture	06
2. Aquatic Health & Environment	05
3. Fish Processing Technology and Engineering	05
4. Fish Genetics & Reproduction	07
5. Extension and Social Sciences	06
6. Fisheries Resource Management	06
Total	**35**

6.4.4. Classrooms and laboratories

Classrooms:

Four (**04**) ICT-enabled class rooms with a sitting capacity of 50 each are available for conducting regular theory classes. The classrooms are equipped with white board/green board, overhead projectors, computer, LCD projectors, large-screen computer display system. Besides, one (**01**) smart classroom (with a seating capacity of 64) has recently been developed with all modern ICT-enabled facilities including digital podium, interactive touch panel, two movable cameras, lecture platform and CCTV.

ICT-enabled UG Class Room

Smart Classroom

Laboratories:

A total of **38** functional laboratories/units are available in the college. All the academic departments have their own laboratories for conducting practical classes. The list of major equipment, laboratories, farm facilities, workshops and other instructional units are given below:

S. No.	Name of the Lab / Facility	Major Equipment available/Particulars
1	UG Laboratory (6 nos.) Water and Soil Chemistry Laboratory Disease Microbiology Laboratory Quality Control Microbiology Laboratory Biochemistry Laboratory Fish Processing and Engineering Laboratory (4 nos.)	• Inorganic nutrient flow-analyzer • UV-VIS Lux-meter • Analytical Balance • Moisture meter • Muffle furnace • Bomb calorimeter • Multimode spectrophotometer • Laminar Flow Bench • CO_2 incubator • Multi Parameter Water Analyser • Refrigerator • Nitrogen evaporator • Solid phase extraction unit • Flame Photometer • pH Meter • S-T-C Meter • BOD incubator • Deep freeze -20ºC • Bacteriological Incubator • Auto Blood Analyzer • Dark field Microscope • Inverted Microscope • Realtime PCR • PCR • Refrigerated centrifuge • Tissue Homogenizer • Ice-flacking machine • TS Extruder • Muscle Texture Analyzer • Silent cutter • Complete canning line • Air-blast Freezer • Ellab thermal validation system • Overpressure retort • Rotary vac. Evaporator • Micromanipulator
2	Central Instrumental Facility	• HPLC • AAS • GC-MS • Histopathology unit with Automatic Tissue processing,

		• Tissue embedder • Semi-automatic microtome • Inverted microscopy with image capturing system • Fluorescent microscope with image capturing system • Deep freezer -80ºC • Auto Fiber analyzer • Auto Nitrogen analyzer • Water purification system
3	Central Molecular Biology laboratory under Centre of Excellence in Fisheries & Aquaculture Biotechnology (COE-FAB)	• Electrophoresis Unit, • Deep freezer -20ºC • Ultra-freezer -80ºC • Gene sequencer • Water purification system • Multi chamber Water bath • Hybridization Oven • Phase Contrast Microscopes with image capturing system • Stereo zoom Microscope with image capturing system • Sonicator • Refrigerated Centrifuge • Western Blot • Gradient PCR • Gel-Doc system • Nanodrop • Colour analyzer • Nutrient Auto Analyser • PCR cabinet • UV-cross linker • Rotary vac. Evapourator • Incubator
4	Biotech Hub	• Molecular spectrophotometer • Electrophoresis apparatus • Gel doc • PCR machine • Cooling centrifuge • pH meter, incubator • Micropipettes • Realtime PCR • Blotting apparatus • Microinjector • Water bath • Laminar flow

5	Aquacultural Engineering workshop	• Centrifugal Pumps • Submersible Pumps • Engineering Tools • Different parts of Refrigerator • Different parts of 2 stroke engine and 4 stroke engines • Single wheel Paddle aerators • Double wheel paddle aerators etc.
6	Aqua Wet Laboratory • Ornamental fish breeding Unit • Nutrition	• FRP Tank (1000 L) – 60 nos. • FRP Tank (500 L) – 55 nos. • Glass Aquariums – 260 nos. of different sizes • Aeration Facility • 100-liter Plastic Tanks with Lid
7	Aquatic Animal Health Wet Lab	• Glass Aquariums • Aeration facility • FRP Tanks
8	Freshwater Fish Farm	• Twenty-six (26) Earthen Ponds of different sizes with total water area of 2.1 ha • Paddle Wheel Aerators • FRP boat • Integrated Fish Farming Models with Pig and Poultry sheds • Water pump sets • Nets etc.
9	Carp Hatchery Complex	• Overhead Tanks – 80,000 liters • Breeding Pools –2 nos • Hatching Pool – 6 nos • Egg/spawn collection Chamber
10	Freshwater Prawn Hatchery	• Larval raring Tank – 12 Circular • Larval raring Tank – 8 Rectangular • Biofilter unit • Aeration unit • Artemia Hatching facility
11	Outdoor Cement tank Facility	• Cement Tanks (20 sq. m) – 54 nos. • Cement tank (10-15 sq. m) –21 nos. • Cement Tanks (2-3 sq. m) – 30 nos. • FRP Tank (200 L) – 30 nos.
12	Feed Mill (150 kg/hr)	• Twin-Screw Extruder • Grinder • Mixer • Dryer • Oil Sprayer • Drum Roller etc.
13	Biofloc Demonstration Unit	• 10,000-liter tank • Aeration Unit
14	Pabda Broodstock Unit	• Cemented Pools (10,000 L) – 3 nos. • FRP Tanks (500 L) – 12 nos.

15	Simulated poly-house breeding Unit	• Flow-through lotic simulated riverine system, • Incubation pool housed in plastic poly-house
16	Bioinformatics Lab with AC	• 12 no. of Desktop • Server - 2 • 5 KVA UPS • Scanner • Photocopier • Application software (SPSS-22, R software) • ASFA Database • Bioinformatics Software • Seating facilities for 20 students • High-speed internet connectivity
17	Computer Lab with AC	• 15 no. of Desktop • 5 KVA UPS • Seating facilities for 30 students • High-speed internet connectivity
18	Language Lab with AC	• 30 no. of Desktop • 10 KVA UPS • Language Software • Microphone • Computer Table and Chair with Seating capacity of 30 students • High-speed internet connectivity
19	ATIC	• Information cum Reception counter • Product sale counter • Technology display • Conference Room with all facilities • Training Hall • Bar coded Fish Museum • Fish Aquarium • Faculty rooms • Staff room • High speed internet connectivity
20	Fish Museum including a barcoded fish museum	• The fish museum has 326 finfish and shellfish species • Displayed with scientific information. • The barcode museum contains 297 fish species.
21	Mobile Fish Clinic	• A dedicated vehicle fully furnished with water & soil quality analysis as well as disease diagnosis tools for field/mobile monitoring
22	Automatic Weather Station	• Automatic Weather Station with Digital Monitor
23	Incubation Room	• Fully furnished with audio-visual aids, • Conference public address system • Seating capacity of 32

Fig. Microscopy Facilities

Fig. Central Laboratory and Central Molecular Biology Laboratory

Fig. Gene Sequencer in Central Molecular Biology Laboratory

Fig. UG Laboratories - Dept. of Fish Processing Technology & Dept. of Aquaculture

Fig. Carp & Prawn Hatcheries

Fig. Aqua Wet Laboratory

Fig. Freshwater Fish Farm

Fig. Cemented Tanks Facility

Fig. Feed Mill

Fig. Biofloc Demonstration Unit

Fig. Language Laboratory under IDP

Fig. Incubation Room under IDP

Fig. Library

Fig. ATIC & MTTC Building

Fig. Mobile Fish Clinic

Fig. Automatic Weather Station

Fig. Fish Museum

Fig. Computer Lab

6.4.5. Conduct of practical and hands-on training

All the department has well established laboratories equipped with instruments and other facilities to conduct practical classes and imparting hands-on training. Besides the designated UG laboratories, several other specific laboratories available with the departments are effectively utilized for imparting hands-on practical exposure to the UG students. Additionally, one central laboratory and laboratory facilities under the Centre of Excellence (COE) project supports hands-on practical exposure to the students. Under the compulsory course work allotted, the students are trained on various need-based and curriculum oriented hands-on practical on various aspects. To assist the practical classes, all the department have laboratory assistants in place. The Student READY Programme for B.F.Sc. final year students comprised In-plant attachment, Rural Fisheries Work Experience Programme, All India Study Tour, Skill Development component as well as Experiential Learning Programme (ELP) under three departments and Project work.

Fig. ELP in Fish Processing

Fig. ELP in Fish Feed Mill

Fig. ELP in Semi-Intensive Fish Farming

6.4.6. Supervision of students in PG/Ph.D.

Not applicable

6.4.7. Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

The students give their feedbacks about the course, the quality and other attributes of the faculty at the end of the semester. The alumni of the college have expressed their satisfaction regarding various theoretical as well as practical knowledge they have gained during their degree programme. Besides student, parents also sometimes express their happiness, particularly the way their wards have been trained. The students have been well received by the professional experts during the interview for selection of positions in the developmental organizations. Additionally, the faculties of the department impart training and conduct awareness programmes for the farmers who give feedbacks after completion of the programme. The feedbacks taken from them are critically examined and necessary measures are taken to address the issues. Some of the feedback received from visiting dignitaries is enclosed as Annexure – I.

6.4.8. Student intake and attrition in the programme for the last five years

Name of the degree programme	Actual student admitted in the last five years					Attrition (%)				
	2016-17	2017-18	2018-19	2019-20	2020-21	2016-17	2017-18	2018-19	2019-20	2020-21
B.F.Sc.	31	40	45	44	48	9.67%	15%	11.11%	9.09%	18.75%

6.4.9. ICT application in curricula delivery

Different pedagogical approaches are followed in the teaching and learning process. All the classrooms are equipped with computer with internet connectivity and presentations/videos are delivered to the students. Computer-aided methods like PowerPoint Presentation are used as per need of the topic and for interactive teaching. Sometimes multimedia aids are also used to make things more plausible to the students, particularly short animation films depicting a scientific process are shown to the students. LMS (Learning Management System) like Google Classroom are used for sharing information and study materials (ppt/notes/videos) to the students. Students are exposed to different educational videos on different aspects of fisheries. Students are encouraged to explore and enroll in different MOOC (Massive Open Online Courses) platforms (eg: swayam). Different cloud based collaborative educational tools, Open Educational Resources (OER) and online Platforms (Google Meet/ Skype/Zoom) are used and encouraged for promoting blended learning among the students.

I, **Prof. Ratan Kumar Saha** the Dean, **College of Fisheries, Lembucherra**, hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

SELF-STUDY REPORT

for Masters Programme in Aquaculture

Submitted to

National Agricultural Education Accreditation Board

College of Fisheries

CENTRAL AGRICULTURAL UNIVERSITY, IMPHAL

Lembucherra, Agartala, Tripura

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6.4. Self-Study Report for Masters Programme in Aquaculture

6.4.1. Brief History of the Degree Programme

The Department of Aquaculture is one of the core departments of the College of Fisheries, CAU (I) and is at the forefront of sustainable aquaculture technologies and augmentation of aquaculture productivity in the northeastern region which is greatly deficit in local fish production as well as food and feed grain production. In this regard, the department is actively engaged in UG and PG teaching and research as well as capacity building of the line department officials and master trainers of NGOs. Emphasis is always on to make all these programmes relevant to field conditions. The department has been offering "**Master of Fisheries Science (Aquaculture)**" programme w.e.f. Academic Year 2010-11 (Intake: 05) as per the model PG syllabus of ICAR, New Delhi. Under this postgraduate degree programme, 22 credits comprising of eight major core and optional courses are offered from this discipline apart from other minor, supporting courses, along with Master's Seminar and Master's Research. The main focus of research efforts of the department of aquaculture is to develop, evaluate and refine aquaculture technologies and/or package of practices for food and ornamental fishes utilizing local aquatic and agro-bio-resource that can be adopted by farmers of the northeastern region. Towards this, the department has developed/is developing complete package of seed production, nursing, rearing and grow-out practices and feed and feeding of priority food and ornamental fishes with local bio-resources so as to make the production and productivity enhancement sustainable in true sense.

Objective of the degree programme

- To produce globally competitive postgraduates in Aquaculture.
- To promote the advancement of learning and persuasion of research in fisheries sciences.
- To make the postgraduates competent to impart extension services to the stakeholders.
- To meet the requirement of well-trained skilled manpower in the North-Eastern states.
- To facilitate the startups, aqua-entrepreneurship, and also to undertake such other activities as it may deem fit from time to time.

Accomplishments

The Department of Aquaculture has successfully implemented five (05) intramural and two (2) externally funded research projects while another five (05) projects sponsored by DBT, RKVY-RAFTAAR and NFDB are currently ongoing supporting the PG research programme.

Thirty-eight (38) scholars have graduated from the department and are either employed in universities, state fisheries departments, aqua-industry or pursuing higher studies. A systematic table of the pass-out scholars with their current position is annexed below.

University Faculty	State Department	NGO	Project JRF	Pursuing Ph.D.
2	26	2	2	6

6.4.2. Faculty strength

The faculty strength of the Department of Aquaculture is given below.

S. No.	Sanctioned faculty		Faculty in place	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1	Professor	1	1	-	1
2	Associate Professor	1	1	-	2
3	Assistant Professor	3	3	-	3
Total		**5**	**5**	**0**	**6**

6.4.3. Technical and supporting staff

The administrative and accounts supporting staff are centralized in the college and are operating under the direct control of the Dean as part of Dean's office. The dedicated technical staff and supporting staff allotted to the department are as below:

S. No.	Designation	Staff in place
Technical staff		
1	Livestock cum Farm Assistant	2
2	Field cum Laboratory Assistant	2
Supporting staff		
3	Multi-Tasking Staff	2

In addition to the above staff, Skilled and Unskilled labours are hired on contractual basis.

6.4.4. Classrooms and Laboratories

The Department has a fully furnished classroom equipped with large digital monitor, projectors etc. with a seating capacity of 22 scholars to conduct PG courses. In addition, Incubation Room which is fully furnished with audio-visual aids, Conference Public Address System and seating capacity of 32 persons is available in the department. Apart from the common laboratory facilities of the college such as Central Instrumental Facility, Central Molecular Biology laboratory etc. the main laboratory, field and other facilities for PG research of the department are as under:

S. No.	Name of the Lab / Facility	Major Equipments available/Particulars
1	PG Research Lab	• Inorganic nutrient flow-analyzer • Kjeltec • Soxtec • Fibertec • YSI multi-water quality sonde • UV-VIS Spectrophotometer • DO-meter

		• pH-meter • Lux-meter • Hot Air Oven • Muffle Furnace • Electronic Balance • Microscopes etc.
2	Aqua Wet Lab / Ornamental Fish Lab	• FRP Tank (1000 L) – 50 nos. • FRP Tank (500 L) – 30 nos. • Glass Aquariums – 130 nos. of different sizes • Aeration facility
3	Freshwater Fish Farm	• Eleven (11) Earthen Ponds of different sizes with total water area of 1.3 ha • Paddle Wheel Aerators • FRP boat • Integrated Fish Farming Models with Pig and Poultry sheds • Water pump sets • Nets etc.
4	Outdoor Research Cement Tank Facility	• Cement Tanks (20 sq.m) – 54 nos. • Cement tank (10-15 sq. m) – 21nos. • Cement Tanks (2-3 sq.m) – 30nos.
5	Feed Mill (150 kg/hr)	• Twin-Screw Extruder • Grinder • Mixer • Dryer • Oil Sprayer • Drum Roller etc.
6	Biofloc Demonstration Unit	• 10,000-liter tank • Aeration Unit
7	Pabda Broodstock Unit (Shared facility with Dept. of FGR)	• Cemented Pools (10,000 L) – 3 nos. • FRP Tanks (500 L) – 12 nos.
8	Simulated poly-house breeding Unit	• Flow-through lotic simulated riverine system, • Incubation pool housed in plastic poly-house
9	Incubation Room	• Fully furnished with audio-visual aids, • Conference public address system • Seating capacity of 32

Fig. Aqua Wet Laboratory

Fig. Cemented Tanks Facility

Fig. Freshwater Fish Farm

Fig. Feed Mill

Fig. Biofloc Demonstration Unit

Fig. Incubation Room under IDP

6.4.5. Conduct of Practical and Hands-on Training

The department has well established laboratories and field facilities to support postgraduate research. A separate PG laboratory is in place which is fully dedicated for student's research purpose only. Additionally, the state-of-the-art Central Instrumental Facility, Central Molecular Biology laboratory facilities setup under the Centre of Excellence (COE) programme supports hands-on practical knowledge to orient the scholar into futuristic research mind-sets. Considering the fact that the department is mostly focused on production-oriented research, experimental set-ups are carried out in fields (ponds/cemented tanks) to grasp an absolute understanding of the generated data. Under the compulsory course work allotted to the scholars, students are trained on various need-based and curriculum oriented hands-on practical on water quality monitoring, feed formulation and preparation, biochemical analysis of feed/flesh, immunological assays etc. To assist the practical classes, the department has two laboratory assistants in place.

6.4.6. Supervision of students in PG programme

The department has started the postgraduate programme since 2010 and Ph.D. programme recently (2020). The number of scholars enrolled for the postgraduate programme is 05 including the ICAR seats. All faculties in the department have Ph.D. and higher degree and are well qualified and eligible (Annexed below) for guiding the students as per the ICAR norms.

S. No	Name of Faculty	Designation	Qualification	Area of specialization
1	Dr. Arun Bhai Patel	Professor & Head	B.F.Sc., M.Sc. (AQC), Ph.D., Post Doc. (Japan)	Fish Nutrition, Aquaculture Environment & Management
2	Dr. Gusheinzed Waikhom	Associate Professor	B.F.Sc., M.F.Sc. (AQC), Ph.D., Post Doc. (USA)	Species Diversification, Endemic Species, Cage culture, Mariculture, Brackishwater aquaculture
3	Dr. Pradyut Biswas	Assistant Professor	B.F.Sc., M.F.Sc. (AQC), Ph.D., Post Doc. (Japan)	Inland/Reservoir aquaculture, Catfish & Ornamental Fish Seed Production, Biofloc Tech.
4	Dr. Soibam Khogen Singh	Assistant Professor	B.F.Sc., M.F.Sc. (AQC), Ph.D.	Freshwater aquaculture Alternative Feed Resources, Live Feed Production, Nutritional Biotechnology
5	Dr. Sampa Baidya	Assistant Professor	B.F.Sc., M.F.Sc. (AQC), Ph.D.	Organic Aquaculture, Integrated Farming System

Sl. No	Name of Faculty	Post Held	Highest qualification	Teaching/ work experience (in years)	Honours & awards	No. of students guided (PG/PhD separately)	No. of publications in NAAS rated journals
1	Dr. A.B. Patel	Professor & Head	Ph.D., Post Doc. (Japan)	21 years	3	PG-18	Research Paper – 35
2	Dr. Gusheinzed Waikhom	Associate Professor	Ph.D., Post Doc. (USA)	14 years	1	-	Research Paper – 14
3	Dr. Pradyut Biswas	Assistant Professor	Ph.D., Post Doc. (Japan)	12 years	3	PG-6	Research Paper – 19
4	Dr. S. Khogen Singh	Assistant Professor	Ph.D.	9 years	5	-	Research Paper – 22
5	Dr. Sampa Baidya	Assistant Professor	Ph.D.	8 years	1	-	Research Paper – 7

The allotment of PG students to faculties for supervision is as per CAU regulation. The allotment of students is by constitution of advisory committee and allotment of research title keeping in mind the interest of the student.

Sl. No.	No. of eligible faculty for guidance	Intake capacity	Faculty/Student ratio
1.	5	5	1.0

List of Students Awarded M.F.Sc. (Aquaculture) Degree (2016-2020)

S. No.	Name	Title of Thesis	Year
1.	Ms. Shilpika Gogoi	Effect of dietary *Wolffia arrhiza* and *Spirulina platensis* on performance and pigmentation of *Botio Dario* (Hamilton ,1822)	2016
2.	Ms. Man kumara Subba	Interactive effects of stocking density and dietary protein level on growth performance of Amur common carp (*Cyprinus carpio*) under semi-intensive culture system	2016
3.	Mr. Manmohan Kumar	Evaluation of tapioca tubers as local starch source in fish feed of *Osteobrama belangeri* (Valenciennes, 1844)	2016
4.	Mr. Satyajit Das	Effects of larval and fry stocking on growth performance of butter catfish, *Ompok bimaculatus* (Bloch, 1974)	2016
5.	Mr. Naresh Raj Keer	Standardization of stocking density of spawn and fry of *Cirrhinus reba* (Hamilton, 1822) under semi-intensive culture system	2016
6.	Ms. N. Surjobala Devi	Evaluation of optimum dietary protein level for fingerling *Osteobrama belangeri* (Valenciennes, 1844) using semi purified diet	2017
7.	Ms. Atiya Niyazi	Standardization of stocking density for seed rearing of *Osteobrama belangeri* (Valenciennes, 1844)	2017
8.	Mr. Atul Sinha	Evaluation of mixed feeding schedule using artificial feed and fresh *Wolffia arrhiza* for *Osteobrama belangeri* (Valenciennes, 1844)	2017
9.	Mr. Nikhlesh Ghritlahre	Evaluation of fresh *Wolffia arrhiza* (L.) as replacement of artificial feed in carp polyculture system	2017
10.	Ms. Priya Rawat	Evaluation of different feed attractants on seed seed rearing performance of *Ompok bimaculatus* (Bloch, 1794)	2017
11.	Mr. Alok Kumar Jena	Effect of stocking density on growth performance, survival and production of pabda, *Ompok bimaculatus* (Bloch, 1794).	2018
12.	Mr. Manoj Kumar	Effect of fertilization on growth performance, biochemical composition and nutrient uptake efficiency of *Wolffia globosa* (L.)	2018
13.	Mr. Rajkumar Debarjeet Singh	Evaluation of performance of *Osteobrama belangeri* (Valenciennes, 1844), *Cyprinus carpio haematopterus* and *Gibelion catla* (Heckel, 1843)	2018

	under semi-intensive monoculture and polyculture systems.	
14. Ms. Amrita Pradhan	Effect of feeding select carp fry with live *Wolffia globosa* and formulated feed on survival and growth performance under semi-intensive rearing system.	2018
15. Ms. Kalpana Arambam	Effect of photoperiod and light intensity on egg hatching and larval rearing performance of *Ompok bimaculatus* (Bloch, 1794).	2018
16. Ms. Purnapriya Suara	Interactive effects of stocking density and water depth on growth performance of Pengba, *Osteobrama belangeri* ((Valenciennes, 1844)	2019
17. Mr. Ritesh Chandravanshi	Evaluation of semi-intensive polyculture system of pengba (*Osteobrama belangeri*) and pabda (*Ompok bimaculatus*)	2019
18. Ms. Anamika Debnath	Effect of dietary L-tryptophan on survival, growth and cannibalism of *Ompok bimaculatus* post larvae	2019
19. Mr. Rohit Kumar	Effect of Protein/ Lipid ratio in diets on growth, feed utilization and flesh quality on *Ompok bimaculatus*	2019
20. Mr. Shubham Sahu	Effect of dietary L-tryptophan on maturation and GnRH gene expression in silver barb, *Barbonymus gonionotus* (Bleeker, 1849)	2019
21. Maibam Malemngamba Meitei	Evaluatiion of Indian Major carps as co-species in semi-intensive polyculture with Pabda (*Ompok bimaculatus*) as Dominant Species	2020
22. Sandeep Kumar Behera	Effect of Co-culture of *Wolffia globosa* on Performance of *Clarias batrachus* in a semi-intensive culture system	2020
23. Reshmi Debbarma	Optimization of Carbon to Nitrogen ratio during seed rearing of Pabda, *Ompok bimaculatus* (Bloch,1974) in a biofloc system	2020

6.4.7. Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

The passed-out scholars have expressed their satisfaction on the various theoretical as well as field-based work they have rendered during their curricula. The field-based learning and integrated analysis of the various seed rearing practices, pond culture and feeding aspects have enabled their skills with descent contribution in their respective job positions. The scholars, especially those joining PG programme after completing their UG programme in other universities have been impressed to see the research infrastructure and instrumentations. They honestly confess that their former colleges do not have such infrastructure for practical oriented learning. The existing infrastructures are optimally being utilized for teaching. The resultant graduates have been well received by the professional experts during the interview for selection of faculty, line department officials or NGOs in different states including Assam, Tripura, Manipur, Chhattisgarh, Orissa, etc. For that matter, the department has till now produced 38 nos. of postgraduates since its inception in 2010 and all the students have been well placed. The students remain in touch and express their field experience during the PG program highly handy in addressing the farmers' problems. The farmer related problems of the NE region are mostly undertaken

for their dissertation work and have been delivered satisfactorily. The focal area of research includes seed rearing, grow-out production, nutrition and feed technology, sustainable production system etc.

6.4.8. Student intake and attrition in the programme for the last five years

Name of the degree programme	Actual student admitted in the last five years					Attrition (%)				
	2016-17	2017-18	2018-19	2019-20	2020-21	2016-17	2017-18	2018-19	2019-20	2020-21
M.F.Sc. (Aquaculture)	5	5	3	4	5	0%	0%	0%	0%	0%

6.4.9. ICT application in curricula delivery

The department has a dedicated classroom with modern tools. Lectures are delivered using computer projected PPTs. ICT application are applied in form of online classes delivered via media like Google Meet, Skype. The students are provided online materials for self-preparation.

I, **Prof. Ratan Kumar Saha** the Dean, **College of Fisheries, Lembucherra**, hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

SELF-STUDY REPORT

for Masters Programme in Aquatic Animal Health

Submitted to

National Agricultural Education Accreditation Board

College of Fisheries

CENTRAL AGRICULTURAL UNIVERSITY, IMPHAL

Lembucherra, Agartala, Tripura

Website: www.cofcau.nic.in E-mail: cofcau.agt-tr@gov.in

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6.4. Self-Study Report for Masters Programme in Aquatic Animal Health

6.4.1. Brief history of the degree programme

The 'Department of Aquatic Health and Environment' under the College of Fisheries, Lembucherra started functioning since the inception of the college in 1998. The department was initially named as 'Fish Diseases and Environmental Monitoring Department' and later on renamed twice as 'Department of Fish Health and Environment' and 'Department of Aquatic Animal Health and Environment, respectively. It was only during 2014 that the present name was adopted. The department has been offering **Masters' degree** in the discipline of '**Aquatic Animal Health**' since 2007. The department is also mandated with carrying out research in frontier areas of 'Aquatic Animal Health' and 'Environment' besides conducting training and other extension interventions for the end users.

Objective of the degree programme

- To produce globally competitive postgraduates in Aquatic Animal Health.
- To promote the advancement of learning and persuasion of research in fisheries sciences.
- To make the postgraduates competent to impart extension services to the stakeholders.
- To meet the requirement of well-trained skilled manpower in the North-Eastern states.
- To facilitate the startups, aqua-entrepreneurship, and also to undertake such other activities as it may deem fit from time to time.

Accomplishments

Till now, the department has produced 28 postgraduates since its inception and all the students have been well placed. The placement status of the PG students from the department is annexed below.

Scientist/ Faculty	State Department/Technical	NGO/Project	Pursuing Ph.D.
4	15	4	5

6.4.2. Faculty strength

The faculty strength of the Department of Aquatic Health and Environment is given below.

S. No.	Sanctioned faculty		Faculty in place	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1	Professor	1	-	1	1
2	Associate Professor	1	1*	-	1
3	Assistant Professor	3	4	-	2
Total		**5**	**5**	**1**	**4**

* Promoted to Professor under CAS

6.4.3. Technical and supporting staff

The administrative and accounts supporting staff are centralized in the college and are operating under the direct control of the Dean as part of Dean's office. The dedicated technical staff and supporting staff allotted to the department are as below:

S. No.	Designation	Staff in place
Technical staff		
1	Livestock cum Farm Assistant	1
2	Field cum Laboratory Assistant	1
Supporting staff		
3	Multi-Tasking Staff	2

In addition to the above staff, Skilled and Unskilled labours are hired on contractual basis.

6.4.4. Classrooms and laboratories

Apart from the common laboratory facilities of the college such as Central Instrumental Facility, Central Molecular Biology laboratory etc. the main laboratory, field and other facilities available for PG research of the department are as under:

S. No.	Name of the laboratory	Major Equipment available/Particulars
1.	UG Teaching Laboratory	• Automatic weather station, • Analytical Balance, • Moisture meter, • Muffle furnace,
2.	PG Research Laboratory	• Bomb calorimeter, • Multimode spectrophotometer, • ELISA reader, • CO2 incubator, • Research Microscopes with photography, • Auto Blood Analyzer, • Tissue Homogenizer.
3.	Water and Soil Chemistry Laboratory	• Multi Parameter Water Analyzer, • High Seeped Centrifuge, • Refrigerator, • Nitrogen evaporator, • Solid phase extraction unit,

		• Flame Photometer, • pH Meter, • S-T-C Meter, • BOD incubator, • Deep freezer (-20ºC)
4.	Microbiology Laboratory	• Laminar Flow Bench • Bacteriological incubator • Freeze • Cold Centrifuge • Vertical autoclave • CO2 incubator
5.	Molecular Biology Laboratory	• Refrigerated centrifuge • Gradient PCR • Real-Time PCR • Gel-Doc system • Electrophoresis Unit • Ice-flacking machine
6.	Pharmacology and Toxicology Laboratory	• Solid phase extraction unit • Nitrogen evaporator • Tissue Homogenizer • ELISA reader • ELISA washer • Bomb calorimeter • Automatic Bomb calorimeter
7.	Heamatology and Immunology Laboratory	• Auto Blood Analyzer • Refrigerated centrifuge • Ice-flaking machine • Multimode spectrophotometer
8.	Wet Laboratory	• Aquarium with stand and aeration facilities • FRP tanks • Syntex tanks
9.	Automatic Weather Station	• For monitoring and recording the weather parameter on regular basis.
10.	Mobile Fish Clinic	• For on field sampling and diagnosing/testing of fishes and water

6.4.5. Conduct of practical and hands-on training

The department has well established laboratories and wet laboratory to conduct practical classes and imparting hands-on training. The laboratories are well equipped with instruments and other facilities to support postgraduate research. Recently, three specific laboratories (Water and soil chemistry, Microbiology and Molecular Biology laboratories) have been developed in the dept though a NFDB funded Scheme 'Development of Aquatic Animal Health Laboratory'. Additionally, the state-of-the-art central laboratory and laboratory facilities under the Centre of Excellence (COE) programme supports hands-on practical knowledge to the research scholars. Under the compulsory course work allotted, the students are trained on various need-based and curriculum oriented hands-on practical on immunology, microbiology, molecular biology, disease diagnosis, and water and soil parameter analyses. To assist the practical classes, the department has two laboratory assistants in place.

6.4.6. Supervision of students in PG

Sl. No.	No. of eligible faculty for guidance	Intake capacity	Faculty/student ratio
1.	4	5	0.8

The department has started the postgraduate programme since 2007. The number of scholars enrolled for this programme is 05 including the ICAR candidate. All faculties in the department are well qualified and eligible (Annexed below) for guiding the students as per the ICAR norms.

S. No.	Name of Faculty	Designation	Qualification	Area of specialization
1.	Dr. Ratan Kumar Saha	Professor	M.Sc., IFDA, D.F.Sc., Ph.D.	Fish Eco-toxicology & Management
2.	Dr. Dibyendu Kamilya	Assistant Professor (SS)	B.F.Sc., M.F.Sc., Ph.D.	Fish Immunology, Microbiology, Fish health Management
3.	Dr. Himadri Saha	Assistant Professor	B.F.Sc., M.F.Sc. Ph.D.	Fish Parasitology, Fish Nutra-pharmacology, Aquatic pollution & toxicology

4.	Mr. Tanmoy Gon Choudhury	Assistant Professor	B.F.Sc., M.F.Sc.	Fish Disease Prophylaxis and Therapeutics

Sl. No	Name of faculty	Post held	Highest qualification received	Teaching/ Work experience (in years)	Honors and awards	No. of students guided (PG/PhD separately)	Publication
1	Dr. Ratan Kumar Saha	Professor & Head	Ph.D.	> 35 years	10	PhD-2 PG-11	Research papers - 50
2	Dr. Dibyendu Kamilya	Assistant Professor	Ph.D.	14 years	5	PhD-1 PG-10	Research Paper – 39
3	Dr. Himadri Saha	Assistant Professor	Ph.D.	9 years	5	PG-3	Research Paper – 30
4	Mr. Tanmoy Gon Choudhury	Assistant Professor	M.F.Sc.	11 years	8	-	Research Paper – 30

List of Students Awarded M.F.Sc. (Aquatic Animal Health) Degree (2016-2020)

S. No.	Name	Title of Thesis	Year
24.	Mr. Asish Kumar Sahoo	Effects of ketoconazole on patho-physiological responses in *Labeo rohita* (hamilton) fingerlings	2016
25.	Ms. Mukta Singh	Thesis title has been corrected as per synopsis effects of miconazole on patho-physiological responses in *Labeo rohita* (hamilton) fingerlings	2016
26.	Ms. Auroshree Biswal	Effects of mebendazole against gill monogenean in *Labeo rohita* (hamilton) fingerlings	2016
27.	Mr. Biswanath Kheti	Effects of dietary supplementation of biofloc on immunity and disease resistance of rohu, *Labeo rohita* (hamilton)	2016
28.	Mr. Sukham Tushiba Singh	Dietary Effects of Heat-Killed Bacillus amyloliquefaciens on Immunity and Disease Resistance of Catla, *Catla catla* (Hamilton)	2016
29.	Md. Idrish Raja Khan	Efficacy of Bamboo (*Melocanna baccifera* (Roxburgh) Kurz, 1875) Extract in *Labeo rohita* (Hamilton, 1822) Fingerlings against Fungal infection under Low pH Stress	2017
30.	Mr. Rahul Kumar	Influence of Chitin on Immuno-biochemical Responses and Resistance of *Labeo rohita* (Hamilton) Infected with Gill Monogeneans	2017
31.	Ms. Narinder Kaur	Kinetics of Systemic and Mucosal Immunity and Haematological Indices of *Catla catla* (Hamilton) Challenged with Gill Monogeneans	2017
32.	Mr. Bhupendra Chouriya	Evaluation of *Millettia pachycarpa* (Benth.) Plant Extract as a Piscicide against Weed Fish	2018

33. Ms. Arambam Ashwini Devi	Effects of Anesthetic and Transportation Dose of Clove Oil and Tricaine Methanesulfonate (MS-222) on Physiological Responses of Rohu (*Labeo rohita*)	2018
34. Mr. C. Laltlanmawia	Dietary Supplementation to Ameliorate the Effect of Waterborne Iron and Low pH Toxicity in *Labeo rohita* (Hamilton)	2018
35. Ms. Wangkheimayum Malemnganbi Devi	Effects of Cordyceps militaris Spent Mushroom Substrate Based Nutraceutical Mixture on *Labeo rohita* (Hamilton, 1822) against *Aeromonas hydrophila* Infection	2019
36. Mr. Surajkumar Irungbam	Effect of Feed Deprivation on Immuno-Hematological Responses and Resistance of *Labeo rohita* (Hamilton, 1822) during Induced *Aeromonas hydrophila* Infection	2019
37. Mr. Manu Mog	Effect of Oxytetracycline on *Labeo rohita* (HAMILTON, 1822) Infected with *Aeromonas hydrophila*	2019
38. Ms. Songhita Paul	Iron Mediated Stress in *Osteobrama belangeri* (Valenciennes, 1844)	2020
39. Mr. Yumnam Abungcha Mangang	Effect of Un-ionized Ammonia on Pathophygiological Responses of *Osteobrama belangeri* (Valenciennes, 1844)	2020
40. Mr. Arpit Acharya	Evaluation of Mahua Oil Cake Extract as a Therapeutic Agent against *Argulus* Infection in *Cyprinus carpio* (Linneaus, 1758)	2020

6.4.7. Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

The alumni of the department have expressed their satisfaction regarding various theoretical as well as practical knowledge that they have gained during their degree programme. Besides student, parents also sometimes express their happiness, particularly the way their wards have been trained. The students who come from a different university to join the department's PG and Ph.D. programme are overwhelmed to see the research and other infrastructural facilities. They honestly confess that their former colleges do not have such infrastructure for gaining practical knowledge. The PG students have been well received by the professional experts during the interview for selection of scientists, assistant professors, line department officials or NGOs. Additionally, the faculties of the department impart training and conduct awareness programmes for the farmers. The request from the farmers to conduct training again after few months shows their satisfaction. In fact, many a times, they directly call the faculty members to solve their problems related to fish health and environment related aspects. It clearly shows their satisfaction from their first interaction with the faculty members. The feedbacks taken from them are critically examined and necessary measures are taken to address the issues.

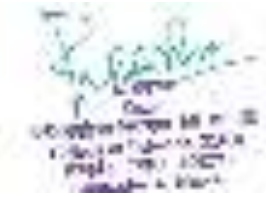
6.4.8. Student intake and attrition in the programme for the last five years

Name of the degree programme	Actual student admitted in the last five years					Attrition (%)				
	2016-17	2017-18	2018-19	2019-20	2020-21	2016-17	2017-18	2018-19	2019-20	2020-21
M. F. Sc. (Aquatic Animal Health)	5	5	4	5	5	40%	40%	25%	0%	0%

6.4.9. ICT application in curricula delivery

Computer-aided methods like PowerPoint Presentation are used as per need of the topic and for interactive teaching. Sometimes multimedia aids are also used to make things more plausible to the students, particularly short animation films depicting a scientific process are shown to the students.

I, **Prof. Ratan Kumar Saha** the Dean, **College of Fisheries, Lembucherra**, hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.



Signature of Dean of the College with Date & Seal

SELF-STUDY REPORT

for Masters Programme in Fisheries Extension

Submitted to

National Agricultural Education Accreditation Board

College of Fisheries

CENTRAL AGRICULTURAL UNIVERSITY, IMPHAL

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6.4. Self-Study Report for Masters Programme in Fisheries Extension

6.4.1. Brief History of Degree Programme

In 2015, the 'Department of Extension and Social Sciences' was created under the College of Fisheries, Lembucherra by way of merging the two erstwhile Departments of 'Fisheries Extension' and 'Economics and Statistics' which had been in existence since inception of the college in 1998. Apart from being involved in imparting UG teaching leading to B.F.Sc. degree in congruence with the recommendation of the Fifth Dean's Committee, the Department has also been offering Masters' programme in 'Fisheries Extension' since 2010 as per the model PG syllabus of ICAR, New Delhi. Alongside, it is also mandated with carrying out research in relevant frontier areas as well as coordinating Extension Programmes, Extension Services and other outreach activities of the college. Under this degree programme, 40 credits comprising of eight courses are offered from this discipline apart from other minor, supporting courses, along with Master's Seminar and Master's Research. As prescribed, the discipline has the intake capacity of five (05) students including one (01) ICAR nominee.

Objective of the degree programme

- To produce globally competitive post-graduates in Fisheries Extension.
- To promote the advancement of learning and persuasion of research in fisheries sciences.
- To make the post-graduates competent to impart extension services to the stakeholders.
- To meet the requirement of well-trained skilled manpower in the North-Eastern states.
- To facilitate startups, aqua-entrepreneurship and also to undertake such other activities as it may deem fit from time to time.

Accomplishments

So far 22 students have passed out from the department. Many of them got employments such Faculty in Fisheries College, Fishery Officers in the State Departments, NGOs, JRF/SRF in Research Projects, Self-employed and few students are pursuing Ph.D.

6.4.2. Faculty Strength

The Department of Extension and Social Sciences comprises faculty with specialization in the disciplines of Agricultural/Fisheries Extension, Agricultural Economics and Agricultural Statistics. Under the offered discipline, four (04) faculties are eligible to guide PG students in 'Fisheries Extension' although all the seven (07) faculties have sufficient experience in the field of teaching and research in their respective discipline. The faculty strength of the department is given below:

Sl. No	Sanctioned Faculty		Faculty in Place	Vacant Position	Faculty Recommended by ICAR /UGC/VCI/other regulatory body
1.	Professor	1	1	-	1
2.	Associate Professor	2	2	-	1
3.	Assistant Professor	4	4	-	2
Total		**7**	**7**	**0**	**4**

6.4.3. Technical and supporting staff

The administrative and accounts supporting staff are centralized in the college and are operating under the direct control of the Dean as part of Dean's office. The dedicated technical staff and supporting staff allotted to the department are as below:

S. No.	Designation	Staff in place
Technical staff		
1	Field cum Laboratory Assistant	2
2	Computer Operator	1
Supporting staff		
3	Multi-Tasking Staff	1

In addition to the above staff, Skilled and Unskilled labours are hired on contractual basis.

6.4.4. Classrooms and Laboratories

The department has well established laboratories for conducting UG/PG/PhD practical in the courses related to the Fisheries Extension, Fisheries Economics and Statistics. For UG practical departmental laboratories (Fisheries Extension and Fisheries Economics) are used while for PG and Ph.D. Courses Bioinformatics Lab is used.

Sl. No	Name of the facility	Facilities Available
1.	Fisheries Extension Laboratory	Seating facilities 30 students with white board, Audio-Visual Aids, OHP, internet connectivity.
2.	Fisheries Economics/Statistics Laboratory	Seating facilities 30 students with white board, calculators and internet connectivity.
3.	Language Lab	30 no. of Desktop, 10 KVA UPS, Language Software, Microphone, Computer Table and Chair with Seating facilities 30 students and high-speed internet connectivity

Fig. Language Laboratory under IDP

Fig. Bioinformatics Lab

6.4.5. Conduct of practical and hands-on training

Since in Fisheries Extension and Fisheries Economics courses many practical are field oriented hence the UG as well as PG students were provided exposure through field visits as per requirement. M.F.Sc. Fisheries Extension students are provided with practical exposures on different dimensions of fisheries extension as mentioned below:

Practical/ Hands on training	Description
Field visits in rural areas	Students are exposed to different rural situations; they are given practical exposure to study farm situations and to build good rapport with the farmers
Participatory approaches	Under the supervision of the faculty in the department, students conduct different extension activities of collecting farm information and data using different PRA tools
Group discussion farmers with	Students are also engaged in group discussion and brainstorming with farmers to understand the main issues faced by the farmers. They are also engaged in different extension activities performed under the MGMG programme to give them proper insight of the rural lives.
Usage of different extension communication methods	Students are engaged and supervised in preparation of different extension communication tools viz., preparation of leaflets, poster, charts, radio talk, etc
Visit at different institutes	Exposure visits to different organizations/institutes are conducted from time to time to provide them the knowledge on different development activities being formed by the concerned institute. KVK, Dept of Fisheries, ICAR, Cooperative societies, etc are some of the institutions which are visited by the students.
Farm Journalism	Students have been oriented towards journalistic views on different aspects of fisheries programmes and developmental interventions. They are exposed in delivering radio talk, script writing, new analysis, news writing and basics of news production, etc
Usage of different ICT tools	Students are made acquainted with usage of different instructional tools associated with extension communications. Usage of different multimedia tools, internet and web-based tools, cloud-based applications for communication, usage of Learning management Systems (LMS), etc
Adoption of different fisheries technologies	Students are also supervised in studying adoption behaviour of farmers on different fisheries technology/practices.
Training Need Assessment of fish farmers	For devising need-based programmes, students are acquainted with a standard methodology for training need assessment

Impact assessment of different fisheries programme	As part of course curricula, students have been sensitized in different tools of impact assessment viz., Before-after, with-without quantitative and qualitative changes, feasibility analysis, task analysis, etc
Co-management practices and stakeholder analysis in fisheries	For managing the common and community-based resources, students have been practically made aware of the principles/types/stages of co management especially in case of common properties in fisheries and they have been sensitized in stakeholder analysis for identifying appropriate stakeholder(s) towards sustainable co-management arrangements
Gender Study and Community Mobilization	Students are exposed to different fisheries related activities specifically performed by a gender in certain region. They are made aware of the roles played by different genders in a farming community. Students are also involved in different extension activities of the college for mobilizing the farming community.

6.4.6. Supervision of students in PG programme

Sl. No.	No. of eligible faulty for guidance	Intake capacity	Faculty/student ratio
1.	4	5	0.8

The department had started the M.F.Sc. in Fisheries Extension programme in 2010. Five faculties in the department have Ph.D. and are well qualified and eligible (Annexed below) for guiding the students as per the ICAR norms.

S. No.	Name of Faculty	Designation	Qualification	Area of Specialization
1.	Dr. J.K. Chauhan	Professor	Ph.D. (Agril. Extension)	Agril. Extension
2.	Dr. A.D. Upadhyay	Associate Professor and Head	Ph.D. (Agril. Economics)	Fisheries Economics and Marketing Management
3.	Dr. Biswajit Lahiri	Associate Professor	Ph.D. (Agril. Extension)	Farm information Communication
4.	Mr. Y Jackie Singh	Assistant Professor	B.F.Sc., M.F.Sc. (Fisheries Extension)	Fisheries Extension
5.	Dr. P. Pal	Assistant Professor (SS)	Ph.D. (Agril. Statistics)	Agricultural Statistics
6.	Dr. Amitava Ghosh	Assistant Professor	B.F.Sc., M.F.Sc., Ph.D. (Fisheries Extension)	Media mix and Audience Research, Livelihood impacts and Gender Studies

Sl. No.	Name of faculty	Post held	Highest qualification	Teaching/ Work experience (in years)	Honors and awards	No. of students guided (PG/Ph.D. separately)	No. of Publications in NAAS rated journals
1	Dr. Jitendra Kumar Chauhan	Professor	Ph.D.	31 years	06	PG-	Research Paper – 95
2	Dr. A.D. Upadhyay	Associate Professor	Ph.D.	25 Years	03	-	Research Paper – 72
3	Dr. Biswajit Lahiri	Associate Professor	Ph.D.	14 years	06	PG-01	Research Paper – 25
4	Mr. Y. Jackie Singh	Assistant Professor	M.F.Sc.	9 years	04	PG-06	Research Paper – 23
5	Dr. Prasenjit Pal	Assistant Professor	Ph.D.	9 years	02	-	Research Paper – 64
6	Dr. Amitava Ghosh	Assistant Professor	Ph.D.	4 Years	10	PG-01	Research Papers- 29

List of Students Awarded M.F.Sc. (Fisheries Extension) Degree (2016-2020)

S. No.	Name	Title of Thesis	Year
41.	Ms. Bonani Laskar	Ornamental Fish Marketing and Consumers' Preference Behaviour: A Study In West Tripura	2016
42.	Ms. Indrani Sah	Impact of Fishery Based Self-Help Groups on Empowerment of Rural Women in Jashpur District of Chhattisgarh	2017
43.	Mr. Rajsumer Ijardar	Influence of MGNREGA on Aquaculture: A Case Study in West Tripura	2017
44.	Mr. Nongthobam Dorendro Singh	Status of Fish Based Integrated Farming in West Tripura: A Micro Level Study	2017
45.	Mr. Rupan Pegu	Paddy cum Fish Farming System of Assam: A Pattern Analysis	2017
46.	Mr. Mudada Dibyanath	Fishers' Risk Perception and Adaptation Strategies to Climate Change in Coastal Region of Southern Odisha	2017
47.	Mr. Kashyap Borah	Communication Behaviour of Fish Farmers in West Tripura: A Case Study	2018
48.	Mr. Oinam Naresh Khuman	Adoption of Scientific Fish Farming of Pengba (*Osteobrama belangeri*) by the Fish Farmers in the Valleys of Manipur	2018
49.	Mr. Chakrapani Pegu	An Empirical Study on Fishermen's Cooperative Societies in Tripura	2018
50.	Mr. Somlang Tesia	Perception of Fishers on Fish Diversity and its Conservation in Dumboor Reservoir of Tripura	2019
51.	Ms. Toko Yemin	A Study on MGNREGS - Aquaculture Convergence in Tripura	2019
52.	Ms. Sajina	Linkage among Researchers, Extension Personnel & Fish Farmers in the Valleys of Manipur	2019

53. Mr. Wandame Niangti	A Study on Training Need Assessment of Fish Farmers in West Garo Hills and Ri-Bhoi Districts of Meghalaya	2020
54. Mr. Bikash Shil	Adoption Behaviour of Fish Farmers on Scientific Fish Culture Practices of Pabda Fish (*Ompok bimaculatus* Bloch, 1794) in Tripura	2020
55. Mr. Shiba Prasad Debbarma	A Study on Job Satisfaction of Fisheries Extension Professionals in Tripura	2020

6.4.7. Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

The passed out Post Graduate students of department of Extension and Social Sciences have expressed their satisfaction on the various theoretical as well as field-based work they have rendered during their curricula. The practical based learning, uses of ICT and field exposure during course work and survey and data collection have enabled their skills with descent contribution in their future carrier. The UG students of other University who joined PG programme in Fisheries Extension have been impressed with facilities, infrastructure and keen interest of faculties in nurturing their knowledge, skill and personality. Through the research programme of PG student several social issues related to Fisheries of North Eastern Region such as technology adoption behaviour of the farmers, sources of information for fish farmers and their utilization pattern, assessment of training need of farmers and officials of line department, women participation in fisheries, impact of MG NREGA on Aquaculture of NEH region, ITK in fisheries, role of SHGs/Cooperatives in Fisheries, fish based integrated farming system, Job Satisfaction of Fisheries Extension Professionals etc. have been addressed. The department has conducted an impact assessment of PFC sponsored vocational training programmes as well as took feedback from the participant of other categories, viz. rural youths, extension functionaries, practicing farmers etc. towards effective designing and delivery of similar future programmes. Further, the specialized Online UGC NET-Preparatory Sessions have been well appreciated by the PG (Fisheries Extension) students during the time of pandemic.

6.4.8. Student intake and attrition in the programme for last five years

Name of the degree programme	Actual student admitted in the last five years					Attrition (%)				
	2016-17	2017-18	2018-19	2019-20	2020-21	2016-17	2017-18	2018-19	2019-20	2020-21
M.F.Sc. (Fisheries Extension)	5	4	4	5	5	40%	25%	25%	20%	0%

6.4.9 ICT Application in Curricula Delivery

The department has a dedicated classroom with modern tools. Lectures are delivered using computer projected PPTs. ICT application are applied in form of online classes delivered via media like G-Meet, Skype are taken. The students are provided online materials for self-preparation.

I, **Prof. Ratan Kumar Saha** the Dean, **College of Fisheries, Lembucherra**, hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

SELF-STUDY REPORT

for Masters Programme in Fish Genetics and Breeding

Submitted to

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6.4. Self-Study Report for Masters Programme in Fish Genetics and Breeding

6.4.1. Brief history of the degree programme

The department of Fish Genetics and Reproduction is one of the core departments of the College of Fisheries, CAU (I) and is at the forefront of seed production technologies and genetic improvement programme, fish biodiversity characterization for augmentation of aquaculture productivity in the northeastern region which is greatly deficit in local fish production as well as food & feed grain production. In this regard, the department is actively engaged in PG teaching and research as well as capacity building of the stake holder. Emphasis is always on to make all these programmes relevant to field conditions. The department has been offering "**Master of Fisheries Science in two disciplines, namely "Fish Genetics and Breeding" and "Fish Biotechnology"** programme w.e.f. Academic Year 2014-15 and 2019-20 (Intake: 5), respectively, as per the model PG syllabus of ICAR, New Delhi. The main focus of research efforts of the department is to refine/develop technologies and package of practice, quality seed production, trait improvement of indigenous fishes of aquaculture and ornamental value and fish biodiversity characterization for cataloguing and conservation. Towards this, the department has developed/is developing complete package of seed production of several fishes like indigenous carp, catfishes, giant freshwater prawn and ornamental fishes. Department has also barcoded (DNA) 166 fish species. Department has attracted eight (8) number of externally funded project from DBT, ICAR, NHM etc. Through molecular endocrinology research, department has identified molecular mechanism of pigmentation and traits to improve color in ornamental fishes. Department has also conducted active research in molecular endocrinology to enhance maturity and reproductive performance of cultivable species. In recent research, department has also developed BRICS technology for voluntary captive spawning of *Clarias magur*.

Objective of the degree programme

- To produce globally competitive postgraduates in Fish Genetics and Breeding.
- To promote the advancement of learning and persuasion of research in fisheries sciences.
- To make the postgraduates competent to impart extension services to the stakeholders.
- To meet the requirement of well-trained skilled manpower in the North-Eastern states.
- To facilitate the startups, aqua-entrepreneurship, and also to undertake such other activities as it may deem fit from time to time.

Accomplishments

Many of the scholars are now employed in university, state departments, industry and few pursuing higher studies. A systematic table of the pass-out scholars with their current position is annexed below.

University Faculty	Central/State Government	NGO	Project JRF	Pursuing Ph.D.
2	11	0	3	2

6.4.2. Faculty Strength

S. No.	Sanctioned faculty		Faculty in place	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1	Professor	1	-	1	NA
2	Associate Professor	2	1	1	NA
3	Assistant Professor	5	4	1	NA
Total		**8**	**5**	**3**	NA

6.4.3. Technical and Supporting staff

The administrative and accounts supporting staff are centralized in the college and are operating under the direct control of the Dean as part of Dean's office. The dedicated technical staff and supporting staff allotted to the department are as below:

S. No.	Designation	Staff in place
Technical staff		
1	Livestock cum Farm Assistant	01
2	Field cum Laboratory Assistant	02
Supporting staff		
3	Multi-Tasking Staff	01

In addition to the above staff, Skilled and Unskilled labours are hired on contractual basis.

6.4.4. Classrooms and laboratories

Apart from the common laboratory facilities of the college such as Central Instrumental Facility, Central Molecular Biology laboratory etc. the main laboratory, field and other facilities available for PG research of the department are as under:

S. No.	Name of the Lab / Facility	Major Equipments available/Particulars
1	PG Research Lab	• Molecular spectrophotometer • Electrophoresis apparatus • Gel doc • PCR machine • Cooling centrifuge • pH meter • Incubator • Micropipettes • Realtime PCR • Blotting apparatus • Microinjector • Water bath • Laminar flow • Colour hunter lab • Gene sequencer
2	Hatchery and wet lab	• Cistern Carp eco-hatchery • Prawn hatchery • FRP tank (500-1000L):20 nos. • Glass Aquariums – 60 nos. of different sizes
3	Freshwater Fish Farm	• Eleven (15) Earthen Ponds of different sizes with total water area of 0.8 ha • Paddle Wheel Aerators • FRP boat • Water pump sets • Nets etc.

6.4.5. Conduct of practical and hands-on training

The department has well established laboratories and field facilities to support postgraduate research. A separate PG laboratory is in place which is fully dedicated for student's research purpose only. Additionally, the state-of-the-art Central laboratory and Molecular biology laboratory facilities

setup under the Centre of Excellence (COE) programme supports hands-on practical knowledge to orient the scholar into futuristic research mind-sets. Considering the fact that the department is mostly focused on trait improvement-oriented research, experimental set-ups are carried out in fields (ponds/cemented tanks) to grasp an absolute understanding of the generated data. Under the compulsory course work allotted to the scholars, students are trained on various need-based and curriculum oriented hands-on practical. To assist the practical classes, the department has one laboratory assistant in place.

6.4.6. Supervision of students in PG programme

Sl. No.	No. of eligible faulty for guidance	Intake capacity	Faculty/Student ratio
1.	04	05	0.8

The department has started the postgraduate programme in Fish Genetics and Breeding in 2015 (and Fish Biotechnology in 2019). All faculties in the department have Ph.D. and higher degree and are well qualified and eligible (Annexed below) for guiding the students as per the ICAR norms.

S. No	Name of Faculty	Designation	Qualification	Area of specialization
1	Dr. Sagar Chandra Mandal	Associate Professor & Head	B.F.Sc., M.F.Sc. (AQC), Ph.D.	Aquaculture
2	Dr. Himanshu Priyadarshi	Assistant Professor	B.F.Sc., M.F.Sc. (FGB), Ph.D.	Fish Genetics and Biotechnology
3	Dr. Anindya Sundar Barman	Assistant Professor	M.Sc. (Fisheries), Ph.D.	Fish Biotechnology
4	Dr. Janmejay Parhi	Assistant Professor	B.F.Sc., M.F.Sc. (FGB), Ph.D., Post Doc (Spain)	Fish Genetics and Biotechnology

S. No	Name of faculty	Post held	Highest qualification received	Teaching/ Work experience (in years)	Honors and awards	No. of students guided (PG/PhD separately)	Publication
1	Dr. Sagar Chandra Mandal	Associate Professor & Head	Ph.D.	19 years	01	PG-09	Research Paper – 46
2	Dr. Himanshu Priyadarshi	Assistant Professor	Ph.D.	13 years	01	PG-02	Research Paper – 14
3	Dr. Anindya Sundar Barman	Assistant Professor	Ph.D.	11 years	-	PG-06	Research Paper – 18
4	Dr. Janmejay Parhi	Assistant Professor	Ph.D., Post Doc. (Spain)	11 years	11	PG-09	Research Paper – 43

List of Students Awarded M.F.Sc. (Fish Genetics and Breeding) Degree (2016-2020)

S. No.	Name	Title of Thesis	Year
56.	Ms. Laishram Galaxy Khuman	Molecular characterisation of sifamide and its receptor in *Macrobrachium rosenbergii* (de man, 1879)	2016
57.	Ms. Asem Lembika Devi	Expression profiling of gonadotropin- releasing hormone (gnrh) gene in *Puntius gonionotus* (bleeker, 1850) during different reproductive stages	2016
58.	Mr. Sumit Kumar	Expression analysis of gonadotropin releasing hormone receptor genes (gnrh-r) in *Puntius gonionotus* (bleeker, 1850) during different reproductive stages	2016
59.	Mr. Biswaranjan Rath	Identification of aquaporin-1, 4 and 11 genes in *Cyprinus carpio* (linnaeus, 1758) and their expression analysis during reproduction	2016
60.	Ms. Papuli Adhikary	Molecular Characterization of Enzymes Involved in DNA Methylation and Histone Modification in *Macrobrachium rosenbergii* (DE MAN, 1879)	2017
61.	Ms. Ningthoujam Chaoba Devi	Characterization and Expression of GnIH Gene in *Clarias batrachus* (Linnaeus, 1758)	2017
62.	Mr. Rualthantluanga Pachuau	Molecular Characterization and Expression Profiling of GnRH III gene in *Barbonymus gonionotus* (Bleeker, 1850)	2017
63.	Mr. Sudhakar Bisen	Molecular Characterization of Kisspeptin Gene and their Expression during Reporductive Cycle in *Barbonymus gonionotus* (Bleeker, 1850)	2017
64.	Ms. Angam Panor	Identification of Dopamine Receptor in *Clarias batrachus* (Linnaeus, 1758) and its Expression during Different Reproductive Stages	2017
65.	Mr. Maradode Jaywant Raghunath	Characterization and Expression of CYP17 Gene in *Clarias batrachus* (Linnaeus, 1758)	2018
66.	Ms. Snehalata Mohanty	Molecular Characterization and Expression of Vitellogenin Gene in Silver Barb, *Barbonymus gonionotus* (Bleeker, 1850)	2018
67.	Mr. Partha Sarathi Tripathy	Characterization and Expression of csf1r Gene in *Botia dario* (Hamilton, 1822)	2018
68.	Ms. Khageshwari Jolhe	Characterization and Expression Analysis of Brdt Gene in *Clarias batrachus* (Linnaeus, 1758)	2018
69.	Ms. Prerna Dobriyal	Characterization and Expression Analysis of Male-Biased Genes Sox9 and Dmrt1 in *Ompok bimaculatus* (Bloch, 1794)	2019
70.	Mr. Devendra Kumar	Role of Dopamine Receptors on *Clarias magur* (Linnaeus, 1758) Reproduction	2019
71.	Mr. Bhubanendra Prasad Acharya	Development of Somatostatin (SST) Targeted siRNA Construct in *Labeo rohita* (Hamilton, 1822)	2019

72.	Mr. Shrish Chandra Yadav	Characterization and Expression of GnRH Gene in *Botia dario* (Hamilton, 1822)	2019
73.	Mr. Subrata Rudra Paul	Comparative Karyotyping of Somatic and Gametic Cells of *Osteobrama belangeri* (Valenciennes, 1844) for Sex Chromosome Identification	2019
74.	Ms. Ananya Khatei	Study of Methylation Patterns in Key Pigmentation Genes of *Danio rerio* (Hamilton, 1822) in Response to Feed Supplementation	2020

6.4.7. Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

The passed-out scholars have expressed their satisfaction on the various theoretical as well as field-based work they have rendered during their curricula. The field-based learning and integrated analysis of the various seed production technologies, and advanced molecular techniques have enabled their skills with descent contribution in their respective job positions and peruse higher studies. The existing infrastructures are optimally being utilized for teaching. The resultant graduates have been well received by the professional experts during the interview for selection of faculty, line department officials or NGOs in different states including Assam, Tripura, Manipur, Chhattisgarh, Orissa, etc. For that matter, the department has till now produced 20 nos. of postgraduates since its inception in 2015 and all the students have been well placed. The students remain in touch and express their field experience during the PG program highly handy in addressing the farmers' problems. The farmer related problems of the NE region are mostly undertaken for their dissertation work and have been delivered satisfactorily. The focal areas of research include seed production technology, trait improvement, molecular endocrinology etc.

6.4.8. Student intake and attrition in the programme for the last five years

Name of the degree programme	Actual student admitted in the last five years					Attrition (%)				
	2016-17	2017-18	2018-19	2019-20	2020-21	2016-17	2017-18	2018-19	2019-20	2020-21
M.F.Sc. (Fish Genetics and Breeding)	5	5	4	7	6	0%	20%	75%	0%	0%

6.4.9. ICT application in curricula delivery

The department has a dedicated classroom with modern tools. Lectures are delivered using computer projected PPTs. ICT application are applied in form of online classes delivered via media like G-Meet, Skype are taken. The students are provided online materials for self-preparation.

I, **Prof. Ratan Kumar Saha** the Dean, **College of Fisheries, Lembucherra**, hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

SELF-STUDY REPORT

for Masters Programme in Fish Processing Technology

Submitted to

National Agricultural Education Accreditation Board

College of Fisheries

CENTRAL AGRICULTURAL UNIVERSITY, IMPHAL

Lembucherra, Agartala, Tripura

Website: www.cofcau.nic.in E-mail: cofcau.agt-tr@gov.in

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6.4. Self-Study Report for Masters Programme in Fish Processing Technology

6.4.1. Brief history of the degree program

Since inception of the college the Department of Fish Nutrition and Food Technology, later renamed as Department of Fish Processing Technology, and thereafter Department of Fish Processing Technology & Engineering (FPTE) is growing steadily with the following mandates.

Objective of the degree programme

- Teaching postgraduate curriculum including doctoral program in the field of Fish Processing Technology for manpower generation
- Research activities on post-harvest management and value addition of fish
- Technology evaluation, valorisation and upscaling of the indigenous fish products of the northeast region
- Extension activities for livelihood improvement and employment generation

The department has been offering "Master of Fisheries Science (Fish Processing Technology)" programme w.e.f. 2007 (Intake: 05) as per the model PG syllabus of ICAR, New Delhi.

Accomplishments

As of 2020, 33 students have completed the M.F.Sc. (FPT). A systematic table of the pass-out scholars with their current position is annexed below.

Scientist/ Faculty	State Department/Technical	NGO/Project	Pursuing Ph.D.
3	19	6	5

6.4.2. Faculty strength

Sl No.	Sanctioned faculty		Faculty in place	Vacant position	Faculty recommended by ICAR/UGC/VCI/other regulatory bodies
1	Professor	1	-	1	1
2	Associate Professor	2	1*	1	3
3	Assistant Professor	4	4	-	5
	Total	**7**	**5**	**2**	**9****

* Promoted to Professor under CAS

** As the Department is handling two disciplines

6.4.3. Technical and supporting staff

The administrative and accounts supporting staff are centralized in the college and are operating under the direct control of the Dean as part of Dean's office. The dedicated technical staff and supporting staff allotted to the department are as below:

S. No.	Designation	Staff in place
Technical staff		
1	Field cum Laboratory Assistant	01
Supporting staff		
2	Multi-Tasking Staff	01

In addition to the above staff, Skilled and Unskilled labours are hired on contractual basis.

6.4.4. Classrooms and laboratories

Apart from the common laboratory facilities of the college such as Central Instrumental Facility, Central Molecular Biology laboratory etc. the main laboratory and other facilities available for PG research of the department are as under:

Name of the laboratory	Major Equipment available/Particulars
1. PG Research laboratory for biochemistry 2. PG Research laboratory for microbiology 3. Ph.D. Research laboratory 4. UG Laboratory for Fishery Microbiology & Quality Control 5. Laboratory for fish processing and value addition 6. Laboratory for sophisticated instruments	• TS Extruder • Muscle Texture Analyzer • Silent cutter • Complete canning line • Airblast Freezer • Ellab thermal validation system • Overpressure retort • Rotary vac. Evaporator • Spectrocolorimeter • Laminar airflow • Gradient thermal PCR • Gel Documentation System • Soxtec • Microcentrifuge • Electrophoresis unit (Vertical and horizontal) • Muffle Furnace

6.4.5. Conduct of Practical and Hands-on Training:

Practical classes are conducted in different laboratories as mentioned above. Hands-on trainings are conducted in the laboratory for fish processing and value addition as well as in the retail outlet for Experiential Learning Program (ELP).

6.4.6. Supervision of students in PG programs:

Sl. No.	No. of eligible faulty for guidance	Intake capacity	Faculty/Student ratio
1.	04	05	0.8

The department has started the postgraduate programme since 2007 and Ph.D. programme recently (2018). The number of scholars enrolled for the postgraduate programme is 05 including the ICAR seats. Four (4) faculties in the department have Ph.D. and are well qualified and eligible (Annexed below) for guiding the students as per the ICAR norms.

S. No	Name of Faculty	Designation	Qualification	Area of specialization
1	Dr. Ranendra Kumar Majumdar	Professor & Head	M.Sc., Ph.D.	Fermented fish products of NE India, Fish waste valorization, Value addition
2	Dr. M. Bhargavi Priyadarshini	Assistant Professor	B.F.Sc., M.F.Sc.(FPT), Ph.D.	Fish Processing Technology
3	Ms. Bahni Dhar	Assistant Professor	B.F.Sc., M.F.Sc.(FPT)	Fish processing including traditional ITK, value addition of fish and fish microbiology
4	Dr. Sudhansu Shekhar Mahanand	Assistant Professor	M.Tech., Ph.D.	Aquaculture Engineering
5	Dr. Naresh Kumar Mehta	Assistant Professor	B.F.Sc., M.F.Sc.(FPT), Ph.D.	Fish Processing Technology, fish Protein functionality

Sl. No	Name of faculty	Post held	Highest qualification received	Teaching/ Work experience	Honors and awards	No. of students guided (PG/Ph.D. separately)	Publication
1	Dr. Ranendra Kumar Majumdar	Professor & Head	Ph.D.	>22 years	-	PG-05	Research papers – 63
2	Dr. M. Bhargavi Priyadarshini	Assistant Professor	Ph.D.	12 years	01	PG-01	Research Paper – 15
3	Ms. Bahni Dhar	Assistant Professor	M.F.Sc.	12 years	02	PG-01	Research Paper – 21
4	Dr. Sudhansu Shekhar Mahanand	Assistant Professor	Ph.D.	9 years	05	PG-05	Research Paper – 12
5	Dr. Naresh Kumar Mehta	Assistant Professor	Ph.D.	4 years	02	PG-03	Research Paper – 18

List of Students Awarded M.F.Sc. (Fish Processing Technology) Degree (2016-2020)

S. No.	Name	Title of Thesis	Year
75.	Mr. Shubham Gupta	Isolation and characterization of predominant bacteria associated with few fermented fish products of northeast India	2016
76.	Ms. Priyanka Sahu	Effects of bioactive phenolics from spices during frozen storage of emulsion sausage from pangasius (*Pangasianodon hypophthalmus*)	2016
77.	Mr. Sanjay Kumar Chandravanshi	Development of shelf stable fish paneer from low-cost fish through retort pouch processing technology	2016
78.	Ms. Anisha kar	Development of fish protein isolate enriched extruded snacks	2016
79.	Mr. Sanjeev Sharma	Studies on the Effect of Carrot (*Daucus carota*) Concentrated Protein on Stability of Surimi during Frozen Storage	2017
80.	Mr. Siddhnath	Screening of Carps from Various Sources for Isolation and Molecular Characterization of *Escherichia coli* (STEC and EPEC)	2017
81.	Ms. Hidangmayum Dhaneshwori devi	Development of Fish Protein Enriched Noodles	2017
82.	Mr. Wangkheirakpam Romen Mangang	Optimization and Functional Characterization of Protein Hydrolysate from Freshwater Shark (*Wallago attu*) Waste using Bromelain Enzyme	2017
83.	Ms. Seema Netam	Effect of Fruit Peel Extracts on Rohu *(Labeo rohita* Hamilton, 1822) Steaks during Refrigeration Storage	2017
84.	Ms. Upasana Mohanty	Optimization of Enzymatic Hydrolysis of Visceral Waste Proteins of *Labeo rohita*	2018
85.	Mr. Biswajit Mohanty	Isolation, Purification and Characterization of Proteases from Fish Visceral Wastes	2018
86.	Ms. Rupali Das	Evaluation of Seasonal Variation in Physicochemical and Microbiological Quality of Selected Dried Fishes Available in Tripura Market	2018
87.	Ms. Ankeeta Nayak	Isolation and Characterization of Collagenolytic Proteases from Freshwater Fish Waste	2019
88.	Ms. Swapnarani Samantaray	Effect of Multiple Freezing-Thawing Cycles on Quality of Indian Major Carps	2019
89.	Mr. Jagadish Bbarik	Effect of Essential Oil Incorporated Gelatin Coating on the Quality and Shelf Life of Oven Dried Fish (*Puntius sophore*)	2020
90.	Ms. Banalata Rout	Characterization of Freshwater Mollusc (*Brotia costula*) Meat and It's *in vitro* Studies for Bioactivity	2020

91. Ms. Uma Buda	Effect of soluble fibers in improving gelling capacity and frozen storage stability of silver carp (*Hypophthalmichthys molitrix*) Surimi	2020

6.4.7. Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

The student alumni of the department, parents, industry people, employers and farmers have expressed their satisfaction regarding various theoretical as well as practical knowledge the students gained during their degree programme.

6.4.8. Student intake and attrition in the programme for the last five years

Name of the degree programme	Actual student admitted in the last five years					Attrition (%)				
	2016-17	2017-18	2018-19	2019-20	2020-21	2016-17	2017-18	2018-19	2019-20	2020-21
M.F.Sc. (Fish Processing Technology)	03	05	03	05	05	0%	60%	0%	20%	20%

6.4.9. ICT application in curricula delivery

The department has a dedicated classroom with modern tools. Lectures are delivered using computer projected PPTs. ICT application are applied in form of online classes delivered via media like G-Meet, Skype are taken. The students are provided online materials for self-preparation.

I, **Prof. Ratan Kumar Saha** the Dean, **College of Fisheries, Lembucherra**, hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

SELF-STUDY REPORT

for Masters Programme in Fisheries Resource Management

Submitted to

National Agricultural Education Accreditation Board

College of Fisheries

CENTRAL AGRICULTURAL UNIVERSITY, IMPHAL

Lembucherra, Agartala, Tripura

Website: www.cofcau.nic.in E-mail: cofcau.agt-tr@gov.in

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6.4. Self-Study Report for Masters Programme in Fisheries Resource Management

6.4.1. Brief history of the degree programme

The fisheries sector in the NE region of India holds an important position in the socio-economic and the cultural context of the people in the region. However, despite the enormous importance and value, the fish resources of North-Eastern states of India are suffering the combined effects of heavy exploitation and, in some cases, environmental degradation. The responsibility for declining fish stocks followed by falling economic returns is also attributed to knowledge gap on methods and techniques on sustainable fisheries and conservation. It is at this context, the Dept. of Fisheries Resource Management established in the College of Fisheries under the Central Agricultural University assumes high significance. In tune with the mandates of the University, The Dept. conducts regular academic lessons to the B.F.Sc and M.F.Sc. students of the College on various topics spanning from Fish taxonomy, biology to dynamics of fish populations and resource assessment as part of their curriculum, and scientific research on diverse topics including species and population diversity, feeding, reproductive and environmental biology, stock assessment and level of exploitation of the fish resources in different water bodies of North east India. Moreover, regular extension trainings are also being conducted within and outside the institution to the fish farmers, line department officials, stake holders and various entrepreneurs of the region with the objectives of fish biodiversity assessment, sustainable fisheries management, conservation of the resources and rural empowerment. The department has been offering "**M.F.Sc. in Fisheries Resource Management**" programme w.e.f. Academic Year 2014-15 (Intake: 5) as per the model PG syllabus of ICAR, New.

The Dept. has been playing a pivotal role in fish biodiversity documentation of the NE region and recently, as part of the ongoing Centre of Excellence in Fisheries and Aquaculture Biotechnology (COE-FAB) a database on fish genetic resources of NE region with taxonomic diversity, distribution, abundance, threats, management and conservation needs of fishes has been developed applying conventional advanced techniques and methods. The department also holds a referral fish museum with 326 finfish and shellfish species which regularly cater the needs of students, researchers and scientists even from various allied institutes. Another remarkable achievement would be a separate barcode museum, where tentatively 310 fish species collected from various aquatic systems of NE India and 273 fishes were systematically identified with conventional and molecular methods were bar-coded and displayed. The Department also pioneered in stock assessment techniques and life history studies of fishes in this region, and database on these grounds were developed for a dozen of commercially important food and ornamental fish resources of NE India. Fourteen research projects have been successfully completed under the supervision of the faculties of the department and another three projects are in ongoing status.

The research thrust area of the department is more on the need of the region in fish & fisheries resource assessment, conservation and judicious utilization for which more concentration is on taxonomical

studies, Food and feeding biology and Improvement of fish stock and reproductive performance through biotechnological tools as well as capacity building of technical manpower/fishers.

Objective of the degree programme

- To produce globally competitive postgraduates in fisheries resource management.
- To promote the advancement of learning and persuasion of research in fisheries sciences.
- To make the postgraduates competent to impart extension services to the stakeholders.
- To meet the requirement of well-trained skilled manpower in the North-Eastern states.
- To facilitate the startups, aqua-entrepreneurship, and also to undertake such other activities as it may deem fit from time to time.

Accomplishments

Many of the scholars are now employed in university, state departments, industry and few pursuing higher studies. A systematic table of the pass-out scholars with their current position is annexed below.

University Faculty	State Department	NGO	Project JRF	Pursuing Ph.D.
-	14	-	2	4

6.4.2. Faculty strength

S. No.	Sanctioned faculty		Faculty in place	Vacant position	Faculty recommended by the ICAR /UGC/VCI/other regulatory bodies
1	Professor	-	-	-	1
2	Associate Professor	1	1	-	2
3	Assistant Professor	3	3	-	3
Total		**4**	**4**	**0**	**6**

6.4.3. Technical and supporting staff

The administrative and accounts supporting staff are centralized in the college and are operating under the direct control of the Dean as part of Dean's office. The dedicated technical staff and supporting staff allotted to the department are as below:

S. No.	Designation	Staff in place
Technical staff		
1	Field cum Laboratory Assistant	2
Supporting staff		
2	Multi-Tasking Staff	1

6.4.4. Classrooms and laboratories

Apart from the common laboratory facilities of the college, departmental laboratory, field and other facilities available for PG research of the department are as under:

S. No.	Name of the Lab / Facility	Major Equipments available/Particulars
1	PG Research Lab	• Bacteriological incubator • Blood cell counter • Electronic balance • Centrifuge • Deep Freezer • Camera Lucida • Hot plate • Heating mantle • Hot air oven • Hot water bath • Lux meter • Microscope • Refrigerator • Rotamental • UV-VIS Spectrophotometer • Salinometer • Scale Reader • Dissecting microscope
2	Referral Fish Museum	• The department of Fisheries Resource Management of College of Fisheries holds a referral fish museum with 326 finfish and shellfish species displayed with scientific identifying data, collected from all over India specially covering all the states of NE India covering 322 habitats (23,036 samples) as well as from Indian marine sources.
3	Fish DNA Barcode Museum	• Established of a separate barcode museum with 297 fish species, collected and identified systematically from various aquatic systems of NE India and out of which 162 species were systematically identified with conventional and molecular methods (bar-coded) and displayed.
4	Fish molecular biology Lab	• All modern facilities for fish DNA bar coding

Fig. Referral Fish Museum

6.4.5. Conduct of practical and hands-on training

The department has well established laboratories on Fish taxonomy. Fish physiology, Fish molecular biology and fish Biology to support postgraduate research. A separate PG laboratory is in place which is fully dedicated for student's research purpose only. Additionally, the state-of-the-art Central laboratory and Molecular biology laboratory facilities setup under the Centre of Excellence (COE) programme supports hands-on practical knowledge to orient the scholar into futuristic research mind-sets. Considering the fact that the department is mostly focused on Biology, Taxonomy, Anatomy, Biosystematics, Population Dynamics and Physiological studies of fishes of NE India to grasp an absolute understanding of the generated data for fisheries development of this region. To assist the practical classes, the department has two laboratory assistants in place.

6.4.6. Supervision of students in PG

Sl. No.	No. of eligible faulty for guidance	Intake capacity	Faculty/Student ratio
1.	3	5	0.6

The department has started the postgraduate programme since 2014. The first batch was awarded during 2016. The number of scholars enrolled for the programme is 05 (05) including the ICAR seats. All faculties in the department have Ph.D. and higher degree and are well qualified and eligible (Annexed below) for guiding the students as per the ICAR norms.

S. No	Name of Faculty	Designation	Qualification	Area of specialization
1	Dr. Mrinal Kanti Datta	Associate Professor & Head	D.F.Sc. (Fisheries), Ph.D.	Fisheries resource management, taxonomy and reproduction & conservation, Biosystematics
2	Dr (Mrs) Pampa Bhattacharjee	Assistant Professor (SS)	M.Sc. (Life science), Ph.D.	Fish Biology and Taxonomy

3	Dr K.V Radhakrishnan	Assistant Professor (SS)	M.Sc., Ph.D., Post Doc. (China)	Fish & shell fish taxonomy, population dynamics, Biosystematics

Sl. No	Name and designation	Post held	Highest qualification received	Teaching/Work experience (in years)	Honors and awards	No. of students guided (PG/Ph.D. separately)	Publication
1	Dr. Mrinal Kanti Datta	Associate Professor & Head	Ph.D.	>23 years	01	PG-05	Research Papers - 24
2	Dr. (Mrs) Pampa Bhattacharjee Assistant Professor (SS)	Assistant Professor	Ph.D.	>23 years	-	PG-03	Research Paper-25
3	Dr. K.V. Radhakrishnan Assistant Professor (SS)	Assistant Professor	Ph.D., Post Doc. (China)	10 years	03	PG-05	Research Papers -21

List of Students Awarded M.F.Sc. (Fisheries Resource Management) Degree (2016-2020)

S. No.	Name	Title of Thesis	Year
92.	Mr. Ashish Kumar Maurya	Population characteristics and stock assessment of *Anabas testudineus* (bloch, 1792) and *Mystus bleekeri* (Day, 1877) in Rudrasagar lake, Tripura	2016
93.	Mr. Amit Kumar	Application of osteology in taxonomic validation of the species under the genus *Mystus* (Scopoli, 1777) distributed in north-eastern India	2016
94.	Ms. Tako Yame	Taxonomic confirmation of species under the genus Macrobrachium (spence bate, 1868) in north eastern states of India	2016
95.	Mr. Khanindra Bhuyan	Otolith shape analysis for taxonomic validation of the species under the genus *Puntius* (Hamilton, 1822) distributed in north-eastern India	2016
96.	Ms. Sneha Mol George	Mouth Dimension and Architecture in Relation to Food and Feeding Habits of Some Cyprinid Fishes of Tripura	2017
97.	Ms. Anjali Pushp	Molecular Taxonomy and Phylogenetics of Species under the Genus *Osteobrama* Heckel, 1842 in India	2017
98.	Mr. Yogesh Dangal	Validation of Taxonomic Status of the Species under the Genus *Chagunius* (Smith, 1938) in India applying Osteological and Molecular Tools	2017
99.	Mr. Sachin Pandit	Biometric Studies of *Labeo* (Cuvier, 1816) Species from Tripura, India	2018

100	Mr. Ansuman Panda	Validation of Species under the Genus *Barilius* (Hamilton, 1822) from North Eastern States of India through Morphometric Traits and Molecular Tools	2018
101	Ms. Kamei Lanthaimeilu	Mouth Dimension of Some Ornamental Fishes in Relation to Their Food and Feeding Habits	2018
102	Mr. Kamlesh Kumar Yadav	Biosystematic Study of the Genus *Bangana* (Hamilton, 1822) from North-Eastern India	2018
103	Mr. Sanjenbam Bidyasagar Singh	Taxonomy and Phylogeny of the Cyprinid Fish genus *Neolissochilus* (Rainboth, 1985) from North-Eastern India	2018
104	Mr. Debashis Jena	Taxonomic Validation of the Species under Family Ambassidae from Northeast India	2019
105	Ms. Sengbira K. Sangma	Food and Feeding Habits of Some Selected Ornamental Fishes of Tripura in Relation to their Mouth Morphometry	2019
106	Mr. Lekiningroy Dann	Taxonomic Validation of the Species under the Cyprinid Fish Genus *Schizothorax* Heckel, 1838 from North-Eastern India	2019
107	Mr. Arun Kumar	Systematic Study of Some Barbs from Tripura	2019
108	Ms. Rutuparna Sasmal	Stock Discrimination of *Systomus sarana* (Hamilton, 1822) from Different River Systems of North East India	2020
109	Ms. Suchismita Maharana	Stock Structure Analysis of *Mystus bleekeri* (Day, 1877) in North-Eastern India	2020

6.4.7. Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

The passed-out scholars have expressed their satisfaction on the various theoretical as well as research-based work they have rendered during their curricula. The scholars, especially those joining PG programme after completing their UG programme in other universities have been impressed to see the research infrastructure and instrumentations in the department particular and college as a whole. Most of the students joined this department as their first choice and they rendered best result with rendering a college as well as university topper also and also produced high quality research contribution with publication in peer reviewed journal. The existing infrastructures are optimally being utilized for teaching. The resultant graduates have been well received by the professional experts during the interview for selection of faculty, line department officials or NGOs in different states. Most of the students have been well placed. The students remain in touch and express research experience during the PG program highly useful in addressing the fisheries management field. The inventory and biology related problems of the NE region are mostly undertaken for their dissertation work and have been delivered satisfactorily. The focal area of research includes Fish and shell fish taxonomy, Biology, Biosystematics, Population Dynamics etc.

6.4.8. Student intake and attrition in the programme for the last five years

Name of the degree programme	Actual student admitted in the last five years					Attrition (%)				
	2016-17	2017-18	2018-19	2019-20	2020-21	2016-17	2017-18	2018-19	2019-20	2020-21
M.F.Sc. (FRM)	05	05	04	05	05	0%	0%	0%	0%	0%

6.4.9. ICT application in curricula delivery

The department has a dedicated classroom with modern tools. Lectures are delivered using computer projected PPTs. ICT application are applied in form of online classes delivered via media like, Skype. Google Meet etc. are taken. Also used to arrange online classes by eminent national and international experts also as online materials for self-preparation as well as for normal preparations and ICAR-NET/ARS examinations.

I, **Prof. Ratan Kumar Saha** the Dean, **College of Fisheries, Lembucherra**, hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

SELF-STUDY REPORT

for Masters Programme in

Fish Biotechnology

Submitted to

National Agricultural Education Accreditation Board

College of Fisheries

CENTRAL AGRICULTURAL UNIVERSITY, IMPHAL

Lembucherra, Agartala, Tripura

Website: www.cofcau.nic.in E-mail: cofcau.agt-tr@gov.in

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6.4. Self-Study Report for Masters Programme in Fish Biotechnology

6.4.1. Brief history of the degree programme

The department of Fish Genetics and Reproduction is one of the core departments of the College of Fisheries, CAU (I) and is at the forefront of seed production technologies and genetic improvement programme, fish biodiversity characterization for augmentation of aquaculture productivity in the northeastern region which is greatly deficit in local fish production as well as food & feed grain production. In this regard, the department is actively engaged in PG teaching and research as well as capacity building of the stake holder. Emphasis is always on to make all these programmes relevant to field conditions. The department has been offering "**Master of Fisheries Science in two disciplines, namely "Fish Genetics and Breeding" and "Fish Biotechnology"** programme w.e.f. Academic Year 2014-15 and **2019-20** (Intake: 5), respectively, as per the model PG syllabus of ICAR, New Delhi. The main focus of research efforts of the department is to refine/develop technologies and package of practice, quality seed production, trait improvement of indigenous fishes of aquaculture and ornamental value and fish biodiversity characterization for cataloguing and conservation. Towards this, the department has developed/is developing complete package of seed production of several fishes like indigenous carp, catfishes, giant freshwater prawn and ornamental fishes. Department has also barcoded (DNA) 166 fish species. Department has attracted eight (8) number of externally funded project from DBT, ICAR, NHM etc. Through molecular endocrinology research, department has identified molecular mechanism of pigmentation and traits to improve color in ornamental fishes. Department has also conducted active research in molecular endocrinology to enhance maturity and reproductive performance of cultivable species. In recent research, department has also developed BRICS technology for voluntary captive spawning of *Clarias magur*.

Objective of the degree programme

- To produce globally competitive postgraduates in Fish Biotechnology
- To promote the advancement of learning and persuasion of research in fisheries sciences
- To make the postgraduates competent to impart extension services to the stakeholders
- To meet the requirement of well-trained skilled manpower in the North-Eastern states
- To facilitate the startups, aqua-entrepreneurship, and also to undertake such other activities as it may deem fit from time to time

Accomplishments

The first batch students will pass out in July 2022.

6.4.2. Faculty Strength

S. No.	Sanctioned faculty		Faculty in place	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1	Professor	1	-	1	NA
2	Associate Professor	2	1	1	NA
3	Assistant Professor	5	4	1	NA
Total		**8**	**5**	**3**	**NA**

6.4.3. Technical and Supporting staff

The administrative and accounts supporting staff are centralized in the college and are operating under the direct control of the Dean as part of Dean's office. The dedicated technical staff and supporting staff allotted to the department are as below:

S. No.	Designation	Staff in place
Technical staff		
1	Livestock cum Farm Assistant	01
2	Field cum Laboratory Assistant	02
Supporting staff		
3	Multi-Tasking Staff	01

In addition to the above staff, Skilled and Unskilled labours are hired on contractual basis.

6.4.4. Classrooms and laboratories

Apart from the common laboratory facilities of the college such as Central Instrumental Facility, Central Molecular Biology laboratory etc. the main laboratory, field and other facilities available for PG research of the department are as under:

S. No.	Name of the Lab / Facility	Major Equipments available/Particulars
1	PG Research Lab	• Molecular spectrophotometer • Electrophoresis apparatus • Gel doc • PCR machine • Cooling centrifuge • pH meter, incubator • Micropipettes • Realtime PCR

		• Blotting apparatus • Microinjector • Water bath • Laminar flow • Colour hunter lab • Gene sequencer
2	Hatchery and wet lab	• Cistern Carp eco-hatchery • Prawn hatchery • FRP tank (500-1000L):20 nos. • Glass Aquariums – 60 nos. of different sizes
3	Freshwater Fish Farm	• Eleven (15) Earthen Ponds of different sizes with total water area of 0.8 ha, • Paddle Wheel Aerators, • FRP boat, • Water pump sets, • Nets etc.

6.4.5. Conduct of practical and hands-on training

The department has well established laboratories and field facilities to support postgraduate research. A separate PG laboratory is in place which is fully dedicated for student's research purpose only. Additionally, the state-of-the-art Central laboratory and Molecular biology laboratory facilities setup under the Centre of Excellence (COE) programme supports hands-on practical knowledge to orient the scholar into futuristic research mind-sets. Considering the fact that the department is mostly focused on trait improvement-oriented research, experimental set-ups are carried out in fields (ponds/cemented tanks) to grasp an absolute understanding of the generated data. Under the compulsory course work allotted to the scholars, students are trained on various need-based and curriculum oriented hands-on practical. To assist the practical classes, the department has one laboratory assistant in place.

6.4.6. Supervision of students in PG programme

Sl. No.	No. of eligible faulty for guidance	Intake capacity	Faculty/Student ratio
1.	04	05	0.8

The department has started the postgraduate programme in Fish Biotechnology in 2019. All faculties in the department have Ph.D. and higher degree and are well qualified and eligible (Annexed below) for guiding the students as per the ICAR norms.

S. No	Name of Faculty	Designation	Qualification	Area of specialization

1	Dr. Sagar Chandra Mandal	Associate Professor & Head	B.F.Sc., M.F.Sc. (AQC), Ph.D.	Aquaculture
2	Dr. Himanshu Priyadarshi	Assistant Professor	B.F.Sc., M.F.Sc. (FGB), Ph.D.	Fish Genetics and Biotechnology
3	Dr. Anindya Sundar Barman	Assistant Professor	M.Sc. (Fisheries), Ph.D.	Fish Biotechnology
4	Dr. Janmejay Parhi	Assistant Professor	B.F.Sc., M.F.Sc. (FGB), Ph.D., Post Doc (Spain)	Fish Genetics and Biotechnology

S. No	Name of faculty	Post held	Highest qualification received	Teaching/ Work experience (in years)	Honors and awards	No. of students guided (PG/PhD separately)	Publication
1	Dr. Sagar Chandra Mandal	Associate Professor & Head	Ph.D.	19 years	01	PG-09	Research Paper – 46
2	Dr. Himanshu Priyadarshi	Assistant Professor	Ph.D.	13 years	01	PG-02	Research Paper – 14
3	Dr. Anindya Sundar Barman	Assistant Professor	Ph.D.	11 years	-	PG-06	Research Paper – 18
4	Dr. Janmejay Parhi	Assistant Professor	Ph.D., Post Doc. (Spain)	11 years	11	PG-09	Research Paper – 43

List of Students Awarded M.F.Sc. (Fish Biotechnology) Degree (2016-2020)

The first batch students will pass out in July 2021.

6.4.7. Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

The students have expressed their satisfaction on the various theoretical as well as field-based work they have rendered during their curricula. The field-based learning and integrated analysis of the various seed production technologies, and advanced molecular techniques has enhanced their skills and will be helpful to peruse higher studies. The existing infrastructures are optimally being utilized for teaching & research.

6.4.8. Student intake and attrition in the programme for the last five years

Name of the degree programme	Actual student admitted in the last five years					Attrition (%)				
	2016-17	2017-18	2018-19	2019-20	2020-21	2016-17	2017-18	2018-19	2019-20	2020-21
M.F.Sc. (Fish Biotechnology) *				4	4				75%	0%

* First Batch M.F.Sc. (Fish Biotechnology) will pass out in 2021

6.4.9. ICT application in curricula delivery

The department has a dedicated classroom with modern tools. Lectures are delivered using computer projected PPTs. ICT application are applied in form of online classes delivered via media like G-Meet, Skype are taken. The students are provided online materials for self-preparation.

I, **Prof. Ratan Kumar Saha** the Dean, **College of Fisheries, Lembucherra**, hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

SELF-STUDY REPORT

for Ph.D. Programme in Aquatic Animal Health

Submitted to

National Agricultural Education Accreditation Board

College of Fisheries

CENTRAL AGRICULTURAL UNIVERSITY, IMPHAL

Lembucherra, Agartala, Tripura

Website: www.cofcau.nic.in E-mail: cofcau.agt-tr@gov.in

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6.4. Self-Study Report for Ph.D. Programme in Aquatic Animal Health

6.4.1. Brief history of the degree programme

The 'Department of Aquatic Health and Environment' under the College of Fisheries, Lembucherra started functioning since the inception of the college in 1998. The department was initially named as 'Fish Diseases & Environmental Monitoring Department' and later on renamed twice as 'Department of Fish Health and Environment' and 'Department of Aquatic Animal Health and Environment, respectively. It was only during 2014 that the present name was adopted. Besides Masters' programme, the department has also been offering **Ph.D. degree programme** in the discipline of '**Aquatic Animal Health**' since 2016. The department is also mandated with carrying out research in frontier areas of 'Aquatic Animal Health' and 'Environment' besides conducting training and other extension interventions for the end users.

Objective of the degree programme

- To produce globally competitive post graduates in Aquatic Animal Health.
- To promote the advancement of learning and persuasion of research in fisheries sciences.
- To make the graduates competent to impart extension services to the stakeholders.
- To meet the requirement of well-trained skilled manpower in the North-Eastern states.
- To facilitate the startups, aqua-entrepreneurship, and also to undertake such other activities as it may deem fit from time to time.

Accomplishments

Students of the Ph.D. programme in Aquatic Animal Health have already submitted their thesis and are waiting for the Viva-voce.

6.4.2. Faculty strength

S. No.	Sanctioned faculty		Faculty in place	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1	Professor	1	-	1	1
2	Associate Professor	1	1*	-	1
3	Assistant Professor	3	3	-	2
Total		**5**	**4**	**1**	**4**

***** Promoted to Professor under CAS

6.4.3. Technical and supporting staff

The administrative and accounts supporting staff are centralized in the college and are operating under the direct control of the Dean as part of Dean's office. The dedicated technical staff and supporting staff allotted to the department are as below:

S. No.	Designation	Staff in place
Technical staff		
1	Livestock cum Farm Assistant	1
2	Field cum Laboratory Assistant	1
Supporting staff		
3	Multi-Tasking Staff	2

In addition to the above staff, Skilled and Unskilled labours are hired on contractual basis.

6.4.4. Classrooms and laboratories

S. No.	Name of the laboratory	Major Equipment available/Particulars
11.	UG Teaching Laboratory	• Automatic weather station, • Analytical Balance, • Moisture meter, • Muffle furnace,
12.	PG Research Laboratory	• Bomb calorimeter, • Multimode spectrophotometer, • ELISA reader, • CO2 incubator, • Research Microscopes with photography, • Auto Blood Analyzer, • Tissue Homogenizer.
13.	Water and Soil Chemistry Laboratory	• Multi Parameter Water Analyzer, • High Seeped Centrifuge, • Refrigerator, • Nitrogen evaporator, • Solid phase extraction unit, • Flame Photometer, • pH Meter, • S-T-C Meter, • BOD incubator,

		• Deep freezer (-20ºC)
14.	Microbiology Laboratory	• Laminar Flow Bench • Bacteriological incubator • Freeze • Cold Centrifuge • Vertical autoclave • CO2 incubator
15.	Molecular Biology Laboratory	• Refrigerated centrifuge • Gradient PCR • Real-Time PCR • Gel-Doc system • Electrophoresis Unit • Ice-flacking machine
16.	Pharmacology and Toxicology Laboratory	• Solid phase extraction unit • Nitrogen evaporator • Tissue Homogenizer • ELISA reader • ELISA washer • Bomb calorimeter • Automatic Bomb calorimeter
17.	Heamatology and Immunology Laboratory	• Auto Blood Analyzer • Refrigerated centrifuge • Ice-flaking machine • Multimode spectrophotometer
18.	Wet Laboratory	• Aquarium with stand and aeration facilities • FRP tanks • Syntex tanks
19.	Automatic Weather Station	• For monitoring and recording the weather parameter on regular basis.
20.	Mobile Fish Clinic	• For on field sampling and diagnosing/testing of fishes and water

6.4.5. Conduct of practical and hands-on training

The department has well established laboratories and wet laboratory to conduct practical classes and imparting hands-on training. The laboratories are well equipped with instruments and other facilities to support postgraduate research. Recently, three specific laboratories (Water and soil chemistry, Microbiology and Molecular Biology laboratories) have been developed in the dept though a NFDB funded Scheme 'Development of Aquatic Animal Health Laboratory'. Additionally, the state-of-the-art central laboratory and laboratory facilities under the Centre of Excellence (COE) programme supports hands-on practical knowledge to the research scholars. Under the compulsory course work allotted, the students are trained on various need-based and curriculum oriented hands-on practical on immunology, microbiology, molecular biology, disease diagnosis, and water and soil parameter analyses. To assist the practical classes, the department has two laboratory assistants in place.

6.4.6. Supervision of Students in Ph.D. programme

Sl. No.	No. of eligible faulty for guidance	Intake capacity	Faculty/Student ratio
1.	3	3	1.0

The department has started the Ph.D. programme since 2016. The number of scholars enrolled for this programme is 3 including the ICAR candidate. The faculties in the department are well qualified and eligible (Annexed below) for guiding the Ph.D. students as per the ICAR norms.

S. No.	Name of Faculty	Designation	Qualification	Area of specialization
1.	Dr. Ratan Kumar Saha	Professor	M.Sc., Ph.D.	Aquatic Environment, Fish Parasitology
2.	Dr. Dibyendu Kamilya	Assistant Professor (SS)	M.F.Sc., Ph.D.	Fish Immunology, Microbiology, Fish health Management

3.	Dr. Himadri Saha	Assistant Professor	M.F.Sc., Ph.D.	Fish Parasitology, Fish Nutra-pharmacology, Aquatic pollution & toxicology

Sl. No	Name of faculty	Post held	Highest qualification received	Teaching/ Work experience (in years)	Honors and awards	No. of students guided (PG/PhD separately)	Publication
1	Dr. Ratan Kumar Saha	Professor & Head	Ph.D.	> 35 years	10	PhD-2 PG-11	Research papers- 50
2	Dr. Dibyendu Kamilya	Assistant Professor	Ph.D.	14 years	5	PhD-1 PG-10	Research Paper – 39
3	Dr. Himadri Saha	Assistant Professor	Ph.D.	9 years	5	PG-3	Research Paper – 30

6.4.7. Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

The students of the department have expressed their satisfaction regarding various theoretical as well as practical knowledge that they have gained during their degree programme. Besides student, parents also sometimes express their happiness, particularly the way their wards have been trained. The students who come from a different university to join the department's PG and Ph.D. programme are overwhelmed to see the research and other infrastructural facilities. The faculties of the department impart training and conduct awareness programmes for the farmers. The request from the farmers to conduct training again after few months shows their satisfaction. In fact, many a times, they directly call the faculty members to solve their problems related to fish health and environment related aspects. It clearly shows their satisfaction from their first interaction with the faculty members. The feedbacks taken from them are critically examined and necessary measures are taken to address the issues.

6.4.8. Student intake and attrition in the programme for the last five years

Name of the degree programme	Actual student admitted in the last five years					Attrition (%)				
	2016-17	2017-18	2018-19	2019-20	2020-21	2016-17	2017-18	2018-19	2019-20	2020-21
Ph.D.* (Aquatic Animal Health)	2	2	2	2	3	0%	50%	0%	50%	0%

* Ph.D. (AAH) Thesis submitted; Viva-voce awaited

6.4.9. ICT application in curricula delivery

Computer-aided methods like PowerPoint Presentation are used as per need of the topic and for interactive teaching. Sometimes multimedia aids are also used to make things more plausible to the students, particularly short animation films depicting a scientific process are shown to the students.

I, **Prof. Ratan Kumar Saha** the Dean, **College of Fisheries, Lembucherra**, hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

SELF STUDY REPORT

COLLEGE OF HORTICULTURE & FORESTRY

CENTRAL AGRICULTURAL UNIVERSITY
PASIGHAT - 791102, ARUNACHAL PRADESH

Submitted to

NATIONAL AGRICULTURAL EDUCATION ACCREDITATION BOARD

ICAR, NEW DELHI

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6.5. SELF-STUDY REPORT FOR THE COLLEGE

Genesis of the College

The College of Horticulture and Forestry, Pasighat, Arunachal Pradesh was established on 7th March 2001 as a constituent College of the Central Agricultural University, Imphal, Manipur with the admission of 17 UG students in the first batch of B. Sc. Horticulture. Since then, the college offers B.Sc. (Hons.) Horticulture, B.Sc. (Hons.) Forestry, M.Sc. (Horticulture in Fruits and Vegetable Science), M.Sc. (Forestry), and Ph.D. (Horticulture in Fruits and Vegetable Science). Doctor of Philosophy (Horticulture) in Fruit Science commenced from the academic session of 2015-16. The campus is located in a serene atmosphere at Pasighat, the educational capital of the state as well as the first Smart City of Arunachal Pradesh. The mighty Siang River flows in the northern vicinity of the campus which is about 2.5 km from the town. The College is spread over an area of 145 acres neighbouring one of the oldest institutes of NE India, the Jawaharlal Nehru College, established in 1964.

The college has well-equipped and man-powered 11 full-fledged departments. The curriculum and syllabi of all degree programs are updated and adopted as per the ICAR guidelines, the currently implemented syllabus being 5th Deans' Committee Recommendations since 2016.The prime objectives of this college include imparting horticulture and forestry education and meeting the research and extension needs of the NE Region in general and for each state of the region in particular.

Mandates

- To impart education in different branches of Horticulture & Forestry and allied Sciences
- To carry out research for promotion of Horticulture & Forestry and allied Sciences
- To undertake different extension programmes that help in the transfer of technologies generated to the end-users

Objectives

- Production of brilliant gradutes and post graduates who could serve the needs of the farmers/ Forest Department of the region.
- To undertake introduction of new fruit, vegetable and flower crops and new varieties of commonly grown fruit, selection and improvement in economically important Forest tree species, vegetable and flower crops including exotic, that are agro-climatically suitable in the region with constant monitoring by the College.
- To further the advancement of learning by undertaking research in fruit, vegetable, forest tree speecies and flower crops science to overcome the new challenges and develop new technologies pertaining to the growers of the region and industries at large with intervention of bio-technological tools.
- To strengthen the applied research in regional specific problems of fruit, vegetable and flower crops with an attempt to develop localized technologies
- To undertake the extension programmes of transferring proven technologies to all the stakeholders of horticulture in general in each of the states under the jurisdiction.
- To undertake such other activities as it may deem fit and responding to the call of the Government, University and farmers from time to time.

Goals

- The goal of establishing the College of Horticulture & Forestry is for the greater interest of socio-economic upliftment of the people of North eastern region by harnessing the technologies of horticulture and forestry. The college has the mandate to develop, strengthen and promote the understanding, knowledge and skills, and improve profitability and utilization in the field of horticulture and forestry in North-Eastern region. The college shall also endeavour to establish linkages with other scientific institutions of the ICAR and other zonal and national bodies in the fields of its domain, located in the region and outside.
- To produce globally competitive graduates and postgraduates in Horticulture & Forestry and allied sciences
- To develop sustainable and profitable farming system for improving productivity, production and profitability in the Horticulture & Forestry and allied sectors
- To educate the extension functionaries for effective dissemination of agro technologies to the farmers, entrepreneurs and agro based industries
- To be an important link in the chain for converting agriculture and allied vocations into profitable enterprises and providing food and nutritional security to the people of NE region

6.5.1. College Administration

The overall administration of the academic, research, extension, and other activities of the college including infrastructure development is monitored by the Dean, College of Horticulture and Forestry. The Dean is assisted by various teaching, non-teaching, and non-technical members of the institution. The flow chart of the organizational structure is given as follows:

Organizational Chart

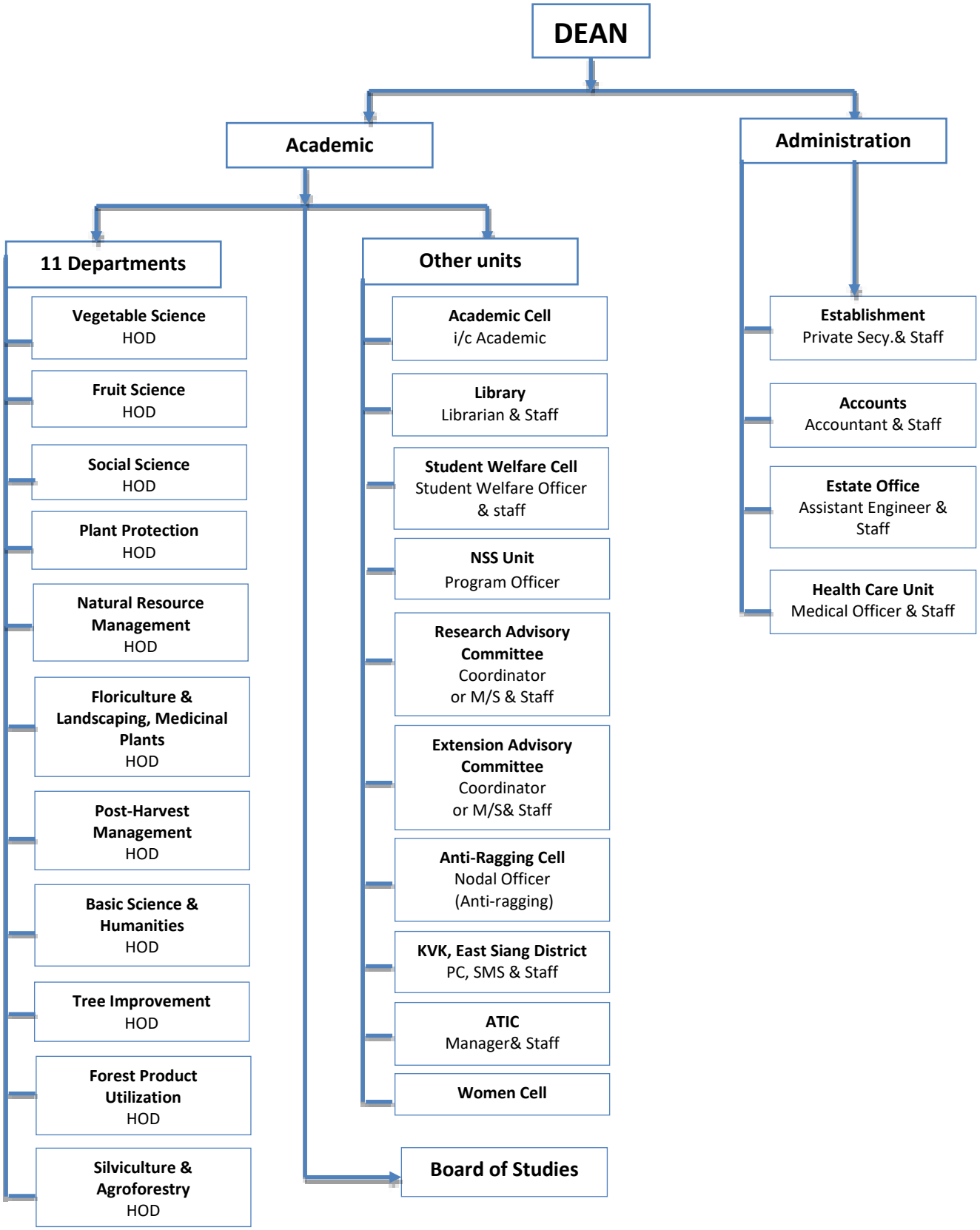

Figure 2. ATIC Building

Figure 3: Farm Machinery Shed

Figure 4: Auditorium Building

Figure 5 : Medical Unit

Figure 6: Solar Energy

Figure 7: Gymnasium

Figure8: P.G. Boys' Hostel

Figure 9: P.G Girls' Hostel

6.5.1.1. COLLEGE DEAN'S OFFICE ESTABLISHMENT

Table 1: College Details of Deans office

Sl. No.	Particulars	Response
1.	Whether Dean's post has been sanctioned by the appropriate authority as per ICAR Model Act/UGC guidelines	Yes
2.	Date of selection/joining of present Dean	11.02.2019
3.	Mode of selection	Interview
4.	Tenure	5 years
5.	Total number of staff in Dean's office Technical staff Non-technical staff	 2 Nos. 2 Nos.
6.	Infrastructure facilities (Details on infra and networking facilities available)	• Computers, UPS, and printers are available at the Dean's office with internet connectivity • Copier facility is available with Wi-fi connectivity • CCTV camera is installed at Dean's office for effective monitoring of staff, students and visitors

6.5.1.2. MONITORING MECHANISMS FOR QUALITY EDUCATION (ON-LINE)

The college of Horticulture and Forestry, CAU, Pasighat is fully committed to providing quality education to the students admitted to different degree programs. In this regard, efforts are continuously made to impart the latest, up-to-date scientific information to the students as well as enhancing the scientific temperament of the faculty by allowing them to undergo different pieces of training, workshops, and seminars to meet the needs of the students. At present, the facilities available are adequate for online monitoring. Initiatives are periodically taken up at the institute level to monitor the quality of education based on UG, PG,and Ph.D.programs.

Undergraduate degree program

- The syllabus and curriculum followed are as per the V Dean'sCommittee recommendations.
- For every course, before starting the classes, a lesson plan is prepared by thecourse leader based on credit load and supplied to the student, Academic in-charge, and Dean of the college.
- The Head of the Department makes sure that the courses are completed as per the lesson plan.
- Mid-semester, practical and final theory examinations are conducted to assess the students.
- Assignments are regularly given to students in each of the courses related to the curriculum.
- The external system of evaluation followed for both theory and practical for each course related to the curriculum.
- Academic counseling is provided to students by assigned counselors *i.e*. the teaching faculties.

- Monthly quiz programs and group discussions are arranged for the students to ascertain their proficiencies and knowledge.
- Surprise visits by the Dean and the HOD's of the respective departments to the laboratories and classrooms for better teaching improvements.
- Practical manuals are prepared by the departments for all the courses and distributed at the beginning of each semester to the students.
- Each department is well established with laboratories and Research blocks for conducting the practical classes.
- Practical classes are conducted in batches for effective learning and students are taken to state/ central institutes /private organizations and farms of progressive farmers.
- During the degree program, State and All India Educational Study tours are conducted for visits to state/ central institutes /private organizations. A Report on the tour is prepared and presentations are made by the students.
- Students are involved in training programs, field visits, method demonstrations, and exhibitions in the villages during RHWE Programme.
- Mock tests are conducted for improving competence in the ICAR –JRF examination.
- The monthly staff meeting is conducted to review the status of quality education.
- Academically weak students are given special guidance and extra lectures are conducted for improvement

P.G. Degree Programme

- The Dean of the College of Horticulture and Forestry in coordination with theFaculties of the various departments regularly monitors thestudents' progress in their studies, dissertation works, thesis works, conduct of examinations including thesis evaluation.
- For the Masters's program, an advisory committee is formed with a minimum of 3 members and a maximum of 5 including the Head of the Department. The Head of the Department is the Ex-Officio Member of the Advisory Committee of all the PG students of the Department.
- For. Ph.D. program, an advisory committee is formed with a minimum of 4 members and a maximum of 5 including the Head of the Department. The Head of the Department is the Ex-Officio Member of the Advisory Committee of all the Ph.D students of the Department.
- The Advisory Committee of the PG and Ph.D. degree program looks after the finalization of the program of work, research plan, synopsis seminar, the conduct of comprehensive examination, thesis seminar, and viva-voce.
- The progress of the students in each semester is assessed in a meeting held before the end of the semester examinations by the advisory committee.
- The students of the entire degree program are required to attend 80% of the classes held in a course during the semester to be eligible to appear in the final examination.
- Each student in consultation with his/her Advisory Committee is required to prepare a plan of course work comprising of a detailed proposal of courses in the major, minor, and supporting fields along with the credits of each course in different semesters and semester-wise research credits. Five (5) (five) copies of the same in the prescribed format should be submitted through the Professor-in-charge of the Department and the Dean of the college to the Director of Instruction for approval within 10 weeks from the commencement of the first semester.
- The Advisory Committee of the student decides and proposes a research problem in presence of the Faculties of the College and the student shall submit 5 (five) copies of the Research Plan in prescribed proforma through the Head of the Department and Dean of the College to the Director of Instruction for necessary approval in the second semester.

- Mid-term, quizzes, practical and end-term theory examinations are conducted to assess the students.
- For the course work, the internal system of evaluation is followed for quizzes and mid-term, while it is external for final theory and practical evaluation.
- For the comprehensive qualifying examinations, question setting and viva-voce is external and evaluation is internal.
- For a Masters's degree program, the thesis is evaluated by one external examiner and viva-voce by an external and advisory committee.
- For the Ph.D degree program, thesis is evaluated by two external examiners and viva-voce by an external and advisory committee.
- Students should also present a seminar before the audience comprising of the Head of the Department, Advisory Committee members, all teaching faculties, and PG students of the department and is evaluated for the same.

Faculty Research

- The faculty are involved in research activities related to crop production, crop protection and crop improvement.
- The College Research Advisory Committee committee (CRAC) appraises the research proposals at college levels.
- The progress of the research is regularly monitored by the research evaluation committee.
- Review of progress of research worksare evaluated by the Dean, Director of Research and the Vice Chancellor, CAU during Research Review Committee meetings.
- Submission of annual report for ongoing and completed projects.

Extension

- Monitoring committee to assess the occurrence of insects and disease in the region.
- Participations in exhibitions organized by the Government, private and non-governmental organizations.
- Field visits by a team of scientists on need to diagnose problems and provide solutions and recommendations.
- Organize entrepreneurship development trainingprogramsfor farmers.
- Vocational training programs and short training programs are organized for farmers and
- unemployed youths.
- Distribution of agricultural accessories and planting materials to local farmers.
- Front Line Demonstrations and off-campus training at farmers' fields

Visit of Ministers To The College Campus

On 10thSeptember 2019, PG Girls' Hostel and Indoor Sports Complex was inaugurated by Shri Pema Khandu, Hon'ble Chief Minister, Arunachal Pradesh in the August presence of Shri Kiren Rijiju, Hon'ble Minister of State(Independent Charge), Ministry of Youth Affairs and Sport and Ministry of State in the Ministry of Minority Affairs, Government of India; Shri Pasang Dorjee Sona, Hon'ble Speaker, Legistative Assembly of Arunachal Pradesh; Shri Mama Natung, Hon'ble Ministry of Youth Affairs, Sports and Water Resources, Government of Arunachal Pradesh; Shri Kaling Moyong, MLA, Pasighat, East Siang District, Arunachal Pradesh and Prof. M. Premjit Singh, Hon'ble Vice Chancellor, Central Agricultural University, Imphal.

Figure 10:Inauguration of Girls' P.G. Hostel of College of Horticulture & Forestry

Measures taken to improve the quality of education, Measures taken to improve the quality of education, research and extension

Education

- Industrial and institute exposure visits related to the courses offered to the students
- Recognition and awards are given to best students at university level
- Guest lectures are arranged for the students in diversified areas related to agriculture
- Assignments are given on regular basis and exams are conducted on regular basis

Research

- Encouraging students to actively participate in workshops, webinars and conferences.

Extension

- Rural Horticultural Work Experience Programme (RHWE) and Forest Work Experience (FOWE) for students to understand the problems and prospects of the farming community and exposure and training on forest range and attached state departments
- Organizing group discussion programmes
- Conducting brain storming sessions for group approach

Impact of monitoring with reference to students' excelling in academics, research and extracurricular activities

Academics

Because of better co-ordination and effective monitoring by the staff, there is a congenial environment for students to clear many national level competitive exams like ICAR – JRF and SRF fellowship.

- Higher academic performance of students with improved OGPA
- Improved enrolment of students each year
- Participation and selection in different competitive exams
- Participation and selection for higher education in reputed National institutes
- The details of student's excellence in national level academic competitive exams is given below;

Table 2: Details of the students excellence

Figure 11: Inauguration of Arunachal Agri-Expo, 2019

Figure 12: Seed distribution cum awareness programme on buckwheat -2021

Figure 13:Training programme on "Organic Grower" 2021

Figure 14: Training on 'Protected cultivation high valued vegetable crops' 2021

Year	ICAR -JRF	ICAR -SRF	Admission in CIFE/IARI/IVRI/NDRI	Total
2016-17	**05**	**-**	**-**	**05**
2017-18	**02**	**01**	**01**	**03**
2018-19	**05**	**02**	**-**	**07**
2019-20	**02**	**-**	**-**	**02**
2020-21	**06**	**01**	**-**	**07**

Research

- Publication of research in peer reviewed journals by faculty members.
- Running of many intramural and external projects

Extracurricular

- Participation in NSS programmes at state and national levels
- Participation in sports and cultural events at state and national levels

Additional information on monitoring mechanism for quality education

- **Monthly meetings**: The Dean conducts monthly meetings with the Heads of various departments as well the project investigators to evaluate the progress in the field of teaching, research and extension. The Dean also organizes regular meetings with the course teachers to monitor and evaluate different courses.
- **Annual reports**: Annual reports are prepared for the college based on teaching, research and extension education activities performed during the year in consideration. The reports are used for assessing the performances of the college during the particular yearand serve as guidelines for future action plan.
- **Student evaluation**: The Dean of the college conducts students meeting every semester. The Deanreceives the feedback from the students and gives direction to the faculties. The students provide the feedback of course teachers who handled the classes during a particular semester in a prescribed proforma. The feedback of the students are analysed and the inadequacies are properly addressed.

6.5.1.3. CC/BOARD OF STUDIES

Boards of Studies meeting are conducted where various academic issues are discussed and academic progress are monitored.

Table 3: Committee of Board of Studies

	Committee	Position
	Vice Chancellor of Central Agricultural University	Chairman
	Director of Instructions	Member
	Registrar	Member
	Director of Research	Member
	Director of Extension Education	Member
	Deans of all constituent colleges under CAU	Member
	Two external experts	Member
	Academic In-charges of all constituent colleges under CAU	Member
	Student Representative	Member

Table 4: Details of the recommendation in BOS meeting

Particulars	Year	Date and Place of the meeting	Major Recommendations
10th Board of Studies	2019-2020	15thMay, 2019 at College of Horticulture & Forestry, CAU,Pasighat, Arunachal Pradesh	1. Proposal for increasing seats in M.Sc Horticulture Program in Floriculture & landscape architecture was recommended to the academic council and was agreed and approved for 4 nos. of seats from CAU and none from ICAR. 2. Alteration of 1 content in the course of Forest Law Legislation and Policies of 2 +0 credit hours under Vth Dean committee syllabus B.Sc (Hons.) Forestry Degree Program was recommended to the academic council and approved by the academic council as resolution No. AC-19/17/2019
11th Board of Studies	2020-2021	24thApril, 2020 at College of Horticulture & Forestry, CAU, Pasighat, Arunachal Pradesh.(Online)	1. Extension of 2nd semester academic session due to the national Lockdown under the II-Phase against the spread of Corona Virus was proposed to the academic council and was approved.

6.5.1.4. Anti Ragging Cell

In pursuance to the Judgment of the Hon'ble Supreme Court of India dated 08.05.2009 in Civil Appeal No. 887/2009 the University Grants Commission has framed "UGC Regulations on curbing the menace of ragging in higher educational institutions, 2009" which have been notified on 41" July, 2009 in the Gazette of India. Following this regulation and subsequent guidelines, Anti Ragging Committee is constituted at the start of every academic session chaired by Dean and Student Welfare Officer as its Nodal Officer Anti ragging Cell. The committee consists of all the Wardens in addition to the Superintendent of Police, East Siang District, Pasighat, Mrs. Aini Taloh, (Social Worker), Mr. MaksamTayeng (Journalist) to curb the menace of ragging. Besides, an Anti-ragging Squad is constituted. The members are directed to keep a constant vigil bypatrolling and also advocated tokeep their mobile numbersactive all the time to avoid the menace of ragging in the college campus. The squad is also empowered to make surprise raids (any time of the day) in all the hostels and other places vulnerable to incidence and having the potential of ragging, on the spot enquiry into any such incidence of reported ragging and submit the report immediately along with the recommendations to the Anti-Ragging Committee for necessary further action. It is a matter of pride that not a single incidence of ragging has been reported/ noticed since the inception of the college. The anti-ragging squad comprises of:

Table 5: Details of the anti-ragging squad

Date	Members of Anti Ragging squad	Date	Membersof AntiRagging squad
15/6/2019	Dr. Bikram Singh, Mr. N. Devachandra, Dr. Shivani Dobhal	31/6/2019	Dr. Bikram Singh, Dr.Oken Singh, Dr.Surmina Devi
16/6/2019	Dr. D.K. Pandey, Dr.Barun Singh, Ms. Anjela Moyong, Mr. Tajing Taki	01/7/2019	Dr. Ng. Piloo Devi, Dr. N. Lyngdoh, Dr. Neeta Longjam
17/6/2019	Mr. Ashokumar Singh, Mr. N. Devachandra, Mr. L. Shantikumar, Dr.Surmina Devi	02/7/2019	Mr. Anil Kumar, Mr. Jintu R., Mr. Archan Rabha, Mrs. NabumYadi
18/6/2019	Dr. P. Debnath, Dr. Ng. Piloo Devi, Dr. Y. Oken Singh, Ms. Reema Longjam	03/7/2019	Mr. Amit Kr. Singh, Mr. L. Shantikumar, Ms. T. Yatung
19/6/2019	Dr. T.S. Mehra, Dr. Ps. Mariam Anal, Dr.Punabati H.	04/7/2019	Dr.Raghubir Kr. Patidar, Mr. N. Devacharndra, Ms. Nancy Lego
20/6/2019	Dr. Sunil Kumar, Dr. S. Romen Singh, Dr. N.T. Chanu, Mrs. YapangMibang	05/7/2019	Dr. A.S. Mailappa, Mr. TogrRiba, Dr. Shivani Dobhal
21/6/2019	Dr. Bikram Singh, Dr. Ramesh C. Shakywar. Dr. N.Y. Chanu	06/7/2019	Mr. Rakesh S. Dr. Brij M. Singh, Mr. KatonKartek, Dr.Surmina Devi
22/6/2019	Dr. L. Wangchu, Mrs. NabumYadi. Mr. Udit Borah, Mr. Chandrakumar	07/7/2019	Dr.ArunKumar Ph., Mr. Ch. Bobby Singh, Mrs. YapangMibang
23/6/2019	Dr. T.S. Mehra, Dr. R.K. Singh, Mr. PakteKoyu, Mrs. Shimpi Dutta D.	08/7/2019	Dr. T. Shantibala, Dr. Ramesh C. Shakywar, Mr. Thangkholun Haokip
24/6/2019	Dr. P. Sharma, Mr. A. S. Singh, Dr.Arunkumar Ph., Mrs. YamanTamut	09/7/2019	Dr. Bikram Singh, Ms. Bishwapati Devi, Mr. Subodh Kumar Dubey
25/6/2019	Dr. P. Debnath, Mr. Pranojjal Paul, Mr. L. Mangi Singh, Mrs. Angela Pangkam	10/7/2019	Dr. N. Anandkumar Singh, Dr. L. Geetarani Devi, Mr. Kaushlesh K.
26/6/2019	Dr.DeshBandhu Ahuja, Mr. O. R. Singh, Dr.TisuTayeng, Dr. N. Y. Chanu	11/7/2019	Ps. Mariam Anal, Mrs. Shimpi Dutta D., Mr. Kumar Chetri
27/6/2019	Dr. Sunil Kumar, Mr. Puspendra Kumar, Dr. H. Soibam	12/7/2019	Dr.M.Pathak, Mr. H. Paudoumang, Dr. N. Keinatombi D.
28/6/2019	Dr. Chandra Deo, Dr. Y. Disco Singh, Mrs. YmenMibang, Dr. L. Geetarani Devi	13/7/2019	Dr. K. Ch. Momin, Mr. A. John, Mrs. Kalpana Borang

29/6/2019	Dr. P. Raja, Dr.ArwankiShadap, Mr. Udit Kumar, Ms. Nancy Lego	14/7/2019	Dr.Surmina Devi, Dr.Abinash M, Mr. Ripon Dam
30/6/2019	Dr. S. K.Pattanaaik, Dr. N. D. Bhutia, Dr. Shivani Dobhal	15/7/2019	Dr. Shivani Dobhal,Ms. Eloni Vida, Mr. N. Devachandra

6.5.1.5. BIOLOGICAL WASTE DISPOSAL FACILITY

Efforts are being undertaken to effectively recycle the waste generated and properly dispose the waste which could not be recycled. The primary activity involves composting the plant waste and proper collection, segregation and disposal of waste. The following disposal mechanism is initiated and deployed:

Table 6: Details of the disposal mechanism initiated and deployed

Sl. No.	Type of waste material	Disposal mechanism
1.	Animal & insect anatomicalwaste	Incineration or deep burial
2.	Soiled waste	Incineration, autoclaving or deep burial as required
3.	Expired or discardedchemicals, pesticides and agro-chemicals	Expired or discardedpesticidesandagro-chemicals are disposed byincineration
4.	Microbial liquid waste	Autoclaving
5.	Waste sharps includingmetals	Autoclaving or dry heat sterilization
6.	Glassware	Disinfection (by soaking thewashed glass waste aftercleaning with detergent andSodium Hypochlorite treatment) or through autoclavingand then sent for recycling
7.	Waste water	The waste water released from the college is passed through a drainage system

6.5.1.6. INSTITUTIONAL ETHICS COMMITTEE FOR EXPERIMENT ON ANIMALS

The college, at present, is not undertaking any type of experiments on animals and hence the institutional ethics committee has not been constituted. However, if such experiments are undertaken,then the college will strictly adhere to CPCSEA guidelines and will constitute an Institutional Animal Ethics Committee (IAEC).

6.5.1.7. COMMITTEE FOR PREVENTION OF SEXUAL HARASSMENT OF WOMEN AT WORK PLACES

For the prevention of sexual harassment of women at work place the following two committees have been formed.

Table 7: Members of the Committee for Prevention of Sexual Harassment of Women

Sl. No.	Name of Faculty	Designation
1.	Dr.TisuTayeng, Assistant Professor	Chairman
2.	Dr. K. Ch. Momin, Assistant Professor	Member
3.	Dr. Shivani Dobhal, Assistant Professor	Member
5.	Mrs. YapangMibang,	Member

6.	Ms. OdiPanyang, FCLA	Member
7.	Mrs. NabumYadi, MTS	Member

The committee for prevention of sexual harassment of women has been formed to address all grievances pertaining to sexual harassment of women (teaching and non-teaching staff and labours) at the college. There was no complaint on sexual harassment in the college during last five years. However, details on sexual harassment of women at work place (Prevention, prohibition and redressal) Act, 2013 and a preamble of the Act and seeking remedy under this Act are clearly explained to the staff and farm workers

Table 8: Members of the Committee for resolving internal complaint in the work place

Sl. No.	Name of Faculty	Designation
1.	Dr. T. Shantibala, Associate Professor	Chairman
2.	Dr.TisuTayeng, Assistant Professor	Member
3.	Mrs .Bishwapati Devi, Assistant Professor	Member
4.	Dr. K. Ch. Momin, Assistant Professor	Member
5.	Dr. N. Surmina Devi, Assistant Professor	Member
6.	Dr. Shivani Dobhal, Assistant Professor	Member
7.	Dr. Denisha Rajkhowa, Assistant Professor	Member
8.	Mrs. YapangMibang	Member
9.	Mrs.Eloni Vida, SMS-KVK	Member Secretary

The committee for internal complaint hasbeen constituted vide Order No. CHF/CAU/ Estt.-FC/09/4812, dated February 23, 2021 to look after all the grievances related to sexual harassment of women at work place

6.5.2. FACULTY

The College of Horticulture and Forestry has 48faculties in various disciplines including 3 nos. teaching faculties from AICRP on MAPB to undertake the education, research and extension activities.All faculties have necessary qualifications and have enriched themselves over the years by undergoing training programmes in teaching, research and education, participation in conference and seminars and handling research projects. Various approaches are followed by the teachers so that students are able to learn and get hand on experience on various aspects of horticulture and forestry.

6.5.2.1. FACULTY STRENGTH

Table 9: Details of the faculties of CHF Pasighat

Particulars	Number of Post sanctioned	Position filled
Professor	9	03
Associate Professor	18	13
Assistant Professor	36	29

6.5.2.2. FACULTY PROFILE (DEPARTMENT WISE)

The faculty strengths of College of Horticulture and Forestryis sufficient for academic requirement of the college.

Table 10: Department wise faculty strength

S.No.	Department	Professor	Associate Professor	Assistant Professor
1.	Vegetable Science	-	2	2
2.	Fruit Science	1	1	4
3.	Post-Harvest Management	-	-	2
4.	Floriculture and Landscape Architecture	1	1	1
5.	Natural Resource Management	1	2	2
6.	Social Science	-	2	2
7.	Plant Protection	-	2	3
8.	Basic Science and Humanities	-	1	6
9.	Forest Product Utilization	-	1	3
10.	Silviculture and Agroforestry	-	1	2
11.	Tree Improvement	-	-	2
	Total	**03**	**13**	**29**

Table 11: Staff details of AICRP On MAPB

S.No.	Specialization	Assistant Professor
1.	Agricultural Entomology	1
2.	Post – Harvest Technology	1
3.	Plant Breeding & Genetics	1
	Total	**03**

6.5.2.3. Credentials of the Faculty

Almost all faculty members of the college are Ph.D holders and are qualified and competent in their respective field/ research areas to provide guidance and assistance to the students of UG, PG and PhD programs. The faculties are selected through national level advertisement and interview by experts in All India Level. The college has adequate proportion of experienced and young faculty members. Many faculty members in the college have received awards for their excellence in teaching and research activities. The details of qualification, experience and professional licensure and certification and demonstrated competencies are detailed in Annexure 6.5.2.3.

6.5.2.4: TECHNICAL AND SUPPORTING STAFF

The technical staff are attached with the office of the Dean for administrative, convenience and they are allotted to other departments whenever need arises. The administrative and accounts staff are centralized in the college and are operating under the direct control of the Dean as part of Dean's office. The details of staff involved are listed below:

Table 12:Detailed list of technical and supporting staff of College of Horticulture & Forestry, Pasighat (IN POSITION)

Sl. No	Department	Technical Staff	Supporting Staff	Field Staff
1.	Vegetable Science	02	01	Nil
2.	Fruit Science	03	01	02
3.	Floriculture (O&MAP)	01	01	Nil
4.	Post Harvest Management	01	Nil	Nil
5.	Natural Resource Management	02	01	Nil
6.	Social Science	01	Nil	Nil
7.	Basic Science and Humanities	02	Nil	Nil
8.	Tree Improvement	01	Nil	Nil
9.	Silviculture and Agroforestry	Nil	01	Nil
10.	Forest Product Utilization	01	Nil	Nil
11.	Plant Protection	02	02	Nil
	Total	16	07	02

6.5.3. LEARNING RESOURCES

Faculties are provided with computers and high speed internet facilities to access the online open courses and online portal to use it for the curriculum delivery. Faculty members access various resources for use in teaching, research and extension activities. Students are also encouraged to access various software applications in agriculture. Learning resources are texted, video lessons, and other ICT related materials that teachers used to guide students to meet the expectation for learning defined by ICAR recommended curriculum.

6.5.3.1. COLLEGE LIBRARY

- **Location of Library:**

The Library of College of Horticulture and Forestry, Pasighat was established in 2001.The total built up area of the library is 231 m^2 .College maintains a very spatial library and it also subscribes a good number of national and international journals, magazines and newspapers. The library has four computer terminals and one separate library server. All the computers are connected with internet access. Under the ICAR project, the college library provides access to foreign periodicals through CeRa (Consortium for e-References in Agriculture, India). Through this service, the students and

faculty can access on-line Portals and Bouquet of journals from Publishers with full text of an articles such as Springerlink, Annual Reviews, CISRO (Australia) and JCCC (J-Gate Custom Content for Consortia).

- **Present Staff Position (in place):**

S.No.	Staff	Number
1.	Present staff	• 1 Librarian • 3 Library Assistants • 1 Clerk • 3 Multi-tasking Staffs

- **Availability of Wi-Fi:**
  Wi-fi facilities are available in the library with internet band width speed of 2Mbps from BSNL

- Books/ Reading material (in Number):

S.No	Particular	Number
1.	Books	17,925
2.	Newspapers	06
3.	Magazines	04
4.	Bound volumes	278

- **Periodicals/Research Journals(in Number)** : 17
- **Internet facility** :Internet band width speed of 32Mbps rom BSNL
- **No of Computers** : 06 nos
- **Seating Capacity** : 30 nos
- **Latest Technology in the library**:

The library of the college is equipped with internet facilities through which the staff and students can access OPAC (Online Public Access Catalogue) at www.chfcau.ideal.egranth.ac.in.
Necessary steps have been initiated for accessing online journals and study materials at Electronic Resource Management package for e-journals access through CeRA (Consortia for e-Resources in Agriculture)
Two Library Softwares in process: (i) Alice for Window (Softlink Asia pvt.ltd) Offline and (ii) Koha Library management Software
Krishikosh (e-theses etc. Institutional Repository of ICAR) all M.Sc. and Ph.D. Theses are uploaded. It is open repository. URL: Krishikosh.egranth.ac.in
Commonwealth Agricultural Bureau (CAB) data base access facility (database from 1972 to 2005)

- **Stocking arrangements**:
  Book stocks arranged as per the subjects
  Stock racks are available in 2 sizes, 10 racks with size of 7.3 ft. and 31 racks with size of 6 ft.26 number of book cases are available

- **Collection of volumes on different subject**:

S.No	Particular	Number
1.	Genetics and Plant Breeding	436
2.	Ag. Economics	81
3.	Soil Science& Ag. Chemistry	393
4.	Horticulture	293
5.	Ag. Extension	172
6.	Statistics, Computer Application & IPR	26
7.	Agronomy	365
8.	Crop Physiology	71
9.	Plant Pathology	103
10.	Plant Biotechnology	32
11.	Microbiology	35
12.	Entomology	35
13.	Plant Biochemistry	06
14.	Ecology	02
15.	Agroforestry	09
16.	Ag. Engineering	56
17.	Botany	49
18.	English Language	25

- **Latest publications in the field of relevant subjects:**

S.NO	NAME
1.	Manual on Manures, Fertilizers and Agro-chemicals
2.	Analytical Techniques and Instrumental Methods in Soil and Plant Analysis
3.	Essentials of Soil Science
4.	Nursery Techniques and Management of Forest Tree Species

5.	Wild Edible Fruit Trees of Arunachal Pradesh
6.	Production Technology of Forest Trees Species
7.	Vermicompost Production
8.	Soil Testing and Organic Farming for Sustainable Agriculture Management in North East India
9.	Ginger: Package and Practices for Cultivation in Arunachal Pradesh
10.	Farmer's Friendly Technologies for Doubling Farmer Income
11.	Forest Nursery and Planting Technique Training Manual
12.	Composite Fish Farming Manual
13.	Medicinal Values of Some Under Utilized Vegetables in Adi Society of Arunachal Pradesh
14.	Training Manual Rain Water Harvesting and its Management in Horticultural Crops
15.	Bee Keeping in Arunachal Pradesh
16.	Manual on Manures, Fertilizers and Agro-chemicals
17.	Analytical Techniques and Instrumental Methods in Soil and Plant Analysis

- **Automation & user services through computer:**
  Library automation under process through Koha Library management software.

- **Opening hours:** 9.30 AM to 4.30 PM

- **Subscription of journals of national & international repute national dailies/ magazines (provide list**):
  Subscription to journals through online portal of CeRA ICAR and CAB. Through these services, the students and faculty can access on-line portals and bouquet of journals from publishers with full text of an articles such as Springer, Annual Reviews, CISRO (Australia) and JCCC (J-Gate Custom Content for Consortia).

S.NO	LIST OF THE JOURNAL
1.	Indian Journal of Agricultural Sciences
2.	Indian Journal of Agricultural Research
3.	Indian Journal of Genetics and Plant Breeding

4.	Journal of Applied Zoological Research
5.	Journal of Agro-Meteorology
6.	Indian Farming
7.	Journal of Non-Timber Forest Products
8.	Indian Forrester
9.	Indian Journal of Forestry
10.	Indian Journal of Horticulture
11.	Indian Horticulture Journal
12.	*Kheti*
13.	Pestology
14.	Potato Journal
15.	*Phal phul*
16.	Professional Journal of Library and Information Technology
17.	Indian Journal of Agricultural Sciences
18.	Indian Journal of Agricultural Research
19.	Indian Journal of Genetics and Plant Breeding

S.NO	LIST OF THE JOURNAL
1.	Times of India,
2.	Telegraph
3.	Arunachal Echo
4.	Arunachal Times
5.	Assam Tribune
6.	Employment News

S.NO	LIST OF THE MAGAZINE
1.	India Today
2.	Competition Review

3.	Competition Success
4.	Sports Star

Figure 15: Library at College of Horticulture and Forestry, Pasighat

6.5.3.2. LABORATORIES, INSTRUCTIONAL FARM, WORKSHOPS, DAIRY PLANT, VETERINARY CLINIC, HATCHERY, PONDS ETC.

The College of Horticulture and Forestry is spread over in an area of 58 hectares which includes research farm, instructional cum demonstration farm, KVK farmand experimental farms. The laboratories of all departments are well equipped with all the necessary equipments and facilities to accomplish the academic activities. All basic chemicals and instruments are available for doing practical and research work in all the laboratories. The farm facilities, workshops and other instructional units are well designed with sufficient land area and build infrastructure, irrigation, electricity and required farm machineries supported with tractors, power tillers, cultivators, leveller, rotavator, and other farm implements for day to day work and research purpose to meet the course curricula and research requirements.

Laboratories

College of Horticulture and Forestry, Pasighat which is well equipped to conduct practical classes for UG, PG and PhD programmes (Fig. 16, 17& 18).

Table 13: The area covered under the laboratories of different departments are as follows :

Sl. No.	Laboratories under different departments	Area (sq. meter)
1.	Soil Science	150
2.	Plant Pathology	95
3.	Entomology	20
4.	Genetics and Plant Breeding	74
5.	Agronomy	90
6.	Plant Biotechnology	90
7.	Plant Biochemistry	90
8.	Horticulture	
9.	Post-harvest	90
10.	Floriculture	90
11.	Vegetable Science	90
12.	Fruit Science	90
13.	Statistics, Computer Application & IPR	59

The details of the laboratories in different departments of College of Horticulture and Forestry are as:

Plant Protection

- **Plant Pathology**

Practical classes are conducted for students on general plant pathological laboratory and field equipment's, study of disease symptoms and signs and host parasite relationships,identification and isolation of plant pathogens, Koch's postulates,preparation of fungicidal solutions, slurries, pastes and their applications.

- **Entomology**

The departmental laboratories are utilized for conducting practical classes on insect collection and preservation,identification of important insects,general body organization of insects,study on morphology of insects,preparation of permanent mounts of mouth parts, antennae, legs and wings,dissection of insectsto study the internal morphology,observations on metamorphosis of larvae and pupae.

Tree Improvement &Genetics and Plant Breeding

Practical classes are conducted for students on breeding objectives and techniques in important crops,floral biology: its measurement, emasculation, crossing and selfing techniques in major crops,determination of mode of reproduction in crop plants, handling of breeding material, segregating generations (pedigree, bulk and back cross methods), field layout& maintenance of experimental records in self & crosspollinated crops,demonstration of hybrid variation and production techniques,Hardy Weinberg Law and calculation, male sterility and incompatibility studies in agricultural crops, calculation of inbreeding depression, heterosis, heterobeltiosis, GCA, SCA, GA and heritability.

Natural Resource Management

- **Agronomy**

  The students are delivered practical classes on identification of field crop and tillage implements,preparation of seed beds, identification of fertilizers and manures, mixing chemical fertilizers, calculating fertilizer requirements,identification of green manure plants,identification of important weeds of the region with particular reference to forest plantations,preparation of weed herbarium,calculations of spray volume and herbicide concentrations,methods of application of herbicides,identification of horticultural crops, garden tools and implements. planning and layout of orchard and plantations,digging and filling of pits for fruit and plantation crops-planting systems, training andpruning of orchard trees-preparation and application of regulators, layout of different irrigation systems, identification and management of nutritional disorder in fruits-bearing habits and maturity standards, harvesting, grading, packaging and storage.

- **Soil Science**

  The department has laboratories for conducting practical classes on collection and preparation of soil samples, estimation of soil moisture, EC, pH & bulk density,textural analysis of soil, description of soil profile in the field,quantification of minerals and their abundance, determination of soil colour, estimation of water holding capacity & hydraulic conductivity of soils,estimation of infiltration rate using double ring infiltrometer method, estimation of soil moisture, soil compaction measurement, determination of pore space of soil, determination of filed capacity and permanent wilting point of soil, determination of soil water potential characteristic curves, aggregate size distribution analysis of soil and air capacity of soil.

Basic Science & Humanities

- **Plant Biotechnology**

  The laboratory is utilized to conduct practical classes on requirements for plant tissue culture laboratory,techniques in plant tissue culture,media components &preparations,sterilization techniques &inoculation of various explants,aseptic manipulation of various explants,callus induction &plant regeneration,micro propagation of important crops,anther, embryo &endosperm culture,hardening/acclimatization of regenerated plants,somatic embryogenesis & synthetic seed production,isolation of protoplast,demonstration of culturing of protoplast,demonstration of isolation of DNA,demonstration of gene transfer techniques: direct & indirect methods,demonstration of confirmation of genetic transformation,demonstration of gel-electrophoresis techniques andgreen synthesis of nano particles and their size characterization.

- **Plant Biochemistry**

  Practical classes are conducted on preparation of standard solutions and reagents,qualitative reactions of carbohydrates, estimation of starch, estimation of reducing & non-reducing sugars from fruits,reactions of amino acids,estimation of proteins, estimation of free fatty acids, determination of iodine number of vegetable oils,estimation of ascorbic acid,paperchromatography, thin layer chromatography,electrophoresis of pigments extracted from flowers, extraction of oil from oil seeds andenzyme assay& immobilization.

- **Statistics, Computer Application & IPR:**
  Practicals are delivered to students on exercises on binary number system, algorithm and flow chart, MS Word, MS Excel, MS Power Point, internetapplications, web Browsing, creation and operation of email account,analysis of fisheries data using MS Excel,handling of audio visual equipments,planning, preparation, presentation of posters, charts, overhead transparencies & slides andorganization of an audio-visual programme

Figure 16: Outlay of College of Horticulture and Forestry, Pasighat

Figure 17. Computer Laboratory

- **Post-harvest:** Practical classes are directed towards identification of equipments used in food processing units, physico-chemical analysis of fruits and vegetables,canning of fruits and vegetables, preparation of squash, RTS, cordial, syrup, jam, jelly, marmalade, candies, preserves, chutneys, sauces, pickles (hot and sweet),dehydration of fruits and vegetables – tomato product dehydration, refrigeration and freezing, cut out analysis of processed foods,processing of plantation crops andvisit to processing units
- **Floriculture:** Practical classes are conducted for students on identification and description of annuals, biennials, herbaceous perennials, climbers, shrubs, trees, indoor plants, ferns and selaginella, palms, cycads, cacti & succulents,planning and designing and establishment of garden features *viz*., lawn, hedge & edge, rockery, water garden, carpet bedding, shade garden, roof

garden, study and creation of terrariums, vertical garden, study and practice of different types of flower arrangements, preparation of floral bouquets, preparation of floral rangoli, veni*etc*., study of *Bonsai* techniques, *Bonsai* practicing and training, visit to nurseries & floriculture units

- **Vegetable Science:** The students are delivered practical classes on identification and description of tropical & sub-tropical vegetable crops, nursery practices & transplanting, preparation of field & sowing/planting for direct sown & planted vegetable crops,herbicide use in vegetable culture, top dressing of fertilizers & intercultural operations, use of growth regulators, identification of nutrient deficiencies,physiologicaldisorders,harvest indices & maturity standards, post-harvest handling and storage, marketing, seed extraction (cost of cultivation for tropical & sub-tropical vegetable crops) and project preparation for commercial cultivation
- **Fruit Science:**The department has laboratories for conducting practical classes on features of orchard, planning & layout of orchard, tools &implements, identification of various horticultural crops, layout of nutrition garden, preparation of nursery beds for sowing of vegetable seeds, digging of pits for fruit plants, planting systems, training & pruning of orchard trees, preparation of fertilizer mixtures & field application, preparation & application of growth regulators, layout of different irrigation systems, identification and management of nutritional disorder in fruits, assessment of bearing habits, maturity standards, harvesting, grading, packaging and storage.

Figure 18: College Laboratory

Besides these laboratories, the following facilities are also available atCollege of Horticulture and Forestry, Pasighat.

Table 14: Infrastructure facilities available in CHF Pasighat

Infrastructure	Area (sq. meter)
Workshop	1000
Dairy Plant	90
Poultry Unit	72
Pond	1500

The water from the pond is used for the purpose of drip and sprinkler irrigation, gravity fed irrigation etc. The workshop which is maintained by the Engineering Unit is well designed with sufficient land

area and build infrastructure with required farm machineries such as tractors, power tillers, cultivators, leveller, rotavator, and other farm implements for day to day work related to research purpose.

Instructional Farm

A total of 16 instructional farms are established under various departments of the college, the details of which are listed below:

Table 15: Department wise infrastructural details of CHF Pasighat

Department/Section	Area (Sq.mtr.)	Facilities available
Natural Resource Management		
1. Farm Power & Irrigation Infrastructures	1500	• Run-off Experiment Facility • Rain water Harvesting Based Integrated Horticulture Farming System • WHP=5 Lakh Litre Capacity • 5Hp Solar Pumping System • Naturally Ventilated Greenhouse= 30m×7m • Drip irrigation system operated by Solar Pump • Sprinkler Irrigation System operated by solar pump • Gravity fed drip Irrigation System in 500sq.m area • Basic Power Machineries available
2. Agrometeorology Observatory	500	• Meteorological observation data for Research and Academic purpose
Forestry		
3. Silviculture Nursery	9100	• Nursery raised bed= 70 Nos. • Shade net house (5x1.5m) = 30 Nos. • Green Net House (9mx16.5mx 5.5m) • Tree Garden/ Collection of 250 species of tree species for research/academic • PG Research plots for germination exp • Plantation Blocks of diff. species • Water Pump with motor, Irrigation & electricity setups
4. Agroforestry Block	2100	• Compost (concrete) pit • PG Research plots under different spacing's of different species & different age
5. Bambusetum block	8000	• 67 spp. of different type of bamboos • Research, conservation & identification purpose

6. Rubber plantation block	20000	• Commercial genotypes of high yielding *Hevea brasiliensis*
7. NTFPs & High value timber block	25000	• Tans & dye yielding plants • Lac, Gums and resins plants • Drugs, spices and insecticides plants • Wild edible fruits trees
Horticulture		
8. Medicinal &Aromatic plant farm **9. Medicinal plant germplasm block**	12000	• Germplasm of Medicinal and AromaticPlants • Collection of rare and endangered spps. • Nursery beds • Shade houses/roofs • Irrigation & electric facilities
10. Herbal garden	10000	• More than 160 species • Research, conservation & identification purpose
11. Floriculture and Landscaping	20000	• 8 nos. polyhouses • Germplasm bank of orchids & native ornamental plants • Commercial cut flower block of orchids, anthurium, gerbera, and heliconia • Collection of indoors plants, cactus and annual flowers
12. Vegetables science	35543	• Demonstration block on nutrition garden and other vegetable crops • Turmeric and spices processing unit • Hi-tech poly house (3 nos.) • Naturally ventilated polyhouses (2 nos.) • Water harvesting tanks • Solar power operated sprinkler irrigation system • Local vegetable garden • Vegetable nursery block
13. Fruit Department	98525	• Fruit nursery block • Demonstration & experimental block of coconut, passion fruit block, litchi, Jack fruit, Aonla, cashewnut, Mango, banana, Oil palm, Pumello and Assam lemon.
14. PBG farm	1800	• Nursery raised bed= 20 Nos. • Shade net house (15x15m) • Tokkopatta shade roofs: 10nos. • Arboretum 1100 sq. mtr. • Irrigation & electricity setups
Plant Protection		
15. Entomology (Biocontrol) Farm	4047	• Nursery Beds, Research plots

		• Water Pump with motor, Irrigation & electricity setups
16. Entomology (IBDC) Farm	2023	• All equipment's of beekeeping • Irrigation facility • Plots for nectar yielding plant
17. Pathology Farm	1083	• Disease Diagnostic Field • Students demonstration plot • Nursery beds • irrigation& electric facilities.
18. Paddy straw boiling unit and mushroom House	1350	• Boiling unit • Facilities for mushroom culture & production • Unit has more than 250 species of edible and poisonous mushroom species

6.5.3.3. STUDENT READY/ IN-PLANT TRAINING / INTERNSHIP / EXPERIENTIAL LEARNING PROGRAMMES
FOR HORTICULTURE

Student READY Program is taken up during VII and VIII semesters and have the following components:

Semester - VII

Student READY- Rural Horticulture Work Experience (RHWE) & Placement in Industries. This program is taken up during the VII semester for a duration of 24 weeks and allotted0+20 credit hours. The program includes orientation, village stay, all India study tour, industrial placement program, report writing and final examination.

Semester –VIII

Student READY Experiential learning (Professional Package) is for the duration of 20 weeks and carries a weightage of 0+20 credit hours. Students can select any two modules from the following under STUDENT READY- Experiential Learning program depending on the facilities available at the college:

1. Commercial Horticulture
2. Protected cultivation of high value Horticulture crops
3. Processing of fruits and vegetables for value addition
4. Floriculture and landscape architecture
5. Bio-inputs: Bio-fertilizers and bio-pesticides
6. Mass multiplication of plant and molecules through tissue culture
7. Mushroom culture
8. Bee keeping

FOR FORESTRY

Semester -V

Student READY Experiential Learning Module – I (5 weeks) (0+5 credit hours). Any one of the modules to be taken up during V semester:

1. Production and Marketing of high value forest produce (FPU)
2. Raising Quality Planting Materials for forest regeneration (SAF/FBT)
3. Apiculture/Sericulture (FBU/NRM/WLS)
4. Ecotourism (BSS/WLS)
5. Wild Animal Health Management– WLS

Semester-VI

Student READY Experiential Learning Module – II (5 weeks) (0+5 credit hours). Any one of the modules to be taken up during VI semester:

1. Production and Marketing of high value forest produce (FPU)
2. Raising Quality Planting Materials for forest regeneration (SAF/FBT)
3. Apiculture/Sericulture (FBT/NRM/WLS)
4. Ecotourism (BSS/WLS)
5. Wild Animal Health Management – WLS

Semester –VII

Student READY Forestry Work Experience (FOWE) 24 weeks is taken up in semester VII with a credit load of 0+20 credit hours. The program have the following components:

1. Orientation
2. Forest Range Training Program
3. Industrial placement
4. Weapon Training and First-Aid Training
5. Socio-economic Surveys and Village Attachment
6. Socio-economic Surveys and Village Attachment
7. Report writing and presentations

Semester -VIII

Student READY Project Work & Dissertation 10 weeks (0+10 credit hours) is taken up in the last semester.

EVALUATION OF STUDENT READY PROGRAM

- Students are evaluated component-wise under village attachment/ agro-industrial attachment/ hands on training/skill development training/experiential learning/student projects.
- Each College of the University designates a Student READY Program Coordinator and component wise evaluation committees. These committees frame a method of evaluation depending upon the component undertaken giving due weightage to the observations made by the Scientists/Agro-industrial Officer and the Program Coordinator with whom they are attached.
- Since the Credit Hours allotted to the Student READY program are gradial, the minimum condition of attendance and grading system applies for the program as applicable to other courses.
- It is expected that at the end of Student READY program, the students should gain competency for entrepreneurship, which should be innovative and creative in nature. The evaluation committee

must ensure percentage increase in this competency at the end & successful organization of all Student READY programs.

Table: Profit sharing mechanism (AMOUNT) for each ELP unit for last 5 year

Sl. No.	Department	Year	No. of students trained	Total income generated in rupees	Total profit earning	Profit shared per student	Major skills imparted	Additional info (if any)
	B.Sc. (Hons) Horticulture							
1	Floriculture Landscape MAP	2015-16	7	Rs. 44410	Rs. 31956	Rs. 3423	Marketing skills, project formulation skills & production skills.	
		2016-17	7	Rs. 36000	Rs. 26000	Rs. 2786		
		2017-18	7	Rs. 56960	Rs. 50130	Rs. 5371		
		2018-19	7	Rs. 41380	Rs. 35130	Rs. 3763		
		2019-20	12	Rs. 24520	Rs. 13520	Rs. 1126		
2	Plant Protection	2015-16	10	Rs. 53660	Rs. 44527	Rs. 3339		
		2016-17	7	Rs. 13740	Rs. 9480	Rs. 1016		
		2017-18	12	Rs. 15030	Rs. 12064	Rs. 792		
		2018-19	7	Rs. 24600	Rs. 20625	Rs. 2209		
		2019-20	25	Rs. 55140	Rs. 30111	Rs. 2360		
3	Vegetable	2015-16	8	-	Rs. 9105	-		Entire earning was deposited
		2016-17	8	Rs. 14000	Rs. 9000	Rs. 843.75		
		2017-18	5	Rs. 16250	Rs. 9448	Rs. 1417.2		

		2018-19	5	Rs. 20210	Rs. 19210	Rs. 2881.5		
		2019-20	16	Rs. 22720	Rs. 18000	Rs. 843.75		
4	Fruit	2015-16	4	Nil	Nil	Nil		
		2016-17	7	Nil	Nil	Nil		
		2017-18	10	Rs. 26300	Rs. 20150	Rs. 1511.25		
		2018-19	7	Rs. 66200	Rs. 62534	Rs. 6700.07		
		2019-20	16	Rs. 27180	Rs. 24462	Rs. 1146.65		
5	Post-Harvest Management	2015-16	5	Rs. 34130	Rs. 25327	Rs. 3799.05		
		2016-17	5	Rs. 34306	Rs. 26000	Rs. 3900		
		2017-18	6	Rs. 42210	Rs. 32524	Rs. 4065.5		
		2018-19	6	Rs. 54269	Rs. 38400	Rs. 4800		
		2019-20	21	Rs. 35000	Rs. 24602	Rs. 878.64		
1	Silviculture and Agroforestry	2015-16	5	Nil	Nil	Nil	Marketing skills, project formulation skills & production skills.	
		2016-17	4	Nil	Nil	Nil		
		2017-18	6	Nil	Nil	Nil		
		2018-19	7	Nil	Nil	Nil		
		2019-20	5	Nil	Nil	Nil		

2	Tree Improvement	2015-16	4	Nil	Nil	Nil		
		2016-17	6	Nil.	Nil	Nil		
		2017-18	6	Rs. 5000	Rs. 2300	Rs. 287.5		Entire earning paid to student
		2018-19	13	Nil.	Nil	Nil		
		2019-20	8	Rs. 5000	Rs. 3000	Rs. 281.25		
3	Forest Product Utilization	2015-16	3	Nil.	Nil	Nil		
		2016-17		Nil.	Nil	Nil		
		2017-18	7	Nil.	Nil	Nil		
		2018-19	13	Rs. 52600	Rs. 33300	Rs. 7460		
		2019-20	10	Rs. 40300	Rs. 24100	Rs. 4780		
4	Forest Product Utilization (High value)	2015-16		Nil.	Nil.	Nil.		
		2016-17		Nil.	Nil.	Nil.		
		2017-18	6	Rs. 39975	Rs. 31575	Rs. 4210		
		2018-19	6	Rs. 24050	Rs. 19550	Rs. 2443.75		
		2019-20	5	Rs. 15000	Rs. 9000	Rs. 1410		

6.5.3.4. CURRICULA DELIVERY THROUGH IT (SMART CLASS ROOMS/INTERACTIVE BOARD ETC.)

The College of Horticulture and Forestry, Pasighat has upgraded to **2 Nos**. Of smart classrooms for teaching and practical purposes.

Figure 24: Smart Classroom with 84 nos. of sitting capacity

IT Activities

- The academic, research, extension activities of the college are made available at the the official website of the College of Horticulture & Forestry, Pasighat (http://chfcau.org.in) and University website (www.cau.ac.in).
- All the activities related to KVK are madeavailable in the websiteKVK East Siang,Pasighathttps://kvkeastsiang.chfcau.org.in/

Computer facility

- The College has well-furnished air-conditioned Computer Laboratory. It houses 15 numbers of Desktop Computers with high speed Internet facility.
- The laboratory is used for conducting Practical classes for B.Sc Horticulture, BSc Agriculture, B.Sc Forestry,P.G and Ph.D students.
- Students also use the Computer Lab for their research, statistical calculation and other academic activities.

Figure 25: Computer Laboratory

Internet Facility

- The college has recently upgraded to **34 Mbps** Leased line Internet connection from BSNL.
- The College will provide unlimited Internet facility to the staffs and students.

- Wi-Fi Internet hotspot facility will be provided at Academic building, Old College building, VC Camp, Guest House and allthe Hostels of the College
- Faculty members and students utilize internet and computer facility for carrying out academic research and extension activities.

Language Laboratory:

Recently the College has setup 30 seater Language Laboratory with 32 nos.of computers for teaching and practicals of the students.

A **language laboratory** is a dedicated space for foreign language learning where students access audio or audio-visual materials. They allow a teacher to listen to and manage student audio, which is delivered to individual students through headsets or in isolated 'sound booths.

Figure 26: Language Laboratory

6.5.4. STUDENT DEVELOPMENT

Nurturing the intellect and character of students by integrating in-class and extra-curricular activities has been the primary objective of the college. To accomplish this objective, the students are exposed to a wide range of educational and social experiences which leads to development of integrity and sincerity among the students.

6.5.4.1. STUDENT INTAKE AND ATTRITION

The College presently offers Under Graduate and Post Graduate and PhD Programme in Horticulture and Forestry .The annual intake of students to the college at UG& PG level has increased since the inception of the university.

Table 16: The details of the student intake capacity under UG program

Year	Degree Program	Intake capacity	Actual Student admitted	Attrition (%)
2016-17	B.Sc (Hons.) Horti.	53	47	-
	B.Sc (Hons.) Forestry	30	19	-
	M.Sc (Hons.) Horti.	10	10	-

	M.Sc (Hons.) Forestry	04	03	-
	Ph.D (Horticulture)	04	04	-
2017-18	B.Sc (Hons.) Horti.	53	47	-
	B.Sc (Hons.) Forestry	30	19	-
	M.Sc (Hons.) Horti.	10+1 (01 Foreign Student)	10	9.09
	M.Sc (Hons.) Forestry	04	04	-
	Ph.D (Horticulture)	04	04	-
2018-19	B.Sc (Hons.) Horti.	53	49	-
	B.Sc (Hons.) Forestry	30	22	-
	M.Sc (Hons.) Horti.	09 +02 + 02 (02 Foreign students + 02 ICAR student)	13	-
	M.Sc (Hons.) Forestry	4	04	-
	Ph.D (Horticulture)	5	04	20
2019-20	B.Sc (Hons.) Horti.	54	45	-
	B.Sc (Hons.) Forestry	30	25	-
	M.Sc (Hons.) Horti.	09 (01 Foreign students + 02 ICAR student)	12	-
	M.Sc (Hons.) Forestry	04	04	-
	Ph.D (Horticulture)	04	04	-

2020-21	B.Sc (Hons.) Horti.	61	46	6.2
	B.Sc (Hons.) Forestry	35	30	3.3
	M.Sc (Hons.) Horti.	12 + 02 ICAR students	12	14.2
	M.Sc (Hons.) Forestry	04	03	-
	Ph.D (Horticulture)	06	06	-

Name of the Degree Programme	Actual student admitted in last five years					Attrition (%)				
	Y1 (16-17)	Y2 (17-18)	Y3 (18-19)	Y4 (19-20)	Y5 (20-21)	Y1 (16-17)	Y2 (17-18)	Y3 (18-19)	Y4 (19-20)	Y5 (20-21)
B.Sc (Hons.) Horti.	47	47	49	45	46	-	-	-	-	6.2
B.Sc (Hons.) Forestry	19	19	22	25	30	-	-	-	-	3.3

6.5.4.2. AVERAGE NUMBER OF STUDENTS IN THEORY AND PRACTICAL CLASSES

The batches of students are organised to ensure better delivery of information, encourage students' participation and active monitoring.

Table 17: Details of the average number of student in theory and Practical Classes

Year	Degree Program	Batch of students in theory class	Batch of students in practical class
2016-17	B.Sc (Hons.) Horti.	47	Batch 1- 24 Batch 2- 23
	B.Sc (Hons.) Forestry	19	19
	M.Sc (Hons.) Horti.	10	10

	M.Sc (Hons.) Forestry	03	03
	Ph.D (Horticulture)	04	04
2017-18	B.Sc (Hons.) Horti.	47	Batch 1- 24 Batch 2- 23
	B.Sc (Hons.) Forestry	19	19
	M.Sc (Hons.) Horti.	10	10
	M.Sc (Hons.) Forestry	04	04
	Ph.D (Horticulture)	04	04
2018-19	B.Sc (Hons.) Horti.	49	Batch 1- 25 Batch 2- 24
	B.Sc (Hons.) Forestry	22	22
	M.Sc (Hons.) Horti.	13	13
	M.Sc (Hons.) Forestry	04	04
	Ph.D (Horticulture)	05	05
2019-20	B.Sc (Hons.) Horti.	45	Batch 1- 22 Batch 2- 23
	B.Sc (Hons.) Forestry	25	25
	M.Sc (Hons.) Horti.	12	12
	M.Sc (Hons.) Forestry	04	04
	Ph.D (Horticulture)	04	04
2020-21	B.Sc (Hons.) Horti.	50	Batch 1- 25 Batch 2- 25
	B.Sc (Hons.) Forestry	30	30
	M.Sc (Hons.) Horti.	12	12
	M.Sc (Hons.) Forestry	03	03
	Ph.D (Horticulture)	06	06

6.5.4.3. ADMISSION PROCESS

B.Sc Degree Program

Admission requirement

- The candidates should have passed 10+2 examination with English as one of the subjects of study. The candidates much have attained 17 years of age on 31st December in year of admission. The selection or nomination of candidates is done through National Eligibility cum Entrance Test (NEET) conducted by the National Testing Agency (NTA). Students seeking admission to the above degree programme shall be permanent resident or domicile of any one of the north eastern states of India i.e., Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. The number of students to be admitted for each of the North Eastern states is notified by CAU from time to time.

PAYMENT SEATS

- The candidates to be sponsored for admission are from the merit list based on the entrance test
- 15% of the approved number of seats in the UG programme are filled by the candidates selected on the basis of All India Entrance Test conducted by ICAR or as amended from time to time by ICAR.The ICAR nominees are governed by the eligibility as prescribed by ICAR

  Date of admission

- The date of admission to a bachelor's degree programme is as per the announcement made in the prospectus or academic calendar or semester calendar which is duly notified by the Registrar, CAU

Registration process

- On admission, a student is provided four copies of registration cards having different colours; one for the student, one for the advisor, one for the Dean and one for the Registrar which is filled up and registered for the prescribed process for the first semester. The registration card is signed by the student, his advisor, Assistant Registrar (academic) and countersigned by the Dean of the college.
- On admission and registration, the students are provided with college identity cards with his/her photograph. The identity card is returned to the college by the students when the students leave the college after completion or discontinuation of the course
- Newly admitted studentsare given an admission number by the Dean of the college. This admission number is valid till individual registration number is allotted by the Registrar, CAU to the students
- An orientation programme is organized by the Dean of the college for the benefit of the newly admitted students immediately at the beginning of the first semester

P.G. and Ph.D degree programme

a) Master's Programme

- Candidates with Bachelor's degree in concerned/related subjects from a recognized University with OGPA of 6.60/10.00, 3.25/5.00, 2.6/4.00 for General/OBC/UPS candidates are eligible for admission to the Master's Degree programmes. SC/ST/PC candidates with OGPA of 5.60/10.00, 2.75/5.00, 2.20/4.00 in the Bachelor's degree programme shall be eligible for the admission.
- In case where Grade Points are not awarded, only marks are awarded, the candidates must have secured at least 60% marks for General/OBC/UPS category and 50% marks for SC/ST/PC category. Candidates possessing 10+6 B.Sc. (Hons.) Agriculture degree shall also be eligible for admission to M.Sc. (Agri.) & M.Sc. (Hort.) programme

b) Doctoral Programme

- Candidates with Master's degree in concerned/related subjects from a recognized University with OGPA of 6.50/10.00, 3.25/5.00, 2.6/4.00 are eligible for admission to the Doctoral programmes under General/OBC/UPS category. SC/ST/PC category candidates with OGPA of 5.50/10.00, 2.75/5.00, 2.20/4.00 in the Master's degree shall be eligible for admission.
- In case where Grade Points are not awarded, only marks are awarded, the candidates must have secured at least 60% marks for General/OBC/UPS category and 50% marks for SC/ST/PC category.

Selection of candidates for admission

- The selection of candidates for both Master's and Doctoral programmes will be based on the Entrance Examination marks (60% weightage) and academic performance in qualifying Degree Examination (40% weightage). 20% marks, with negative marking in the entrance examination will be the qualifying mark for short listing under all categories.
- Twenty five (25) per cent of total seats in each department shall be filled up by the candidates selected by ICAR through All India Entrance Test (AIET).
- Fifteen (15) percent, seven point five (7.5) percent and three (3) percent of the total number of seats shall be reserved for SC, ST and PC candidates respectively. In case enough candidates are

not available, SC/ST categories seats can be interchanged. Vacant seats under PC category will be filled by the merit from General category.

- Twenty seven (27) percent of the total numbers of seats are reserved for OBC excluding creamy layer. If the University does not find the candidate from OBC category, the vacant OBC seats shall be converted into General category i.e. unreserved seats.

Submission of application

- Application for admission to Master's degree and Doctoral degree programmes shall be made in prescribed application form obtainable from the office of the Registrar/Dean of constituent Colleges on issue of notification to this effect. The duly filled in application complete in all respects along with documents shall be submitted so as to reach the Registrar of the University on or before the prescribed date.
- Students who have appeared in the final examination of the qualifying degree course and whose results are awaited for declaration may also submit their applications on or before the prescribed date.
- Each candidate is required to submit the necessary documents in original before the Admission Committee constituted for the purpose.

Admission procedure

- All the shortlisted candidates shall present themselves for counselling on the prescribed date and time in respective courses with all original documents.
- Based on merit, provisional admission letter shall be issued to the candidate by the Registrar, CAU, Imphal.
- The provisionally selected candidate shall report to the Dean of concerned College along with all original documents on the prescribed date.
- The Dean shall get the original documents verified by a committee of three senior teachers and Asstt. Registrar (Academic). After being satisfied with genuineness of certificate, the students shall be admitted after payment of prescribed fee.
- All original documents shall be kept in safe custody of the Dean of the College.

Registration

The first day of the commencement of the semester shall be the date of registration by the students

Registration of newly admitted students

- On admission, a student shall be providedfour copies of Registration Cards having different colours, one for the student, one for the Advisor, one for the Dean and one for the Registrar.
- With registration cards in hand, the student shall report to the concerned Head of Department / Deptt. In-charge, who shall help the student for selection of courses and filling the cards.
- The Registration Cards shall be signed by the student, his/her Advisor/HOD, the Assistant Registrar (Acad.) and countersigned by the Dean of the College.
- On admission and registration, the student shall be provided with an identity card with his/her photograph. The identity card shall be returned to the College when the student leaves the College after completion/discontinuation of the course/being dropped from the College/University for a specified period for good.
- Each newly admitted student shall be given an Admission Number by the Dean of the concerned College and this Admission Number shall continue till allotment of Registration Number by the Registrar.

6.5.4.4. CONDUCT OF PRACTICAL AND HANDS ON TRAINING

Practical classes (Fig. 16),field visits and hands on training (Fig. 17) are conducted regularly as per the syllabi at College of Horticulture and Forestry, Pasighat campus and other nearby villages.

Mode of Conduct of Practical and hands on training in different courses in College of Horticulture & Forestry

1. Field visits are regularly arranged to farmers' field to understand the cultivation practices and management aspects of different Horticulture and Forestry related courses. Besides field visits, exposure visits to other research and educational institutes are arranged so that students may gain information on latest development in the field of agriculture.

Figure 27: Field Classes

2. Students are given practical classes on preparation of solution, pH & buffers, titration methods for estimation of amino acids/lipids, qualitative tests of carbohydrates and amino acids, paper chromatography/TLC demonstration for separation of amino acids and monosaccharides etc.

Figure 28: Bed Preparation

Figure 29: Practical classes conducted

3. Practical classes are conducted on dissection of floral parts and to prepare herbarium specimens of different families. Hands on training are provided to students on preparation of different stains, preparation of permanent slides of mitosis and meiosis stages, hybridization followed by selection in various crops, emasculation, crossing and selfing techniques of cytological studies etc.
4. The students are provided hands on training on preparation of culturing media, tissue culture, aseptic practices, micropropagation of crops, DNA fingerprinting using RAPD&PCR, callus

induction from various explants. The students are demonstrated on isolation of DNA, gel electrophoresis techniques and DNA finger printing.

5. The students are assigned topics on budgeting and farm planning, cost of cultivation, marketing operations and develop agrihorti-based business models, techno-economic parameters for preparation of projects, preparation of bankable projects for various agricultural products and its value-added products, seminar on selected topics, preparation and analysis of balance sheet etc.
6. Students are given practicals on preparation of contour maps, designing of grassed water ways, contour bunds, graded bunds & bench terracing system, familiarization with different components of tractors, learning of tractor driving, operation of power tiller, familiarization with different types of primary and secondary tillage implements, seed-cum-fertilizer drills, different types of sprayers and dusters, different inter-cultivation equipment, harvesting and threshing machinery.
7. Practical classes are conducted for students on graphical representation of data, measures of central tendency, correlation &regression analysis, application of t-test, chi-square test, analysis of variance, simple random sampling, study of computer components, use of MS-WORD and MS Power-point for creating, editing and presenting scientific documents, preparation of contingent crop planning etc.
8. The students are provided with hands on training in identifying and analysing the problems faced by the farmers, conduct awareness programmes to improve the skill, knowledge and attitude of farmers, brainstorm sessions to develop innovative ideas and prepare audio visual aids on specific topics.
9. Students are prepared for listening and note taking, writing skills, oral presentation skills, field diary and lab record, indexing, footnote & bibliographic procedures, reading and comprehension of general and technical articles, precise writing, summarizing, abstracting, individual and group presentations.
10. Hands on training is provided to students on aspects of bee keeping, lac culture, biocontrol agents, identification of different insect pests in field etc. Students are given exposure visits to nearest FCI godowns, research and training institutions devoted to beekeeping, sericulture, lac culture and natural enemies. Students are made to identify natural enemies and mass multiply them.
11. Hands on training is provided to students on planning, layout and planting of horticultural crops, different methods of propagation, IPM and INM packages for horticultural crops, post-harvest technologies, cultural operations etc.
12. Practical classes are conducted to identify and diagnose different diseases of crops, study of morphological features and identification of plant parasitic nematodes, sampling and extraction of nematodes from soil and plant material, preparation of nematode mounting, study of fungicides and their formulations, methods of pesticide application and their safe use, calculation of fungicide sprays concentrations etc.
13. Hands on training is provided to students on soil profiling and soil sampling. Practical classes are conducted on analysis of physico-chemical properties of soil such as organic carbon, alkaline hydrolysable N, soil extractable P, estimation of exchangeable K, Ca and Mg, soil extractable S, extractable Zn, N, K and S in plants.

6.5.4.5. EXAMINATION AND EVALUATION PROCESS

B.Sc Degree Program

The college strictly adheres to the examination and evaluation system as recommended by the VthDeans' Committee. As such, the college follows Uniform grading system with uniform OGPA requirements for award of degrees at all levels.A uniform conversion formula is followed for declaration of Ist, IInd and IIIrd divisions, distinctions etc.

Examination

The students are evaluated middle of the semester as well end of the semester through mid and end term examinations. Also, the students are evaluated continuously through class exercises and assignments. The examination system is a combination of 50% internal and 50% external components. The weightage to the theory and practical examinations are in the same proportion as the theory and practical credits allotted to different courses. Total marks obtained for a course for practical and theory examination are added and converted into percentage for calculating the cumulative grade point average.

Courses with Theory and Practical

- Mid-term Exam (30%) + Assignment (5%) in practical oriented courses + Practical (15%)

Courses with only Theory

- Mid-term Exam (40%) + Assignment (10%)

Courses with only Practical

- 100% Internal

Keeping this in view, the schedule and weightage to different examination are as follows:

Table 18: The schedule and weightage to different examination

Particulars	Course credits									
	2+1		1+1/2+2		1+2		1+0/2+0		0+1/0+2	
	T	P	T	P	T	P	T	P	T	P
Mid-term exam	30	-	30	-	30	-	30	-		
Quiz/Continuous evaluation	20	30	20	30	20	30	20	-	-	30
End-term exam	50	70	50	70	50	70	50	-	-	70
Maximum marks	100	100	100	100	100	100	100	100	-	100

* At least 4 number of quizzes are conducted for each course

The question papersare set by externalswhileHODsof concerned departments ensure the coverage of syllabus. If needed,moderationsare done accordingly.

Table 19: Duration of exams

Mid-term theory exam	1½ hours
End-term theory exam	2½ hours
End-term practical exam	3 hours

Evaluation

Evaluation isdone internally by the faculty other than the Course Instructor. Syllabus of the concerned course is sent to an external examiner, who prepares the question papers. For practical, the examination is conducted by the course instructor(s) and one teacher nominated by the HOD. The answer books of end term theory examsareevaluated by external examiners nominated by the Hon'ble Vice Chancellor, CAU.A Ten-point grading system is adopted with minimum Grade Point Average (GPA) of 5.00 for passing a subject and Overall Grade Point Average (OGPA) of 5.50 for obtaining the degree.

Table 20: Method adopted for conversion of point to percentage

Degree	Percentage of Marks Obtained	Conversion into Points
B.Sc. (Hons.) Horticulture & Forestry	100	10 Points
	90 to <100	9 to <10
	80 to <90	8 to <9

	70 to <80	7 to <8
	60 to <70	6 to <7
	50 to <60	5 to <6
	<50 (Fail)	<5
	Example 80.76	8.076
	43.60	4.360
	72.50 (but shortage in attendance)	Fail (1 point)

Table 21: The following ranking pattern is adopted to award the degrees:

OGPA	Division
5.000-5.999	Pass
6.000-6.999	II division
7.000-7.999	I division
8.000 and above	I division with distinction

Table 22: GPA, CGPA and OGPA are calculated as follows:

GPA	**=**	**Total points scored / Total credits (for 1 semester)**
CGPA	=	∑ Total points scored / Course credits
OGPA	=	∑ Total points scored (after excluding failure points)/ Course credits
Percentage of Marks	=	OGPA × 100/10

PG and Ph.D. Programme

Examination system

The examination system comprised of combination of 50% internal and 50% external components.

Examination schedule and weightage

Theweightagetothetheoryandpracticalexaminationsisinthesameproportion as the theory and practical credits allotted to different courses. The total marks obtained for a course for practical and theory examination is added and converted into percentage for working out the grade point. Keeping this in view, the schedule and weightage to different examinations is as follows:

Table 23: The schedule and weightage to different examinations

Particulars	Course Credits									
	2+1		**1+1/2+2**		**1+2**		**1+0/2+0**		0+1/0+2	
	Th.	**Pr.**	**Th.**	**Pr.**	**Th.**	**Pr.**	**Th.**	**Pr.**	**Th.**	Pr.
1. Mid-term Exam	30	--	30	--	30	--	30	--	--	**--**
2. Quiz*/Continuous evaluation	20	30	20	30	20	30	20	--	--	**30**
3. End-term Exam	50	70	50	70	50	70	50	--	--	**70**

4. Maximum Marks	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**--**	**--**	**100**

*Thereshall be atleast four quizzes in a course.

Calculation of percentage of marks and Grade Point

Marks secured in a course in theory and practical is multiplied by number oftheorycredit(s)andpracticalcredit(s)ofthecourserespectivelyandaddedtogether. This sum is divided by total credits (Theory + Practical) of the said course to get percentage of marks, which is divided by 10 to obtain Grade Point (GP).

Duration of Examinations

Mid-term theory Exam :1 ½hours
End-term theory Exam: 2 ½hours
End-term practical Exam :3 hours

Table 24: Internal and External Components for Question Setting and Evaluation

Coursework			
	i)	Major, Minor & Supporting Courses	
	-	Quiz and mid-term (Question setting and evaluation)	**Internal**
	-	Final Theory (Question setting and evaluation)	**External**
	-	Final Practical	**External**
	Comprehensive qualifying examination		
(Separate examination for major, minor & supporting courses)			
	i)	Question setting	**External**
	ii)	Evaluation	**Internal**
	iii)	Viva-voce Examination	**External (With Advisory Committee)**
	Thesis		

Table 25: Masters and doctoral program evaluation

Sl.No.	Particulars	Master's Programme	Doctoral Programme
1	Submission	After thesis seminar and submission of manuscript for one research paper	After thesis seminar One research paper should have been accepted and second submitted or one application for patent filed out of thesis work.
2	Evaluation	One external examiner	Two external examiners
3	**Viva Voce**	**External (with Advisory Committee)**	External (with Advisory Committee)
A.	**Evaluation of seminar**		
	The student should present the seminar in the last one or two weeks of the		

	Semester before the audience comprising the Head of Department, Advisory Committee members and all the teaching staff and the PG Students of the department in which the student is majoring his study. The performance of the student in the seminar is to be evaluated by the Course-charge based on the following norms:		
	i)	Coverage of literature on the aspects of topic & Submission of write-up	25
	ii)	Mode of presentation	25
	iii)	Use of audio visual aids	25
	iv)	Ability to answer the questions	25
	Qualifying Examination		
B.	**Written Comprehensive Qualifying Examination**		
	a)	After completion of 75 percent of course work requirement separately in Major and minor subjects and on completion of minimum two semesters, the student are eligible to appear in the comprehensive qualifying examination. The qualify in examination is conducted as per the procedure outlined underclauses3.4.2.	
	b)	The written comprehensive examination comprises of two papers, one for Major and the other for minor and supporting courses.	
	c)	The question papers for the written examination are set externally and evaluated internally by the concerned teacher.	
	d)	A student should score a minimum of 60 percent marks (separately in Paper-I and II) to qualify the Comprehensive Qualifying Examination.	
C.	**Qualifying Viva-voce examination**		
	i)	On successful completion of the comprehensive qualifying written examination by scoring a minimum of 60 per cent marks, the student(s) are eligible for the comprehensive qualifying viva-voce examination, which is conducted by the Advisory Committee of the concerned student alongwith an External Examiner.	
	ii)	The performance of the student(s) in the qualifying viva-voce examination is graded as “Satisfactory” or “Unsatisfactory”. The Examination Committee may point out deficiencies, if any, in student’s performance in any course(s) with specific recommendations to overcome deficiencies. The Examination Committee also recommends whether the student shall be re-examined for viva-voce in case the result is “Unsatisfactory”.	
	iii)	A student failing in the comprehensive qualifying written viva-voce examination should apply to the Dean through his/her Chairperson for permission t Re-examination is held after a period of three months from the date of the First examination and a student can avail two chances including the first re-examination. A student, if becomes unsuccessful for the third time he/she is	

		debarred from student ship and is not be eligible for the degree.
D.	**Thesis Examination:**	
	Thesis Evaluation	
	i)	The thesis submitted by a student is evaluated by 1 (one) External Examiner (Masters Degree Programme) 2(two) External Examiners (Ph.D. Degree Programme), specialized in student's major field of study. The External Examiner(s) is required to send the report(s) to the Dean of the College with his/her/their opinion on the overall standard of the thesis clearly indicating whether it will be accepted for award of Master's degree/ Ph.D Degree of the student. In case the External Examiner(s) suggest some Correction and modifications, his/her/their detailed comments is to be endorsed to the student's Chairperson who will instruct the student to bring out necessary corrections and
		Modifications in the light of the examiner's suggestions and resubmit the Thesis for re-evaluation by the concerned examiner(s).
		Thesis Viva-voce examination
	i) ii)	On receiving the report with the recommendation of acceptance of the thesis for award of degree, the Chairperson should arrange the viva-voce examination and take into account the suggestions of the External Examiner, if any, and the Chairperson will give a certificate to the effect that necessary corrections/modifications have been made by the student as per suggestion of the External Examiner. The results of the viva-voce examination in the prescribed format, duly signed by all the members of the Advisory Committee and the External Examiner is to be forwarded to the Dean of the College through the Head of the Department. Upon completion of the viva-voce examination the student should submit four hard bound copies and one soft copy of the thesis to the Advisor. Unless final thesis copies are submitted, the results of the concerned student will not be declared.
	iii)	In case the student's performance in the viva-voce examination is unsatisfactory, he/she should appear the examination again after a period of one month. For the repeat examination the student have to deposit the re-examination fee and apply to the Dean through the Chairperson seeking permission for the repeat examination.
E.	**Appointment of external question setters and examiners**	

i) For appointment of question setters for the end-term examination of the major, minor and supporting courses and that of the comprehensive written examination, the Head of the Department should submit a panel of 8 (eight) names for each paper with the detailed address to the Dean of the College atleast three months earlier to the proposed date of examination through Director of Instruction for approval of the Vice-Chancellor. The Vice-Chancellor may select 3(three) names from the panel or may nominate out of the panel. For thesis evaluation and for comprehensive viva-voce examination, the Head of the Department in consultation with the Chairperson of Advisory Committee should submit a panel of 8 (eight) names to Dean of the College. The Dean will get approval of the panel of examiners from the Vice-Chancellor through Director of Instruction. One panel may be constituted forevery2-3 students within the same department.

F.	**Conduct of examinations**
	Mid-term and End-term examinations should be conducted centrally as per notification by Dean of the college. The concerned course teachers should conduct the quizzes for different courses. The dates of each examination should be as per the Semester Calendar circulated earlier. Ordinarily, there should not be any deviation in the examination programme specified in the Semester Calendar. However, the Dean, to his satisfaction of any valid reason(s), may change the examination schedule to a maximum period of seven days.

G.	**Grading System**	
For each course a student is graded on 10 point scale and his/her GP/GPA/CGPA/OGPA shall be notified.		
	Qualifying marks(grades) and academic probation	
	i)	A student should secure qualifying marks of 60% separately in theory and practical and earn grade point of 6.00 on 10 point scale in each course to pass the course.
	ii)	The minimum GPA/CGPA/OGPA required for promotion to the next semester to complete the degree programe is 6.50/10.00
	iii)	A student securing 'F' grade in more than two courses in a semester will not be promoted to the next semester and he/she will repeat the semester within his/her immediate junior batch students in the next academic session.
	iv)	Astudentfailinginoneortwocourseswillbeallowedtogotonextsemester,but he/she shallbeplaced onAcademicprobation.
	v)	Thestudentonacademicprobationwillbeallowedtoappearinthespecial examination in that particular course/courses in which he/she hasfailedwithin 30 days of commencementofthe semester.

	vi)	Thespecialexaminationwillbeconductedcentrallybyanexternalexaminer appointed by the Dean out of approved panel in theory only with50 marks and duration 2½ hours if he/she fails in only theory. However, ifa student has failed in final practical examination then special examinationwill be conducted for both theory (50 marks – 2½hours duration) andpractical(70marks–3hoursduration) involvingExternalExaminer(s).
	vii)	Theresultsofthespecialexaminationisdeclarednormallywithin15 days of the examination and if the student secures 60% or more marksseparately in theory and practical as the case may be in failed course(s)(one or two courses as the case may be) he/she shall be declared out ofprobationorotherwisehe/sheshallberevertedbackandhis/herregistration for the semester shall be cancelled and he/she shall be entitledforrefund ofentiresemesterfees.

Performance Classification

A student will be eligible for award of degree provided he/she has passed all thecourses and secured minimum OGPA of 6.50/10.00 at the end of final semester.The successful candidates of a degree programme shall be awarded the degreewiththefollowingclasses anddistinction based on theirperformance

Programme	Pass Marks	II Division	I Division	I Division with Distinction
Post-Graduate Programmes	**6.50**	**6.50-6.99**	**7.00 &above**	**-**

6.5.4.6. NCC/NSS/RVC UNITS

The NSS Unit of CHF was established during the academic session 2012-13. ***NSS CHF Unit was acknowledged as the Best Unit in the State during 2015-16.***

Table 26: The NSS volunteers enrolled since its inception

Year	UG Programme	No. of Volunteers		
		1st Year	**2nd Year**	**Total**
2012-13	B Sc (Hons) Forestry	13	14	27
2013-14	B Sc (Hons) Forestry	21	13	75

Programme	PassMarks	IIDivision	IDivision	I Division withDistinction
Post-Graduate Programmes	**6.50**	**6.50-6.99**	**7.00 &above**	**-**

Table 27: The passing marks range in NSS examination

Regular NSS and Students' activities of the Unit:

1. Observation of National Festivals viz. Republic and Independence Days every year on 26th January and 15th August.
2. Armed Force Flag Day during December First Week (7th December)
3. World Environment Day: 5th June. Theme of the Year 2013 was "Think-Eat-Save".
4. Actively participated in the International Day of Yoga on 21st June every year.
5. Organizing *Vanmohatsava* during July 1st Week in close collaboration with Divisional Forest Officer, Pasighat every year.
6. Volunteer donation drive was organized for the cause of victims of devastation at Uttarakhand due to Cloud Burst and flash flood in July, 2013. The generated fund was submitted to the Prime Minister's Relief Fund.
7. On spot painting competition on the theme: Alcohol-Drug Abuse and their harmful effects on 17th August, 2013.
8. Organizing football/ volley ball tournaments among the volunteers towards improvement of overall personality.
9. Observing NSS Day on 24th September every year taking NSS Pledge by the volunteers.
10. Organising National Blood Donors' Day: 1st October in close coordination with Arunachal Pradesh AIDS Control Society with their slogan- "No one shall suffer in our state for want of safe blood". With the support of General Hospital, Pasighat NSS Unit organises blood donation camps regularly at our Health Centre.
11. Observed Rashtriya Ekta Diwas (National Unity Day) on 31st October, 2017 on the birth anniversary on sardar Vallabhai Patel as instructed by the Ministry of Youth Affairs and Sports, GoI.
12. Erstwhile Hon. VC, Prof. S.N. Puri started the *Quami Ekta* (Community Harmony) Rally on 23rd November, 2013 coincidng with the campaign week 19th-25th November, 2013. The rally was started from the college campus and ended up at Gandhi Chowk at Pasighat town.
13. Conducted an essay competition of the NSS Volunteers on the topic "Are India's promises to Paris Climate Conference achievable and how?" on 27th April, 2014.
14. Organizing regular Cleanliness Drive under 'Swachh Bharat Abhiyan".
15. Taking part in the Mass Awareness rally on Intensified Mission Indradhanush (IMI) Programme 25th September, 2017.
16. Six volunteers took part in the Arunachal ATAL Conclave at Itanagar during August 2018.
17. Volunteers are actively engaged themselves in spreading awareness on Covid-19 Appropriate Behaviours amongst masses, villagers, family members since the outbreak of pandemic since March 2020.

Table 28: NSS Special Camp Organized since inception

Year	Village	Period	Theme of the Camp
2014-15	Bodak	8th-17th June, 2014	Youth and Agriculture
2015-16	Taki Lalung	7th-13th June, 2015	Swachh Bharat &Swastha Bharat
2016-17	Berung	16th-22ndJune, 2016	Youth for Smart farming
2017-18	Sibo-Siang	6th-12th June, 2017	Youth for Clean Environment
2017-18	Mirem	8th-14th Jan, 2018	Youth for Smart Village
2018-20	Paglek	6th -12th Jan, 2020	Youth-Warriors Against Intoxicants
***During the camps various activities were executed at the respective villages**			

Special Lecturers and educative movies arranged for the NSS Volunteers:

1. Environmental pollution and disaster management, by Dr. Debashish Sen, Asst. Prof. NRM, CHF, Pasighat on 23rd February, 2013.

2. Tuberculosis and its precautionary cum remedial measures, by Dr. Y. Perme, District TB Officer on 27th April, 2013.
3. Alcohol and Drug Abuse, by Dr. L.C. Darung, Psychiatrist, General Hospital, Pasighat on 17th August, 2013.
4. How to make a career in Civil Service?, by Sri Pushpendra Kumar, IAS, SP, east Siang on 30th November, 2013.
5. Traffic Rules and regulations, by Mr. Ahmad Officer in Charge, Pasighat Traffic Police on 30th January, 2016.
6. Role of Krishi Vigyan Kendra (KVK) in Agriculture Development, by Dr, M. Pathak, Prog, Coordinator, KVK, East Siang on 7th May, 2016.
7. Snake conservation, identification techniques and first aid measures, by Sri. Rajib Rudra Tariang, Asst. Prof. Dept. Of Zoology, Digboi College, Assam on 6th May, 2017.
8. Broadcasting of "*Ek Doctor kiMaut*" as an educative thought provocating movie for the volunteers on 3rd February, 2018.

6.5.4.7. LANGUAGE LABORATORY

The language laboratory has been established with the approval under Institutional Development Plan-National Agricultural Higher Education Project (IDP-NAHEP) recently. At present Assistant Professor (sub: English) is looking after the language laboratory. The purpose of constructing the laboratory is to teach students to have a good command of the language for effective communication with clarity and accuracy. The laboratory set up consists of computer assisted language support system with multimedia hi-tech language laboratory for language teaching. The students will be trained in advanced writing skills in terms of assignment and report preparation. The students have access to study materials related to group discussion, interview skills, brain storming, and simulation and negotiation skills. The medium of instruction in the college is English. As per V Dean's committee recommendation during the first semester of B.Sc (Hons.) Horticulture & B.Sc (Hons.) Forestry, two credit (1 theory and 1 practical) course on communication skills and personality development and 1 non-credit (practical) course on comprehension skills in English are offered. A well qualified English teacher is engaged to conduct the English classes. The concerned course incharge use recommended text books, online audio and video clippings. However, students from non-english medium of instruction are accustomed comfortably by conducting extra class hours and personal care by academic advisors. In addition, SWO and NSS in-charges conduct various literary competitions such as debate, elocution, essay writing competition on various occasion *viz*., Republic Day, Independence Day, Dr. B. R. Ambedkar Jayanti, Mahatma Gandhi Jayenti, College Day functions and other important events to encourage students to develop their language proficiency. Also, teachers in their respective courses encourage students to present the seminar on course topics to have command on English and improve public speaking skills.

Facilities in Language Laboratory

Computer	32
LCD with screen	3
LED TV	7
Audio systems	3
Podium	2
Zoom Platform link for online classes	1

Figure 30: Language laboratory

6.5.4.8. CULTURAL CENTRE

The college under the mentorship of Student Welfare Officer encourages students to explore, celebrate, and educate the campus community about the diversity among them who hail from length and breadth of the country not only from the eight NE States. The Annual College Week that falls during the autumn season (Oct-Nov) includes various cultural events wherein all the students belonging to different communities took active participation. Wards of the employees also participated in the cultural evenings. They enthusiastically exchange their cultural identities. The college offers an inclusive and reflective space, multicultural programming, and support services that encourage positive interaction, academic persistence, and growth among students,' faculty, and staff. There are separate in-charges of Cultural for boys and girls from the 3rd Year UG Program.

6.5.4.9. PERSONALITY DEVELOPMENT

Besides the four compulsory courses under the Dean's Committee syllabus which cater to the overall personality development of the students, the College of Horticulture & Forestry invites renowned achievers, entrepreneurs, social worker etc. from the different places from time to time to inspire and motivate the students. The courses in the present syllabus include comprehensive and communication skills in English, human values and ethics and communication skills and personality Development. These courses are being taught by experienced faculty members. Besides soft skill training programs, JRF coaching, mock test, group discussions are being organized at regular intervals. As a part of NSS activities, faculties arrange for sessions like learning body languages, English proficiency for good communication etc.

Table: Details of Personality Development programmes organized in College.

Sr. No.	Speaker/ organization	Topics/Aspect	Dates	No. of Participants
1	Mr. Ahmad c/o Traffic Police Pasighat Town	Traffic Rules and Regulations for Civilized Citizens	30.01.2016	135
2	Dr. Bikram Singh Asst. Professor, CHF	Paris Climate Conference and Global Concern	27.04.2016	141
3	Dr. N. Lyngdoh Asst. prof., CHF	Climate Change and Role of Youth	27.04.2016	141
4	Dr. Mukul Kumar Assc. Prof., CHF	India's promises to Paris Climate Conference	27.04.2016	141

5	Mr. Mahesh Pathak PC, KVK, East Siang	Role of KVK in Agriculture Development	07.05.2016	141
6	Sri. Ninong Ering Hon'ble MP, Lok Sabha Arunachal East	Youth for Smart Farming	16.06.2016	125
7	Sri. Panging Group Captain (Retd.) Indian Airforcwe, Pasighat	Leadership Skill	15.10.2016	165
8	Mr. Litan Bhowmick LBS Training & Consulting Services Pvt. Ltd. Agartala, Tripura	Emotional intelligence and its application for skill development	11.03.2017	185
9	Dr. (Mrs.) Lung Panging Medical Officer, CHF	Youth and Blood Donation	25.03.2017	47
10	Sri. Rajib Rudra Tariang Asst. Prof., Dept. of Zoology Digboi College, Assam	Snake conservation, identification techniques and first aid measures	06.05.2017	145
11	Sri. Ninong Ering Hon'ble MP Lok Sabha Arunachal East	Youth for Clean Environment	06.06.2017	127
12	Dr. (Mrs.) Ps. Mariam Anal Asst. prof., CHF	Different facets of community services: *Shramdam* as part of students' life	17.02.2018	165
13	Mr. L. Shantikumar Asst. Prof. CHF	Avenues after UG Programs in Agri allied Courses	17.02.2018	165
14	Dr. Bikram Singh Assc. Prof, CHF	How extra is 'extra co-curricular activities for students	24.02.2018	165
15	Mr. Rinchin D. Bhutia PG Scholar, Dept. of Fruit Science, CHF	Possible cghallenges in Agriculture world for us	24.02.2018	165
16	Dr. Shivani Dobhal Asst. prof., CHF	Social Evils and their eradication	24.02.2018	165
17	Dr. N. Surmina Devi	Positive Thinking, Self Confidence, Self Esteem and Goal Setting	24.02.2018	165
18	Dr. Y. Oken Singh	Inter and intra personal communication skill for persoanality development	28.07.2018	165

19	Dr. Rajkumar Singh Librarian, CHF	Relevance of brick and wall library in today's digital world.	12.08.2018	135
20	Dr, Shivani Dobhal Asst. Prof, CHF	Volunteerism: Not me but you and its relevance	11.10.2019	46
21	Mrs. Aini taloh Social Worker & Founder AYANG Foundation, Pasighat	Youth and Responsibilities as Citizens	11.10.2019	46
22	Mr. Rohit Bori Arts of Living, Pasighat	Relevance of Yoga to lead a Smart Life	21.06.2019	65
23	Dr. Kalkame Ch. Momin Asst. Prof., CHF	Forests and Education	23.03.2019	125
24	Dr. Bikram Singh Assc. Prof. CHF	Forests and Life	23.03.2019	125
25	Mr. Umesh J. Panaria DGM (Financial Inclusion & Dev. Dept.), RBI, RO, Guwahati	Financial literacy programme & digital baking for youth	08.02.2019	135
26	Prof. B. N. Hazarika Dean, CHF	Relevance of dr. S. Radhakrishnan's ideology for students	05.09.2019	413
27	Mr. N. Devachandra Asst. Prof & i/c SWO CHF	Optimism in day to day life	11.11.2019	186

6.5.5. PHYSICAL FACILITIES

6.5.5.1. HOSTELS

Hostels of College of Horticulture & Forestry

Table 29: Number of hostel available & capacity: 09 (05 Boys + 04 Girls)

S.No.	Name of Hostel	Particular	Capacity	Nos. of students per room
1.	Sindhu Hostel	Boys	20 rooms	02
2.	Brahamaputra Hostel	Boys	24 rooms	02
3.	Ganga Hostel	Boys	23 rooms	02
4.	New Western Wing	Boys	12 rooms	02
5.	New PG Boys Hostel	Boys	23 rooms	01
6.	Salvia Hostel	Girls	18 rooms	03
7.	Daisy Hostel	Girls	41 rooms	03
8.	PG Lily Girls Hostel	Girls	20 rooms	01

Table 30: Facilities of hostels

S.No.	Name of Hostel	Mess cum Dinning Hall	TV Room	Indoor Game	Hygienic Drinkingwater

1.	UG Boys Hostel	01	01	01 Table Tennis room	03 Water cooler cum water purifier
2.	PGBoys Hostel	01	01	01 Table Tennis room	01 Water cooler cum water purifier
3.	UG Girls Hostel	03	03	01 Table Tennis room	01 Water cooler & 02 Water purifier
4.	PG Girls Hostel	01	01	01 Table Tennis room	01 Water purifier

6.5.5.2. EXAMINATION HALL

At present there are 13 nos. of classrooms at College of Horticulture and Forestry however separate exam halls are not available and hence normal classrooms are rearranged as exam halls during the time of exam, the details of which are:

Table 31: Intake capacity in classrooms of CHF Pasighat

Details		Particulars
No. of classrooms	**:**	**13**
Capacity	:	Varied capacity ranging from 20-40 sitting capacity
Facilities available	:	Chairs, writing desks, electrical fans and lights
Amenities	:	Washroom, wash basin and running water

6.5.5.3. SPORTS AND RECREATION FACILITIES

The college has one Multi Purpose Indoor Stadium that has Multi-Gymkhana, Badminton Courts (two in number), Room for Table Tennis and an outdoor sports facility for Football cum Cricket ground, Volleyball Court for the college students. While the Student Officer looks after the outdoor facilities in close coordination with the Student in-charges Sports (Boys and Girls); the indoor stadium is looked after by separate faculty, Dr.Arunkumar Ph. The facilities are fully utilized by the students, employees as well as the wards of the employees.

6.5.5.4. AUDITORIUM

The college has an auditorium of sitting capacity of 285 constructed during 2010-11. The facility is being utilized for the cultural, literary activities of the students especially during the Annual College Week. The venue is made available to institutional and Governmental functions with approval/ permission from University Authority. On an average, it is being utilized around 20-25 times in a year.

6.5.5.5. EXHIBITION HALL/MUSEUM

The College of Horticulture and Forestry organizes exhibition programmes related to agriculture and allied sectors in seminar halls and conference rooms in the form of models, charts, live specimens for benefit of students, farmers and extension personnel. Every year RAWE students exhibit models on modern as well as traditional technologies practiced by the farmers at their place of stay. Numerous school and college going students have visited the exhibitions organized by the college.

6.5.6. RESEARCH FACILITIES

The College of Horticulture and Forestry, Pasighat are well equipped to conduct research in the field of agriculture and allied subjects. The college receives funds from ICAR, DBT, AICRP, National Bee Board etc.

6.5.6.1. POSTGRADUATE LABORATORIES AND EQUIPMENT'S

The laboratories are well equipped to conduct the practicals/hands on training to the students with instruments,laboratory tables, basins, irrigation facilities, electrical and ventilations, adequate wooden furniture etc.The list of instruments/equipments available in the laboratories is furnished below:

Table 32: Functional laboratories (Fruit Science & allied) : 13 nos.

Sr. No.	Department/Section	Area (Sqmtr)	Remarks
1.	**Fruit Science**		
	(i) Two Laboratories	98 and 82	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc.
2.	**Vegetable Science**		
	One Laboratory	82	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc.
3.	**Floriculture, Landscape and MAP:**		
	One Laboratory	82	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc.
4.	**Post-Harvest Management**		
	One Laboratory	72	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc. Equipment for processing of horticultural produces.
5	**Forest Product Utilization**		
	Medicinal and Aromatic Plants Laboratory	160	Equipped with all the modern equipments for practical, sitting arrangements, Distillation, extraction facilities, etc.
	Wood Products and Utilization Laboratory	90	Facilities for characterization of morphological, anatomical, mechanical & chemical properties of timber. Other work carried out -wood design, fabrication ,etc.
6	**Tree Improvement & PBG**		
	TIM Laboratory	72	Equipped with instruments for research &practicals. Water basins fitted in the laboratory for proper drainage of water and chemicals..
7	**Basic Sciences**		
	UG Basic Science Laboratory	28	Biochemical, biotechnological & microbiological practical & research needs of students are being fulfilled.
	PG Basic Science Laboratory	28	
	Tissue Culture Laboratory	47	

	Computer Laboratory	48	The lab is used for conducting Practical classes for PG students equipped with 15 computer & 2 printers for student access. Internet band width/ speed: 32Mbps.
Sr. No.	**Department/Section**	**Area (Sqmtr)**	**Remarks**
8	**Plant Protection**		
	Entomology (Biocontrol) Laboratory:	72	Facilities equipped for research work on crop pests management & production of biocontrol agents
	Entomology (IBDC) Laboratory :	85	
	Pathology Laboratory (Mushroom): (Sterlization room, Boiling room)	144	Production of Mushroom spawn and other microbial research work carried-out.
	Pathology (Mushroom inoculation):	45	For inoculating mushroom. The laboratory is also equipped with culturing and spawns production
9	**Natural Resource Management**		
	Soil Science & Agricultural Chemistry Laboratory	100	The laboratory is equipped with various facilities to analyse the soil samples, related to various degree programmes (UG, P.G and Ph.D) of Agriculture, Horticulture and Forestry.

a) List of major equipments:

The laboratories are well equipped to conduct the practicals/hands on training to the students with instruments, laboratory tables, basins, irrigation facilities, electrical and ventilations, adequate wooden furniture etc. The list of instruments/ equipments available in the laboratories is furnished below.

Table 33: Equipment details of Department of Fruit Science:

S.No	Name of the Equipment	S.No	Name of the Equipment
1.	Autoclave	**2.**	Digital Weighing Balance
3.	Digital Camera	**4.**	One Single Distillation Unit
5.	One Double D U	**6.**	Electronic Balance
7.	Precision balance	**8.**	BOD Incubator
9.	Ordinary Balance	**10.**	Cooling Centrifuge
11.	pH meter	**12.**	Two Refrigerators(-20^{O}C)
13.	Hot Water Bath	**14.**	Polymerase Chain Reaction (PCR
15.	Atomic AbsorptionSpectrophotometer	**16.**	Magnetic stirrer
17.	Hand refractometer	**18.**	Tissue culture lab Digit
19.	Lux meter	**20.**	Portable Penitrometer
21.	Flame Photometer	**22.**	Muffle Furnace
23.	Microwave Oven	**24.**	Tabletop Centrifuge (two)

Table 34: Equipment details of Department of Vegetable Science:

S.No	Name of the Equipment	S.No	Name of the Equipment
1.	pH meter	**2.**	Seed germinator
3.	Electronic balance	**4.**	Horizontal autoclave
5.	Water bath	**6.**	Vertical autoclave
7.	Magnetic stirrer	**8.**	Variable volume pipette
9.	Hand refractometer	**10.**	Conductivity meter
11.	Microscope trinocular	**12.**	Olympus microscope (Binocular)
13.	AC fitted lab facilities	**14.**	Computer with accessories
15.	Tissue culture lab	**16.**	Digital balance
17.	Processing units	**18.**	Distillation apparatus
19.	Deep freezer	**20.**	Lux meter
21.	Seed dryer	**22.**	Dissecting microscope
23.	Hand refractometer	**24.**	stereo zoom model carl ziessstemi 2000 C

Table 35: Equipment details of The Department of Floriculture & landscaping

S.No	Name of the Equipment
1.	U V- VI S Spectro photometer
2.	Hot Air oven
3.	Seed germinator
4.	Incubator
5.	Water and steam Distillation IUnit
6.	BOD incubator
7.	Environmental test chamber
8.	Hot plate
9.	Refrigerator
10.	Electronic balance

Table 36: Equipment details of The Department of Post-Harvest Management

S.No	Name of the Equipment
1.	Tray dryer
2.	Hot air oven
3.	Water Bath
4.	Crown corking machine
5.	Conductivity meter
6.	Tray dryer
7.	Hot air oven
8.	Refractometer
9.	Weighing balance
10.	Micro- centrifuge
11.	Mechanical shaker
12.	pH meter

Table 37: Equipment details of The Department of Forest Product & Utilization

S.No	Name of the Equipment	S.No	Name of the Equipment
1.	Double water distillation machine	**2.**	Godrej refrigerator
3.	Optical microscope with computer	**4.**	Hot oven
5.	Essential oil distillation machine	**6.**	Water bath
7.	Autoclave vertical	**8.**	Compound microscope
9.	Binocular microscope	**10.**	Dissecting microscope
11.	UV Photo spectrometer	**12.**	BOD incubator
13.	Soxhlet oil extractor	**14.**	Hot plate magnetic stirrer
15.	Weighing balance	**16.**	Digital weighing balance
17.	pH cum conductivity meter	**18.**	Seed Germinator
19.	Hot and cold press machine	**20.**	Microtone machine
21.	Motor chain saw	**22.**	Universal testing machine
23.	Combine wood working machine		

Table 38: Equipment details of The Department of Tree Improvement & Plant Breeding Genetics

S.No	Name of the Equipment
1.	Digital Magnetic Stirrer
2.	Hot Plate with Magnetic Stirrer
3.	Precision Balance
4.	Microscopes
5.	Water bath
6.	Refrigerator
7.	Seed drier
8.	Seed Germinator
9.	Plant press
10.	Electronic Balance

Table 39: Equipment details of The Department of Basic Sciences

S.No	Name of the Equipment	S.No	Name of the Equipment
1.	pH meter	**2.**	Microscopes
3.	Cooling water bath	**4.**	Laminar flow
5.	Centrifuge	**6.**	PCR Machine
7.	Autoclave	**8.**	HPLC (under repair)
9.	Refrigerator	**10.**	Weighing machine
11.	Microscope	**12.**	Ultraviolet Transilluminator
13.	Hot plate	**14.**	Ultrasonicleaner
15.	Ice-flaking machine	**16.**	Gas Chromatography
17.	Centrifuge	**18.**	Ozone Generattor
19.	Weighing balance	**20.**	Oven
21.	Refrigerator		

Table 40: Equipment details of The Department of Plant Protection

S.No	Name of the Equipment	S.No	Name of the Equipment
1.	Autoclave	**2.**	Distillation unit
3.	Fermenter	**4.**	Laminar airflow
5.	Binocular microscope (CH20i Olymp)	**6.**	Laminar airflow Vertical
7.	Humidity cabinet	**8.**	Weighing balance
9.	Autoclave Horizontal	**10.**	Bio-nocular microscope
11.	Honey extractor (10frames)	**12.**	Multimedia projector
13.	Honey processing plant (Cap. 250Kg)	**14.**	Nikon Camera d5300
15.	Honey bottling machine	**16.**	Water Bath
17.	Automatic Honey bottle Dryer	**18.**	Serological Water bath
19.	Honey Bottle sealing machine	**20.**	Distillation unit
21.	Honey comb foundation mill	**22.**	Quartz Boiler & Quartz condenser
23.	Gel Electrophoresis	**24.**	BOD incubator
25.	Refrigerated table top centrifuge	**26.**	Deep freezer, Water bath (digital)
27.	Autoclave	**28.**	Chalk powder mixture
29.	Grain Boiler	**30.**	Spawn Bag filler
31.	Laminar flow	**32.**	Distillation Unit
33.	Refrigerator	**34.**	Hygrometer
35.	Camera lucida	**36.**	Stage & ocular micrometer
37.	Haemocytometer	**38.**	Student microscope
39.	Shrink wrap machine	**40.**	Microscope (Zeiss)
41.	Spectrophotometer	**42.**	Micro-oven
43.	Digital balance	**44.**	BOD incubator
45.	Illuminator	**46.**	

Table 41: Equipmentdetails of The Department of Natural Resource Management

S.No	Name of the Equipment	S.No	Name of the Equipment
1.	pH meter	**2.**	Hot Plate
3.	Hot Air Oven	**4.**	Plastic Jars
5.	Water Bath	**6.**	Mechanical Shaker
7.	EC Meter	**8.**	Analytical Balance
9.	Keen Box	**10.**	Nitrogen Analyse
11.	Spectrophotometer	**12.**	Single Distillation Set / Unit
13.	Calorimeter	**14.**	Moisture Box
15.	Double Distillation Set / Unit	**16.**	Flame Photometer
17.	Atomic Absorption Spectrophotometer	**18.**	Sieves
19.	Total Station	**20.**	Plane table with accessories
21.	Chain Surveying& accessories	**22.**	Abney's Level
23.	GPS	**24.**	Digital Planimeter

25.	Hand Level	**26.**	Current Meter
27.	Levelling survey accessories		

Table 42: Equipment details of Farm Power and Machinery

S.No	Name of the Equipment	S.No	Name of the Equipment
1.	Tractor 275 DI	**2.**	Ridge Maker
3.	Tractor 575 DI	**4.**	Tractor operated Seed Drill
5.	Tractor 605 DI	**6.**	Trolley
7.	Tractor Bull Excavator	**8.**	Multi crop Thresher
9.	Rotavator	**10.**	Tractor Operated Lawn Mower
11.	Cultivator	**12.**	Power Tiller
13.	Disc Harrow	**14.**	Sprinkler Irrigation System
15.	M.B. Plough	**16.**	Drip Irrigation System
17.	Disc Plough	**18.**	Tractor Operated Potato Planter
19.	Hand Tools & Implements	**20.**	Tractor Operated Sprayer
21.	Sprayers		

Table 43: Equipment details of Engineering Section

S.No	Name of the Equipment	S.No	Name of the Equipment
1.	Total Station	**2.**	Current Meter
3.	Plane table with accessories	**4.**	Digital Planimeter
5.	Levelling survey accessories	**6.**	Hand Level
7.	GPS	**8.**	Abney's Level
9.	Dumpy Level	**10.**	Chain Surveying& accessories

Table 44: Farm facilities, workshops and other instructional units: 16 nos.

Department/ Section	Nos.	Area (Acre)	Facilities
Rootstock Blocks	1	0.50	Maintain genotypes/species for true to type rootstock species
Net Houses	2	0.40	Insect proof protected structure to raise primary and secondary seedlings of rootstocks and nucellar saplings
One Plant Clinic	1	0.12	Kits and equipments for diagnosis of plant diseases bot nursery and garden/orchard
Scion Block	2	0.4	Maintain genotypes/species for true to type scion mother plants.
Poly Houses	3	0.12	Protected structure to raise primary and secondary seedlings of rootstocks for various fruit crops both for generating revenue and experimental purposes.

A. Fruit Blocks established/managedby the Department:

Crops	Area (Acre)	Crops	Area (Acre)
Litchi block	2.49	Pummelo/Assam Lemon	1.57
Passion Fruit	0.29	Cashew Nut Custard Apple	2.28
Litchi Sapota Coffee, Tea, Rubber	5.86	Aonla Orchard,	1.25
Assam Lemon &Kagzi Lime	0.66	Rangpur Lime, Jackfruit	2.32
Mango & Arid Fruits	2.31	Apple and Guava	1.77
Coconut	1.58	Diversity, MLT	2.66
Total	**13.19**		**11.85**

B. Tree Improvement & PBG farm		
TIM & PBG farm	1800 Sq m	• Nursery raised bed= 20 Nos. • Shade net house (15x15m) • Tokkopatta shade roofs: 10nos. • Arboretum 1100 sq. mtr • Irrigation & electricity setups
C. Plant Protection		
Entomology (Biocontrol) Farm	4047 Sq m	• Nursery Beds, Research plots • Water Pump (motor , Irrigation/electricity setups)
Entomology (IBDC) Farm	2023 Sq m	• All equipments of beekeeping • Irrigation facility • Plots for nectar yielding plant
Pathology Farm	1083 Sq m	• Disease Diagnostic Field • Students demonstration plot • Nursery beds; Irrigation & electric facilities.
Paddy straw boiling unit and mushroom House	1350 Sq m	• Boiling unit • Facilities for mushroom culture & production • Unit has more than 250 species of edible and poisonous mushroom species.
C. Natural Resource Management		
Forest Engineering Facility Farm Power & Irrigation Infrastructures	1500 Sq m	• Runoff Experiment Facility • Rain water Harvesting Based Integrated Horticulture Farming System • WHP=5 Laks Litters Capacity • 5Hp Solar Pumping System

			• Naturally Ventilated Greenhouse= 30m ×7m • Drip irrigation system operated by Solar Pump • Sprinkler Irrigation System operated by solar pump • Gravity fed drip Irrigation System in 500sq.m area • Basic Power Machineries available
	Agrometerology Observatory	500 Sq m	• Meterological observation data for Research and Academic purpose

Table 45: Farm Power, Machineries and Irrigation Infrastructures

Sl. No.	Name of equipment	Sl. No.	Name of equipment
1.	Tractor 275 DI	12.	Tractor operated Seed Drill
2.	Multi crop Thresher	13.	Tractor Operated Lawn Mower
3.	Cultivator	14.	Rotavator
4.	Tanker	15.	Tractor Bull Excavator
5.	Trolley	16.	Tractor 605 DI
6.	Tractor 575 DI	17.	Ridge Maker
7.	Disc Harrow	18.	Power Tiller
8.	M.B. Plough	19.	Sprinkler Irrigation System
9.	Sprayers	20.	Tractor Operated Sprayer
10.	Hand Tools & Implements	21.	Tractor Operated Potato Planter
11.	Drip Irrigation System	22.	Disc Plough

6.5.6.2. RESEARCH CONTINGENCY (ACCOUNTS)

As the College of Horticulture and Forestry is offering UG, PG and Ph.D programme, the funds received from CAU and externally funded schemes are used for conducting various activities. Adequate funds are available for meeting the recurring expenses incurred during the education programme. The year wise funds received for various education related activities are as follows:

Table 46: The year wise funds received for various education related activities

Year	Particulars	Amount (in Lakhs)
2016-17	Experimental farms	1.00
	Equipment (including machines, tools, livestock etc.)	20.00
2017-18	Experimental farms	20.00
2018-19	Experimental farms	10.00
2019-20	Experimental farms	2.00
	Equipment (including machines, tools, livestock etc.)	0.50

2020-21	Experimental farms	2.00
	Equipment (including machines, tools, livestock etc.)	34.23

6.5.7. OUTCOME/OUTPUT

The College of Horticulture & Forestry takes paramount interest in the performance of its students in the field of studies, sports, other extracurricular activities, employment and career growth. Alumni of the University are regularly consulted to get feedbacks on employment, performance in competitive exams, job selection process etc. Regular interactive talks are arranged between alumni and students so that students can get insights on different exams and personal interviews.

6.5.7.1. STUDENT PERFORMANCE IN NATIONAL EXAMINATIONS

Table 47: List of ICAR – JRF Holders

Year	ICAR -JRF	ICAR -SRF	Admission in CIFE/IARI/IVRI/NDRI	Total
2016-17	**05**	**-**	**-**	**05**
2017-18	**02**	**01**	**01**	**04**
2018-19	**05**	**02**	**-**	**07**
2019-20	**02**	**-**	**-**	**02**
2020-21	**06**	**01**	**-**	**07**

6.5.7.2. STUDENTS PLACEMENT PROFILE

Most of the students graduating from College of Horticulture & Forestry, Pasighat areplaced in academics/research institution for pursuing higher education (M.Sc./Ph.D.) inIndia and abroad.

Table 48: Performance of the pass out Students

Sl.No.	Placement	Total No. of Students
1.	**ARS/ Scientists**	**23**
2.	**Assistant Professor**	**13**
3.	**SMS in KVKs**	**06**
4.	**Extension Officers / HDOs**	**12**
5.	**Forest & Soil Department**	**05**
6.	**Private Firms**	**02**
7.	**Higher Studies (Abroads)**	**02**

6.5.7.3. AWARDS/RECOGNITIONS/CERTIFICATES

The details of the awards/ recognition/ certificates of the faculties and students of theCollege of Horticulture & Forestry, Pasighat are given in **Annexure 6.5.7.3.**

6.5.7.4. EMPLOYABILITY

Under the Placement Cell and Student Welfare Cell of College of Horticulture and Forestry, Pasighat, students are provided with ample opportunity enabling them to develop their overall personality. The Faculty of Language guides the students regarding preparation and updating resumes and biodata for the students. Interaction sessions organized for the personality development by inviting motivators, social worker, and entrepreneur inspire our students to be more employable. The college is regularly organising sufficient co-curricular and extracurricular activities for the students making them physically fit enough to take up any job challenges.The engagement of students in the READY Program- RAWE, FOWE, KVK and Village attachment provide ample exposure enabling them to face real life situation on placement. Exposure visit of students to Agro-based industries, tea factories, nurseries, artisans, banks and financial institutions help them understand the expectation of the industries. Interaction sessions with Subject Matter Specialists of KVKs motivated the students with the aspiration towards agri-professionals. An excellent opportunity is given to the students through ELP of the course curricula that enable them to take up their economically viable agri-preneurship such as commercial nurseries, agri-clinic agri-business centre (ACABC) under GoI initiative, primary processing units, agri start-ups etc. The degree program nurtures a student with the knowledge and skills that will help them to manage agri-entrepreneurship, to conduct research, work in agricultural field, conduct field surveys and manage different areas of farming practices.Alumni of the college are invited to guide the students of the college to share various scopes available after the UG and higher studies in their courses.

6.5.8. SSR OF THE COLLEGE MUST HAVE THE SSR OF ALL ITS DEGREE PROGRAMMES (FOLLOWING SECTION 6.4), THEN THE REPORT OF THE COLLEGES SHALL BE CONSIDERED

6.5.9. CERTIFICATE (APPLICABLE WHEN SSR IS SUBMITTED FOR PROGRAMMES& COLLEGE)

I, the Dean Dr. B.N. Hazarika, hereby certify that the information contained in Sections 6.4 and Section 6.5.1 to 6.5.7.4 are furnished as per the records available in the college and degree awarding university.

Signature of the Dean of the college with Date & Seal

ANNEXURE 6.5.2.3

6.5.2.3. Credentials of the faculty:

Sl. No.	Name of the faculty	Post held	Highest qualification	Teaching/ work experience (in years)	**Honors & Awards**	**No. of Students Guided (PG / Ph.D separately)**	**No. of publications in NAAS rated Journals**
1.	Prof. B.N. Hazarika	Dean	Ph.D. in Horticulture	25	4	PG- 12 P	45
2.	Dr. Prankanu Debnath	Professor	Ph.D Agronomy	14	-	-	3
3.	Dr.Sunil Kumar	Professor	Ph.D. in Horticulture	15	1 2	PG- 9 PhD-1	11
4.	Dr. D.K.Pandey	Associate Professor	Ph.D Extension Education	12	-	-	5
5.	Dr. L. Wangchu	Associate Professor	Post-Doctorate, Horticulture	18	-	PG-8 PhD-3	41
6.	Dr T. S. Mehra	Associate Professor	PhD in Forestry	15	2	PG-1	8
7.	Dr.Pranabjyoti Sarma	Associate Professor	Ph.D. in Horticulture	14	-	PG-5 PhD-1	11
8.	Dr. Chandra Deo	Associate Professor	Ph.D. in Horticulture	19	1	PG- 4 PhD-02	12
9.	Dr. P. Raja	Associate Professor	Ph.D Plant Pathology	14	1	PG- 3	14
10	Dr. S.K.Pattanaaik	Associate Professor	Ph.D Agricultural Engineering	14	4	-	22
11	Dr. Bikram Singh	Associate Professor	PhD in Forestry	13	1	PG-6	4
12	Dr. T. Shantibala	Associate Professor	Ph.D (Entomology)	12	2	PHD-1	6

13	Dr. L.D.Hatai	Assistant professor	Ph.D Agricultural Economics	12	-	-	15
14	Dr.Arunkumar Phurailatpam	Associate Professor	Ph. D Botany	11	-	-	12
15	Dr.A.S.Mailappa	Associate Professor	Ph.D in Soil Science	14	1 1		
16	Dr.Aatish Kumar Sahu	Associate Professor	Ph.D. (Agricultura l Statistics)	10	-	-	13
17	Dr TisuTayeng	Assistant Professor	PhD in Plant Breeding &Genetics	18	-	--	05
18	Dr.Barun Singh	Assistant Professor	Ph.D. (Horticultur e) in Fruits and Orchard Managemen t	15	3	PG-6	5
19	Dr. Anil Kumar	Assistant Professor	PhD in Forestry	10	3	-	26
20	Dr. Amit Kr. Singh	Assistant Professor	Ph.DAgril. Biotechnolo gy	12	-	-	21
21	Dr.Nilay Kumar	Assistant Professor	PhD in Forestry	11	1	-	15
22	Dr. R.C. Shakywar	Assistant Professor	Ph.D Plant Pathology	11	-	-	15
23	Mrs. M. Bishwapati Devi	Assistant Professor	Master in Computer Application	11	1	-	2

24	Dr. Siddharth Singh	Assistant Professor	Ph.D Biochemistry	11	-	-	20
25	Dr. S. Romen Singh	Assistant Professor	Ph.D. in Horticulture (Fruit Science)	10	2	PG- 2	9
26	Ms. T. MatouleibiChanu	Assistant Professor	Undergoing Ph. D in Agricultural Extension.	6	-	-	06
27	Mr. LukramShantikumar	Assistant Professor	M.Sc. Plant Physiology	5	-	-	02
28	Dr.Kalkame Ch. Momin	Assistant Professor	Ph.D. in Floriculture and Landscaping	5	3	-	04
29	Dr. N. Surmina Devi	Assistant Professor	Ph.D (Agriculture) in Plant Pathology	5	1	-	-
30	Dr. Shivani Dobhal	Assistant Professor	PhD in Forestry	5	3	1	10
31	Dr. YumnamOken Singh	Assistant Professor	Ph.D English	17	-	-	-
32	Mr. Nongthombam Devachandra	Assistant Professor	M. Sc. Horticulture in Pomology	5	-	1	05
33	Dr. Ch. Victoria Devi	Assistant Professor	Ph.D Extension Education	3	-	-	05
34	Dr. PunabatiHeisnam	Assistant Professor	Ph.D Agronomy	5	3	-	15
35	Dr. Ng. TaibangnganbiChanu,	Assistant Professor	Ph.D. Microbiology	2	1	-	8

36	Dr.ArwankieShadap	Assistant Professor	Ph.D. (Horticulture) in Spices and Plantation Crops	3	-	-	9
37	Dr.Pushpendra Kumar	Assistant Professor	PhD,Post Harvest Management	2.5	-	-	10
38	Dr. Y.Disco Singh	Assistant Professor	Ph.D Food Technology	3.5	2	-	
39	Dr.NangsolD.Bhutia	Assistant Professor	Ph.D (Horticulture)	3	3	-	6
40	Dr. Priyanka Irungbam,	Assistant Professor	Ph.D (Agri.) in Agronomy	3	-	-	15
41	Dr.Thiyam Jefferson Singh	Assistant Professor	PhD in Forestry	1.5	-	-	-
42	Mr. Shankar Mayanglambam	Assistant Professor	PhD in Forestry	1.5	-	-	-
43	Dr. P. K. Nimbolkar	Assistant Professor	Ph.D. in Fruits and Horticultural Technology	1.5	-	-	-
44	Dr.Ajaykumara K. M.	Assistant Professor	Ph.D. (Entomology)	1.5	5	-	08
45	Dr. Anju Choudhury	Assistant Professor	PhD in Agricultural Economics	5	-	-	10
46	Dr.Asieleavio John	Assistant Professor (C)	PhD in Forestry	5	-	-	-

ANNEXURE 6.5.7.3

A. Faculties Award

Year	Name of the faculty	Name of the Award/ Recognition	Awarding Organization (Place/country)
2016- 2017	Prof. B.N. Hazarika, Dean,	Recognized as Member, Joint Inspection Team, Dept. of Agriculture, Cooperation& Farmers Welfare	Krishi Bhawan, New Delhi
	Dr. P. Debnath, Associate Professor	1st position for poster presentation	CHF, CAU, Pasighat
	Dr. S.K. Pattanaaik,	Govinda Chandra Sahu Award for the paper "Flood frequency Prediction using Gumbel's and Log-Pearson method for Siang river"	Institution of Engineers (India)
	Dr. S. Romen Singh, Assistant Professor	Best poster presentation on Genetic diversity of rambutan (*Nephelium lappaceumlinn.*) in East Siang district of Arunachal Pradesh"	CHF, CAU, Pasighat.
	Dr. P. Debnath, Associate Professor	Best Paper Award for conserving and utilizing rainwater for crop production.	26th National Conference on NRMCSSA-2017, 26th National Conference on NRMCSSA-2017, Soil Conservation Society of India, New Delhi and Central Agricultural University, Imphal, Imphal
	Dr. P. Debnath, Associate Professor	Best Paper Award entitled Growth and Development parameters of vegetable cowpea (*Vigna ungiculata*(L.) Walp) as influenced by mulching in the	26th National Conference on NRMCSSA-2017, Soil Conservation Society of India, New Delhi and Central Agricultural University, Imphal, Imphal
	Dr. P. Sarma, Associate Professor	Best Paper Award for conserving and utilizing rainwater for crop production.	26th National Conference on NRMCSSA-2017. 26th National Conference on NRMCSSA-2017, Soil Conservation Society of India,

			New Delhi and Central Agricultural University, Imphal, Imphal
	Dr. S.K. Pattanaaik,	Best Paper Award for conserving and utilizing rainwater for crop production.	26th National Conference on NRMCSSA-2017, 26th National Conference on NRMCSSA-2017, Soil Conservation Society of India, New Delhi and Central Agricultural University, Imphal, Imphal
	Dr. Anil Kumar, Assistant Professor	Awarded 2nd Position in Best Research Paper ward category along with Two Year membership of International Research Group on Wood Protection, Sweden	International Research Group on Wood Protection, Sweden
	Dr. Anil Kumar, Assistant Professor	Received Scientific assistance Programme (SAP) Award for IUFRO Div-5 Forest Product	Conference,Vancuover, Canada
	Dr. Kalkame Ch. Momin, Assistant Professor	Awarded the Best Poster (Group	Regional Training Workshop on Research Based Pedagogical Tools, JNC Pasighat
	Dr. N. Surmina Devi, Assistant Professor	Awarded the Best Poster (Group	Regional Training Workshop on Research Based Pedagogical Tools, JNC Pasighat
	Dr. Shivani Dobhal, Assistant Professor	Awarded the Best Poster (Group),	Regional Training Workshop on Research Based Pedagogical Tools, JNC Pasighat
	Dr. Shivani Dobhal, Assistant Professor	Awarded with ITS fellowship from Department of Scienece & Technology, New Delhi	To attend International Summer School in France Nancy in September 2017.
2018-2019	Dr. T.S. Mehra, Associate Professor	Adarsh Vidya SaraswatiRashtriyaPuraskar	Global Management Council, Ahmedabad 2018.
	Dr. T.S. Mehra, Associate Professor	Fellowship of International Society of Noni Sciences	Perungudi, Chennai, India

	Dr. S.K. Pattanaaik,	Banabihari Mohanty Memorial Award for the paper entitled "Deficit Irrigation under Drip System- A potential option for enhancing water productivity in fruit crop"	Institution of Engineers , India, Odisha State Centre, Bhubaneswar
		Second position in the poster presentation in National Conference on Horticulture in North East Region	CHF, Pasighat
	N. Devachandra, Assistant Professor	Succesfully Completed and Passed the Massive Open Online Course (MOOC) on Dynamic of Teaching-Learning	ICAR-NAARM, Rajendranagar, Hyderabad, Telangana.
	Dr. Helen Soibam, Assistant Professor	Best Scientist National Award in field of Teaching, research and publications	IRDP Group of Journals, Chennai, India
	Prof. B.N. Hazarika, Dean,	ISHRD Fellowship: Indian Society of Horticultural Research and Development	ISHRD, Uttarakhand
		Outstanding contribution to science Award	Chennai, India
		Dr. H.K. Jain- CAU Award (2016-17)	Central Agricultural University, Imphal
	Dr. Sunil Kumar, Professor	Fellow of Society for Horticultural Research and Development	(SHRD), Ghaziabad
		Best Faculty Award	EET CRS 7th Faculty Branding Awards
	Dr.A.S.Mailappa, Associate Professor	Best Agricultural Academician Award (Best Krishi Shikshak Award)	Sona College of Arts & Science, Salem, Tamil Nadu.
	Dr.Barun Singh, Assistant Professor	Distinguished Service Award for outstanding contribution in the field of Pomology	Prayagraj, U.P. India

		Fellowship	Chennai, India
	Ms. M. Bishwapati Devi, Assistant Professor	Scientists of the Year Award' for outstanding contribution in the field of Computer Science	Society of Biological Sciences and Rural Development, Prayagraj
	Dr. Kalkame Ch. Momin, Assistant Professor	Young Scientist Award	COBACAS, Uttar BangaViswavidyalaya, Pundibari Cooch Bihar, West Bengal
	Dr. Shivani Dobhal, Assistant Professor	Young Scientist Award	COBACAS, Uttar BangaViswavidyalaya, Pundibari Cooch Bihar, West Bengal
	Dr.Nangsol Dolma Bhutia	Awarded with Jagar Nath Raina Memorial for All India Best Research Award at Doctorate Level	Himachal Pradesh
		Awarded with Dwarika Nath Memorial Award-for best PhD Thesis	Varanasi, Uttar Pradesh
2020-2021	Dr. Sunil Kumar, Professor	Best Research paper award in Current Horticulture	-
		Best Academician Award in Agriculture	Borhawar, Murajhar, Hojai, Assam
		Outstanding Academic Leader Award	Guwahati Assam
	Dr P.Raja, Associate Professor	Received scientist award – 2020 for the commendable contribution to the Plant Pathology	Dr. B.Vasantharaj David Foundation. Chennai.
	Dr.A.S.Mailappa, Associate Professor	Award on "Excellence in Teaching achievements and accomplishment in the field of Agriculture & Allied	Samagra Vikas Welfare Society, "World Environment Day 2020 celebration"
	Dr.Kalkame Ch. Momin, Assistant Professor	Best paper award on Drying and Dehydration of Native Ornamental Plants of Arunachal Pradesh and its	Regional Seminar on Perspectives of Horti-business in development of North Eastern Region, organized by CHF, CAU Pasighat, NABARD

		value addition: A livelihood Opportunity'	Itanagar& ICAR-ATARI, Guwahati,
	Dr.Nangsol Dolma Bhutia	Awarded Jawaharlal Nehru Award for Outstanding Doctoral Thesis Research in Agricultural and Allied Sciences	ICAR-New Delhi
	Dr. Sunil Kumar, Professor	Outstanding Achievement Award	Agricultural Technology Development Society (ATDS) Ghaziabad, UP
	Dr. L. Wangchu, Associate Professor	3rd Position in Oral Presentation	National Seminar on Citrus, CAU, Imphal
	Dr. S. Romen Singh, Assistant Professor	Young Scientist Award	International Conference on New Paradisgms for Agriculture, Food and Sustainability Concerns, Raichur, Karnataka
	N. Devachandra, Assistant Professor	3rd Position in Oral Presentation	National Seminar on Citrus, CAU, Imphal
		Honorary Appreciation from ISTD, Guwahati Chapter &ARHAN	ISTD, Guwahati Chapter & ARHAN

B. Student Awards

Year	Name of the faculty	Name of the Award/ Recognition	Awarding Organization (Place/country)
2016-2017	Ms. Eden A. Sangma, B.Sc. Horticulture	First Prize in Collage Competition	17th All India Inter-Agricultural Universities Youth Festival – AGRI UNIFEST-2017, Rajasthan University of Veterinary & Animal Sciences, Bikaner during 25th-28th February, 2017.
2017-2018	Ms. OyimangTamuk, B.Sc. Forestry	Second prize in "BRAHMAPUTRA AAMANTRAN ABHIYAN 2020", Debate Competition	Inter-Collegiate Debate Competition on the topic "Ecotourism with Rivers" with the theme "Living with the river", College of Horticulture & Forestry and College of Agriculture, CAU, Pasighat

			in collaboration with the District tourism Department, Pasighat, East Siang
2019-2020	Ms. OyimangTamuk, B.Sc. Forestry	Second prize in "BRAHMAPUTRA AAMANTRAN ABHIYAN 2020", Debate Competition	Inter-Collegiate Debate Competition on the topic "Ecotourism with Rivers" with the theme "Living with the river", College of Horticulture & Forestry and College of Agriculture, CAU, Pasighat in collaboration with the District tourism Department, Pasighat, East Siang

C. Details of the ICAR -SRF, NTS qualifying number of students

Year	ICAR - JRF	ICAR - SRF	NTS	UMS/UIF	Total
2016-17	**05**	**-**	**10**	**7**	**21**
2017-18	**02**	**01**	**17**	**8**	**31**
2018-19	**05**	**02**	**11**	**41**	**54**
2019-20	**02**	**-**	**24**	**39**	**71**
2020-21	**06**	**01**	**23**	**41**	**71**

SELF STUDY REPORT FOR B.SC. HORTICULTURE DEGREE PROGRAMME

COLLEGE OF HORTICULTURE & FORESTRY

CENTRAL AGRICULTURAL UNIVERSITY, PASIGHAT

ARUNACHAL PRADESH

SUBMITTED TO

NATIONAL AGRICULTURAL EDUCATION ACCREDITATION BOARD

ICAR, NEW DELHI

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6.4. Self-Study Report for B.Sc. Horticulture Degree Programme:

6.4.1. Brief History of the Degree Programme:

The College of Horticulture and Forestry, Pasighat, Arunachal Pradesh was established on 7th March, 2001 as a constituent College of the Central Agricultural University, Imphal, Manipur with the admission of 17 UG students in the first batch of B Sc. Horticulture. The college offers B.Sc. (Hons.) Horticulture, B.Sc. (Hons.) Forestry, M.Sc. (Horticulture in Fruits and Vegetable Science), M.Sc. (Forestry) and Ph.D. (Horticulture in Fruits and Vegetable Science). This campus is located in a serene atmosphere at Pasighat, the educational capital of the state as well as the first Smart City of Arunachal Pradesh. The mighty Siang River flows in the northern vicinity of the campus which is about 2.5 km from the town. The College is spread over an area of 145 acres neighbouring one of the oldest institutes of the NE India, the Jawaharlal Nehru College, established in 1964.

The college has well equipped and man-powered 11 full-fledged departments. The curriculum and syllabi of all degree programmes are updated and adopted as per the ICAR guidelines, the currently implemented syllabus being 5th Deans' Committee Recommendations since 2016.

The prime objectives of this college include imparting horticulture and forestry education and meeting the research and extension needs of the NE Region in general and for each state of the region in particular. The broad objectives are given hereunder:

a. To impart technical education in the field of Horticulture at under graduate level with high standards
b. To produce graduates of high calibre who can serve the needs of the farming community
c. To undertake outreach education programmes concerning agriculture and allied pursuits
d. To build a strong academic foundation amongst the scientific and technical manpower generated by the university
e. To undertake such other activities as it may deem fit and responding to the call of the Government, University and farmers from time to time.

Accomplishments

Because of better co-ordination and effective monitoring by the staff, there is a congenial environment for students in clearing many national level competitive exams like ICAR – JRF and SRF fellowship and securing jobs in public and private sectors.

- Higher academic performance of students with improved OGPA
- Improved enrolment of students each year
- Participation and selection in different competitive exams
- Participation and selection for higher education in reputed National institutes
- Participation in NSS programmes at state and national levels
- Participation in sports and cultural events at state and national levels
- Selection of students in private and public sectors as ADOs/HDOs, state civil scientist, professors, etc.
- The details of student's excellence in national level academic competitive exams is given below
- The details of student's excellence in national level academic competitive exams is given below;

Table 1: Performance of students at National Level Exam

Year	ICAR -JRF	ICAR -SRF	NTS	UMS/UIF	Total
2016-17	**05**	**-**	**10**	**7**	**21**
2017-18	**02**	**01**	**17**	**8**	**31**
2018-19	**05**	**02**	**11**	**41**	**54**
2019-20	**02**	**-**	**24**	**39**	**71**
2020-21	**06**	**01**	**23**	**41**	**71**

6.4.2. Faculty Strength

Well experienced faculty members are available in the College. The Faculty is highly competent to offer under graduate degree programme in horticulture. The following table gives the present position of the faculty strength in the College.

Table 2. Faculty strength of the programme (as per ICAR guidelines) in various Departments:

Sl. No.	Sanctioned Faculty	Faculty in Place	Vacant Position	Faculty Recommended by the ICAR/UGC/VCI/other regulatory bodies
	Department of Fruit Science			
1.	Professor	1	-	1
2.	Associate Professor	1	1	2
3.	Assistant Professor	4	0	3
	Department of Vegetable Science			
1.	Professor	-	1	1
2.	Associate Professor	2	-	1
3.	Assistant Professor	2	1	4
	Department of Floriculture & Landscape architecture			
1.	Professor	1	-	1
2.	Associate Professor	1	1	1
3.	Assistant Professor	2	1	2
	Department of Post Harvest Management			
1.	Professor	-	1	1
2.	Associate Professor	-	1	1
3.	Assistant Professor	2	-	2
	Department of Basic Science & Humanities			
1.	Professor	-	-	1
2.	Associate Professor	1	-	2
3.	Assistant Professor	6	-	6
	Department of Plant Protection			

1.	Professor	-	2	1
2.	Associate Professor	2	-	2
3.	Assistant Professor	3	1	3
	Department of Natural Resource Management			
1.	Professor	1	-	1
2.	Associate Professor	2	-	1
3.	Assistant Professor	2	2	6
	Department of Social Science			
1.	Professor	-	-	1
2.	Associate Professor	2	-	1
3.	Assistant Professor	3	-	5

As per the Faculty strength recommended by the ICAR/UGC/VCI/Other regulatory bodies, a total of 50 teaching staff are to be placed. However, the University has filled 38 regular teaching faculty post and 12 post are still vacant. Recently, a total of 3 nos. of faculties have been transferred to other constituent colleges of the University (CAU) and 6 nos. of faculties have been placed in higher position in other Universities.

6.4.3. Technical and Supporting Staff

The technical staff are attached with the office of the Dean for administrative, convenience and they are allotted to other departments whenever need arises. The administrative and accounts staff are centralized in the college and are operating under the direct control of the Dean as part of Dean's office. At present, the college has 127 technical and supporting staffs and 59 are vacant. However, additional charges are assigned to 7 faculties, 01 contractual recognized medical practitioner and 10 MTS assigned with specific duty. All the vacant post will be filled in due course as additional staffs are required for the overall development of the college. The details of staff involved are listed below:

Table 3. Strength in the College:

Sl. No.	Sanctioned staff	Staff in Place	Vacant post	Staff Recommended by the ICAR/UGC/ VCI/other regulatory bodies
A.	***Establishment Branch***			
1.	Assistant Registrar (Estt.)	01	-	-
2.	Assistant Registrar (Acad.)	-	02	-
3.	Assistant Comptroller	-	01	-
4.	Security Officer	-	01	-
5.	Accountant	01	02	-
6.	UDC	02	-	-
7.	Clerk-cum-Typist/LDC	11	10	
8.	Computer operator	01	-	
9.	Security Guard	02	-	
B.	***Estate Branch***			
1.	Asstt. Engineer/Asstt. Estate Officer	01	-	

Sl. No.	Sanctioned staff	Staff in Place	Vacant post	Staff Recommended by the ICAR/UGC/ VCI/other regulatory bodies
A.	***Establishment Branch***			
2.	Junior Engineer (Civil & Mechanical)	02	-	
3.	Electrician	01	-	
4.	Plumber	01	01	
5.	Drivers including Tractor Driver	05	04	
C.	***Library***			
1.	Librarian	01	-	
2.	Sr. Library Assistant	-	01	
3.	Library Assistant	03	-	
D.	***Health***			
1.	Medical Officer	01**	01	
2.	Compounder cum Dresser	01	-	
3.	Medical Attendant	02	-	
E.	***Student Welfare***			
1.	Students Welfare Officer	01*	01	
2.	Assistant	01	-	
F.	***Hostels***			
1.	Chief Warden	01*	-	
2.	Warden	05*	-	
3.	Caretaker/Helpers	10***		
G.	***Technical & Supporting Staff for Departments, Estate, Hostels & others***			
1.	Horticulture Assistant	01	-	
2.	Live Stock Assistant/Farm Asstt.	04	01	
3.	Field-cum-Lab-Assistant	21	06	
4.	Multi Tasking Staff (MTS)	47	44	

* Indicate holding additional charge of minimum Assistant Professor Cadre

** Contractual Recognised Medical Practitioner

*** MTS with assigned specific duty

6.4.4. Classrooms and Laboratories:

The College of Horticulture and Forestry is spread over in an area of 58 hectares which includes research farm, instructional cum demonstration farm, KVK farm and experimental farms. The laboratories of all departments are well equipped with all the necessary equipments and facilities to accomplish the academic activities. All basic chemicals and instruments are available for doing practical and research work in all the laboratories. The farm facilities, workshops and other instructional units are well designed with sufficient land area and building infrastructure, irrigation, electricity and required farm machineries supported with tractors, power tillers, cultivators, leveller,

rotavator, and other farm implements for day to day work and research purpose to meet the course curricula and research requirements.

b) Number of class rooms: **13**

All class rooms are provided with LCD projectors and audio-visual aids for better delivery of lectures. The faculty use power point presentations to make the concepts/techniques clearly understandable to the students. The important lectures are taught with videos. A table, podium, whiteboards/screen, black board with duster are available in each class room for the use of teachers. A common generator facility supplies power to all the classrooms to avoid interruption of the class during power failure.

c) Lists of major equipments:

The laboratories are well equipped to conduct the practicals/hands on training to the students with instruments, laboratory tables, basins, irrigation facilities, electrical and ventilations, adequate wooden furniture etc. The list of instruments/ equipments available in the laboratories are furnished below.

(i). Department of Fruit Science:

Sl.No.	Name of the equipment	S.No.	Name of the equipment
1.	Autoclave	**13.**	Hot Water Bath
2.	Digital Camera	**14.**	Polymerase Chain Reaction (PCR)
3.	Digital Weighing Balance	**15.**	Magnetic stirrer Atomic Absorption Spectrophotometer
4.	One Single Distillation Unit	**16.**	Hand refractometer
5.	One Double D.U	**17.**	Tissue culture lab Digit
6.	Electronic Balance (two)	**18.**	Lux meter
7.	Precision Balance	**19.**	Portable Penitrometer
8.	Hot Air Oven	**20.**	Flame Photometer
9.	BOD Incubator	**21.**	Muffle Furnace
10.	Ordinary Balance (Two)	**22.**	Microwave Oven
11.	Cooling Centrifuge	**23.**	Tabletop Centrifuge (two)
12.	pH meter	**24.**	Two Refrigerators (-20^{O}C)

(ii). Department of Vegetable Science:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	pH meter	**2.**	Conductivity meter
3.	Deep freezer	**4.**	Magnetic stirrer
5.	Hot air oven	**6.**	Olympus microscope (Binocular)
7.	Laminar flow	**8.**	Camera
9.	Seed germinator	**10.**	Computer with accessories
11.	Seed dryer	**12.**	Digital balance
13.	Distillation apparatus	**14.**	Lux meter

15.	Electronic balance	**16.**	Hand refractometer
17.	Horizontal autoclave	**18.**	Dissecting microscope
19.	Vertical autoclave	**20.**	Microscope trinocular stereo zoom model carl ziess stemi 2000 C
21.	Water bath	**22.**	AC fitted lab facilities
23.	Variable volume pipette	**24.**	Tissue culture lab
25.	Processing units		

(iii) Department of Floriculture (O& MAP)

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	pH meter	**2.**	Incubator
3.	Refrigerator	**4.**	Magnetic stirrer
5.	Hot air oven	**6.**	Digital balance
7.	Seed germinator	**8.**	Camera
9.	Lux meter	**10.**	Computer with accessories
11.	Distillation apparatus	**12.**	Electronic balance
13.	Environmental test chamber	**14.**	Hot plate

iv) Department of Post Harvest management

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Tray drier	**2.**	Hot air oven
3.	Water bath	**4.**	Crown corking machine
5.	Conductivity meter	**6.**	Refractometer
7.	Weighing balance	**8.**	Micro-centrifuge
9.	Mechanical shaker	**10.**	pH meter

(v) Department of Tree Improvement & Plant Breeding Genetics

S.No.	Name of the equipment	S.No.	Name of the equipment
11.	Digital Magnetic Stirrer	**12.**	Precision Balance
13.	Hot Plate with Magnetic Stirrer	**14.**	Microscope
15.	Water bath	**16.**	Seed drier
17.	Refrigerator	**18.**	Plant press
19.	Seed Germinator	**20.**	Electronic Balance

(vi) Department of Basic Sciences:

UG Basic Science Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	pH meter	**2.**	Centrifuge

3.	Autoclave	**4.**	Microscope
5.	Cooling water bath	**6.**	Refrigerator
7.	Hot plate	**8.**	Ice-flaking machine

PG Basic Science Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Microwave oven	**2.**	Weighing balance
3.	Refrigerator	**4.**	Weighing balance
5.	Oven	**6.**	Microscope

Tissue Culture Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Laminar flow	**2.**	Weighing machine
3.	HPLC (under repair)	**4.**	Ultraviolet Transilluminator
5.	PCR Machine	**6.**	Gas Chromatography

(vii) Department of Plant Protection

Entomology (Biocontrol) Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Autoclave	**2.**	Fermenter
3.	Binocular microscope (CH20i Olymp)	**4.**	Humidity cabinet
5.	Distillation unit	**6.**	Laminar airflow

Entomology (IBDC) Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Honey extractor (10frames)	**2.**	Honey processing plant (Cap. 250Kg)
3.	Honey bottling machine	**4.**	Automatic Honey bottle Dryer
5.	Honey Bottle sealing machine	**6.**	Honey comb foundation mill
7.	Gel Electrophoresis	**8.**	Refrigerated table top centrifuge
9.	Deep freezer, Water bath (digital)	**10.**	BOD incubator
11.	Quartz Boiler & Quartz condenser	**12.**	Autoclave Horizontal
13.	Laminar air flow (Vert.)	**14.**	Weighing balance
15.	Bionocular microscope	**16.**	Multimedia projector
17.	Nikon Camera d5300	**18.**	Water Bath
19.	Serological Water bath	**20.**	Distillation unit

Pathology Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Autoclave	**2.**	Chalk powder mixture
3.	Grain Boiler	**4.**	Spawn Bag filler
5.	Laminar flow	**6.**	Distillation Unit
7.	Shrink wrap machine	**8.**	Microscope (Zeiss)
9.	Spectrophotometer	**10.**	Micro-oven
11.	Refrigerator	**12.**	Hygrometer
13.	Camera lucida	**14.**	Stage & ocular micrometer
15.	Haemocytometer	**16.**	Student microscope
17.	Digital balance	**18.**	BOD incubator
19.	Illuminator		

(viii) Department of Natural Resource Management

Soil Science & Agricultural Chemistry Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Hot Air Oven	**2.**	Hot Plate
3.	Water Bath	**4.**	Plastic Jars
5.	Mechanical Shaker	**6.**	pH Meter
7.	Required Glasswares & plasticwares	**8.**	EC Meter
9.	Required Reagents	**10.**	Analytical Balance
11.	Keen Box	**12.**	Nitrogen Analyser
13.	Moisture Box	**14.**	Colorimeter
15.	Single Distillation Set / Unit	**16.**	Spectrophotometer
17.	Double Distillation Set / Unit	**18.**	Flame Photometer
19.	Sieves	**20.**	Wooden Mallet
21.	Atomic Absorption Spectrophotometer		

Forest Surveying/ Engineering Facility

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Total Station	**2.**	Plane table with accessories
3.	Dumpy Level	**4.**	Chain Surveying& accessories
5.	Abney's Level	**6.**	GPS
7.	Hand Level	**8.**	Digital Planimeter

9.	Current Meter	**10.**	Levelling survey accessories

Farm Power, Machineries and Irrigation Infrastructures

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Tractor 275 DI	**2.**	Tractor 575 DI
3.	Tractor 605 DI	**4.**	Tractor Bull Excavator
5.	Rotavator	**6.**	Cultivator
7.	Disc Harrow	**8.**	M.B. Plough
9.	Disc Plough	**10.**	Tractor Operated Potato Planter
11.	Tractor Operated Sprayer	**12.**	Ridge Maker
13.	Tractor operated Seed Drill	**14.**	Trolley
15.	Tanker	**16.**	Multi crop Thresher
17.	Tractor Operated Lawn Mower	**18.**	Power Tiller
19.	Sprinkler Irrigation System	**20.**	Drip Irrigation System
21.	Hand Tools & Implements	**22.**	Sprayers

c) **Functional laboratories**:

Sr. No.	Department/Section	Area (Sq mtr)	Remarks
1.	***Fruit Science***		
	(i) Two Laboratories	98 and 82	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc.
2.	***Vegetable Science***		
	One Laboratory	82	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc.
3.	***Floriculture, Landscape and MAP:***		
	One Laboratory	82	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc.
4.	***Post-Harvest Management***		
	One Laboratory	72	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc.

			Equipment for processing of horticultural produces.
6	***Tree Improvement & PBG***		
	TIM Laboratory	72	Equipped with instruments for research & practicals. Water basins fitted in the laboratory for proper drainage of water and chemicals..
7	***Basic Sciences***		
	UG Basic Science Laboratory	28	Biochemical, biotechnological & microbiological practical & research needs of students are being fulfilled.
	PG Basic Science Laboratory	28	
	Tissue Culture Laboratory	47	
	Computer Laboratory	48	The lab is used for conducting Practical classes for PG students equipped with 15 computer & 2 printers for student access. Internet band width/ speed: 32Mbps.
8	***Plant Protection***		
	Entomology (Biocontrol) Laboratory:	72	Facilities equipped for research work on crop pests management & production of biocontrol agents
	Entomology (IBDC) Laboratory :	85	
	Pathology Laboratory (Mushroom): (Sterlization room, Boiling room)	144	Production of Mushroom spawn and other microbial research work carried-out.
	Pathology (Mushroom inoculation):	45	For inoculating mushroom. The laboratory is also equipped with culturing and spawns production
9	***Natural Resource Management***		
	Soil Science & Agricultural Chemistry Laboratory	100	The laboratory is equipped with various facilities to analyse the soil samples, related to various degree programmes (UG, P.G and Ph.D) of Agriculture, Horticulture and Forestry.

d) **Laboratories**

College of Horticulture and Forestry, Pasighat which is well equipped to conduct practical classes for UG programmes .

Table 4: The area covered under the laboratories of different departments are as follows :

Sl. No.	Laboratories under different departments	Area (sq. meter)
1.	Soil Science	150
2.	Plant Pathology	95
3.	Entomology	20

4.	Genetics and Plant Breeding	74
5.	Agronomy	90
6.	Plant Biotechnology	90
7.	Plant Biochemistry	90
8.	Horticulture	
i.	Post-harvest	90
ii.	Floriculture	90
iii.	Vegetable Science	90
iv.	Fruit Science	90
9.	Statistics, Computer Application & IPR	59

Besides these laboratories, the following facilities are also available at College of Horticulture and Forestry, Pasighat.

Table 5 : Infrastructure facilities available in CHF Pasighat

Infrastructure	Area (sq. meter)
Workshop	1000
Dairy Plant	90
Poultry Unit	72
Pond	1500

The water from the pond is used for the purpose of drip and sprinkler irrigation, gravity fed irrigation etc. The workshop which is maintained by the Engineering Unit is well designed with sufficient land area and build infrastructure with required farm machineries such as tractors, power tillers, cultivators, leveller, rotavator, and other farm implements for day to day work related to research purpose.

Instructional Farm

A total of 16 instructional farms are established under various departments of the college, the details of which are listed below:

Table 6.: Department wise infrastructural details of CHF Pasighat

Department/Section	**Area (Sq.mtr.)**	**Facilities available**
Natural Resource Management		
19. Farm Power & Irrigation Infrastructures	1500	• Run-off Experiment Facility • Rain water Harvesting Based Integrated Horticulture Farming System • WHP=5 Lakh Litre Capacity • 5Hp Solar Pumping System • Naturally Ventilated Greenhouse= 30m×7m • Drip irrigation system operated by Solar Pump • Sprinkler Irrigation System operated by solar pump

		• Gravity fed drip Irrigation System in 500sq.m area • Basic Power Machineries available
20. Agrometeorology Observatory	500	• Meteorological observation data for Research and Academic purpose
Horticulture		
21. Medicinal & Aromatic plant farm 22. Medicinal plant germplasm block	12000	• Germplasm of Medicinal and Aromatic Plants • Collection of rare and endangered spps. • Nursery beds • Shade houses/roofs • Irrigation & electric facilities
23. Herbal garden	10000	• More than 160 species • Research, conservation & identification purpose
24. Floriculture and Landscaping	20000	• 8 nos. polyhouses • Germplasm bank of orchids & native ornamental plants • Commercial cut flower block of orchids, anthurium, gerbera, and heliconia • Collection of indoors plants, cactus and annual flowers
25. Vegetables science	35543	• Demonstration block on nutrition garden and other vegetable crops • Turmeric and spices processing unit • Hi-tech poly house (3 nos.) • Naturally ventilated polyhouses (2 nos.) • Water harvesting tanks • Solar power operated sprinkler irrigation system • Local vegetable garden • Vegetable nursery block
26. Fruit Department	98525	• Fruit nursery block • Demonstration & experimental block of coconut, passion fruit block, litchi, Jack fruit, Aonla, cashewnut, Mango, banana, Oil palm, Pumello and Assam lemon.
27. PBG farm	1800	• Nursery raised bed= 20 Nos. • Shade net house (15x15m) • Tokkopatta shade roofs: 10nos. • Arboretum 1100 sq. mtr.

		• Irrigation & electricity setups
Plant Protection		
28. Entomology (Biocontrol) Farm	4047	• Nursery Beds, Research plots • Water Pump with motor, Irrigation & electricity setups
29. Entomology (IBDC) Farm	2023	• All equipment's of beekeeping • Irrigation facility • Plots for nectar yielding plant
30. Pathology Farm	1083	• Disease Diagnostic Field • Students demonstration plot • Nursery beds • irrigation & electric facilities.
31. Paddy straw boiling unit and mushroom House	1350	• Boiling unit • Facilities for mushroom culture & production • Unit has more than 250 species of edible and poisonous mushroom species

(e) Justification:

The college has well equipped laboratories, nurseries, instructional farms, demonstration plots to cater and accomplish the theory and practical classes for horticulture degree programme. The Farm facilities, workshops and other instructional units are well designed with sufficient land area and build infrastructure, irrigation, electricity and required farm machineries supported with tractors, power tillers, cultivators, leveller, rotavator, and other farm implements for day to day work and research purpose to meet the course curricula and research requirements.

(f) Theory and practical batches for the Degree Programme: the numbers of intake students are manageable due to limited number of seats. The batches of students are organised to ensure better delivery of information, encourage students' participation and active monitoring. The class rooms and laboratories are sufficient enough to meet course curricula requirement of the degree programme.

Table 7 : Details of the average number of student in theory and Practical Classes

Year	Degree Program	Batch of students in theory class	Batch of students in practical class
2016-17	B.Sc (Hons.) Horti.	1 Batch - 47	Batch 1- 24 Batch 2- 23
2017-18	B.Sc (Hons.) Horti.	1 Batch - 47	Batch 1- 24 Batch 2- 23
2018-19	B.Sc (Hons.) Horti.	1 Batch - 49	Batch 1- 25 Batch 2- 24
2019-20	B.Sc (Hons.) Horti.	1 Batch - 45	Batch 1- 22 Batch 2- 23
2020-21	B.Sc (Hons.) Horti.	1 Batch - 50	Batch 1- 25 Batch 2- 25

6.4.5. Conduct of Practical and Hands-on-Training:

The practical syllabus is formulated depending upon the need of the course curriculum. The student registered for a particular course has to necessarily attend 75 per cent classes conducted in order to appear in the final examinations. Practical classes are conducted in the field / experimental lab in the allotted practical hours by the course teacher. The practical exams are conducted as per the prescribed time table for the students who have registered the course. The students are exposed to hands on Training in gaining practical experience in field operations, identification and documentation of crops in the campus, handling of various equipments in the laboratory and estimation of various parameters based on the course requirement. The exposure visit to fields, research institutes, experimental fields and farmers' fields are a part of the curriculum and built in the syllabi. During the practical classes, the students are taught on the technology/ process and acquire skills through hands on training regularly.

6.4.6. Supervision of students in P.G/PhD:

Not applicable to B.Sc. (Hons.) Horticulture degree programme.

6.4.7. Feedback of stakeholders (Students, Parents, industries, employers, farmers etc)

The faculty usually get the feedback from the students who have graduated from the college on various aspects like the contents of the course, teaching skills of the faculty, learning experience, assessment process, etc. The feedback is also taken from the parents on the performance of the students and the facilities available in the college. The details of the feedback received from the students and parents are given in Appendix 1.

6.4.8. Student intake and attrition in B.Sc. (Hons) Horticulture programme for last five years:

The College presently offers Under Graduate and Post Graduate and PhD Programme in Horticulture and Forestry. The annual intake of students to the college at UG& PG level has increased since the inception of the university.

Table 49: The details of the student intake capacity under UG program

Year	Degree Program	Intake capacity	Actual Student admitted	Attrition (%)
2016-17	B.Sc (Hons.) Horti.	53	47	-
2017-18	B.Sc (Hons.) Horti.	53	47	-
2018-19	B.Sc (Hons.) Horti.	53	49	-
2019-20	B.Sc (Hons.) Horti.	54	45	-
2020-21	B.Sc (Hons.) Horti	61	46	6.2

6.4.9. ICT Application in Curricula Delivery:

(a) The college has well-equipped air conditioned **Computer lab** with a plinth area of 80 square meter. The students are being taught about the IT facilities. The computer centre is equipped with Desktops for the use of staff and students of this institute. All these desktops and laptops are connected with internet for browsing. Since October, 2020 the computer centre is connected with 24x7 34 Mbps, Internet Access through BSNL . The facilities available in the computer lab are:

a) 24 hours x 7 days / week free Internet access (32 Mbps) to students
b) Wi-Fi enabled in the New Academic Block (since 2015) to use e-communications for students and staffs.
c) Students are trained to install open source software.

d) Computers with Internet access are available in all departments.
e) Academic buildings are linked with Administrative building through Optic Fibre Cable (OFC).
f) Total number of computers for public access: 15
g) Total numbers of printers for public access: 02
h) Internet band width/ speed: 34 Mbps through BSNL
i) The lab is used for conducting Practical classes for UG and PG students.
j) Students also use the Computer Lab for their research, statistical calculation and other academic activities.
k) The academic, research, extension activities of the college are updated regularly at the college website from time to time.

(b) The college **Library** is equipped with internet facilities with, through which staff and students would be able to access OPAC (Online Public Access Catalogue) URL = www.chfcau.ideal.egranth.ac.in.

a) The Library Two Software : (i) Alice for Window (Softlink Asia pvt.ltd) Offline and (ii) Koha Library management Software
b) Electronic Resource Management package for e-journals Access through CeRA ICAR (Consortia for e-Resources in Agriculture): www.cera.jccc.in
c) CAB data base: access facility (CAB data from 1972 to 2005)
d) Krishikosh (e-theses etc. Institutional Repository of ICAR) all M.Sc. and Ph.D. Theses uploaded. It is open repository. **URL: Krishikosh.egranth .ac.in**
e) Library automation: under process through Koha Library management software
f) Total number of computers for public access in library: 06

c) The College of Horticulture and Forestry, Pasighat has upgraded to **2 Nos**. of smart classrooms for teaching and practical purposes.

d) Language Laboratory:

The language laboratory has been established with the approval under Institutional Development Plan-National Agricultural Higher Education Project (IDP-NAHEP) recently. At present assistant professor (sub: English) is looking after the language laboratory. The purpose of constructing the laboratory is to teach students to have a good command of the language for effective communication with clarity and accuracy. The laboratory set up consists of computer assisted language support system with multimedia hi-tech language laboratory for language teaching. The students will be trained in advanced writing skills in terms of assignment and report preparation. The students have access to study materials related to group discussion, interview skills, brain storming, and simulation and negotiation skills. The medium of instruction in the college is English. As per V Dean's committee recommendation during the first semester of B.Sc (Hons.) Horticulture & B.Sc (Hons.) Forestry, two credit (1 theory and 1 practical) course on communication skills and personality development and 1 non-credit (practical) course on comprehension skills in English are offered. A well qualified English teacher is enaged to conduct the English classes. The concerned course incharge use recommended text books, online audio and video clippings. However, students from non-english medium of instruction are acoustomed comfortably by conducting extra class hours and personal care by academic advisors. In addition, SWO and NSS in-charges conduct various literary competitions such as debate, elocution, essay writing competition on various occasion *viz*., Republic

Day, Independence Day, Dr. B. R. Ambedkar Jayanti, Mahatmt Gandhi Jayanti, College Day functions and other important events to encourage students to develop their language proficiency. Also, teachers in their respective courses encourage students to present the seminar on course topics to have command on English and improve public speaking skills.

Facilities in Language Laboratory

Computer	32
LCD with screen	3
LED TV	7
Audio systems	3
Podium	2
Zoom Platform link for online classes	1

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be present at College-level.

6.4.11. Since the accreditation of Programmes is related to the All India Admissions from ICAR and also ranking weightage for College accreditation, therefore the data presented in Sections 6.4.1 to Table to the verification of any slight

6.4.12. Certificate (applicable to Sec 6.4.9 to be obtained by Programme)

I, Dr./Dean Prof. A.N. Hagawane hereby certify that the information contained in the Sections 6.4.1 to 6.4.9 are furnished as per the records available in the college and signed and verified.

Signature of Dean of the College
With Date & Seal

Dean
College of Horticulture & Forestry
Central Agricultural University
Pasighat-791102 (A.P.)

APPENDIX-I

STUDENTS FEEDBACK FORM

1. **Name of the student: Mounajita Ghosh**
2. **Admission no.: 18H/ 2014**
3. **Academic Year:2014- 2018**
4. **Name of the programme studied: B. Sc Horticulture**
5. **Designation: ATM**
6. **Mobile No.:7630060995**
7. **Email id:mounajitaghosh130@gmail.com**
8. **Feedback:**

S.No.	Parameters	Rating
1.	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation.	**2**
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	**2**
3.	Teaching quality, fairness in the assessment processes (Internal evaluation, Quiz, Assignments, etc.) and freedom to adopt new techniques/education tools	**2**
4.	Opportunities in the College for Research Activities & Relevance with Practical / Lab work	**2**
5.	Curriculum has prospects for supporting higher education, career orientated/employability	**3**
6.	Overall Learning Experience	**2**

*Select your ranking on the scale of 1 to 5 for each of the following parameters. (1- Excellent, 2- Very good, 3- Good, 4- Fair, 5- Poor)

Mounajita ghosh

Signature of the student

STUDENTS FEEDBACK FORM

1. **Name of the student: Eden Aranchi A Sangma**
2. **Admission no.: 16H-14**
3. **Academic Year: 2014-2018**
4. **Name of the programme studied: BSc. Horticulture**
5. **Designation: Student**
6. **Mobile No.: 7085368907**
7. **Email id: edensangma2195@gmail.com**
8. **Feedback:**

S.No.	Parameters	Rating
1.	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation.	**4**
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	**4**
3.	Teaching quality, fairness in the assessment processes (Internal evaluation, Quiz, Assignments, etc.) and freedom to adopt new techniques/education tools	**3**
4.	Opportunities in the College for Research Activities & Relevance with Practical / Lab work	**2**
5.	Curriculum has prospects for supporting higher education, career orientated/employability	**3**
6.	Overall Learning Experience	**2**

*Select your ranking on the scale of 1 to 5 for each of the following parameters. (1- Excellent, 2- Very good, 3- Good, 4- Fair, 5- Poor)

Eden Aranchi A Sangma
Signature of the student

STUDENTS FEEDBACK FORM

1. **Name of the student: KOKU K TARA**
2. **Admission no.:27H/2014**
3. **Academic Year:2014-2018**
4. **Name of the programme studied: B.Sc (Hons) Horticulture**
5. **Designation: Student**
6. **Mobile No.: 700563753**
7. **Email id:kokuktara428@gmail.com**
8. **Feedback:**

S.No.	Parameters	Rating
1	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation.	**1**
2	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	**3**
3.	Teaching quality, fairness in the assessment processes (Internal evaluation, Quiz, Assignments, etc.) and freedom to adopt new techniques/education tools	**1**
4.	Opportunities in the College for Research Activities & Relevance with Practical / Lab work	**2**
5.	Curriculum has prospects for supporting higher education, career orientated/employability	**3**
6.	Overall Learning Experience	**2**

*Select your ranking on the scale of 1 to 5 for each of the following parameters. (1- Excellent, 2- Very good, 3- Good, 4- Fair, 5- Poor)

Recommendations if any for course improvement: 1.The institute need to balance and focus on the employability of the student after graduation of higher studies.

2. Funding and support from the VC is very necessary.

(Koku k Tara)
Signature of the student

Action taken: Feedback highlighted the requirement of more emphasis on the employability of the students graduating from the college. Smart classroom have been set up and initiated for preparation of JRF and other competitive exams.

STUDENTS FEEDBACK FORM

1. **Name of the student: OLIVIA LALREMSANGI**
2. **Admission no.:09H/2014**
3. **Academic Year:2014-2018**
4. **Name of the programme studied: B.Sc (Hons) HORTICULTURE**
5. **Designation: Student**
6. **Mobile No.: 9612136423**
7. **Email id: lalremsangiolivia07@gmail.com**
8. **Feedback:**

S. No.	Parameters	Rating
	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation.	**1**
	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	**3**
	Teaching quality, fairness in the assessment processes (Internal evaluation, Quiz, Assignments, etc.) and freedom to adopt new techniques/education tools	**2**
	Opportunities in the College for Research Activities & Relevance with Practical / Lab work	**2**
	Curriculum has prospects for supporting higher education, career orientated/employability	**2**
	Overall Learning Experience	**2**

*Select your ranking on the scale of 1 to 5 for each of the following parameters. (1- Excellent, 2- Very good, 3- Good, 4- Fair, 5- Poor)

Recommendations if any for course improvement: Focusing on student employability.

(olivia Lalremsangi)
Signature of the student

STUDENTS FEEDBACK FORM

1. **Name of the student:** Hatneikim Haokip
2. **Admission no.:** 07H/2014
3. **Academic Year: 2014-2018**
4. **Name of the programme studied: B.Sc (Hons)Horticulture**
5. **Designation: Students**
6. **Mobile No.: 8132825655**
7. **Email id:hatneikim7haokip@gmail.com**
8. **Feedback:**

S.No.	Parameters	Rating
1.	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation.	1
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	2
3.	Teaching quality, fairness in the assessment processes (Internal evaluation, Quiz, Assignments, etc.) and freedom to adopt new techniques/education tools	2
4.	Opportunities in the College for Research Activities & Relevance with Practical / Lab work	2
5.	Curriculum has prospects for supporting higher education, career orientated/employability	2
6.	Overall Learning Experience	2

*Select your ranking on the scale of 1 to 5 for each of the following parameters. (1- Excellent, 2- Very good, 3- Good, 4- Fair, 5- Poor)

Recommendations if any for course improvement:
Focusing on student employability after graduation or higher studies

(Kim Haokip)
Signature of the student

SELF STUDY REPORT FOR M.SC. HORTICULTURE (VEGETABLE SCIENCE)

COLLEGE OF HORTICULTURE & FORESTRY
CENTRAL AGRICULTURAL UNIVERSITY, PASIGHAT ARUNACHAL PRADESH

SUBMITTED TO

NATIONAL AGRICULTURAL EDUCATION ACCREDITATION BOARD
ICAR, NEW DELHI

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6.4 SELF STUDY REPORT FOR M.SC. HORTICULTURE (VEGETABLE SCIENCE)

6.4.1 Brief History of the Degree Programme:

College of Horticulture & Forestry is a constituent College of the Central Agricultural University, Imphal, Manipur and was established on 7th March, 2001 at Pasighat, Arunachal Pradesh on the bank of beautiful river Siang. The college offers B.Sc. (Hons.) Horticulture, B.Sc. (Hons.) Forestry, M.Sc. (Horticulture), M.Sc. (Forestry) and Ph.D. (Horticulture) with specialization in Fruits and Vegetable Science. The college has 11 departments. The curriculum and syllabi of all degree programmes are updated and implemented as per the ICAR – Vth Deans' Committee Recommendations.

M.Sc. (Horticulture) in Vegetable Science was started in August, 2009. The department is engaged in teaching, research and extension activities for promoting horticulture in general and Vegetable Science in particular. The objectives of the department are:

- ✓ To impart quality education for the undergraduate, postgraduate and Ph.D. level.
- ✓ To carry out research for standardization of agro techniques and identification/development of improved varieties in important vegetables of the region.
- ✓ To strengthen the research farm for post graduate and Ph.D. research works and practical teaching works for under graduate, post graduate and Ph.D. students.
- ✓ To disseminate the identified/proven technologies to the farming community through various extension activities.

Accomplishments:

34 (Thirty four) students have been awarded the degree of Master in Science (Horticulture) in Vegetable Science from this college. Another nine students are presently pursuing Master in Science (Horticulture) in Vegetable Science in the college.

Most of the passed out students from the college are pursuing Ph.D (Horticulture) in Vegetable Science from other reputed Universities while few of the students have joined banking sector and state administrative services, respectively.

6.4.2 Faculty Strength

Faculty Strength under the Dept. of Vegetable Science:

Sl. No.	Sanctioned Faculty	Faculty in Place	Vacant Position	Faculty Recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1 (till 29th July, 2020)	1	1
2.	Associate Professor	2	-	1
3.	Assistant Professor	2 (3 -till 25th Dec, 2020)	-	4

Faculty Strength of the Supporting Departments:

Sl.No.	Sanctioned Faculty	Faculty in Place	Vacant Position	Faculty Recommended by the ICAR/UGC/VCI/other regulatory bodies
	Department of Fruit Science			
1	Professor	-	1	1
2	Associate Professor	1	1	2
3	Assistant Professor	4	-	3
	Department of Basic Sciences & Social Science			
1	Professor	-	-	1
2	Associate Professor	2	-	2
3	Assistant Professor	9	-	6
	Department of Plant Protection			
1	Professor	1	-	-
2	Associate Professor	2	-	-
3	Assistant Professor	3	-	-
	Department of Natural Resource Management			
1	Professor	1	-	1
2	Associate Professor	2	-	2
3	Assistant Professor	2	-	4

6.4.3 Technical and Supporting Staff

Technical and Supporting staff under Dept. of Vegetable Science:

Sl. No.	Sanctioned staff	Staff in Place	Vacant Position	Faculty Recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	FCLA	2	-	-
2.	LDC	1	-	-

Technical and Supporting staff of the College:

Sl. No.	Sanctioned staff	Staff in Place	Vacant post	Staff Recommended by the ICAR/UGC/ VCI/other regulatory bodies
A.	***Establishment Branch***			
1.	Assistant Registrar (Estt.)	01	-	
2.	Assistant Registrar (Acad.)	-	02	
3.	Assistant Comptroller	-	01	
4.	Security Officer	-	01	
5.	Accountant	01	02	
6.	UDC	02	-	
7.	Clerk-cum-Typist/LDC	11	10	
8.	Computer operator	01	-	
9.	Security Guard	02	-	
B.	***Estate Branch***			
1.	Asstt.Engineer/Asstt. Estate Officer	01	-	
2.	Junior Engineer (Civil & Mechanical)	02	-	
3.	Electrician	01	-	
4.	Plumber	01	01	
5.	Drivers including Tractor Driver	05	04	
C.	***Library***			
1.	Librarian	01	-	
2.	Sr. Library Assistant	-	01	
3.	Library Assistant	03	-	
D.	***Health***			
1.	Medical Officer	01**	01	
2.	Compounder cum Dresser	01	-	
3.	Medical Attendant	02	-	
E.	***Student Welfare***			
1.	Students Welfare Officer	01*	01	
2.	Assistant	01	-	
F.	***Hostels***			
1.	Chief Warden	01*	-	
2.	Warden	05*	-	
3.	Caretaker/Helpers	10***		
G.	***Technical & Supporting Staff for Departments, Estate, Hostels & others***			
1.	Horticulture Assistant	01	-	
2.	Live Stock Assistant/Farm Asstt.	04	01	
3.	Field-cum-Lab-Assistant	21	06	

Sl. No.	Sanctioned staff	Staff in Place	Vacant post	Staff Recommended by the ICAR/UGC/ VCI/other regulatory bodies
A.	***Establishment Branch***			
4.	Multi Tasking Staff (MTS)	47	44	

* Indicate holding additional charge of minimum Assistant Professor Cadre

** Contractual Recognised Medical Practitioner

*** MTS with assigned specific duty

6.4.4 Classrooms and Laboratories:

Classrooms: Total thirteen classrooms are available in the college. All class rooms are provided with LCD projectors and audio-visual aids for better delivery of lectures. The faculty use power point presentations to make the concepts/techniques clearly understandable to the students. The important lectures are taught with videos. A table, podium, whiteboards/screen, black board *etc*. are available in each class room for the use of teachers. A common generator facility supplies power to all the classrooms to avoid interruption of the class during power failure.

Functional laboratories (Vegetable Science & allied) : 13 nos.

Sr. No.	Department/Section	Area (Sq mtr)	Remarks
1.	***Fruit Science***		
	(i) Two Laboratory	98 and 82	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc.
2.	***Vegetable Science***		
	One Laboratory	82	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc.
3.	***Floriculture (O&MAP)***		
	One Laboratory	82	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc.
4.	***Post-Harvest Management***		
	One Laboratory	72	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc. Equipment for processing of horticultural produces.
5	***Tree Improvement & PBG***		
	TIM Laboratory	72	Equipped with instruments for research & practicals. Water basins fitted in the laboratory for

			proper drainage of water and chemicals..
6	***Basic Sciences***		
	UG Basic Science Laboratory	28	Biochemical, biotechnological & microbiological practical & research needs of students are being fulfilled.
	PG Basic Science Laboratory	28	
	Tissue Culture Laboratory	47	
	Computer Laboratory	48	The lab is used for conducting Practical classes for PG students equipped with 15 computer & 2 printers for student access. Internet band width/ speed: 32Mbps.
7	***Plant Protection***		
	Entomology (Biocontrol) Laboratory:	72	Facilities equipped for research work on crop pests management & production of biocontrol agents
	Entomology (IBDC) Laboratory :	85	
	Pathology Laboratory (Mushroom): (Sterlization room, Boiling room)	144	Production of Mushroom spawn and other microbial research work carried-out.
	Pathology (Mushroom inoculation):	45	For inoculating mushroom. The laboratory is also equipped with culturing and spawns production
8	***Natural Resource Management***		
	Soil Science & Agricultural Chemistry Laboratory	100	The laboratory is equipped with various facilities to analyse the soil samples, related to various degree programmes (UG, P.G and Ph.D) of Agriculture, Horticulture and Forestry.

d) Lists major equipments:

The laboratories are well equipped to conduct the practicals/hands on training to the students with instruments, laboratory tables, basins, irrigation facilities, electrical and ventilations, adequate wooden furniture etc. The list of instruments/ equipments available in the laboratories are furnished below.

(i). Department of Fruit Science:

S.No.	Name of the equipment	S.No.	Name of the equipment
13.	Autoclave	**13.**	Hot Water Bath
14.	Digital Camera	**14.**	Polymerase Chain Reaction (PCR)

15. Digital Weighing Balance
16. One Single Distillation Unit
17. One Double D.U
18. Electronic Balance (two)
19. Precision Balance
20. Hot Air Oven
21. BOD Incubator
22. Ordinary Balance (Two)
23. Cooling Centrifuge
24. pH meter
15. Magnetic stirrer Atomic Absorption Spectrophotometer
16. Hand refractometer
17. Tissue culture lab Digit
18. Lux meter
19. Portable Penitrometer
20. Flame Photometer
21. Muffle Furnace
22. Microwave Oven
23. Tabletop Centrifuge (two)
24. Two Refrigerators (-20^{O}C)

(ii). Department of Vegetable Science:

S.No.	Name of the equipment	S.No.	Name of the equipment
26.	pH meter	**27.**	Conductivity meter
28.	Deep freezer	**29.**	Magnetic stirrer
30.	Hot air oven	**31.**	Olympus microscope (Binocular)
32.	Laminar flow	**33.**	Camera
34.	Seed germinator	**35.**	Computer with accessories
36.	Seed dryer	**37.**	Digital balance
38.	Distillation apparatus	**39.**	Lux meter
40.	Electronic balance	**41.**	Hand refractometer
42.	Horizontal autoclave	**43.**	Dissecting microscope
44.	Vertical autoclave	**45.**	Microscope trinocular stereo zoom model carl ziess stemi 2000 C
46.	Water bath	**47.**	AC fitted lab facilities
48.	Variable volume pipette	**49.**	Tissue culture lab
50.	Processing units		

(iii) Department of Floriculture (O& MAP)

S.No.	Name of the equipment	S.No.	Name of the equipment
15.	pH meter	**16.**	Incubator
17.	Refrigerator	**18.**	Magnetic stirrer
19.	Hot air oven	**20.**	Digital balance
21.	Seed germinator	**22.**	Camera
23.	Lux meter	**24.**	Computer with accessories
25.	Distillation apparatus	**26.**	Electronic balance

27. Environmental test chamber	**28.** Hot plate

iv) Department of Post Harvest management

S.No.	Name of the equipment	S.No.	Name of the equipment
21.	Tray drier	**22.**	Hot air oven
23.	Water bath	**24.**	Crown corking machine
25.	Conductivity meter	**26.**	Refractometer
27.	Weighing balance	**28.**	Micro-centrifuge
29.	Mechanical shaker	**30.**	pH meter

(v) Department of Tree Improvement & Plant Breeding Genetics

S.No.	Name of the equipment	S.No.	Name of the equipment
31.	Digital Magnetic Stirrer	**32.**	Precision Balance
33.	Hot Plate with Magnetic Stirrer	**34.**	Microscope
35.	Water bath	**36.**	Seed drier
37.	Refrigerator	**38.**	Plant press
39.	Seed Germinator	**40.**	Electronic Balance

(vi) Department of Basic Sciences:

UG Basic Science Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
10.	pH meter	**11.**	Centrifuge
12.	Autoclave	**13.**	Microscope
14.	Cooling water bath	**15.**	Refrigerator
16.	Hot plate	**17.**	Ice-flaking machine

PG Basic Science Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
7.	Microwave oven	**8.**	Weighing balance
9.	Refrigerator	**10.**	Weighing balance
11.	Oven	**12.**	Microscope

Tissue Culture Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
7.	Laminar flow	**8.**	Weighing machine

9.	HPLC (under repair)	**10.**	Ultraviolet Transilluminator
11.	PCR Machine	**12.**	Gas Chromatography

(vii) Department of Plant Protection

Entomology (Biocontrol) Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
7.	Autoclave	**8.**	Fermenter
9.	Binocular microscope (CH20i Olymp)	**10.**	Humidity cabinet
11.	Distillation unit	**12.**	Laminar airflow

Entomology (IBDC) Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
21.	Honey extractor (10frames)	**22.**	Honey processing plant (Cap. 250Kg)
23.	Honey bottling machine	**24.**	Automatic Honey bottle Dryer
25.	Honey Bottle sealing machine	**26.**	Honey comb foundation mill
27.	Gel Electrophoresis	**28.**	Refrigerated table top centrifuge
29.	Deep freezer, Water bath (digital)	**30.**	BOD incubator
31.	Quartz Boiler & Quartz condenser	**32.**	Autoclave Horizontal
33.	Laminar air flow (Vert.)	**34.**	Weighing balance
35.	Bionocular microscope	**36.**	Multimedia projector
37.	Nikon Camera d5300	**38.**	Water Bath
39.	Serological Water bath	**40.**	Distillation unit

Pathology Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
20.	Autoclave	**21.**	Chalk powder mixture
22.	Grain Boiler	**23.**	Spawn Bag filler
24.	Laminar flow	**25.**	Distillation Unit
26.	Shrink wrap machine	**27.**	Microscope (Zeiss)
28.	Spectrophotometer	**29.**	Micro-oven
30.	Refrigerator	**31.**	Hygrometer
32.	Camera lucida	**33.**	Stage & ocular micrometer
34.	Haemocytometer	**35.**	Student microscope
36.	Digital balance	**37.**	BOD incubator
38.	Illuminator		

(viii) Department of Natural Resource Management

Soil Science & Agricultural Chemistry Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
22.	Hot Air Oven	**23.**	Hot Plate
24.	Water Bath	**25.**	Plastic Jars
26.	Mechanical Shaker	**27.**	pH Meter
28.	Required Glasswares & plasticwares	**29.**	EC Meter
30.	Required Reagents	**31.**	Analytical Balance
32.	Keen Box	**33.**	Nitrogen Analyser
34.	Moisture Box	**35.**	Colorimeter
36.	Single Distillation Set / Unit	**37.**	Spectrophotometer
38.	Double Distillation Set / Unit	**39.**	Flame Photometer
40.	Sieves	**41.**	Wooden Mallet
42.	Atomic Absorption Spectrophotometer		

Forest Surveying/ Engineering Facility

S.No.	Name of the equipment	S.No.	Name of the equipment
11.	Total Station	**12.**	Plane table with accessories
13.	Dumpy Level	**14.**	Chain Surveying& accessories
15.	Abney's Level	**16.**	GPS
17.	Hand Level	**18.**	Digital Planimeter
19.	Current Meter	**20.**	Levelling survey accessories

Farm Power, Machineries and Irrigation Infrastructures

S.No.	Name of the equipment	S.No.	Name of the equipment
23.	Tractor 275 DI	**24.**	Tractor 575 DI
25.	Tractor 605 DI	**26.**	Tractor Bull Excavator
27.	Rotavator	**28.**	Cultivator
29.	Disc Harrow	**30.**	M.B. Plough
31.	Disc Plough	**32.**	Tractor Operated Potato Planter
33.	Tractor Operated Sprayer	**34.**	Ridge Maker
35.	Tractor operated Seed Drill	**36.**	Trolley
37.	Tanker	**38.**	Multi crop Thresher
39.	Tractor Operated Lawn Mower	**40.**	Power Tiller

41. Sprinkler Irrigation System **42.** Drip Irrigation System

43. Hand Tools & Implements **44.** Sprayers

d) **Laboratories**

College of Horticulture and Forestry, Pasighat which is well equipped to conduct practical classes for UG, PG and PhD programmes .

Table 50: The area covered under the laboratories of different departments are as follows :

Sl. No.	Laboratories under different departments	Area (sq. meter)
1.	Soil Science	150
2.	Plant Pathology	95
3.	Entomology	20
4.	Genetics and Plant Breeding	74
5.	Agronomy	90
6.	Plant Biotechnology	90
7.	Plant Biochemistry	90
8.	Horticulture	
v.	Post-harvest	90
vi.	Floriculture	90
vii.	Vegetable Science	90
viii.	Fruit Science	90
18.	Statistics, Computer Application & IPR	59

Besides these laboratories, the following facilities are also available at College of Horticulture and Forestry, Pasighat.

Table : Infrastructure facilities available in CHF Pasighat

Infrastructure	Area (sq. meter)
Workshop	1000
Dairy Plant	90
Poultry Unit	72
Pond	1500

The water from the pond is used for the purpose of drip and sprinkler irrigation, gravity fed irrigation etc. The workshop which is maintained by the Engineering Unit is well designed with sufficient land area and build infrastructure with required farm machineries such as tractors, power tillers, cultivators, leveller, rotavator, and other farm implements for day to day work related to research purpose.

Instructional Farm

A total of 16 instructional farms are established under various departments of the college, the details of which are listed below:

Department wise infrastructural details of CHF Pasighat

Department/Section	Area (Sq.mtr.)	Facilities available

Natural Resource Management		
32. Farm Power & Irrigation Infrastructures	1500	• Run-off Experiment Facility • Rain water Harvesting Based Integrated Horticulture Farming System • WHP=5 Lakh Litre Capacity • 5Hp Solar Pumping System • Naturally Ventilated Greenhouse= 30m×7m • Drip irrigation system operated by Solar Pump • Sprinkler Irrigation System operated by solar pump • Gravity fed drip Irrigation System in 500sq.m area • Basic Power Machineries available
33. Agrometeorology Observatory	500	• Meteorological observation data for Research and Academic purpose
Horticulture		
34. Medicinal & Aromatic plant farm 35. Medicinal plant germplasm block	12000	• Germplasm of Medicinal and Aromatic Plants • Collection of rare and endangered spps. • Nursery beds • Shade houses/roofs • Irrigation & electric facilities
36. Herbal garden	10000	• More than 160 species • Research, conservation & identification purpose
37. Floriculture and Landscaping	20000	• 8 nos. polyhouses • Germplasm bank of orchids & native ornamental plants • Commercial cut flower block of orchids, anthurium, gerbera, and heliconia • Collection of indoors plants, cactus and annual flowers
38. Vegetables science	35543	• Demonstration block on nutrition garden and other vegetable crops • 3 climate controlled polyhouses • 2 GI fabricated • Low cost polyhouses (1 no.) • Turmeric and spices processing unit • Hi-tech poly house (3 nos.) • Naturally ventilated polyhouses (2 nos.)

		• Water harvesting tanks • Solar power operated sprinkler irrigation system • Local vegetable garden • Vegetable nursery block
39. Fruit Department	98525	• Fruit nursery block • Demonstration & experimental block of coconut, passion fruit block, litchi, Jack fruit, Aonla, cashewnut, Mango, banana, Oil palm, Pumello and Assam lemon.
40. PBG farm	1800	• Nursery raised bed= 20 Nos. • Shade net house (15x15m) • Tokkopatta shade roofs: 10nos. • Arboretum 1100 sq. mtr. • Irrigation & electricity setups
Plant Protection		
41. Entomology (Biocontrol) Farm	4047	• Nursery Beds, Research plots • Water Pump with motor, Irrigation & electricity setups
42. Entomology (IBDC) Farm	2023	• All equipment's of beekeeping • Irrigation facility • Plots for nectar yielding plant
43. Pathology Farm	1083	• Disease Diagnostic Field • Students demonstration plot • Nursery beds • irrigation & electric facilities.
44. Paddy straw boiling unit and mushroom House	1350	• Boiling unit • Facilities for mushroom culture & production • Unit has more than 250 species of edible and poisonous mushroom species

Justification:

The laboratories, nurseries and demonstration units under the Department of Vegetable Science as well as those of all other supporting departments are well equipped with all the necessary equipments and facilities to accomplish the proposed research activities. All basic chemicals and instruments are available for doing practical and research work in all the laboratories, nurseries and orchards. The farm facilities, workshops and other instructional units are well designed with sufficient land area and build infrastructure, irrigation, electricity and required farm machineries supported with tractors, power tillers, cultivators, leveller, rotavator and other farm implements for day to day work and research purpose to meet the course curricula and research requirements.

Theory and practical batches for the Degree Programme: The numbers of intake students are manageable due to limited number of seats. Average number of students in theory & practical classes at any time of the year:

S.N.	Particulars of curricula	Batch of student in *Theory*	Batch of student in *Practical*
1.	Vegetable Science (Major)	5 (1batch)	5 (1batch)
2.	Supporting courses	5 (1batch)	5 (1batch)

The class rooms and laboratories are sufficient enough to meet course curricula requirement of the degree programme.

6.4.5 Conduct of Practical and Hands-on-training:

1. On the basis of academic calendar prepared by the university for the academic session for the effective implementation of the curriculum, the theory and practical classes are conducted at the experimental fields and laboratories of the Department of Vegetable Science and allied departments. The PG and Ph.D courses involve conducting practicals as per credits allotted to the specified courses and hands on training and field/lab practical's for courses.
2. Besides in-house projects, PG and Ph.D Scholars are sent as and when required by the college to reputed institutions such as AAU, Jorhat; BCKV, Kalyani; ICAR-RC-NEHR, Umiam; NEHU, Shillong;IIHR, Banglaore; IARI, New Delhi *etc*. to complete their analysis associated with their research projects or vital topics under curriculum.
3. With regular guidance of Statistics faculty of the college, hands-on-training for ICT tools and technology such as statistical softwares, MS office, LCD is encouraged in teaching learning and evaluation process.
4. PG and Ph. D Scholars are encouraged to participate in the in-house as well as off-campus conferences, seminars, workshops, brainstorming *etc*.

6.4.6 Supervision of students in PG/PhD programmes:

No. of students being supervised by the faculty:

Name of the Faculty	Designation	PG (Completed)	PG (On going)	Ph.D (Completed)	Ph.D. (Ongoing)
Dr. Chandra Deo	Associate Professor	16	-	1	4
Dr. Pranabjyoti Sarma	Associate Professor	4	2	-	3
Dr. Arwankie Shadap	Assistant Professor	-	3	-	-
Dr. Nangsol Dolma Bhutia	Assistant Professor	-	3	-	-

6.4.7 Feedback of Stakeholders:

The faculty usually get the feedback from the students who have graduated from the college on various aspects like the contents of the course, teaching skills of the faculty, learning experience, assessment process, etc. The feedback is also taken from the parents on the performance of the students and the facilities available in the college. The details of the feedback received from the students and parents are given in Annexure I.

6.4.8 Student Intake and Attrition in the Programme for the last five years:

Name of the degree programme	Actual student admitted in last five years					Attrition (%)				
	2015-16	2016-17	2017-18	2018-19	2019-20	2015-16	2016-17	2017-18	2018-19	2019-20
M.Sc (Horticulture) in Vegetable Science	4	5	5	5	5	0	0	0	0	0

6.4.9 ICT Application in Curricula Delivery

(a) The college has well-equipped air conditioned **Computer lab** with a plinth area of 80 square meter. The students are being taught about the IT facilities. The computer centre is equipped with Desktops for the use of staff and students of this institute. All these desktops and laptops are connected with internet for browsing. Since October, 2020 the computer centre is connected with 24x7 34 Mbps, Internet Access through BSNL . The facilities available in the computer lab are:

- 24 hours x 7 days / week free Internet access (34 Mbps) to students
- Wi-Fi enabled at New Academic Block (since 2015) to use e-communications for students and staffs.
- Students are trained to install open source software.
- Computers with Internet access are available in all departments.
- Academic buildings are linked with Administrative building through Optic Fiber Cable.
- Total number of computers for public access: 15
- Total numbers of printers for public access: 02
- Internet band width/ speed: 34Mbps through BSNL
- The lab is used for conducting Practical classes for UG and PG students.
- Students also use the Computer Lab for their research, statistical calculation and other academic activities.
- The academic, research, extension activities of the college are updated at the college website.

(b) The **Library** of the college is equipped with internet facilities for staff and students to access OPAC (Online Public Access Catalogue)URL = www.chfcau.ideal.egranth.ac.in.

- Two Software are available : (i) Alice for Window (Softlink Asia pvt.ltd) Offline and (ii) Koha Library management Software
- Electronic Resource Management package for e-journals Access through CeRA ICAR (Consortia for e-Resources in Agriculture): www.cera.jccc.in
- CAB data base: access facility (CAB data from 1972 to 2005)
- Krishikosh (e-theses etc. Institutional Repository of ICAR) all M.Sc. and Ph.D. Theses uploaded. It is open repository. URL: Krishikosh.egranth .ac.in
- Library automation: under process through Koha Library management software

Total number of computers for public access in library: 6

e) The College of Horticulture and Forestry, Pasighat has upgraded to **2 Nos**. of smart classrooms for teaching and practical purposes.

f) Language Laboratory:

The language laboratory has been established with the approval under Institutional Development Plan-National Agricultural Higher Education Project (IDP-NAHEP) recently. At present assistant professor (sub: English) is looking after the language laboratory. The purpose of constructing the laboratory is to teach students to have a good command of the language for effective communication with clarity and accuracy. The laboratory set up consists of computer assisted language support system with multimedia hi-tech language laboratory for language teaching. The students will be trained in advanced writing skills in terms of assignment and report preparation. The students have access to study materials related to group discussion, interview skills, brain storming, and simulation and negotiation skills. The medium of instruction in the college is English. As per V Dean's committee recommendation during the first semester of B.Sc (Hons.) Horticulture & B.Sc (Hons.) Forestry, two credit (1 theory and 1 practical) course on communication skills and personality development and 1 non-credit (practical) course on comprehension skills in English are offered. A well qualified English teacher is enaged to conduct the English classes. The concerned course incharge use recommended text books, online audio and video clippings. However, students from non-english medium of instruction are acoustomed comfortably by conducting extra class hours and personal care by academic advisors. In addition, SWO and NSS in-charges conduct various literary competitions such as debate, elocution, essay writing competition on various occasion *viz*., Republic Day, Independence Day, Dr. B. R. Ambedkar Jayanti, Mahatmt Gandhi Jayanti, College Day functions and other important events to encourage students to develop their language proficiency. Also, teachers in their respective courses encourage students to present the seminar on course topics to have command on English and improve public speaking skills.

Facilities in Language Laboratory

Computer	32
LCD with screen	3
LED TV	7
Audio systems	3
Podium	2
Zoom Platform link for online classes	1

6.4 (E. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each unit of UG, PG and PhD Degree Programmes, separately, and to be generated College wise.

6.4.1 (... Since, the accreditation of Programmes is related to the All India Admissions from ICAR, and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.10 Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Prof. B.N. Hiregoudra hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and I agree correctness thereof.

20/05/2021

Signature of Dean of the College
with Date & Seal

Dean
(... Agricultural Engineering & Technology)
Central Agricultural University
Imphal - 795 004 (M.S.)

ANNEXURE-I

STUDENTS FEEDBACK FORM

9. **Name of the student: KALOM TASING**
10. **Admission no.: 03H(M)2017**
11. **Academic Year: 2017-19**
12. **Name of the programme studied: MSC. Horticulture(Vegetable Science)**
13. **Designation: Student**
14. **Mobile No.: 8794362709**
15. **Email id: dongstasing@gmail.com**
16. **Feedback:**

S.No.	Parameters	Rating
7.	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation.	**1**
8.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	**1**
9.	Teaching quality, fairness in the assessment processes (Internal evaluation, Quiz, Assignments, etc.) and freedom to adopt new techniques/education tools	**2**
10.	Opportunities in the College for Research Activities & Relevance with Practical / Lab work	**1**
11.	Curriculum has prospects for supporting higher education, career orientated/employability	**2**
12.	Overall Learning Experience	**1**

*Select your ranking on the scale of 1 to 5 for each of the following parameters. (1- Excellent, 2- Very good, 3- Good, 4- Fair, 5- Poor)

(Kalom Tasing)

Signature of the student

STUDENTS FEEDBACK FORM

1. **Name of the student:**Miss Omem Moyong
2. **Admission no.:**05 H M/18
3. **Academic Year:**2018-20
4. **Name of the programme studied:**M.Sc(Fruit Science)
5. **Designation:**Student
6. **Mobile No.:**7005587351
7. **Email id:**omem.7.moyong@gmail.com
8. **Feedback:**

S.No.	Parameters	Rating
1.	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation.	**2**
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	**2**
3.	Teaching quality, fairness in the assessment processes (Internal evaluation, Quiz, Assignments, etc.) and freedom to adopt new techniques/education tools	**2**
4.	Opportunities in the College for Research Activities & Relevance with Practical / Lab work	**3**
5.	Curriculum has prospects for supporting higher education, career orientated/employability	**2**
6.	Overall Learning Experience	**2**

*Select your ranking on the scale of 1 to 5 for each of the following parameters. (1- Excellent, 2- Very good, 3- Good, 4- Fair, 5- Poor)

Recommendations if any for course improvement: To provide fully working instruments that would be useful in research purpose.

Signature of the student (Omem Moyong)

PARENTS FEEDBACK FORM

1. **Name of the Parent/Guardian:** Mr. Deebang Moyong
2. **Occupation:** Government Employee
3. **Address:** Roing
4. **Mobile no.:** 8787300014
5. **Email id:**
6. **Name of the ward:** Miss Omem Moyong
7. **Feedback (Please tick the appropriate box):**

S.No.	Parameters	Excellent (5)	Very good (4)	Good (3)	Fair (2)	Poor (1)
1.	Assessment about the teaching / learning process in the institute		✓			
2.	Knowledge/technical skills acquired by the student		✓			
3.	Rating about the institute discipline		✓			
4.	Overall infrastructural facilities of the institute		✓			
5.	Extra-curricular activities		✓			
6.	Learning resources (Library, Computer, Internet, Wifi)			✓		
7.	Counselling/guidance		✓			
8.	Overall rating about the institute management		✓			

Suggestions, if any as to how this institution can help its students even more**:**

Date: 20/05/21 Signature of the parent/guardian (Deebang Moyong)

PARENTS FEEDBACK FORM

1. **Name of the Parent/Guardian: Moni Tasing**
2. **Occupation: Teacher**
3. **Address: B4C Apartment, Lower Niti Vihar, Dist. Papumpare, Arunachal Pradesh.**
4. **Mobile no.: 9774925660**
5. **Email id: nanongtasing3@gmail.com**
6. **Name of the ward: Kalom Tasing**
7. **Feedback (Please tick the appropriate box):**

S.No.	Parameters	Excellent (5)	Very good (4)	Good (3)	Fair (2)	Poor (1)
1.	Assessment about the teaching / learning process in the institute	✓				
2.	Knowledge/technical skills acquired by the student		✓			
3.	Rating about the institute discipline		✓			
4.	Overall infrastructural facilities of the institute		✓			
5.	Extra-curricular activities	✓				
6.	Learning resources (Library, Computer, Internet, Wifi)		✓			
7.	Learning resources (Library, Computer, Internet, Wifi)		✓			
8.	Overall rating about the institute management	✓				

Suggestions, if any as to how this institution can help its students even more**:**

(Moni Tasing)

Date: 20/05/2021 Signature of the parent/guardian

SELF STUDY REPORT FOR M.SC. HORTICULTURE IN FRUIT SCIENCE

COLLEGE OF HORTICULTURE & FORESTRY

CENTRAL AGRICULTURAL UNIVERSITY, PASIGHAT ARUNACHAL PRADESH

SUBMITTED TO

NATIONAL AGRICULTURAL EDUCATION ACCREDITATION BOARD

ICAR, NEW DELHI

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6.4. Self-Study Report for M.Sc. Horticulture in Fruit Science:

6.4.1. Brief History of the Degree Programme:

The College of Horticulture and Forestry, Pasighat, Arunachal Pradesh was established on 7th March, 2001 as a constituent College of the Central Agricultural University, Imphal, Manipur with the admission of 17 UG students in the first batch of B Sc. Horticulture. Since then, the college offers B.Sc. (Hons.) Horticulture, B.Sc. (Hons.) Forestry, M.Sc. (Horticulture in Fruits and Vegetable Science), M.Sc. (Forestry) and Ph.D. (Horticulture in Fruits and Vegetable Science). Doctor of Philosophy (Horticulture) in Fruit Science was commenced from the academic session of 2015-16. This campus is located in a serene atmosphere at Pasighat, the educational capital of the state as well as the first Smart City of Arunachal Pradesh. The mighty Siang River flows in the northern vicinity of the campus which is about 2.5 km from the town. The College is spread over an area of 145 acres neighbouring one of the oldest institutes of the NE India, the Jawaharlal Nehru College, established in 1964.

The college has well equipped and man-powered 11 full-fledged departments. The curriculum and syllabi of all degree programmes are updated and adopted as per the ICAR guidelines, the currently implemented syllabus being 5th Deans' Committee Recommendations since 2016.

The prime objectives of this college include imparting horticulture and forestry education and meeting the research and extension needs of the NE Region in general and for each state of the region in particular. The M.Sc. programme in Fruit Science is conducted with strength of six students per year. The enrolled scholars are entitled with University fellowship of Rs.3000/- per month. At present, the department is empowered with one Professor (Dean), one Associate Professor and four Assistant Professors besides well qualified and highly experienced non-teaching staffs. Two of the teaching faculties in the department are alumni of this campus. The broad objectives of the Department of Fruit Science are given hereunder:

a) To impart need based quality education for the Under Graduates, Post Graduates and Ph. D Scholars in the stream of horticulture in general and Fruits Science in particular.
b) To undertake introduction of new fruit crops and new varieties of commonly grown fruit crops including exotic, that are agro-climatically suitable in the region with constant monitoring by the department.
c) To further the advancement of learning by undertaking research in fruit science to overcome the new challenges and develop new technologies pertaining to fruit growers of the region and fruit industries at large with intervention of bio-technological tools.
d) To strengthen the applied research in regional specific problems of fruit crops with an attempt to develop localized technologies.
e) To undertake the extension programmes of transferring proven technologies to all the stakeholders of horticulture in general and fruit cultivation in particular in each of the states under the jurisdiction.
f) To undertake such other activities as it may deem fit and responding to the call of the Government, University and farmers from time to time.

Accomplishments:

Thirty students have been awarded the degree of Master of Science (Horticulture) in Fruit Science from this college.

Sl. No.	Name of the student	Accomplishments	Year of Completion
1.	Mr. Getem Tamut	Lab. Technician in AICRP on Fruits, Pasighat Center, College of Horticulture and Forestry, CAU, Pasighat, Arunachal Pradesh	2016
2.	Ms. Leeniya Pertin	Horticulture Development Officer, Department of Horticulture, Govt. of Arunachal Pradesh	2016
3.	Mr. Mahesha N	Assistant Director of Horticulture, Govt. of Karnataka	2016
4.	Mr. Shangpong Konyak M	Pursuing Ph. D. in Horticulture at SASRD, Nagaland University, Medziphema, Nagaland.	2017
5.	Mr. Nikja Taha	Preparing for Arunachal Pradesh Public Service Commission	2017
6.	Mr. Devaraj R	Agriculture Field Officer in CANARA, Bank.	2017
7.	Ms. Rebika Padun	Cleared Arunachal Pradesh Public Service Commission mains and waiting for interview.	2017
8.	Ms. Susmita Das	Pursuing Ph.D. in Horticulture SKUAST, Jammu	2018
9.	Ms. Megha Raghvan	Pursuing Ph.D. in Horticulture (Fruit Science) in College of Horticulture and Forestry, CAU, Pasighat, Arunachal Pradesh	2018
10.	Ms. Hau Ngaih Lian	Pursuing Ph. D. in Horticulture at SASRD, Nagaland University, Medziphema, Nagaland.	2018
11.	Ms. Longing Basuk Langstieh	JRF in ICAR-NEHR, Umiam, Meghalaya	2018
12.	Ms. S. Bidyarani	Pursuing Ph.D. in Horticulture at UBKV, West Bengal	2018
13.	Mr. Rohullah Amin	Enterprise Development Specialist with UNICEF. (Foreign student)	2019
14.	Ms. Rosangpui Pachuau	Pursuing Ph.D. in Horticulture at MPKV, Rahuri, Maharastra.	2019

15.	Ms. R. Lalmuanpuii	Pursuing Ph.D. in Horticulture at MPKV, Rahuri, Maharastra.	2019
16.	Mr. Raju Debbarma	Preparing for Tripura Service Commission	2020
17.	Mr. Rinchen D. Bhutia	Agriculture Development Officer, Department of Agriculture, Govt. of Sikkim	2020
18.	Mr. Nasratullah	Principal, Higher Secondary School, Govt. of Afghanistan (Foreign student)	2020
19.	Mr. Sanaullah Arghistani	Agriculture Officer under Ministry of Agriculture, Govt. of Afghanistan (Foreign student)	2020
20.	Mr. M. Daisinlung	Horticulture Officer in Delhi Development Authority, New Delhi	2020
21.	Mr. Kripa Shankar	Pursuing Ph.D. in Horticulture in IARI, New Delhi	2020
22.	Mr. Songthat William Haokip	Pursuing Ph.D. in Horticulture (Fruit Science) in College of Horticulture and Forestry, CAU, Pasighat, Arunachal Pradesh	2020
23.	Ms. Omem Moyong	Preparing for Arunachal Pradesh Public Service Commission	2020
24.	Mr. Kh. Anush Sheikh	Pursuing Ph.D. in Horticulture (Fruit Science) in College of Horticulture and Forestry, CAU, Pasighat, Arunachal Pradesh	2020

6.4.2. Faculty Strength

Faculty strength of Ph. D (as per ICAR guidelines) in the Department of Fruit Science:

Sr. No.	**Sanctioned Faculty Position**	**Post Filled**	**Post Vacant**	Faculty Recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	-	2	1
2.	Associate Professor	2	1	2
3.	Assistant Professor	4	1	3
	Total	**6**	**4**	**6**

Faculty strength of the programme (as per ICAR guidelines) in the supporting Departments:

Sr. No.	Sanctioned Faculty	Faculty in Place	Vacant Position	Faculty Recommended by the ICAR/UGC/VCI/other regulatory bodies

	Department of Vegetable Science			
1.	Professor	-	1	1
2.	Associate Professor	2	-	1
3.	Assistant Professor	3	-	4
	Department of Floriculture (O &MAP)			
1.	Professor	1	0	1
2.	Associate Professor	1	0	1
3.	Assistant Professor	1	1	2
	Department of Post Harvest Management:			
1.	Professor	-	-	1
2.	Associate Professor	-	-	1
3.	Assistant Professor	2	-	2
	Department of Basic Sciences			
1.	Professor	-	-	1
2.	Associate Professor	1	-	2
3.	Assistant Professor	6	-	6
	Department of Plant Protection-			
1.	Professor	1	-	1
2.	Associate Professor	2	-	2
3.	Assistant Professor	3	-	3
	Department of Natural Resource Management			
1.	Professor	1	-	1
2.	Associate Professor	2	-	1
3.	Assistant Professor	2	-	6
	Department of Social Science			
1.	Professor	-	-	1
2.	Associate Professor	1	-	1
3.	Assistant Professor	3	-	5

6.4.3. Technical and Supporting Staff

Strength in the Department of Fruit Science:

Sr. No.	**Sanctioned Faculty Position**	**Post Filled**	**Post Vacant**	**Faculty Recommended by the ICAR/UGC/VCI/other regulatory bodies**
1.	Field cum Lab Assistant	1	-	-
2.	MTS	1	-	-
3.	Contractual Labour (out sourced)	3 (Department) 2 (AICRP Palms) 4 (AICRP on Fruits)	-	-
	Total	**11**	**-**	**-**

Strength in the College:

Sl. No.	Sanctioned staff	Staff in Place	Vacant post	Staff Recommended by the ICAR/UGC/ VCI/other regulatory bodies
A.	***Establishment Branch***			
1.	Assistant Registrar (Estt.)	01	-	
2.	Assistant Registrar (Acad.)	-	02	
3.	Assistant Comptroller	-	01	
4.	Security Officer	-	01	
5.	Accountant	01	02	
6.	UDC	02	-	
7.	Clerk-cum-Typist/LDC	11	10	
8.	Computer operator	01	-	
9.	Security Guard	02	-	
B.	***Estate Branch***			
1.	Asstt. Engineer/Asstt. Estate Officer	01	-	
2.	Junior Engineer (Civil & Mechanical)	02	-	
3.	Electrician	01	-	
4.	Plumber	01	01	
5.	Drivers including Tractor Driver	05	04	
C.	***Library***			
1.	Librarian	01	-	
2.	Sr. Library Assistant	-	01	
3.	Library Assistant	03	-	
D.	***Health***			
1.	Medical Officer	01**	01	
2.	Compounder cum Dresser	01	-	
3.	Medical Attendant	02	-	
E.	***Student Welfare***			
1.	Students Welfare Officer	01*	01	
2.	Assistant	01	-	
F.	***Hostels***			
1.	Chief Warden	01*	-	
2.	Warden	05*	-	
3.	Caretaker/Helpers	10***		
G.	***Technical & Supporting Staff for Departments, Estate, Hostels & others***			
1.	Horticulture Assistant	01	-	

Sl. No.	Sanctioned staff	Staff in Place	Vacant post	Staff Recommended by the ICAR/UGC/ VCI/other regulatory bodies
A.	***Establishment Branch***			
2.	Live Stock Assistant/Farm Asstt.	04	01	
3.	Field-cum-Lab-Assistant	21	06	
4.	Multi Tasking Staff (MTS)	47	44	

* Indicate holding additional charge of minimum Assistant Professor Cadre

** Contractual Recognised Medical Practitioner

*** MTS with assigned specific duty

6.4.4. Classrooms and Laboratories:

e) **Number of class rooms**: 13

All class rooms are provided with LCD projectors and audio-visual aids for better delivery of lectures. The faculty use power point presentations to make the concepts/techniques clearly understandable to the students. The important lectures are taught with videos. A table, podium, whiteboards/screen, black board with duster are available in each class room for the use of teachers. A common generator facility supplies power to all the classrooms to avoid interruption of the class during power failure.

b) **Functional laboratories (**Fruit Science & allied**)** : 13 nos.

Sr. No.	Department/Section	Area (Sq mtr)	Remarks
1.	***Fruit Science***		
	(i) Two Laboratory	98 and 82	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc.
2.	***Vegetable Science***		
	One Laboratory	82	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc.
3.	***Floriculture (O& MAP)***		
	One Laboratory	82	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc.
4.	***Post-Harvest Management***		
	One Laboratory	72	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc.

			Equipment for processing of horticultural produces.
5	***Forest Product Utilization***		
	Medicinal and Aromatic Plants Laboratory	160	Equipped with all the modern equipments for practical, sitting arrangements, Distillation, extraction facilities, etc.
	Wood Products and Utilization Laboratory	90	Facilities for characterization of morphological, anatomical, mechanical & chemical properties of timber. Other work carried out -wood design, fabrication ,etc.
6	***Tree Improvement & PBG***		
	TIM Laboratory	72	Equipped with instruments for research & practicals. Water basins fitted in the laboratory for proper drainage of water and chemicals..
7	***Basic Sciences***		
	UG Basic Science Laboratory	28	Biochemical, biotechnological & microbiological practical & research needs of students are being fulfilled.
	PG Basic Science Laboratory	28	
	Tissue Culture Laboratory	47	
	Computer Laboratory	48	The lab is used for conducting Practical classes for PG students equipped with 15 computer & 2 printers for student access. Internet band width/ speed: 32Mbps.
8	***Plant Protection***		
	Entomology (Biocontrol) Laboratory:	72	Facilities equipped for research work on crop pests management & production of biocontrol agents
	Entomology (IBDC) Laboratory :	85	
	Pathology Laboratory (Mushroom): (Sterlization room, Boiling room)	144	Production of Mushroom spawn and other microbial research work carried-out.
	Pathology (Mushroom inoculation):	45	For inoculating mushroom. The laboratory is also equipped with culturing and spawns production
9	***Natural Resource Management***		

	Soil Science & Agricultural Chemistry Laboratory	100	The laboratory is equipped with various facilities to analyse the soil samples, related to various degree programmes (UG, P.G and Ph.D) of Agriculture, Horticulture and Forestry.

c) Lists major equipments:

The laboratories are well equipped to conduct the practicals/hands on training to the students with instruments, laboratory tables, basins, irrigation facilities, electrical and ventilations, adequate wooden furniture etc. The list of instruments/ equipments available in the laboratories are furnished below.

(i). Department of Fruit Science:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Autoclave	**13.**	Hot Water Bath
2.	Digital Camera	**14.**	Polymerase Chain Reaction (PCR)
3.	Digital Weighing Balance	**15.**	Magnetic stirrer Atomic Absorption Spectrophotometer
4.	One Single Distillation Unit	**16.**	Hand refractometer
5.	One Double D.U	**17.**	Tissue culture lab Digit
6.	Electronic Balance (two)	**18.**	Lux meter
7.	Precision Balance	**19.**	Portable Penitrometer
8.	Hot Air Oven	**20.**	Flame Photometer
9.	BOD Incubator	**21.**	Muffle Furnace
10.	Ordinary Balance (Two)	**22.**	Microwave Oven
11.	Cooling Centrifuge	**23.**	Tabletop Centrifuge (two)
12.	pH meter	**24.**	Two Refrigerators (-20^{O}C)

(ii). Department of Vegetable Science:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	pH meter	**2.**	Conductivity meter
3.	Deep freezer	**4.**	Magnetic stirrer
5.	Hot air oven	**6.**	Olympus microscope (Binocular)
7.	Laminar flow	**8.**	Camera
9.	Seed germinator	**10.**	Computer with accessories
11.	Seed dryer	**12.**	Digital balance
13.	Distillation apparatus	**14.**	Lux meter
15.	Electronic balance	**16.**	Hand refractometer

17.	Horizontal autoclave	**18.**	Dissecting microscope
19.	Vertical autoclave	**20.**	Microscope trinocular stereo zoom model carl ziess stemi 2000 C
21.	Water bath	**22.**	AC fitted lab facilities
23.	Variable volume pipette	**24.**	Tissue culture lab
25.	Processing units		

(iii) Department of Floriculture (O& MAP)

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	pH meter	**2.**	Incubator
3.	Refrigerator	**4.**	Magnetic stirrer
5.	Hot air oven	**6.**	Digital balance
7.	Seed germinator	**8.**	Camera
9.	Lux meter	**10.**	Computer with accessories
11.	Distillation apparatus	**12.**	Electronic balance
13.	Environmental test chamber	**14.**	Hot plate

iv) Department of Post Harvest management

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Tray drier	**2.**	Hot air oven
3.	Water bath	**4.**	Crown corking machine
5.	Conductivity meter	**6.**	Refractometer
7.	Weighing balance	**8.**	Micro-centrifuge
9.	Mechanical shaker	**10.**	pH meter

(v) Department of Tree Improvement & Plant Breeding Genetics

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Digital Magnetic Stirrer	**2.**	Precision Balance
3.	Hot Plate with Magnetic Stirrer	**4.**	Microscope
5.	Water bath	**6.**	Seed drier
7.	Refrigerator	**8.**	Plant press
9.	Seed Germinator	**10.**	Electronic Balance

(vi) Department of Basic Sciences:

UG Basic Science Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	pH meter	**2.**	Centrifuge

3.	Autoclave	**4.**	Microscope
5.	Cooling water bath	**6.**	Refrigerator
7.	Hot plate	**8.**	Ice-flaking machine

PG Basic Science Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Microwave oven	**2.**	Weighing balance
3.	Refrigerator	**4.**	Weighing balance
5.	Oven	**6.**	Microscope

Tissue Culture Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Laminar flow	**2.**	Weighing machine
3.	HPLC (under repair)	**4.**	Ultraviolet Transilluminator
5.	PCR Machine	**6.**	Gas Chromatography

(vii) Department of Plant Protection

Entomology (Biocontrol) Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Autoclave	**2.**	Fermenter
3.	Binocular microscope (CH20i Olymp)	**4.**	Humidity cabinet
5.	Distillation unit	**6.**	Laminar airflow

Entomology (IBDC) Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Honey extractor (10frames)	**2.**	Honey processing plant (Cap. 250Kg)
3.	Honey bottling machine	**4.**	Automatic Honey bottle Dryer
5.	Honey Bottle sealing machine	**6.**	Honey comb foundation mill
7.	Gel Electrophoresis	**8.**	Refrigerated table top centrifuge
9.	Deep freezer, Water bath (digital)	**10.**	BOD incubator
11.	Quartz Boiler & Quartz condenser	**12.**	Autoclave Horizontal
13.	Laminar air flow (Vert.)	**14.**	Weighing balance
15.	Bionocular microscope	**16.**	Multimedia projector
17.	Nikon Camera d5300	**18.**	Water Bath
19.	Serological Water bath	**20.**	Distillation unit

Pathology Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Autoclave	**2.**	Chalk powder mixture
3.	Grain Boiler	**4.**	Spawn Bag filler
5.	Laminar flow	**6.**	Distillation Unit
7.	Shrink wrap machine	**8.**	Microscope (Zeiss)
9.	Spectrophotometer	**10.**	Micro-oven
11.	Refrigerator	**12.**	Hygrometer
13.	Camera lucida	**14.**	Stage & ocular micrometer
15.	Haemocytometer	**16.**	Student microscope
17.	Digital balance	**18.**	BOD incubator
19.	Illuminator		

(viii) Department of Natural Resource Management

Soil Science & Agricultural Chemistry Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Hot Air Oven	**2.**	Hot Plate
3.	Water Bath	**4.**	Plastic Jars
5.	Mechanical Shaker	**6.**	pH Meter
7.	Required Glasswares & plasticwares	**8.**	EC Meter
9.	Required Reagents	**10.**	Analytical Balance
11.	Keen Box	**12.**	Nitrogen Analyser
13.	Moisture Box	**14.**	Colorimeter
15.	Single Distillation Set / Unit	**16.**	Spectrophotometer
17.	Double Distillation Set / Unit	**18.**	Flame Photometer
19.	Sieves	**20.**	Wooden Mallet
21.	Atomic Absorption Spectrophotometer		

Forest Surveying/ Engineering Facility

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Total Station	**2.**	Plane table with accessories
3.	Dumpy Level	**4.**	Chain Surveying& accessories
5.	Abney's Level	**6.**	GPS
7.	Hand Level	**8.**	Digital Planimeter

9.	Current Meter	**10.**	Levelling survey accessories

Farm Power, Machineries and Irrigation Infrastructures

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Tractor 275 DI	**2.**	Tractor 575 DI
3.	Tractor 605 DI	**4.**	Tractor Bull Excavator
5.	Rotavator	**6.**	Cultivator
7.	Disc Harrow	**8.**	M.B. Plough
9.	Disc Plough	**10.**	Tractor Operated Potato Planter
11.	Tractor Operated Sprayer	**12.**	Ridge Maker
13.	Tractor operated Seed Drill	**14.**	Trolley
15.	Tanker	**16.**	Multi crop Thresher
17.	Tractor Operated Lawn Mower	**18.**	Power Tiller
19.	Sprinkler Irrigation System	**20.**	Drip Irrigation System
21.	Hand Tools & Implements	**22.**	Sprayers

d) **Laboratories**

College of Horticulture and Forestry, Pasighat which is well equipped to conduct practical classes for UG, PG and PhD programmes .

Table 51: The area covered under the laboratories of different departments are as follows :

Sl. No.	Laboratories under different departments	Area (sq. meter)
1.	Soil Science	150
2.	Plant Pathology	95
3.	Entomology	20
4.	Genetics and Plant Breeding	74
5.	Agronomy	90
6.	Plant Biotechnology	90
7.	Plant Biochemistry	90
8.	Horticulture	
ix.	Post-harvest	90
x.	Floriculture	90
xi.	Vegetable Science	90
xii.	Fruit Science	90
9.	Statistics, Computer Application & IPR	59

Besides these laboratories, the following facilities are also available at College of Horticulture and Forestry, Pasighat.

Infrastructure facilities available in CHF Pasighat

Infrastructure	Area (sq. meter)
Workshop	1000
Dairy Plant	90
Poultry Unit	72
Pond	1500

The water from the pond is used for the purpose of drip and sprinkler irrigation, gravity fed irrigation etc. The workshop which is maintained by the Engineering Unit is well designed with sufficient land area and build infrastructure with required farm machineries such as tractors, power tillers, cultivators, leveller, rotavator, and other farm implements for day to day work related to research purpose.

Instructional Farm

A total of 16 instructional farms are established under various departments of the college, the details of which are listed below:

Department wise infrastructural details of CHF Pasighat

Department/Section	Area (Sq.mtr.)	Facilities available
Natural Resource Management		
45. Farm Power & Irrigation Infrastructures	1500	• Run-off Experiment Facility • Rain water Harvesting Based Integrated Horticulture Farming System

		• WHP=5 Lakh Litre Capacity • 5Hp Solar Pumping System • Naturally Ventilated Greenhouse= 30m×7m • Drip irrigation system operated by Solar Pump • Sprinkler Irrigation System operated by solar pump • Gravity fed drip Irrigation System in 500sq.m area • Basic Power Machineries available
46. Agrometeorology Observatory	500	• Meteorological observation data for Research and Academic purpose
Horticulture		
47. Medicinal & Aromatic plant farm 48. Medicinal plant germplasm block	12000	• Germplasm of Medicinal and Aromatic Plants • Collection of rare and endangered spps. • Nursery beds • Shade houses/roofs • Irrigation & electric facilities
49. Herbal garden	10000	• More than 160 species • Research, conservation & identification purpose
50. Floriculture and Landscaping	20000	• 8 nos. polyhouses • Germplasm bank of orchids & native ornamental plants • Commercial cut flower block of orchids, anthurium, gerbera, and heliconia • Collection of indoors plants, cactus and annual flowers
51. Vegetables science	35543	• Demonstration block on nutrition garden and other vegetable crops • Turmeric and spices processing unit • Hi-tech poly house (3 nos.) • Naturally ventilated polyhouses (2 nos.) • Water harvesting tanks • Solar power operated sprinkler irrigation system • Local vegetable garden • Vegetable nursery block
52. Fruit Department	98525	• Fruit nursery block

		• Demonstration & experimental block of coconut, passion fruit block, litchi, Jack fruit, Aonla, cashewnut, Mango, banana, Oil palm, Pumello and Assam lemon.
53. PBG farm	1800	• Nursery raised bed= 20 Nos. • Shade net house (15x15m) • Tokkopatta shade roofs: 10nos. • Arboretum 1100 sq. mtr. • Irrigation & electricity setups
Plant Protection		
54. Entomology (Biocontrol) Farm	4047	• Nursery Beds, Research plots • Water Pump with motor, Irrigation & electricity setups
55. Entomology (IBDC) Farm	2023	• All equipment's of beekeeping • Irrigation facility • Plots for nectar yielding plant
56. Pathology Farm	1083	• Disease Diagnostic Field • Students demonstration plot • Nursery beds • irrigation & electric facilities.
57. Paddy straw boiling unit and mushroom House	1350	• Boiling unit • Facilities for mushroom culture & production • Unit has more than 250 species of edible and poisonous mushroom species

(e) Justification:

The laboratories, nurseries and orchards under the Department of Fruit Science as well as those of all other supporting departments are well equipped with all the necessary equipments and facilities to accomplish the proposed research activities. All the basic chemicals and instruments are available for doing practical and research work in all the laboratories, nurseries and orchards. The Farm facilities, workshops and other instructional units are well designed with sufficient land area and build infrastructure, irrigation, electricity and required farm machineries supported with tractors, power tillers, cultivators, leveller, rotavator, and other farm implements for day to day work and research purpose to meet the course curricula and research requirements.

(f) Theory and practical batches for the M.Sc. Degree Programme: the numbers of intake students are manageable due to limited number of seats. Average number of students in theory & practical classes at any time of the year:

S.N.	Particulars of curricula	Batch of student in *Theory*	Batch of student in *Practical*
1.	Fruits (Major)	12 (1batch)	12 (1batch)
2.	Supporting courses	12 (1batch)	12 (1batch)

The class rooms and laboratories are sufficient enough to meet course curricula requirement of the degree programme.

6.4.5. Conduct of Practical and Hands-on-Training:

a) On the basis of academic calendar prepared by the university for the academic session for the effective implementation of the curriculum, the theory and practical classes are conducted at the experimental fields and laboratories of the Department of Fruit Science and allied departments. The PG and Ph.D courses involve conducting practical's as per credits allotted to the specified courses and hands on training and field/lab practical's for courses.

b) Besides in-house projects, PG and Ph.D Scholars are sent as and when required by the college to reputed institutions such as AAU, Jorhat, BCKV, Kalyani, ICAR-NEHR, Umiam, NEHU, Shillong, IIHR, Banglaore, IARI, New Delhi etc. to complete their analysis associated with their research projects or vital topics under curriculum. Educational trips of students to centres like State Horticulture Farm, Shergaon (West Kameng, Ar. Pradesh) not only provide practical exposure to students but also help in proper networking and interaction between the college and research institutions/ industries.

c) With regular guidance of Statistics faculty of the college, hands-on-training for ICT tools and technology such as statistical softwares, MS office, LCD is encouraged in teaching learning and evaluation process.

d) PG and Ph. D Scholars are encouraged to participate in the in-house as well as off-campus conferences, seminars, workshops, brainstorming etc.

6.4.6. Supervision of students in M.Sc. Fruit Science: (number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.)

S. No	**Department**	**Qualified faculty**	**Present nos. of students**	**Intake, as per guidelines (Max.)**		
				Assistant Professor	**Associate Professor**	**Professor**
1.	Fruits	6	12	4	5	6

6.4.7 Feedback of stakeholders (Students, Parents, industries, employers, farmers etc):

The faculty usually get the feedback from the students who have graduated from the college on various aspects like the contents of the course, teaching skills of the faculty, learning experience, assessment process, etc. The feedback is also taken from the parents on the performance of the students and the facilities available in the college. The details of the feedback received from the students and parents are given in Annexure 1.

6.4.8. Student intake and attrition in the M.Sc. (Horticulture) in Fruit Science programme for last five years:

Sl. No.	**Year (Session)**	**Student Intake**	**Student Attrition (%)**
1.	2016-17	6	0
2.	2017-18	6	0
3.	2018-19	6	0
4.	2019-20	6	0

5.	2020-21	6	0

The rate of attrition from the M.Sc. Fruit Science is Nil

6.4.9. ICT Application in Curricula Delivery:

(a) The college has well-equipped air conditioned **Computer lab** with a plinth area of 80 square meter. The students are being taught about the IT facilities. The computer centre is equipped with Desktops for the use of staff and students of this institute. All these desktops and laptops are connected with internet for browsing. Since October,2020 the computer centre is connected with 24x7 34 Mbps ,Internet Access through BSNL . The facilities available in the computer lab are:

l) 24 hours x 7 days / week free Internet access (32 Mbps) to students
m) Wi-Fi enabled in the New Academic Block (since 2015) to use e-communications for students and staffs.
n) Students are trained to install open source software.
o) Computers with Internet access are available in all departments.
p) Academic buildings are linked with Administrative building through Optic Fibre Cable (OFC).
q) Total number of computers for public access: 15
r) Total numbers of printers for public access: 02
s) Internet band width/ speed: 34 Mbps through BSNL
t) The lab is used for conducting Practical classes for UG and PG students.
u) Students also use the Computer Lab for their research, statistical calculation and other academic activities.
v) The academic, research, extension activities of the college are updated regularly at the college website from time to time.

(b) The college **Library** is equipped with internet facilities with, through which staff and students would be able to access OPAC (Online Public Access Catalogue) URL = www.chfcau.ideal.egranth.ac.in.

g) The Library Two Software : (i) Alice for Window (Softlink Asia pvt.ltd) Offline and (ii) Koha Library management Software
h) Electronic Resource Management package for e-journals Access through CeRA ICAR (Consortia for e-Resources in Agriculture): www.cera.jccc.in
i) CAB data base: access facility (CAB data from 1972 to 2005)
j) Krishikosh (e-theses etc. Institutional Repository of ICAR) all M.Sc. and Ph.D. Theses uploaded. It is open repository. **URL: Krishikosh.egranth .ac.in**
k) Library automation: under process through Koha Library management software
l) Total number of computers for public access in library: 06

Besides, the Department of Fruit Science takes keen interest in ICT application in curricula delivery through platforms like adoption of audio-visual aids in teaching and learning, engagement of online mode of teaching-learning through Google Meet, Zoom, Google Classroom, sharing of information and study materials using WhatsApp.

g) The College of Horticulture and Forestry, Pasighat has upgraded to **2 Nos**. of smart classrooms for teaching and practical purposes.

h) Language Laboratory:

The language laboratory has been established with the approval under Institutional Development Plan-National Agricultural Higher Education Project (IDP-NAHEP) recently. At present assistant professor (sub: English) is looking after the language laboratory. The purpose of constructing the laboratory is to teach students to have a good command of the language for effective communication with clarity and accuracy. The laboratory set up consists of computer assisted language support system with multimedia hi-tech language laboratory for language teaching. The students will be trained in advanced writing skills in terms of assignment and report preparation. The students have access to study materials related to group discussion, interview skills, brain storming, and simulation and negotiation skills. The medium of instruction in the college is English. As per V Dean's committee recommendation during the first semester of B.Sc (Hons.) Horticulture & B.Sc (Hons.) Forestry, two credit (1 theory and 1 practical) course on communication skills and personality development and 1 non-credit (practical) course on comprehension skills in English are offered. A well qualified English teacher is enaged to conduct the English classes. The concerned course incharge use recommended text books, online audio and video clippings. However, students from non-english medium of instruction are acoustomed comfortably by conducting extra class hours and personal care by academic advisors. In addition, SWO and NSS in-charges conduct various literary competitions such as debate, elocution, essay writing competition on various occasion *viz*., Republic Day, Independence Day, Dr. B. R. Ambedkar Jayanti, Mahatmt Gandhi Jayanti, College Day functions and other important events to encourage students to develop their language proficiency. Also, teachers in their respective courses encourage students to present the seminar on course topics to have command on English and improve public speaking skills.

Facilities in Language Laboratory

Computer	32
LCD with screen	3
LED TV	7
Audio systems	3
Podium	2
Zoom Platform link for online classes	1

6.4.10. The information pertaining to 6.4.1 to 6.4.8 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise.

6.4.11. Since the Accreditation of Programmes is relevant to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data pertained in the section 6.4 is liable to be verification at any stage.

6.4.12. Certificate (Applicable when SAR is submitted for Programme)

I, the Dean Dr. B.N. Hazarika hereby certify that the information contained in the Section 6.4.1 to 6.4.8 are furnished as per the records available in the college and nothing remaining untruthy.

Signature of Dean of the College
with Date & Seal

Dean
College of Horticulture & Forestry
Central Agricultural University
Pasighat-791102(A.P.)

ANNEXURE I

Feedback from pass out students

S.N.	Scholars / Parameters	Ranking given by pass out students		
		Mr. Songthat William Haokip	Mr. Kh. Anush Sheikh	Mr. Kripa Shankar
	Reg. No.	U-18-AR-01-005-M-H-008	U-18-AR-01-005-M-H-010	U-18-AR-01-005-M-H-002
	M.Sc. Program	(2018-2020)	(2018-2020)	(2018-2020)
1	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation	**1**	**1**	**1**
2	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	**1**	**1**	**1**
3	Teaching quality, fairness in the assessment processes (Internal evaluation, Quiz, Assignments, etc.) and freedom to adopt new techniques/education tools	**1**	**1**	**1**
4	Opportunities in the College for Research Activities & Relevance with Practical / Lab work	**3**	**1**	**1**
5	Curriculum has prospects for supporting higher education, career orientated /employability.	**2**	**1**	**1**
6	Overall Learning Experience	**1**	**1**	**1**

***Please give your valuable feedback on curriculum to improve quality of the programme. Select your ranking on the scale of 1 to 5 for each of the following parameters. (1- Excellent, 2- Very good, 3- Good, 4- Fair, 5- Poor)**

PARENTS FEEDBACK FORM

17. **Name of the Parent/Guardian: Mr. Songthat Tongkai Haokip**
18. **Occupation: Farmer**
19. **Address: Vill. Tingkai Khonuo, Dist: Kangpokpi , Manipur - 795134**
20. **Mobile no.: 8794575585**
21. **Email id:-**
22. **Name of the ward:** Mr. Songthat William Haokip
23. **Feedback (Please tick the appropriate box):**

S.No.	Parameters	Excellent (5)	Very good (4)	Good (3)	Fair (2)	Poor (1)
13.	Assessment about the teaching / learning process in the institute	**5**				
14.	Knowledge/technical skills acquired by the student	**5**				
15.	Rating about the institute discipline	**5**				
16.	Overall infrastructural facilities of the institute		**4**			
17.	Extra-curricular activities	**5**				
18.	Learning resources (Library, Computer, Internet, Wifi)			**3**		
19.	Counselling/guidance			**3**		
20.	Overall rating about the institute management	**5**				

Suggestions, if any as to how this institution can help its students even more**:**

Signature: Mr. Songthat Tongkai Haokip

PARENTS FEEDBACK FORM

1. **Name of the Parent/Guardian: Mr. Haji Abdul Helim**
2. **Occupation: Farmer**
3. **Address: Vill.Kiyamgei Muslim Makha Leikai, Imphal, Manipur - 795001**
4. **Mobile no.: 9862413756**
5. **Email id:-** sheikh4261@gmail.com
6. **Name of the ward:** Mr. Kh. Anush Sheikh
7. **Feedback (Please tick the appropriate box):**

S.No.	Parameters	Excellent (5)	Very good (4)	Good (3)	Fair (2)	Poor (1)
1)	Assessment about the teaching / learning process in the institute	5				
2)	Knowledge/technical skills acquired by the student	5				
3)	Rating about the institute discipline	5				
4)	Overall infrastructural facilities of the institute	5				
5)	Extra-curricular activities	5				
6)	Learning resources (Library, Computer, Internet, Wi-fi)	5				
7)	Counselling/guidance	5				
8)	Overall rating about the institute management	5				

Suggestions, if any as to how this institution can help its students even more**:**

Signature: Mr. Haji Abdul Helim

PARENTS FEEDBACK FORM

1. **Name of the Parent/Guardian: Mr. Shiv Shankar Maurya**
2. **Occupation: Contractor**
3. **Address: Vill.Narayanpur, Rampur Sakarwari, Ambedkar Nagar UP - 224122**
4. **Mobile no.: 9473985011**
5. **Email id:- buatksn1234@gmail.com**
6. **Name of the ward:** Mr. Kripa Shankar
7. **Feedback (Please tick the appropriate box):**

S.No.	Parameters	Excellent (5)	Very good (4)	Good (3)	Fair (2)	Poor (1)
1.	Assessment about the teaching / learning process in the institute	5				
2.	Knowledge/technical skills acquired by the student	5				
3.	Rating about the institute discipline	5				
4.	Overall infrastructural facilities of the institute	5				
5.	Extra-curricular activities	5				
6.	Learning resources (Library, Computer, Internet, Wifi)	5				
7.	Counselling/guidance	5				
8.	Overall rating about the institute management	5				

Suggestions, if any as to how this institution can help its students even more**:**

Signature: Mr. Shiv Shankar Maurya

SELF STUDY REPORT PH. D. HORTICULTURE IN FRUIT SCIENCE

COLLEGE OF HORTICULTURE & FORESTRY

CENTRAL AGRICULTURAL UNIVERSITY,

PASIGHAT ARUNACHAL PRADESH

SUBMITTED TO
NATIONAL AGRICULTURAL EDUCATIONACCREDITATION BOARD
ICAR, NEW DELHI

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6.4. Self-Study Report for Ph. D. Horticulture in Fruit Science:

6.4.1. Brief History of the Degree Programme:

The College of Horticulture and Forestry, Pasighat, Arunachal Pradesh was established on 7th March, 2001 as a constituent College of the Central Agricultural University, Imphal, Manipur with the admission of 17 UG students in the first batch of B Sc. Horticulture. Since then, the college offers B.Sc. (Hons.) Horticulture, B.Sc. (Hons.) Forestry, M.Sc. (Horticulture in Fruits and Vegetable Science), M.Sc. (Forestry) and Ph.D. (Horticulture in Fruits and Vegetable Science). Doctor of Philosophy (Horticulture) in Fruit Science was commenced from the academic session of 2015-16. This campus is located in a serene atmosphere at Pasighat, the educational capital of the state as well as the first Smart City of Arunachal Pradesh. The mighty Siang River flows in the northern vicinity of the campus which is about 2.5km from the town. The College is spread over an area of 145 acres neighbouring one of the oldest institutes of the NE India, the Jawaharlal Nehru College, established in 1964.

The college has well equipped and man-powered 11 full-fledged departments. The curriculum and syllabi of all degree programmes are updated and adopted as per the ICAR guidelines, the currently implemented syllabus being 5th Deans' CommitteeRecommendations since 2016.

The prime objectives of this college include imparting horticulture and forestry education and meeting the research and extension needs of the NE Region in general and for each state of the region in particular. The Ph. D programme in Fruit Science is conducted with strength of two students per year till 2019-20 and three student per year since 2020-21. The enrolled scholars are entitled with University fellowship of Rs.5000/- per month. At present, the department is empowered with oneProfessor (Dean), one Associate Professor and four Assistant Professors besides well qualified and highly experienced non-teaching staffs. Two of the teaching faculties in the department are alumni of this campus. The broad objectives of the Department of Fruit Science are given hereunder:

a) To impart need based quality education for the Under Graduates, Post Graduates and Ph. D Scholars in the stream of horticulture in general andFruits Science in particular.

b) To undertake introduction of new fruit crops and new varieties of commonly grown fruit crops including exotic, that are agro-climatically suitable in the region with constant monitoring by the department.

c) To further the advancement of learning by undertaking research in fruit science to overcome the new challenges and develop new technologies pertaining to fruit growers of the region and fruit industries at large with intervention of bio-technological tools.

d) To strengthen the applied research in regional specific problems of fruit crops with an attempt to develop localized technologies.

e) To undertake the extension programmes of transferring proven technologies to all the stakeholders of horticulture in general and fruit cultivation in particular in each of the states under the jurisdiction.

f) To undertake such other activities as it may deem fit and responding to the callof the Government, University and farmers from time to time.

Accomplishments:

Five students have been awarded the degree of Doctor of Philosolphy(Horticulture) in Fruit Science from this college.

1. Dr. Lakidon Khonglah : Asst. Professor (C) at NEHU, Tura
2. Dr. Ashok Chhetri : Asst. Professor MMTC & VTC, Agartala
3. Dr. Nesara Begane : SRF at IIHR, Bengaluru, Karnataka
4. Dr. Thejangulie Angami : ARS Scientist posted at Basar, Arunachal Pradesh
5. Dr. Amrita Thokchom : JRF in a project Restoration and Conservation of Natural Silk dying techniques at CAU, Imphal.

6.4.2. Faculty Strength

Faculty strength of Ph. D (as per ICAR guidelines) in the Department of Fruit Science:

Sr. No.	Sanctioned Faculty Position	Post Filled	Post Vacant	Faculty Recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	-	2	1
2.	Associate Professor	2	1	2
3.	Assistant Professor	4	1	3
	Total	**6**	**4**	**6**

Faculty strength of the programme (as per ICAR guidelines) in the supportingDepartments:

Sr. No.	Sanctioned Faculty	Faculty in Place	Vacant Position	Faculty Recommended by the ICAR/UGC/VCI/other regulatory bodies
	Department of Vegetable Science			
1.	Professor	-	1	1
2.	Associate Professor	2	-	1
3.	Assistant Professor	3	-	4
	Department of Floriculture (O& MAP)			
1.	Professor	1	0	1
2.	Associate Professor	1	0	1
3.	Assistant Professor	1	1	2

	Department of Post Harvest Management:			
1.	Professor	-	-	1
2.	Associate Professor	-	-	1
3.	Assistant Professor	2	-	2
	Department of Basic Sciences			
1.	Professor	-	-	1
2.	Associate Professor	1	-	2
3.	Assistant Professor	6	-	6
	Department of Plant Protection-			
1.	Professor	1	-	1
2.	Associate Professor	2	-	2
3.	Assistant Professor	3	-	3
	Department of Natural Resource Management			
1.	Professor	1	-	1
2.	Associate Professor	2	-	1

3.	Assistant Professor	2	-	6
	Department of Social Science			
1.	Professor	-	-	1
2.	Associate Professor	1	-	1
3.	Assistant Professor	3	-	5

6.4.3. Technical and Supporting Staff Strength in the Department of Fruit Science:

Sr. No.	**Sanctioned Faculty Position**	**Post Filled**	**Post Vacant**	**Faculty Recommended by the ICAR/UGC/VCI/other regulatory bodies**
1.	Field cum Lab Assistant	1	-	-
2.	MTS	1	-	-

3.	Contractual Labour (outsourced)	3 (Department) 2 (AICRP Palms) 4 (AICRP on Fruits)	-	-
	Total	**11**	**-**	**-**

Strength in the College:

Sl. No.	Sanctioned staff	Staff in Place	Vacant post	Staff Recommended by the ICAR/UGC/ VCI/other regulatory bodies
A.	***Establishment Branch***			
1.	Assistant Registrar (Estt.)	01	-	
2.	Assistant Registrar (Acad.)	-	02	
3.	Assistant Comptroller	-	01	
4.	Security Officer	-	01	
5.	Accountant	01	02	

Sl. No.	Sanctioned staff	Staff in Place	Vacant post	Staff Recommended by the ICAR/UGC/ VCI/other regulatory bodies
A.	***Establishment Branch***			
6.	UDC	02	-	
7.	Clerk-cum-Typist/LDC	11	10	
8.	Computer operator	01	-	
9.	Security Guard	02	-	
B.	***Estate Branch***			
1.	Asstt. Engineer/Asstt. Estate Officer	01	-	
2.	Junior Engineer (Civil & Mechanical)	01	1	
3.	Electrician	01	-	
4.	Plumber	01	01	

5.	Drivers including Tractor Driver	05	04	
C.	***Library***			
1.	Librarian	01	-	
2.	Sr. Library Assistant	-	01	
3.	Library Assistant	03	-	
D.	***Health***			
1.	Medical Officer	01**	01	
2.	Compounder cum Dresser	01	-	
3.	Medical Attendant	02	-	
E.	***Student Welfare***			
1.	Students Welfare Officer	01*	01	
2.	Assistant	01	-	
F.	***Hostels***			
1.	Chief Warden	01*	-	
2.	Warden	05*	-	

Sl. No.	**Sanctioned staff**	**Staff in Place**	**Vacant post**	**Staff Recommended by the ICAR/UGC/ VCI/other regulatory bodies**
A.	***Establishment Branch***			
3.	Caretaker/Helpers	10***		
G.	***Technical & Supporting Staff for Departments, Estate, Hostels & others***			
1.	Horticulture Assistant	01	-	
2.	Live Stock Assistant/Farm Asstt.	04	01	
3.	Field-cum-Lab-Assistant	21	06	
4.	Multi Tasking Staff (MTS)	47	44	

* Indicate holding additional charge of minimum Assistant Professor Cadre

** Contractual Recognised Medical Practitioner

*** MTS with assigned specific duty

6.4.4. Classrooms and Laboratories:

a) **Number of class rooms**: 13

All class rooms are provided with LCD projectors and audio-visual aids for better delivery of lectures. The faculty use power point presentations to make the concepts/techniques clearly understandable to the students. The important lectures are taught with videos. A table, podium, whiteboards/screen, black board with duster are available in each class room for the use of teachers. A common generator facility supplies power to all theclassrooms to avoid interruption of the class during power failure.

b) **Functional laboratories (**Fruit Science & allied**)** : 13 nos.

Sr. No.	Department/Section	Area (Sq mtr)	Remarks
1.	***Fruit Science***		
	(i) Two Laboratory	98 and 82	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc.
2.	***Vegetable Science***		
	One Laboratory	82	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc.
3.	***Floriculture (O& MAP)***		
	One Laboratory	82	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc.
4.	***Post-Harvest Management***		

	One Laboratory	72	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc. Equipment for processing of horticultural produces.
5	***Forest Product Utilization***		
	Medicinal and Aromatic Plants Laboratory	160	Equipped with all the modern equipments for practical, sitting arrangements, Distillation, extraction facilities, etc.
	Wood Products and Utilization Laboratory	90	Facilities for characterization of morphological, anatomical, mechanical & chemical properties of timber. Other work carried out -wood design, fabrication ,etc.
6	***Tree Improvement & PBG***		
	TIM Laboratory	72	Equipped with instruments for research & practicals. Water basins fitted in the laboratory for proper drainage of water and chemicals..
7	***Basic Sciences***		
	UG Basic Science Laboratory	28	Biochemical, biotechnological & microbiological practical & research needs of students are being fulfilled.
	PG Basic Science Laboratory	28	
	Tissue Culture Laboratory	47	

	Computer Laboratory	48	The lab is used for conducting Practical classes for PG students equipped with 15 computer & 2 printers for student access. Internet band width/ speed: 32Mbps.
Sr. No.	**Department/Section**	**Area (Sq mtr)**	**Remarks**
8	***Plant Protection***		
	Entomology (Biocontrol) Laboratory:	72	Facilities equipped for research work on crop pests management & production of biocontrol agents
	Entomology (IBDC) Laboratory :	85	
	Pathology Laboratory (Mushroom): (Sterlization room,	144	Production of Mushroom spawn and other microbial research work carried-out.
	Boiling room)		
	Pathology (Mushroom inoculation):	45	For inoculating mushroom. The laboratory is also equipped with culturing and spawns production
9	***Natural Resource Management***		
	Soil Science & Agricultural Chemistry Laboratory	100	The laboratory is equipped with various facilities to analyse the soil samples, related to various degree programmes (UG, P.G and Ph.D) of Agriculture, Horticulture and Forestry.

b) Lists major equipments:

The laboratories are well equipped to conduct the practicals/hands on training tothe students with instruments, laboratory tables, basins, irrigation facilities,

electrical and ventilations, adequate wooden furniture etc. The list of instruments/ equipments available in the laboratories are furnished below.

(i). Department of Fruit Science:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Autoclave	13.	Hot Water Bath
2.	Digital Camera	14.	Polymerase Chain Reaction (PCR)
3.	Digital Weighing Balance	15.	Magnetic stirrer Atomic Absorption Spectrophotometer
4.	One Single Distillation Unit	16.	Hand refractometer
5.	One Double D.U	17.	Tissue culture lab Digit
6.	Electronic Balance (two)	18.	Lux meter
7.	Precision Balance	19.	Portable Penitrometer
8.	Hot Air Oven	20.	Flame Photometer
9.	BOD Incubator	21.	Muffle Furnace
10.	Ordinary Balance (Two)	22.	Microwave Oven
11.	Cooling Centrifuge	23.	Tabletop Centrifuge (two)
12.	pH meter	24.	Two Refrigerators (-20^{O}C)

(ii). Department of Vegetable Science:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	pH meter	2.	Conductivity meter
3.	Deep freezer	4.	Magnetic stirrer
5.	Hot air oven	6.	Olympus microscope (Binocular)
7.	Laminar flow	8.	Camera
9.	Seed germinator	10.	Computer with accessories

11. Seed dryer
12. Digital balance
13. Distillation apparatus
14. Lux meter
15. Electronic balance
16. Hand refractometer
17. Horizontal autoclave
18. Dissecting microscope
19. Vertical autoclave
20. Microscope trinocular stereo zoom model carl ziess stemi 2000 C
21. Water bath
22. AC fitted lab facilities
23. Variable volume pipette
24. Tissue culture lab
25. Processing units

(iii) Department of Floriculture (O& MAP)

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	pH meter	**2.**	Incubator
3.	Refrigerator	**4.**	Magnetic stirrer
5.	Hot air oven	**6.**	Digital balance
7.	Seed germinator	**8.**	Camera
9.	Lux meter	**10.**	Computer with accessories
11.	Distillation apparatus	**12.**	Electronic balance
13.	Environmental test chamber	**14.**	Hot plate

iv) Department of Post Harvest management

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Tray drier	**2.**	Hot air oven
3.	Water bath	**4.**	Crown corking machine
5.	Conductivity meter	**6.**	Refractometer
7.	Weighing balance	**8.**	Micro-centrifuge

9. Mechanical shaker	**10.** pH meter

(v) Department of Tree Improvement & Plant Breeding Genetics

S.No.	Name of the equipment	S.No.	Name of the equipment
11.	Digital Magnetic Stirrer	**12.**	Precision Balance
13.	Hot Plate with Magnetic Stirrer	**14.**	Microscope
15.	Water bath	**16.**	Seed drier
17.	Refrigerator	**18.**	Plant press
19.	Seed Germinator	**20.**	Electronic Balance

(vi) Department of Basic Sciences:

UG Basic Science Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	pH meter	**2.**	Centrifuge
3.	Autoclave	**4.**	Microscope
5.	Cooling water bath	**6.**	Refrigerator
7.	Hot plate	**8.**	Ice-flaking machine

PG Basic Science Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Microwave oven	**2.**	Weighing balance
3.	Refrigerator	**4.**	Weighing balance
5.	Oven	**6.**	Microscope

Tissue Culture Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Laminar flow	2.	Weighing machine
3.	HPLC (under repair)	4.	Ultraviolet Transilluminator
5.	PCR Machine	6.	Gas Chromatography

(vii) Department of Plant Protection

Entomology (Biocontrol) Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Autoclave	2.	Fermenter
3.	Binocular microscope (CH20i Olymp)	4.	Humidity cabinet
5.	Distillation unit	6.	Laminar airflow

Entomology (IBDC) Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Honey extractor (10frames)	2.	Honey processing plant (Cap. 250Kg)
3.	Honey bottling machine	4.	Automatic Honey bottle Dryer
5.	Honey Bottle sealing machine	6.	Honey comb foundation mill
7.	Gel Electrophoresis	8.	Refrigerated table top centrifuge
9.	Deep freezer, Water bath (digital)	10.	BOD incubator
11.	Quartz Boiler & Quartz condenser	12.	Autoclave Horizontal
13.	Laminar air flow (Vert.)	14.	Weighing balance
15.	Bionocular microscope	16.	Multimedia projector
17.	Nikon Camera d5300	18.	Water Bath
19.	Serological Water bath	20.	Distillation unit

Pathology Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Autoclave	**2.**	Chalk powder mixture
3.	Grain Boiler	**4.**	Spawn Bag filler
5.	Laminar flow	**6.**	Distillation Unit
7.	Shrink wrap machine	**8.**	Microscope (Zeiss)
9.	Spectrophotometer	**10.**	Micro-oven
11.	Refrigerator	**12.**	Hygrometer
13.	Camera lucida	**14.**	Stage & ocular micrometer
15.	Haemocytometer	**16.**	Student microscope
17.	Digital balance	**18.**	BOD incubator
19.	Illuminator		

(viii) Department of Natural Resource Management

Soil Science & Agricultural Chemistry Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Hot Air Oven	**2.**	Hot Plate
3.	Water Bath	**4.**	Plastic Jars
5.	Mechanical Shaker	**6.**	pH Meter
7.	Required Glasswares & plasticwares	**8.**	EC Meter
9.	Required Reagents	**10.**	Analytical Balance
11.	Keen Box	**12.**	Nitrogen Analyser

13.	Moisture Box	**14.**	Colorimeter
15.	Single Distillation Set / Unit	**16.**	Spectrophotometer
17.	Double Distillation Set / Unit	**18.**	Flame Photometer
19.	Sieves	**20.**	Wooden Mallet
21.	Atomic Absorption Spectrophotometer		

Forest Surveying/ Engineering Facility

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Total Station	**2.**	Plane table with accessories
3.	Dumpy Level	**4.**	Chain Surveying& accessories
5.	Abney's Level	**6.**	GPS
7.	Hand Level	**8.**	Digital Planimeter
9.	Current Meter	**10.**	Levelling survey accessories

Farm Power, Machineries and Irrigation Infrastructures

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Tractor 275 DI	**2.**	Tractor 575 DI
3.	Tractor 605 DI	**4.**	Tractor Bull Excavator
5.	Rotavator	**6.**	Cultivator
7.	Disc Harrow	**8.**	M.B. Plough
9.	Disc Plough	**10.**	Tractor Operated Potato Planter
11.	Tractor Operated Sprayer	**12.**	Ridge Maker

13. Tractor operated Seed Drill
14. Trolley
15. Tanker
16. Multi crop Thresher
17. Tractor Operated Lawn Mower
18. Power Tiller
19. Sprinkler Irrigation System
20. Drip Irrigation System
21. Hand Tools & Implements
22. Sprayers

d) Laboratories

College of Horticulture and Forestry, Pasighat which is well equipped to conduct practical classes for UG, PG and PhD programmes .

Table 1: The area covered under the laboratories of different departments are as follows :

Sl. No.	Laboratories under different departments	Area (sq. meter)
1.	Soil Science	150
2.	Plant Pathology	95
3.	Entomology	20
4.	Genetics and Plant Breeding	74
5.	Agronomy	90
6.	Plant Biotechnology	90
7.	Plant Biochemistry	90
8.	Horticulture	
i.	Post-harvest	90
ii.	Floriculture	90
iii.	Vegetable Science	90
iv.	Fruit Science	90
9.	Statistics, Computer Application & IPR	59

Besides these laboratories, the following facilities are also available at College of Horticulture and Forestry, Pasighat.

Infrastructure facilities available in CHF Pasighat

Infrastructure	Area (sq. meter)
Workshop	1000
Dairy Plant	90
Poultry Unit	72
Pond	1500

The water from the pond is used for the purpose of drip and sprinkler irrigation, gravity fed irrigation etc. The workshop which is maintained by the Engineering Unit is well designed with sufficient land area and build infrastructure with required farm machineries such as tractors, power tillers, cultivators, leveller, rotavator, and other farm implements for day to day work related to research purpose.

Instructional Farm

A total of 16 instructional farms are established under various departments of the college, the details of which are listed below:

Department wise infrastructural details of CHF Pasighat

Department/Section	Area (Sq.mtr.)	Facilities available
Natural Resource Management		
1. Farm Power & Irrigation Infrastructures	1500	• Run-off Experiment Facility • Rain water Harvesting Based Integrated Horticulture Farming System • WHP=5 Lakh Litre Capacity • 5Hp Solar Pumping System • Naturally Ventilated Greenhouse= 30m×7m • Drip irrigation system operated bySolar Pump • Sprinkler Irrigation System operatedby solar pump • Gravity fed drip Irrigation System in 500sq.m area • Basic Power Machineries available
2. AgrometeorologyObservatory	500	• Meteorological observation data for Research and Academic purpose

Horticulture		
3. Medicinal & Aromatic plant farm 4. Medicinal plant germplasm block	12000	• Germplasm of Medicinal and Aromatic Plants • Collection of rare and endangered spps.

		• Nursery beds • Shade houses/roofs • Irrigation & electric facilities
5. Herbal garden	10000	• More than 160 species • Research, conservation & identification purpose
6. Floriculture and Landscaping	20000	• 8 nos. polyhouses • Germplasm bank of orchids & native ornamental plants • Commercial cut flower block of orchids, anthurium, gerbera, and heliconia • Collection of indoors plants, cactus and annual flowers
7. Vegetables science	35543	• Demonstration block on nutrition garden and other vegetable crops • Turmeric and spices processing unit • Hi-tech poly house (3 nos.) • Naturally ventilated polyhouses (2 nos.) • Water harvesting tanks • Solar power operated sprinkler irrigation system • Local vegetable garden • Vegetable nursery block
8. Fruit Department	98525	• Fruit nursery block • Demonstration & experimental block of coconut, passion fruit block, litchi, Jack fruit, Aonla, cashewnut, Mango, banana, Oil palm, Pumello and Assam lemon.
9. PBG farm	1800	• Nursery raised bed= 20 Nos. • Shade net house (15x15m) • Tokkopatta shade roofs: 10nos.

		• Arboretum 1100 sq. mtr. • Irrigation & electricity setups
Plant Protection		
10. Entomology (Biocontrol) Farm	4047	• Nursery Beds, Research plots • Water Pump with motor, Irrigation & electricity setups
11. Entomology (IBDC) Farm	2023	• All equipment's of beekeeping • Irrigation facility • Plots for nectar yielding plant
12. Pathology Farm	1083	• Disease Diagnostic Field • Students demonstration plot • Nursery beds • irrigation & electric facilities.
13. Paddy straw boiling unit and mushroom House	1350	• Boiling unit • Facilities for mushroom culture & production • Unit has more than 250 species of edible and poisonous mushroom species

(e) Justification:

The laboratories, nurseries and orchards under the Department of Fruit Science aswell as those of all other supporting departments are well equipped with all the necessary equipments and facilities to accomplish the proposed research activities. All the basicchemicals and instruments are available for doing practical and research work in all the laboratories, nurseries and orchards. The Farm facilities, workshops and other instructional units are well designed with sufficient land area and build infrastructure, irrigation, electricityand required farm machineries supported with tractors, power tillers, cultivators, leveller, rotavator, and other farm implements for day to day work and research purpose to meet the course curricula and research requirements.

(f) Theory and practical batches for the Degree Programme: the numbers of intake students are manageable due to limited number of seats.

Average number of students in theory & practical classes at any time of the year:

S.N.	Particulars of curricula	Batch of student in *Theory*	Batch of student in *Practical*
1.	Fruits (Major)	6	6

2.	Supporting courses	6	6

The class rooms and laboratories are sufficient enough to meet course curricula requirement of the degree programme.

6.4.5. Conduct of Practical and Hands-on-Training:

a) On the basis of academic calendar prepared by the university for the academic sessionfor the effective implementation of the curriculum, the theory and practical classes areconducted at the experimental fields and laboratories of the Department of Fruit Science and allied departments. The PG and Ph.D courses involve conducting practical's as per credits allotted to the specified courses and hands on training and field/lab practical's for courses.

b) Besides in-house projects, PG and Ph.D Scholars are sent as and when required by thecollege to reputed institutions such as AAU, Jorhat, BCKV, Kalyani, ICAR-NEHR, Umiam, NEHU, Shillong, IIHR, Banglaore, IARI, New Delhi etc. to complete their analysis associated with their research projects or vital topics under curriculum. Educational trips of students to centres like State Horticulture Farm, Shergaon (West Kameng, Ar. Pradesh) not only provide practical exposure to students but also help in proper networking and interaction between the college and research institutions/ industries.

c) With regular guidance of Statistics faculty of the college, hands-on-training for ICT tools and technology such as statistical softwares, MS office, LCD is encouraged in teaching learning and evaluation process.

d) PG and Ph. D Scholars are encouraged to participate in the in-house as well as off- campus conferences, seminars, workshops, brainstorming etc.

6.4.6. Supervision of students in PhD Fruit Science: (number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.)

S.No	Department	Qualified faculty	Present nos. of students	Intake, as per guidelines (Max.)		
				Assistant Professor	Associate Professor	Professor
1.	Fruits	4	8	4	5	6

6.4.7. Feedback of stakeholders (Students, Parents, industries, employers, farmersetc

The faculty usually get the feedback from the students who have graduated from the college on various aspects like the contents of the course, teaching skills of thefaculty, learning experience, assessment process, etc. The feedback is also taken fromthe parents on the performance of the students and the facilities available in the college. The details of the feedback received from the students and parents are givenin Annexure 1.

6.4.8. Student intake and attrition in the Ph. D. (Horticulture) in Fruit Science programme for last five years:

Sl. No.	Year (Session)	Student Intake	Student Attrition (%)
1.	2015-16	2	0
2.	2016-17	2	0
3.	2017-18	2	0
4.	2018-19	2	0
5.	2019-20	2	0
6.	2020-21	3	0

The rate of attrition from the Ph. D Fruit Science is Nil

6.4.9. ICT Application in Curricula Delivery:

(a) The college has well-equipped air conditioned **Computer lab** with a plinth area of 80 square meter. The students are being taught about the IT facilities. The computer centre is equipped with Desktops for the use of staff and students of this institute. All these desktops and laptops are connected with internet for browsing. Since October,2020 the computer centre is connected with 24x7 34 Mbps ,Internet Accessthrough BSNL . The facilities available in the computer lab are:

a) 24 hours x 7 days / week free Internet access (32 Mbps) to students

b) Wi-Fi enabled in the New Academic Block (since 2015) to use e-communications for students and staffs.

c) Students are trained to install open source software.

d) Computers with Internet access are available in all departments.

e) Academic buildings are linked with Administrative building through OpticFibre Cable (OFC).

f) Total number of computers for public access: 15

g) Total numbers of printers for public access: 02

h) Internet band width/ speed: 34 Mbps through BSNL

i) The lab is used for conducting Practical classes for UG and PG students.

j) Students also use the Computer Lab for their research, statistical calculation and other academic activities.

k) The academic, research, extension activities of the college are updated regularly at the college website from time to time.

(b) The college **Library** is equipped with internet facilities with, through which staffand students would be able to access OPAC (Online Public Access Catalogue) URL = www.chfcau.ideal.egranth.ac.in.

a) The Library Two Software : (i) Alice for Window (Softlink Asia pvt.ltd) Offline and (ii) Koha Library management Software

b) Electronic Resource Management package for e-journals Access through CeRA ICAR (Consortia for e-Resources in Agriculture): www.cera.jccc.in

c) CAB data base: access facility (CAB data from 1972 to 2005)

d) Krishikosh (e-theses etc. Institutional Repository of ICAR) all M.Sc. andPh.D. Theses uploaded. It is open repository. **URL: Krishikosh.egranth .ac.in**

e) Library automation: under process through Koha Library managementsoftware

f) Total number of computers for public access in library: 06

Besides, the Department of Fruit Science takes keen interest in ICT application in curricula delivery through platforms like adoption of audio-visual aids in teaching and learning, engagement of online mode of teaching-learning through Google Meet, Zoom, Google Classroom, sharing of information and study materials using WhatsApp.

c) The College of Horticulture and Forestry, Pasighat has upgraded to ***2*** **Nos**. of smartclassrooms for teaching and practical purposes.

d) Language Laboratory:

Recently the College has setup 30 seater Language Laboratory with 32 nos.of computers for teaching and practicals of the students. A **language laboratory** is a dedicated space for foreign language learning where students access audio or audio-visual materials. They allow a teacher to listen to and manage student audio, which is delivered to individual students through headsets or in isolated 'sound booths.

6.4.11 The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, as applicable, separately.

6.4.12 Since the accreditation of Programmes is related to the AI India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.13 Certificate (Applicable when SSR is submitted for Programmes)

I, the Dean Prof. [illegible] hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Date 05/2021

Signature of Dean of the College
with Date & Seal

Dean
College of Fisheries & Forestry
Central Agricultural University
Pasighat-791102 (A.P.)

ANNEXURE- I

Feedback from pass out students

S.N.	Scholars / Parameters	Ranking given by pass out students				
		Dr. Ashok Chhetri	Dr. Lakidon Khonglah	Dr. Thejangulie Angami	Dr. Amrita Thokchom	Dr. N. Begane
	Admn. No.	02H (P)-15	05H (P)-15	01H (P)- 17	02H (P)-16	04H(P)-2016
	Ph. D Program	(2015-2019)	(2015-2019)	(2017-2020)	(2016-19)	(2016-20)
1	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation	**1**	**2**	**2**	**1**	**2**
2	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	**1**	**2**	**3**	**1**	**1**
3	Teaching quality, fairnessin the assessment processes (Internal evaluation, Quiz, Assignments, etc.)and freedom to adopt new techniques/educationtools	**1**	**1**	**2**	**1**	**2**
4	Opportunities in the College for Research Activities & Relevance with Practical / Lab work	**1**	**1**	**2**	**2**	**1**

5	Curriculum has prospects for supporting higher education, career orientated /employability.	**1**	**2**	**2**	**1**	**2**
6	Overall Learning Experience	**1**	**1**	**2**	**1**	**2**
***Please give your valuable feedback on curriculum to improve quality of the programme. Select your ranking on the scale of 1 to 5 for each of the following parameters. (1- Excellent, 2- Very good, 3- Good, 4- Fair, 5- Poor)**						

PARENTS FEEDBACK FORM

1. **Name of the Parent/Guardian: Mr. Raju Chhetri**
2. **Occupation: Government servant**
3. **Address: Vill: Alloychera, P/O: Manpatha Manu – 799144, South Tripura, Tripura**
4. **Mobile no.: 7005484511**
5. **Email id:- ashokbruchhetri@gmail.com**
6. **Name of the ward:** Dr. Ashok Chhetri
7. **Feedback (Please tick the appropriate box):**

S.No.	Parameters	Excellent (5)	Very good (4)	Good (3)	Fair (2)	Poor (1)
1.	Assessment about the teaching / learning process in the institute	√				
2.	Knowledge/technical skills acquired by the student	√				
3.	Rating about the institute discipline		√			
4.	Overall infrastructural facilities of the institute		√			
5.	Extra-curricular activities	√				
6.	Learning resources (Library, Computer, Internet, Wifi)				√	
7.	Counselling/guidance		√			
8.	Overall rating about the institute		√			
	management					

Signature: **Mr. Raju Chhetri**

PARENTS FEEDBACK FORM

1. **Name of the Parent/Guardian: Mr. Thokchom Joykumar Singh**
2. **Occupation: Rt. Agriculture Officer**
3. **Address: Sagolband Salam Leikai, Imphal, Manipur - 7950014. Mobile no.: 9436036608**
5. **Name of the ward:** Dr. Amrita Thokchom
6. **Feedback (Please tick the appropriate box):**

S.No.	Parameters	Excellent (5)	Very good (4)	Good (3)	Fair (2)	Poor (1)
1.	Assessment about the teaching / learning process in the institute	√				
2.	Knowledge/technical skills acquired by the student		√			
3.	Rating about the institute discipline	√				
4.	Overall infrastructural facilities of the institute		√			
5.	Extra-curricular activities		√			
6.	Learning resources (Library, Computer, Internet, Wifi)		√			
7.	Counselling/guidance	√				
8.	Overall rating aboutthe institute management	√				

Suggestions, if any as to how this institution can help its students even more**:**Signature: **Mr. Thokchom Joykumar Singh**

PARENTS FEEDBACK FORM

1. **Name of the Parent/Guardian: Mr. Dinesh B.M.**
2. **Occupation: Agriculturist**
3. **Address: Begane, Sringeri (Tq.), Chikmagalur (D), Karnataka - 5771394. Mobile no.: 9483355221**
5. **Name of the ward:** Dr. Nesara Begane
6. **Feedback (Please tick the appropriate box):**

S.No.	Parameters	Excellent (5)	Very good (4)	Good (3)	Fair (2)	Poor (1)
1.	Assessment about the teaching / learning process in the institute	√				
2.	Knowledge/technical skills acquired by the student		√			
3.	Rating about the institute discipline	√				
4.	Overall infrastructural facilities of the institute		√			
5.	Extra-curricular activities		√			
6.	Learning resources (Library, Computer, Internet, Wifi)		√			
7.	Counselling/guidance	√				
8.	Overall rating aboutthe institute management		√			

Suggestions, if any as to how this institution can help its students even more**:**Signature: **Mr. Dinesh B.M.**

PARENTS FEEDBACK FORM

1. **Name of the Parent/Guardian: Mr. Elia Sasi Angami**
2. **Occupation: Govt. Servant**
3. **Address: Notun Basti, Dimapur, Nagaland4. Mobile no.: 9957172143**
5. **Email id:-**

6. **Name of the ward:** Dr. Thejangulie Angami

7. **Feedback (Please tick the appropriate box):**

S.No.	Parameters	Excellent (5)	Very good (4)	Good (3)	Fair (2)	Poor (1)
1.	Assessment about the teaching / learning process in the institute		√			
2.	Knowledge/technical skills acquired by the student		√			
3.	Rating about the institute discipline		√			
4.	Overall infrastructural facilities of the institute		√			
5.	Extra-curricular activities		√			
6.	Learning resources (Library, Computer, Internet, Wifi)			√		
7.	Counselling/guidance		√			
8.	Overall rating aboutthe institute management		√			

Suggestions, if any as to how this institution can help its students even more**:**

Signature: **Mr. Elia Sasi Angami**

SELF STUDY REPORT PH.D. HORTICULTURE (VEGETABLESCIENCE)

COLLEGE OF HORTICULTURE & FORESTRY CENTRAL AGRICULTURAL UNIVERSITY, PASIGHATARUNACHAL PRADESH

SUBMITTED TO

NATIONAL AGRICULTURAL EDUCATIONACCREDITATION BOARD

ICAR, NEW DELHI

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6.4 SELF STUDY REPORT FOR PH.D. HORTICULTURE (VEGETABLESCIENCE)

6.4.1 Brief History of the Degree Programme:

College of Horticulture & Forestry is a constituent College of the Central Agricultural University, Imphal, Manipur and was established on 7th March, 2001 at Pasighat, Arunachal Pradesh on the bank of beautiful river Siang. The college offers B.Sc. (Hons.) Horticulture, B.Sc. (Hons.) Forestry, M.Sc. (Horticulture), M.Sc. (Forestry) and Ph.D. (Horticulture) with specialization in Fruits and Vegetable Science. The college has 11 departments. The curriculum and syllabi of all degree programmes are updated and implementing as per the ICAR – Vth Deans' Committee Recommendations.

Doctor of Philosophy (Horticulture) in Vegetable Science was started in August, 2014. The department is engaged in teaching, research and extension activities for promoting horticulture in general and Vegetable Science in particular. The objectives of the department are:

- ✓ To impart quality education for the undergraduate, postgraduate and Ph.D. level.
- ✓ To carry out research for standardization of agro techniques and identification/development of improved varieties in important vegetables of the region.
- ✓ To strengthen the research farm for post graduate and Ph.D. research works and practical teaching works for under graduate, post graduate and Ph.D. students.
- ✓ To disseminate the identified/proven technologies to the farming community through various extension activities.

Accomplishments:

Four students have been awarded the degree of Doctor of Philosophy (Horticulture) inVegetable Science from this college. Another eight students are presently pursuing Doctor of Philosophy (Horticulture) in Vegetable Science in the college. Details of the passed out students are as given below.

1. Dr. Lalhmingsanga is presently working as Asst. Professor (Horticulture) at MTTC & VTC, Mizoram under Central Agricultural University, Manipur.
2. Dr. A.K. Alice is presently working as Research Associate under AICRP on Potato, College of Horticulture & Forestry, AAU, Pasighat, Arunachal Pradesh.
3. Dr. Vikash Kumar is presently working as Subject Matter Specialist (SMS) at KVK, Nawada, Bihar.
4. Dr. Mohd Talha Ansari is presently working as Junior Research Fellow (JRF), DST SHRI Project, Department of Plant Protection, College of Horticulture and Forestry,CAU, Pasighat, Arunachal Pradesh.

6.4.2 Faculty Strength

Table 1: Faculty Strength under the Dept. of Vegetable Science:

Sl. No.	Sanctioned Faculty	Faculty in Place	Vacant Position	Faculty Recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1 (till 29th July, 2020)	1	1
2.	Associate Professor	2	-	1
3.	Assistant Professor	2 (3 -till 25th Dec, 2020)	-	4

Table 2: Faculty Strength of the Supporting Departments:

Sl.No.	Sanctioned Faculty	Faculty in Place	Vacant Position	Faculty Recommended by the ICAR/UGC/VCI/other regulatory bodies
	Department of Fruit Science			
1	Professor	-	1	1
2	Associate Professor	1	1	2
3	Assistant Professor	4	-	3
	Department of Basic Sciences & Social Science			
1	Professor	-	-	1
2	Associate Professor	2	-	2
3	Assistant Professor	9	-	6
	Department of Plant Protection			
1	Professor	1	-	-
2	Associate Professor	2	-	-
3	Assistant Professor	3	-	-
	Department of Natural Resource Management			
1	Professor	1	-	1
2	Associate Professor	2	-	2
3	Assistant Professor	2	-	4

6.4.3 Technical and Supporting Staff

Table 3: Technical and Supporting staff under Dept. of Vegetable Science:

Sl. No.	Sanctioned staff	Staff in Place	Vacant Position	Faculty Recommended by the ICAR/UGC/VCI/other regulatory bodies

1.	FCLA	2	-	-
2.	LDC	1	-	-

Table 4: Technical and Supporting staff of the College:

Sl. No.	Sanctioned staff	Staff in Place	Vacant post	Staff Recommended by the ICAR/UGC/ VCI/other regulatory bodies
A.	***Establishment Branch***			
1.	Assistant Registrar (Estt.)	01	-	
2.	Assistant Registrar (Acad.)	-	02	
3.	Assistant Comptroller	-	01	
4.	Security Officer	-	01	
5.	Accountant	01	02	
6.	UDC	02	-	
7.	Clerk-cum-Typist/LDC	11	10	
8.	Computer operator	01	-	
9.	Security Guard	02	-	
B.	***Estate Branch***			
1.	Asstt.Engineer/Asstt. Estate Officer	01	-	
2.	Junior Engineer (Civil & Mechanical)	02	-	
3.	Electrician	01	-	
4.	Plumber	01	01	
5.	Drivers including Tractor Driver	05	04	
C.	***Library***			
1.	Librarian	01	-	
2.	Sr. Library Assistant	-	01	
3.	Library Assistant	03	-	
D.	***Health***			
1.	Medical Officer	01**	01	
2.	Compounder cum Dresser	01	-	
3.	Medical Attendant	02	-	
E.	***Student Welfare***			
1.	Students Welfare Officer	01*	01	
2.	Assistant	01	-	
F.	***Hostels***			
1.	Chief Warden	01*	-	
2.	Warden	05*	-	
3.	Caretaker/Helpers	10***		

Sl. No.	Sanctioned staff	Staff in Place	Vacant post	Staff Recommended by the ICAR/UGC/ VCI/other regulatory bodies
A.	***Establishment Branch***			
G.	***Technical & Supporting Staff for Departments, Estate, Hostels & others***			
1.	Horticulture Assistant	01	-	
2.	Live Stock Assistant/Farm Asstt.	04	01	
3.	Field-cum-Lab-Assistant	21	06	
4.	Multi Tasking Staff (MTS)	47	44	

* Indicate holding additional charge of minimum Assistant Professor Cadre

** Contractual Recognised Medical Practitioner

*** MTS with assigned specific duty

6.4.4 Classrooms and Laboratories:

Classrooms: Total thirteen classrooms are available in the college. All class rooms are provided with LCD projectors and audio-visual aids for better delivery of lectures. The faculty use power point presentations to make the concepts/techniques clearly understandable to the students. The important lectures are taught with videos. A table, podium, whiteboards/screen, black board *etc*. are available in each class room for the use of teachers. A common generator facility supplies power to all the classrooms to avoid interruption of the class during power failure.

Laboratories: Section wise availability of laboratories are as given below:

a) **Functional laboratories (**Vegetable Science & allied**)** : 13 nos.

Sr. No.	Department/Section	Area (Sq mtr)	Remarks
1.	***Fruit Science***		

	(i) Two Laboratory	98 and 82	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc.
2.	***Vegetable Science***		
	e Laboratory	82	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc.
3.	***Floriculture (O&MAP)***		
	One Laboratory	82	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc.
4.	***Post-Harvest Management***		
	One Laboratory	72	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc. Equipment for processing of horticultural produces.
5	***Tree Improvement & PBG***		
	TIM Laboratory	72	Equipped with instruments for research & practicals. Water basins fitted in the laboratoryfor proper drainage of water and chemicals..

6	***Basic Sciences***		
	UG Basic Science Laboratory	28	Biochemical, biotechnological& microbiological practical & research needs of students are being fulfilled.
	PG Basic Science Laboratory	28	
	Tissue Culture Laboratory	47	
	Computer Laboratory	48	The lab is used for conducting Practical classes for PG students equipped with 15 computer & 2 printers for student access. Internet band width/ speed: 32Mbps.
7	***Plant Protection***		
	Entomology (Biocontrol) Laboratory:	72	Facilities equipped for research work on crop pests management & production of biocontrol agents
	Entomology (IBDC) Laboratory :	85	
	Pathology Laboratory (Mushroom): (Sterlization room, Boiling room)	144	Production of Mushroom spawn and other microbial research work carried-out.
	Pathology (Mushroom inoculation):	45	For inoculating mushroom. The laboratory is also equipped with culturing and spawns production
8	***Natural Resource Management***		

	Soil Science & Agricultural Chemistry Laboratory	100	The laboratory is equipped with various facilities to analyse the soil samples, related to various degree programmes (UG, P.G and Ph.D) of Agriculture, Horticulture and Forestry.

b) Lists major equipments:

The laboratories are well equipped to conduct the practicals/hands on training tothe students with instruments, laboratory tables, basins, irrigation facilities, electrical and ventilations, adequate wooden furniture etc. The list of instruments/ equipments available in the laboratories are furnished below.

(i). Department of Fruit Science:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Autoclave	**13.**	Hot Water Bath
2.	Digital Camera	**14.**	Polymerase Chain Reaction (PCR)
3.	Digital Weighing Balance	**15.**	Magnetic stirrer Atomic Absorption Spectrophotometer
4.	One Single Distillation Unit	**16.**	Hand refractometer
5.	One Double D.U	**17.**	Tissue culture lab Digit
6.	Electronic Balance (two)	**18.**	Lux meter
7.	Precision Balance	**19.**	Portable Penitrometer
8.	Hot Air Oven	**20.**	Flame Photometer
9.	BOD Incubator	**21.**	Muffle Furnace
10.	Ordinary Balance (Two)	**22.**	Microwave Oven

11.	Cooling Centrifuge	**23.**	Tabletop Centrifuge (two)
12.	pH meter	**24.**	Two Refrigerators (-20OC)

(ii). Department of Vegetable Science:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	pH meter	**2.**	Conductivity meter
3.	Deep freezer	**4.**	Magnetic stirrer
5.	Hot air oven	**6.**	Olympus microscope (Binocular)
7.	Laminar flow	**8.**	Camera
9.	Seed germinator	**10.**	Computer with accessories
11.	Seed dryer	**12.**	Digital balance
13.	Distillation apparatus	**14.**	Lux meter
15.	Electronic balance	**16.**	Hand refractometer
17.	Horizontal autoclave	**18.**	Dissecting microscope
19.	Vertical autoclave	**20.**	Microscope trinocular stereo zoom model carl ziess stemi 2000 C
21.	Water bath	**22.**	AC fitted lab facilities
23.	Variable volume pipette	**24.**	Tissue culture lab
25.	Processing units		

(iii) Department of Floriculture (O& MAP)

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	pH meter	**2.**	Incubator
3.	Refrigerator	**4.**	Magnetic stirrer

5.	Hot air oven	**6.**	Digital balance
7.	Seed germinator	**8.**	Camera
9.	Lux meter	**10.**	Computer with accessories
11.	Distillation apparatus	**12.**	Electronic balance
13.	Environmental test chamber	**14.**	Hot plate

iv) Department of Post Harvest management

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Tray drier	**2.**	Hot air oven
3.	Water bath	**4.**	Crown corking machine
5.	Conductivity meter	**6.**	Refractometer
7.	Weighing balance	**8.**	Micro-centrifuge
9.	Mechanical shaker	**10.**	pH meter

(v) Department of Tree Improvement & Plant Breeding Genetics

S.No.	Name of the equipment	S.No.	Name of the equipment
11.	Digital Magnetic Stirrer	**12.**	Precision Balance
13.	Hot Plate with Magnetic Stirrer	**14.**	Microscope
15.	Water bath	**16.**	Seed drier
17.	Refrigerator	**18.**	Plant press
19.	Seed Germinator	**20.**	Electronic Balance

(vi) Department of Basic Sciences:

UG Basic Science Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	pH meter	**2.**	Centrifuge

3.	Autoclave	**4.**	Microscope
5.	Cooling water bath	**6.**	Refrigerator
7.	Hot plate	**8.**	Ice-flaking machine

PG Basic Science Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Microwave oven	**2.**	Weighing balance
3.	Refrigerator	**4.**	Weighing balance
5.	Oven	**6.**	Microscope

Tissue Culture Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Laminar flow	**2.**	Weighing machine
3.	HPLC (under repair)	**4.**	Ultraviolet Transilluminator
5.	PCR Machine	**6.**	Gas Chromatography

(vii) Department of Plant Protection

Entomology (Biocontrol) Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Autoclave	**2.**	Fermenter
3.	Binocular microscope (CH20i Olymp)	**4.**	Humidity cabinet
5.	Distillation unit	**6.**	Laminar airflow

Entomology (IBDC) Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Honey extractor (10frames)	2.	Honey processing plant (Cap. 250Kg)
3.	Honey bottling machine	4.	Automatic Honey bottle Dryer
	Pathology Laboratory:		
5.	Honey Bottle sealing machine	6.	Honey comb foundation mill
7.	Gel Electrophoresis	8.	Refrigerated table top centrifuge
9.	Deep freezer, Water bath (digital)	10.	BOD incubator
11.	Quartz Boiler & Quartz condenser	12.	Autoclave Horizontal
13.	Laminar air flow (Vert.)	14.	Weighing balance
15.	Bionocular microscope	16.	Multimedia projector
17.	Nikon Camera d5300	18.	Water Bath
19.	Serological Water bath	20.	Distillation unit

(viii) Department of Natural Resource Management

Soil Science & Agricultural Chemistry Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Autoclave	2.	Chalk powder mixture
3.	Grain Boiler	4.	Spawn Bag filler
5.	Laminar flow	6.	Distillation Unit
7.	Shrink wrap machine	8.	Microscope (Zeiss)
9.	Spectrophotometer	10.	Micro-oven
11.	Refrigerator	12.	Hygrometer
13.	Camera lucida	14.	Stage & ocular micrometer
15.	Haemocytometer	16.	Student microscope
17.	Digital balance	18.	BOD incubator
19.	Illuminator		

S.No.	Name of the equipment	S.No.	Name of the equipment

1.	Hot Air Oven	**2.**	Hot Plate	
3.	Water Bath	**4.**	Plastic Jars	
5.	Mechanical Shaker	**6.**	pH Meter	
7.	Required Glasswares & plasticwares	**8.**	EC Meter	***Forest Surveying/ Engineering Facility***
9.	Required Reagents	**10.**	Analytical Balance	
11.	Keen Box	**12.**	Nitrogen Analyser	
13.	Moisture Box	**14.**	Colorimeter	
15.	Single Distillation Set / Unit	**16.**	Spectrophotometer	
17.	Double Distillation Set / Unit	**18.**	Flame Photometer	
19.	Sieves	**20.**	Wooden Mallet	
21.	Atomic Absorption Spectrophotometer			

S.No.	**Name of the equipment**	**S.No.**	**Name of the equipment**
1.	Total Station	**2.**	Plane table with accessories
3.	Dumpy Level	**4.**	Chain Surveying& accessories
5.	Abney's Level	**6.**	GPS
7.	Hand Level	**8.**	Digital Planimeter
9.	Current Meter	**10.**	Levelling survey accessories

Farm Power, Machineries and Irrigation Infrastructures

S.No.	**Name of the equipment**	**S.No.**	**Name of the equipment**
1.	Tractor 275 DI	**2.**	Tractor 575 DI
3.	Tractor 605 DI	**4.**	Tractor Bull Excavator

5.	Rotavator	**6.**	Cultivator
7.	Disc Harrow	**8.**	M.B. Plough
9.	Disc Plough	**10.**	Tractor Operated Potato Planter
11.	Tractor Operated Sprayer	**12.**	Ridge Maker
13.	Tractor operated Seed Drill	**14.**	Trolley
15.	Tanker	**16.**	Multi crop Thresher
17.	Tractor Operated Lawn Mower	**18.**	Power Tiller
19.	Sprinkler Irrigation System	**20.**	Drip Irrigation System
21.	Hand Tools & Implements	**22.**	Sprayers

c) Laboratories

College of Horticulture and Forestry, Pasighat which is well equipped to conduct practical classes for UG, PG and PhD programmes .

Table 5: The area covered under the laboratories of different departments are asfollows :

Sl. No.	Laboratories under different departments	Area (sq. meter)
1.	Soil Science	150
2.	Plant Pathology	95
3.	Entomology	20
4.	Genetics and Plant Breeding	74
5.	Agronomy	90
6.	Plant Biotechnology	90
7.	Plant Biochemistry	90
8.	Horticulture	
i.	Post-harvest	90
ii.	Floriculture	90
iii.	Vegetable Science	90
iv.	Fruit Science	90
9.	Statistics, Computer Application & IPR	59

Besides these laboratories, the following facilities are also available at College of Horticulture and Forestry, Pasighat.

Table6: Infrastructure facilities available in CHF Pasighat

Infrastructure	Area in Sq Km.
Workshop	1000
Dairy Plant	90
Poultry Unit	72
Pond	1500

The water from the pond is used for the purpose of drip and sprinkler irrigation, gravity fed irrigation etc. The workshop which is maintained by the Engineering Unit is well designed with sufficient land area and build infrastructure with required farm machineries such as tractors, power tillers, cultivators, leveller, rotavator, and other farm implements for day to day work related to research purpose.

Instructional Farm

A total of 16 instructional farms are established under various departments of the college, the details of which are listed below:

Table 7: Department wise infrastructural details of CHF Pasighat

Department/Section	Area (Sq.mtr.)	Facilities available
Natural Resource Management		
1. Farm Power & Irrigation Infrastructures	1500	• Run-off Experiment Facility • Rain water Harvesting Based Integrated Horticulture Farming System • WHP=5 Lakh Litre Capacity • 5Hp Solar Pumping System • Naturally Ventilated Greenhouse= 30m×7m • Drip irrigation system operated bySolar Pump • Sprinkler Irrigation System operatedby solar pump • Gravity fed drip Irrigation System in 500sq.m area • Basic Power Machineries available
2. AgrometeorologyObservatory	500	• Meteorological observation data for Research and Academic purpose

Horticulture		
3. Medicinal & Aromatic plant	12000	• Germplasm of Medicinal and Aromatic

farm 4. Medicinal plant germplasm block		Plants • Collection of rare and endangered spps. • Nursery beds • Shade houses/roofs • Irrigation & electric facilities
5. Herbal garden	10000	• More than 160 species • Research, conservation & identification purpose
6. Floriculture and Landscaping	20000	• 8 nos. polyhouses • Germplasm bank of orchids & native ornamental plants • Commercial cut flower block of orchids, anthurium, gerbera, and heliconia • Collection of indoors plants, cactus and annual flowers
7. Vegetables science	35543	• Demonstration block on nutrition garden and other vegetable crops • 3 climate controlled polyhouses • 2 GI fabricated • Low cost polyhouses (1 no.) • Turmeric and spices processing unit • Hi-tech poly house (3 nos.) • Naturally ventilated polyhouses (2 nos.) • Water harvesting tanks • Solar power operated sprinkler irrigation system • Local vegetable garden • Vegetable nursery block
8. Fruit Department	98525	• Fruit nursery block • Demonstration & experimental block of coconut, passion fruit block, litchi, Jack fruit, Aonla, cashewnut, Mango, banana, Oil palm, Pumello and Assam lemon.

9. PBG farm	1800	• Nursery raised bed= 20 Nos. • Shade net house (15x15m) • Tokkopatta shade roofs: 10nos.
		• Arboretum 1100 sq. mtr. • Irrigation & electricity setups
Plant Protection		
10. Entomology (Biocontrol) Farm	4047	• Nursery Beds, Research plots • Water Pump with motor, Irrigation & electricity setups
11. Entomology (IBDC) Farm	2023	• All equipment's of beekeeping • Irrigation facility • Plots for nectar yielding plant
12. Pathology Farm	1083	• Disease Diagnostic Field • Students demonstration plot • Nursery beds • irrigation & electric facilities.
13. Paddy straw boiling unit and mushroom House	1350	• Boiling unit • Facilities for mushroom culture & production • Unit has more than 250 species of edible and poisonous mushroom species

Justification:

The laboratories, nurseries and demonstration units under the Department of Vegetable Science as well as those of all other supporting departments are well equipped withall the necessary equipments and facilities to accomplish the proposed research activities.

All basic chemicals and instruments are available for doing practical and research work in all the laboratories, nurseries and orchards. The farm facilities, workshops and other instructional units are well designed with sufficient land area and build infrastructure, irrigation, electricity and required farm machineries supported with tractors, power tillers, cultivators, leveller, rotavator and other farm implements for day to day work and research purpose to meet the course curricula and research requirements.

Theory and practical batches for the Degree Programme: The numbers of intake students are manageable due to limited number of seats. Average number of students in theory & practical classes at any time of the year:

S.N.	Particulars of curricula	Batch of student in *Theory*	Batch of student in *Practical*

1.	Vegetable Science (Major)	6	6
2.	Supporting courses	6	6

The class rooms and laboratories are sufficient enough to meet course curricula requirement of the degree programme.

6.4.5 Conduct of Practical and Hands-on-training:

1. On the basis of academic calendar prepared by the university for the academic session for the effective implementation of the curriculum, the theory and practical classes are conducted at the experimental fields and laboratories of the Department of Vegetable Science and allied departments. The PG and Ph.D courses involve conducting practicals as per credits allotted to the specified courses and hands on training and field/lab practical's for courses.
2. Besides in-house projects, PG and Ph.D Scholars are sent as and when required by thecollege to reputed institutions such as AAU, Jorhat; BCKV, Kalyani; ICAR-RC-NEHR, Umiam; NEHU, Shillong;IIHR, Banglaore; IARI, New Delhi *etc*. to complete their analysis associated with their research projects or vital topics under curriculum.
3. With regular guidance of Statistics faculty of the college, hands-on-training for ICT tools and technology such as statistical softwares, MS office, LCD is encouraged in teaching learning and evaluation process.
4. PG and Ph. D Scholars are encouraged to participate in the in-house as well as off-campus conferences, seminars, workshops, brainstorming *etc*.

6.4.6 Supervision of students in PG/PhD programmes:

No. of students being supervised by the faculty:

Name of the Faculty	Designation	PG (Completed)	PG (On going)	Ph.D (Completed)	Ph.D. (Ongoing)
Dr. Chandra Deo	Associate Professor	16	1	-	4
Dr. Pranabjyoti Sarma	Associate Professor	4	2	-	3
Dr. Arwankie Shadap	Assistant Professor	-	3	-	-
Dr. Nangsol Dolma Bhutia	Assistant Professor	-	3	-	-

6.4.7 Feedback of Stakeholders:

The faculty usually get the feedback from the students who have graduated from the college on various aspects like the contents of the course, teaching skills of the faculty, learning experience, assessment process, etc. The feedback is also taken from the

parents on the performance of the students and the facilities available in the college. The details of the feedback received from the students and parents are given in Annexure 1.

6.4.8 Student Intake and Attrition in the Programme for the last five years:

Name of the degree programme	Actual student admitted in last five years					Attrition (%)				
	2015 -16	2016 -17	2017 -18	2018 -19	2019 -20	2015 -16	2016 -17	2017 -18	2018 -19	2019 -20
Ph.D. (Horticulture) in Vegetable Science	1	2	2	2	2	0	0	0	0	0

6.4.9 ICT Application in Curricula Delivery

(a) The college has well-equipped air conditioned **Computer lab** with a plinth area of 80 square meter. The students are being taught about the IT facilities. The computer centre is equipped with Desktops for the use of staff and students of this institute. All these desktops and laptops are connected with internet for browsing. Since October, 2020 the computer centre is connected with 24x7 34 Mbps ,Internet Access through BSNL . The facilities available in the computer lab are:

- 24 hours x 7 days / week free Internet access (34 Mbps) to students
- Wi-Fi enabled at New Academic Block (since 2015) to use e-communicationsfor students and staffs.
- Students are trained to install open source software.
- Computers with Internet access are available in all departments.
- Academic buildings are linked with Administrative building through OpticFiber Cable.
- Total number of computers for public access: 15
- Total numbers of printers for public access: 02
- Internet band width/ speed: 34Mbps through BSNL
- The lab is used for conducting Practical classes for UG and PG students.
- Students also use the Computer Lab for their research, statistical calculationand other academic activities.
- The academic, research, extension activities of the college are updated at thecollege website.

(b) The **Library** of the college is equipped with internet facilities for staff and students to access OPAC (Online Public Access Catalogue) URL = www.chfcau.ideal.egranth.ac.in.

- Two Software are available : (i) Alice for Window (Softlink Asia

pvt.ltd)Offline and (ii) Koha Library management Software

- Electronic Resource Management package for e-journals Access throughCeRA ICAR (Consortia for e-Resources in Agriculture): www.cera.jccc.in
- CAB data base: access facility (CAB data from 1972 to 2005)
- Krishikosh (e-theses etc. Institutional Repository of ICAR) all M.Sc. andPh.D. Theses uploaded. It is open repository. URL: Krishikosh.egranth
  .ac.in
- Library automation: under process through Koha Library management software

Total number of computers for public access in library: 6

c) The College of Horticulture and Forestry, Pasighat has upgraded to ***2*** **Nos**. of smartclassrooms for teaching and practical purposes.

d) Language Laboratory:

Recently the College has setup 30 seater Language Laboratory with 32 nos.of computers for teaching and practicals of the students. A **language laboratory** is a dedicated space for foreign language learning where students access audio or audio-visual materials. They allow a teacher to listen to and manage student audio, which is delivered to individual students through headsets or in isolated 'sound booths.

6.4.13. The information pertaining to 6.4.1 to 6.4.8 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented in Degree-wise.

6.4.14. Since the accreditation of Programmes is related to the All India Admission Rank (CAR) and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.15. Certificate (Applicable when SSR is submitted for Re-accreditation)

I, the Dean, Prof. S. M. Hazarika, hereby certify that the information mentioned in the Section 6.4.1 to 6.4.8 are furnished as per the records available in the college and degree awarding university.

29/05/2021

Signature of Dean of the College
with Date & Seal

Dean
College of Post Graduate Studies
Central Agricultural University
Imphal-795004(M.S.)

ANNEXURE-I

Feedback from pass out students

S.N.	Scholars / Parameters	Ranking given by pass out students			
		Lalhming sanga	A.K. Alice	Vikash Kumar	Mohd Talha Ansari
	Admn. No.	01H (P)-2014	01H (P)-2015	04H(P)-2017	03H(P)-2017
1	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation	**1**	**1**	**1**	**1**
2	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	**2**	**2**	**1**	**3**
3	Teaching quality, fairness in the assessment processes (Internal evaluation, Quiz, Assignments, etc.) and freedom to adopt new techniques/education tools	**1**	**1**	**1**	**1**
4	Opportunities in the College for Research Activities & Relevance with Practical / Lab work	**2**	**2**	**2**	**3**
5	Curriculum has prospects for supporting higher education, career orientated /employability.	**2**	**2**	**2**	**2**
6	Overall Learning Experience	**1**	**2**	**1**	**2**

***Please give your valuable feedback on curriculum to improve quality of the programme. Select your ranking on the scale of 1 to 5 for each of the following parameters. (1- Excellent, 2- Very good, 3- Good, 4- Fair, 5- Poor)**

SELF STUDY REPORT B.SC. FORESTRY

COLLEGE OF HORTICULTURE & FORESTRY

CENTRAL AGRICULTURAL UNIVERSITY, PASIGHAT ARUNACHAL PRADESH

SUBMITTEDTO

NATIONAL AGRICULTURAL EDUCATION ACCREDITATION BOARD

ICAR, NEW DELHI

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6.4.. Self-Study Report for B.Sc. Forestry

6.4.1 Brief History of the Degree Programme:

The college was inaugurated on 7th March, 2001 and started functioning from the academic year 2001. The graduate degree programmes in Forestry are being offered from the academic year 2007. This college is located in a serene atmosphere at Pasighat, vicinity to the mighty Siang river, which is 2.5 km from Pasighat town. The College is spread over an area of 145 acres. The prime objectives of this College are imparting Horticulture and Forestry education and meeting the research and extension needs of the NE Region. The graduate programme is conducted with average strength of 25 students in each year of UG level totalling to 103 students current year. At present, each and every department is headed by a Professor/Associate Professor and staffed with well qualified and highly experienced faculty. Many staffs are the alumni of this institution, where they were nurtured and trained. The core and allied departments of forestry are engaged in teaching, field orientation, laboratory studies, research and extension activities with the aim of development of forestry sector, agroforestry interventions and human resource development the NE Region. The objective and accomplishments of the forestry departments are:

- ✓ To impart quality education for the graduate in forestry and its allied sciences.
- ✓ To further the advancement of learning by undertaking courses in forestry to overcome the new challenges and develop new technologies.
- ✓ To strengthen the applied research/dissertation work/field based studies in different disciplines of forestry.
- ✓ To undertake the programmes of extension education in the states under the jurisdiction.
- ✓ To undertake such other activities as it may deem fit from time to time.

Accomplishments

Because of better co-ordination and effective monitoring by the staff, there is a congenial environment for students in clearing many national level competitive exams like ICAR – JRF and SRF fellowship and securing jobs in public and private sectors.

- Higher academic performance of students with improved OGPA
- Improved enrolment of students each year
- Participation and selection in different competitive exams
- Participation and selection for higher education in reputed National institutes
- Participation in NSS programmes at state and national levels
- Participation in sports and cultural events at state and national levels
- Selection of students in private and public sectorsasRangeOfficer,statecivilscientist, Professors, etc.
- Thedetailsofstudent'sexcellenceinnationallevelacademiccompetitiveexamsisgiven below

- The details of student's excellence in national level academic competitive exams is given below;

PerformanceofstudentsatNationalLevelExam

Year	ICAR -JRF	ICAR -SRF	NTS	UMS/UIF	Total
2016-17	**05**	**-**	**10**	**7**	**21**
2017-18	**02**	**01**	**17**	**8**	**31**
2018-19	**05**	**02**	**11**	**41**	**54**
2019-20	**02**	**-**	**24**	**39**	**71**
2020-21	**06**	**01**	**23**	**41**	**71**

6.4.2. FacultyStrength

S.No.	**SanctionedFaculty**	**Faculty inPlace**	**Vacan tPositi on**	**Faculty Recommended by the ICAR/ UGC/ VCI/ other Regulatory bodies**
A	***Department of Silviculture & Agroforestry***			
1.	Professor	-	1	1
2.	AssociateProfessor	1	-	2
3.	AssistantProfessor	2	-	4
B	***DepartmentofForestProductUtilization***			
4.	Professor	-	-	1
5.	AssociateProfessor	1	-	2
6.	AssistantProfessor	2+(1*)	-	4
C	***DepartmentofTreeImprovement&PlantBreedingGenetics***			
7.	Professor	-	1	1
8.	AssociateProfessor	-	1	2

9.	AssistantProfessor	2	1	4
D	***Department ofBasic Sciences& SocialScience***			
10	Professor	-	-	1
11	AssociateProfessor	2	-	2
12	AssistantProfessor	9	-	6
E	***DepartmentofPlantProtection***			
13	Professor	1	-	-
14	AssociateProfessor	2	-	-
15	AssistantProfessor	3	-	-
F	***Department ofNatural Resource Management***			
16	Professor	1	-	1
17	AssociateProfessor	2	-	2
18	AssistantProfessor	2	-	4
G	***DepartmentofFloriculture(O&MAP)***			
19	Professor	1	-	1
20	AssociateProfessor	1	-	1
21	AssistantProfessor	1	1	2

*Contractual (Assistant Prof.)

As per the Faculty strength recommended by the ICAR/UGC/VCI/Other regulatory bodies, a total of 50 teaching staff are to be placed. However, the University has filled 38 regular teaching faculty post and 12 post are still vacant. Recently, a total of 3 nos. of faculties have been transferred to other constituent colleges of the University (CAU) and 6 nos. of faculties have been placed in higher position in other Universities.

6.4.3. Technical and Supporting Staff

The technical staff are attached with the office of the Dean for administrative, convenience and they are allotted to other departments whenever need arises. The administrative and accounts staff are centralized in the college and are operating under the direct control of the Dean as part of Dean's office. At present, the college has 127 technical and supporting staffs and 59 are vacant. However, additional charges are assigned to 7 faculties, 01 contractual recognized medical practitioner and 10 MTS assigned with specific duty. All the vacant post will be filled in due course as additional staffs are required for the overall development of the college. The details of staff involved are listed below:

Sl. No.	Sanctioned staff	Staff in Place	Vacant post	Staff Recommended by the ICAR/UGC/ VCI/other regulatory bodies
A.	***Establishment Branch***			
1.	AssistantRegistrar(Estt.)	01	-	
2.	AssistantRegistrar(Acad.)	-	02	
3.	AssistantComptroller	-	01	
4.	SecurityOfficer	-	01	
5.	Accountant	01	02	
6.	UDC	02	-	
7.	Clerk-cum-Typist/LDC	11	10	
8.	Computeroperator	01	-	
9.	SecurityGuard	02	-	
B.	***EstateBranch***			
1.	Asstt.Engineer/Asstt. Estate Officer	01	-	
2.	JuniorEngineer(Civil& Mechanical)	02	-	
3.	Electrician	01	-	
4.	Plumber	01	01	
5.	Drivers includingTractorDriver	05	04	
C.	***Library***			
1.	Librarian	01	-	
2.	Sr.LibraryAssistant	-	01	
3.	LibraryAssistant	03	-	
D.	***Health***			
1.	MedicalOfficer	01**	01	
2.	Compounder cumDresser	01	-	
3.	MedicalAttendant	02	-	

E.	***StudentWelfare***			
1.	StudentsWelfareOfficer	01*	01	
2.	Assistant	01	-	
F.	***Hostels***			
1.	ChiefWarden	01*	-	
2.	Warden	05*	-	
3.	Caretaker/Helpers	10***		
G.	***Technical&SupportingStaff forDepartments, Estate,Hostels&others***			
1.	Horticulture Assistant	01	-	
2.	Live StockAssistant/Farm Asstt.	04	01	
3.	Field-cum-Lab-Assistant	21	06	
4.	**Multi-Tasking Staff(MTS)**	**47**	**44**	

* IndicateholdingadditionalchargeofminimumAssistantProfessorCadre

**ContractualRecognisedMedicalPractitioner

*** MTSwithassignedspecificduty

6.4.4 ClassroomsandLaboratories:

a) **Numberof classrooms**:13

All class rooms are provided with LCD projectors and audio-visual aids for betterdeliveryoflectures.Thefacultyusepowerpointpresentationstomaketheconcepts/techniques clearly understandable to the students. The important lectures aretaughtwithvideos.Atable,podium,whiteboards/screen,blackboardetc.areavailable in each class room for the use of teachers. A common generator facilitysupplies power to all the classrooms to avoid interruption of the class during powerfailure.

b) **Functionallaboratories** (Forestry&allied):13nos.

S.No.	Department/Section	Area (Sqmtr)	Remarks
1	***Silviculture&Agroforestry***		
	(i)SAFLaboratory	98	Equipped with all necessaryinstruments & labinfrastructurewith basins,water, electricity,sitting arrangementsetc.
	Forest ProductUtilization		

2	(ii) Medicinal and Aromatic PlantsLaboratory	160	Equipped with all themodern equipment's forpractical, sitting arrangements, Distillation,extractionfaciliti es,etc.
	(iii) Wood Products and UtilizationLaboratory	90	Facilities forcharacterization ofmorphological, anatomical,mechanical&che micalproperties of timber. Otherwork carried out-wood design,fabrication,etc.
3	***TreeImprovement&PBG***		
	(iv)TIMLaboratory	72	Equipped with instrumentsforresearch&prac ticals.Water basins fitted in thelaboratory for properdrainageofwater and chemicals..
4	***BasicSciences***		
	(v)UGBasicScienceLaboratory	28	Biochemical,biotechnological &microbiologicalpractical& research needs of studentsarebeing fulfilled.
	(vi)TissueCultureLaboratory	47	
	(vii)ComputerLaboratory	48	The lab is used forconductingPracticalclasses
			for PG students equippedwith 15 computer &2printers for student access.Internetbandwidth/spee d: 34Mbps.
5	***PlantProtection***		
	(viii) Entomology (Biocontrol) Laboratory:	72	Facilities equipped forresearch work on crop pestsmanagement&production ofbiocontrolagents
	(ix) Entomology(IBDC) Laboratory :	85	
	(x) Pathology Laboratory(Mushroom): (Sterilizationroom,Boilingroom)	144	Production of Mushroomspawnandothermicr obial researchworkcarried-out.
	(xi) Pathology (Mushroominoculation):	45	Forinoculatingmushroom.Thelab oratoryisalso equipped with culturing andspawnsproduction
6	***NaturalResourceManagement***		

	(xii) Soil Science & AgriculturalChemistry Laboratory	100	The laboratory is equippedwith various facilities toanalysethesoilsamples,relatedtovariousdegreeprogrammes (UG, P.G andPh.D) of Agriculture, HorticultureandForestry.
7	***DepartmentofFloriculture(O&MAP)***		
	(xiii) Floriculturelaboratory	90	Thelaboratoryisequippedtoconductclassesonidentification anddescriptionofannuals,biennials, herbaceous perennials, climbers, shrubs,trees,indoorplants, ,planninganddesigning.

c) Listsmajorequipments:

Thelaboratories arewellequipped to conductthepracticals/hands on training tothestudentswithinstruments,laboratorytables,basins,irrigationfacilities,electricalandventilations,adequatewoodenfurnitureetc.Thelistofinstruments/equipmentsavailableinthe laboratoriesarefurnished below.

(i) DepartmentofSilviculture&Agroforestry

S.No	NameoftheEquipment	S.No	NameoftheEquipment
1.	Autoclave	2.	HotAirOven
3.	Bark Gauge	4.	IncrementBorers
5.	Binocular	6.	Incubator
7.	Binocularmicroscope	8.	LuxMeter
9.	Clinometer	10.	OrdinaryBalance
11.	DigitalCamera	12.	pH meter
13.	DigitalWeighingBalance	14.	Refrigerator
15.	Weighing balance	16.	Seeddrier
17.	Distillationapparatus	18.	SeedGerminator
19.	ElectronicBalance	20.	Microtonemachine
21.	HagaAltimeter	22.	Weighing Balance
23.	High LimbChainsaw		

(ii) DepartmentofForestProductUtilization

S.No	NameoftheEquipment	S.No	NameoftheEquipment
1.	Doublewaterdistillationmachine	2.	Godrejrefrigerator
3.	Opticalmicroscopewithcomputer	4.	Hotoven

5.	Essentialoildistillationmachine	6.	Waterbath
7.	Autoclavevertical	8.	Compoundmicroscope
9.	Binocularmicroscope	10.	Dissecting microscope
11.	UVPhotospectrometer	12.	BODincubator
13.	Soxhletoilextractor	14.	Hotplatemagneticstirrer
15.	Weighingbalance	16.	Digitalweighingbalance
17.	pHcumconductivitymeter	18.	SeedGerminator
19.	Hotandcoldpressmachine	20.	Microtonemachine
21.	Motorchainsaw	22.	Universaltesting machine
23.	Combinewood workingmachine		

(iii) DepartmentofTree Improvement&PlantBreedingGenetics

S.No	NameoftheEquipment
1.	DigitalMagneticStirrer
2.	HotPlatewithMagneticStirrer
3.	PrecisionBalance
4.	Microscopes
5.	Waterbath
6.	Refrigerator
7.	Seeddrier
8.	SeedGerminator
9.	Plantpress
10.	ElectronicBalance

(iv) DepartmentofBasicSciences

S.No	NameoftheEquipment	S.No	NameoftheEquipment
1.	pH meter	2.	Microscopes
3.	Coolingwaterbath	4.	Laminarflow
5.	Centrifuge	6.	PCR Machine
7.	Autoclave	8.	HPLC(underrepair)
9.	Refrigerator	10.	Weighingmachine
11.	Microscope	12.	UltravioletTransilluminator
13.	Hotplate	14.	Ultrasonicleaner
15.	Ice-flakingmachine	16.	Gas Chromatography
17.	Centrifuge	18.	OzoneGenerattor
19.	Weighing balance	20.	Oven
21.	Refrigerator		

Tissue CultureLaboratory:

S.No	NameoftheEquipment

1.	Laminarflow
2.	HPLC(underrepair)
3.	PCR Machine
4.	Weighingmachine
5.	Gas Chromatography
6.	UltravioletTransilluminator

(v) Department ofPlantProtection

S.No	NameoftheEquipment	S.No	NameoftheEquipment
1.	Autoclave	2.	Distillationunit
3.	Fermenter	4.	Laminarairflow
5.	Binocular microscope (CH20iOlymp)	6.	LaminarairflowVertical
7.	Humiditycabinet	8.	Weighing balance
9.	AutoclaveHorizontal	10.	Bio-nocularmicroscope
11.	Honeyextractor (10frames)	12.	Multimediaprojector
13.	Honey processing plant (Cap.250Kg)	14.	NikonCamerad5300
15.	Honeybottlingmachine	16.	WaterBath
17.	AutomaticHoney bottleDryer	18.	SerologicalWaterbath
19.	HoneyBottlesealingmachine	20.	Distillationunit
21.	Honey combfoundationmill	22.	QuartzBoiler&Quartz condenser
23.	GelElectrophoresis	24.	BODincubator
25.	Refrigeratedtabletopcentrifuge	26.	Deep freezer, Water bath(digital)
27.	Autoclave	28.	Chalk powdermixture
29.	GrainBoiler	30.	SpawnBagfiller
31.	Laminarflow	32.	DistillationUnit
33.	Refrigerator	34.	Hygrometer
35.	Cameralucida	36.	Stage&ocular micrometer
37.	Haemocytometer	38.	Studentmicroscope
39.	Shrinkwrap machine	40.	Microscope(Zeiss)
41.	Spectrophotometer	42.	Micro-oven
43.	Digitalbalance	44.	BODincubator
45.	Illuminator	46.	

(vi) DepartmentofNaturalResourceManagement

SoilScience&AgriculturalChemistryLaboratory:

S.No	NameoftheEquipment	S.No	NameoftheEquipment
1.	pH meter	2.	HotPlate
3.	HotAirOven	4.	PlasticJars
5.	WaterBath	6.	MechanicalShaker
7.	ECMeter	8.	AnalyticalBalance
9.	Keen Box	10.	NitrogenAnalyse
11.	Spectrophotometer	12.	Single DistillationSet /Unit
13.	Calorimeter	14.	MoistureBox
15.	DoubleDistillationSet/Unit	16.	FlamePhotometer
17.	AtomicAbsorption Spectrophotometer	18.	Sieves
19.	TotalStation	20.	Planetablewithaccessories
21.	ChainSurveying&accessories	22.	Abney'sLevel
23.	GPS	24.	DigitalPlanimeter
25.	HandLevel	26.	CurrentMeter
27.	Levellingsurveyaccessories		

ForestSurveying/EngineeringFacility

S.No	NameoftheEquipment	S.No	NameoftheEquipment
1.	TotalStation	2.	CurrentMeter
3.	Planetablewithaccessories	4.	DigitalPlanimeter
5.	Levellingsurveyaccessories	6.	HandLevel
7.	GPS	8.	Abney'sLevel
9.	DumpyLevel	10.	ChainSurveying& accessories

(vi)Departmentof*DepartmentofFloriculture(O&MAP)*

S.No	NameoftheEquipment
1.	UV- VI SSpectro photometer
2.	HotAiroven
3.	Seedgerminator
4.	Incubator
5.	WaterandsteamDistillationIUnit
6.	BODincubator
7.	Environmentaltestchamber
8.	Hotplate
9.	Refrigerator
10.	Electronicbalance

FarmPower,MachineriesandIrrigationInfrastructures

S.No	NameoftheEquipment	S.No	NameoftheEquipment
1.	Tractor275DI	2.	RidgeMaker
3.	Tractor575DI	4.	Tractoroperated SeedDrill
5.	Tractor605DI	6.	Trolley
7.	TractorBullExcavator	8.	Multicrop Thresher
9.	Rotavator	10.	Tractor Operated LawnMower
11.	Cultivator	12.	PowerTiller
13.	Disc Harrow	14.	SprinklerIrrigationSystem
15.	M.B.Plough	16.	DripIrrigation System
17.	Disc Plough	18.	Tractor Operated PotatoPlanter
19.	Hand Tools&Implements	20.	Tractor Operated Sprayer
21.	Sprayers		

(d) Farmfacilities,workshopsandotherinstructionalunits:16nos.

S.N	Department/Section	Area (Sq. mtr.)	Facilities
1	***Silviculture&Agroforestry***		
	(i) SilvicultureNursery	9100	• Nurseryraisedbed=70Nos. • Shade net house (5x1.5m) = 30Nos. • Green Net House (9mx16.5mx5.5m) • Tree Garden/ Collection of 250speciesoftreespeciesforresearch /academic • PGResearchplotsforgermination exp • Plantation Blocks of diff.species • Water Pumpwithmotor,Irrigation&electricitysetups
	(ii)AgroforestryBlock	2100	• Compost(concrete)pit • PG Research plots under different spacing's of diff.species&diff.age.
2	***Forest ProductUtilization***		
	(iii) Medicinal&Aromaticplantfarm (iv) Medicinalplant	12000	• Germplasm of MedicinalPlants • Collection of rare

	germplasmblock		&endangered spp. • PGresearchplots • Nurserybeds • Shadehouses/roofs • Irrigation&electricfacilities
	(v)Herbalgarden	10000	• Morethan 160 species • Research, conservation &identification purpose
	(vi)Bambusetumblock	8000	• 67 spp. of different type ofbamboos • Research, conservation &identification purpose
	(vii) Rubber plantationblock	20000	• Commercialgenotypesof high yielding *Heveabrasiliensis*
	(viii) NTFPs & High valuetimber block	25000	• Tans&dyeyieldingplants • Lac,Gumsandresinsplants • Drugs, spices and insecticidesplants • Wild ediblefruitstrees
3	***TreeImprovement&PBG farm***		
	(ix) TIM&PBGfarm	1800	• Nurseryraisedbed=20Nos. • Shadenethouse(15x15m) • Tokkopatta shade roofs:10nos. • Arboretum1100sq.mtr • Irrigation&electricitysetups
4	***PlantProtection***		
	(x) Entomology (Biocontrol)Farm	4047	• NurseryBeds,Researchplots • Water Pumpwithmotor,Irrigation&electricitysetups
	(xi)Entomology (IBDC) Farm	2023	• Allequipmentsofbeekeeping • Irrigationfacility • Plotsfor nectar yielding plant
	(xii)Pathology Farm	1083	• DiseaseDiagnosticField • Studentsdemonstration plot • Nurserybeds • irrigation&electricfacilities.
	(xiii) Paddy straw boiling unitandmushroomHouse	1350	• Boiling unit • Facilities for mushroom culture&production • Unit has more than 250 speciesof edible and poisonousmushroomspecies.
5	***NaturalResourceManagement***		

	(xiv) ForestEngineering	1500	• RunoffExperimentFacility • RainwaterHarvestingBased
	Facility (xv) Farm Power & IrrigationInfrastructures		Integrated Horticulture FarmingSystem • WHP=5LaksLittersCapacity • 5HpSolarPumping System • NaturallyVentilatedGree nhouse=30m×7m • Drip irrigation system operatedby Solar Pump • Sprinkler Irrigation Systemoperated bysolarpump • Gravity fed drip IrrigationSystemin500sq.ma rea • Basic Power Machineriesavailable
	(xvi) AgrometerologyObserva tory	500	• Meterological observation datafor Research and Academicpurpose

(e) Justification:

Thelaboratoriesofalldepartmentsarewellequippedwithallthenecessaryequipments and facilities to accomplish the proposed research activities.Allbasicchemicals and instruments areavailablefor doing practicaland research work in allthe laboratories. TheFarm facilities, workshops and other instructional units are welldesigned with sufficient land area and build infrastructure, irrigation, electricity andrequired farm machineries supported with tractors, power tillers, cultivators, leveller,rotavator, and other farm implements for day to day work and research purpose tomeetthecoursecurriculaand research requirements.

(f) Theory and practical batches for the Degree Programme: The numbers of intakestudentsaremanageableduetolimitednumberofseats.Theclassroomsandlaboratoriesa resufficienttomeetcoursecurricularequirementofthedegreeprogramme.

Year	DegreeProgram	Batchintheory	Batch inPractical
2016-17	B.Sc(Hons.)Forestry	1 Batch-19	1Batch-19
2017-18	B.Sc(Hons.)Forestry	1 Batch-19	1 Batch-19
2018-19	B.Sc(Hons.)Forestry	1 Batch-22	1 Batch-22
2019-20	B.Sc(Hons.)Forestry	1 Batch-25	1 Batch-25

2019-20	B.Sc(Hons.)Forestry	1 Batch-30	1 Batch-30

6.4.5 ConductofPracticalandHands-on-Training:

- On the basis of academic calendar prepared by the university for the academic sessionforthe effective implementation of the curriculum, the theory and practical classes areconductedattheexperimentalfieldsandlaboratoriesoftheforestryandallieddepartments. The PG courses involve conducting practical's as per credits allotted tothe specified courses and hands on training and field/lab practical's for courses likeSilviculture,Biometry,Agroforestry,PlantationTechnology,TreeImprovement,ForestBiotechnology,WildLifeManagement,ForestProtection,WatershedManagement, Wood Productsand Utilization, ForestManagement,etc.
- Besides in-house dissertation work projects, UG students are sent as and when requireby the college to Forest Departmentto complete their STUDENT READY Programfor Forest Work Experience (FOWE) to understand the problems and prospects of therangetrainingandexposureandtrainingonforestrangetoattachedstatedepartments
- Takingstudentsforfieldsurveys/institutional/industrialvisitsnotonlyprovidepractical exposure to studentsbut alsohelp inproper networkingand interactionbetween thecollegeand research institutions/industries.
- Hands-on-trainingforICTtoolsandtechnologysuchasstatisticalsoftware,MSoffice, LCDand isencouraged in teaching learningand evaluation process.

6.4.6.SupervisionofstudentsinUGprogrammes: NotapplicabletoB.Sc(Hons.)ForestrydegreeProgram.

6.4.7. Feedback of stakeholders: The performance of an average score of various parameterwere rated on the scale from 1* to 5* on the basis of feedback parameters(AnnexureI)

S.No.	Numberofpassedout studentawardedUG degree	FeedbackMechanism	Feedbackissues
1.	Eight(12) Year(2017to2020)	Feedback form(**supported bythedocuments**)	Received feedback from 12 studentswith averagescoring(2.2)* indicating '**Very Good'**from thefeedback parameters.
			Issues: Some of the issues that haveraisedfromthestudentsthroughfeedbacklikeinternetfacilities,free onlineresearchjournals,offcampus

			studytourandstrengtheningofboththeteachingandnon-teachingstaffs wereaddressed.

(*1- Excellent,2- Verygood,3- Good,4- Fair,5- Poor)

Action:Feedbackevaluationandsuggestionsgivenbystudentsandalumniarediscussed with the members of the college advisory committee of concern course andnecessarychanges havebeen accomplished asbelow:

- Strength of thefaculty of coreand allied departmentshasbeen upgraded.
- Collegehaswell-equippedComputerlabwith24hoursx7days/weekfreeInternetaccess(34 Mbps) to students.
- Hostelsareprovided with computersystemfortheir research/academicpurpose.
- UGstudentsarewellfacilitatedwith virtualplatform.

6.4.8. Studentintakeandattritionintheprogrammeforthelastfiveyears:

Year	DegreeProgram	Intake capacity	ActualStudent admitted	Attrition (%)
2016-17	B.Sc(Hons.)Forestry	30	19	-
2017-18	B.Sc(Hons.)Forestry	30	19	-
2018-19	B.Sc(Hons.)Forestry	30	22	-
2019-20	B.Sc(Hons.)Forestry	30	25	-
2019-20	B.Sc(Hons.)Forestry	35	30	3.3

Student attrition: In general, the student attrition is nil and the retention of the studentsisvery high in thiscollege.

6.4.9. ICTApplicationinCurriculaDelivery:

(a) The college has well-equipped air conditioned **Computer lab** with a plinth area of80 square meter. The students are being taught about the IT facilities. The computercentreisequippedwithDesktopsfortheuseofstaffandstudentsofthisinstitute.Allthesedesktops andlaptops are connected with internet for browsing. Since October,2020the computer centre is connected with 24x7 34 Mbps, Internet Accessthrough BSNL.Thefacilitiesavailablein thecomputerlabare:

- 24 hoursx7days/week free Internet access(34 Mbps)tostudents
- Wi-FienabledatNewAcademicBlock(since2015) to usee-communicationsfor studentsand staffs.
- Studentsaretrainedto installopen sourcesoftware.
- Computerswith Internetaccessareavailablein alldepartments.

- Academicbuildings arelinkedwithAdministrativebuildingthroughOpticFiber Cable.
- Totalnumberof computersforpublicaccess:15
- Totalnumbersof printersfor publicaccess:02
- Internetbandwidth/speed:34MbpsthroughBSNL
- Thelabisused forconducting PracticalclassesforUGand PGstudents.
- StudentsalsousetheComputerLabfortheirresearch,statisticalcalculationand other academicactivities.
- Theacademic,research,extensionactivitiesofthecollegeareupdatedatthecollegewebsite.

(b) The **Library** of the college is equipped with internet facilities for staff andstudentstoaccessOPAC(OnlinePublicAccessCatalogue)URL=www.chfcau.ideal.egranth.ac.in.

- Two Software are available : (i) Alice for Window (Softlink Asia pvt.ltd)Offlineand (ii)KohaLibrarymanagementSoftware
- ElectronicResourceManagementpackagefore-journalsAccessthrough CeRAICAR (Consortiafore-Resourcesin Agriculture):www.cera.jccc.in
- CAB database:accessfacility(CAB datafrom1972 to2005)
- Krishikosh (e-theses etc. Institutional Repository of ICAR) all M.Sc. andPh.D.Thesesuploaded.Itisopenrepository.URL:Krishikosh.egranth .ac.in
- Libraryautomation:underprocessthroughKohaLibrarymanagementsoftware
- Totalnumber of computersfor publicaccessin library:06
- The College of Horticulture and Forestry, Pasighat has upgraded to **2 Nos**. ofsmartclassroomsfor teachingand practicalpurposes.

(c) Language Laboratory:

The language laboratory has been established with the approval under Institutional Development Plan-National Agricultural Higher Education Project (IDP-NAHEP) recently. At present assistant professor (sub: English) is looking after the language laboratory. The purpose of constructing the laboratory is to teach students to have a good command of the language for effective communication with clarity and accuracy. The laboratory set up consists of computer assisted language support system with multimedia hi-tech language laboratory for language teaching. The students will be trained in advanced writing skills in terms of assignment and report preparation. The students have access to study materials related to group discussion, interview skills, brain storming, and simulation and negotiation skills. The medium of instruction in the college is English. As per V Dean's committee recommendation during the first semester of B.Sc (Hons.) Horticulture & B.Sc (Hons.)

Forestry, two credit (1 theory and 1 practical) course on communication skills and personality development and 1 non-credit (practical) course on comprehension skills in English are offered. A well-qualified English teacher is enaged to conduct the English classes. The concerned course incharge use recommended text books, online audio and video clippings. However, students from non-english medium of instruction are acoustomed comfortably by conducting extra class hours and personal care by academic advisors. In addition, SWO and NSS in-charges conduct various literary competitions such as debate, elocution, essay writing competition on various occasion *viz*., Republic Day, Independence Day, Dr. B. R. Ambedkar Jayanti, Mahatmt Gandhi Jayanti, College Day functions and other important events to encourage students to develop their language proficiency. Also, teachers in their respective courses encourage students to present the seminar on course topics to have command on English and improve public speaking skills.

Facilities in Language Laboratory

Computer	32
LCD with screen	3
LED TV	7
Audio systems	3
Podium	2
Zoom Platform link for online classes	1

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Prof. B.N. Hazarika hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

29/05/2024

Signature of Dean of the College
with Date & Seal

Dean
College of Horticulture & Forestry
Central Agricultural University
Pasighat-791102(A.P.)

STUDENTS FEEDBACK FORM

1. **Name of the student:Dr.Pempa Lamu Bhutia**
2. **Admission no.: 01F/2007**
3. **Academic Year: 2007-2011**
4. **Name of the programmestudied: B.Sc. Forestry**
5. **Designation: Scientist**
6. **Mobile No.: 9381680479**
7. **Email** id : **pempadenzongpa66@gmail.com**
8. **Feedback:**

S.No.	Parameters	Rating
1.	Curriculum&Syllabiofthecoursesprovidesufficientknowledgeinthe area of study, has good balance between theory and application and fulfilling your expectation.	**3**
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	**1**
3.	Teaching quality, fairness in the assessment processes (Internalevaluation,Quiz, Assignments,etc.)and freedom to adopt new techniques/education tools	**1**
4.	Opportunities in the College for Research Activities & Relevance with Practical/ Lab work	**2**
5.	Curriculum has prospects for supporting higher education, career orientated/employability	**2**
6.	Overall Learning Experience	**2**

*Selectyourrankingonthescaleof1 to5foreachofthefollowingparameters.(1-Excellent,2-Verygood,3-Good,4-Fair,5-Poor)

Recommendationsifanyforcourseimprovement:

Date:19/05/2021 Signature of the student

Action taken: Classes along with hands on training also been conducted for better explanation of the concepts and fundamentals of the subject.

STUDENTSFEEDBACKFORM

1. **Nameof thestudent:JasminePabin**
2. **Admissionno.:03(M)F-18**
3. **AcademicYear:2018-2020**
4. **Nameoftheprogrammestudied:M.ScForestry**
5. **Designation:Student**

6.MobileNo.:8131052482

7. **Emailid:jasminepabin0697@gmail.com**
8. **Feedback:**

S.No.	Parameters	Rating
1.	Curriculum&Syllabiofthecoursesprovidesufficientknowledgeinthe area of study, has good balance between theory and application and fulfilling your expectation.	1
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	1
3.	Teaching quality, fairness in the assessment processes (Internalevaluation,Quiz, Assignments,etc.)and freedom to adopt new techniques/education tools	2
4.	Opportunities in the College for Research Activities & Relevance with Practical/ Lab work	3
5.	Curriculum has prospects for supporting higher education, career orientated/employability	1
6.	Overall Learning Experience	2

*Select your ranking on the scale of 1to5 for each of the following parameters. (1-Excellent,2-Verygood,3-Good, 4-Fair, 5-Poor)

Recommendations if any for course improvement:

Date:19-05-21 Signature of the student

STUDENTS FEEDBACK FORM

1. **Name of the student: UNSHANI DARYAL**
2. **Admission no.: 02F(M)-18**
3. **AcademicYear: 2018-2020**
4. **Name of the programme studied: M.Sc.(Hons)Forestry**
5. **Designation:Student**
6. **MobileNo.:8132814970**
7. **Email id:unshanidaryal0@gmail.com**
8. **Feedback:**

S.No.	Parameters	Rating
1.	Curriculum&Syllabiofthecoursesprovidesufficientknowledgeinthe area of study, has good balance between theory and application and fulfilling your expectation.	**3**
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	**4**
3.	Teaching quality, fairness in the assessment processes (Internalevaluation,Quiz, Assignments,etc.)and freedom to adopt new techniques/education tools	**3**
4.	Opportunities in the College for Research Activities & Relevance with Practical/ Lab work	**5**
5.	Curriculum has prospects for supporting higher education, career orientated/employability	**5**
6.	Overall Learning Experience	**3**

*Select your ranking on the scale of 1 to 5 for each of the following parameters. (1-Excellent, 2- Verygood, 3-Good, 4-Fair, 5-Poor)

Recommendationsifanyforcourseimprovement:

- TeachingaidslikeProjectorshouldbeavailable& functional ineveryclassroom.
- Courseteachershouldbeappointedforeach specificcourseoratleastofsame department.
- Basicneedsoffield(soil, FYM,sand,etc,)&labfacilities shouldbe provided accordingly.
- Forfinalyearstudents,seminarsoranyofsortrelatedwithhighereducation,careeroriented/employ ability canbe conducted.

Unshani Daryal

Date: **19-05-2021**

Signature of th estudent

Action taken: Feedback highlighted the requirement of more opportunities in college Research activities with relevant practical classes which could be improved through collaborative research with various research institutes through short period exposure and learning in their laboratories. The laboratory upgradation is in initial stages and with subsequent funding programs and projects would be useful in providing advance facilities in the college also.

PhoneNo.:03682224887;FaxNo.: 03682225066;

STUDENTS FEEDBACK FORM

Name	:	FULLMOONPUWEIN
Admn.No.	:	03F(M)/2017
AcademicYear	:	2017-18
Nameoftheprogramme studied	:	M.Sc.(FORESTRY)PLANTATIONTECHNOLOGY
PresentDesignation&WorkProfile	:	NONE
Mobilenumber& emailID	:	8837425726; 13bscagh007@gmail.com

Feedback

S.N.	Parameters	Ranking*
1.	Curriculum&Syllabiofthecoursesprovidesufficientknowledgeinthe area of study, has good balance between theory and application and fulfilling your expectation.	2
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	3
3.	Teaching quality, fairness in the assessment processes (Internalevaluation,Quiz, Assignments,etc.)and freedom to adopt new techniques/education tools	2
4.	Opportunities in the College for Research Activities & Relevance with Practical/ Lab work	3
5.	Curriculum has prospects for supporting higher education, career orientated/employability	4
6.	Overall Learning Experience	1

*Pleasegiveyourvaluablefeedbackoncurriculumtoimprovequalityoftheprogramme. Select your ranking on the scale of 1 to 5 for each of the following parameters. (**1- Excellent, 2-Verygood, 3-Good, 4-Fair,5-Poor**)

Recommendations if any for course improvement: (1). Improvement in Lab facilities inalmostallDept.isneed.

(2).IncreaseinstrengthofthefacultiesinForestryDept.especiallyinthefieldofagroforestry,forestpathology,forest entomologyandNRMrelatedsubject.(3).

Providestudy tour for P.G students.

Date: 5/11/2020

SignatureofStudent

केन्द्रीय कृषि विश्वविद्यालय
केन्द्रीय कृषि विश्वविद्यालय
पासीघाट-७९११०२, अरुणाचल प्रदेश

COLLEGE OF HORTICULTURE AND FORESTRY
Central Agricultural University
Pasighat-791102, Arunachal Pradesh

STUDENTS FEEDBACK FORM

Name	:	LAPYNSUK JAKA
Admn. No.	:	01FOM-2013
Academic Year	:	2013-2017
Name of the programme studied	:	MASTER OF SCIENCE IN FORESTRY
Present Designation & Work Profile	:	Assistant Technology Manager (ATM) at Agricultural Technology Management Agency (ATMA) **Work profile:-** 1.To provide requisite technical & knowledge support to farm school, FF, FIGs/CIGs/FSGs/FPOs and farmers in general. 2. In consultation with Block level officers of agri. and allied departments & BTMs, ATMs will provide necessary inputs to Common Service Centers & Kisan Call Centres. 3. Any other work assigned by BTM.
Mobile number & email ID	:	9402925490(lapynsuka.1991@gmail.com)

Feedback

S.N.	Parameters	Ranking*
1.	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation.	2
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	3
3.	Teaching quality, fairness in the assessment processes (internal evaluation, Quiz, Assignments, etc) and freedom to adopt new technique/education tools	2
4.	Opportunities in the College for Research Activities & Relevance with Practical / Lab work	4
5.	Curriculum has prospects for supporting higher education, career orientated/employability	2
6.	Overall Learning Experience	2

*Please give your valuable feedback on curriculum to improve quality of the programme. Select your ranking on the scale of 1 to 5 for each of the following parameters. (1- Excellent, 2- Very good, 3- Good, 4- Fair, 5- Poor)

Recommendations if any for course improvement :

1. **Introduce technology in the classroom** i.e., Using videos, free online resources and digital tools that can be easily implemented in the classroom. As students they are more adept with technological skills, so by integrating technology into the classroom it will instantly help students to learn better and faster.
2. **More Opportunities in the College for Research Activities & Relevance with Practical / Lab work** i.e., to invest in research. Due to lack of resources such as tools, implements and also lack of proper laboratory, a student is unable to perform his/ her research in a proper manner. Therefore, Investment in research is needed as it helps in improvement of institution's reputation not only that but also a good research work does help in the future of a student.

Date: 7-11-2020

Signature of Student

Action taken: Feedback highlighted the requirement of more ICT tools for smart classes, which is now available in our college. These smart classrooms are well equipped with digital setup including projectors, smart screens and digital sensor touch writing pads etc. research activities with relevant practical classes which could be improved through collaborative research with various research institutes through short period exposure and learning in their laboratories. The college is also under the process of improving wifi facilities with high internet speed data.

STUDENT FEEDBACK FORM

Name	:	NepuniRinaldi
Admn.No.	:	01F(M)-2016
Academicyear	:	2016-2017
Nameoftheprogrammestudied	:	M.Sc.Forestry(PlantationTechnology)
Present designationandworkprofile	:	ProjectAssociate
Mobileno.amde-mailID	:	6909787273/rinaldinepuni03@gmail.com

Feedback

S.N.	Parameters	Ranking*
1.	Curriculum&Syllabiofthecoursesprovidesufficientknowledgeinthe area of study, has good balance between theory and application and fulfilling your expectation.	1
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	2
3.	Teaching quality, fairness in the assessment processes (Internalevaluation,Quiz, Assignments,etc.)and freedom to adopt new techniques/education tools	1
4.	Opportunities in the College for Research Activities & Relevance with Practical/ Lab work	2
5.	Curriculum has prospects for supporting higher education, career orientated/employability	2
6.	Overall Learning Experience	2

*Please give your valuable feedback on curriculum to improve quality of the programme ranking on thescale of 1 to 5 for each of the following parameters (1- excellent, 2- Very Good, 3-Good, 4- Fair, 5-Poor)Recommendationifanyforthecourseimprovement:

Date: 8/11/2020

Studentsignature

STUDENTSFEEDBACKFORM

Name :GuruaribamNishantaSharma

Admn.No. :02F(M)-2017

AcademicYear : 2017

Nameoftheprogramme studied :M.Sc.Forestry(PlantationTechnology)

Present Designation & WorkProfile :

Mobilenumber&emailID :7005013821gurunishanta@gmail.com

Feedback

S.N.	Parameters	Ranking*
1.	Curriculum&Syllabiofthecoursesprovidesufficientknowledgeinthe area of study, has good balance between theory and application and fulfilling your expectation.	2
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	3
3.	Teaching quality, fairness in the assessment processes (Internalevaluation,Quiz, Assignments,etc.)and freedom to adopt new techniques/education tools	3
4.	Opportunities in the College for Research Activities & Relevance with Practical/ Lab work	3
5.	Curriculum has prospects for supporting higher education, career orientated/employability	4
6.	Overall Learning Experience	2

*Pleasegiveyourvaluablefeedbackoncurriculumtoimprovequalityoftheprogramme.Selectyourrankingon the scale of 1 to 5 for each of the following parameters. (**1-Excellent, 2- Very good, 3- Good,4-Fair,5-Poor**)

Recommendations if any for course improvement :there is lack of faculty and equipment'srequirement for fast completion of the course. Since hostel in compulsory for any course. Kindlycheck thequalityofthefood provideto thestudents.

Date:7November2020

SignatureofStudent

STUDENTS FEEDBACK FORM

Name	:	Royal LMihriemate
Admn.No.	:	03F(M)-2016
AcademicYear	:	2016-2018
Nameoftheprogramme studied	:	M.Sc.Forestry(Agroforestry)
PresentDesignation&WorkProfile	:	-
Mobilenumber&emailID	:	7005807685,royal04@yahoo.com

Feedback

S.N.	Parameters	Ranking*
1.	Curriculum & Syllabi of the courses provide sufficient knowledge in thearea of study, has good balance between theory and application andfulfillingyour expectation.	2
2.	UsageofteachingaidsandICTintheclassbyfacultytofacilitateteachingandgive qualityeducation.	3
3.	Teaching quality, fairness in the assessment processes (Internalevaluation, Quiz, Assignments, etc.) and freedom to adopt newtechniques/educationtools	2
4.	OpportunitiesintheCollegeforResearchActivities&RelevancewithPractical/Lab work	2
5.	Curriculumhasprospects for supportinghighereducation,careerorientated/employability.	2
6.	OverallLearningExperience	2

*Please give your valuable feedback on curriculum to improve quality of the programme.
Select yourranking on the scale of 1 to 5 for each of the following parameters.
(**1- Excellent, 2- Very good,3-Good, 4-Fair, 5-Poor**)

Recommendations ifanyforcourseimprovement:Betterwififacilityforstudents

Date:7/11/2020

SignatureofStudent

STUDENTSFEEDBAC KFORM

1. **Nameofthestudent:SEEMACHETTRI**
2. **Admissionno.:01F(M)2018**
3. **AcademicYear:2018-2020**
4. **Nameof theprogrammestudied: M.Sc.Forestry**
5. **Designation:Student**

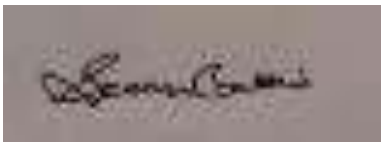
6.MobileNo.:7641018487

7. **Emailid:cmachettri2403@gmail.com**
8. **Feedback:**

S.No.	Parameters	Rating
1.	Curriculum&Syllabiofthecoursesprovidesufficientknowledgeintheareaofstudy,hasgoodbalancebetween theoryandapplicationandfulfillingyourexpectation.	1
2.	UsageofteachingaidsandICTintheclassbyfacultyto facilitateteachingandgivequalityeducation.	2
3.	Teachingquality,fairnessintheassessmentprocesses (Internal evaluation, Quiz, Assignments, etc.) and freedomtoadoptnew techniques/educationtools	2
4.	OpportunitiesintheCollegeforResearchActivities& RelevancewithPractical /Labwork	3
5.	Curriculumhasprospectsforsupportinghighereducation, careerorientated/employability	2
6.	OverallLearningExperience	2

*Selectyourranking onthescaleof1to5foreachofthefollowing parameters.(1-Excellent,2-Verygood,3-Good, 4-Fair, 5-Poor)

Recommendationsifanyforcourseimprovement:Morepracticalexposuresa ndRHWE/FWEattachmentsinourownstatedepartmentswouldhelpstrengt henourknowledgeluspracticability in ourownfileds.



Date: 18-05-2021 Signatureof thestudent

COLLEGE OF HORTICULTURE AND FORESTRY
Central Agricultural University
Pasighat-791102, Arunachal Pradesh

STUDENTS FEEDBACK FORM

Name : TANTULUNG TATAN

Admn. No. : 04F(M) 20F

Academic Year : 2018-2019

Name of the programme studied : M.Sc Forestry

Present Designation & Work Profile : Junior Project Fellow

Mobile number & email ID : 8837088699 & tantulungtatan17@gmail.com

Feedback

S.N.	Parameters	Ranking*
1.	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, how good balance between theory and application and fulfilling your expectation.	1
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	1
3.	Teaching quality, fairness in the assessment processes (Internal evaluation, Quiz, Assignments, etc.) and freedom to adopt new techniques/education tools	1
4.	Opportunities in the College for Research Activities & Relevance with Practical / Lab work	1
5.	Curriculum has prospects for supporting higher education, career orientation/employability.	1
6.	Overall Learning Experience	1

*Please give your valuable feedback on curriculum to improve quality of the programme. Select your ranking on the scale of 1 to 5 for each of the following parameters. (1- Excellent, 2- Very good, 3-Good, 4- Fair, 5- Poor)

Recommendations if any for course improvement : The PG students should be send outside for teaching programme

Date: 07/11/20

Signature of Student

SELF STUDY REPORT M.SC. FORESTRY (SILVICULTURE), M.SC. FORESTRY (FOREST GENETIC RESOURCES) AND M.SC. FORESTRY (MEDICINAL AND AROMATIC PLANTS)

COLLEGE OF HORTICULTURE & FORESTRY

CENTRAL AGRICULTURAL UNIVERSITY, PASIGHAT,

ARUNACHAL PRADESH

SUBMITTEDTO

NATIONAL AGRICULTURAL EDUCATION ACCREDITATION BOARD

ICAR,NEW DELHI

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6.4. Self Study Report for M.Sc. Forestry (Silviculture)**, M.Sc. Forestry** (Forest Genetic Resources) and **M.Sc. Forestry** (Medicinal and Aromatic Plants)

Brief History of the Degree Programme:

The college was inaugurated on 7th March, 2001 and started functioning from the academic year 2001. The Postgraduate degree programmes in Forestry are being offered from the academic year 2015. This college is located in a serene atmosphere at Pasighat, vicinity to the mighty Siang river, which is 2.5 km from Pasighat town. The College is spread over an area of 145 acres. The prime objectives of this College are imparting Horticulture and Forestry education and meeting the research and extension needs of the NE Region. The postgraduate programme is conducted with strength of 2 students in eachdiscipline totalling to 6 students per year. This institute offers a fellowship of Rs.3000/- toall the postgraduate students who are admitted in this college. At present, each and every department is headed by a Professor/Associate Professor and staffed with well qualified and highly experienced faculty. Many staffs are the alumni of this institution, where they were nurtured and trained. The core and allied departments of forestry are engaged in teaching, research and extension activities with the aim of development of forestry sector, agroforestry interventions and human resource development the NE Region. The objective and accomplishments of the forestry departments are:

- ✓ To impart quality education for the postgraduate in forestry and its allied sciences.
- ✓ To further the advancement of learning by undertaking research in forestry toovercome the new challenges and develop new technologies.
- ✓ To strengthen the applied research in different disciplines of forestry.
- ✓ To undertake the programmes of extension education in the states under the jurisdiction.
- ✓ To undertake such other activities as it may deem fit from time to time.

1. DEPARTMENT WISE OBJECTIVES

a) Silviculture and Agroforestry

- To impart knowledge on regeneration and cultivating forest tree species.
- To conduct research on nursery and seed technology.
- To develop afforestation techniques and raising of site specific treebased agroforestry/farming systems.

- To accustom the State Forest Department/farmers/orchardists and other government/semi-government agencies with modern techniques of tree management..

b) Tree Improvement and Plant Breeding Genetics

- To survey the geographical area for selection of genotypes.
- To develop and enrich the available resources for further deployment.
- Management of forest genetic resources in the Eastern Himalayas.
- Characterization of forest tree species inNortheastern Himalayan hardwoods,softwoods, important shrubs and bamboos.
- Transfer of technology in the usage of superior genetic material for higherproductivity to end users like State Forest Department, NGOs and farmers.
- To carry out the various programmes tree improvement, forest genetic resources and forest ecology.

c) Forest Product Utilization

- Inventorisation and documentation of Non Timber Forest Product (NTFP)wealth of the state including traditional knowledge.
- Conservation and domestication of Non Timber Forest Product (NTFP) ofNorth-eastern States.
- Development of agro-techniques and chemical extraction techniques for NonTimber Forest Product (NTFP).
- Evaluation of wood characteristics of trees.

2. ACCOMPLISHMENTS

The overall performance of the CHF students in the competitive examination and employment ability has enhanced due to excellence guidance and support provided for their academic, administrative and research endeavours. The students have exceled in different National level competitive exams. The college has set-up a Placement Cell (*Student Welfare Section*) for the students which opens the doors for getting employment in the various organizations. The passed out students are working as Assistant Technology Manager (ATMA), Scientist in ICAR, and are placed in reputed positions in government and corporate sectors. Some are progressing to higher education and working as Research fellows in different institutes/universities.

6.4.2. Faculty Strength

S.No.	Sanctioned Faculty	Faculty in Place	Vacant Position	Faculty Recommended by the ICAR/UGC/VCI/other regulatory bodies
A	***Department of Silviculture & Agroforestry***			
1.	Professor	Nil	1	1
2.	Associate Professor	1	-	2
3.	Assistant Professor	2	-	4
B	***Department of Forest Product Utilization***			
4.	Professor	-	-	1
5.	Associate Professor	1	-	2
6.	Assistant Professor	2 + (1*)	-	4
C	***Department of Tree Improvement & Plant Breeding Genetics***			
7.	Professor	Nil	1	1
8.	Associate Professor	Nil	1	2
9.	Assistant Professor	2	2	4
D	***Department of Basic Sciences& Social Science***			
10	Professor	-	-	1
11	Associate Professor	2	-	2
12	Assistant Professor	9	-	6
E	***Department of Plant Protection***			
13	Professor	1	-	-
14	Associate Professor	2	-	-
15	Assistant Professor	3	-	-
F	***Department of Natural Resource Management***			
16	Professor	1	-	1
17	Associate Professor	2	-	2
18	Assistant Professor	2	-	4

*Contractual (Assistant Prof.)

As per the Faculty strength recommended by the ICAR/UGC/VCI/Other regulatory bodies, a total of 50 teaching staff are to be placed. However, the University has filled 38 regular teaching faculty post and 12 post are still vacant. Recently, a total of 3 nos. of faculties have been transferred to other constituent colleges of the University (CAU) and 6 nos. of faculties have been placed in higher position in other Universities.

6.4.3. Technical and Supporting Staff

The technical staff are attached with the office of the Dean for administrative, convenience and they are allotted to other departments whenever need arises. The administrative and accounts staff are centralized in the college and are operating under the direct control of the Dean as part of Dean's office. At present, the college has 127 technical and supporting staffs and 59 are vacant. However, additional charges are assigned to 7 faculties, 01 contractual recognized medical practitioner and 10 MTS assigned with specific duty. All the vacant post will be filled in due course as additional staffs are required for the overall development of the college. The details of staff involved are listed below:

Technical and Supporting Staff

Sl. No.	Sanctioned staff	Staff in Place	Vacant post	Staff Recommended by the ICAR/UGC/VCI/other regulatory bodies
A.	***Establishment Branch***			
1.	Assistant Registrar (Estt.)	01	-	
2.	Assistant Registrar (Acad.)	-	02	
3.	Assistant Comptroller	-	01	
4.	Security Officer	-	01	
5.	Accountant	01	02	
6.	UDC	02	-	
7.	Clerk-cum-Typist/LDC	11	10	
8.	Computer operator	01	-	
9.	Security Guard	02	-	
B.	***Estate Branch***			
1.	Asstt.Engineer/Asstt. Estate Officer	01	-	

3.	Medical Attendant	02	-	
E.	***Student Welfare***			
1.	Students Welfare Officer	01*	01	
2.	Assistant	01	-	
F.	***Hostels***			
1.	Chief Warden	01*	-	
2.	Warden	05*	-	
3.	Caretaker/Helpers	10***		
G.	***Technical & Supporting Staff for Departments, Estate, Hostels & others***			
1.	Horticulture Assistant	01	-	
2.	Live Stock Assistant/Farm Asstt.	04	01	
3.	Field-cum-Lab-Assistant	21	06	
4.	**Multi-Tasking Staff (MTS)**	**47**	**44**	
2.	Junior Engineer (Civil & Mechanical)	02	-	
3.	Electrician	01	-	
4.	Plumber	01	01	
5.	Drivers including Tractor Driver	05	04	
C.	***Library***			
1.	Librarian	01	-	
2.	Sr. Library Assistant	-	01	
3.	Library Assistant	03	-	
D.	***Health***			
1.	Medical Officer	01**	01	
2.	Compounder cum Dresser	01	-	

* Indicate holding additional charge of minimum Assistant Professor Cadre
** Contractual Recognised Medical Practitioner
*** MTS with assigned specific duty

6.4.4 . Classrooms and Laboratories:

a) **Number of class rooms**:13

All class rooms are provided with LCD projectors and audio-visual aids for better delivery of lectures. The faculty use power point presentations to make the concepts/techniques clearly understandable to the students. The important lectures are taught with videos. A table, podium, whiteboards/screen, black board etc. are available in each class room for the use of teachers. A common generator facility supplies power to all the classrooms to avoid interruption of the class during power failure.

b) **Functional laboratories** (Forestry & allied) :13 nos.

S.No.	Department/Section	Area (Sqmtr)	Remarks
1	***Silviculture & Agroforestry***		
	(i) SAF Laboratory	98	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc.
2	***Forest Product Utilization***		
	(ii) Medicinal and Aromatic Plants Laboratory	160	Equipped with all the modern equipment's for practical, sitting arrangements, Distillation, extraction facilities, etc.
	(iii) Wood Products and Utilization Laboratory	90	Facilities for characterization of morphological, anatomical, mechanical & chemical properties of timber. Other work carried out -wood design, fabrication ,etc.
3	***Tree Improvement & PBG***		
	(iv) TIM Laboratory	72	Equipped with instruments for research &practicals. Water basins fitted in the laboratory for proper drainage of water and chemicals..
4	***Basic Sciences***		

	(v) UG Basic Science Laboratory	28	Biochemical, biotechnological & microbiological practical & research needs of students are being fulfilled.
	(vi) PG Basic Science Laboratory	28	
	(vii) Tissue Culture Laboratory	47	
	(viii) Computer Laboratory	48	The lab is used for conducting Practical classes for PG students equipped with 15 computer & 2 printers for student access. Internet band width/ speed: 34Mbps.
5	***Plant Protection***		
	(ix) Entomology (Biocontrol) Laboratory:	72	Facilities equipped for research work on crop pests management & production of biocontrol agents
	(x) Entomology (IBDC) Laboratory :	85	
	(xi) Pathology Laboratory (Mushroom): (Sterlization room, Boiling room)	144	Production of Mushroom spawn and other microbial research work carried-out.
6	(xii) Pathology (Mushroom inoculation):	45	For inoculating mushroom. The laboratory is also equipped with culturing and spawns production
	Natural Resource Management		
	(xiii) Soil Science & Agricultural Chemistry Laboratory	100	The laboratory is equipped with various facilities to analyse the soil samples, related to various degree programmes (UG, P.G and Ph.D) of Agriculture, Horticulture and Forestry.
7	Department of Floriculture (O & MAP) (xiii) Floriculture laboratory	90	The laboratory is equipped to conduct classes on identification and description of annuals, binneals,

			herbecius perenials, climbers, shurbs, trees, indoor plants, planning and designing

c) Lists major equipment:

The laboratories are well equipped to conduct the practicals/hands on training to the students with instruments, laboratory tables, basins, irrigation facilities, electrical and ventilations, adequate wooden furniture etc. The list of instruments/equipments available in the laboratories are furnished below.

(i) Department of Silviculture & Agroforestry

S.No	Name of the Equipment	S.No	Name of the Equipment
1.	Autoclave	2.	Hot Air Oven
3.	Bark Gauge	4.	Increment Borers
5.	Binocular	6.	Incubator
7.	Binocular microscope	8.	Lux Meter
9.	Clinometer	10.	Ordinary Balance
11.	Digital Camera	12.	pH meter
13.	Digital Weighing Balance	14.	Refrigerator
15.	Weighing balance	16.	Seed drier
17.	Distillation apparatus	18.	Seed Germinator
19.	Electronic Balance	20.	Microtone machine
21.	Haga Altimeter	22.	Weighing Balance
23.	High Limb Chainsaw		

(ii) Department of Forest Product Utilization

S.No	Name of the Equipment	S.No	Name of the Equipment
1.	Double water distillation machine	2.	Godrej refrigerator
3.	Optical microscope with computer	4.	Hot oven
5.	Essential oil distillation machine	6.	Water bath
7.	Autoclave vertical	8.	Compound microscope
9.	Binocular microscope	10.	Dissecting microscope
11.	UV Photo spectrometer	12.	BOD incubator
13.	Soxhlet oil extractor	14.	Hot plate magnetic stirrer
15.	Weighing balance	16.	Digital weighing balance
17.	pH cum conductivity meter	18.	Seed Germinator
19.	Hot and cold press machine	20.	Microtone machine
21.	Motor chain saw	22.	Universal testing machine
23.	Combine wood working machine		

(iii) Department of Tree Improvement & Plant Breeding Genetics

S.No	Name of the Equipment
1.	Digital Magnetic Stirrer
2.	Hot Plate with Magnetic Stirrer
3.	Precision Balance
4.	Microscopes
5.	Water bath
6.	Refrigerator
7.	Seed drier
8.	Seed Germinator
9.	Plant press
10.	Electronic Balance

(iv) Department of Basic Sciences

S.No	Name of the Equipment	S.No	Name of the Equipment
1.	pH meter	2.	Microscopes
3.	Cooling water bath	4.	Laminar flow
5.	Centrifuge	6.	PCR Machine
7.	Autoclave	8.	HPLC (under repair)
9.	Refrigerator	10.	Weighing machine
11.	Microscope	12.	Ultraviolet Transilluminator
13.	Hot plate	14.	Ultrasonicleaner
15.	Ice-flaking machine	16.	Gas Chromatography
17.	Centrifuge	18.	Ozone Generattor
19.	Weighing balance	20.	Oven
21.	Refrigerator		

Tissue Culture Laboratory:

S.No	Name of the Equipment
1.	Laminar flow
2.	HPLC (under repair)
3.	PCR Machine
4.	Weighing machine
5.	Gas Chromatography
6.	Ultraviolet Transilluminator

(v) Department of Plant Protection

S.No	Name of the Equipment	S.No	Name of the Equipment
1.	Autoclave	2.	Distillation unit

3.	Fermenter	4.	Laminar airflow
5.	Binocular microscope (CH20i Olymp)	6.	Laminar airflow Vertical
7.	Humidity cabinet	8.	Weighing balance
9.	Autoclave Horizontal	10.	Bio-nocular microscope
11.	Honey extractor (10frames)	12.	Multimedia projector
13.	Honey processing plant (Cap. 250Kg)	14.	Nikon Camera d5300
15.	Honey bottling machine	16.	Water Bath
17.	Automatic Honey bottle Dryer	18.	Serological Water bath
19.	Honey Bottle sealing machine	20.	Distillation unit
21.	Honey comb foundation mill	22.	Quartz Boiler & Quartz condenser
23.	Gel Electrophoresis	24.	BOD incubator
25.	Refrigerated table top centrifuge	26.	Deep freezer, Water bath (digital)
27.	Autoclave	28.	Chalk powder mixture
29.	Grain Boiler	30.	Spawn Bag filler
31.	Laminar flow	32.	Distillation Unit
33.	Refrigerator	34.	Hygrometer
35.	Camera lucida	36.	Stage & ocular micrometer
37.	Haemocytometer	38.	Student microscope
39.	Shrink wrap machine	40.	Microscope (Zeiss)
41.	Spectrophotometer	42.	Micro-oven
43.	Digital balance	44.	BOD incubator
45.	Illuminator	46.	

(vi) Department of Natural Resource Management

Soil Science & Agricultural Chemistry Laboratory:

S.No	Name of the Equipment	S.No	Name of the Equipment
1.	pH meter	2.	Hot Plate
3.	Hot Air Oven	4.	Plastic Jars
5.	Water Bath	6.	Mechanical Shaker
7.	EC Meter	8.	Analytical Balance
9.	Keen Box	10.	Nitrogen Analyse
11.	Spectrophotometer	12.	Single Distillation Set / Unit
13.	Calorimeter	14.	Moisture Box
15.	Double Distillation Set / Unit	16.	Flame Photometer
17.	Atomic Absorption Spectrophotometer	18.	Sieves
19.	Total Station	20.	Plane table with accessories
21.	Chain Surveying& accessories	22.	Abney's Level

23.	GPS	24.	Digital Planimeter
25.	Hand Level	26.	Current Meter
27.	Levelling survey accessories		

Forest Surveying/ Engineering Facility

S.No	Name of the Equipment	S.No	Name of the Equipment
1.	Total Station	2.	Current Meter
3.	Plane table with accessories	4.	Digital Planimeter
5.	Levelling survey accessories	6.	Hand Level
7.	GPS	8.	Abney's Level
9.	Dumpy Level	10.	Chain Surveying& accessories

Farm Power, Machineries and Irrigation Infrastructures

S.No	Name of the Equipment	S.No	Name of the Equipment
1.	Tractor 275 DI	2.	Ridge Maker
3.	Tractor 575 DI	4.	Tractor operated Seed Drill
5.	Tractor 605 DI	6.	Trolley
7.	Tractor Bull Excavator	8.	Multi crop Thresher
9.	Rotavator	10.	Tractor Operated Lawn Mower
11.	Cultivator	12.	Power Tiller
13.	Disc Harrow	14.	Sprinkler Irrigation System
15.	M.B. Plough	16.	Drip Irrigation System
17.	Disc Plough	18.	Tractor Operated Potato Planter
19.	Hand Tools & Implements	20.	Tractor Operated Sprayer
21.	Sprayers		

(d) Farm facilities, workshops and other instructional units:16 nos.

S.N	Department/Section	Area (Sq.mtr.)	Facilities
1	***Silviculture & Agroforestry***		
	(i) Silviculture Nursery	9100	• Nursery raised bed= 70 Nos. • Shade net house (5x1.5m) =30 Nos. • Green Net House (9mx16.5mx 5.5m) • Tree Garden/ Collection of 250 species of tree species forresearch/academic • PG Research plots for germination exp • Plantation Blocks of diff.species

			• Water Pump with motor , Irrigation & electricity setups
	(ii) Agroforestry Block	2100	• Compost (concrete) pit • PG Research plots under different spacing's of diff.species & diff. age.
2	***Forest Product Utilization***		
	(iii)Medicinal & Aromatic plant farm (iv)Medicinal plant germplasm block	12000	• Germplasm of Medicinal Plants • Collection of rare & endangered spp. • PG research plots • Nursery beds • Shade houses/roofs • Irrigation & electric facilities
	(v) Herbal garden	10000	• More than 160 species • Research, conservation & identification purpose
	(vi) Bambusetum block	8000	• 67 spp. of different type of bamboos • Research, conservation & identification purpose
	(vii) Rubber plantation block	20000	• Commercial genotypes of high yielding *Hevea brasiliensis*
	(viii) NTFPs & High value timber block	25000	• Tans & dye yielding plants • Lac, Gums and resins plants • Drugs, spices and insecticides plants • Wild edible fruits trees
3	***Tree Improvement & PBG farm***		
	(ix) TIM & PBG farm	1800	• Nursery raised bed= 20 Nos. • Shade net house (15x15m) • Tokkopatta shade roofs: 10nos. • Arboretum 1100 sq. mtr • Irrigation & electricity setups
4	***Plant Protection***		
	(x) Entomology (Biocontrol) Farm	4047	• Nursery Beds, Research plots • Water Pump with motor , Irrigation & electricity setups
	(xi) Entomology (IBDC) Farm	2023	• All equipments of beekeeping • Irrigation facility • Plots for nectar yielding plant

	(xii) Pathology Farm	1083	• Disease Diagnostic Field • Students demonstration plot • Nursery beds
			• irrigation & electric facilities.
	(xiii) Paddy straw boiling unit and mushroom House	1350	• Boiling unit • Facilities for mushroom culture & production • Unit has more than 250 species of edible and poisonous mushroom species.
5	***Natural Resource Management***		
	(xiv) Forest Engineering Facility (xv) Farm Power & Irrigation Infrastructures	1500	• Runoff Experiment Facility • Rain water Harvesting Based Integrated Horticulture Farming System • WHP=5 Laks Litters Capacity • 5Hp Solar Pumping System • Naturally Ventilated Greenhouse= 30m ×7m • Drip irrigation system operated by Solar Pump • Sprinkler Irrigation System operated by solar pump • Gravity fed drip Irrigation System in 500sq.m area • Basic Power Machineries available
	(xvi) Agrometerology Observatory	500	• Meterological observation data for Research and Academic purpose

(e) Justification:

The laboratories of all departments are well equipped with all the necessary equipments and facilities to accomplish the proposed research activities. All basic chemicals and instruments are available for doing practical and research work in all the laboratories. TheFarm facilities, workshops and other instructional units are well designed with sufficient land area and build infrastructure, irrigation, electricity and required farm machineries supported with tractors, power tillers, cultivators, leveller, rotavator, and other farmimplements for day to day work and research purpose to meet the course curricula and research requirements.

(f) Theory and practical batches for the Degree Programme: The number of intake students are manageable due to limited number of seats. Average number of students in

theory & practical classes

S.N.	Particulars of curricula	Batch of student in *Theory* class	Batch of student in *Practical* class
1.	Forestry (Major)	1 batch (6)	1 batch (6)
2.	Supporting courses	1 batch (6)	1 batch (6)
3.	Forestry (Silviculture)	1 batch (2)	1 batch (2)
4.	Forestry (Forest Genetic Resources)	1 batch (2)	1 batch (2)
5.	Forestry (Medicinal & Aromatic Plants)	1 batch (2)	1 batch (2)

The class rooms and laboratories are sufficient to meet course curricula requirement of the degree programme.

6.4.5. Conduct of Practical and Hands-on-Training:

- On the basis of academic calendar prepared by the university for the academic session for the effective implementation of the curriculum, the theory and practical classes are conducted at the experimental fields and laboratories of the forestry and allied departments. The PG courses involve conducting practical's as per credits allotted to the specified courses and hands on training and field/lab practical's for courses like Silviculture, Biometry, Agroforestry, Plantation Technology, Tree Improvement, Forest Biotechnology, Wild Life Management, Forest Protection, Watershed Management, Wood Products and Utilization, Forest Management, etc.
- Besides in-house projects, PG students are sent as and when require by the college to reputed institutions to complete their research projects or vital topics under curriculum. Taking students for field surveys/institutional/industrial visits not only provide practical exposure to students but also help in proper networking and interaction between the college and research institutions/ industries.
- Hands-on-training for ICT tools and technology such as statistical softwares, MSoffice, LCD and is encouraged in teaching learning and evaluation process.
- PG students are encouraged to participate in conferences, seminars, workshops, brainstorming etc. and also asked to write reviews in reputed National/International journals.

6.4.6. Supervision of students in PG/PhD programmes: (number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.)

S.No	Department	Qualified faculty	Present nos. of students	Intake, as per guidelines		
				Asstt. Professor	Asssoc. Professor	Professor
1.	Silviculture & Agroforestry	1	2	4	5	6
2.	Forest Product Utilization	3	2	4	5	6
3.	Tree Improvement & PBG	2	2	4	5	6

6.4.7. Feedback of stakeholders: The performance of an average score of various parameterwere rated on the scale from 1* to 5* on the basis of feedback parameters (Annexure I)

S.No.	Number of passed out student awarded PG degree	Feedback Mechanism	Feedback issues
1.	Eight (12) Year (2017 to2020)	Feedback form (**supported by the documents**)	Received feedback from 07 students with average scoring (2.14)* indicating'Very Good' from the feedback parameters.
			Issues: Some of the issues that have raised from the students through feedback like internet facilities, free online research journals, off campus study tour and strengthening of both theteaching and non-teaching staffs were addressed.

(*1- Excellent, 2- Very good, 3- Good, 4- Fair, 5- Poor)

Action:Feedback evaluation and suggestions given by students and alumni are discussed with the members of the college advisory committee of concern course and necessary changes have been accomplished as below:

- Strength of the faculty of core and allied departments has been upgraded.
- College has well-equipped Computer lab with 24 hours x 7 days / week free Internet access (34 Mbps) to students.
- Aids to online research like Electronic Resource Management package for e-journals Access through CeRA, CAB data base: access facility and Krishikosh are available to the students.
- Hostels are provided with computer system for their research/academic purpose.

- PG students are well facilitated with virtual platform.

6.4.8. Student intake and attrition in the programme for the last five years:

Name of the degree programme	Actual student admitted in last five years					Attrition (%)				
M.Sc. Forestry	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Silviculture/ Plantation Technology	1	2	2	1	2	-	-	-	-	-
Forest Genetic Resources	-	1	1	2	1	-	-	-	-	-
Medicinal & Aromatic Plants	-	-	1	1	1	-	-	25*	-	-

*One (01) student attrition i.e. 25%

Student attrition: In general, the student attrition is very low and the retention of the students is very high in this college.

6.4.9. ICT Application in Curricula Delivery:

(a) The college has well-equipped air conditioned **Computer lab** with a plinth area of 80 square meter. The students are being taught about the IT facilities. The computer centre is equipped with Desktops for the use of staff and students of this institute. All these desktops and laptops are connected with internet for browsing. Since October,2020 the computer centre is connected with 24x7 34 Mbps ,InternetAccess through BSNL . The facilities available in the computer lab are:

- 24 hours x 7 days / week free Internet access (34 Mbps) to students
- Wi-Fi enabled at New Academic Block (since 2015) to use e-communications for students and staffs.
- Students are trained to install open source software.
- Computers with Internet access are available in all departments.
- Academic buildings are linked with Administrative building through Optic Fiber Cable.
- Total number of computers for public access: 15
- Total numbers of printers for public access: 02
- Internet band width/ speed: 34Mbps through BSNL
- The lab is used for conducting Practical classes for UG and PG students.

- Students also use the Computer Lab for their research, statistical calculation and other academic activities.
- The academic, research, extension activities of the college are updated at the college website.

(b) The **Library** of the college is equipped with internet facilities for staff and students to access OPAC (Online Public Access Catalogue) URL =www.chfcau.ideal.egranth.ac.in.

- Two Software are available : (i) Alice for Window (Softlink Asia pvt.ltd)Offline and (ii) Koha Library management Software
- Electronic Resource Management package for e-journals Access through CeRA ICAR (Consortia for e-Resources in Agriculture): www.cera.jccc.in
- CAB data base: access facility (CAB data from 1972 to 2005)
- Krishikosh (e-theses etc. Institutional Repository of ICAR) all M.Sc. and Ph.D. Theses uploaded. It is open repository. URL: Krishikosh.egranth .ac.in
- Library automation: under process through Koha Library management software
- Total number of computers for public access in library:06

- The College of Horticulture and Forestry, Pasighat has upgraded to **2 Nos.** of smart classrooms for teaching and practical purposes.

(c) Language Laboratory:

The language laboratory has been established with the approval under Institutional Development Plan-National Agricultural Higher Education Project (IDP-NAHEP) recently. At present assistant professor (sub: English) is looking after the language laboratory. The purpose of constructing the laboratory is to teach students to have a good command of the language for effective communication with clarity and accuracy. The laboratory set up consists of computer assisted language support system with multimedia hi-tech language laboratory for language teaching. The students will be trained in advanced writing skills in terms of assignment and report preparation. The students have access to study materials related to group discussion, interview skills, brain storming, and simulation and negotiation skills. The medium of instruction in the college is English. As per V Dean's committee recommendation during the first semester of B.Sc (Hons.) Horticulture & B.Sc (Hons.) Forestry, two credit (1 theory and 1 practical) course on communication skills and personality development and 1 non-credit (practical) course on comprehension skills in English are offered. A well-qualified English teacher is enaged to conduct the English classes. The concerned course

incharge use recommended text books, online audio and video clippings. However, students from non-english medium of instruction are acoustomed comfortably by conducting extra class hours and personal care by academic advisors. In addition, SWO and NSS in-charges conduct various literary competitions such as debate, elocution, essay writing competition on various occasion *viz*., Republic Day, Independence Day, Dr. B. R. Ambedkar Jayanti, Mahatmt Gandhi Jayanti, College Day functions and other important events to encourage students to develop their language proficiency. Also, teachers in their respective courses encourage students to present the seminar on course topics to have command on English and improve public speaking skills.

Facilities in Language Laboratory

Computer	**32**
LCD with screen	3
LED TV	7
Audio systems	3
Podium	2
Zoom Platform link for online classes	1

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Prof. B.N. Hiregoudra hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college and degree awarding university.

20/05/2024

Signature of Dean of the College
with Date & Seal

Dean
College of Horticulture & Forestry
Central Agricultural University
Pasighat 791102 (A.P.)

STUDENTS FEEDBACK FORM

1. **Name of the student: Dr. Pempa Lamu Bhutia**
2. **Admission no.:01F/2007**
3. **Academic Year: 2007-2011**
4. **Name of the programme studied: B.Sc. Forestry**
5. **Designation: Scientist**
6. Mobile No.: 9381680479
7. **Email id:pempadenzongpa66@gmail.com**
8. **Feedback:**

S.No.	Parameters	Rating
1.	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation.	**3**
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	**1**
3.	Teaching quality, fairness in the assessment processes (Internal evaluation, Quiz, Assignments, etc.) and freedom to adopt new techniques/education tools	**1**
4.	Opportunities in the College for Research Activities & Relevance with Practical / Lab work	**2**
5.	Curriculum has prospects for supporting higher education, career orientated/employability	**2**
6.	Overall Learning Experience	**2**

*Select your ranking on the scale of 1 to 5 for each of the following parameters. (1- Excellent, 2- Very good, 3- Good, 4- Fair, 5- Poor)

Recommendations if any for course improvement:

Date:19/05/2021 Signature of the student

STUDENTS FEEDBACK FORM

1. **Name of the student:Jasmine Pabin**
2. **Admission no.:03(M)F-18**
3. **Academic Year:2018-2020**
4. **Name of the programme studied:M.Sc Forestry**
5. **Designation:Student**
6. **Mobile No.:8131052482**
7. **Email id:jasminepabin0697@gmail.com**
8. **Feedback:**

S.No.	Parameters	Rating
1.	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation.	**1**
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	**1**
3.	Teaching quality, fairness in the assessment processes (Internal evaluation, Quiz, Assignments, etc.) and freedom to adopt new techniques/education tools	**2**
4.	Opportunities in the College for Research Activities & Relevance with Practical / Lab work	**3**
5.	Curriculum has prospects for supporting higher education, career orientated/employability	**1**
6.	Overall Learning Experience	**2**

*Select your ranking on the scale of 1 to 5 for each of the following parameters.
(1-Excellent, 2- Very good, 3- Good, 4- Fair, 5- Poor)

Recommendations if any for course improvement:

Date:19-05-21 Signature of the student

STUDENTS FEEDBACK FORM

1. **Name of the student: UNSHANI DARYAL**
2. **Admission no.: 02F(M)-18**
3. **Academic Year: 2018-2020**
4. **Name of the programme studied: M.Sc. (Hons)Forestry**
5. **Designation: Student**
6. **Mobile No.: 8132814970**
7. **Email id: unshanidaryal0@gmail.com**
8. **Feedback:**

S.No.	Parameters	Rating
1.	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation.	**3**
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	**4**
3.	Teaching quality, fairness in the assessment processes (Internal evaluation, Quiz, Assignments, etc.) and freedom to adopt new techniques/education tools	**3**
4.	Opportunities in the College for Research Activities & Relevance with Practical / Lab work	**5**
5.	Curriculum has prospects for supporting higher education, career orientated/employability	**5**
6.	Overall Learning Experience	**3**

*Select your ranking on the scale of 1 to 5 for each of the following parameters. (1- Excellent, 2- Verygood, 3- Good, 4- Fair, 5- Poor)

Recommendations if any for course improvement:

- Teaching aids like Projector should be available & functional in every classroom.
- Course teacher should be appointed for each specific course or at least of same department.
- Basic needs of field (soil, FYM, sand, etc,) & lab facilities should be provided accordingly.
- For final year students, seminars or any of sort related with higher education, career oriented/employability can be conducted.

Unshani Daryal

Date:19-05-2021 **Signature of the student**

STUDENTS FEEDBACK FORM

Name	:	FULLMOON PUWEIN
Admn. No.	:	03F(M)/2017
Academic Year	:	2017-18
Name of the programme studied	:	M.Sc. (FORESTRY) PLANTATION TECHNOLOGY
Present Designation & Work Profile	:	NONE
Mobile number & email ID	:	8837425726; 13bscagh007@gmail.com

Feedback

S.N.	Parameters	Ranking*
1.	Curriculum & Syllabi of the courses provide sufficient knowledge in thearea of study, has good balance between theory and application and fulfilling your expectation.	2
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	3
3.	Teaching quality, fairness in the assessment processes (Internal evaluation, Quiz, Assignments, etc.) and freedom to adopt newtechniques/education tools	2
4.	Opportunities in the College for Research Activities & Relevance with Practical / Lab work	3
5.	Curriculum has prospects for supporting higher education, career orientated/employability.	4
6.	Overall Learning Experience	1

*Please give your valuable feedback on curriculum to improve quality of the programme. Select yourranking on the scale of 1 to 5 for each of the following parameters. (**1- Excellent, 2- Very good, 3- Good, 4- Fair, 5- Poor**)

Recommendations if any for course improvement: (1). Improvement in Lab facilities in almost all Dept. is need. (2). Increase in strength of the faculties in Forestry Dept. especially inthe field of agroforestry, forest pathology, forest entomology and NRM related subject. (3).

Provide study tour for P.G students.

Date: 5/11/2020

Signature of Student

केन्द्रीय कृषि विश्वविद्यालय
केन्द्रीय कृषि विश्वविद्यालय
पासीघाट-७९११०२, अरुणाचल प्रदेश

COLLEGE OF HORTICULTURE AND FORESTRY
Central Agricultural University
Pasighat-791102, Arunachal Pradesh

STUDENTS FEEDBACK FORM

Name	:	LAPYNSUK IANA
Admn. No.	:	01FOM-2015
Academic Year	:	2015-2017
Name of the programme studied	:	MASTER OF SCIENCE IN FORESTRY
Present Designation & Work Profile	:	Assistant Technology Manager (ATM) at Agricultural Technology Management Agency (ATMA). **Work profile:-** 1. To provide requisite technical & knowledge support to farm school, FF, FIGs/CIGs/FSGs/FPOs and farmers in general. 2. In consultation with Block level officers of agri. and allied departments & BTMs, ATMs will provide necessary inputs to Common Service Center & Kisan Call Centres 3. Any other work assigned by BTM.
Mobile number & email ID	:	7640935490 (lapynsuk.1991@gmail.com)

Feedback

S.N.	Parameters	Ranking*
1.	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation.	2
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	3
3.	Teaching quality, fairness in the assessment processes (Internal evaluation, Quiz, Assignments, etc.) and freedom to adopt new techniques/education tools	2
4.	Opportunities in the College for Research Activities & Relevance with Practical / Lab work	4
5.	Curriculum has prospects for supporting higher education, career oriented/employability.	3
6.	Overall Learning Experience	2

*Please give your valuable feedback on curriculum to improve quality of the programme. Select your ranking on the scale of 1 to 5 for each of the following parameters. (1- Excellent, 2- Very good, 3- Good, 4- Fair, 5- Poor)

Practical / Lab w[illegible] due to lack of resources such as tools, implements and also lack of proper laboratory, a student is unable to perform his/ her research in a proper manner. Therefore, Investment in research is needed as it helps in improvement of institution's reputation not only that but also a good research work does help in the future of a student.

Date: 7-11-2020

Signature of Student

STUDENT FEEDBACK FORM

Name	:	Nepuni Rinaldi
Admn. No.	:	01F(M)-2016
Academic year	:	2016-2017
Name of the programme studied	:	M.Sc. Forestry (Plantation Technology)
Present designation and work profile	:	Project Associate
Mobile no. amd e-mail ID	:	6909787273/ rinaldinepuni03@gmail.com

Feedback

S.N.	Parameters	Ranking*
1.	Curriculum & syllabus of the course provide sufficient knowledgein the area of study, has good balance between theory and application and fulfilling your expectation.	1
2.	Usage of teaching and aids ICT in the class by faculty to facilliate teaching and give quality education.	2
3.	Teaching quality, fairness in the accesment processes (internal evaluation, quiz, assignment, etc) and freedom to adopt new technique/ education tools.	1
4.	Oppourtuniteies in the college for research activities & relevance with practicle/ lab work.	2
5.	Curriculum has prospects for supporting higher educations, career oriented/employability.	2
6.	Overall learning experience	2

*Please give your valuable feedback on curriculum to improve quality of the programme ranking on the scale of 1 to 5 for each of the following parameters (1- excellent, 2- Very Good, 3-Good, 4- Fair, 5-Poor)

Recommendation if any for the course improvement :

Date: 8/11/2020

Student signature

STUDENTS FEEDBACK FORM

Name : Guruaribam Nishanta Sharma

Admn. No. : 02F(M)-2017

Academic Year : 2017

Name of the programme studied : M.Sc. Forestry (Plantation Technology)

Present Designation & Work Profile :

Mobile number & email ID : 7005013821 gurunishanta@gmail.com

Feedback

S.N.	Parameters	Ranking*
1.	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation.	2
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	3
3.	Teaching quality, fairness in the assessment processes (Internal evaluation, Quiz, Assignments, etc.) and freedom to adopt new techniques/education tools	3
4.	Opportunities in the College for Research Activities & Relevance with Practical / Lab work	3
5.	Curriculum has prospects for supporting higher education, career orientated/employability.	4
6.	Overall Learning Experience	2

*Please give your valuable feedback on curriculum to improve quality of the programme. Select your rankingon the scale of 1 to 5 for each of the following parameters. (**1- Excellent, 2- Very good, 3- Good, 4- Fair, 5- Poor**)

Recommendations if any for course improvement : there is lack of faculty and equipment's requirement for fast completion of the course. Since hostel in compulsory for any course. Kindlycheck the quality of the food provide to the students.

Date: 7 November 2020 Signature of Student

STUDENTS FEEDBACK FORM

Name	:	Royal L Mihriemate
Admn. No.	:	03F(M)-2016
Academic Year	:	2016-2018
Name of the programme studied	:	M.Sc. Forestry (Agroforestry)
Present Designation & Work Profile	:	-
Mobile number & email ID	:	7005807685, royal04@yahoo.com

Feedback

S.N.	Parameters	Ranking*
1.	Curriculum & Syllabi of the courses provide sufficient knowledge in thearea of study, has good balance between theory and application and fulfilling your expectation.	2
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	3
3.	Teaching quality, fairness in the assessment processes (Internal evaluation, Quiz, Assignments, etc.) and freedom to adopt new techniques/education tools	2
4.	Opportunities in the College for Research Activities & Relevance with Practical / Lab work	2
5.	Curriculum has prospects for supporting higher education, career orientated/employability.	2
6.	Overall Learning Experience	2

*Please give your valuable feedback on curriculum to improve quality of the programme.
Select your ranking on the scale of 1 to 5 for each of the following parameters.
(**1- Excellent, 2- Very good, 3- Good, 4- Fair, 5- Poor**)

Recommendations if any for course improvement : Better wifi facility for students

Date:7/11/2020 Signature of Student

COLLEGE OF HORTICULTURE AND FORESTRY
Central Agricultural University
Pasighat-791102, Arunachal Pradesh

STUDENTS FEEDBACK FORM

Name : TANTULUNG TATAN

Admn. No. : 04(M) 2017

Academic Year : 2017-2019

Name of the programme studied : M.Sc. Forestry

Present Designation & Work Profile : Junior Project Fellow

Mobile number & email ID : 8837058699 & tantulungtatan17@gmail.com

Feedback

S.N.	Parameters	Ranking*
1.	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation.	1
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	1
3.	Teaching quality, fairness in the assessment processes (Internal evaluation, Quiz, Assignments, etc.) and freedom to adopt new techniques/education tools	1
4.	Opportunities in the College for Research Activities & Relevance with Practical / Lab work	1
5.	Curriculum has prospects for supporting higher education, career oriented/employability.	1
6.	Overall Learning Experience	1

*Please give your valuable feedback on curriculum to improve quality of the programme. Select your ranking on the scale of 1 to 5 for each of the following parameters. (1- Excellent, 2- Very good, 3-Good, 4- Fair, 5- Poor)

Recommendations if any for course improvement : The PG Students should be send outside for studying programme

Date: 07/11/20

Signature of Student

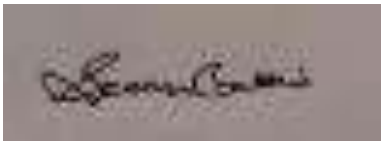
STUDENTS FEEDBACK FORM

1. **Name of the student: SEEMA CHETTRI**
2. **Admission no.: 01F(M)2018**
3. **Academic Year: 2018-2020**
4. **Name of the programme studied: M. Sc. Forestry**
5. **Designation: Student**
6. **Mobile No.: 7641018487**
7. **Email id: cmachettri2403@gmail.com**
8. **Feedback:**

S.No.	Parameters	Rating
1.	Curriculum & Syllabi of the courses provide sufficientknowledge in the area of study, has good balance between theory and application and fulfilling your expectation.	**1**
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education.	**2**
3.	Teaching quality, fairness in the assessment processes (Internal evaluation, Quiz, Assignments, etc.) and freedomto adopt new techniques/education tools	**2**
4.	Opportunities in the College for Research Activities & Relevance with Practical / Lab work	**3**
5.	Curriculum has prospects for supporting higher education, career orientated/employability	**2**
6.	Overall Learning Experience	**2**

*Select your ranking on the scale of 1 to 5 for each of the following parameters. (1- Excellent, 2- Very good, 3- Good, 4- Fair, 5- Poor)

Recommendations if any for course improvement: More practical exposures and RHWE/FWE attachments in our own state departments would help strengthen our knowledge plus practicability in our own fileds.



Date: 18-05-2021 Signature of the student

Action taken:

- Feedback highlighted the requirement of more ICT tools for smart classes, which is now available in our college.
- These smart classrooms are well equipped with digital setup including projectors, smart screens and digital sensor touch writing pads etc. research activities with relevant practical classes which could be improved through collaborative research with various research institutes through short period exposure and learning in their laboratories.
    - The college is also under the process of improving wifi facilities with high internet speed data
    - Classes along with hands on training also been conducted for better explanation of the concepts and fundamentals of the subject.

केन्द्रीय कृषि विश्वविद्यालय
केन्द्रीय कृषि विश्वविद्यालय
सांख्यिकी-सिक्किम, अरुणाचल प्रदेश

COLLEGE OF HORTICULTURE AND FORESTRY
Central Agricultural University
Pasighat-791102, Arunachal Pradesh

STUDENTS FEEDBACK FORM

Name : PHORAILATPAM CHETANKUMAR SHARMA

Admn. No. : DSF(m)-2017

Academic Year : 2017-19

Name of the programme studied : M.Sc. Forestry

Present Designation & Work Profile : —

Mobile number & email ID : 8837313527 & chetanpnk@gmail.com

Feedback

S.N.	Parameters	Ranking*
1.	Curriculum & Syllabi of the courses provide sufficient knowledge in the area of study, has good balance between theory and application and fulfilling your expectation	1
2.	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education	1
3.	Teaching quality, fairness in the assessment processes (Internal evaluation, Quiz, Assignments, etc.) and freedom to adopt new techniques/education tools	2
4.	Opportunities in the College for Research Activities & Relevance with Practical / Lab work	5
5.	Curriculum has prospects for supporting higher education, career oriented/employability.	3
6.	Overall Learning Experience	2

*Please give your valuable feedback on curriculum to improve quality of the programme. Select your ranking on the scale of 1 to 5 for each of the following parameters. (1- Excellent, 2- Very good, 3- Good, 4- Fair, 5- Poor)

Recommendations, if any, for course improvement: Need for adoption of an answer system where answers to each question are to be written within a specified word limit (as practiced in UPSC Main examinations). This will make students more mature to complete the answer while maintaining the word limit.

Date: 9/11/2018

Signature of Student

SELF-STUDY REPORT

2016-17 to 2020-21

CENTRAL AGRICULTURAL UNIVERSITY

COLLEGE OF COMMUNITY SCIENCE

SANGSANGGRE, TURA,

MEGHALAYA-794005.

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6.5. Self-Study Report for the College of Community Science, Tura, Meghalaya

6.5.1. College Administration

6.5.1.1. College Dean's Office Establishment

The Dean's post has been sanctioned by the competent authority as per ICAR guidelines, and the tenure is for five (5) years. At present, no full-fledged Dean has been appointed, and the college is under the administrative control of Dr. Puspita Das, Professor and HOD, as In-Charge Dean.

In the Dean's office, there are two administrative Staff – one Assistant Registrar (Establishment) and one Assistant, along with two Multi-Tasking Staff (M.T.S.).

There is a separate Dean's chamber and two other rooms for the staff. There are basic provisions including Telephone, tele-fax, Computer with printer, photocopier, and internet facility.

Date of selection of present Dean	:	N.A.
Mode of selection	:	Nomination (complete charge was given by the competent authority of Central Agricultural University, Imphal)
Tenure	:	Till the appointment of a regular Dean

Dean's Secretariat

Sl. No.	Name of the post	No. of post	Actual Filled	Office Area (in Sq. mt.)
1	Dean	1	0	
A	**Establishment**			
2	Assistant Administrative Officer (Assistant. Registrar)	1	1	20.00
3	Assistant Academic Officer (AS)	1	0	38.49
4	Assistant Accounts Officer (AAO)	0	0	20.00
5	Head Assistant	2	1	20.00
6	Steno/Computer Operators/Personal Secretary	01/01/0	0	20.00
7	Driver	5 Driver/3 Handyman	3 Driver/3 Handyman	16.00
8	Farm Assistant	2	2	16.00
9	Store Keeper	0	0	12.00
B	**Library Staff**			
1	Senior Librarian	1	1	20.00
2	Library Asst./Clerk	3	3	300.00
	Issue Asst.	0	0	
C	**Students Welfare**			
1	Student Welfare Officer	1	1	8.781
2	Attendant	0	0	
D	**Hostel Staff**			
1	Warden/Rector	1	1	8.781

2	Care Taker/Monitor	0	0	29.28
3	Hostel Assistant.	0	0	
E	**Estate Branch**			
1	Junior Engineer/Engineer Assistant	1	2 (JE)	38.41 sq. mt.
2	Security Guard	2	2	7 sq. mt.
Total				

The Dean's office is well equipped & furnished along with computers having adequate internet connection. Printers, scanners, photocopying machines, an inverter, and telephones are available to facilitate their daily official activities.

6.5.1.2. Monitoring Mechanism for Quality Education (on-line)

The college has a Priority-Setting, Monitoring and Evaluation (PME) Cell comprising of the following members

Prof. Puspita Das	Ic. Dean	Chairperson
Dr. A. Jolly Devi	Assistant Professor	Member
Dr. H. Narmada	Assistant Professor	Member

The members are nominated by the Ic. Dean and duly approved by the university. The primary objective of the PME Cell is to plan and develop a system to improve the academic and administrative performance of the college. The cell works to promote measures towards quality enhancement through proper work culture and propagation of ethical practices. It also monitors the functioning of all the committees and cells of the college including the College Research Advisory Committee (CRAC), Academic Cell, and Extension Advisory Committee.

Due to paucity of manpower, responsibilities are delegated to faculty members to ensure the fulfillment of the purpose of this important monitoring and evaluation work. As the university mandates the college to carry out teaching, research and extension activities, different faculty members have taken additional responsibility to monitor these three activities.

(i) Teaching

For smooth conduct of teaching and all academic-related work, a faculty member is nominated as Assistant Registrar (Academic)/Academic In-charge to monitor all academic activities including admission, examination, scholarship, etc.

The courses are assigned before the beginning of each semester by the respective departments after due consultation and discussion among the faculty members. A strict monitoring on the minimum number of instructional days that are to be covered for each course is diligently done by the Academic In-charge and the Dean. The teachers maintain an attendance register and ensure that the students attend the required number of classes (80%). Whenever teachers avail leave, classes are adjusted among themselves.

Classes are usually scheduled regularly between 8:30 a.m. to 5:00 p.m. with a half-an-hour lunch recess. Library work is also encouraged to inculcate reading and note-making habits in the students.

The examination system comprises of 50% internal evaluation and 50% external for both practical and theory components. The students are made to submit assignments and also give presentations on topics encompassing the course outline provided in the Fifth Deans' Committee Report. Surprise and scheduled oral and written class tests are also conducted before and after the mid-term examination. Revision is also

done before the commencement of the end-term examination. Special classes for the weaker students are also taken by the teachers.

In the eighth semester, a committee is constituted to monitor the coaching classes that are taken for the final year students who are due to appear in the ICAR-JRF examination. As part of their preparation, frequent mock-tests are conducted by the teachers on the respective components. This has proved beneficial going by the results in the said examination. Details of the students' performance in the ICAR-JRF examination is shown under 6.5.7.1.

Presently, under the National Agricultural Higher Education Project (NAHEP), remedial measures to improve the English communication skills of the students are being taken starting with the categorization of the students into Good, Average and Weak based on the Cumulative grade point. A Language Instructor, appointed under the project, takes remedial classes, and literary competitions are frequently held to encourage students to develop confidence in public speaking and other soft skills. A Senior Research Fellow (SRF), appointed under the same project, plays a vital role in organizing various programmes for students and faculty like webinars on different themes, lecture series, personality development programmes, training to improve communication and interview skills, and literary activities like quizzes and poetry recitation. Programmes on gender sensitization, environmental issues, sustainable agriculture, start-ups and related constraints, career opportunities in Home Science, are also held.

As the college follows an Advisory System, the Dean of the college nominates a teacher to be the advisor for a group of students within 10 days of admission to monitor the performance of the students, and to counsel them at least once a week or whenever the need arises.

(ii) Research

To monitor, encourage, and evaluate research activities in the college, a College Research Advisory Committee (CRAC) is constituted comprising the following nominated faculty members:

1. Chairperson: Prof. Puspita Das, I/C Dean
2. Coordinator cum Member-Secretary: Prof. Swapnali Borah, HOD (FRM)
3. Member: Dr. Ranima Saikia, Asst. Prof. (FRM)
4. Member: Dr. Pavan Kumar S.T., Asst. Prof. (Basic Science & Humanities)

(iii) Extension

To plan, monitor, encourage, and evaluate extension activities in the college, an Extension Advisory Committee is constituted with the following nominated members:

Sl. No.	Name and Designation	Nominated Post
1.	Dean / Ic. Dean	Chairperson
2.	All HODs of the departments of the college	Members
3.	Two external experts nominated for a term of three years by the university	Members
4.	Programme Coordinator, KVK, West Garo Hills District (WGH), Tura	Member
5.	One farmers' representative and one Social Worker of the concerned state where the college is located	Members
6.	Nominees of the 4 (4) line departments of the concerned state 1. District Agriculture Officer, WGH, Tura 2. District Horticulture Officer, WGH, Tura 3. District Training Officer, WGH, Tura 4. District Industries Officer, WGH, Tura	Members

7.	One HOD of any department of the college nominated by the university for a term of three (3) years	Member

6.5.1.3. CC/Board of Studies

The Board of Studies of the college was first constituted in 2011 as per the provisions provided in the Central Agricultural University Act, 1992 (No. 40 of 1992) clause 16 (vide first amendment made as per Gazette notification, vide Registered No. DL (N)-04/0007/2003-5 dated July 15-July 21, 2006). The composition of the Board of Studies is as follows:

Sl. No.	Composition	
(i)	Dean of Faculty	Chairperson
(ii)	Director of Instruction	Member
(iii)	Director of Research	Member
(iv)	Director of Extension Education	Member
(v)	All Heads of department	Member
(vi)	One representative of the Academic Council not belonging to the particular faculty.	Member
(vii)	Two eminent Scientists from Agricultural Education System not belonging to the Central Agricultural University.	Experts
(viii)	One final year post graduate student with highest Overall Grade Point Average (CGPA).	Member
(ix)	Assistant Registrar (Academic) of the faculty	Member

The meeting of the Board of Studies is held every year on receipt of the notification from the headquarter before the annual Academic Council Meeting. Different agenda related to the 4(four) year degree programmes viz., B.Sc. (Hons.) Community Science, B.Sc. (Hons.) Food Nutrition & Dietetics, and Post-Graduate Programme in Food Science and Nutrition and Extension Education & Communication Management are proposed for discussion. The agenda items approved by Board of Studies are taken up in Academic Council for discussion. After receiving approval from the Academic Council, the changes/recommendations are implemented in the academic programme of the college.

The various meetings of the Board of the Studies conducted at College of Community Science, Tura, Meghalaya in last five years include

Sl. No.	Meeting held	Date	Major Recommendation(s)
1	3rd (Third) Meeting	May 6, 2015	➢ The College proposed for the introduction of Experiential Learning in three departments – Food and Nutrition, Home Science Extension and Communication Management and Family Resource Management. ➢ Introduction of Post-Graduate Programme in Food Science and Nutrition (AC-14/4/2015), Post-Graduate Programme in Home Science Extension and Communication Management (AC-14/5/2015), Post-Graduate Programme in Family Resource Management (AC-14/6/2015), opening an English Language Laboratory.

2	4th (Fourth) Meeting	August 26, 2016	➢ Ratification for the implementation of the Fifth Deans' Committee Report, nomenclatures of the degree programmes and Student READY Programme.
3	5th (Fifth) Meeting	April 28, 2018	➢ Ratification to change the name of the college, proposal for financial sanction to open an English Language Laboratory. ➢ Proposal for introduction of P.G. degree programme in Family Resource Management. ➢ Proposal for introduction of a Certificate course in Food Retailing. ➢ Proposal for upgradation of Laboratory Nursery School and appointment of temporary staff. ➢ Proposal for ratification to allot seats under open admission to the State of Nagaland.
4	6th (Sixth) Meeting	June 1, 2019	➢ Proposal for ratification to bifurcate course Communication Skills and Personality Development, Proposal for ratification to increase credit hours of the course technical writing ➢ Proposal for ratification of courses in view of the increase in total credit hours ➢ Proposal for ratification to increase total credit load of B.Sc. (Hons.) Food Nutrition and Dietetics from 172 to 180. ➢ Proposal for ratification to establish I.Q.A.C. ➢ Proposal for introduction of P.G. degree programme in Family Resource Management. ➢ Proposal for introduction of P.G. degree programme in Human Development and Family Studies.
5	7th (Seventh) Meeting	30th April 2020	➢ Proposal to merge the current semester's Mid-term and End-term Examinations for the courses which are not conducted. ➢ Proposal for substitution of course entitled RAWE 10(0+10) with individual project. ➢ Proposal for internal paper setting for End-term Examination for current semester January – June 2020. ➢ Proposal for exchange of semesters of B.Sc. (Hons) Nutrition and Dietetics

			4th year. ➢ Proposal for approval to run lower Kindergarten in Laboratory Nursery school during current year with existing man power and infrastructure of Human Development and Family Studies.

In 2020, four Academic Council meetings were held through online mode to brainstorm and plan the academic schedule of the university owing to the prolonged lockdown imposed due to the spread of Covid 19. As the meetings were usually urgent, the meeting of the Board of Studies could not be conducted prior to those meetings.

6.5.1.4. Anti-Ragging Cell

In accordance with *"UGC Regulations on curbing the Menace of Ragging in Higher Education Institutions, 2016"* Anti-Ragging Committee of the College of Community Science, CAU, Tura, Meghalaya, is formed every year at the beginning of the new Academic Session.

The Anti-Ragging committee comprises

1. Head of the Institute : Chairman
2. Senior Faculty : Co- Chairman
3. In-charge of Police Department : Member
4. Representative of NGO, Women Social Welfare Organisation : Member
5. Representative of Faculty & Non- teaching Staffs : 5 members
6. Student Welfare Officer : Co-ordinator
7. Representative of Students : 3 members

The committee functions as stipulated in "UGC regulations on curbing the menace of Ragging in Higher Educational Institutions, 2016" and is overall responsible for ensuring compliance with the provisions of the regulations specified therein, as well as, the provisions of any law for the time being in force concerning ragging.

Similarly, in accordance with *"UGC Regulations on curbing the Menace of Ragging in Higher Education Institutions, 2016"* Anti-Ragging Squad of the College of Community Science, CAU, Tura, Meghalaya is constituted every year at the beginning of the new Academic Session. Squad comprises of Teaching, Non-teaching and student members. A notification containing details of the Anti-Ragging Committee is displayed on the notice boards in the hostel and college.

At the time of admission in the first year, an undertaking from each student is taken in a stamp paper. Similarly, the students have to upload the undertaking on-line in the UGC Anti-Ragging portal. The major highlights of the anti-ragging act have been placed in the college and hostel premises.

The Anti-Ragging Committee frequently visits the hostel, and the Anti-Ragging Squad members visit the hostel daily in the months following new admission of students, to detect and curb any ragging activities. The responsibility of the committee is to submit a report(s), in the event of the detection of any form of ragging. During the visits to the hostel, the squad and committee members interact with the students to spread awareness on the provisions of anti-ragging. Through counseling, the students are also made aware of the different provisions of the UGC Anti-Ragging law. Banners and boards dissuading students from indulging in ragging activities are also displayed at prominent locations of the college.

6.5.1.4.1 Details of ragging-related complaints received in the last five years

Sl. No.	Subject	2016-17	2017-18	2018-19	2019-20	2020-21
1.	No. of complaints of ragging received during year	Nil	Nil	Nil	Nil	Nil
2.	No. of complaints disposed-off received during year	Nil	Nil	Nil	Nil	Nil
3.	No. of cases pending for more than 90 days	Nil	Nil	Nil	Nil	Nil
4.	No. of workshops on awareness programme against ragging conducted during the year	One awareness programme is held every year.				

6.5.1.5. Biological Waste Disposal facility

The college has made provisions to dispose garbage at various places in the campus for collection of biological waste. Under ICAR-NAHEP, two Automatic Sanitary Napkin vending machines, two automatic Sanitary Napkin disposal machines, and two exhaust pipes have been procured. The college also has engaged municipal garbage collectors to collect the waste for proper treatment. Green and blue coloured dustbins have also been installed at various locations to dispose biodegradable and non-biodegradable waste. An equipment to safely dispose solid and liquid laboratory waste is also used.

6.5.1.6. Institutional Ethics Committee for Experiment on Animals

Yes, an Institutional Ethics Committee has been constituted and is adhering to all guidelines related to the matter.

6.5.1.7. Committee for Prevention of Sexual Harassment on Women at Workplaces

At the college level, a 'Complaints Committee for Prevention of Sexual Harassment of Women at Workplace' is in place. The committee enquires into all complaints regarding sexual harassment on campus of female staff and students of College of Community Science, Tura. The composition of the meeting is mentioned below. Though no complaint has been received during last five years the Cell has organized awareness and lecture series on sexual harassment at work place. The composition of the Committee including the meeting(s) held in the last five years are

Sl. No.	Composition		Meeting(s) Held in last Five years
1	Head of the Institute	Chairperson	23rd February, 2015
2.	Two nominated external members from nearby educational institutes	Members	
3	Nominated Teaching and Non-teaching staffs of the Institute	Members	

6.5.2. Faculty

6.5.2.1. Faculty strength

Sl. no.	Department	Professor			Associate Prof.			Assistant Prof		
		Sanctioned Post	Filled	Vacant	Sanctioned Post	Filled	Vacant	Sanctioned Post	Filled	Vacant
1	Food Science & Nutrition	01	0	01	02	02	Nil	03	02	01
2	Textiles and	01	0	01	02	01	01	03	02	01

	Apparel Designing									
3	Family Resource Management	01	01	Nil	02	0	02	02	02	Nil
4	Home Science Extension Education And Communication Management	01	*01	01	01	0	01	02	0	02
5	Human Development and Family Studies	01	0	01	02	01	01	02	02	Nil
6	Basic Science & Humanities									
a	English	-	-	-	-	-	-	01	01	0
b	Biochemistry	-	-	-	-	-	-	01	0	01
c	(Statistics with Computer	-	-	-	-	-	-	01	01	0
d	Agril. Economics	-	-	-	-	-	-	01	0	01
7	Agriculture & Animal Sc.									
a.	Horticulture & Social Forestry	-	-	-	-	-	-	01	0	01
b.	Agril. Engineering Food Processing	-	-	-	-	-	-	01	01	0
c.	Animal Husbandry	-	-	-	-	-	-	01	0	01
d.	Fisheries	-	-	-	-	-	-	01	0	01
e.	Agronomy	-	-	-	-	-	-	01	0	01
f.	Entomology							01	0	01
	Total	**05**	**02**	**03**	**09**	**04**	**05**	**22**	**11**	**11**

* Promoted through CAS

6.5.2.2. Faculty Profile

Details of the faculty members who are teaching the students of B.Sc.(Hons.) Community Science, M.Sc. (Community Science) in Food and Nutrition and M.Sc. (Community Science) in Extension and Communication Management are given below:

Name of the Faculty	Post Held	Highest Qualification	Awards and Titles	Other Distinction
Department of Food & Nutrition				
Dr. Namita Singh	Associate Professor & Head	Ph.D.	Nil	Nil
Dr. Indu	Associate Professor	Ph.D.	Nil	Nil
Mrs. Natasha R. Marak	Assistant Professor	M.Sc.	Nil	Nil.
Dr. Ch. Basanti Devi	Assistant Professor	Ph.D.	Nil	Nil
Department of Basic Science and Humanities				

Mr. F. B. Lyngdoh	Assistant Professor (English)	M.A.	Nil	Nil
Dr. Pavana Kumar	Assistant Professor (Statistics)	Ph.D.	cf 6.5.7.3	Nil
Department of Agriculture & Animal Science				
Dr. Ashok Kumar	Assistant Professor Agril. Engineering (Food Processing)	Ph.D.	Nil	Nil
Department of Family Resource Management				
Dr. Swapnali Borah	Professor	Ph.D.	Nil	Nil
Dr. Ranima Saikia	Assistant Professor	Ph.D	Nil	Nil
Dr. A Jolly Devi	Assistant Professor	Ph.D	Nil	Nil
Department of Home Science Extension and Communication Management				
Dr. Puspita Das	Professor	Ph.D	cf 6.5.7.3	Nil
Department of Textiles and Apparel Designing				
Dr. Anupama Mishra	Associate Professor	Ph.D	Nil	Nil
Dr. Mamoni P. Borah	Assistant Professor	Ph.D	Nil	Nil
Dr. R.K. Dhanalaxmi Devi*	Assistant Professor	Ph.D	Nil	Nil
Department of Human Development and Family Studies				
Dr. Kh. R. Aimol	Associate Professor	Ph.D	Nil	Nil
Dr. Shipra Nagar	Assistant Professor	Ph.D	Nil	Nil
Dr. H. Narmada	Assistant Professor	Ph.D	Nil	Nil

*joined in 2016 and has been on unauthorized leave since 2018. University is yet to take a decision on future course of action

6.5.2.3 Credentials of the Faculty

Sl. No.	Name of the Faculty	Designation	Qualification			Teaching Experience (in years)
Department of Home Science Extension and Communication Management						
1.	Dr. Puspita Das	In-charge Dean Professor & HOD	B.Sc. Home Science	M.Sc. Extension Education	Ph. D. in Home Science PGDHRM	13
Department of Family Resource Management						
2.	Dr. Swapnali Borah	Professor & HOD	B.Sc. Home Science (FRM Elective)	M.Sc. in FRM	Ph. D. in Family Resource Management	16
3.	Dr. Ranima Saikia	Assistant Professor (Sr. Scale)	B.Sc. Home Science (FRM Elective)	M.Sc. Home Science in FRM	Ph.D. in Sociology	9
4.	Dr. A. Jolly Devi	Assistant Professor	B.Sc. Home Science	M.Sc. Home Science (Community	Ph.D. in Economics	9

				Resource Management & Extension)		
Department of Food and Nutrition						
5.	Dr. Namita Singh	Assoc. Prof. & HOD	B.Sc. Home Science	M.Sc. Home Science (Food Science & Nutrition)	Ph. D. in Food Science & Nutrition	16
6.	Dr. Indu	Assoc. Prof.	B.Sc. H. Sc. Food & Nutrition (Elective)	M.Sc. Home Science (Food Science Nutrition)	Ph.D. in Home Science (Food & Nutrition)	2.5
7.	Mrs. Natasha R. Marak	Assistant. Professor (Sr. Scale)	B.Sc. H. Sc. (Food & Nutrition)	M.Sc. Home Science (Food Science Nutrition)	Ph. D. is ongoing	12
8.	Dr. Ch. Basanti Devi	Assistant Professor	B.Sc. Home Science	M.Sc. Food & Nutrition	Ph.D. in Food & Nutrition	4
	Department of Human Development and Family Studies					
9.	Dr. Kh. R. Aimol	Assoc. Prof.	B.Sc. Home Science	M.Sc. Home Science	Ph. D. in Human Development & Family Studies	17
10.	Dr. Shipra Nagar	Assistant Professor (Sr. Scale)	B.Sc. Home Science	M.Sc. Home Science (Human Development)	Ph.D. in Human Development and Family Studies	12
11.	Dr. Narmada Hindangmay um,	Assistant Professor	B.Sc. Home Science (Child Development & Family Relations Elective)	M.Sc. in Human Development	Ph.D. Degree in Human Development & Family Studies	13.5
Department of Textiles and Apparel Designing						
12.	Dr. Anupama Mishra	Associate Professor	B.Sc. Home Science	M.Sc. Home Science (Clothing &	Ph.D. in Clothing & Textiles	13

				Textiles)		
13.	Dr. Mamoni Probha Borah	Assistant Professor (Sr. Scale)	B.Sc. Home Science (FN Elective)	M.Sc. Home Science (Clothing & Textiles)	Ph.D. in Textiles and Apparel Designing	12
14.	Dr. R.K. Dhanaluxmi Devi	Assistant Professor	B.Sc. Home Science	M.Sc. Home Science. (Clothing & Textiles)	Ph.D. in Textiles and Apparel Designing	*Joined in 2016 and is on unauthorized leave since 2018
Department of Agriculture and Animal Sciences						
15.	Dr. Ashok Kumar	Assistant Professor	B. Tech. (Agricultural Engineering)	M. Tech (Post-Harvest Engineering)	Ph.D. in Food Engineering	9
	Department of Basic Science and Humanities					
16.	Mr. F.B. Lyngdoh	Assistant Professor	B.A. (English)	M.A. (English)	Ph. D. is ongoing	12
17.	Dr. Pavana Kumar S.T.,	Assistant Professor	B.Sc. Agriculture	M.Sc. Agricultural Statistics	Ph.D. in Agricultural Statistics	2.5

6.5.2.4. Technical and Supporting Staff (Department-wise)

Sl. No.	Technical staff /Supporting staff	Sanctioned	In place
1	Assistant Engineer	1	Nil
2	Sr. Library Assistant	1	1
3	Junior Engineer (civil)	1	2
4	Field cum Lab. Assistant	15	13
5	Farm Assistant /Livestock	8	4
6	Library Assistant	3	3
7	Electrician	2	1
8	Plumber	1	1
9	Carpenter	1	1
10	Driver	6	3
11	Supporting Staff	33	33

6.5.3. Learning resources

6.5.3.1. College Library (Digital)

Location of Library: The College Library is located on the northern side of the Administrative Block.

Present Staff Position:

Staff position / Post	Number
Senior Library Assistant	1
Library Assistant	3
Library Attendant	2

Availability of Wi-Fi: The library is connected to the college Wi-Fi networking system.

Sufficient Books and Other Reading Materials: Books and other reading materials are well-stocked and the collection is satisfactory. It also has sufficient numbers of Journals and periodicals.

Internet with sufficient numbers of Computers: The library has internet connection that is used for various purposes. Although there are no separate computers for the students in the library, there are adequate IT facilities in the IT lab and in the Language Lab to meet their requirement.

Seating Capacity: 60 users can be accommodated in the reading hall at a time.

Employing the latest Technology in Library Science: The library is using KOHA Library software.

Stocking Arrangement: Stocking of books and other reading materials is done Department and Subject-wise.

Collection of Volumes on different subject: The library has a wide range of collections on various subjects and the total currently stands at **6877**.

Latest Publications in the field of relevant subject: In the last five years, the number of publications added to the library's collection only for the Community Science disciplines are

Year	Number
2016-17	273
2017-18	31
2018-19	40
2019-20	29
2020-21	55
Total	428

Automation and User services through Computer: The library is fully automated with KOHA library software and database entries of all collections have been completed as of now. Circulation section of Issue return and users Card are all done through Barcode. OPAC (Online Public Access Cataloguing) service is provided to all users.

Opening Hours: Official Timing is from 9:00 AM to 5:00 PM but as per the students' request the said timing is always extended to meet their information requirements. The hostel also has a library and a reading room to augment the requirement of the students.

Subscription to Journals:

National Journals	16 Print Journals
International Journals	1 International Journal

In addition to the above Print Journals, the library has subscribed to CeRA online e-journals where all the reputed National and Internationals journals are available for the users.

National Dailies	2
Local Dailies	1
Periodicals	12

Library Committee Meetings: The Library Committee is headed by the Dean as Chairperson along with three nominated faculty members as executive members, and the Senior Library Assistant as a member. The Committee takes decisions on the functioning of the library in order to provide the best service to its users and conducts meetings as and when required. The library frequently takes feedback and suggestions from all stakeholders.

6.5.3.2. Laboratories, Instructional Farm, Workshops, Dairy Plant, Veterinary Clinic, Hatchery, Ponds etc.

i. Laboratories, farms, etc.

1.	Biological waste disposal facility	Mechanism: ➢ The campus waste disposal facility [RCC bins] are already installed where the staff and students dispose waste within the campus. Employees of the Tura Municipal Board, Government of Meghalaya, collect the waste from the campus to further dispose it in the waste dumping ground. ➢ Portable green and blue coloured dustbins have also been installed at various locations to dispose biodegradable and non-biodegradable waste. ➢ An equipment to safely dispose solid and liquid laboratory waste is also used.
2.	Laboratories, Instructional farm, workshops, Dairy Plant, Veterinary Clinic, hatchery, Ponds, etc.	*Instructional Farm:* One (1) Green Polyhouse (100 sqm); Nine (9) Bee Keeping Boxes (Apiary); One (1) Mushroom Unit; One (1) Vermicompost Unit; One (1) Nutritional Garden One (1) Fish Pond (405sqm) which is under construction; One (1) Dairy Plant (251.30 sqm) which is under construction; One (1) Poultry shed (251.30 sqm) which is under construction. *Laboratories:* The Department of Food & Nutrition has 5 laboratories namely, Food Analysis lab, Food Preservation lab, Catering Management Lab, Cashew Nut Processing Unit, Food Science and Nutrition lab.

		The Department of Family Resource Management has 3 laboratories namely, Interior Enrichment lab, Household Equipment lab, Housing & Space management lab. The Department of Extension Education and Communication Management has 2 laboratories namely, Instructional Technology lab and Technology Dissemination Lab The Department of Human Development and Family Studies has 2 laboratories namely, Laboratory Nursery School and Psychology Testing lab. The Department of Textile and Apparel has 2 laboratories, one Vocational Training Room, and a Seminar room)
3.	Physical facilities including administrative building and land	Campus Area: 21.08 hectare Physical facilities include ➢ Academic Block with eight (8) lecture halls, two (2) seminar halls, a library, and fourteen (14) laboratories. ➢ Administrative Block containing VC's office, Dean's office, Academic Cell, Accounts Section, Estate Office, Medical Unit, and two (2) Conference Halls [one in the existing building and another in the Incubation Centre]. ➢ Hostel for girl students with 68 rooms and 136 accommodation capacity. ➢ Dean's residence, Type I, II, III and IV quarters for the faculty and staff. ➢ Guest House and Transit Hostel for guests and trainees, respectively. ➢ Playground, canteen, gymnasium, and other outdoor games facilities. ➢ Children's park with adequate play materials. ➢ Incubation Centre, Vocational Training Centre, Multi-Technology Testing Centre, Nursery School and a Daycare Center.

ii. Inauguration of new buildings and related achievements

In 2020-21, the recently-constructed Food Processing Centre, Vocational Training Centre, Multi-Technology Training Centre, the Library Annexe, new Medical Unit, and Nursery School were inaugurated by Shri Narendra Singh Tomar, Honourable Union Minister of Agriculture and Farmers' Welfare on March 8, 2021.

In March 2021, a Memorandum of Agreement was signed with the Government of Meghalaya to establish a 'Techno-Incubation Centre on Jackfruit' at the college. Rupees Two Crores has been sanctioned for procurement and installation of machinery and equipment required for the centre.

iii. Laboratory Nursery School and Day Care Centre

The Laboratory Nursery School run by the Department of Human Development and Family Studies was established in 2013 as a play school for the age group from 2 to 3 years-old. The purpose of the school is to study the development of children. The students of the college carry out observational studies on various aspects of child development as part of their course curriculum on child study. The preschool curriculum is based on learning through play. Enriched physical and social environment are provided for the children's exploratory learning, and the activities taught are developmentally appropriate and interesting to the children.

iv. Vermi-compost Unit

Vermi-composting today is a highly profitable venture. Given proper care, one can produce about 750 to 1000 kg (approx) of vermin-compost from a tank or pit of 6 m^2 size.

The college has one vermi-compost unit with regular production and sale of the compost. The unit has generated adequate revenue from this profitable unit owing to the large demand. Compost making started in the year 2018-19, and at the initial stage only 500-600 kg in a 4 m^2 size could be harvested. Presently, about 1000 kg (approx.) is harvested and sold at Rs.20/- kg both within and outside the campus.

Training to the farmers on vermi-composting is also organized frequently and this has had a considerable impact considering the success stories of local farmers who've taken it up as a venture.

v. Apiary, Mushroom Cultivation, and other activities

Bee boxes are also placed in various places of the campus and there is seasonal extraction and sale of honey. Sale of both *kharif* and *rabi* crops in the college farm, sale of fruits cultivated in the fruit orchards are initiates introduced to generate revenue for the college. A Mushroom cultivation unit is also in place and production and sale is satisfactory.

The construction of a fish pond, a poultry unit, and an animal shed is in the final stages and once completed, these units will not only improve revenue generation, but also provide practical exposure to the students and farmers on the benefits of Integrated Farming System.

vi. Nutritional Garden

A Nutritional Garden was started under AICRP-Home Science [Extension and Communication Management component] where practical and hands-on trainings are imparted frequently to the farming community on crop rotation, nutria-sensitive gardening. The garden is also used by the students as part of the practical component of some courses like 'Women in Agriculture'.

6.5.3.3. Student READY / In-Plant Training/ Internship/ Experiential learning Programme

There is considerable scope to provide practical / hands-on exposure to the students during the degree programme. As per the Fifth Deans' Committee recommendation, the final year students of B.Sc. (Hons.) Community Science are offered a Student READY programme, which contains two modules namely, Module 1 (Product Development and Entrepreneurship) and Module 2 (Community Science and Welfare). The students opt for any one of the two modules in the seventh semester (final year). The basic premise of the READY programme is to encourage the students to put the theoretical knowledge learned over the three years into practice. Students are oriented on the various aspects and skills required to run an enterprise, and engage in Experiential Learning, where they are encouraged to 'earn while they learn'.

In the eighth semester (final year), students undergo internship for two and half months followed by RAWE for another two and half months. During RAWE, students work closely with the village

community and teach the skills that they've learnt to the villagers. It is a humble attempt on the part of the students and college to alleviate the plight of villagers in the West Garo Hills region of Meghalaya by imparting hands-on training and practical knowledge to facilitate their income-generating options. The activities include PRA, baking, pickle-making, embroidery and apparel designing, etc.

During the internship, students are usually placed in either processing industries/units or hospitals based on the choice of the students. After the culmination of the internship, students return to the college and submit reports and give presentations based on their experience. For their internship programme, students have been placed in various institutes like the Indian Institute of Food Processing Technology (formerly known as Indian Institute of Crop Processing Technology), Tanjavur, Tamil Nadu; Assocom Institute of Bakery Technology and Management (AIBTM), Delhi; Bangalore Baptist Hospital (BBH), Bangalore; Downtown Hospital, Guwahati; and Excel Care Hospital, Guwahati.

6.5.3.4. Curricula Delivery through IT (smart classrooms/ interactive board etc.)

The college has four interactive white boards in the four main lecture halls, and in the 2020-21 session, and recently a smart classroom facilitated through NAHEP (Institutional Development Programme) has been set up. The Information Technology Laboratory with 17 computers and 10 mbps Wi-Fi internet facility caters to the practical courses of Computer Aided Interior Designing, Agricultural Informatics, and Statistics.

A Language Laboratory with 30 computers having 20 mpbs internet connection has also been established in an endeavor to improve the communication and life skills of the students. The computers and internet connection will also be utilized to meet the other requirements of the students.

6.5.4. Student Development

6.5.4.1. Student intake and Attrition

Name of the degree programme	Year	Sanctioned Intake Capacity				Admitted				Attrition	
		Open Admission	State Nomination	ICAR	Total	Open Admission	State Nomination	ICAR	Total	Passed out	Dropped
B.Sc.(Hons) Community Science	2016-17	16	29	05	50	14	07	Nil	21	21	01
	2017-18	16	32	05	53	15	11	Nil	26	17	02
	2018-19	18	32	05	55	17	14	Nil	31	27	Nil
	2019-20	18	32	05	55	18	08	01	27	19	03
	2020-21	18	32	05	55	18	12	Nil	30		04

Name of	Year	Sanction Intake Capacity	Admitted	Attrition

the degree programme		Open Admission	State Nomination	Total	Open Admission	State Nomination	ICAR	Total	Passed out	Dropped
B.Sc. (Hons.) Food Nutrition and Dietetics	2014-15	10	10	20	09	04	Nil	13	Nil	01
	2015-16	10	10	20	08	04	Nil	12	Nil	03
	2016-17	10	10	20	10	04	Nil	14	Nil	Nil
	2017-18	11	11	22	10	04	Nil	14	11	01
	2018-19	11	11	22	11	05	Nil	16	10	Nil
	2019-20	11	11	22	10	03	Nil	13	14	03
	2020-21	11	11	22	11	05	Nil	16		01

Name of the degree programme	Year	Sanctioned Intake Capacity			Admitted			Attrition	
		CAU Entrance Exam	ICAR	Total	CAU Entrance Exam	ICAR	Total	Passed out	Dropped
M.Sc. (Community Science) Extension Education and Communication Management	2016-17	02	01	03	Nil	Nil	0	Nil	Nil
	2017-18	02	01	03	02	Nil	02	Nil	Nil
	2018-19	02	01	03	01	Nil	01	Nil	Nil
	2019-20	02	01	03	Nil	Nil	02	02	Nil
	2020-21	02	01	03	01	Nil	01	Nil	Nil

Name of the degree programme	Year	Sanction Intake Capacity			Admitted			Attrition	
		CAU Entrance Exam	ICAR	Total	CAU Entrance Exam	ICAR	Total	Passed out	Dropped
M.Sc. (Community Science) Food	2016-17	02	01	03	01	Nil	01	Nil	Nil
	2017-18	02	01	03	Nil	Nil	Nil	Nil	Nil
	2018-19	02	01	03	02	Nil	02	01	Nil

Science and Nutrition	2019-20	02	01	03	Nil	Nil	Nil	Nil	Nil
	2020-21	02	01	03	01	Nil	01	Nil	Nil

6.5.4.2. Average Number of Students in Theory and Practical Classes

Sl. No.	Name of the Degree programme	Number of students in theory class		Number of students in practical class	
1.	B.Sc. (Hons.) Community science	1st Year	27	1st Year	27
		2nd Year	24	2nd Year	24
		3rd year	33	3rd year	33
		4th Year	24	4th Year	24
2.	B.Sc.(Hons.) Food Nutrition and Dietetics	1st year	16	1st Year	16
		2nd year	10	2nd Year	10
		3rd year	16	3rd year	16
		4th year	13	4th Year	13

6.5.4.3. Admission Process

6.5.4.3.1 Eligibility for admission

I. B.Sc. (Hons.) Community Science & B.Sc. (Hons.) Food Nutrition and Dietetics

Candidates seeking admission to B.Sc. (Hons.) Community Science should be permanent residents or domiciles of any one of the 7 (seven) North-Eastern states of India, viz., Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. They must attain 16 years of age on 31st August of the admission year. They must pass the Higher Secondary (10+2) with minimum 50% marks in aggregate of Physics, Chemistry, Biology/Mathematics or Agriculture for General and OBC categories and 40% marks for SC/ST/PH/In-service categories

II. M.Sc. (Community Science)

A candidate seeking admission to M.Sc. (Community Science) in Food Science and Nutrition, or M.Sc. (Community Science) in Extension and Communication Management should

1. Have passed B.Sc. (Hons) Community Science, B.Sc. (Hons) Home Science or B.Sc. (Hons) Food Nutrition and Dietetics from an ICAR recognised institution.

2. Have obtained a minimum OGPA of at least 6.60/10.00 on a 10-point scale, 3.25/5.00 on 5-point scale, 2.60/4.00 on four-point scale for General, OBC or EWS categories, whereas for SC/ST/PC categories, the said requirement is an OGPA of at least 5.6 / 10.00, 2.75 / 5.00, 2.20 / 4.00, respectively. In other cases, where grade points are not awarded and only marks are awarded, the candidate must have secured at least 60% marks for General, OBC, and EWS categories, whereas for SC/ST/PC categories, the requirement is 50% marks.

6.5.4.3.2 Mode of admission

I. B.Sc. (Hons.) Community Science B.Sc. (Hons.) Food Nutrition and Dietetics

The college has adopted two modes of admission: Nomination from state governments of NE States [excluding Assam], nominations from ICAR, and Open Admission as per the number of seats allotted by the university.

i. The candidates seeking admission to the degree programme through the state governments of Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim or Tripura are sponsored by their respective state governments and such candidates are selected on merit, based on their performance in a Common Entrance Test conducted by the concerned states or National Eligibility cum Entrance Test (NEET) after fulfilling the eligibility norms.

ii. From the academic session 2013-14 onwards, the college, with the approval of University's Academic Council, started enrolment of students by Open Admission. Before the commencement of the new semester, eighteen (18) seats are advertised in leading newspapers and the university website which are to be filled by eligible candidates of the various NE states.

II. M.Sc. (Community Science)

i. 2 (seats) each in M.Sc. (Community Science) in Food Science and Nutrition, and M.Sc. (Community Science) in Extension and Communication Management are filled through an entrance examination conducted by Central Agricultural University, Imphal. The selection of candidates is based on marks secured in the Entrance Examination (60% weightage) and academic performance in qualifying degree examination (40% weightage). 20% marks, with negative marking in the entrance examination is the qualifying mark for short-listing under all categories.

ii. 1 (one) seat in each department is filled up by the candidate selected by ICAR through All-India Entrance Test (AIET). However, in 2020-21, the candidates were selected based on merit as the CAU Entrance Examination could not be conducted owing to the Covid 19 pandemic.

6.5.4.3.3 Fee Payment Mechanism

The college has adopted an online payment mechanism for both UG and PG programmes. Online payment of the registration and semester fee is done through SBI Collect.

6.5.4.3.4 Academic Schedule Publication

To maintain uniformity, the Academic Calendar is prepared at the university level and circulated at the beginning of the new academic session.

6.5.4.3.5 Intake capacity

The details of the number of seats under both nomination and open admission for B.Sc. (Hons.) Community Science and M.Sc. Community Science are as follows:

I. B.Sc. (Hons.) Community Science

Sl. No.	NAME OF STATES	STATE NOMINEES					OPEN ADMISSION	ICAR
		CATEGORIES						
		OBC	UR	ST	SC	TOTAL	TOTAL	TOTAL

1.	ARUNACHAL PRADESH	01	4 (UR+ST+SC)	5	02	05
2.	MANIPUR	02	4 (UR+ST+SC)	6	03	
3.	MEGHALAYA	02	5 (UR+ST+SC)	7	04	
4.	MIZORAM	01	2 (UR+ST+SC)	3	02	
5.	SIKKIM	01	2 (UR+ST+SC)	3	02	
6.	TRIPURA	01	4 (UR+ST+SC)	5	03	
7.	NAGALAND	01	2 (UR+ST+SC)	3	02	
GRAND TOTAL:				**32**	**18**	**05**
TOTAL INTAKE CAPACITY				**55**		

II. B.Sc. Food Nutrition and Dietetics

Sl.	**NAME OF STATES**	**STATE NOMINEES**					**OPEN ADMISSION**	**ICAR**
		CATEGORIES						
		UR	**ST**	**SC**	**OBC**	**TOTAL**	**TOTAL**	**TOTAL**
1.	ARUNACHAL PRADESH	01 (UR+ST+SC+OBC)				1	01	03
2.	MANIPUR	01 (UR+ST+SC+OBC)				1	02	
3.	MEGHALAYA	02 (UR+ST+SC+OBC)				2	03	
4.	MIZORAM	01 (UR+ST+SC+OBC)				1	01	
5.	SIKKIM	01 (UR+ST+SC+OBC)				1	01	
6.	TRIPURA	01 (UR+ST+SC+OBC)				1	02	
7.	NAGALAND	01 (UR+ST+SC+OBC)				1	01	
GRAND TOTAL:						**08**	**11**	**03**
TOTAL INTAKE CAPACITY						**22**		

III. M.Sc. Community Science

Name of the degree programme	**Year**	**Sanction Intake Capacity**		
		CAU Entrance Exam	**ICAR**	**Total**
M.Sc. (Community Science) Extension Education and Communication Management	2016-17	02	01	03
	2017-18	02	01	03
	2018-19	02	01	03
	2019-20	02	01	03
	2020-21	02	01	03

Name of the degree programme	**Year**	**Sanction Intake Capacity**		
		CAU Entrance Exam	**ICAR**	**Total**
M.Sc. (Community Science) Food Science and	2016-17	02	01	03
	2017-18	02	01	03
	2018-19	02	01	03

Nutrition	2019-20	02	01	03
	2020-21	02	01	03

6.5.4.4. Conduct of Practical and Hands-on Training

i. B.Sc. (Hons.) Community Science

A student has to study 180 credits to complete the UG degree programme. Out of the 180 credits, 91 credits are practical oriented, and 89 credit hours are for the theory component.

The five departments of Community Science offer a wide range of practical oriented courses including diet planning, preparing the diet that is planned, computer aided interior designing, apparel designing, information and communication technology, extension training management, project management, food analysis, among others. In the basic compulsory courses, the students are exposed to subjects like biochemistry, English and communication skills, statistics, economics, etc. An essential component suggested in the Fifth Deans' Committee Report is the Student READY [Rural Entrepreneurship Awareness Development Yojana] programme wherein the students in the seventh and eight semester undertake Experiential Learning, In-Plant Programme, and Rural Awareness Work Experience (RAWE). This is a major step that guarantees high-quality professional competence, practical work experience in real-life situation to the graduates.

In Experiential Learning, the students are exposed to production-oriented courses and practical exposure relating to the dynamics of entrepreneurship, and an understanding of market dynamics, thereby encouraging them to be job providers rather than job seekers.

In the first six semesters before undergoing the Student READY programme, the students learn the basic and advanced theoretical and practical concepts of the different courses in the five core disciplines of Community Science.

In the practical component of the courses, students are given hands-on practical exposure ranging from laboratory work, industrial visits, field visits, market surveys and the like. Bakery and confectionery, hospital dietetics, apparel designing, interior designing, project management are some among the many practical-oriented courses that the students learn in order to have a sound understanding about the course as a whole, and as preparation for the various activities under In-plant, Experiential Learning and RAWE. Under RAWE, the students interact largely with the local community and impart training to them. This ensures their exposure to community outreach and welfare programmes thus warranting hands-on training within the campus as well as outside it.

ii. B.Sc. (Hons.) Food Nutrition and Dietetics

Out of the 180 credits in the entire degree programme, 91 credits are practical oriented, and 89 are theory credit hours, i.e., fifty percent of the credit requirement is practical based.

The very concept of diet planning would not be possible without actually preparing or cooking the diet that is planned. The students are given hands-on-training on the basic concepts of measurements in terms of raw and cooked food. The analysis of the nutrients and mineral-content of food is taught to the students using sophisticated equipment available in the laboratories. The knowledge that is gained from the practical components of courses such as Food Preservation and Storage, Bakery and Confectionery, Nutraceuticals and Health Foods, etc., prepares the students for the Experiential Learning programme that is offered in the eighth semester. This encourages the students to consider establishing their own enterprise after completing their studies. The courses Sports Nutrition and Physical Fitness, and Diet and Nutrition Counselling also inculcates ideas on how to set up fitness and counselling centres.

The students are also exposed to community-based courses where they interact with the local community. They learn the art of rapport building and hands-on training on anthropometric measurements. This readies them for future community outreach and welfare programmes. Like the Community Science students, the Food Nutrition and Dietetics students are also exposed to community outreach and welfare programmes within and outside the college campus.

iii. M.Sc. (Community Science)

All practical classes of M.Sc. (Community Science) in Food Science and Nutrition, or M.Sc. (Community Science) in Extension and Communication Management are carried out in the laboratories available in the college, and nor separate facility exists at present. The M.Sc. students are under the direct supervision of the course instructor and effectively carry out the practical classes as provided in the course outline.

6.5.4.5 Examination and Evaluation Process

The college has adopted the recommendations of the Fifth Deans' Committee with regard to the examination and evaluation system as explained below:

6.5.4.5.1 Examination

External Theory (50%)
Internal theory + Practical (50%)

- **Courses with Theory + Practical**
  Mid-term Exam (30%) + Assignment (5%) in practical oriented courses + Practical (15%)
- **Courses with only Theory**
  Mid-term Exam (40%) + Assignment (10%)
- **Courses with only Practical**
  (100% Internal)

- For the End-term Examination, a panel of experts for all the courses offered in a semester is prepared by the college and sent to the university for selection of at least three paper-setters per course and approval.
- The Academic Section of the college coordinates with the selected experts and receives the question papers by email or speed post. Before commencement of the examination, the HOD ensures the coverage of syllabus and if the need arises, moderation of the question paper is done.
- The End-term Practical examination is conducted by course instructor(s) and one teacher nominated by HOD.

6.5.4.5.2 Evaluation

- Evaluation of test and mid-term papers are done internally by the course instructor.
- Evaluation of answer scripts on the End-term examination is done by a teacher of the concerned discipline other than the course instructor. For courses where there is only one teacher in the discipline, like English and Statistics, the scripts are sent to the paper setter for evaluation.
- The performance of the students is classified into the following way:

Degree	Percentage of Marks Obtained	Conversion into points
B.Sc. (Hons.) Community Science	100	10 points
	90 to <100	9 to <10

	80 to <90	8 to <9
	70 to <80	7 to <8
	60 to <70	6 to <7
	50 to <60	5 to <6
	<50 (Fail)	<5
	Eg. 80.76	8.076
	43.60	4.360
	72.50 (but shortage in attendance)	Fail (1 point)

OGPA	**DIVISION**
5.000 – 5.999	Pass
6.000 – 6.999	II Division
7.000 – 7.999	I Division
8.000 and above	I Division with Distinction

GPA = Total points scored / Total credits (for 1 Semester)
CGPA= ∑ Total points scored /Course credits
OGPA= ∑ Total points scored (after excluding failure points)/ Course credits
% of Marks = OGPA x 100/10

6.5.4.6. NCC/NSS/RVC Units

NSS of 2(0+2) credit hours is offered as a course in B.Sc. 1st year 1st Semester. As part of the course, students engage in Social Welfare activities like cleaning drives and awareness campaigns to prevent spread of diseases, and the like. Most of the activities are conducted at villages, thereby, providing a lot of scope to the students to become ideal citizens with a holistic concern for fellow beings, and also develop a positive attitude towards conservation of the environment.
Cleaning and plantation drives, training on First-Aid with the help of the college's Medical Officer, training on Vermi-compost pit preparation, surveys on the socio-economic status of a selected village, hands-on training on embroidery, stitching, paper-bag making, etc., are organized every year. NSS volunteers also impart awareness programmes to the village or local people and school students on nutrition-related problems, traffic rules, consumer education, environment and cleanliness through Skits, Role Plays, Posters, Charts and Models.

Days of national and international importance such as National Voters' Day, International Women's Day, National Girl Child Day, Gandhi Jayanti, etc., are conducted to make the students aware about their responsibilities towards the society and nation as a whole.

6.5.4.7. Language Laboratory

The college has one language laboratory which is yet to be operationalized. So far, under the NAHEP-Institutional Development Programme, remedial classes are conducted and various literary competitions are held for the students to improve their communication skills.

6.5.4.8. Cultural Centre

The college does not have any center as such. However, students are provided with ample scope to showcase their talents during the celebration of College week in sports and co-curricular activities. They are also encouraged to participate in district level, university level, and inter-university national level competitions.

Under students' welfare activities, special training and classes on yoga and meditation, soft skills, and sports are also imparted by experts from nearby institutes.

6.5.4.9. Personality Development

Functional Grammar is included in the course General English - I which is offered in the first semester. In the second semester, the students study a course entitled Technical Writing in which applied grammar and various forms of writing like report writing, letter writing, proposal writing, etc., are included. In the fourth semester, the students also have to study Communication skills and Personality Development, a course which has been designed to help students develop the four essential communication skills – listening, speaking, reading and writing. All the mentioned courses have been designed to help develop the students' communication skills and hone their personality.

Further, various short term and long term offline and online personality development programmes are organized under Student Welfare Activities and NAHEP. Experts from the concerned field are invited to conduct many motivational programmes like stress management and counseling to facilitate the students in the best possible way. Besides, under NAHEP, national and international webinars are organized with different themes like entrepreneurship development, climate change, and different management techniques. Interactive sessions and lecture series are also organised for the students on various aspects of entrepreneurship, drafting of resume, inculcating competitive spirit, etc.

6.5.5. Physical Facilities

6.5.5.1. Hostel

The Girls' Hostel of the college is supervised by a Hostel Management Committee headed by the Dean, with the Warden, SWO, Academic I/c, Accounts Officer, Junior Engineer, and student representatives as members. The hostel has 68 rooms with a total capacity for 1360 occupants. Each room is provided with beds, tables, and chairs. It also has a common room, kitchen, dining, library, music room, and fitness-cum-Indoor Sports room. The mess is maintained by the students, and weekly menu is decided by the Mess-In-charge in discussion with students. The students are given good quality food, and opportunities to organize special functions/get-togethers within the hostel. Students are well-disciplined and they follow the time schedule strictly. Students are allowed to go to the local market (with prior permission) once a week for which a vehicle is provided by the college. They are also permitted to attend religious ceremonies on Sundays. All the hostellers are encouraged to participate in the maintenance of the nutritional kitchen garden within the hostel premises.

6.5.5.2. Examination Hall

Though there is no separate hall to conduct examinations, the lecture halls and seminar rooms are adequate to accommodate the students during examinations.

6.5.5.3. Sports and recreation facilities

The college has one field in which outdoor activities are held during the college week. Though, college does not have any indoor stadium or sports hall, there are adequate facilities for indoor games in the hostel. A music room is also set up in the hostel along with a good music system used for recreational purposes. There are a number of indoor and outdoor sports equipment that are used by the students. Prior to their participation in inter-college or national level events, special coaching is imparted to the selected students by professional coaches invited form nearby institutes and sport associations.

6.5.5.4. Auditorium:

The site for construction of auditorium has been identified and sanction for its construction has been included in the 13th Plan.

6.5.5.5. Exhibition Hall / Museum

Two (2) vocational training rooms located in two (2) departments are used for the above purpose as and when required for exhibitions. With the provision of a separate hall may add in showcasing the talent of the faculties and the trainees. Department of Textiles and Apparel Designing is maintaining a small Textile Museum with a collection attires of different communities and states.

The recently constructed Weaving and Spinning unit will be utilized for exhibition purposes encompassing the traditional garments of NE India, and also exhibit the creations of the students and vocational trainees.

6.5.6. Research Facilities

6.5.6.1. Postgraduate Laboratories and Equipment

There are no laboratories and equipment in the concerned departments which are exclusively meant for the PG programmes.

6.5.6.2. Research Contingency

Financial expenditure for research purposes is allotted from the recurring funds based on the demand, and the amount is sufficient.

6.5.7. Outcome /Output

6.5.7.1 Students' performance in National Examination

Year	No. of JRF Scholarship holder	Rank secured in ICAR-JRF Examination
2016-17	0	SC-4th (sans JRF) ST-7th (sans JRF)
2017-18	3	SC-1st (JRF) ST-1st (JRF) ST-6th (JRF)
2018-19	0	SC-4th (sans JRF) ST-7th (sans JRF)
2019-20	2	Overall- 1st (JRF) ST-3rd (JRF) ST-4th (sans JRF)
2020-21	1	ST-1st (JRF)

6.5.7.2. Students' Placement Profile

Year	Placement profile						
	Student undergone higher studies	Asst.Prof/ Lecturer/ KVK-SMS	Hospital-Dietician/Nutrition counsellor/ Psychologist	Other departments	Banking/ Pvt.Company/Pvt.-School/College/University	Govt. Funded Project (ATMA,	Self Employed

						AICRP)	
2016-17	14	3	1	2	3	3	-
2017-18	21	1	1	2	1	-	-
2018-19	17	-	2	1	3	4	1
2019-20	25	8	-	-	1	1	1
2020-21	19	-	-	1	2	3	-

6.5.7.3. Awards/Recognitions/ Certificates

Details of the award recognitions/certificates received by Faculty:

Sl. No.	Name of the faculty	Awards/recognitions/ certificates	Year	Awarded by
1.	Dr. Narmada Hidangmayum	Best Poster Award	2018	32 Biennial Conference of Home Science Association of India on 'Family and Community Science: A Catalyst for Sustainable Development Goals' Organized by College of Home Science, (Udaipur Chapter) MaharanaPratap University of Agriculture & Technology, Udaipur
2.	Dr. Pavana Kr. ST	Thesis Award	2019	Society for Scientific Development in Agriculture and Technology
3.	Prof. Puspita Das	Excellence in Research Award	2020	Asha Foundation, International conference on Agriculture, Allied and Applied Sciences (ICAAAS) 2020 27th January to 1st February 2020, Hotel Ramada D' Ma Petchburi Road 33 Bangkok 10400 Thailand.
4.	Prof. Puspita Das	INDO ASIAN – SEAMAN KNAPP Excellence award in Extension Education	2020	The International multi-disciplinary research foundation. For consistent superior performance in extension education
5.	Prof. Puspita Das	Outstanding Contribution in the field of Community Science	2021	Agricultural Technology Development Society (ATDS), Ghaziabad, Uttar Pradesh, India

Details of the award recognitions/certificates received by Student:

Sl. No.	Name of the student	Awards/recognitions/certificates	Year	Awarded by
1.	Ms. Laishram Maria Devi	2nd position in Rangoli competition Held at OUAT Bhubaneswar, 1st – 4th February, 2016	2015-16	All India Agri (Unifest)
2.	Ms. Lalhruaitluangi	2nd position in Women Badminton in 20th All India	2019-20	Sri Venkateswara Veterinary (SVVU),

		Inter Agricultural Universities Sports and Games meet		Tirupati 1st – 5th March, 2020
3.	1. B. Laldinpuii 2. Kh. Chanmisang Maring 3. W.L. Warni 4. Wingou Newmai 5. Shuhring Pashel 6. Jasmine Marak	2nd position in patriotic song (Indian) in the 20th All India Inter Agricultural Universities Youth Festival	2019-20	Indira Gandhi Krishi Vishwavidyalaya Raipur, 8th -12th February, 2020

6.5.7.4. Employability

The under-graduate degree programme in B.Sc. (Hons.) Community Science includes courses from the core disciplines of Community Science and also Basic courses like Human Physiology, Nutritional Biochemistry, Agricultural Informatics, English, Statistics, Rural Sociology and Entrepreneurship Development. Other courses are related only to nutrition like Food Analysis, Food Service Management, Nutrition through Life Cycle, Food Microbiology, Clinical Nutrition, Methods of Cookery, etc.

Although most students opt for higher studies after passing out from the college, some graduates have been absorbed in various private and public organizations like Food Industries, Hospitals, banking sector, NGOs, Child and Nutrition related organizations, Sports Authority of India, FSSAI, etc.

6.6.8 Financial Resource Management

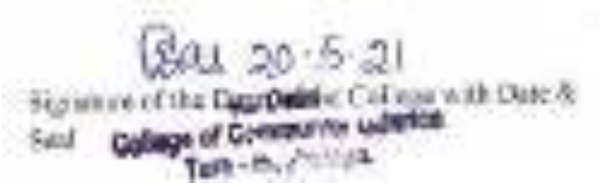
The finance report of the college of community science for the last 5 years is given below,

Point No.	Particulars		Year (Rs. In Lakh)				
			2016-17	**2017-18**	**2018-19**	**2019-20**	**2020-21**
6.6.8	**Financial Resource Management:**						
6.6.8.1	***Budget Allocation***	**:**					
	Salary	**:**	500.00	555.00	558.90	Will be Provided HQ	Will be Provided HQ
	General / Contingency	**:**	103.10	116.82	89.45	171.75	130.60
	Capital	**:**	34.63	50.00	25.00	23.00	78.81
6.6.8.2	***Finance Committee***	**:**	Dealt at university level				
6.6.8.3	***Internal Resources Generation***	Academic Receipt **:**	2.93	13.99	16.28	15.90	7.51
		Other Misc. **:**	4.35	4.33	11.17	6.55	6.20
		Bank Interest **:**	6.55	6.11	3.91	2.43	2.13
6.6.8.4	***External Funding***	**:**	NIL				
6.6.8.5	***Financial Powers Delegation to Deans/ Heads***	**:**	Dealt at university level				
6.6.8.6	***Finance Utilization***	**:**	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**

	Salary :	93.37 %	99.89 %	99.92 %	0.00	0.00
	General / Contingency :	87.23 %	70.00 %	92.29 %	89.89 %	98.53 %
	Capital :	99.88 %	77.72 %	96.00 %	37.00 %	62.17 %

6.5.9. Certificate (Applicable when SSR is submitted for Programme & College).

I, the Dean Professor Puspita Das hereby certify that the information contained in Section 6.4 and Section 6.5.1 to 6.5.7.4 are furnished as per the records available in the college and degree awarding university.



SELF-STUDY REPORT

For the Degree in B.Sc. (Hons) Community Science
2016-17 to 2020-21

CENTRAL AGRICULTURAL UNIVERSITY

COLLEGE OF COMMUNITY SCIENCE

SANGSANGGRE, TURA,

MEGHALAYA-794005.

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Summary

The Self-Study Report of College of Community Science, Sangsanggre, Tura, Meghalaya, encompasses a range of important information pertaining to the academic achievements of the college in B.Sc. (Hons.) Community Science over the last five years from the academic session 2016-17 to 2020-21.

The report has been prepared based on the data requested by the Indian Council of Agricultural Research (ICAR) in the pre-drafted proforma required to be furnished by any institute of higher learning in the field of agriculture and allied sciences that seeks accreditation from the ICAR-National Agricultural Education Accreditation Board (N.A.E.A.B.). The distinctly delineated report commences with a brief history of the college, faculty and staff strength, facilities available, administrative setup, admission procedure, examination and evaluation process, research and extension activities, monitoring and quality assurance, among others. It provides adequate information on financial resources and its management, admission and attrition of students, students' achievements in various competitions, and their placement profile.

It is inclusive of the information pertaining to the B.Sc. (Hons.) Community Science programme [all information under 6.4 of the profroma] and the report for the college [all information under 6.5 of the profroma] includes information on the two UG programmes - . B.Sc. (Hons.) Community Science and B.Sc. (Hons.) Food Nutrition and Dietetics – as well as its two PG programmes.

6.4. Self-Study Report for the Programme (B.Sc. (Hons.) Community Science)

6.4.1 Brief History of the Degree Programme

College of Community Science [erstwhile College of Home Science] a constituent college of Central Agricultural University, Imphal, Manipur, located in Sangsangre, Tura, started its first academic session for B.Sc. (Hons.) Community Science [erstwhile Home Science] in the year 2004-05. The first batch of ten girl students hailed from Arunachal Pradesh, Meghalaya, and Manipur, and the academic activities and administrative work were carried out in a temporary building at Dakopgre, Tura. Dr. Rita Singh Raghuvanshi was appointed as the Dean (on deputation). Four lecturers were hired on contractual basis and one joined on deputation during the initial phase. Regular appointments were made in the year following the college's establishment and in the subsequent years.

In 2006, Dr. K. Sheela was appointed as Dean of the college, and subsequently in 2009, the college relocated its academic and administrative work to its permanent campus at Sangsanggre, Tura. After Dr. Sheela's retirement in July 2015, Dr. Puspita Das, was appointed as In-charge Dean, followed by the appointment of Dr. Anurag Chaturvedi as regular Dean in December 2016. Following Dr. Chaturvedi's resignation in September 2017, Dr. Puspita Das was again appointed as In-charge Dean and she is the incumbent administrative head of the college.

The picturesque campus boasts of a host of facilities including accommodation facilities for students, faculty and staff; spacious classrooms, a seminar hall and a smart classroom; laboratories; a well-furnished Guest House; an IT lab with 10 mbps internet connectivity; well-equipped library; transit hostel; an incubation center and a vocational training center; a canteen; and a playground. Recently, a Language Laboratory with 30 computers having 20 mpbs internet connection has also been established in an endeavor to improve the communication and life skills of the students.

The four-year degree programme in B.Sc. (Hons) Community Science, is currently following the curriculum recommended by the ICAR Fifth Deans' Committee in the core disciplines of Community Science – Family Resource Management, Food and Nutrition, Home Science Extension and Communication Management, Human Development and Family Studies, and Textiles and Apparel Designing, and also those courses of the Department Basic Science and Humanities.

In the initial years, admission to B.Sc. (Hons) Community Science was only through nomination of candidates recommended by the respective state governments of the various North-Eastern states, and those selected by ICAR. However, in 2013-14, the college introduced an Open Admission system in order to increase the intake capacity and actual number of admitted students. At present, the total intake capacity is 55 (fifty-five) including state and ICAR nominations, and Open Admission. The average actual admission of students in each academic session is about 46-50% of the total capacity, and it is exclusively meant for girl students who are domicile of the seven North-Eastern states of India, excluding Assam.

Since its inception, thirteen (13) batches with 188 graduates have passed out from the college in B.Sc. (Hons) Community Science.

6.4.2. Faculty Strength

The current sanctioned, filled and vacant faculty strength are based upon the number recommended as per the ordinance of the college.

Sl. No.	Sanctioned Faculty	Faculty in place	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	2	3	07
2.	Associate Professor	4*	4	14
3.	Assistant Professor	11	12	28
Total permanent faculty		**17**	**19**	49

* One Associate Professor was promoted to the post of Professor through CAS, thus, one post is not considered as vacant.

At least two guest faculties are appointed from time to time in the Department of Food and Nutrition, and one guest faculty in Home Science Extension and Communication Management. There are no adjunct or contractual faculty members, and lately the university has engaged teaching faculty from other constituent colleges to teach basic courses and other courses in related disciplines.

Faculty teaching multiple programmes
The number of faculty assigned teaching responsibilities for multiple degree programmes are

Sl. No.	Name of the department	No. of faculty teaching multiple degree programmes
1.	Food Science and Nutrition	4
2.	Home Science Extension and Communication Management	1
3.	Family Resource Management	2
4.	Basic Science and Humanities	2
5.	Agriculture & Animal Science	1
Total		**10**

Deviation in Faculty Strength as per ICAR-FDC recommendation

As the faculty strength and nomenclature and number of departments are based as per the ordinance, the recommendation of the ICAR-Fifth Deans' Committee is yet to be implemented in toto. The faculty position w.r.t. the Fifth Deans' Committee Report recommendation and existing faculty strength is shown below:

Sl. No.	Department faculty strength as per recommendation of Vth Deans' Committee	No. of faculty recommended			No. of faculty at present			Deviation		
		Prof.	Assoc. Prof	Asst. Prof	Prof.	Assoc. Prof.	Asst. Prof.	Prof.	Assoc. Prof.	Asst. Prof.
1.	Food Science and	1	2	4	-	2	2	1	-	2

	Nutrition									
2.	Food Policy and Public Health Nutrition	1	2	4	-	-	-	1	2	4
3.	Apparel Design Management	1	2	4	-	-	-	1	2	4
4.	Textile Science and Design*	1	2	4	-	1	2	1	2	2
5.	Family Resource Management & Consumer Science**	1	2	4	1	-	2	-	2	2
6.	Human Development and Family Studies	1	2	4	-	1	2	1	-	2
7.	Extension Education and Communication Management	1	2	4	1	-	-	-	2	4
	TOTAL	**7**	**14**	**28**	**2**	**4**	**8**	**5**	**10**	**20**

* The current nomenclature is Textile and Apparel Designing ** The current nomenclature is Family Resource Management

6.4.3. Technical and Supporting Staff

The number of sanctioned and appointed Technical and Supporting staff of the college are enlisted below:

Sl. No.	Technical staff /Supporting staff	Sanctioned	In place
1.	Assistant Engineer	1	Nil
2.	Sr. Library Assistant	1	1
3.	Junior Engineer (civil)	1	2
4.	Field cum Lab. Assistant	15	13

5.	Farm Assistant /Livestock	8	4
6.	Library Assistant	3	3
7.	Electrician	2	1
8.	Plumber	1	1
9.	Carpenter	1	1
10.	Driver	6	3
11.	Supporting Staff	33	33

6.4.4. Classrooms and Laboratories

No. of lecture halls – 9 (Nine) Lecture halls including one (1) smart classroom
No. of seminar halls – 2 (Two) Seminar Halls

Laboratories of the college

Sl. No	Department	Name of laboratory	Major equipment
1.	Family Resource Management	Household Equipment Lab Housing and Space Management Lab Interior Enrichment Lab Vocational Training Lab	1. Bicycle Ergometer 2. Inclinometer Micro FE T6 3. Goniometer 4. Sewing Machine Fashion Maker 5. Skinfold Caliper 6. Heart Rate Monitor 7. Lux Meter 8. Hand Grip Dynamometer 9. Acuflex II 10. Digital Leg and Back Dynamometer 11. Quartz Matronome 12. Flexicurve 13. Hygrometer 14. Stopwatch and Pedometer 15. Air Sampler 16. Ergomaster 17. Harpendent Skinfold Caliper 18. Harpendent Anthropometer
2.	Food and Nutrition	Food Science and Nutrition Laboratory Cashew Nut Processing Laboratory Catering Management Laboratory Food Analysis Laboratory Food Preservation Laboratory	1. Industrial ovens 2. Dough mixers 3. Sugar grinders 4. Pasta making machine 5. Noodle making machine 6. Dryer 7. Vacuum sealing machine 8. Equipment for the analysis of protein, fat, fibre etc 9. Colorimeter 10. Spectrophotometer 11. Texture analyser 12. Water bath 13. Viscometer 14. Muffle furnace 15. Hot air oven 16. Fruit pulper 17. Baby boiler

			18. Grinding mill
3.	Human Development and Family Studies	Laboratory Nursery School	There are no major equipment in the department
4.	Textiles and Apparel Designing	Garment Construction Lab	1. Sewing machine family model usha model & covers 2. LCD Projector Model NECVT 695G 3. Dry Cleaning Machine 4. Spectrophotometer Labtronics KOL-01 5. Counter Weighing Balance 6. Yarn Twist Tester
		Dyeing and Printing cum Textile Testing cum Lab	
		Vocational Training cum Experiential Learning room	
5.	Home Science Extension and Communication Management	Instruction Technology Lab Technology Dissemination Lab	1. L.C.D Projector 2. OHP Opaque Projector 3. Television LCD Sony Bravia 4. DSLR camera Cannon 5. DVD Recorder 6. Video Camera Handy Cam Sony

6.4.5. Conduct of Practical and Hands-on Training

B.Sc. (Hons.) Community Science

A student has to study 180 credits to complete the UG degree programme. Out of the 180 credits, 91 credits are practical oriented, and 89 credit hours are for the theory component.

The five departments of Community Science offer a wide range of practical-oriented courses including diet planning, preparing/cooking the diet that is planned, computer-aided interior designing, apparel designing, information and communication technology, extension training management, project management, food analysis, among others. In the basic compulsory courses, the students are exposed to subjects like biochemistry, English and communication skills, statistics, economics, etc. An essential component suggested in the Fifth Deans' Committee Report is the Student READY [Rural Entrepreneurship Awareness Development Yojana] programme wherein the students in the seventh and eight semester undertake Experiential Learning, In-Plant Programme, and Rural Awareness Work Experience (RAWE). This is a major step that guarantees high-quality professional competence, practical work experience in real-life situation to the graduates.

In Experiential Learning, the students are exposed to production-oriented courses and practical exposure relating to the opportunities and challenges of entrepreneurship, and an understanding of market dynamics, thereby encouraging them to be job providers rather than job seekers.

In the first six semesters before undergoing the Student READY programme, the students learn the basic and advanced theoretical and practical concepts of the different courses in the five core disciplines of Community Science.

In the practical component of the courses, students are given hands-on practical exposure ranging from laboratory work, industrial visits, field visits, market surveys and the like. Visits to media houses, printing press, weaving units, handloom office, Doordarshan Kendra, All India Radio, Food Processing Industries, Horticulture Hub, etc., are taken up in ever semester. Bakery and confectionery, hospital

dietetics, apparel designing, interior designing, project management are some among the many practical-oriented courses that the students learn in order to have a sound understanding about the course as a whole, and as preparation for the various activities under In-plant, Experiential Learning and RAWE. Under RAWE, the students interact largely with the local community and impart training to them. This ensures their exposure to community outreach and welfare programmes thus warranting hands-on training outside the campus as well as within it.

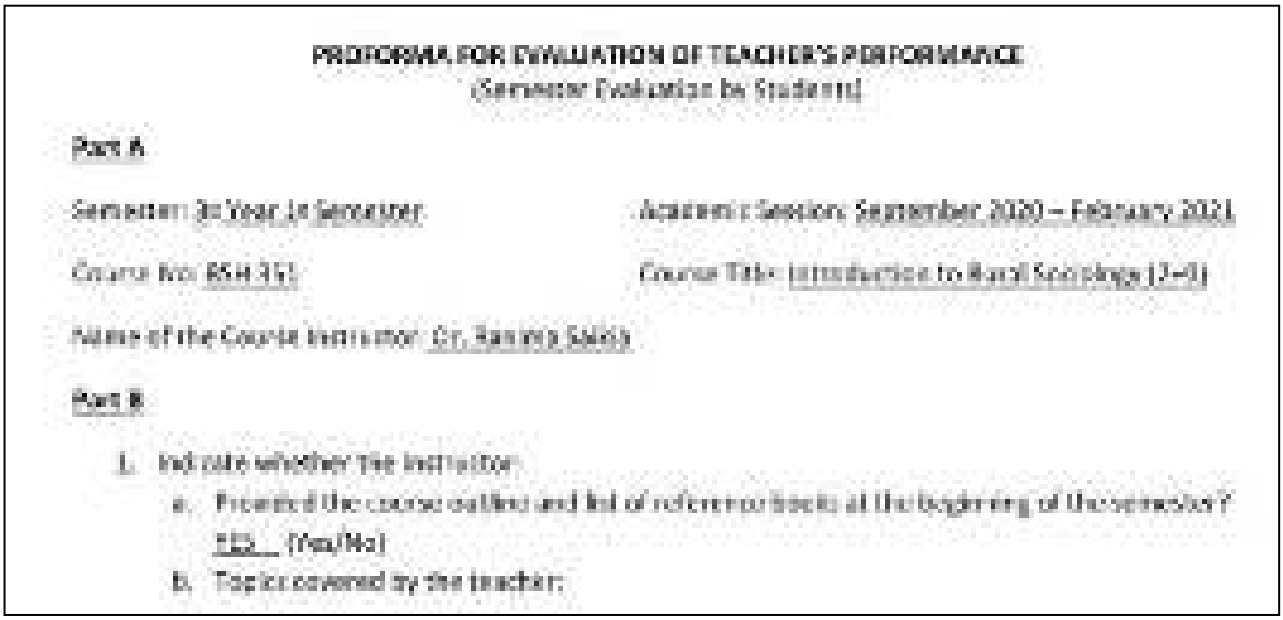
6.4.6. Supervision of Students in PG/PhD Programme

The information is provided in the separate report on M.Sc. Community Science programme.

6.4.7. Feedback of Stakeholders (Students, Parents, Industries, Employers, Farmers etc.)

The UG students provide feedback in a prepared proforma at the end of every semester pertaining to their learning experience, and their perception of the teacher's performance. A proforma is also provided to the alumnae and parents of the students wherein they provide feedback and suggestions to the college. The organisers of training programmes take feedback from farmers/participants after the culmination of each programme.

6.4.7.1 Samples of evaluation of teachers' performance taken at the end of every semester



PROFORMA FOR EVALUATION OF TEACHER'S PERFORMANCE
(Semester Evaluation by Students)

Part A

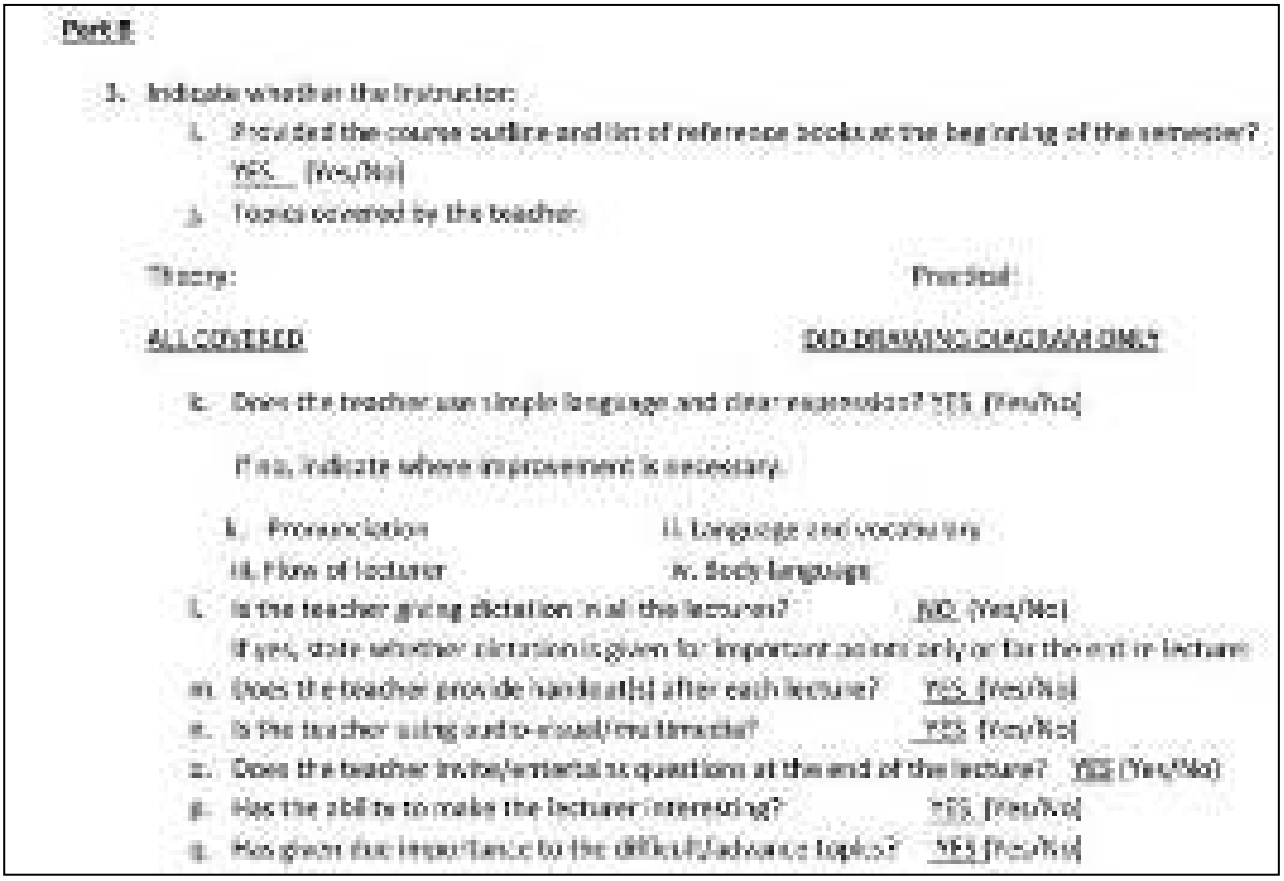
Semester: 3rd Year 1st Semester Academic Session: September 2020 – February 2021

Course No: BSH 311 Course Title: Introduction to Rural Sociology (2+0)

Name of the Course Instructor: Dr. Sarang Sahu

Part B

1. Indicate whether the instructor
   a. Provided the course outline and list of reference books at the beginning of the semester? YES (Yes/No)
   b. Topics covered by the teacher:



Part B

3. Indicate whether the Instructor:
   i. Provided the course outline and list of reference books at the beginning of the semester?
   YES [Yes/No]
   ii. Topics covered by the teacher:

Theory: Practical:

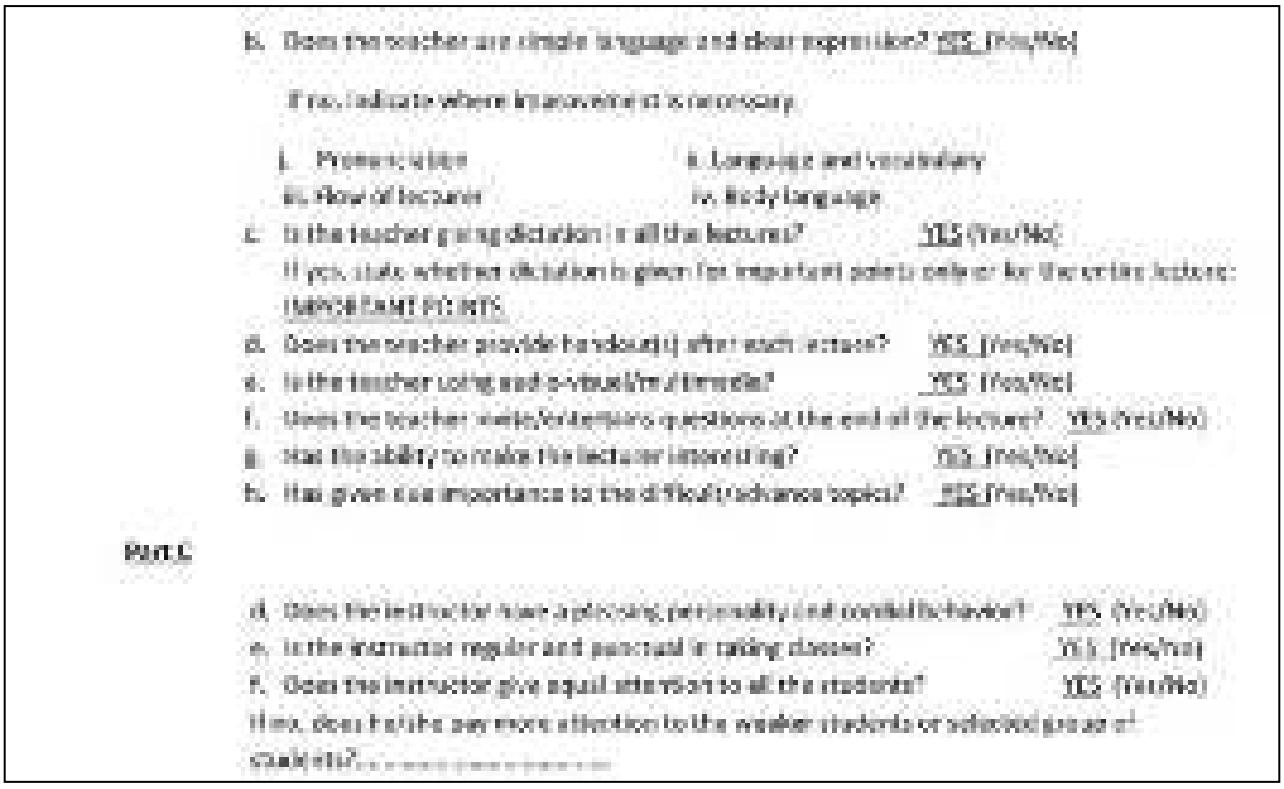
ALL COVERED DID DRAWING DIAGRAMS ONLY

iii. Does the teacher use simple language and clear expression? YES [Yes/No]

If no, indicate where improvement is necessary

i. Pronunciation ii. Language and vocabulary
iii. Flow of lecturer iv. Body language

iv. Is the teacher giving dictation in all the lectures? NO (Yes/No)
If yes, state whether dictation is given for important points only or for the entire lecture
v. Does the teacher provide handout[s] after each lecture? YES [Yes/No]
vi. Is the teacher using audio-visual/multimedia? YES [Yes/No]
vii. Does the teacher invite/entertain questions at the end of the lecture? YES (Yes/No)
viii. Has the ability to make the lecturer interesting? YES [Yes/No]
ix. Has given due importance to the difficult/advance topics? YES [Yes/No]



iii. Does the teacher use simple language and clear expression? YES [Yes/No]

If no, indicate where improvement is necessary

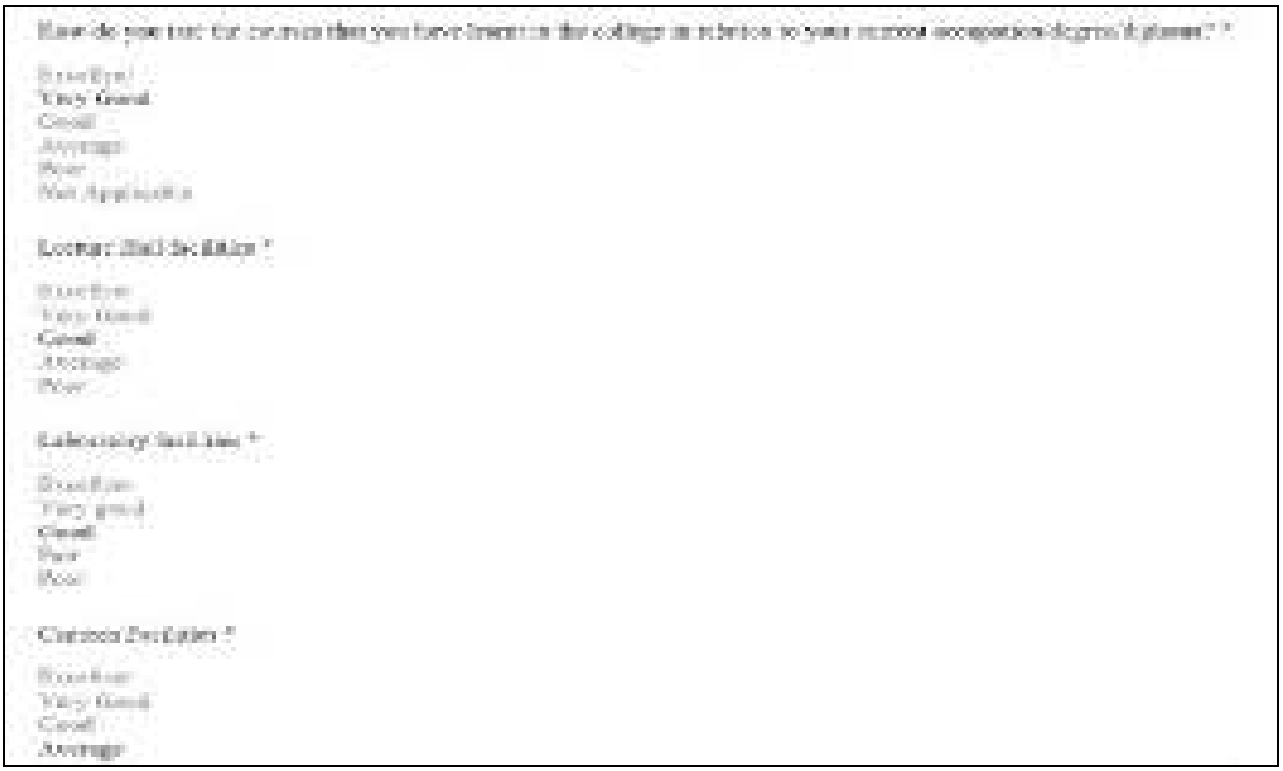
i. Pronunciation ii. Language and vocabulary
iii. Flow of lecturer iv. Body language

iv. Is the teacher giving dictation in all the lectures? YES (Yes/No)
If yes, state whether dictation is given for important points only or for the entire lecture:
IMPORTANT POINTS
v. Does the teacher provide handout[s] after each lecture? YES [Yes/No]
vi. Is the teacher using audio-visual/multimedia? YES [Yes/No]
vii. Does the teacher invite/entertains questions at the end of the lecture? YES (Yes/No)
viii. Has the ability to make the lecturer interesting? YES [Yes/No]
ix. Has given due importance to the difficult/advance topics? YES [Yes/No]

Part C

x. Does the instructor have a pleasing personality and cordial behavior? YES (Yes/No)
xi. Is the instructor regular and punctual in taking classes? YES [Yes/No]
xii. Does the instructor give equal attention to all the students? YES (Yes/No)
If no, does he/she pay more attention to the weaker students or selected group of students?

6.4.7.2 Samples of feedback from alumni



How do you rate the services that you have been in the college as a basis to your current occupation/degree/ planned? *

Excellent
Very Good
Good
Average
Poor
Not Applicable

Lecturer Staff Relation *

Excellent
Very Good
Good
Average
Poor

Laboratory facilities *

Excellent
Very good
Good
Poor
Poor

Classes Facilities *

Excellent
Very Good
Good
Average

Office Staff *

Excellent
Very Good
Good
Average
Poor

Faculty *

Excellent
Very Good
Good
Average
Poor

Explain in what way the course curriculum of the college contributed to your present profession? *

Basic information about all the courses made it easy to understand the topics easily.

Explain in what way the extracurricular activities organized by the College contributed to your overall development? *

It helped me in building my confidence about my abilities.

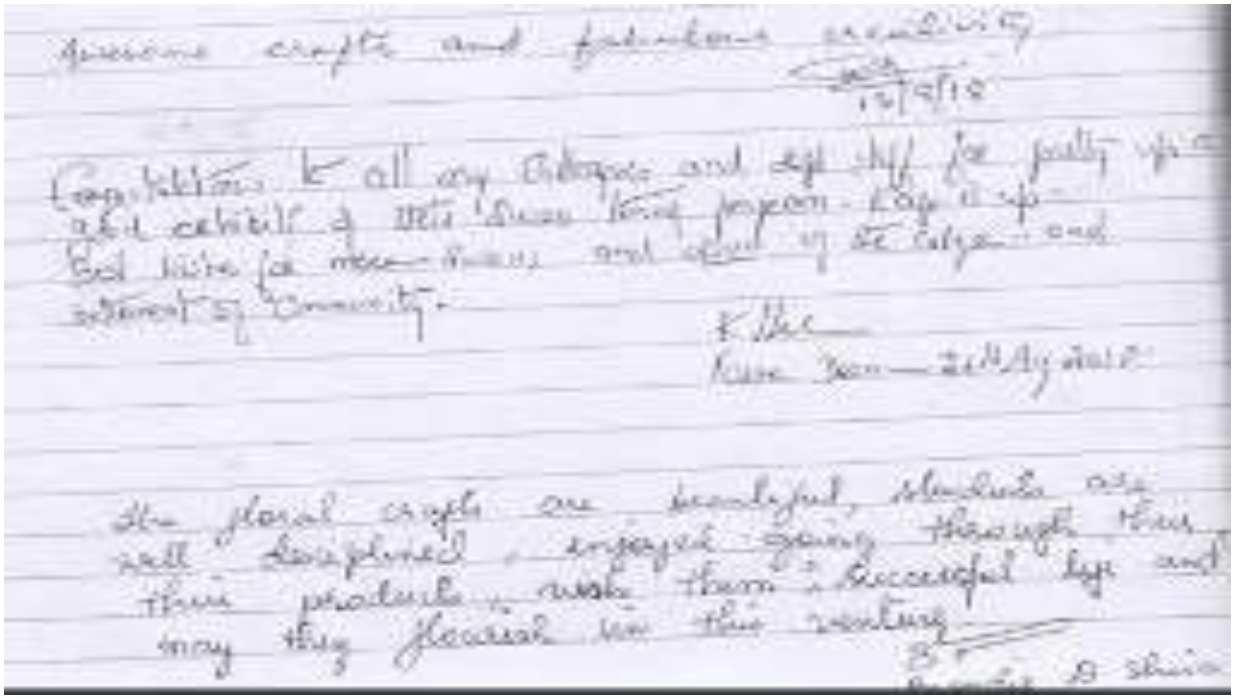
Interviewer: Hi any? As student / As Alumni *

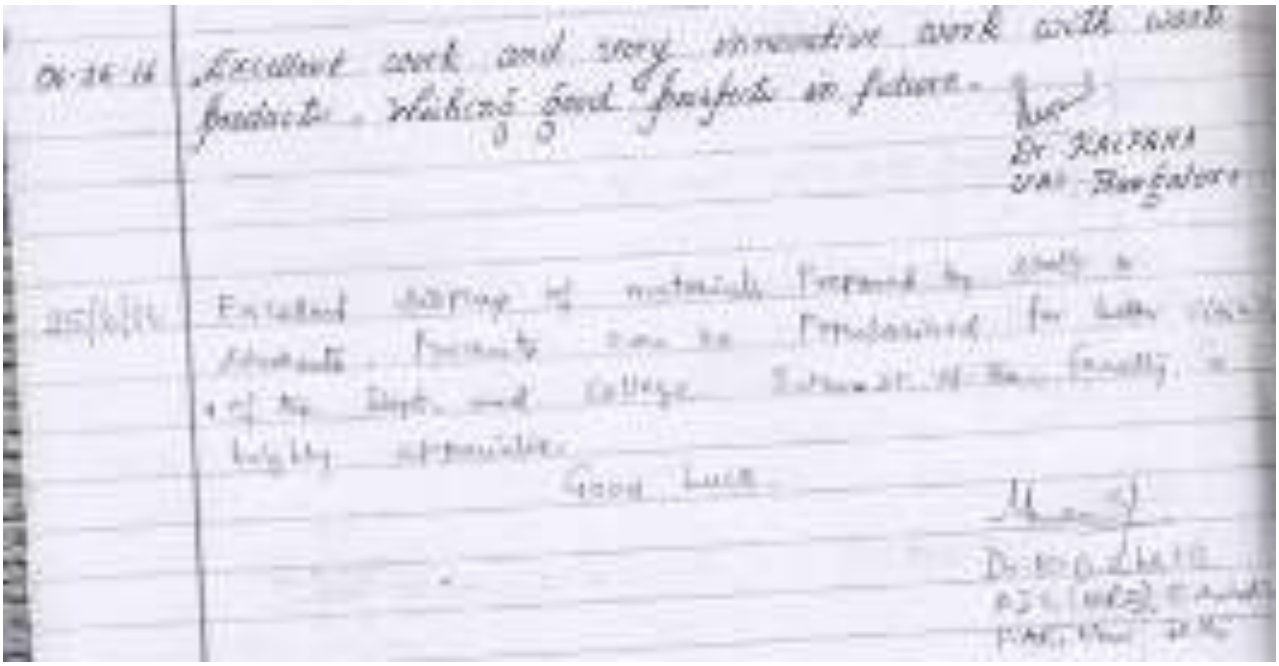
N/A

Give suggestions for overall improvement *

Detailed study of the courses.

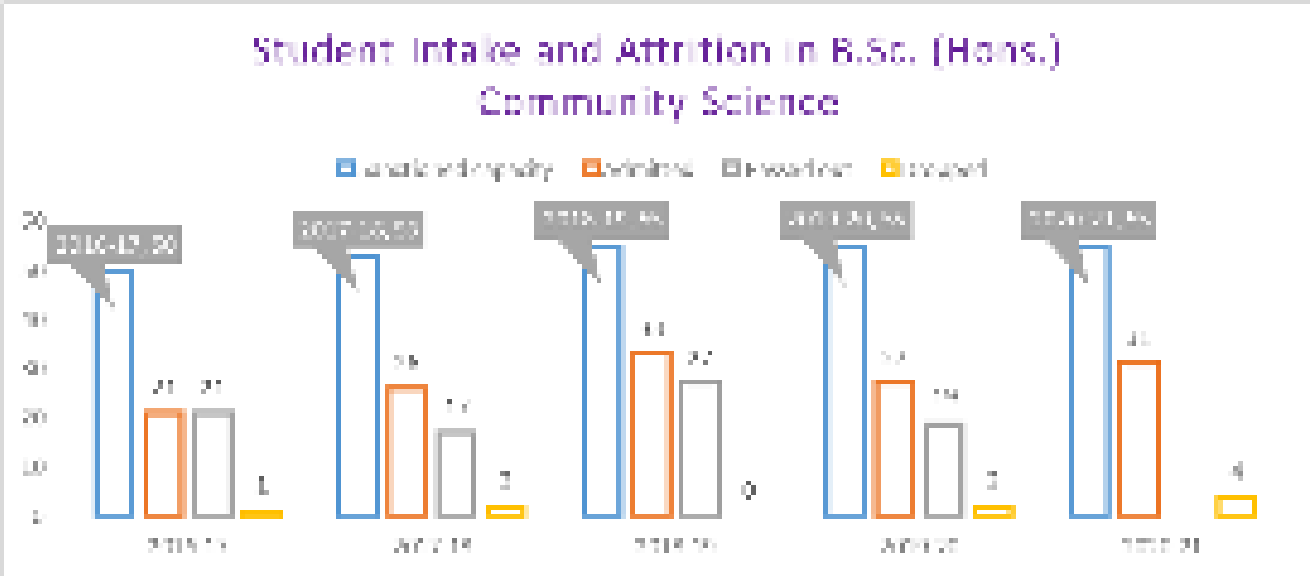
6.4.7.3 Feedback of visitors





6.4.8. **Student intake and attrition in the programme for last five years (2016-17 to 2020-21)**

Name of the degree programme	Year	Sanctioned Intake Capacity				Admitted				Attrition	
		Open Admission	State Nomination	ICAR	Total	Open Admission	State Nomination	ICAR	Total	Passed out	Dropped
B.Sc. (Hons.) Community Science	2016-17	16	34		50	14	07	Nil	21	21	01
	2017-18	16	37		53	15	11	Nil	26	17	02
	2018-19	18	32	05	55	17	14	Nil	33	27	Nil
	2019-20	18	32	05	55	18	08	01	27	19	03
	2020-21	18	32	05	55	18	12	Nil	30		04



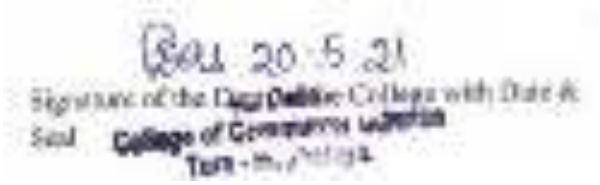
6.4.9. ICT Application in Curricula Delivery

For ease of internet access, Wi-Fi facility is made available in the college. The IT laboratory is used by students and faculty on all working days. It is equipped with 17 computers having 10 mbps internet connectivity. The classrooms also have LCD projectors with interactive smart boards. Recently, the college has set up a Smart Classroom to strengthen the teaching-learning experience. A Language Laboratory, augmented through the ICAR-NAHEP, with 30 new computers having 20 mpbs internet connection has been set up to facilitate various communication skills-related programmes and to fulfil the academic requirements of the students.

The students are encouraged to give power point presentations on various topics throughout their four-year stay in the college. Courses on Information Communication Technology and Agricultural Informatics are also offered at the UG level.

6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Prof. Puspita Das hereby certify that the information contained in Section 6.4 and Section 6.4.1 to 6.4.9 are furnished as per the records available in the college and degree awarding university.



SELF-STUDY REPORT

B.SC. (HONS.) FOOD NUTRITION AND DIETETICS

(2014-15 to 2020-21)

CENTRAL AGRICULTURAL UNIVERSITY
COLLEGE OF COMMUNITY SCIENCE
SANGSANGGRE, TURA,
MEGHALAYA-794005

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6.4. Self Study Report for the Programme: (2014-15 to 2020-21)

6.4.1. Brief History of the Degree Programme:

College of Community Science [erstwhile College of Home Science] a constituent college of Central Agricultural University, Imphal, Manipur, located in Sangsangre, Tura, started its first academic session only in B.Sc. (Hons.) Community Science [erstwhile Home Science] in the year 2004-05. The first batch of ten girl students hailed from Arunachal Pradesh, Meghalaya, and Manipur, and the academic activities and administrative work were carried out in a temporary building at Dakopgre, Tura. Subsequently in the year 2009 the college was shifted into its own campus.

In the Academic Session 2014-15, a parallel under-graduate degree programme in Food Nutrition and Dietetics was introduced in the college after approval of the Academic Council of Central Agricultural University. Prior to the implementation of the ICAR-Fifth Deans' Committee recommendation to introduce this particular in all agricultural universities, Punjab Agricultural University, Ludhiana had started B.Sc. Nutrition and Dietetics as a 3-year programme in 2009-10, which was upgraded to a 4-year programme in 2012-13. Subsequently, some colleges of the Agricultural Universities in India (C.A.U & S.A.U) introduced the four-year Undergraduate degree programme for Nutrition and Dietetics with the implementation of Fifth Deans' Committee of ICAR. Some government Universities like S.N.D.T Women's University, Mumbai & Delhi University, Delhi are providing 3 years' education for B.Sc. Nutrition and Dietetics. However, this course has been introduced also in some deemed and private universities in India, such as Chandigarh University, Chandigarh; Lovely Professional University, Jalandhar; Shoolini University, Himachal Pradesh; and Sharda University, Greater Noida.

B.Sc. (Hons.) Food Nutrition and Dietetics is a highly specialized course that aims to build a holistic understanding through study and research in core fields of nutritional biochemistry, food microbiology, human physiology, public health nutrition & a host of other fields. These topics offer students a much-needed avenue for comprehensive development. The syllabus of B.Sc. (Hons.) Food Nutrition and Dietetics consists of courses that lay a foundation stone for nutrition science and food quality control management.

In this course students learn about the effect of different foods on human health. Evidently, the ultimate aim of this program is to elucidate the ways in which one can lead a healthy life by minding his/her diet. Health is that facet of life which cannot be shunned at any cost. By intelligent consumption of the right and required food, one can prevent a variety of diseases and health hazards. With the aim of making more and more people healthy, dietetics has become a developing branch. When the target is big, one needs to have a big team and that became the reason behind B.Sc. (Hons.) Food Nutrition & Dietetics offering a myriad of job opportunities appended to it.

Along with nutritional recommendations it also focuses on research in medical dietary needs and human biosciences. Furthermore, it paves a way for individuals to venture into the thriving health, lifestyle and wellness industry. The new frontiers of research like nutraceuticals and functional foods, new concepts on glycaemic index, importance of vegetarian diets, nutritional requirements of AIDS patients are all given due importance in Food Nutrition and Dietetics course. Furthermore, Food Nutrition and Dietetics are basic to all developmental programmes.

Food Nutrition and Dietetics comprise the study of food management and primarily includes advanced learning to improve the quality of life, health and well- being of individuals by promoting healthy food habits together with researching healthier dietary changes. Globalization has affected the

society and changed the food habits and lifestyle of people. In this context, the demand for nutritionists/dieticians has significantly increased over the years.

After completing the B.Sc. (Hons.) Food Nutrition and Dietetics a candidate will not have to worry about future career graphs because a lot of career opportunities are available in this field. The most common roles the graduates work as are:

- Nutrition specialist- Holistic Nutritionist & Sports Nutritionist.
- Dietician- Registered and Personal.
- Food quality inspector
- Food processing manager
- Health Coach
- Public Health Nutritionist
- Nutrition Education & Research
- Paediatric dietician/nutritionist
- Community dietician/nutritionist

6.4.2. Faculty Strength:

6.4.2.1 Faculty Strength of the college

Sl. No.	Sanctioned Faculty	Faculty in place	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	2	3	07
2.	Associate Professor	4*	4	14
3.	Assistant Professor	11#	12	28
Total		**17**	**19**	49

6.4.2.2 Faculty Strength of the Department of Food and Nutrition

Sl. No.	Sanctioned Faculty	Faculty in place	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
4.	Professor	-	1	2
5.	Associate Professor	2	-	4
6.	Assistant Professor	2	1	8

Currently, the post of Professor is vacant. However, when the degree programme was started in the year 2014, there was one Professor, who was also the Dean of the College. At present there are four faculties in the Department 2(two) Associate and 2(two) Assistant Professors). In addition to it 1(one) Assistant Professor from the Department of Agriculture Engineering and Processing is also attached to the Department and is assigned subjects related to Food Processing. A biochemist from the Department of Basic Sciences (Assistant Professor in Biochemistry) is assigned all Biochemistry subjects till 2019, presently he is promoted and posted to Headquarter, Imphal. Since, a post of Assistant Professor vacant; a

Guest faculty has been engaged to take biochemistry related courses. These faculties are also responsible for teaching the students of Community Science, since the College runs two parallel degree programmes.

6.4.3. Technical and Supporting Staff:

Technical and Supporting staffs of the college are listed as under:

Sl. No.	Technical staff /Supporting staff	Sanctioned	In place
1.	Assistant Engineer	1	Nil
2.	Sr. Library Assistant	1	1
3.	Junior Engineer (civil)	1	2
4.	Field cum Lab. Assistant	15	13
5.	Farm Assistant /Livestock	8	4
6.	Library Assistant	3	3
7.	Electrician	2	1
8.	Plumber	1	1
9.	Carpenter	1	1
10.	Driver	6	3
11.	Supporting Staff	33	33

6.4.4. Classrooms and Laboratories

6.4.4.1 Classrooms and Laboratories of the college

No. of lecture halls – 9 (Nine) Lecture halls including one (1) smart classroom
No. of seminar halls – 2 (Two) Seminar Halls

6.4.4.2 Classrooms and Laboratories of the Department of Food and Nutrition

The classrooms and laboratories of the college are used by both Community Science (CS) students as well as Food Nutrition and Dietetics (FND) students. It can be mentioned that the final year students from both the degree programmes are engaged in in-plant/internships/Experiential Learning/RAWE activities.

Seminar Room

ELP Students working in FSN Lab

RAWE activities

The laboratories and equipment available in all the departments of the college are enlisted below:

Sl. No	Department	Name of laboratory	Major equipment
1.	Family Resource Management	Household Equipment Lab Housing and Space Management Lab Interior Enrichment Lab Vocational Training Lab	1. Bicycle Ergometer 2. Inclinometer Micro FE T6 3. Goniometer 4. Sewing Machine Fashion Maker 5. Skinfold Caliper 6. Heart Rate Monitor 7. Lux Meter 8. Hand Grip Dynamometer 9. Acuflex II 10. Digital Leg and Back Dynamometer 11. Quartz Matronome 12. Flexicurve 13. Hygrometer 14. Stopwatch and Pedometer 15. Air Sampler 16. Ergomaster 17. Harpendent Skinfold Caliper 18. Harpendent Anthropometer
2.	**Food and Nutrition**	**Food Science and Nutrition Laboratory** **Cashew Nut Processing Laboratory** **Catering Management Laboratory** **Food Analysis Laboratory** **Food Preservation Laboratory**	**1. Industrial ovens** **2. Dough mixers** **3. Sugar grinders** **4. Pasta making machine** **5. Noodle making machine** **6. Dryer** **7. Vacuum sealing machine** **8. Equipment for the analysis of protein, fat, fibre etc** **9. Colorimeter** **10. Spectrophotometer** **11. Texture analyser** **12. Water bath** **13. Viscometer** **14. Muffle furnace** **15. Hot air oven** **16. Fruit pulper** **17. Baby boiler** **18. Grinding mill**
3.	Human Development and Family Studies	Laboratory Nursery School	There are no major equipment in the department

4.	Textiles and Apparel Designing	Garment Construction Lab	1. Sewing machine family model usha model & covers 2. LCD Projector Model NECVT 695G 3. Dry Cleaning Machine 4. Spectrophotometer Labtronics KOL-01 5. Counter Weighing Balance 6. Yarn Twist Tester
		Dyeing and Printing cum Textile Testing cum Lab	
		Vocational Training cum Experiential Learning room	
5.	Home Science Extension and Communication Management	Instruction Technology Lab Technology Dissemination Lab	1. L.C.D Projector 2. OHP Opaque Projector 3. Television LCD Sony Bravia 4. DSLR camera Cannon 5. DVD Recorder 6. Video Camera Handy Cam Sony

FSN Laboratory

Food Preservation Laboratory

Food Analysis Lab

In the Department of Food and Nutrition, minor equipments such as oven, toaster griller (OTGs), Microwave ovens, digital weighing balance etc are also available.

The practical classes are arranged in such a way that it does not warrant the need of the same laboratory at the same time.

6.4.5. Conduct of Practical and Hands-on Training:

A total of 180 credits are required to be completed for graduation. Out of the 180 credits, 91 credits are practical oriented however 89 credit hours have been given to theory. Fifty percent of the credit requirement is practical based. The very concept of diet planning would not be possible without actually preparing or cooking the diet that is planned. The students are given hands-on-training in the basic concepts of measurements in terms of raw and cooked foods. The analysis of the nutrients and mineral content of food is taught to the students using sophisticated equipments in the laboratories. Knowledge gained from the class practical's of subjects such as Food Preservation and storage, Bakery and Confectionary, Nutraceuticals and Health Foods etc prepares the students for experiential learning programmes. By the time the students reach the final semester, they have already mastered the knowledge of setting up their own enterprise. The subjects Sports Nutrition and Physical Fitness along with Diet and Nutrition Counselling also paves avenues for setting up/working in fitness centres and counselling centres. Professional counsellors are called to provide special sessions to boost the students' confidence. The students are also exposed to community-based studies where they learn to interact with the local community. They learn the art of rapport building and hands-on-training on anthropometric measurements. This readies them for future community outreach and welfare programmes. The students therefore receive practical hands-on-training on-campus as well as off-campus.

6.4.6. Supervision of Students in PG/PhD Programme

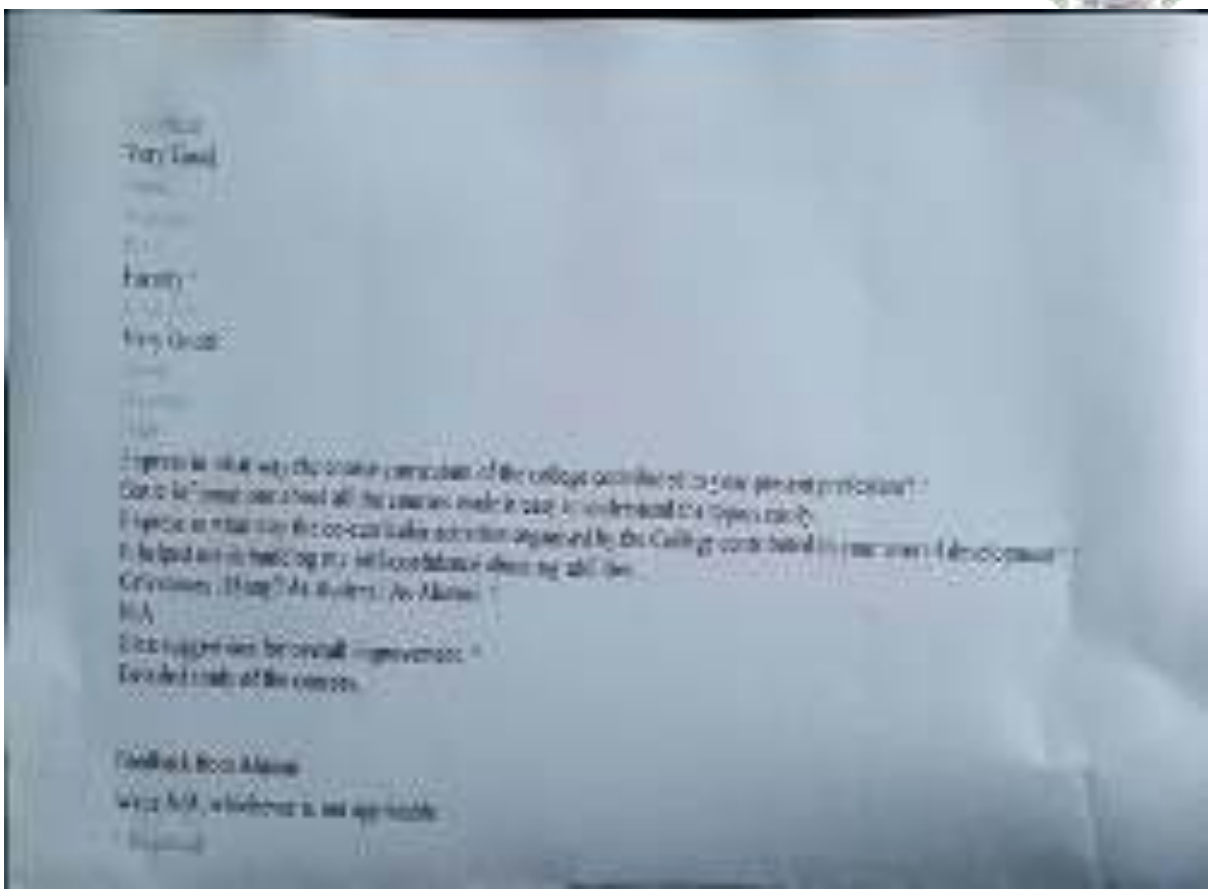
The information is provided in the separate report on M.Sc. Community Science programme.

6.4.7. Feedback of Stakeholders (Students, Parents, Industries, Employers, Farmers etc.)

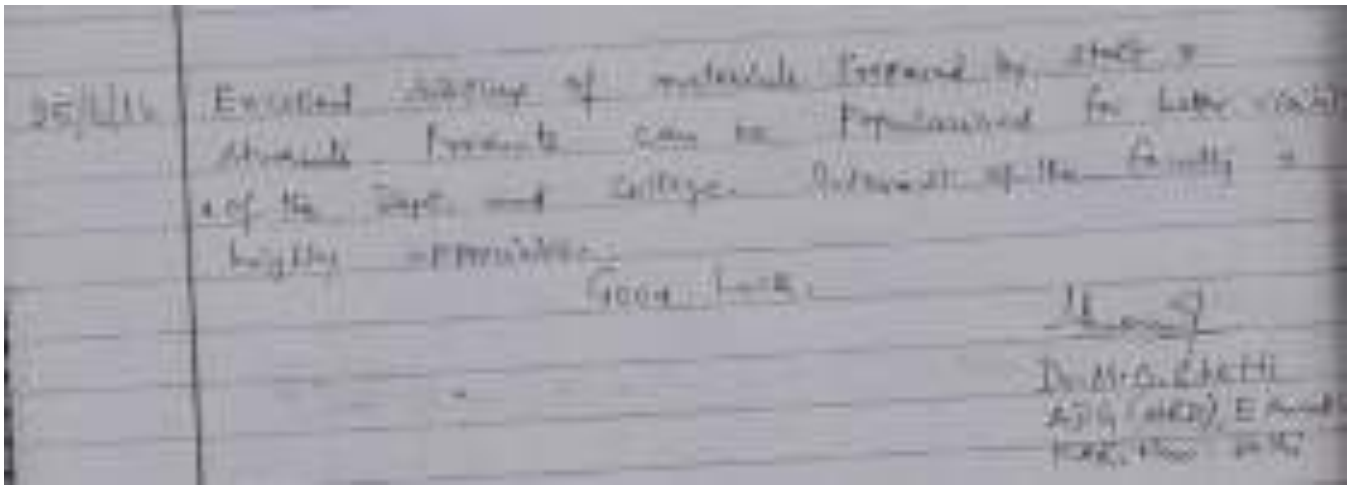
Feedback from stakeholders is often sought to improve the research, teaching and extension components of the College. After every semester, the students are given an evaluation form to evaluate teacher's performance which is duly filled and submitted to the Academic in-charge. A Performa is also provided to the alumnae and parents of the students wherein they provide feedback and suggestions to the college. The organizers of training programmes take feedback from farmers/participants after the culmination of each programme. (Enclosed)

6.4.7.1. Samples of evaluation of teachers' performance taken at the end of every semester

6.4.7.2. Samples of feedback from alumni



6.4.7.3 Feedback of visitors:



6.4.8. Student intake and attrition in the programme for last five years:

Name of the degree programme	Year	Sanctioned Intake capacity				Admitted				Attrition	
		Open Admission	State Nomination	ICAR	Total	Open Admission	State Nomination	ICAR	Total	Passed out	Dropped
B.Sc. (Hons.) Food Nutrition and Dietetics	2016-17	10	07	03	20	10	06	Nil	16	-	2
	2017-18	11	08	03	22	10	04	Nil	14	11	1
	2018-19	11	08	03	22	11	05	Nil	16	10	-
	2019-20	11	08	03	22	10	03	Nil	13	14	3
	2020-21	11	08	03	22	11	05	Nil	16	-	2

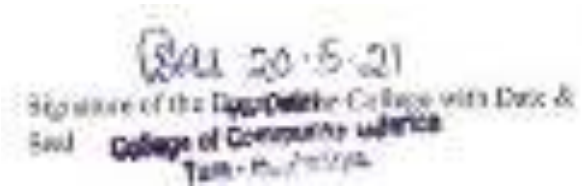
6.4.9. ICT Application in Curricula Delivery:

For ease of internet access, Wi-Fi facility is made available in the College. The IT laboratory is available to the students all day. It is equipped with computers with internet connectivity. The classrooms also have LCD projectors and an interactive smart board. The students are also encouraged to give their assignments via power point presentation on latest topics in the field of food, nutrition and dietetics. The laboratories are equipped with equipments which come with software installed in the computers, simplifying interpretation of results.

IT Laboratory

6.4.12. Certificate (Applicable when SSR is submitted for Programme).

I, the Dean Professor Puspita Das hereby certify that the information contained in Section 6.4 and Section 6.4.1 to 6.4.9 are furnished as per the records available in the college and degree awarding university.



SELF-STUDY REPORT

Master of Science (Community Science) in
Extension Education and Communication Management

2016-17 to 2020-21

CENTRAL AGRICULTURAL UNIVERSITY
COLLEGE OF COMMUNITY SCIENCE
SANGSANGGRE, TURA,
MEGHALAYA-794005.

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6.4.4. CLASSROOMS AND LABORATORIES 7

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6.4.8. STUDENT INTAKE AND ATTRITION IN THE PROGRAMME FOR LAST FIVE YEARS (2016-17 TO 2020-21) 10

6.4.9. ICT APPLICATION IN CURRICULA DELIVERY 10

Summary

The Self-Study Report of College of Community Science, Sangsanggre, Tura, Meghalaya, encompasses a range of important information pertaining largely to the academic achievements of the college in its M.Sc. (Community Science) in Extension Education and Communication Management programme over the last five years from the academic session 2016-17 to 2020-21.

The report has been prepared based on the data requested by the Indian Council of Agricultural Research (ICAR) in the pre-drafted proforma required to be furnished by any institute of higher learning in the field of agriculture and allied sciences that seeks accreditation from the ICAR-National Agricultural Education Accreditation Board (N.A.E.A.B.). The distinctly delineated report commences with a brief history of the college, faculty and staff strength, facilities available, administrative setup, admission procedure, examination and evaluation process, research and extension activities, monitoring and quality assurance, among others. It provides adequate information on financial resources and its management, admission and attrition of students, students' achievements in various competitions, and their placement profile.

6.4. Self-Study Report for the Programme

6.4.1 Brief History of the Degree Programme

6.4.1.1 M.Sc. (Community Science) in Extension Education and Communication Management

College of Community Science [erstwhile College of Home Science] a constituent college of Central Agricultural University, Imphal, Manipur, located in Sangsangre, Tura, started its first academic session for B.Sc. (Hons.) Community Science [erstwhile Home Science] in the year 2004-05. The first batch of ten girl students hailed from Arunachal Pradesh, Meghalaya, and Manipur, and the academic activities and administrative work were carried out in a temporary building at Dakopgre, Tura. Dr. Rita Singh Raghuvanshi was appointed as the Dean (on deputation). Four lecturers were hired on contractual basis and one joined on deputation during the initial phase. Regular appointments were made in the year following the college's establishment and in the subsequent years.

In 2006, Dr. K. Sheela was appointed as Dean of the college, and subsequently in 2009, the college relocated its academic and administrative work to its permanent campus at Sangsanggre, Tura. After Dr. Sheela's retirement in July 2015, Dr. Puspita Das, was appointed as In-charge Dean, followed by the appointment of Dr. Anurag Chaturvedi as regular Dean in December 2016. Following Dr. Chaturvedi's resignation in September 2017, Dr. Puspita Das was again appointed as In-charge Dean and she is the incumbent administrative head of the college.

The picturesque campus boasts of a host of facilities including accommodation facilities for students, faculty and staff; spacious classrooms, a seminar hall and a smart classroom; laboratories; a well-furnished Guest House; an IT lab with 10 mbps internet connectivity; well-equipped library; transit hostel; an incubation center and a vocational training center; a canteen; and a playground. Recently, a Language Laboratory with 30 computers having 20Mbps internet connection has also been established in an endeavor to improve the communication and life skills of the students.

The college, at present, is offering two post-graduate degree programmes in Food and Nutrition, and Extension Education and Communication Management exclusively for female scholars/students. With the approval of the Academic Council of Central Agricultural University, the first academic session in M.Sc. (Community Science) Extension Education and Communication Management began in 2017-18. As per University guidelines, the programme has an intake capacity of three students [2 through University entrance examination + 1 ICAR nominee]. So far, two (2) students have completed their PG degree in Extension Education and Communication Management.

6.4.2. Faculty Strength

The current sanctioned, filled and vacant faculty strength are based upon the number recommended as per the ordinance of the college.

Sl. No.	Sanctioned Faculty	Faculty in place	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies	Guest Faculty/Adjunct Faculty/ Teacher from constituent colleges of CAU, Imphal
1.	Professor	-	1	**1**	**Adjunct faculty-2**
2.	Associate Professor	1*	0	**2**	**1 Associate Professor from CPGAS, Umiam**
3.	Assistant Professor	2	0	**4**	
Total permanent faculty		**3**	**1**	**7**	

* one Associate Professor was promoted to the post of Professor through CAS, thus, one post is not considered as vacant.
# one Assistant Professor, Dr. R.K. Dhanalaxmi Devi, has been absent from 2018 till date without tendering her resignation. The matter is pending at the headquarter.

At present there is 1 (one) regular faculty member in the Department of Home Science Extension Education and Communication Management. In order to augment the shortage of teachers, the university has provided provision to appoint adjunct and guest faculty of the related discipline from the other constituent colleges of Central Agricultural University, and other agricultural universities as well. The guest faculty and adjunct faculty are appointed directly by the university and also through the NAHEP-IDP in every semester.

6.4.2.1 Faculty teaching multiple programmes

The number of faculty assigned teaching responsibilities for multiple degree programmes are

Sl. No.	Name of the department	No. of faculty teaching multiple degree programmes
1.	Food Science and Nutrition	4
2.	Home Science Extension Education and Communication Management	1
3.	Family Resource Management	2
4.	Basic Science and Humanities	2
5.	Agriculture & Animal Science	1
Total		**10**

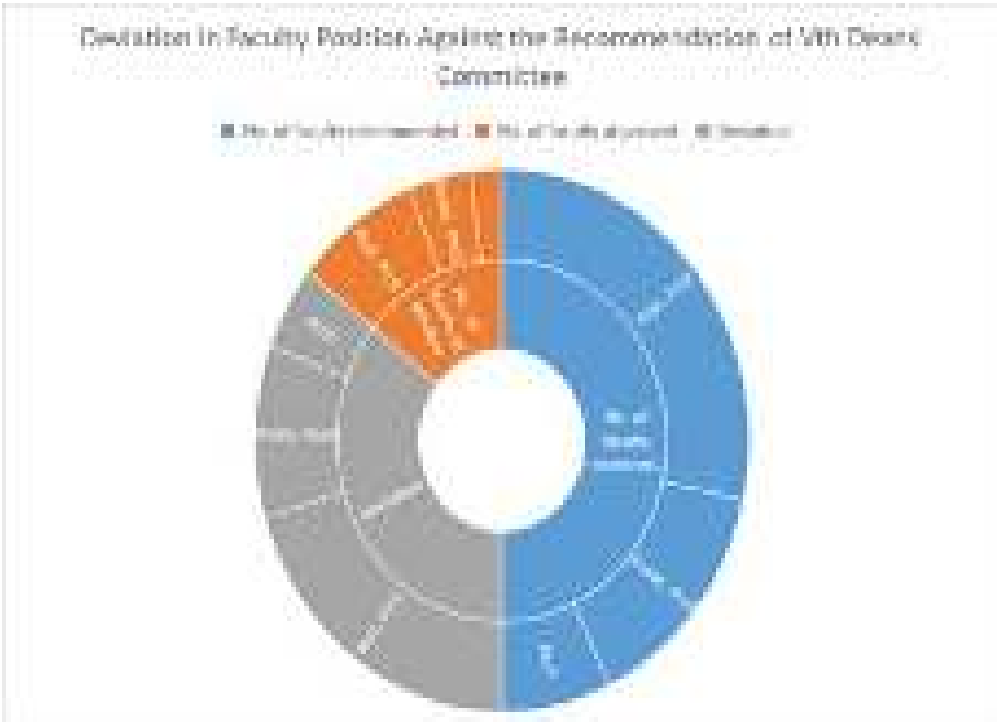
6.4.2.2 Deviation in Faculty Strength as per ICAR-FDC recommendation

As the faculty strength and nomenclature and number of departments are based as per the ordinance, the recommendation of the ICAR-Fifth Deans' Committee is yet to be implemented in toto. The

faculty position w.r.t. the Fifth Deans' Committee Report recommendation and existing faculty strength is shown below:

Sl. No.	Department faculty strength as per recommendation of Vth Deans' Committee	No. of faculty recommended			No. of faculty at present			Deviation		
		Prof.	Assoc. Prof	Asst. Prof	Prof.	Assoc. Prof.	Asst. Prof.	Prof.	Assoc. Prof.	Asst. Prof.
1.	Food Science and Nutrition	1	2	4	-	2	2	1	-	2
2.	Food Policy and Public Health Nutrition	1	2	4	-	-	-	1	2	4
3.	Apparel Design Management	1	2	4	-	-	-	1	2	4
4.	Textile Science and Design*	1	2	4	-	1	2	1	1	2
5.	Family Resource Management & Consumer Science**	1	2	4	1	-	2	-	2	2
6.	Human Development and Family Studies	1	2	4	-	1	2	1	1	2
7.	Extension and Communication Management	1	2	4	1	-	-	-	2	4
	TOTAL	**7**	**14**	**28**	**2**	**4**	**8**	**5**	**10**	**20**

* The current nomenclature is Textile and Apparel Designing ** The current nomenclature is Family Resource Management


Deviation in Faculty Position Against the Recommendation of 9th Deans' Committee

6.4.3. Technical and Supporting Staff

The number of sanctioned and appointed Technical and Supporting staff of the college are enlisted below:

Sl. No.	Technical staff /Supporting staff	Sanctioned	In place
1.	Assistant Engineer	1	Nil
2.	Sr. Library Assistant	1	1
3.	Junior Engineer (civil)	1	2
4.	Field cum Lab. Assistant	11	11
5.	Farm Assistant /Livestock	5	2
6.	Library Assistant	3	3
7.	Electrician	1	1
8.	Plumber	1	1
9.	Carpenter	1	1
10.	Driver	5	3
11.	Supporting Staff	32	30

6.4.4. Classrooms and Laboratories

No. of lecture halls – 9 (Nine) Lecture halls including one (1) smart classroom
No. of seminar halls – 2 (Two) Seminar Halls

Out of the nine lecture halls in the college, two lecture halls are used exclusively for M.Sc. classes, and the other rooms like the smart classroom and seminar halls are also utilized whenever the need arises.

6.4.4.1 Laboratories of the college

Sl. No	Department	Name of laboratory	Major equipment
1.	**Home Science Extension and Communication Management**	**1. Instruction Technology Lab** **2. Technology Dissemination Lab**	**1. L.C.D Projector** **2. OHP Opaque Projector** **3. Television LCD Sony Bravia** **4. DSLR camera Cannon** **5. DVD Recorder** **Video Camera Handy Cam Sony**
2.	Family Resource Management	Household Equipment Lab Housing and Space Management Lab Interior Enrichment Lab	1. Bicycle Ergometer 2. Inclinometer Micro FE T6 3. Goniometer 4. Sewing Machine Fashion Maker

		Vocational Training Lab	5. Skinfold Caliper 6. Heart Rate Monitor 7. Lux Meter 8. Hand Grip Dynamometer 9. Acuflex II 10. Digital Leg and Back Dynamometer 11. Quartz Matronome 12. Flexicurve 13. Hygrometer 14. Stopwatch and Pedometer 15. Air Sampler 16. Ergomaster 17. Harpendent Skinfold Caliper 18. Harpendent Anthropometer
3.	Food and Nutrition	Food Science and Nutrition Laboratory Cashew Nut Processing Laboratory Catering Management Laboratory Food Analysis Laboratory Food Preservation Laboratory	1. Industrial ovens 2. Dough mixers 3. Sugar grinders 4. Pasta making machine 5. Noodle making machine 6. Dryer 7. Vacuum sealing machine 8. Equipment for the analysis of protein, fat, fibre etc 9. Colorimeter 10. Spectrophotometer 11. Texture analyser 12. Water bath 13. Viscometer 14. Muffle furnace 15. Hot air oven 16. Fruit pulper 17. Baby boiler 18. Grinding mill
4.	Human Development and Family Studies	Laboratory Nursery School	There are no major equipment in the department
5.	Textiles and Apparel Designing	Garment Construction Lab Dyeing and Printing cum Textile Testing cum Lab Vocational Training cum Experiential Learning room	1. Sewing machine family model usha model & covers 2. LCD Projector Model NECVT 695G 3. Dry Cleaning Machine 4. Spectrophotometer Labtronics KOL-01 5. Counter Weighing Balance 6. Yarn Twist Tester

Audio Visual Lab

6.4.5. Conduct of Practical and Hands-on Training

6.4.5.1 M.Sc. (Community Science) Extension and Communication Management

All practical classes and experiments are conducted in the existing laboratories of the Department of Home Science Extension and Communication Management. It is ensured that the laboratory-related research work of the PG students is not hampered, and all support is extended to the students by the college and department.

Conducting practical

6.4.6. Supervision of Students in PG/PhD Programme

Candidates who have graduated from ICAR recognized institutions in Community Science/Home Science, and Food Nutrition & Dietetics are eligible to apply for the Master Degree programme in Extension and Communication Management. As per University guidelines, the programme has an intake capacity of three students [2 through University entrance examination + 1 ICAR nominee].

After admission to the college, each student is assigned under an Advisory Committee, comprising of a Chairperson or Major Advisor, Major Member belonging to the related discipline, and a member from a Minor discipline. The Major Advisor guides the PG student(s) in academic as well as research activities till the submission of the PG thesis.

The details of students supervised since 2017 are given below:

Year of admission	Name of student & programme enrolled for	Supervisor	Status
July 2017	1. Silkame N. Sangma [ECM] 2. Mikkimchi G. Momin [ECM]	Dr. Puspita Das	Degree awarded
July 2018	1. Huidrom Bliss [ECM]	Dr. Puspita Das	Thesis work in progress
Sept 2020	1. Aprilhrin Anal [ECM]	Dr. Puspita Das	1st year course work in progress

6.4.7. Feedback of Stakeholders (Students, Parents, Industries, Employers, Farmers etc.)

The UG and PG students provide feedback in a prepared proforma at the end of every semester pertaining to their learning experience, and their perception of the teacher's performance. A proforma is also provided to the alumnae and parents of the students wherein they provide feedback and suggestions to the college. The organisers of training programmes take feedback from farmers/participants after the culmination of each programme.

6.4.8. Student intake and attrition in the programme for last five years **(2016-17 to 2020-21)**

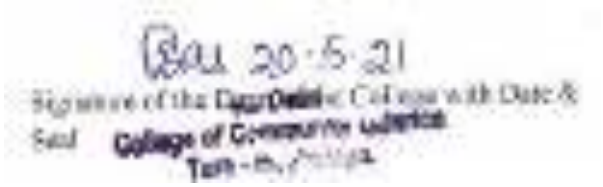
Name of the degree programme	**Year**	**Sanctioned Intake Capacity**			**Admitted**			**Attrition**	
		CAU Entrance Exam	**ICAR**	**Total**	**CAU Entrance Exam**	**ICAR**	**Total**	**Passed out**	**Dropped**
M.Sc. (Community Science) Extension Education and Communication Management	2016-17	02	01	03	Nil	Nil	0	-	Nil
	2017-18	02	01	03	02	Nil	02	-	Nil
	2018-19	02	01	03	01	Nil	01	-	Nil
	2019-20	02	01	03	Nil	Nil	00	02 (100%)	Nil
	2020-21	02	01	03	01	Nil	01	-	Nil

6.4.9. ICT Application in Curricula Delivery

For ease of internet access, Wi-Fi facility is made available in the college. The IT laboratory is used by students and faculty on all working days. It is equipped with 17 computers having 10 mbps internet connectivity. The classrooms also have LCD projectors with interactive smart boards. Recently, the college has set up a Smart Classroom to strengthen the teaching-learning experience. A Language Laboratory, augmented through the ICAR-NAHEP, with 30 new computers having 20Mbps internet connection has been set up to facilitate various communication skills-related programmes and to fulfil the academic requirements of the students.

6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Professor Puspita Das hereby certify that the information contained in Section 6.4 and Section 6.4.1 to 6.4.9 are furnished as per the records available in the college and degree awarding university.



Signature of the Dean of the College with Date & Seal

SELF-STUDY REPORT

Master of Science (Community Science) in
Food Science and Nutrition

2016-17 to 2020-21

CENTRAL AGRICULTURAL UNIVERSITY
COLLEGE OF COMMUNITY SCIENCE
SANGSANGGRE, TURA,
MEGHALAYA-794005.

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Summary

The Self-Study Report of College of Community Science, Sangsanggre, Tura, Meghalaya, encompasses a range of important information pertaining largely to the academic achievements of the college in M.Sc. (Community Science) in Food Science and Nutrition programme over the last five years from the academic session 2016-17 to 2020-21.

The report has been prepared based on the data requested by the Indian Council of Agricultural Research (ICAR) in the pre-drafted proforma required to be furnished by any institute of higher learning in the field of agriculture and allied sciences that seeks accreditation from the ICAR-National Agricultural Education Accreditation Board (N.A.E.A.B.). The distinctly delineated report commences with a brief history of the college, faculty and staff strength, facilities available, administrative setup, admission procedure, examination and evaluation process, research and extension activities, monitoring and quality assurance, among others. It provides adequate information on financial resources and its management, admission and attrition of students, students' achievements in various competitions, and their placement profile.

6.4. Self-Study Report for the Programme

6.4.1 Brief History of the Degree Programme

6.4.1.1 M.Sc. (Community Science)

College of Community Science [erstwhile College of Home Science] a constituent college of Central Agricultural University, Imphal, Manipur, located in Sangsangre, Tura, started its first academic session for B.Sc. (Hons.) Community Science [erstwhile Home Science] in the year 2004-05. The first batch of ten girl students hailed from Arunachal Pradesh, Meghalaya, and Manipur, and the academic activities and administrative work were carried out in a temporary building at Dakopgre, Tura. Dr. Rita Singh Raghuvanshi was appointed as the Dean (on deputation). Four lecturers were hired on contractual basis and one joined on deputation during the initial phase. Regular appointments were made in the year following the college's establishment and in the subsequent years.

In 2006, Dr. K. Sheela was appointed as Dean of the college, and subsequently in 2009, the college relocated its academic and administrative work to its permanent campus at Sangsanggre, Tura. After Dr. Sheela's retirement in July 2015, Dr. Puspita Das, was appointed as In-charge Dean, followed by the appointment of Dr. Anurag Chaturvedi as regular Dean in December 2016. Following Dr. Chaturvedi's resignation in September 2017, Dr. Puspita Das was again appointed as In-charge Dean and she is the incumbent administrative head of the college.

The picturesque campus boasts of a host of facilities including accommodation facilities for students, faculty and staff; spacious classrooms, a seminar hall and a smart classroom; laboratories; a well-furnished Guest House; an IT lab with 10 mbps internet connectivity; well-equipped library; transit hostel; an incubation center and a vocational training center; a canteen; and a playground. Recently, a Language Laboratory with 30 computers having 20Mbps internet connection has also been established in an endeavor to improve the communication and life skills of the students.

The college, at present, is offering two post-graduate degree programmes in Food and Nutrition, and Extension and Communication Management exclusively for female scholars/students. With the approval of the Academic Council of Central Agricultural University, the first academic session in M.Sc. (Community Science) Food and Nutrition commenced in 2016-17. As per University guidelines, the programme has an intake capacity of three students [2 through University entrance examination + 1 ICAR nominee]. So far, one (1) scholar has successfully completed her Post-Graduation in Food and Nutrition

6.4.2. Faculty Strength

The current sanctioned, filled and vacant faculty strength are based upon the number recommended as per the ordinance of the college.

Sl. No.	Sanctioned Faculty	Faculty in place	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies	Guest Faculty/Adjunct Faculty/ Teachers from constituent colleges of CAU, Imphal
1.	Professor	-	1	1	

2.	Associate Professor	2*	0	2	
3.	Assistant Professor	3	1	4	
Total permanent faculty		5	2	7	

* one Associate Professor was promoted to the post of Professor through CAS, thus, one post is not considered as vacant.

There are sufficient number of PG faculty teachers in the Department of Food and Nutrition. For the minor courses offered by the Department of Home Science Extension and Communication Management, the university has provided provision to appoint adjunct and guest faculty of the related discipline from the other constituent colleges of Central Agricultural University, and other agricultural universities as well. The guest faculty and adjunct faculty are appointed directly by the university and also through the NAHEP-IDP.

6.4.2.1 Faculty teaching multiple programmes

The number of faculty assigned teaching responsibilities for multiple degree programmes are

Sl. No.	Name of the department	No. of faculty teaching multiple degree programmes
1.	Food Science and Nutrition	4
2.	Home Science Extension and Communication Management	1
3.	Family Resource Management	2
4.	Basic Science and Humanities	2
5.	Agriculture & Animal Science	1
Total		**10**

6.4.2.2 Deviation in Faculty Strength as per ICAR-FDC recommendation

As the faculty strength and nomenclature and number of departments are based as per the ordinance, the recommendation of the ICAR-Fifth Deans' Committee is yet to be implemented in toto. The faculty position w.r.t. the Fifth Deans' Committee Report recommendation and existing faculty strength is shown below:

Sl. No.	Department faculty strength as per recommendation of Vth Deans' Committee	No. of faculty recommended			No. of faculty at present			Deviation		
		Prof.	Assoc. Prof	Asst. Prof	Prof.	Assoc. Prof.	Asst. Prof.	Prof.	Assoc. Prof.	Asst. Prof.
1.	Food Science and Nutrition	1	2	4	-	2	2	1	-	2
2.	Food Policy and Public Health Nutrition	1	2	4	-	-	-	1	2	4
3.	Apparel Design Management	1	2	4	-	-	-	1	2	4
4.	Textile Science and Design*	1	2	4	-	1	2	1	1	2
5.	Family Resource Management & Consumer Science**	1	2	4	1	-	2	-	2	2
6.	Human Development and Family Studies	1	2	4	-	1	2	1	1	2
7.	Extension and Communication Management	1	2	4	1	-	-	-	2	4
	TOTAL	**7**	**14**	**28**	**2**	**4**	**8**	**5**	**10**	**20**

* The current nomenclature is Textile and Apparel Designing ** The current nomenclature is Family Resource Management

6.4.3. Technical and Supporting Staff

The number of sanctioned and appointed Technical and Supporting staff of the college are enlisted below:

Sl. No.	Technical staff /Supporting staff	Sanctioned	In place
1.	Assistant Engineer	1	Nil
2.	Sr. Library Assistant	1	1
3.	Junior Engineer (civil)	1	2
4.	Field cum Lab. Assistant	11	11
5.	Farm Assistant /Livestock	5	2
6.	Library Assistant	3	3
7.	Electrician	1	1
8.	Plumber	1	1
9.	Carpenter	1	1
10.	Driver	5	3
11.	Supporting Staff	32	30

6.4.4. Classrooms and Laboratories

No. of lecture halls – 9 (Nine) Lecture halls including one (1) smart classroom
No. of seminar halls – 2 (Two) Seminar Halls

Out of the nine lecture halls in the college, two lecture halls are used exclusively for M.Sc. classes, and the other rooms like the smart classroom and seminar halls are also utilized whenever the need arises.

6.4.4.1 Laboratories of the college

Sl. No	Department	Name of laboratory	Major equipment
1.	Home Science Extension and Communication	1. Instruction Technology Lab	1. L.C.D Projector 2. OHP Opaque Projector

	Management	2. Technology Dissemination Lab	3. Television LCD Sony Bravia 4. DSLR camera Cannon 5. DVD Recorder Video Camera Handy Cam Sony
2.	Family Resource Management	Household Equipment Lab Housing and Space Management Lab Interior Enrichment Lab Vocational Training Lab	1. Bicycle Ergometer 2. Inclinometer Micro FE T6 3. Goniometer 4. Sewing Machine Fashion Maker 5. Skinfold Caliper 6. Heart Rate Monitor 7. Lux Meter 8. Hand Grip Dynamometer 9. Acuflex II 10. Digital Leg and Back Dynamometer 11. Quartz Matronome 12. Flexicurve 13. Hygrometer 14. Stopwatch and Pedometer 15. Air Sampler 16. Ergomaster 17. Harpendent Skinfold Caliper 18. Harpendent Anthropometer
3.	**Food and Nutrition**	**Food Science and Nutrition Laboratory** **Cashew Nut Processing Laboratory** **Catering Management Laboratory** **Food Analysis Laboratory** **Food Preservation Laboratory**	**1. Industrial ovens** **2. Dough mixers** **3. Sugar grinders** **4. Pasta making machine** **5. Noodle making machine** **6. Dryer** **7. Vacuum sealing machine** **8. Equipment for the analysis of protein, fat, fibre etc** **9. Colorimeter** **10. Spectrophotometer** **11. Texture analyser** **12. Water bath** **13. Viscometer** **14. Muffle furnace** **15. Hot air oven** **16. Fruit pulper** **17. Baby boiler** **18. Grinding mill**
4.	Human Development and Family Studies	Laboratory Nursery School	There are no major equipment in the department
5.	Textiles and Apparel Designing	Garment Construction Lab Dyeing and Printing cum Textile Testing cum Lab Vocational Training cum Experiential Learning room	1. Sewing machine family model usha model & covers 2. LCD Projector Model NECVT 695G 3. Dry Cleaning Machine 4. Spectrophotometer Labtronics KOL-01 5. Counter Weighing Balance 6. Yarn Twist Tester

Fig: Food Preservation Laboratory

Fig: Food Analysis Laboratory

Fig: Digital Balance, Thermo Water bath, KelPlus.

6.4.5. Conduct of Practical and Hands-on Training

6.4.5.1 M.Sc. (Community Science) Food Science and Nutrition

All practical classes and experiments are conducted in the existing laboratories of the Department of Food and Nutrition. It is ensured that the laboratory-related research work of the PG students is not hampered, and all support is extended to the students by the college and department.

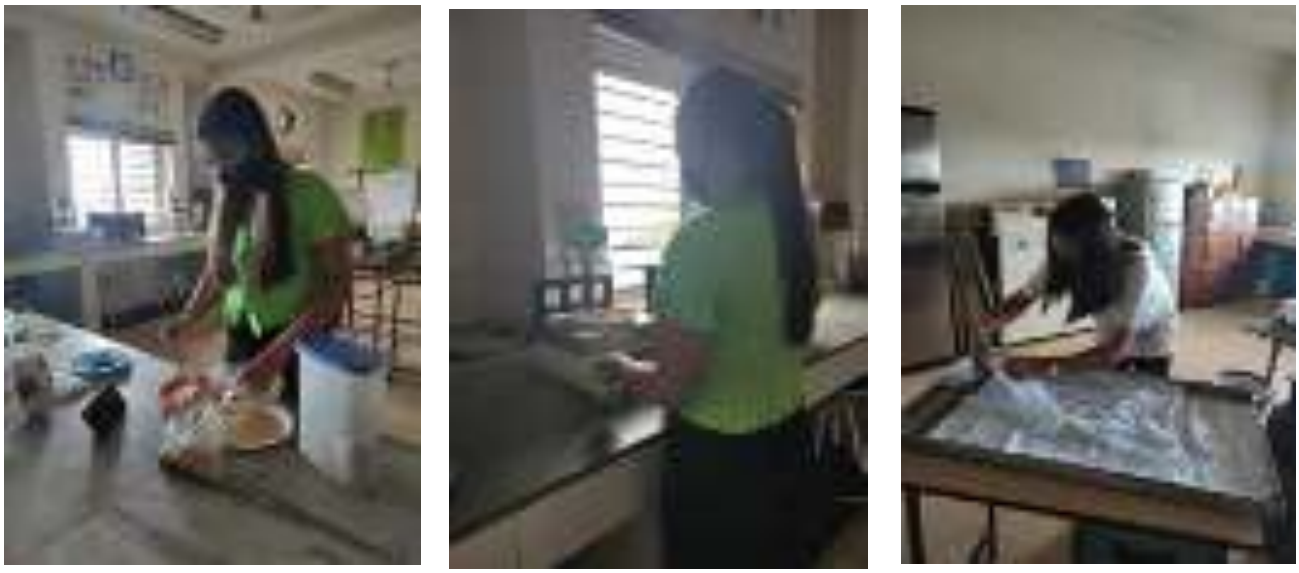


Fig. Students performing practicals in Food Science & Nutrition Lab.

6.4.6. Supervision of Students in PG/PhD Programme

Candidates who have graduated from ICAR recognized institutions in Community Science/Home Science, and Food Nutrition & Dietetics are eligible to apply for the Master Degree programme in Food and Nutrition. As per University guidelines, the programme has an intake capacity of three students [2 through University entrance examination + 1 ICAR nominee].

After admission to the college, each student is assigned under an Advisory Committee, comprising of a Chairperson or Major Advisor, Major Member belonging to the related discipline, and a member from a Minor discipline. The Major Advisor guides the PG student(s) in academic as well as research activities till the submission of the PG thesis.

The details of students supervised since 2016 are given below:

Year of admission	Name of student & programme enrolled for	Supervisor	Status
July 2016	1. Elvina Shongsir Monsang [FSN]	Dr. Namita Singh	Degree awarded
Oct 2018	1. Chungkham Nganthoibi [FSN] 2. Chungkham Chanu Malemnganbi [FSN]	Dr. Namita Singh	Thesis work in progress
Sept 2020	1. Fornia K. Sangma [FSN]	Dr. Namita Singh	1st year course work in progress

6.4.7. Feedback of Stakeholders (Students, Parents, Industries, Employers, Farmers etc.)

The UG and PG students provide feedback in a prepared proforma at the end of every semester pertaining to their learning experience, and their perception of the teacher's performance. A proforma is also provided to the alumnae and parents of the students wherein they provide feedback and suggestions to the college. The organizers of training programmes take feedback from farmers/participants after the culmination of each programme. (enclosed)

6.4.8. Student intake and attrition in the programme for last five years **(2016-17 to 2020-21)**

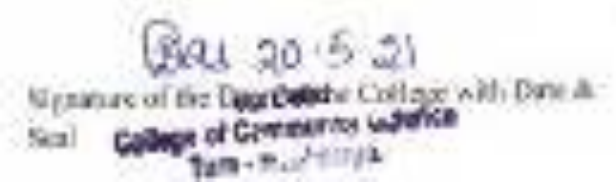
Name of the degree programme	Year	Sanction Intake Capacity			Admitted			Attrition	
		CAU Entrance Exam	ICAR	Total	CAU Entrance Exam	ICAR	Total	Passed out	Dropped
M.Sc. (Community Science) Food Science and Nutrition	2016-17	02	01	03	01	Nil	01	-	Nil
	2017-18	02	01	03	-	Nil	-	-	Nil
	2018-19	02	01	03	02	Nil	02	01 (100%)	Nil
	2019-20	02	01	03	Nil	Nil	-	-	Nil
	2020-21	02	01	03	01	Nil	01	-	Nil

6.4.9. ICT Application in Curricula Delivery

For ease of internet access, Wi-Fi facility is made available in the college. The IT laboratory is used by students and faculty on all working days. It is equipped with 17 computers having 10 mbps internet connectivity. The classrooms also have LCD projectors with interactive smart boards. Recently, the college has set up a Smart Classroom to strengthen the teaching-learning experience. A Language Laboratory, augmented through the ICAR-NAHEP, with 30 new computers having 20 mpbs internet connection has been set up to facilitate various communication skills-related programmes and to fulfil the academic requirements of the students.

6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Professor Puspita Das hereby certify that the information contained in Section 6.4 and Section 6.4.1 to 6.4.9 are furnished as per the records available in the college and degree awarding university.



Self-Study Report

College of Agricultural Engineering and Post Harvest Technology,Ranipool, Gangtok, Sikkim

(Central AgriculturalUniversity, Imphal)

Submitted to:

National Agricultural Education Accreditation

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6.5 Self-Study Report for theCollege

The College of Agricultural Engineering and Post Harvest Technology (CAEPHT) was established on 20th May, 2006 as one of the constituent colleges of Central Agricultural University, Imphal, Manipur. Itis situated at Ranipool, Gangtok on National Highway 10 connecting Siliguri in West Bengal to Gangtok, the capital of Sikkim State. The campus of college is spread over an area of 7.71 ha. The total campus is located in mostly hilly terrain and sloppy and valley land at an altitude of approximately 914.4 m. (3000 ft.) above the mean sea level. Two rivers, namely *Rani-Khola* and *Basuk-Khola*, touch the college boundary towards the east side while the national highway NH- 10 is towards the west side of college campus. The college building, situated in the terraces and valleys and surrounded by rivers, provide an ideal atmosphere for academic and research activities.

The CAEPHT, Ranipool, Gangtok, Sikkim imparts education in different branches of Agricultural Engineering. The College started its first academic programme *i.e*., 4-year B. Tech. (Agricultural Engineering) programme from academic session 2006-07 with intake capacity of 20 students. B. Tech. (Food Technology) programme from academic session 2010-11 with intake capacity of 19 students

The course curriculum and syllabi of both the degree programme are based on the model academic regulations and syllabi as proposed by the 5th Dean Committee of Indian Council of Agricultural Research (ICAR), New Delhi. While designing curriculum, outmost care has been taken to consider the global development in Science & Technology to equip graduates to meet new challenges thrown open as a result of economic globalization and climate changes and preparing farmers for emerging opportunities at national and international level.

At present 10+2+4 pattern which comprises Student READY programme (in summer break after semester IV: Skill Development training-I for 05 weeks; in summer break after semester VI Skill Development training-I for 05 weeks; in semester VII: Industrial attachment of 10 weeks, on campus Experience Learning for 10 weeks; in semester VIII: Project planning and Report Writing) is offered from the academic year 2016-17.

College started offering M.Tech.(FMPE) programme from 2013 in the department of FMPE with an intake capacity of 3 students. In 2015-2016 the M. Tech programme has been introduced in two more discipline in the departments of Soil and Water Engineering and Food Engineering. In the year 2017-18 the nomenclature of both the programmes has been changed to M.Tech. Soil and Water Conservation Engineering and M.Tech. Process and Food Engineering.

In the year 2016-17 the department of FMPE started PhD programme with an intake capacity of 2 followed by the department of PFE and SWCE with intake capacity of 1 in each department in the year 2017-18.

The College of Agricultural Engg.& PHT, Ranipool Gangtok Sikkim is an unique campus under the Central Agricultural University, Imphal with complete integration of all the three functions *viz.;* teaching, research and extension. The college has the mandate to develop, strengthen and promote the understanding, knowledge and skills to improve profitability and utilization in the field of agricultural engineering, not only in Sikkim but also in the entire North-Eastern Region. The college shall also endeavor to establish linkages with other scientific institutions of ICAR, other zonal and national bodies in the field of its domain located in the region and outside the region. The mission and major objectives of the college are:

Mission

To train technical manpower, pursue high quality and high impact research, design and development of sustainable technologies/equipment related to agricultural engineering and disseminate the developed technology to the farmers' field/ agro- industries of NEH region of India.

Objectives

1. To establish and develop excellent academic facilities for offering undergraduate and postgraduate education in discipline of Agricultural Engineering and Post Harvest Technology, appropriate to various states of NEH region in particular and country in general.
2. To impart quality education so as to produce globally competitive graduates and post graduates in areas of Agricultural Engineering and Post Harvest Technology including inter disciplinary area so that confident and capable human resource, suitable for working as scientists, academics, managers, entrepreneurs etc., could be developed.
3. To establish specialized research laboratories fitted with state of art machineries equipment and instruments for taking up basic and applied research by the scientists/teachers and post-graduate students and experiential learning facilities including pilot plants for 'handson training' of undergraduate students.
4. To develop and demonstrate modern and mechanized farming system appropriate to NEH states which may help the farmers to improves their productivity and profitability while preserving and improving the environment.
5. To develop need based improved agro-technologies and equipment for NEH region for household and on farm operations, post-harvest management and utilization of renewable sources of energy.

6.5.1 College Administration

The overall administration of the academic, research, extension and other activities of the college including infrastructure development is monitored by the Dean, College of Agricultural Engineering and Post-Harvest technology, Ranipool. The Dean is assisted by various teaching, non- teaching and non-technical members of the institution.

6.5.1.1 College Dean's Office Establishment

Sl. No.	Particulars	Response
1.	Whether Dean's post has been sanctioned bythe appropriate authority as per ICAR Model Act/UGC guidelines	Yes
2.	Date of selection/joining of present Dean	28/12/2017
3.	Mode of selection	Through Interview
4.	Tenure	5 Years
5.	Total number of staff in Dean's office	One PA, One MTS for performing the official works.

6.	Infrastructure facilities (Details on infra and networking facilities available)	• Computers with printers are availableattheDean'sofficewith internet and UPSconnectivity • Copier facility is availablewith Wi-Fi connectivity

6.5.1.2. Monitoring Mechanism for Quality Education (on-line)

Teaching

At the beginning of every semester course registration is done immediately after getting admission. The conduct of theory and practical classes are reviewed by the Head of the Departments, Academic In-charge and the Dean, College of Agricultural Engineering and Post Harvest Technology, Ranipool.

Undergraduate, Master's and Doctoral degree programme

- Mid semester, practical and final theory examination are conducted to assess the studentsAssignments are regularly given to students in each of the courses related to thecurriculum
- Externalsystemofevaluationfollowedforboththeoryandpracticalforeachcourserelated to thecurriculum
- Academic counselling is done every week by assigned studentadvisors
- Monthly quiz programmes and group discussions are arranged for the students to ascertain their proficiencies andknowledge
- Students who are academically weak are given special guidance and extra lectures are conducted forimprovement
- Master's and Doctoral students are assigned to Advisory Committee under Chairperson from respective departments for conduction of courses, research activities, seminars. The progress of all activities is measured every semester through Progress seminar.

Faculty Research

There is an active College Research Advisory Committee (CRAC) has been functioning in the college which monitors various PG research activities, Institutional Research Projects including Intra-mural Research Projects and Externally Funded or Sponsored research Projects. For UG, PG and Ph.D. research projects, every student presents outline of research work, synopsis and prethesis seminars before faculty committees.The students of PG and Ph.D. have to publish research articles mandatorily in reputed Journals for final submission of thesis. The Review of progress of research work is evaluated by the Dean, Director of Research and the Vice Chancellor, CAU during Research Review Committeemeetings.

Extension

The faculty of College of Agricultural Engineering and Post-Harvest Technology has organized number of extension activities. These activities are monitored by the Dean and University Officers regularly and annually by obtaining reports.The activities are planned and supervised by the College level, Extension Advisory committee. The project entitled "Implementation of Mobile based Agro Advisory System (m4agri) in Sikkim sponsored by Ministry of Electronics and information Technology, Government of India is ongoing.

Activity	2017-18	2018-19	2019-20
Demonstration of new Technology a) On campus b) Off Campus	a)09(469)	a) Nil b)19(1331)	a)65(818)
Informal Education of Farmers(3-5 days) a) On campus b) Off Campus	a)07(218) b)11(535)	a) 02(35) b) 02(182)	a)01(28) b)04(78)
Awareness programme		07(457)	18(438)
Informal Education to line Department a) On campus	a) 03(99)	b) Nil	c) Nil
Vocational Training(Skill Development)	-	06(149) 3 No.-90 days 1 No.-40 days 1 No. -25 days 1 No.-06 days	Nil
MGMG Activity	-	30(530)	12(288)
Other Sponsored Programme a) ATARI b) ICAR	a) Nil b) Nil	a)02(50) b)03(83)	a) Nil b) Nil
Agri Fare organized (Technology Demonstration Mela)	01(362)	01(300)	01(250)
Participation in Agri Fare	03(452)	-	02(700)
M ANAGE	-	01(97 students)	Nil
CCS- NIAM(Jaipur)	-	-	02(65)
Success Story documented	02 (REE Department)	01 (Farmer-Adoption of Farm Mechanization)	04 (Farmers)

Figure in parenthesis indicates number of farmers

Measures taken to improve the quality of education, research and extension education

- ✓ Industrial and institute related exposure visits related to the courses offered to thestudents
- ✓ Recognition and awards are given to best students at university level
- ✓ Educational talk are arrange inviting experts from different fields
- ✓ Assignments and exams are conducted on regular basis

Research

- ✓ Encouraging students to actively participate in workshops, webinars and conferences

- ✓ Experimental learning programme of six different modules is conducted for 12 weeks and 10 weeks in plant training for skill generation
- ✓ Students undergo Research Work in B. Tech, M. Tech and Ph.D.

Extension

- ✓ Organizing more farmer trainings and group discussionprogrammes
- ✓ Conducting brain storming sessions for groupapproach
- ✓ Involvement of students in extension activities

Impact of monitoring with reference to students excelling in academics, research and extracurricular activities

CAEPHT Ranipool, since its inception has contributed significantly for the development of quality human resource which can be evidenced in the form of number of graduates, postgraduate and doctoral students, JRF's, SRF awardees, students employing state government, SAU's, central institutes, banking sector, private firms, MNC's and entrepreneurs. Placement cell of the college is facilitating carrier guidance and personality development programmes that aim at increasing employability of the students. Faculty are also encouraging students to appear for various competitive exams like ASRB, PSC, UPSC, IBPS, GATE, GRE, TOFFEL and CAT. The major highlights are

- ✓ Improved academic Performance of students with higher OGPA
- ✓ Admission to IIT's, NIT's, ICAR Institutions, SAU'S, CAU's and various reputed Institutes of National Importance
- ✓ Better performances in National Level Entrance Examinations
- ✓ Publications of Research articles in Reputed Journals
- ✓ Winning awards and recognition in various National& International conferences, competitions and program etc.

6.5.1.3. CC/Board of Studies:

The College of Agricultural Engineering and Post Harvest Technology, Ranipool is a constituent college of Central Agricultural University, Imphal and is governed by decisions of the statutory bodies *viz.,* Board of Studies (BOS) and Academic Council.The major recommendations have been made during the period of report are briefed in **Annexure 6.5.1.3.**

6.5.1.4. Anti-Ragging Committee:

The Anti- Ragging committee comprising of Dean, Warden's (Boy's Hostel & Girl's Hostel), Female Faculty members and Student Welfare Officer (SWO) is formed every year to inspect and to visit Hostels (both for Girl's & Boy's) at any time after the entry time. Each student is allotted withoneadvisertodiscusstheirproblemsandcounsellingisbeingdoneonweeklybasisforallthe students by their respective advisers. Meetings & Group discussion is being conducted regarding related Anti Ragging topic on quarterly basis.

6.5.1.5. Biological waste disposal facility: Yes

Chemical, Biological and recyclable wastes generated through a variety of research activities, clinical service, maintenance and cleaning operation at the college level have been disposed systematically. Field wastes are converted to compost. Food waste is used for compost pitstoprepare compost. Incineration unit has been installed in ladies' hostel and

soak pit facilities are being used. Compost and vermin-compost units are established for converting biological wastes. The laboratory chemical wastes are disposed by burying deep into the soil. Waste bins and Dust bins are maintained at regular distance.Regular cleaning and burying activities of the wastes accumulated is monitored by Swachh Bharat committee of college.

6.5.1.6. Institutional Ethics Committee for Experiment onAnimals:

The college is not undertaking experiments on Animals. However, if such experiments are undertaken in future, then the college will strictly adhere to CPCSEA guidelines and will constitute an Institutional Animal Ethics Committee(IAEC).

6.5.1.7. Committee for Prevention of Sexual Harassment of Women at Work Places:

The women cell for prevention of sexual harassment of women has been formed to address allgrievances pertaining to sexual harassment of women (students, teaching and non-teaching staff and labours) at the college. Dr. Sujata Jena I/c Women Cell looks after the problems. There was no complaint on sexual harassment in the college during last five years. However, details on sexual harassment of women at work place Act, 2013 and preamble of the Act and seeking remedy under this Act are clearly explained to the staff and farm workers.

6.5.2. Faculty

As per faculty recommended by ICAR/~~UGC/VCI/~~Other regulatory bodies the faculty strength is sufficient. Special focus is paid for all round development of student to show their hidden talent in addition to their educational programme. The College organizes co-curricular and extra-curricular activities for overall development of student's personality and carrier. Annual College Week, Blood Donation Camp, Science Day, Awareness Programs, NSS, Physical Education, Sports, Literary activities etc. are also organized to give the opportunity to the students. The students also participate regularly inter collegiate event of University and National level competitive events.

6.5.2.1. Faculty strength sanctioned, vacant and recommended by ICAR

Sl. No.	Sanction Faculty	Faculty Sanctioned	Faculty in Place	Vacant Position	Faculty recommended By ICAR/UGC/VCI/Other regulatory bodies
1.	Professor	4	2	2	**07**(# 1 professor as DEAN)
2.	Associate Professor	11	6 *	5	**13**
3.	Assistant Professor	30	25	5	**24**
4.	MTTC/VTC Faculty	5	5	0	**NA**
Total		**50**	**3**	**12**	**45**

		8		
***3 promoted as Professor under CAS**				

6.5.2.2. Faculty Profile (department wise):

The existing faculty strengths of College of Agricultural Engineering and Post-Harvest Technology and MTTC & VTC is sufficient for academic requirement of the college.

Department wise Faculty strength

Sl. No.	Department	Professor	Associate Professor	Assistant Professor
1.	Farm Machinery and Power Engineering	02	-	04
2.	Processing and Food Engineering	01*	01	03
3.	Soil and Water Conservation Engineering	01	01	02
4.	Irrigation and Drainage Engineering	01	01	02
5.	Renewable Energy Engineering	01	-	03
6.	Basic Engineering and Applied Science	-	-	11
Total		06	03	25

***Contractual**

Faculty strength of Multi Technology Testing Center and Vocational Training Centre (MTTC &VTC)

Sl. No.	Department	Professor	Associate Professor	Assistant Professor
1.	Agronomy	-	-	01
2.	Plant Protection	-	-	01
3.	Horticulture	-	-	01
4.	Plant Breeding Genetics	-	-	01
5.	Extension Education	-	-	01
Total		-	-	05

6.5.2.4. Credentials of the Faculty:

Allfacultymembersofthecollegearequalified and recognized persons of their fields.Thecollegehasadequateproportionsof experienced and young faculty members. Many faculty members in the college have received awards for their excellence in teaching and research activities. The details of qualification, experienceandprofessionallicensureandcertificationanddemonstratedcompetenciesaredetailed in Annexure**6.5.2.3.**

6.5.2.4. Technical and SupportingStaff:

The technical staff and other supporting staff of College of Agricultural Engineering and Post HarvestTechnologyareattached with the Dean'sofficefor administrative, convenience and being allotted to other departments for as per requirements and skills imparted. Other than these staffs some Skilled and Unskilled labours are hired on contractual basis. The administrative and accounts staff are centralized in the college and are operating under the direct control of the Dean as part of Dean's office.

Strength of Technical & Supporting Staff: Available posts and actual filled

Sl. No.	Name of the Post	No. of Post	Actual Filled	Vacancy
A.	**Dean office**			
1.	Sr. Stenographer	01	00	01
2.	Computer Operator	01	01	00
3.	MTS	01	01	00
B.	**Establishment**			
1.	Asstt. Registrar(Estt.)	01	00	01
2.	Head Assistant	01	01	00
3.	Assistant	01	01	00
4.	UDC	01	00	01
5.	MTS	01	01	00
C.	**Store and Purchase**			
1.	UDC	02	01	01
2.	MTS	01	01	00
D.	**Account Section**			
1.	Assistant Comptroller	01	00	01
2.	Accountant	02	01	01
3.	Account Assistant/ Cashier	02	02	00
4.	UDC	01	01	00
5.	LDC	01	01	00
5.	MTS	01	01	00
F.	**Academic Section**			
1.	Assistant Registrar (Acad)	01	00	01
2.	UDC	02	01	01
3.	MTS	01	01	00
G.	**Engineering Section/ Estate section**			
1.	Assistant Engineer(Civil)/ Assistant estate officer- Civil	01	01	00

2.	Junior Engineer- Civil	01	01	00
3.	Junior Engineer- Electrical	01	00	01
4.	UDC	01	01	00
5.	Electrician	01	01	00
6.	Carpenter	01	01	00
7.	Plumber	01	01	00
8.	MTS	01	01	00
H.	**Transport Section**			
1.	Driver	05	04	01
2.	Handyman(MTS)	02	02	00
I.	**Library Staff**			
1.	Librarian	01	00	01
2.	Sr. Library Assistant	01	01	00
3.	Library Asstt.	01	01	00
4.	MTS	03	03	00
J.	**Students Welfare**			
1.	Student Welfare Officer	01	**00**	**01**
K.	**Hostel Staff**			
1.	Cook (MTS)	03	03	00
L.	**Technical Staff**			
1.	Field-cum-Lab assistant	17	11	06
2.	Horticulture Assistant	01	01	00
3.	Livestock Assistant /Farm Assistant	05	04	01
M.	**Medical Unit**			
1.	Medical Officer	01	01	00
2.	Compounder	01	01	00
3.	Female Health Worker	02	02	00
4.	Male Health Worker	01	01	00
N.	**Security**			
1.	Security Guard	02	02	00
2.	Chawkidar(MTS)	02	02	00
O.	**MTTC/VTC**			
1.	Account Assistants	02	02	00

	ATTIC			
1.	MTS	01	01	00
	Guest House			
1.	MTS	01	01	00
	FMPE			
	UDC	01	01	00
P.	**MTS(Multi-tasking staff) in various departments**	22	22	00
	Total	**107**	**88**	

6.5.3. Learning resources:

Learningresourceslikebooks,photos,lifespecimenandaudio-visualaidslikepower-point presentation, videos are used to assist the students to meet the expectation for learning defined by ICAR recommended curriculum.Faculties are provided with computers to access the online open coursework and online portal to use it for the curriculum delivery. Faculty members access various resources for use in teaching, researchandextensionactivities. Studentsarealsoencouragedtoaccessvarioussoftware applications inagriculture.

6.5.3.1. College Library(digital):

The library provides circulation and reference services. All the in-house operations of the library are fully computerized using the networked version of the library software KOHA with Web OPAC facilities. The library also has access to online e-journals through CeRA. Photocopying and printing facility is also available in the library. Details of library are as given below:Area of Library: 2400 sq. ft. (223 sq. m.)

Details of Library

SlNo.	**Particulars**	**Details**
1.	Present staff	1 Senior Library Assistants 1 Library Assistants 3 Multi-tasking Staffs
2.	Availability of Wi-fi	Wi-fi facilities area available in the library with a band width speed of 1GBps from NIC-NKN network.
3.	Books	For College of Agricultural Engineering and Post-Harvest Technology: **7831 books**
4.	Other reading materials	National and local newspaper such as Dainik Jagran (Hindi), The Telegraph, The Times of India, Sikkim Express (English), Hamro Prajashakti (Nepali)etc. Magazines like India Today, Down To Earth, Pratiyogita Darpan, Civil Services Chronicle, Kurukshetra, Yojana, Agriculture Today, Economics and Political weekly.
5.	Research Journals	Students and faculty can access journals through online portal of CeRA, ICAR.

6.	Internet with computers	Two
7.	Sitting capacity	28numbers
8.	Latest technology in library	KOHA LMS is being used for Library Automation in CAEPHT Library. Necessary steps have been initiated for accessing online journals and study materials at Electronic Resource Management package for e-journals access through CeRA (Consortia fore- Resources in Agriculture)
9.	Stocking arrangement	Library adopted Open Access System for accessing library collection and classified according to Dewey Decimal Classification (DDC) scheme (22 Ed.) and arranged in APUPA pattern, stacked in different parts like, Subject books Kannada/Literature books General books Reference books Competitive Exam books Thesis Back volumes Seminar scripts
10.	Operating hours	10.00 AM to 05.00PM
11.	Books available in COH	Horticulture, Crop Physiology, Plant Biotechnology Genetics and Plant Breeding, Entomology, Microbiology, Agronomy, Plant Pathology, Crop Physiology, Soil Science & Ag. Chemistry, Agro forestry, Ecology, Text book of Advanced Pomology, Plant Biotechnology, Plant Biochemistry, Ag. Economics, Ag. Extension, Statistics, Computer Application & IPR, Botany, Floriculture, Pest management in vegetables, Handbook of Beekeeping.

6.5.3.2. Laboratories, Instructional farm, Workshops, Dairy Plant, Veterinary Clinic, Hatchery, Pondsetc.:

The College of Agricultural Engineering and PHT, Ranipool is having laboratories of all departments are well equipped with all the necessary equipment and facilities to accomplish the academic activities. All basic chemicals and instruments are available for doing practical and research work in all the laboratories. The farm facilities,workshopsandotherinstructionalunitsarewelldesignedtomeetthecourse curricularand research requirements.

6.5.3.3. StudentREADY/ In-Plant Training /Internship/Experiential Learning Programmes: Yes

The practical of courses for B. Tech (Agricultural Engineering) and B. Tech (Food Technology) is carried out in the laboratories and fields fully equipped with desired

instrumentation and facilities. Student practical are conducted as per batches divided based on strength of admitted candidates and as per academic schedule. Students are allowed to perform practical after proper demonstration and skill presentation with precautionary measures. The laboratories and facilities for practical and hands-on-training are fully equipped with number of instruments allowing each individual student to perform practical.

The students of Agricultural Engineering discipline undergo Two five weeks Skill Development Trainings under Hands-on-training after IV and VI semesters. The industrial attachment training for 10 weeks and Experiential Learning on campus programme of 12 weeks is carried out in VII semester. The requisite facilities for conduction of experiential learning programme are provided to students to practically fulfill programme requirements and achieve desired skills. Within VIII semester students perform 12 Weeks Project planning and report writing as per ICAR guidelines. The facilities for project are provided to the students as per requirement.

Students have undergone the hands-on training for the skill development during the training programme to make them fit for demonstrating the responsibilities effectively in the professional career. During the training students developed the skill in the field of farm machinery training and testing, repair and maintenance, renewable energy, soil and water conservation, design structures, Irrigation and water management, food processing & value addition, post-harvest management etc.

6.5.3.4. Curricula Delivery through IT (smart class rooms/interactive boardetc.):

The College of Agricultural Engineering and Post-Harvest Technology (CAEPHT) Computer Laboratory, under Central Agricultural University (CAU), Imphal, is well-equipped with 2 smart classrooms having facilities of Interactive whiteboards for conduction of online lectures and smartboard allows projection of images, manipulation of images, dragging, clicking and copying of matter. Simultaneously Teacher is availed with facility to provide handwritten notes on board and same can be saved for later use.

6.5.4. Student Development:

6.5.4.1 Student Intake and Attrition:

The College of Agricultural Engineering and Post-Harvest Technology (CAEPHT) presently offers Under Graduate Programmes in Agricultural Engineering and Food Technology. B. Tech (Agricultural Engineering.) B. Tech (Food Technology) which is of 4 years duration.

Student intake and attrition in the programme for the five years

Name of the Degree Programme	Actual students admitted in last five years					Attrition (%)				
	2015-16	2016-17	2017-18	2018-19	2019-20	2015-16	2016-17	2017-18	2018-19	2019-20
B. Tech (Agril. Engg.)	30	40	36	33	39	3.33	2.5	8.33	0	12.82
B. Tech (Food Technology)	11	09	09	9	10	15	22.2	11.11	18.18	10

M. Tech (FMPE)	01	0	02	03	2	0	0	0	0	0
M. Tech (SWCE)	03	01	02	05	2	0	0	0	0	0
M. Tech (PFE)	02	02	02	04	2	0	0	0	0	0
M. Tech (IDE)	NA	NA	NA	NA	1	0	0	0	0	0
M. Tech (REE)	NA	NA	NA	NA	1	0	0	0	0	0
Ph.D. (FMPE)	-	1	-	1	2	0	0	0	0	0
Ph.D. (SWCE)	-	-	-	1	0	0	0	0	0	0
Ph.D. (PFE)	-	-	1	1	1	0	0	0	0	0

6.5.4.2 Average Number of Students in Theory and practical Classes:

The number of intake students is manageable due to limited number of seats.

Average number of students in theory and practical classes

Sl. No.	Name of the degree programme	Batch of student in theory	Batch of student in practical
1.	Degree Programme B. Tech AE/FT	Full strength	2 batches of equal strength
2.	PG/PhD	Full strength	Full strength

The class rooms and laboratories are sufficient to meet course curricula requirement of the degree programme.

6.5.4.3 Admission Process:

For UG the present intake capacity for B. Tech A.E. and FT is 58 and 22 respectively. The University allocates and seeks nominations from respective North Eastern Hill states. The concerned departments of the respective state government nominate the students on the basis of competitive entrance examinations conducted by them. 10 students for B. Tech AE are admitted via centralized admission process through All India Entrance Examination for Admission conducted by ICAR, New Delhi.

Students Allocation UG programme

Sl. No.	Name of the College	Degree Programme	States									
			Arunachal Pradesh	Manipur	Meghalaya	Mizoram	Nagaland	Sikkim	Tripura	ICAR/VCI	Payment Seat	Total
1.	College of Agricultural Engineering	B. Tech. (Agril. Engg.)	06	08	06	05	05	05	08	10	05	**58**

2.	& Post Harvest Technology, Ranipool, Sikkim	B. Tech. (Food Tech.)	02	04	02	02	02	03	04	03	-	**22**

Students are informed to pay the admission fees through online mode using SBI Collect. On payment of admission fee and submission of duly filled in admission form, students are provided with Course registration cards. Students are instructed to submit duly filled in Registration cards to academic section.

For PG and Ph.D. programmes the admissions are made through All India Competitive Examination conducted by Central Agricultural University, Imphal, Manipur. Candidates are selected based on the performance in the entrance examination and academic record. There are some departments having reservation for ICAR PG entrance qualified candidates who are admitted via centralized admission process carried by ICAR. There are 5 PG Programmes namely M. Tech (Farm Machinery Power Engineering), M. Tech (Soil and Water Conservation Engineering), M. Tech (Processing and Food Engineering), M. Tech (Irrigation and Drainage Engineering) and M. Tech (Renewable Energy Engineering) and 3 PhD programmes viz. Ph.D. (Farm Machinery Power Engineering), Ph.D. (Soil and Water Conservation Engineering) and Ph.D. (Processing and Food Engineering) are running in the institute.

6.5.4.4 Conduct of Practical and Hands on Training: Yes

The practical classes are being conducted every day for minimum of two hours for each subject having practical credit hours. The practical of the students are designed in manner that it covers all the syllabus prescribed for curriculum. All of the departments are equipped with all related equipments and working models that can be assessed by students individually even in group. Most of the experiments are conducted by students individually with guidance of concerned teacher. Students are allowed to handle all farm equipments during field practical with proper care and precautions. Students are placed for hands on training

6.5.4.5 Examination and Evaluation Process:

The college strictly adheres to the examination and evaluation system as recommended by the V Deans' Committee. As such, the college follows Uniform Grading system with uniform OGPA requirements for award of degrees at all levels. A uniform conversion formula is followed for declaration of I, II and III divisions, distinction etc. The exam pattern consists of internal Assessment and External assessment both equally distributed with 50% weightage. The assessment pattern and weightages are as follows:

- ✓ Courses with Theory and Practical: Mid-term Exam (30%) + Assignment (5%) in practical oriented courses + Practical (15%)
- ✓ Courses with only Theory: 6Mid-term Exam (40%) + Assignment (10%)
- ✓ Courses with only Practical: 100% Internal

Particulars	**Course credits**				
	2+1	**1+1/2+2**	**1+2**	**1+0/2+0**	**0+1/0+2**

	T	P	T	P	T	P	T	P	T	P
Mid-term exam	30	-	30	-	30	-	30	-		
Quiz/Continuous evaluation	20	30	20	30	20	30	20	-	-	30
End-term exam	50	70	50	70	50	70	50	-	-	70
Maximum marks	100	100	100	100	100	100	100	100	-	100

* At least 4 number of quizzes are conducted for each course

Duration of exams

Mid-term theory exam	1½ hours
End-term theory exam	2½ hours
End-term practical exam	3 hours

Evaluation

✓ The evaluation of students' performance is achieved by conducting Quizzes of 20 marks (Internal), Mid-Term Examination of 30 marks (Internal) and End-Term Examination (External)of 50 marks. The practical examination consists of 100 marks.

✓ The questions and answer scripts for quiz and Mid-term examinations are set and evaluated by concerned course teacher.

✓ The questions and answer scripts for End-term examinations are set and evaluated by external examiners selected duly from a list of panel members by the competent authority.

6.5.4.6 NCC/NSS/RVCUnits:

NSS unit in the college does not exist.

6.5.4.7 LanguageLaboratory:

The language laboratory is under construction at College of Agricultural Engineering and Post-HarvestTechnology, Ranipool campus. The audio-visual aids are planned to be used for modern teaching methods to teach the English language. The language lab will offer an exclusive result oriented and efficient English language learning process. The language lab will be developed on the methodology of LSRW (Listening, Speaking, Reading and Writing) skills. It also helps in developing skills in presentation, interviews, Group Discussions, Public Speeches and soft communication skills. The contents will include activities, exercises and home assignments with audio-visual modules. There will be a special module on preparation for online competitive exams such as GRE, TOEFL, and IELTS etc.

6.5.4.8 CulturalCentre:

The college has a Student Activity Centre which is exclusively empowered to explore and equipthe studentsformulti variedculturalactivities.TheCulturalCommitteeisformed comprising offaculties, staffandstudentsalongwiththe StudentWelfare OfficeroftheCollege. Differenttypes of clubs' function under the Committee such as the Music, Theatre, Literary and Fine Arts.

6.4.5.9 Personality Development:

Besides the four compulsory courses under the Dean's Committee syllabus which cater to the overall personality development of the students, the College of Agricultural Engineering and Post-Harvest Technology invites renowned achievers from the different places to interact with students for motivational talk and experience sharing. Various lecture series have been organized under NAHEP-IDP project for students.

6.5.5. Physicalfacilities:

6.5.5.1 Hostels:

The infrastructure of College of Agricultural Engineering and Post-Harvest Technology has various facilities like academic block, administrative block, and separate hostels for boys and girls, Auditorium. Basic medical facilities are centrally available at the Medical Unit of the college where basic medical amnesties such as antipyretics, antibiotics, anti-diarrheal etc. are available. Also, facilities forI.V.injectionsand fluidsandsutureneedles andmaterialsareavailableforminorsuturing.First aid kits areissuedtoallhostels. Medical experts areinvitedtodeliver speciallectures on self-hygiene,tobaccoanditstoxicity, nutritious foods for healthy living.

6.5.5.2 Examination Hall

Separate exam halls are unavailable and hence normal classrooms are rearranged as exam halls during the time of exam, the details of which are:

No. of classrooms	8
Capacity	Varied capacity ranging from 20-40 sitting capacity
Facilities available	Chairs, writing desks, electrical fans and lights
Amenities	Washroom, wash basin and running water

6.5.5.3 Sports and Recreation Facilities

The students are provided with all types of physical exercises during the classes and in physical experience class to keep them physically fit and healthy. In addition, the skill development in any one of the games such as badminton, volleyball, football, cricket, table tennis and athletics is contemplated in the physical education programme. Maintenance and cleaning of the ground are regularly done for use by the students. Matches are conducted for the students during the annual sports day and intercollegiate meets or any other specific days such as the Foundation Day, Republic Day etc. to improve and maintain their skills using ground facilities. Indoor games such as carom, chess, badminton and table tennis are also available.

6.5.5.4. Auditorium

The College of Agricultural Engineering and Post-Harvest Technology has full facilitated auditorium at present. The details of the auditorium are as follows:

Does the college have auditorium	Yes
Year of construction and sitting capacity	2013; 300 number sitting capacity

How frequently the auditorium is used and purpose for being use	College Day (Once a year), Republic Day (Once a year), Foundation Day (Once a year), Independence Day (Once a year), Inaugurationprogrammes (Numerous times a year), NationalandInternational workshops (Numerous times a year), Invited Lectures (Numerous times a year), Teachers Day, Fresher's Day

6.5.5.5. ExhibitionHall/Museum

College of Agricultural Engineering and Post Harvest Technology have established the Agricultural Technology Information Centre (ATIC) in 2008. This is a "**Single Window System"** to allow optimistic interaction between farmers, scientists and other stakeholders for effective technology transfer developed by the College and Central Agricultural University, Imphal. It has mandate for providing information and providing training on improved Agricultural Engineering and Post Harvest Technologies to the farmers, entrepreneurs and other stakeholders within the jurisdiction of the Central Agricultural University, Imphal, Manipur.

It has facilities of display of information, equipment/machineries, charts/photographs and college publications and sell of the technologies developed by the college through Agri.-Business Centre in addition to organizing trainings for farmers. The Agri.-Business Center of ATIC caters the need of farmers and other stakeholders through display and sale of improved/developed farm tools, processed and value-added products and farm products of Farmer's Producer's Organizations (FPOs), processed and other value-added products.

The Centre is working under the direct control of Dean of College, who arranges the necessary facilities to the scientists engaged in rendering regular service to the farmers of the NEH region including Sikkim. The Director of Extension Education of CAU Imphal, Manipur from time to time gives guidance to ATIC in organizing various activities.

6.5.6. Research Facilities

6.5.6.1 Postgraduate Laboratories and Equipment's

Currently college is offering Under Graduate, Post Graduate and DoctoralProgramme. Laboratories used for Undergraduate studies, same are being used as Post Graduate Laboratory. List of equipment available in college are as follows:

Number of laboratories available

Sl. No.	Section	No. of laboratories available for UG
1.	Farm Machinery	01
2.	Farm Power	01
3.	Ergonomics and Safety	01
4.	Soil Dynamics	01
5.	Farm Machinery Testing	01
6.	Thermodynamics and Heat Engine	01
7.	Theory of Machine	01
8.	Workshop	01
9.	Renewable Energy	01
10.	Renewable Energy Field Lab 1	01

11.	Renewable Energy Field Lab 2	01
12.	Surveying Lab	01
13.	Engineering Mechanics Lab	01
14.	Soil and water Conservation &Soil Mechanics Lab	01
15.	Strength of Material Lab	01
16.	Remote Sensing and GIS lab	01
17.	Engineering Drawing	01
18.	Fluid Mechanics & Irrigation Drainage Engg.	01
19.	Soil &Water Quality	01
20.	Food Engineering Laboratory	01
21.	Process Engineering Laboratory	01
22.	Agricultural Structures & Environmental Control Engineering Laboratory	01
23.	Food Analytics Laboratory	01
24.	Pilot Plant	07
25.	Farmers' Produce processing – cum – Skill Development Center	01
26.	Biochemistry and Microbiology Laboratory	01
27.	Electrical, Electronics and Instrumentation Laboratory	01
28.	Computer Laboratory	01
29.	Physics Laboratory	01

Department/Section wise Functional Laboratories available

Sl. No.	**Department/Section**	**Area (Sq. m.)**	**Remarks**
1.	***Farm Machinery and Power Engineering***		
	08 Laboratories	90 m^2 128 m^2 135 m^2 160 m^2 40 m^2 34 m^2 34 m^2 323 m^2	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements *etc*.
2.	***Soil and Water Conservation Engineering***		
2.	06 Laboratories	39 m^2 81 m^2 135 m^2 105 m^2 58.5 m^2	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc.
3.	***Irrigation and Drainage Engineering***		
	02 Laboratories	225 m^2 40.32 m^2	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements *etc*.

4.	***Processing and Food Engineering***		
	06 Laboratory	228.28 m^2 92.77 m^2 80.71 m^2 93.24 m^2 124.03 201.51 m^2	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements *etc*. Equipment for processing of horticultural produces.
5.	***Renewable Energy Engineering***		
	01 Laboratory 02 Field Laboratories	140 m^2 75 m^2each	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements *etc*
6.	***Basic Engineering and Applied Sciences***		
	03 Laboratory	225 m^2 133.48 m^2 53.4 m^2	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements *etc*

a) **List of major Equipment:**

The laboratories are well equipped to conduct the practical/hands on training to the students with instruments, laboratory tables, basins, irrigation facilities, electrical and ventilations, adequate wooden furniture etc. The lists of instruments/ equipments available in the laboratories is as furnished below:

No.	Department	Equipments
1.	**Department of Farm Machinery and Power Engineering**	**Farm Machinery Laboratory** **Area: 90 m^2** Multi Crop Thresher, Self-Propelled Vertical Conveyor reaper , T/D inclined plate planter, Pedal cum power operated cleaner and grader, Rigid tyne cultivator, Spring loaded cultivator, Tractor mounted offset disc harrow, Tractor mounted disc plough, Tractor mounted M.B.plough, Modular inclined plate planter, Tractor mounted raised bed planter, Tractor mounted seed cum fertilizer drill, Multi crop plot thresher, Semi axial flow thresher (SAF 750), Auger digger, Power tiller operated seed cum fertilizer drill, Manual seed cum fertilizer drill, manual groundnut decorticators, Manual rice trans planters, Pre-germinated paddy seeder (4 rows), Manual hand tools and equipments like wheel hand hoe, Hand Ridger, Grubber weeder, Serrated sickle, Naveen Dibbler, hand maize sheller etc., knapsack prayers Rocking sprayer, Hand rotary duster, foot sprayer, Ganesh sprayer, Parth Hand Sprayer, and compression sprayer, Motorized knapsack mist blower cum duster, Pedal operated thresher, Power operated wire-loop thresher with winnower, Small power paddy thresher (hold-on type), Small power paddy thresher (Axial Flow type), Animal drawn patella harrow, Animal drawn patella puddler, Animal drawn three row seed drill, Animal drawn 3 row seed cum fertilizer drill, Animal drawn 2 row mustard drill, Animal drawn lug wheel puddler, Animal drawn ground nut digger, Mini power maize sheller, Mini power chaff shredder, Manual and motor operated chaff cutter **2. Farm Power Laboratory**

		Area: 128 m^2 Single cylinder two stroke petrol engine, Single cylinder 4 stroke diesel engine, Tractors (Mahindra B 275, New Holland), Power tillers (12 hp, 6.5 hp, 5.5 hp), Tractor Working Cut Model, Diesel fuel supply system model, Clutch system model, Brake System model, Steering mechanism of tractor model, Cut model of 2 stroke Diesel engine, Cut model of 4 stroke Diesel engine, Actual cut model of single cylinder 2-stroke engine, Cross section of cylinder block, Components of engine (crank shaft, piston, connecting rod, rocker shaft, valve, valve spring guide etc.) **3. Ergonomics and Safety Laboratory** **Area: 135 m^2** Integrated Composite anthropometer (ICA), computerized electric ergometer, Computerized human energy measurement system with telemetry (K4B2), Polar heart rate monitor, Strength measurement setup, Novatech load cell, Sphygmo manometer,Stethoscope, Thermometer (digital), Digital Camera **4.Soil Dynamics Laboratory** **Area: 160 m^2** Automated soil bin with sensors and digital control panel, Dynamometer, Motorized sieve shaker, IS Sieve set for soil analysis, soil analysis kit, Proving ring cone penetrometer **5. Farm Machinery Testing Laboratory** **Area: 40 m^2** Digital tachometer, digital soil moisture meter, Digital thermometer, Digital anemometer/barometer/humidity sensor, Digital weighing balance, Digital vibration and noise meter, Digital soil penetrometer, Digital energy logger, Spray patternator testing rig, Mini tractor (Kubota 21 hp), Rotavator for small tractor **6**. **Thermodynamics and Heat Engine Laboratory** **Area: 17 m^2** Multi-cylinder petrol engine test rig with electric dynamometer, Twin cylinder diesel engine test rig with electric dynamometer, Two stroke petrol engine test rig with rope brake dynamometer, Single stage air compressor test rig, Lancashire Boiler model, Cochran Boiler model, Cornish Boiler model, Vertical water tube boiler model, Locomotive Boiler model, Babcock & Wilcox Boiler Model, Model of steam engine, Boiler mountings and accessories model (Blow off cock,stopvalve,feed check valve,economiser,pressuregauge,watergauge, fusibleplug,dead weight safety valve,spring loaded safety valve) 7. **Theory of Machine Laboratory** **Area: 17 m^2** Universal Governor Apparatus, Cam Analysis Apparatus, Motorized Gyroscope, Static & Dynamic Balancing Apparatus, Coriolis component of acceleration apparatus and Epicycle Gear train apparatus **8. College Workshop** **Area: 323 m^2** HMT Lathe machine (05 Nos), wood working lathe machine, Power hacksaw machine, Radial drill machine, Overhead crank shearing

		machine, Hydraulic press, Arc welding machine (2 Nos), MIG welding machine, TIG welding machine, Gas welding setup, Pipe bending machine, Sheet rolling machine, Pedestal grinder machine, Chop saw machine, Work tables with bench vices, Carburizing furnace, Painting oven, Sheet sheering machine, Milling machine, Shaper machine, Smithy furnace with envils and swedge block
2.	**Department of Soil and Water Conservation Engineering**	**A. Surveying Laboratory** Metric Chain (20 m), Metric Chain (30m), Field Book, Optical Square, Plum Bob, Plane Table Set, Ranging Rod, Steel Scale, Steel Tape (5m), Cloth Tape (30m)Metallic Tape (30m), Abney Level, Automatic Level (Manual), Arrows, Cross Staff & its Rod, Levelling Staff(5m), Offset Rod, Plum Bob, Planimeter, Prismatic Compass with Stand, Ranging Rod (3m), Theodolite, Drop Arrows, Ghat Tracer with Stand, Plane Table Set with Stand, Ranging Rod (big), Ranging Rod, Ranging Rod (small), Meter Roll (measuring tape 3 m), Meter Roll (measuring tape 30m), Levelling Staff (6m, 3 parts), Dumpy Level with Stand, Guntur Chain, Revenue Chain, Engineer Chain, Line Ranger, Pedometer, Prime Square, Steel Band, Tangent Clinometer, Wooden Peg **Engineering Mechanics Laboratory** Bar-Pendulum & Compound Pendulum, Bar of Beam Apparatus, Bending Moment Apparatus, Bell Crank Lever, Compound Lever (Ambo/Usha), Crank Compound Lever, Friction Side Apparatus, Hook's Law, Young Modulus Apparatus, Worm & Worm Wheel, Link Polygon Apparatus, Joint of Roof Truss on Wheels, Law of Moment Apparatus, Law of Conservation of Mass Apparatus, Mechanism Model, Moment Disc Apparatus, Moment of Inertia of Fly Wheel Apparatus, Polygon of Forces Apparatus, Parallel Force Apparatus, Pulley Sets, 21.Parallelogram Law of Forces, Regidity of Wire Apparatus, Rope & Drive Belt Experiment Apparatus, Second Law of Motion Apparatus, Shear Leg Apparatus, Screw Jack Experiment , Stress in Beam Apparatus, Triangle Law of Forces, Torison Apparatus, Universal Force Table, Western Differential Pulley, Wheel & Wheel Axles **Soil Mechanics Laboratory** Drainage and Seepage Tank, Canopy Analyser, Automatic Sediment Analyser, Neutron Probe, Moisture Meter, Hydro Metrological Data Acquisition, Laser Leaf Areameter, Portable Turbidity Meter, Triaxial Cell Test, Anemometer, Barometer, Constant Temperature Water Bath, Consolidated Apparatus (single gang), Coshocton Wheel Silt Sampler 30cm, Determination of Grain Size Analysis, Hydrometer, Core Cuter, Cone Penetrometer & Plastic Limit, Vicat Apparatus, Hook Gauge & Point Guage, National Brand 'H' Flume, Laboratory Permeability Apparatus, Liquid Limit Apparatus, Model of Chute Spillway, Drop Inlet & Drop Spillway, Moisture Box, Rain Gauge (Self Recording), Rain Gauge (Non Recording), Soil Infiltrometer, Soil Grinder, Self Recording Rain Gauge, Stage Level Recorder, Standard Proctor, Shrinkage Limit,

		Top Pan Balance, Unconfined Compression Tester, Rapid Moisturemeter, Water Level, Meta Mini Water Level, Weighing Pan Top, Well Water/Level Meter, Shear Apparatus, Wet & Dry Bulb Temperature, Microprocessor Based Automatic Sampler **Strength of Material Laboratory** Fatigue Testing Machine, Hardness Test Machine, Universal Testing Machine **Remote Sensing and GIS Laboratory** Arc GIS, Plotter, ERDAS, Geometica Software, Scanner, Surface Water Modelling, Watershed Modelling System, GPS, Computers-10 nos.
3.	**Department of Irrigation and Drainage Engineering**	Francis Turbine, Hydraulic Bench, Pelton Wheel Turbine, Centrifugal Pump Test Set up, Determination of Bernoulli's Theorem, Darcy's Apparatus, Friction in Pipeline, Flow through Mouthpiece, Flow through Orifice, Reciprocating Pump Test Set-up, Flow Over Notch Apparatus, Gear Pump Test Set up, Hydraulic Rig Ram (closed circuit), Jet Pump Test Rig, Measurement of Irrigation Water, Manometer and Pressure Guage, Open Channel Apparatus(closed circuit), Reciprocating Pump Test Set up, Reynolds Apparatus, Set up for Pipe in Series, Set up for Pipe in Parallel, Set up for equivalent Length of Pipe, Tilting Hydraulic Flume, Mono Block Single Phase Pump, Kiloskar Pump, 26. Impeller (1220 , KDS 5212, Bronze,Sp3L), Flash Pump/Tube Well Pump, Ger Pump, Portable Turbity Meter, Oven, Electrical Conductivity Meter, Double Ring Infiltrometer, Ph Meter, Moisture Boxes, Augers, Sieve Shaker, Cut Section of Centrifugal Pump, Submersible Pump and Turbine Pump, Positive Placement Pump (Hand Pump), Water Level Meter and Pump Testing Rig
4.	**Department of Processing and Food Engineering**	**Food Engineering laboratory** **Area-** 228.28m^2 Steam Distillation set up, Fruit pulper, Feed mixer (planetary mixer, planatory mixer (vacuum jacketed), planatory mixer (heating jacketed), double cone mixer, Blender SVB, Cube Mixer, Lab Kneader, Powder Mixer, Agitator, Drum Hoop Mixer-SDHM, Lab mass mixer SLMM, horizontal main drive SHMD-A.C., Universal Gear), Spice processing plant a. Ginger /Turmeric peeler cum polisher b. Garlic Bulb Breaking Machine c. Garlic Clove Flaking Machine Coconut tree climber, Coconut dehusker, Pasta Extruder, Essential Oil distillation Unit i. Solid Liquid Extraction unit ii. Steam Distillation Set up Simple batch distillation unit, Refrigerated centrifuge with Microprocessor, Rotary vacuum filter & Leaf Filter,Refrigerated centrifuge CPR 24, Plate heat exchanger, Usha make Gerber Centrifuge, Usha make centrifuge separator, Vegetable Blancher,Vacuum Tray

		Dryer, General cycle refrigeration trainer, Heat transfer through lagged pipe apparatus, Heat transfer through composite walls apparatus, Mechanical heat pump trainer, Plate type heat exchanger, Recirculation type air conditioning trainer, Stefan Boltzmann apparatus, Thermal conductivity of insulating slabs by guarded hot plate method, Thermal conductivity of insulating powder and Micrometer Precise Thickness **Process Engineering laboratory** **Area-** 92.77m^2 Weighing balance, Shrink Wrapping Machine, Hand wrapper, Foot Sealer, Aspirator Cyclone Separator, Automatic Foam Fill Seal Packaging Machine, Rubber Roll Sheller, Rice Whitener/Polisher, Indented Cylinder Grader/ Separator, Vibratory Screen Grader, Freeze Dryer , Laboratory Spray Dryer , Cream Separator, Freeze Drier, Vacuum Packaging Machine, Steam Jacketed cooking kettle, Butter churn, Vacuum oven, Vacuum Tray Dryer, Laboratory Pasteurizer, Shrink Packaging Machine Model-CP-2030, Laboratory homogenizer, Micro Pulveriser (hammer mill), Feed and Fodder crusher, Feed Block Formation Machine, Food Extruder, Fruit and Vegetable Juice and paste Processing Plant, Automatic form fill seal packaging machine, Boerner conical divider, Bucket elevator, Multipurpose grain mill, Super critical fluid extraction unit, Foot Sealer, Fermenter, Hand sealer, Hand wrapper, Electronics Grain Moisture Meter, Angle of Repose **Agricultural Structures & Environmental Control Laboratory Engineering laboratory** **Area-** 80.71 m^2 Digital Humidity Sensor and Indicator, Hot Air Oven, Electronic weighing balance (2.2kg), Electronic weighing balance ZSP-350 (300g), Digital balance model –(A-224) make Contech Capacity-220gm, Digital Precision Electronic Balance , Apparatus for thermal conductivity of insulating powder, Convection apparatus (natural), Convection apparatus (forced), Concentric tube heat exchanger (finned tube type), Concentric tube heat exchanger (plain tube type), Emissivity measurement apparatus, Digital humidity Sensor and indicator, Digital temperature meter **Food Analytics laboratory** **Area-**93.24 m^2 Electronics Socs Plus Automatic Three Place Solvent Extraction Apparatus (Soxlet), Microscope-Ex-21 set Binocular Brand-OLYMPUS, Viscometer, Usha Make Centrifuge Separator, 5. Usha Make Gerber Centrifuge (2nos), Water Activity Meter, Auto Clave 1 set2"X20", Digital Sartorious Infra-red Moisture Meter, pH meter, Samsung Freeze with stand, Water Purification System, Milk analyzer Master Classic, Oxygen and CO2 Headspace Gas analyzer plus Flexible packaging kit, Microwave oven, Water Bath, Food texture analyzer, Rapid viscoanalyzer, BOD Incubator with shaker, Automatic Fibre Extraction

		system, Digital Refractometer PAL, Laminar Flow **Pilot Plant** **Area-** 248.06 m^2 Fruit and Vegetable Plant, Milk Processing Plant, Multi stage evaporator with aroma recovery system, Cottage scale soya paneer plant, Seed processing plant, Modern rice mill (0.5 t/h capacity) and Mini Dal Mill **Farmers' Produce processing – cum – Skill Development Center** Drier machine for Ginger, Cardamom, Chillies, Ginger Washing Machine, Vegetable Cutting Machine, Ginger Processing Machine (Complete Unit),Turmeric Grinder , Potato Slicer, Vegetable Washing Machine, Complete unit of Potato Chips Machine, Complete Unit of Biscuits Making Machine, Complete Unit of Noodle Making Machine, Ginger Paste and Powder Making Machine
5.	**Department of Renewable Energy Engineering**	Agni-star Gasifier, Air Quality Meter, Air Quality Monitor with Laptop, Aluminium Pots, Bio-gas Analyzer, Biogas Lamp, Biomass Cookstove i. Natural Draft biomass cookstove ii. Forced Draft biomass cookstove Bomb-Calorimeter, Box-type Solar Cooker, Cloud and Pour Point Apparatus, Cookstoves with Air Insulation, Data logger, Digital Anemometer, Digital Balance (15 kg), Digital Lux meter, Digital Multimeter, Digital PH meter, Digital Stop watch, Digital Tachometer, Digital Temperature Indicator, Digital Thermo-hygrometer, Digital Thermometer Non-contact type, Digital Wood moisture meter, Direct Type Solar Dryer, Double distillation Apparatus, Electric air blower, Electric weighing balance, Gas flow meter, Glass thermometer, Glass water distillation, Hand operated briquetting machine, High Precision balance, Hot Air oven, Hot wire Anemometer, IDB Gasifier stove (Ceramic), IDB Gasifier Stove (Smokeless), Improved downdraft biomass combustion device, Indirect type solar cabinet dryer, Lux meter, Mixed mode type solar dryer, Muffle furnace, Multichannel digital temp. indicator, Orsat Apparatus, Parabolic Dish Solar Cooker, pH meter, Pressure Gauge, Pyranometer, Ried Vapor Pressure Test apparatus Shakti-Surahi Bio methanation plant, Small scale box type biochar kiln, Solar Concentrator Training Kit, Solar Cooker Box type, Solar Lantern, Solar Power Photovoltaic training Kit, Solar Refrigerator, Solar Still, Solar Street light system, Solar water pumping system, Sound level meter, SPV Home lighting System, Sunshine Recorder, Test setup for thermosiphon system type solar water heater, Thermocouple base thermometer with display unit, Turbine type flow meter, Water bath shaker, Weighing balance, Wood moisture meter
6.	**Department of Basic Engineering and Applied Sciences**	**Biochemistry/Microbiology/ Agriculture Laboratory** **Area**: **225m^2** Analytical balance, Block digestion system, Colony counter, Vortex mixer, Chlorophyll meter, refrigerated circulator, High speed refrigerated centrifuge, Ultra quartz distillatory,Flame photometer, Hot plate, Hot air oven, Microcentrifuge, Magnetic stirrer, Rotary vacuum flask, Rotary

		shaker, Spectrophotometer UV/Vis Double Beam, Viscometer, Water bath shaker, Microwave oven, Bacteriological Incubator, Chromatographic oven, Monocular microscope, Compound microscope, Horizontal electrophoresis unit, Autoclave, BOD incubator, Water distillation plant, Quartz double distillation unit, Kjeldahl distillation and digestion unit, pH meter, Conductivity meter, Polarimeter, Refrigerator **Electrical, Electronics and Instrumentation Laboratory** **Area: 133.48 m ^{2}** i) Electrical Laboratory Cut section of DC motor, Cut section of single phase AC motor, Cut section of 3 phase AC motor, Single phase transformer of 1 KVA rating, Single phase Variac (0-260 Volt), DOL,StarDelta,Auto Transformer starter, DC machine with motor generator set.(for OCC of motor), AC split phase motor 1 HP, 3 phase squirrel cage induction motor with ponney brake (1 HP), 3 phase induction motor with ponney brake (2.2kW), Single phase Induction motor to study the effect of capacitor, 3 phase induction motor –generator set for load test of induction motor, DC series motor with ponney brake for load test of dc series motor, DC shunt motor(1 HP) for speed control, Control Panel board consisting of Under voltage and Earth fault relay, KCL,KVL trainer kit box, 3 phase control panel, 3 phase variac, 3 phase loading rheostat(10kVA,400 V), Resistive load (220 V,6.5A), LPF trainer, BPF trainer, K type(BRF) trainer, M derived filter, R-C,L-C trainer kit, Network theorem kit, DC regulated power supply (50V,5A), Wattmeter single phase, Wattmeter 3-phase, House wiring exercise table ii) Electronics & Instrumentation Laboratory Advance Trainer kit, CRO, Quadruple DC power supply, Analog cum Digital trainer kit, Rectifier trainer, Transistor trainer kit, Clipper & Clamper kit, Zener diode trainer kit, Digital to analog converter, 8-bit multiplying D to A converter, LVDT Bourdon tube trainer, LVDT inbuilt 4 kHz oscillator power supply, Load cell Demonstrator, DC permanent magnet motor set for position control system, Function generator **Computer Laboratory** **Area: 52.2 m ^{2}** HP Desktop 406 GT Mt with 18.5"TFT, HCL Infinity Global Server Line 17”TFT , HP 8300MT Desktop, HP DC 7900 Desktop 17”TFT External HDD 1 TB, Multimeter, D-link Wireless AC750 Dual band, Office Pro plus SNLG OLP NL Acd me (79P-05537), win Pro-10 SNLG Upgrd OLPNL Acdme(FQC-09512), Win Server (AL 2012 SNLG OLP NL Acdme DVLCAL(F18-04271|), Win Server Std2012 SNLG OLP NL Acdme 2 Pro C(F73-06272), 10 KVA Single online UPS, 12V 100AH, 16 Nos Excide Battery, 10 KVA Numeric online UPS with 12AHS Battery, 1 KVA UPS Microteck, DES 1024 D-Link 24 Port, 8 Port Switch TP Link , 24 Port Switch D-Link, Orpat Wall Fan, Battery Stand, HP LJ P1007, HP Printer LJP1606, HP Desktop Dx2280 with 15”TFT, Hardware Firewall 300ING, 3 years subscription, HP Scanner 7800, HP

		Scanjet G3010 Photot Scanner , 10 KVA Numeric online UPS with 12AHS Battery, 8 Port10/100 switch D-Link, Wireless AC750 Dual Band Router , Net WL Business Access Point, Netdbi Patch Panel Directional Antenna, Net WL Business Access, Net 8 Port SW/4 POE, Oth Spare Part, Net 9DBI Omni Antenna, Lightening/ Surge Arrestor **Physics Laboratory** **Area 95 m^2** Apparatus to study dielectric constant, Apparatus to measure the value of specific charge (e/m) for electrons by helical method, Apparatus for determination of ultrasonic wave velocity in liquid medium, Apparatus for the study of Electro-magnetic induction (e.m.f Vs velocity) , Apparatus to determine low resistance (Carey-Foster method), Apparatus to study variation of thermo e.m.f.of a copper constantan thermocouple with the temperature, Apparatus for study of LCR circuit, Apparatus for determination of co-efficient of viscosity by Stoke's law, Inerfaceable function generator and arbitrary waveform generator-1, Apparatus to find the frequency of a.c supply using electrical vibrator, Apparatus for determination of energy band gap in semiconductor using p-n junction diode, Apparatus for finding energy band gap by four probe method, Apparatus for obtaining hysteresis curve(B-H curve) and determination of related magnetic quantities, Apparatus to study the variation of magnetic field with distance along the axis of a current carrying circular coil, Apparatus for finding numerical aperture of an optical fiber, Apparatus to study fiber optic analog link, Apparatus to study fiber optic digital link, Digital Multimeter system -1 set (Two Nos.), Digital storage Oscilloscope, Drill machine, Dual trace oscilloscope Make: Scientific25 MHz, quadruple output d.c power supply Make: Microtech Industries, Digital multimeter Make: Metravi Model: 451, Function generator, Ammeter 0-500mA DC,Ammeter0-500mA AC, Rheostat 85 Ω, 2A, Rheostat 350 Ω, 2A,Voltmeter 0-30V DC

6.5.6.2 Research Contingency:

There is no specific head of Research contingency or no fund is provided as such for research contingency. The research activities of students under B. Tech, PG and PhD are funded from Recurring Contingency of College Fund. Adequate funds are available for meeting the recurring expenses incurred during the education programme.

6.5.7 Outcome/Output

6.5.7.1 Student Performance in National Examinations

Performance of the students during 2010 to 2020 is given in Table below

Particulars of students who qualified JRF/NET/ GATE (2015-2020)

Particulars	2015	2016	2017	2018	2019	2020
NET	-	-	-	-	01	
GATE	04	05	07	05	06	02

Ph.D.	-	-	01	03	01	
ICAR-JRF qualified	01	06	06	09	21	17
ICAR-JRF Received	-	-	-	01	-	01
ICAR-SRF	-	-	-	-	-	02

Performance of B. Tech (AE) students of CAEPHT, Sikkim in ICAR-JRF Examination 2020 and other PG entrance Examinations

Sl. No.	Name of the student	Stream	AIR	Category wise	UPS	M. Tech Admission	Mode of Admission
1.	Mr. Bharat Singh	AE	04	-	-	IIT, Mumbai	GATE
2.	Ms. Lalremmawii	AE	97	01 ST	01	PAU, Ludhiana	ICAR
3.	Ms. HamtoitiReang	AE	129	04 ST		G.B. Pant, Pantnagar	ICAR
4.	Ms. NajimaDebbarma	AE	182	06 ST	04	G.B. Pant, Pantnagar	ICAR
5.	Ms. Madhu	AE	48	18 OBC	-	BHU	BHU, PET
6.	Mr. TageTamo	AE	234	10 ST	10	NERIST, Itanagar	NERIST Entrance
7.	Ms. Laltangmawii	AE	237	12 ST		UAS, RAICHUR	ICAR
8.	Mr. Devi Charan Sharma	AE	194	-	07	CAEPHT, Sikkim	CAU Entrance
9.	Ms. Rima Das	AE	214	20 SC	09	RPCAU, Pusa, Bihar	ICAR
10.	Mr. Swapnajit Chowdhury	AE	335	-	12	BCKV, Mohanpur	ICAR
11.	Mr. C. Lalthlamuana	AE	452	15 ST		Mizoram University	Mizoram University Entrance
12.	Mr. Tapi Tada	AE	428	29 ST	14	NERIST, Itanagar	NERIST Entrance
13.	Ms. Naorem Nirmala Devi	AE	421	25 SC	--	NERIST, Itanagar	NERIST Entrance
14.	Mr. Arpan Rai	AE				CCSHAU, Hisar	ICAR
15	Biswajit Dey	AE				BHU	BHU, PET
16	Ms.NaoremNirmala Devi	AE				NERIST, Itanagar	NERIST Entrance

- Mr.Shivam Singh, B. Tech. AE selected for the campus Placement by the Mahindra and Mahindra Tractors Ltd. He also joined Indian Air Force through UPSC
- **The following students of Food technology have received fellowship/scholarship for higher education (M.Tech)**

Name of Degree programme	B. Tech. (Food Tech.)					
	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Actual student admitted	9	09	09	09	10	09
No. of Passed out student	5	7	9	6	5	10

Student received fellowship for M.Tech	2	-	5	1	2	3

6.5.7.2 Students Placement Profile:

Most of the students graduating from College of Horticulture are placed in academics/research institution for pursuing higher education in India and abroad. One Student qualified CAT Exam 2019 and got Admission in IRMA, Anand.

6.5.7.3 Awards/Recognitions/Certificates: Annexure**6.5.7.3**

6.5.7.4 Employability:

The students are acquainted with hands on practical related with various agricultural engineering activities related with Farm Power, Farm Machinery, Renewable Energy, and processing and value addition of various food products. Interactivesession swithentrepreneursoftheregionarebeingheldtimetotime. This allows the students to start up an enterprise at their ownlevel.The students are also furnished with knowledge both in theory and practical of agricultural engineering and allied activities.RobbartsNongmaithem, the student of College of Agricultural Engineering and Post Harvest Technology is an entrepreneur who has been working as the MD and Founder of Agro Solutions Pvt Ltd from 2018 and MD of Mapu Foods, Imphal west, Manipur since 2019.

Training and Placement Cell, CAEPHT organized the online test conducted by the Mahindra & Mahindra Ltd., Mumbai for the campus placement of B. Tech. (AG) final year students on 05.11.2019. Total 25 students were appeared for the interview and 05 students were qualified for the Final Interview.Mahindra& Mahindra Ltd., Mumbai conducted the interview on 26.11.2019. Out of five students, Mr. Shivam Singh was selected for the post of Graduate Agriculture Trainee. The details are:-

Placement of pass out students in different positions/organizations during 2017-18

Sl. No.	Name of College	Name of student	Year of passing from college	Positions/Organizations joined
1.	CAEPHT, Gangtok	SajeshChetrri	M Tech 2017	Zydus
2.		T.B Marak	M Tech 2017	CG Foods, Guwahati
4.		Mr Santosh Taynath	Expected M Tech, 2018	Got offer from Zydus
5.		Mr Vishal Kumar	Expected B Tech (FT), 2018	Got offer from Zydus

Placement of pass out students in different positions/organizations during 2018-19

Sl. No.	Name of College	Name of student	Year of passing from college	Positions/Organizations joined
1.	CAEPHT, Gangtok	Mr. Abhijit Kumar	2018	Trainee Engineer in Mahindra & Mahindra Ltd., Mumbai
2.		Mr. Kumar Priyank	2018	Trainee Engineer in Mahindra & Mahindra Swarag Division

Placement of pass out students in different positions/organizations during 2019-20

Sl. No.	Name of	Name of student	Year of	Organizations	Position/ joined as

	College		passing from college	joined	
1.	College of Agril. Engg. & PHT, Ranipool, Sikkim	1. Miss. Manisha Chettri	June 2019	C.G. Foods India Pvt. Ltd., Rangpo, Sikkim	Trainee Engineer (Quality Department)

Placement of pass out students in different positions/organizations during 2020

Sl. No.	Name of College	Name of student	Year of passing from college	Organizations joined	Position/ joined as
1.	College of Agril. Engg. & PHT, Ranipool, Sikkim	1. Mr. Shivam Singh	June 2020	Mahindra & Mahindra Ltd., Mumbai	Graduate Agriculture Trainee

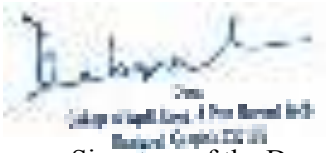
6.5.8. SSR for College along with Degree Programmes attached herewith.

SSRoftheCollegemusthavetheSSRofallitsDegreeProgrammes (followingsection 6.4), then the report of the Colleges shall beconsidered.

6.5.9.Certificate

(Applicable when SSR is submitted for Programmes &College)

I, **Parmendra Prasad Dabral**, the Dean **College of Agricultural Engineering and Post Harvest Technology, Ranipool, Gangtok, Sikkim**hereby certify that the information contained in Sections 6.4 and Section 6.5.1 to 6.5.7.4 are furnished as per the records available in the college and degree awarding university.



Signature of the Dean
of the college
With Date & Seal

6.5.10. All SSR with respect to Programme as mentioned in 6.5.8 are submitted along herewith.

Annexure 6.5.1.3

Details of CC/ Board of Studies

Composition of the BOS	Date of conduct (Years	Major recommendations made by the BOS
• 01Chairperson (DEAN, CAEPHT) • 01Co-chairperson (DEAN, COFT, Imphal) • All HOD's of CAEPHT Ranipool • Director of Instruction, Extension Education and Research's member • Academic in-charge of CAEPHT, Ranipool and COFT, Imphal • One representative of Academic Council nominated by Vice Chancellor • Two eminent scientists from Agricultural education system not belonging to CAU, Imphal.	3rd BOS Meeting February 13, 2015	Staring PhD programme in Farm Machinery and Power Engineering.
	4th BOS Meeting 20th July 2016	Starting of Ph.D. programme in Soil and water conservation Engineering and Processing and Food engineering disciplines. Change of Name of Department from Farm Power and Machinery Department to Farm machinery and Power Engineering Proposal of exchange of two courses of B. Tech Agril. Engg. From 1stsem to 2ndsem
	5th BOS Meeting 23rd May, 2017	• Approval for PG programme M. Tech in Renewable Energy and Irrigation Drainage Engineering with Intake capacity of 3 (2 CAU+ 1 ICAR). • Correction in title of Course Communication Skills and Personality Development of B. Tech food technology as per V Dean Committee. • Modification of 3 subjects Theory of machines, machine Design and Tractor systems & Control offered to B. tech (Agril. Engg.) • Tutorial Class for BEAS 1207 and BEAS 2107. • Proposal to start day scholar arrangement for interested students. • Fixing of date of renamed Degrees due to change in Nomenclature
	6th BOS Meeting 26th April, 2018	• Migration of Mr. Lenjachung Serto, b. Tech (Agril. Engg.) from 4th DEAN to 5th Dean recommended curriculum.
	7th BOS Meeting 13th May,2019	• Shifting of course entitled "Web designing and internet applications" from even semester to odd. • Modification of syllabus four courses of B. Tech food Technology. • Approval of course structures of M.Tech Renewable Energy engineering and Irrigation Drainage engineering.

		• Interchanging the semester of the B. Tech course Ground water wells and Pump and Drainage Engineering from semester VI to semester V. • Common course nomenclature for courses of Food technology of CAEPHT, Ranipool and COFT, Imphal
	8th BOS Meeting 29th April, 2020 Meeting through video conferencing online using Google Meet.	Approval for internal setting of question paper and evaluation for 2nd semester of Academic session 2019-2020. Combining Mid-term and end term examination for 2nd session of 2019-20 Conducting comprehensive viva-voce examination for PhD and PG students online during 2nd semester academic session 2019-20.

Annexure 6.5.1.4

Anti-Ragging Cell related activities

College of Agricultural Engineering & Post Harvest Technology
(Central Agricultural University)
Ranipool, Gangtok – 737 135 (Sikkim)

Day of Week	
Monday & Tuesday	
Wednesday & Thursday	
Friday	

Copy to:

College of Agricultural Engineering & Post Harvest Technology

CERTIFICATE

College of Agricultural Engineering & Post Harvest Technology
(Central Agricultural University)
Ranipool, Gangtok – 737 135 (Sikkim)

No. [illegible] Fax No. [illegible]

CAU/CAEPHT/[illegible]/14/[illegible] Date: [illegible]

NOTIFICATION

[illegible]

Sl. No.	Name	Designation	Contact no.
	[illegible]	Dean & Chairman	7029959477
2	[illegible]	HOD, IT&SC & Member	9933-09[illegible]4
3	[illegible]	HOD, ID & Member	7407[illegible]263
4	[illegible]	HOD, [illegible] & Member	9732[illegible]279
5	[illegible]	HOD, SAC & Member	9851[illegible]18
6	[illegible]	HOD, FPE & Member	9434[illegible]530
7	[illegible]	HOD, ZLS & Member	9434[illegible]65
8	[illegible] (A.R. Asstt.)	Asstt. Prof. & Member of Managing Body	9733[illegible]35
9	[illegible] (A.R. Asstt.)	Asstt. Prof. & Member of Managing Body	8016[illegible]44
10	[illegible]	Asstt. Prof. & Member	9593[illegible]80
11	[illegible]	Asstt. Prof. & Member	8972[illegible]2.5
12	[illegible]	SAO & Member	9[illegible]654512
13	[illegible]	Nodal Grant Officer & Member Secretary & Member of the Managing Committee	9[illegible]86774
14	[illegible]	Women Development Society & Member of the Managing Committee	8[illegible]21[illegible]
15	[illegible]	Student Representative & Member of the Managing Committee	9[illegible]2[illegible]3[illegible]1

[illegible]
Dean

Copy to:
1. [illegible]
2. [illegible]
3. [illegible]

College of Agricultural Engineering & Post Harvest Technology
(Central Agricultural University)
Ranipool, Gangtok – 737 135 (Sikkim)

NOTIFICATION

ANTI RAGGING COMMITTEE

Dean

College of Agricultural Engineering & Post Harvest Technology
(Central Agricultural University, Imphal)
Ranipool, Gangtok – 737 135 (Sikkim)

NOTIFICATION

Date	Name

Annexure 6.5.2.3

Faculty Data and Credentials

The Dean, CAEPHT, Ranipool

SI. No.	Name and designation	Year of Joining Central Agricultural University	Year of Joining College	Highest qualification and Department	Year of Achieving highest qualification (In service/ Not)	Related work experience in the field	Experience in otherareas
1	Prof. Parmendra Prasad Dabral DEAN	28-12-2017	28-12-2017	Ph.D.	1995	32 Years	32 years

Department of Basic Engineering and Applied Science

SI. No.	Name and designation	Year of Joining Central Agricultural University	Year of Joining College	Highest qualification and Department	Year of Achieving highest qualification (In service/ Not)	Related work experience in the field	Experience in otherareas
1	Dr A. B. Sherpa, Assistant Professor (Sr. Scale) of Agronomy	2007 (1st September)	2007 (1st September)	Ph. D. in Agronomy	2008	13+ Years in Permanent position	Experience in Educational administration (additional responsibilities) as 1. Security In-charge, CAU-CAEPHT, Ranipool for more than 5 years.

							2. Extension Officer in CAU-CAEPHT, Ranipool for more than 6 years and continue. 3. As Assistant Register (Academic), I/C, HoD, BEAS (BSH) Deptt. and Student Welfare Officer in CAU-CAEPHT during leave period of regular in-charge. 4. Presently looking after the In-charge HoD of BEAS Deptt., ATIC and Extension Officer of CAU-CAEPHT. Ranipool.
2	Dr Dhananjoy Roy, Assistant Professor (Sr. Scale) of English	2006 (October 3rd)	2006 (October 3rd)	Ph. D. in English (Humanities/ English)	2010 (In service)	14+ Years in Permanent position & 5+ years as Contractual/part-time faculty/ Research Fellow	Experience in Educational administration (additional responsibilities) as Assistant Registrar (Academic) in CAU-CAEPHT, Ranipool for more than 7 years; as Student Welfare Officer in CAU-CAEPHT for more than 1 year and as I/C, HoD, BEAS (BSH) Deptt. for more than 5 years.
3	Er.Nandita Sen Asst.Professor(Electrical Engg.)	01/11/2008	01/11/2008	M.Tech (Electrical Engg.)	2005,(Not in this service)	12 yrs 2 months	
4	Phuritshabam Robert, Assistant Professor, (Computer Science & Engineering) Currently Pursuing PhD.	11th April 2012	11th April 2012	M.Tech (Computer Science & Engineering)	2009(Not in Service)	8 years	8 years

5	Dr. Chakpram Birendrajit Assistant Professor (Soil Science)	12th April 2012	12th April 2012	Ph.D. (Soil Science) and Basic Engineering & Applied Science	2014 (In service)	Soil Fertility Management and Plant Nutrition; Biofortification of rice with zinc and iron	Pesticide Residue Analysis, Organic farming
6	Dr. Abujam Anuradha Devi, Assistant Professor (ABM)	07th , May, 2016	07th , May, 2016	Ph.D.(Agril. Econmics) /BEAS Dept.	2013	7 yrs one month	Teaching Associate at CoA, CAU, Imphal
7	Er. Rajiv Pradhan, Assistant Professor (Electronics Engineering & Instrumentation)	27/05/2016	27/05/2016	M.Tech, Basic Engg. & Applied Sciences (BEAS)	2011 (In service)	4 years, 8 months	
8	Dr. Srikanta Kumar Meher Assistant Professor (Mathematics)	2016	2016	PhD (Mathematics)	2012 (Not)	11 Years	NA
9	Smt.T. Loidang Chanu,Assistant Professor ,Statistics	17th Oct. 2016	17th Oct. 2016	M.Phil/BEAS Dept.	2009(Not inservice)	7yrs 6 months	
10	Dr. Sushma Gurumayum, Assistant Professor	24th November, 2017	24th November, 2017	Ph. D	2011 (not in service)	3 years	-

11	Dr. Ph. Baleshwor Sharma, Assistant Professor (Biochemistry)	22nd July 2019	22nd July 2019	Ph.D./BEAS Dept.	2016 (Not in service)	4 yrs 5 months	R&D

Department of Farm Machinery and Power Engineering

Sl. No	Name and Designation	Year of joining CAU, Imphal	Year of joining college	highest qualification and department	year of achieving highest qualification (In-service/Not)	related work experience in the field	experience in other area
1.	Dr. NS Chauhan	2008	2008	Ph.D	Not applicable	19 years	Nil
2	Dr. S N Yadav (Professor)	2007	2007	Ph. D. (Farm Machinery and Power Engineering)	2004	1. Extension activities of Agricultural Engineering as Technical Assistant, Technical Officer and Senior Technical Officer in **ICAR for about 24 years** including farm machinery production and workshop management and research coordination and management. Teaching of farm machinery courses at UG, PG and Ph.D. level as associate professor and Professor in **CAU for 14 years**	Nil
3	Dr. S.K. Satpathy	2007	2007	Ph.D	2018	16 years	Nil
4	Shankar Swarup	2008	2008	M. Tech.	2002	6 years in private engineering colleges (Oct. 2002-Oct-2008) and	--

	Das (Assistant Professor)			(Farm Machinery and Power Engineering)		12 years in CAU, Imphal (Oct 2008 to till date including 3 years study leave Jan 2016-Jan 2019)	
5	Sujeet Kumar Chauhan (Assistant Professor)	2012	2012	M. Tech. (Farm Machinery and Power Engineering)	2006	**(i)** As Assistant Agril. Engineer (FMP) Under AICRP on Utilization of Animal Energy in Agriculture (UAE) 4 Years 0 Month 24 days (w.e.f 09/04/2012 to 03/05/2016) **(ii)** Working as Assistant professor w.e.f 04-05-2016 till continue	
6	Ngangkham Devarani (Assistant Professor)	2016	2016	Masters in Design and Manufacturing	2013 (Not in service)	6 months teaching experience in NIT Silchar	Nil

Department of Processing and Food Engineering

Sl. No.	Name and designation	Year of Joining CAU	Year of Joining college	Highest qualification and Department	Year of Achieving highest qualification (In service/Not)	Related work experience in the field	Experience in other areas
1.	Dr. R.P. Misra Professor	2015	2015	Ph.D (Engineering)	1986 (In service)	44 years	Research, Teaching, Extension, Coordination, Management and Administration
2.	Dr. Sujata Jena	2007	2007	Ph. D.,	2006 (Not in service)	• Drying and storage of horticultural	• Administration and management

	Associate Professor			Processing and Food Engineering		crops • Osmotic dehydration of fruits and vegetables • Value addition of agro-horticultural crops	• Extension activities
3.	Dr B K Singh Assistant Professor	2001	2011	Ph D (Aquacultural Engineering)	2010 (In service)	Fish Processing, Meat, Poultry and egg processing	Waste water treatment and Aquacultural Engineering
4	Dr. Said P. P. Assistant Professor	2016	2016	Ph. D. Department of Processing and Food Engineering	2014 (Not in service)	Processing of horticultural crops, Cereals and pulses	• Experience as a subject matter specialist for conducting agricultural extension activities, • Reviewing of International and National Standards like ISO and BIS Consultation to entrepreneurs on DPR and Food regulations
5.	Dr. Rakesh Kumar Raigar Assistant Professor (Dairy Engineering)	2017	2017	Ph D Processing and Food Engineering	2017 (Not in service)	Processing of milk and milk products Processing of oilseeds and underutilized pulses.	

Department of Soil and water conservation Engineering

S. No.	Name & Designation	Year of Joining Central Agricultural	Year of Joining College	Highest qualification and Department	Year of achieving highest qualification (In service or	Related work experience in the field	Experience in other areas

		University			not)		
1	Dr. Deepak Jhajharia, Professor	25th May, 2016	25th May, 2016	Ph.D.	2012 (QIP)	19 years 7 months	Nil
2	Dr. Jagabandhu Panda, Associate Professor	28.12.2001	24.08.2016	Ph.D.	2004 (not in service)	19 years	Nil
3	Dr. Santosh Rangrao Yadav, Assistant Professor (Senior Scale)	March 05, 2007	March 05, 2007	Ph. D. (Hydrology)	2010 (In service)	13 years 10 months	Nil
4	Dr. Ghanashyam Singh Yurembam, Assistant Professor	July 20, 2016	July 20, 2016	Ph. D.	2016 (Not in service)	4 years 6 months	Nil

Department of Irrigation and Drainage Engineering

S. No.	Name and Designation	Year of joining Central Agricultural University Imphal	Year of joining college	Highest qualification and department	Year of achieving highest qualification (in-service/ Not)	Related work experience in the field	Experience in other areas
1	Dr. B C Kusre, Professor	2010	2010	Ph.D. Irrigation and Drainage Engineering	2008 (In service)	Teaching research and extension	GIS and Remote sensing
2	Dr. Ajay Kumar Vashisht, Associate Professor	2010	2010	Ph.D. Irrigation and Drainage Engineering	2004 (Not in Service)	1. Management of water resources (both quantitatively and qualitatively) in the North-Eastern and North-Western Himalayan region. 2. Management of Brackish aquifers.	Traditional agricultural practices

						3. Well hydraulics 4. Design of water filtration systems depending upon the function.	
3	Dr.Ghanshyam T. Patle, Assistant Professor	2007	2007	Ph.D. Irrigation and Drainage Engineering	2014 (in service)	Irrigation water management, Micro irrigation design, Groundwater modelling, Crop water estimation, Stochastic modelling , Watershed Hydrology modelling, Climate variability studies	Climate change and water requirement, Carbon foot print estimation, Water quality analysis, Organic farming
4	Dr. Shivam, Assistant Professor	2019	2019	Ph.D. Irrigation and Drainage Engineering	2017 (Not in Service)	Water Resources Management	Climate change, Hydrological modelling, Extreme events analysis

Department of Renewable Energy Engineering

Sl. No.	Name and designation	Year of Joining Central Agricultural University	Year of Joining College	Highest qualification and Department	Year of Achieving highest qualification (In service/ Not)	Related work experience in the field	Experience in other areas
1.	Prof. Mahendra S. Seveda Professor and Head-REE	03-02-2010	03-20-2010	Ph.D. Renewable Energy Engineering	Not	**16 years** Actively engage in teaching of B. Tech. (Agricultural Engineering/Food Technology), M. Tech. & Ph. D. (Renewable Energy Engineering/ Farm Machinery & Power Engineering/Processing & Food Engineering/Irrigation & Drainage	Organized International/National: Workshop/Seminar/Conference/Congress/Winter School: 07 (Last 05 Years)

						Engineering/Soil & Water Conservation Engineering), Research and Extension in the field of Agricultural Engineering and Renewable Energy Engineering. Accomplished many research projects on Biomass Energy, Solar Energy and Skill Development in Engineering and Technology sponsored by Petroleum Conservation Research Association (PCRA), Ministry of Petroleum and Natural Gas, Govt. of India and Indian Council of Agricultural Research (ICAR), Ministry of Agriculture and Farmers' Welfare, Govt. of India.	
2.	S M Kamaruzzaman Assistant Professor	5th October 2006	5th October 2006	M.Tech (Energy Science and Technology). (After completing M.Sc. (Physics))	2005 (Regular)	**16 Years** Completed two IRP on Solar Tunnel Dryer. Successfully Completed design and development of one 500 KG capacity Solar tunnel dryer for commercial use.	--
3.	Dr. Narale Pradip Digambar Assistant Professor	20th July 2019	20th July 2019	Ph.D. (Renewable Energy Engineering)	2017 (Regular)	**4 years** Expertise in the field of Biogas Technology and its Utilization, Bioenergy	Experience in the field of Environmental Science & Waste Management Technologies, Rural Development and Agricultural Technologies.

						Engineering, Development of technologies for biomass to energy conversion. Development of solar dryers and green houses.	
4.	Dr. Kharpude Sudhir Narayan Assistant Professor	29th July 2019	29th July 2019	Ph.D. (Renewable Energy Engineering)	2017 (Regular)	**4 years** Study on Renewable energy technologies like biogas, biomass and solar and their multi-criteria analysis through energy, embodied energy, emergy, anergy, exergy, economics, environmental analysis and LCA technique application. Expert system design and evaluation	Climate change, farm power, energy in agriculture and organic farming, sustainable development

Annexure: 6.5.2.3
Teaching

Department of Basic Engineering and Applied Engineering

SI. No.	Name and designation	Institution	Details (UG/PG/Ph.D.) Courses	No. of Students Guided			Duration	Total experience
				B.Tech	M.Tech	Ph.D.		
1.	Dr A. B. Sherpa, Assistant Professor (Sr. Scale) of Agronomy	CAEPHT (Central Agricultural University, Imphal), Ranipool, Sikkim	UG Details of course taught is herewith (#) Teaching Courses for both CAEPHT, Ranipool, East Sikkim and COH, Bermiok, South Sikkim Details of course taught is herewith (#); Odd semester Agril. Science-I(AGS-111) BEAS-1114: Crop Production Technology 3 (2+1): 1st semester Food Technology BEAS-2102: Principles of Agronomy 3(2+1): 3rd semester Agricultural Engineering. FSC-212: Weed Management in Horticultural Crops 2(1+1): 3rd semester Horticulture SAF 311: Introductory Agro-forestry2(1+1): 5thsemester Horticulture NRM 314: Agro-meteorology and climate change2(1+1): 5thsemester Horticulture Even semester Agril. Science-II (AGS-121) Agribusiness Management & Trade (AGS-221) BEAS-1202: Environmental Science and Disaster	UG Student Project (03)	-	-	1st September 2007 till date	13 years

			Management 3(2+1): 2nd semester Agricultural Engineering. NRM-123: Introductory to Major Field Crops 2(1+1): 2nd semester Horticulture VSC-223: Precision Farming and Protected Cultivation 3 (2+1): 4th semester Horticulture					
2	Dr Dhananjoy Roy, Assistant Professor (Sr. Scale) of English	CAEPHT (Central Agricultural University, Imphal), Ranipool, Sikkim	UG Professional English Entrp. Development and Communication Skills, Communication Skills and Personality Development, English Language, Women Safety and Gender Sensitization in Campuses PG/Ph.D. Technical Writing and Communication Skills Besides, different courses/topics of UG and PG levels of English(Hons) and PG/MA (English) as Part-time Lecturer and JRF/SRF (English) during March 2000 to September 2006				October 2006 till date March 2000 to September 2006	14 years 3 months in permanent position and 5 years as Part-time lecturer/ JRF/SRF (English)

3	Er.Nandita Sen, Asst. Professor(Electrical Engg.)	CAEPHT, Ranipool	UG Courses Offered 1.Electrical Circuit 2.Electrical Machine & Power UtilizationPFE-313 3.Instrumentation & Process Control 4.Principle of General Engg. 5.Applied Electronics & Instrumentation 6.Electrical Engg.BEAS-1112 7. Computer Programming & Data Structure BEAS-1211 7.Electrical Machine & Power Utilization BEAS-2109 8. Computer programming & Data Structure BEAS-3201 PG Courses offered 1.Energy Management in Food Processing Industries PFE-505 2.Process Control System PFE-501	B.Tech	M.Tech	Ph.D.	12 yrs 2 months	12 yrs. 2 months
4	Phuritshabam Robert Assistant Professor, (Computer Science & Engineering) Currently Pursuing PhD.	CAEPHT, CAU, Ranipool	UG				8 years	8 years

5	Dr. Chakpram Birendrajit Assistant Professor (Soil Science)	College of Agricultural Engineering and Post Harvest Technology, (C.A.U.) Ranipool, Gangtok, Sikkim	UG Courses BEAS 1103 – Engineering Chemistry; BEAS 1104 – Principles of Soil Science; BEAS 1115 – Environmental Science & Disaster Management	-	--	--	April 2012 to till date	8 years 8 months
6	Dr. Abujam Anuradha Devi, Assistant Professor (ABM)	CAEPHT,CAU, Ranipool	Business Management and Trade- FBM 2201 (2+0) Project Preparation and Management- FBM 3201 (2+1) Entrepreneurship development and business management – BEAS 1203 (2+1) Horti-business management-SSC 321 (2+0) Entrepreneurship development- SSC 322 (1+1) Fundamentals of extension education- SSC 323 (1+1) Entrepreneurship Development (FBM 4102) -3(2+1) Marketing Management (FBM 3102)- 2(2+0) Economics and Marketing (SSC-111)- 3(2+1)	O7 (Seven)	NA	NA	4 year 6 months	4 year 6 months
7	Er. Rajiv Pradhan, Assistant Professor (Electronics Engineering & Instrumentation)	CAEPHT, Ranipool	UG and PG				4years, 8 months	4 years, 8 months
8	Dr. Srikanta Kumar Meher Assistant Professor	CAEPHT, CAU, Sikkim	UG Courses Engineering Mathematics-I Engineering Mathematics-II Engineering Mathematics-III	B. Tech	M. Tech	Ph.D.	2016-20	11 Years

	(Mathematics)		Elementary Statistics & Computer Application Statistics Computer Programming and Data Structure PG Course Mathematical Methods for Applied Sciences PhD Courses Optimization Techniques Mathematical Models in Food Processing Mathematical Methods for Applied Sciences	NA	NA	NA		
9	Smt.T. Loidang Chanu,Assistant Professor ,Statistics	CAEPHT,CAU, Ranipool	UG: a)BSH-111[3(2+1)] b)BEAS-2111[2(1+1) c)BS-1207[3(2+1)] PG/PhD: a)STAT-511[4(3+1) b)STAT-531[3(2+1) c)STAT-512[2(1+1) d)FOR-537[2(1+1)] e)CAA-503(0+1) a) STAT-511[4(3+1) b STAT-531[3(2+1) c) CAA-503(0+1	1(year 2018)	2(Member), continuing	1(Member)continuing	4years, 4 months	4years, 4 months
10	Dr. Sushma Gurumayum, Assistant Professor	CAEPHT	FSQ2102 Credits 3 (2+1) Food Biotechnology (UG) FSQ1202 Credits 3(2+1) Food Microbiology (UG)	1 student;	Advisory	-	3 years	3 years

			BEAS 1117 Credits 3 (2+1) General Microbiology (UG) FSQ2101 Credits 3 (2+1) Food Microbiology. (UG) PGS502 Credits 3 (0+1) Basic Concepts in Laboratory Techniques (PG)	Co-guide of 1 student	member for 2 students			
11	Dr. Ph. Baleshwor Sharma, Assistant Professor (Biochemistry)	CAEPHT, CAU, Ranipool	1. Food Chemistry of Micronutrients-FSQ 2102, 3(2+1) 2. Instrumental Techniques in Food Analysis-FSQ 3101, 3 (1+2) 3. Food Chemistry of Micronutrients-FSQ 1201, 3(2+1) 4. Food Biochemistry & Nutrition- FSQ2201, 3 (2+1) 5. Engineering Chemistry- BEAS 1103, 3 (2+1)	NA	NA	NA	1 year 5 months	1 year 5 months

Department of Farm Machinery and Power Engineering

Sr. No.	Name and designation	institution	Details of UG/PG/Ph.D courses	No. of students guided			duration	total experience
				B.Tech.	M.Tech.	Ph.D		
1.	Dr. NS Chauhan Professor	Professor CEAPHT (CAU), Ranipool, Sikkim	Machine Design, Tractor Systems and Controls, Human Engineering and Safety, Soil Mechanics in tillage and traction, Soil dynamics in tillage and traction, Ergonomics and	6	2	-	24/12/2014 to Till date	6 Y 1 M

			Safety in Farm Operations, Farm Machinery Dynamics, Noise and Vibrations, System Simulation and Computer Aided Problem Solving in Engineering, Simulation Modeling in Farm Machinery & Power Engineering, Computer Aided Analysis & Design of Farm Machinery					
2	Dr. S N Yadav (Professor)	CAU- College of Agricultural Engineering and Post-Harvest Technology, Ranipool	UG: 1. Farm Machinery and Equipment – I 2. Farm Machinery and Equipment – II 3. Farm Power and Machinery Management 4. Operation and Maintenance of Tractor and Farm Machinery 5. Workshop Technology 6. Experiential Learning PG: 1. Testing and Evaluation of Tractors and Farm Equipment 2. Design of Farm Power and Machinery Systems 3. Intellectual Property and its Management in	11	04 (03 completed and 01is ongoing)	02 (Ongoing)	2007 to 2021	14 years

			Agriculture 4. Master's Seminar 5. Research Methodology 6. Mechanism analysis and synthesis 7. Special problem Ph.D. 1. Advances in farm machinery and power engineering 2. Machinery for natural resource management and precision farming 3. Doctoral seminar I 4. Doctoral seminar II 5. Special problem 6. Case study Intellectual Property and its Management in Agriculture					
3	Dr. S.K. Satpathy,	CEAPHT (CAU), Ranipool, Sikkim	Farm Machinery and equipment, Operation and maintenance of farm machinery, soil dynamics in tillage and traction, Opaerion research in farm machinery and power management, Testing of agricultural equipments, advances in farm machinery and power engineering,	11	01	-	24/08/2007 till date	13 Y 4 M
4	Shankar Swarup	College of Agricultural	Workshop Technology,	6	0	0	6 years (Pvt.	18 years

	Das (Assistant Professor)	Engineering and Post-Harvest Technology, Ranipool	Thermodynamics and Heat Engines, Engineering Drawing, Heat and Mass Transfer, Refrigeration and Air-conditioning, Machine drawing and Computer Graphics, Theory of Machines, Machine Design, Mechanical Vibrations, Computer Aided Analysis and Design of Farm Machines				colleges), 12 years (CAU, Imphal)	
5	Sujeet Kumar Chauhan (Assistant Professor)	College of Agricultural Engineering and Post-Harvest Technology, Ranipool	U.G: (i) Farm Power (2012-13, 2013-14, 2014-15, 2015-16) (ii) Operation and Maintenance of Tractor and Farm Machinery-I (2012-13, 2013-14, 2016-15, 2017-18,2018-19) (iii) Operation and Maintenance of Tractor and Farm Machinery-II (2014-15, 2015-16,2016-17, 2017-18,2018-19) (iv) Workshop Technology and practices (2016-17, 2017-18, 2018-19) (v) Theory of machine (2016-17) (vi) Institutional Experiential Learning	10	0	0	09/04/2012 to till continue	9 years

			(2016-17, 2017-18) (vii) Tractor and Automotive engines (2017-18) (viii) Tractor systems and Control (2017-18, 2018-19, 2019-20) (ix) Farm Power and Machinery (2018-19) (x) Tractor and Farm Machinery operation and maintenance (2019-20) (xi) Mechanics of Tillage and Traction (2019-20, 2020-21) PG (M.Tech) (i) Testing & Evaluation of Tractors and Farm Machines (2017-18, 2018-19) (ii)Tractor Design (2019-20, 2020-21) (iii) Design of Farm Power and Machinery System (2019-20)					
6	Ngangkham Devarani (Assistant Professor)	College of Agricultural Engineering and PHT, Ranipool	Heat and Mass transfer Thermodynamics Refrigeration and Air-conditioning Food thermodynamics AutoCAD applications Machine drawing	3	0	0	4 Years	4 Years

			Engineering drawing Theory of machine Refrigeration and Air-conditioning Research Methodology System simulation and Computer aided problem solving in Engineering Simulation Modelling on Farm Machinery and Power Engineering Mechanical Vibrations Mechanism analysis and synthesis Dimensional Experiential learning					

Department of Processing and Food Engineering

Sl. No.	Name and designation	Institution	Details (UG/PG/Ph.D. Courses)	No. of students Guided			Duration	Total experience
				B. Tech	M. Tech	Ph. D		
1.	Dr. R. P. Misra Professor	IARI, CARI, CAEPHT(CAU)	UG, PG and Ph.D	5	-	-	i) 1976-86 ii) 1986-89 iii) 2015-20	18 years

2.	Dr. Sujata Jena Associate Professor	CAEPHT (CAU), Ranipool	UG courses • Dairy and Food Engineering • Drying and Storage Engineering • Processing technology of fruits and vegetables • Food storage engineering • Processing of milk and milk products • Processing technology of beverages • Post Harvest Engineering	32	04 (02 continuing)	01 (Continuing)	2007-2021	

			• Unit operations in Food Engineering • Downstream processing • Refrigeration and Air Conditioning • Food process equipment design • Food Science and Nutrition • Food plant design and layout • Waste and by-product Utilization PG and PhD courses • Unit operations in Food Process Engineering • Advances in Food Processing • Transport Phenomena in Food processing • Advanced Food Process Engineering • Mathematical modelling in Food Processing • Advances in drying of Food Materials • Library sciences and information • Basic concepts in laboratory techniques				2007 - till date	13 years
3.	Dr B K Singh Assistant Professor	COF Agartala	• Fish Farm and Harbour Engineering • Marine Engines and Propulsion System • Refrigeration And Equipment Engineering • Fishing Craft Technology				2001 to 2011	10 years

			• Seamanship and Navigation • Fishing Gear Technology					
		CAEPHT (CAU), Ranipool	• Design and Maintenance of Greenhouse • Extrusion Technology • Live Stock Product Processing • Advances in Meat, Poultry and Fishery Technology • Society and technology • Unit Operations in Food Processing I • Development of processed product and equipment • Processing of meat and poultry products • Processing of Fish and Marine Products • Unit Operations in Food Processing II • Processing of meat and poultry products • Food Processing Equipment-I • Meat Processing • Refrigeration and Air conditioning • Food Refrigeration and Cold Chain • Textural and Rheological characteristics of Food Material • Food Production Trends and Programmes	33	03 (01 continuing)	02 (continuing)	2011 to till date	9 years

			• Fundamentals of Food Processing • Engineering Properties of Agricultural Produce • Agricultural waste and by product Utilization • Food Plant Sanitation					
4	Dr Said P P Assistant Professor	CAEPHT, Ranipool	• Post harvest engineering of horticultural crops (PFE 3201) • Project (AGE 411) • Experiential learning (AGE 421) • 10- weeks Experiential Learning On campus (Student • READY) (AGE – 4102) • Project Planning and Report Writing (Student READY) (AGE – 4201) • Techniques in food analysis (FT 312) • Waste and Byproduct utilization (FT 314) • Product Development and Formulations (FT 322) • Food Plant Design and Layout (FT 325) • Research project (FT- 328) • Experiential learning (FT – 411) • Processing Technology of Liquid Milk (FPT 2102) • Unit operations in food processing – I (FPE – 2102) • Unit operation in food processing –	11	02	-	2016-till date	04 Year

			II (FPE 2201) • Food Chemistry of Micronutrients, • Instrumental techniques in food analysis (FSQ – 3101), • Bakery, confectionery and snack products (FPT – 3103) • Food Additives & Preservatives (FSQ – 3202), • Sensory evaluation of food products (FPT – 3204), • Student READY - Experiential learning programme – II (FT – 4102), • Student READY - Research project (FT – 4103) • Food quality and safety engineering (PFE – 511), • Masters' Research (PFE – 599), • Basic Concept in Laboratory Techniques (PGS 504) • Textural and rheological characteristics of food material (PFE 601) • Agricultural Waste and byproduct utilization (PFE – 605) • Post harvest management of horticultural crops (PHM 311) • Post harvest processing of horticultural crops (PHM 322/ PHM321), • Processing and value addition of horticultural crops (READY – 425)					

			• Processing of fruits and vegetables for value addition (READY – 423)					
5.	Dr. Rakesh Kumar Raigar Assistant Professor (Dairy Engineering)	CAEPHT, CAU	UG Courses B.Tech (A.E) • Dairy and Food Engineering • Food Packaging Technology B. Tech. (FT) • Food Process Equipment Design • Processing Technology of Liquid Milk • Food Process Equipment Design • Processing Technology of Liquid Milk • Food Packaging Technology & Equipment • Speciality Foods • Food Quality Assurance & Certification • AGE-411 (Research Project) AGE – 4102 (Student READY – Experiential learning programme – II), • AGE – 4201 (Student READY - Research project – II) • FT – 4102 (Student READY - Experiential learning programme – II), FT – 4103 (Student READY - Research project), M.Tech. PFE • Food Packaging Technology • Transport phenomena in food processing	07	02 (continuing)	-	2017 to till date	03 years

Department of Soil and Water Conservation Engineering

Sl. No.	Name and Designation	Institution	Details (UG/PG/PhD) Courses	No. of students Guided	Duration	Total Experience
1	Dr. Deepak Jhajharia, Professor	CAEPHT	UG Courses: (1) Engineering Mechanics (BEAS-1106) (2) Strength of Materials (SWE-223 / BEAS-1205) (3) Watershed Hydrology (SWCE-2201) (4) Reservoir and Farm Pond Design (SWE-417) (5) Plastic Applications in Agriculture (SWCE4205) (6) Water Management in Horticulture Crops (NRM-122) PG Courses: (1) Water Resources System Engineering (SWE-510) (2) Dams and Reservoir Operations (CE-502) (3) Soil & Water Conservation Engg. (SWE-505) (4) Watershed Hydrology (SWE-501) Ph. D. Courses: (1) Dams and Reservoir Operations (CE502) (2) Advanced Hydrology (SWE-601) (3) Advanced Hydromechanics in soil aquifer system (SWE604)	B. Tech - 04 M. Tech - 06	2015-2020	19 years 7 months

2	Dr. Jagabandhu Panda, Associate Professor	CAEPHT	BEAS-1204:Fluid Mechanics & Open Channel Hydraulics (UG) BEAS-2106: Design of Structures (UG) SWCE-3201:Water Harvesting and soil conservation structures (UG) SWCE-4201:Remote Sensing & GIS Applications (UG) CE-501: Open Channel Hydraulics (PG) SWCE-505 Soil and Water Conservation Engineering (PG) SWE-603:Modelling Soil Erosion Process (PhD) CE-603:Design of Bins and Silos (PhD)	B. Tech 10	M. Tech 2 completed 2 ongoing	Ph. D. N.A.	19 years	19 years
3	Dr. Santosh Rangrao Yadav		<u>UG Courses:</u> (1) Surveying and Levelling (SWE-121/ BEAS-1206); (2) Watershed Hydrology (SWE-212/ SWCE-2201); (3) Soil and Water Conservation Engg. (SWE-222/ SWCE-3101); (4) Engineering Drawing (SWE-111 & FT-112); (5) Remote Sensing and GIS Applications (SWE-416); (6) Soil Mechanics (SWE-211/ BEAS-2105); (7) Gully and Ravine Control Structures (SWE-415) <u>PG Courses:</u> (1) GIS and RS for Land and Water Resource Management (SWE-511); (2) Dams and Reservoir Operations	B. Tech. 09		05 years (2015-20)	13 years 10 months	

			(CE-502); (3) Soil & Water Conservation Engg. (SWE-502); (4) Watershed Hydrology (SWE-505); (5) Computer Applications in Agriculture (CAA-503) <u>Ph. D. Courses:</u> (1) Soil & Water Systems Simulation & Modelling (SWE-602); (2) Dams and Reservoir Operations (CE-502); (3) Computer Applications in Agriculture (CAA-503)					
4	Dr. Ghanashyam Singh Yurembam, Assistant Professor	CAEPHT	BEAS 1107: Engineering Drawing(UG) BEAS 1111: Engineering Drawing & Graphics(UG) SWCE 3102: Watershed Planning & Management (UG) FPE 1202: Fluid Mechanics (UG) BEAS 2201: Building Construction and Cost Estimation (UG)	B.Tech	M.Tech	Ph.D		
				4 students	2 Ongoing	N.A.	4.5 years	4.5 years
			CE-503: Water quality & Pollution Control (PG) SWE 503:Agricultural Drainage system (PG)					
			Plant growth modelling and simulation (SWE 606) (Ph.D.)					

Department of Irrigation and Drainage Engineering

S. No.	Name and Designation	Institution	Details of (UG/ PG/ Ph.D.) courses	No. of students guided			Duration	Total Experience
				B. Tech.	M. Tech.	Ph.D.		

1	Dr. B C Kusre Professor	CAEPHT Ranipool	PG Design of Surface Irrigation System Seminar Disaster Management UG Irrigation Engineering Micro Irrigation System Design (Elective) Engineering Mechanics Experiential Learning B. Tech. Project Water Management in Horticultural Crops	7	2	-	2015-2020	17
2	Dr. Ajay Kumar Vashisht, Associate Professor	CAEPHT Ranipool	PG Design of Pumps for Irrigation and Drainage (IDE506) Groundwater Engineering (IDE504) Agricultural Drainage Systems (IDE503) Water Quality and Pollution Control (IDE514) UG Groundwater, Wells and Pumps (IDE3201) Drainage Engineering (IDE3101) Agricultural Structures and Environmental Control (PFE3101) Fluid Mechanics (FPE1202) B. Tech. Project Experiential Learning	4	1	-	2015-2020	14
3	Dr. Ghanshyam T. Patle, Assistant Professor	CAEPHT, Ranipool	PG/ PHD Land Grading and Earth Moving Machinery (SWE 513)	8	-	-	2015-2020	13 years 08 months

			Watershed management and modelling (SWE 512) Dams and Reservoir Operations (CE 502) Agricultural Drainage Systems (SWE 513) Probabilistic Approach in Design (CE 601) Control of Pollution from Solid Wastes (CE 507) Water Quality and Pollution Control (IDE 514) Probabilistic Approach in Design (CE 501) Water Quality and Pollution Control (IDE 514) UG Engineering Mechanics (SWE 122) Agricultural Structures and Environmental Control (PFE 321) Soil Mechanics (SWE 211) Watershed Management & Planning (SWE 412) Surveying and Levelling (SWE 121) Drainage Engineering (SWE 321) Environmental Engineering (SWE 414) Sprinkler and Micro Irrigation Systems (IDE 2202) Minor Irrigation and Command Area Development (IDE 4202) Agricultural Structures and Environmental Control (PFE 3101)					

4	Dr. Shivam, Assistant Professor	CAEPHT, Ranipool	PG- Open Channel Flow (IDE501) Introductory Hydro-informatics (IDE511) UG-Drainage Engineering (IDE3201) Management of Canal Irrigation (IDE4201) Groundwater Wells and Pumps (IDE3101).	1	Nil	Nil	1 year 5 Months	1 year 5 Months

Department of Renewable Energy Engineering

Sl. No.	Name and designation	Institution	Details (UG/PG/Ph.D.) Courses	No. of Students Guided			Duration	Total experience
				B.Tech	M.Tech	Ph.D.		
1.	Prof. Mahendra S. Seveda Professor and Head-REE	College of Agricultural Engineering and Post Harvest Technology, Ranipool, Gangtok, Sikkim	1. Fundamentals of Renewable Energy Sources (REE-2201), 3(2+1) 2. Renewable Energy Technology (FPM-414), 3 (2+1) 3. Renewable Power Sources (REE-3101), 3(2+1) 4. Bio-energy Systems: Design and Applications (REE-3201), 3(2+1) 5. Agricultural Research, Research Ethics and Rural Development Programme (PGS-505), 1(1+0) 6. Photovoltaic Technology and Systems (REE-4201), 3(2+1) 7. Direct Energy Conversion Technologies (REE-515), 3(2+1)	08	09	02 Pursuing (guiding as Advisory Committee Member)	2015-16 to 2019-20	Total Teaching Experience is 16 years

			8. Master's Seminar (REE-591), 1(0+1) 9. Master's Research Project (REE-599), 20(0+20) 10. Solar Energy Utilization (REE-501), 3(2+1) 11. Bio energy Conversion and Processing of Wastes (REE-502), 3(2+1) 12. Agro Energy Audit and Management (REE-507), 3(2+1) 13. Wind Energy Utilization (REE-508), 3(3+0) 14. B. Tech. Research Project (AGE-4202), 10(0+10) 15. Design and Analysis of Renewable Energy Conversion Systems (REE-510), 3(3+0) 16. Renewable Energy Sources (FPM-222/FT-226), 3(2+1) 17. Thermodynamics and Heat Engine (FPM-122), 3(2+1) 18. Renewable Energy Technology (FPM-414), 3(2+1) 19. Workshop Technology (FPM-121), 3(2+1) 20. Case Study (FMPE-694), 2(0+2)					
2.	S M Kamaruzzaman Assistant Professor	College of Agricultural Engineering & Post Harvest	Engineering Physics BSH 111 Engineering Mathematics III BSH	8 Thesis (8 Students)	-- --	-- --	October 2006 to Till date	14 Years and 3 months

		Technology, Ranipool, Gangtok.	211 Electrical Circuit PFE 111 Principle of General Engineering FT 114(shared) Applied Electronics & Instrumentation PFE 122 Instrumentation & Process control FT317 Environmental Sc& Disaster Management BEAS 1202 (Shared) Materials and devices for energy applications REE509					
3.	Dr. Narale Pradip Digambar Assistant Professor	College of Agricultural Engineering, Birsa Agricultural University, Ranchi, Jharkhand.	UG Courses: Renewable Energy (AE-322), Environment Science and Disaster Management (BEAS 122). PG Courses: Design and analysis of renewable energy conversion systems (FMP-513).	--	--	--	4 December 2019 – 19 July 2019	7 months and 15 days.
		College of Agricultural Engineering and Post Harvest Technology, Ranipool, Gangtok, Sikkim	UG Courses: Renewable Power Sources (REE-3101), Bio-Energy Systems: Design and Applications (REE 3201), Waste and By-Products Utilization (REE 4202). PG Courses:	2	--	--	20 July 2019- Till date	1 Year and 7 months

			Agro-Energy Audit and Management (REE-507), Design and Analysis of Renewable Energy Conservation System (REE 510), Biogas Technology and Mechanism (REE 503), Energy Ecology & Environment (RES 513).					
4.	Dr. Kharpude Sudhir Narayan Assistant Professor	Dadasaheb Mokashi CAE&T, Rajmachi, Maharashtra (affiliated MPKV Rahuri)	REE-111 (Engineering Chemistry) REE 122 (Electrical Machines and Power Utilization) REE-243 (Fundamentals of Renewable Energy Sources) REE-354 (Renewable Power Sources) REE-365 (Bio-energy Systems: Design and applications) FS-355 (Agricultural Structures, Storage Engineering and Environmental Control) DEG-111 (Democracy, Elections and Good Governance)	5 Thesis (9 Students)	--	--	January 2017 – July 2019	2 Years and 6 months
		College of Agricultural Engineering and Post Harvest Technology, Ranipool, Gangtok, Sikkim	FPM 414, REE 4201, REE-4202, REE- 502, REE-504, REE-507, REE-2201, AGE-4102, AGE-4101	1	--	--	July 2019- Till date	1 Year and 7 months

Department of Basic Engineering and Applied Science

Sl. No.	Name and designation	Institution	Details of work done	Duration	Remarks
1.	Dr A. B. Sherpa, Assistant Professor (Sr. Scale) of Agronomy & Extension Officer	CAEPHT (Central Agricultural University, Imphal), Ranipool, Sikkim	All types of college extension education activities Including training (formal and informal), Participated in the Exhibition cum Mela, Agri-Fair of CAU every year, State & ICAR Agril. Fair/Mela. Conducted different farmers interaction and Kishan Ghosti at college and university level.	Since last 5years and continue	
2	Dr Dhananjoy Roy, Assistant Professor (Sr. Scale) of English	Nil	Nil	Nil	
3	Er.Nandita Sen Asst.Professor (Electrical Engg.)	Nil	Nil	Nil	
4	Phuritshabam Robert, Assistant Professor, (Computer Science & Engineering) Currently Pursuing PhD.	Nil	Nil	Nil	
5	Dr. Chakpram Birendrajit Assistant Professor (Soil Science)	College of Agricultural Engineering and Post Harvest Technology, Ranipool, Gangtok, Sikkim	1. Organized one day awareness programme on importance of soil health management on World Soil Day on 5th December from 2015-2020 2. Soil Health Card Distribution on World Soil Day on 5th December from 2015-2020 3. Delivered lecture entitled "Soil Testing and its importance in organic agriculture/ horticulture in NEH region" as a Resource Person at the Training Programme on "Integrated farming system for improved livelihood on Hills" during September 24-26th, 2014	From 2014 to 2020	

			4. Delivered lecture entitled "Nutrient Management in selected crops of Sikkim" as a Resource Person at the Training Programme on "Engineer Interventions for Sustainable Crop Production and Post Harvest Management for NEH Region" during March 10-14, 2015		
6	Dr. Abujam Anuradha Devi, Assistant Professor (ABM) and Co.PI	CAEPHT,CAU, Ranipool	• Attended and presented a research paper entitle "Trend analysis of organic produce and study of constraints in the marketing of organic produce in Sikkim" at Multidisciplinary International Conference on "A Perspective of Global Research Process: Present Scenario and Future Challenges" on 19th to 20th January, 2019 at Manipur University, Manipur, Imphal • Attended 15-Days Training program on "Organic Farming for SRLM Krishi Sakhis of Rural Management and Development Department, Govt. of Sikkim during July 22 to August 05, 2019 as a Resource Person to deliver talk on "Agribusiness Opportunities in Organics and Marketing strategies for Organic products" on 5th August, 2019 at ICAR-National Organic Farming Research Institute, Tadong, Gangtok. • ICAR Sponsored 21 days Summer School on "Agricultural Education, Entrepreneurship and Skill Development in India", from 27th August to 16th September, 2019 (21 days) organized by Directorate of Instruction, Central Agricultural University (CAU), Imphal, Manipur. • Attended and delivered lecture on "Secondary Agriculture: Scope for Income enhancement of Marginal Farmers" during Three (03) days CCS	2019-20	

			NIAM, Jaipur (Rajasthan) sponsored training programme on “Climate change risk mitigation for marginal farmers of Himalayan Regional in Sikkim” during 26th-28th, September, 2019. • Attended and Presented paper entitle “ Horti-Business Opportunities for livelihood security in Sikkim” in Regional Seminar of The Indian Society of Agricultural Economics (ISAE) on “Perspectives of Horti-Business Development in North East Region” during 24-25 February, 2020, organized by College of Horticulture & Forestry, CAU, Pasighat, co-organized by NABARD-Itanagar & in association with ICAR-ATARI, Guwahati and Rajiv Gandhi University, Itanagar. • Attended and Participated “State Credit Seminar for district wise Potential Linked Credit Plans (PLPs)” organized by NABARD, Sikkim Regional Office, Gangtok-737101 on 3rd March, 2020 at Summit Denzong, Conference Hall, Kazi Road, Gangtok. • Attended and delivered lecture as Resource Person during Three days online Skill development Training on “Value Chain Development” organized by CAEPHT, CAU (I), Ranipool, sponsored by IDP-NAHEP Project during 20th to 22nd July, 2020 • Attended and delivered lecture as Resource Person during Two days online Skill development Training on “Gender Analysis Skills for Agriculture and Allied Sectors” organized by CAEPHT, CAU (I), Ranipool, sponsored by IDP-NAHEP Project 7during 4th and 5th December, 2020 on the following topics:		

7	Er. Rajiv Pradhan, Assistant Professor (Electronics Engineering & Instrumentation)	Nil	Nil	Nil	Nil
8	Dr. Srikanta Kumar Meher Assistant Professor (Mathematics)	CAEPHT, CAU, Sikkim	Nil	Nil	Nil
9	Smt.T. Loidang Chanu,Assistant Professor ,Statistics	CAEPHT,CAU, Ranipool	Nil	Nil	Nil
10	**Dr. Sushma Gurumayum, Assistant Professor**	**CAEPHT**	Delivered lecture on "Mushroom cultivation" during three months Skill Development Programme on Low Cost Green House Technology in North East Hill Region, at CAEPHT, Ranipool	Sept 17-Dec 15, 2018.	**Resource person**
			One Day Workshop for sensitization on "Establishment of Agriclinics and Agri-business Centre" on 4th February, 2019 held at CAEPHT, Ranipool.	4th February, 2019	**Co-Coordinator**
			Hands on Training on Techniques in Microbial Analysis of Foods 18/03/19 - 20/03/19 organized by Department of Processing and Food Engineering, CAEPHT, Ranipool (Training organized under Biotech Hub)	18/03/19 - 20/03/19	**Resource Person**
			Hands on Training on Techniques in Microbial Analysis of Foods 23/03/18 - 26/03/18 organized by Department of Processing and Food Engineering, CAEPHT, Ranipool (Training organized under Biotech Hub)	23/03/18 - 26/03/18	**Resource Person**
			3 days training on "Intensive Dairy Farming and Energy Management" from 19th to 21st September 2019, sponsored	19th to 21st September 2019	**Resource Person**

			by CCS-NIAM Jaipur, Rajasthan for the farmers and unemployed youth.		
11	Dr. Ph. Baleshwor Sharma, Assistant Professor (Biochemistry)	CAEPHT, CAU, Ranipool	Nil	Nil	Nil

Department of Farm Machinery and Power Engineering

Sr. No.	Name and designation	institution	Details of work done	duration	Remark
1.	Dr. NS Chauhan Professor	CEAPHT (CAU), Ranipool, Sikkim	• Demonstration and training to farmers on gender-friendly hand tools improved tolls and equipment for mechanization of hill agriculture • Delivered more than 15 invited lectures in training programmes organized by different organizations in Sikkim	24/12/2014 to till date	
2.	Dr. S N Yadav Professor	CAU-CAEPHT Ranipool	1. Organization of short duration training programme on different aspects of hill farming mechanization – **12 courses** **2.** FLD on ergonomically designed and women friendly equipment **- 5 Nos.** 3. Three months vocational training on "Manufacturing Technology and Custom Hire Services of Agricultural Equipment for Self-Employment" **- 2 Nos** 4. North-East Agri fair. Organized by CAU, Imphal at Pasighat, Imphal, Tura and Sikkim **– 4 Nos.** • Technology and Machinery Demonstration mela **- 4**	-	-
3.	Dr. S.K. Satpathy, Asst. Professor	CEAPHT (CAU), Ranipool, Sikkim	• Demonstration and training to farmers on improved tolls and equipment for mechanization of hill agriculture • skill development training of unemployed youth in the job role of tractor operator	24/08/2007 to till date	

			skill development training of unemployed youth in manufacturing of farm tools and equipment			
4.	Shankar Swarup Das (Assistant Professor)	College of Agricultural Engineering and Post-Harvest Technology, Ranipool	Nil	Nil	Nil	
5.	Sujeet Kumar Chauhan (Assistant Professor)	College of Agricultural Engineering and Post-Harvest Technology, Ranipool	• THIRTY (30) number training/awareness/filed day on/off campus to farmers were conducted Eighty FLD of improved animal drawn implement were conducted on farmers field	2012-2021	1200 farmers familiarized with Improved Animal drawn implements and convinced for use their use and 1400 farmers familiarized with Improved Animal drawn implements during FLD programme	
6.	Ngangkham Devarani (Assistant Professor)	Nil	Nil	Nil	Nil	

Department of Processing and Food Engineering

Sl. No.	Name and designation	Institution	Details of work done	Duration	Remarks
1.	Dr. R.P. Misra, Professor	IARI, CARI, CIRG, ICAR HQ and CAEPHT	i) Farmers and entrepreneurs training programme ii) Survey works, Kisan Mela and Workshop iii) Coordinated, world bank/GEF funded three sustainability projects at NAIP	1976-2020 (44 years)	
2.	Dr. Sujata Jena Associate Professor	CAEPHT, Ranipool	• Acted as resource person in a DST funded training program on "Technology based Entrepreneurship development programme" organized during 12.02.09-	2007-tilldate	•

			20.02.09 by Sikkim Consultancy Centre, Gangtok at Ranipool,Sikkim. • Acted as resource person on "Nutritional Significance of Fruits, Food Spoilage and need for Fruit preservation, Different Methods of Fruit Preservation and their Principles" in a training programme organized during 15.04.08 – 19.04.08 by IGNOU at SIRD, Jorethang, Sikkim. • Member of various committees for organizing Agricultural fair (01- 03.12.08) and Farmers' day (25-26.05.08). • Served as resource person in a model training on "Advances in post harvest technology for spices and medicinal plants" organized during 15.02.10 – 22.02.10 by CAEPHT (CAU), Ranipool, Gangtok and funded by Directorate of Extension, Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India. • Acted as resource person in a Farmers' training programme on "Storage grain pest and management", 25.03.10 at ICAR, NEH region, Tadong, Gangtok • Organization of farmers and delegates in CAU NE Agri Fair -2014 in the capacity of Chairman, Registration committee • Organized Training cum Demonstration on "Essential Oil Extraction from Aromatic Plants using Field Distillation Unit" on 26.07.14 • Acted as resource person and delivered lecture on "On-farm post harvest management techniques of selected fruits and vegetables of NEH region" during training on 14th March, 2015. • Conducted six days training on "Processing and value addition of horticultural crops of NEH region" during 14-03-2016 to 19-03-2016 sponsored by Sub Mission on Agricultural Mechanization (SMAM), Department of Food Security and Agriculture Development, Government of Sikkim, Gangtok. • Conducted a two days training cum demonstration		

			program on “Processing equipment and value added horticultural & bakery products” as course director at CAEPHT during 24.03.17-25.03.17. • Acted as resource person and delivered a lecture on “Process technology for value addition of horticultural crops” on 06.09.16 at CAEPHT in a training program funded by Directorate of Agriculture and Food Production, Govt. of Odisha • Conducted one day demonstration program on “Machineries for processing of horticultural and bakery products” under 'Jai Kisan Jai Vigyan' Week on 24.12.16. • Conducted a three days training cum demonstration program on “Bakery and processing machineries for horticultural and spice crops” as course coordinator at CAEPHT during 12.03.18-14.03.18 funded by Department of Food Security and Agriculture Development, Government of Sikkim, Gangtok • Conducted a five days Skill development training on “Processing and value addition of horticultural crops” as course coordinator at CAEPHT during 19.03.18-23.03.18 funded by SSB, Geyzing • Acted as resource person and delivered a lecture on “Post harvest management of horticultural crops in organic production system” on 30.05.17 at NOFRI, Tadong in a training program conducted by ICAR-National Organic Farming Research Institute, Tadong, Gangtok. • Conducted a five days training cum demonstration program on “Horticultural produce processing machines and bakery products” as course coordinator at CAEPHT during 21.05.18-25.05.18 funded by Department of Food Security and Agriculture Development, Government of Sikkim, Gangtok • Conducted a 90 days Skill development training on “Post harvest Processing of Horticultural Crops” as course director at CAEPHT during 26.11.18-23.02.19 funded by Power Finance Corporation Ltd., New Delhi. • Acted as resource person and delivered a lecture on “Post		

			harvest management of horticultural crops in organic production system" on 26.07.18 at NOFRI, Tadong. • Acted as resource person and delivered a lecture on "Technology for value added products from fruits and vegetables" on 30.08.18 in a training program conducted by SAMETI, FS&ADD, Govt. of Sikkim, Tadong. • Acted as resource person and delivered a lecture on "Post harvest management of horticultural crops" on 03.05.19 at NOFRI, Tadong in a training program for newly recruited development officers conducted by ICAR-National Organic Farming Research Institute, Tadong, Gangtok. • Facilitated Technology and Machinery Demonstration Mela as a Member, Organizing committee • Interacted with Farmers/villagers of Martham, Sikkim under Mera Gaon Mera Gaurav program to make them aware of various schemes of Govt of India for their upliftment and increase in income. • Acted as resource person during training on "Post harvest management of horticultural crops in organic production system" on 03.08.19, ICAR-NOFRI, Tadong, Gangtok.		
3.	Dr B.K singh		• As resource person in various training programme on followings: • Design and construction of fish farm and hatchery • Fish feed formulation and manufacturing • Fish processing and product development • Advances in food processing • Water quality management in fish farm and hatchery • Application of plastic in aquaculture and fisheries	10 years	•
4.	Dr. Said Prashant Pandharinath Assistant Professor (Food Technology)	CAU, Imphal	• Demonstration of Horticultural Produce processing machines and bakery products at Farmers' Produce Processing-cum-Skill Development Center • Skill Development Training on Processing and Value Addition of Horticultural crops (Course Coordinator) • 90 days skill development training programme on "Post	2016-till date	

			harvest Processing of Horticultural Crops” • Skill Development Training on Processing and Value Addition of Horticultural crops funded under Civic Action Programme, 36th Bn. SSB, Geyzing • Successfully co-ordinated, Farmers visits (on and off campus) • Training and Demonstrations of Horticultural produce processing machines and bakery products for Women of SSB officials • Delivered following lectures at different summer/winter training/ skill development and EDP programs/TED talks, etc • Food laws • Introduction to primary milk processing equipment • Post Harvest Management and value addition of horticultural produce with reference to Sikkim • Integrated approach of processing for climate change mitigation • Harvesting, Packing, storage and grading of mushroom • Hazards, risk and quality parameters associated with composting • Selection of important types of mushroom based on market demand, climate conditions of the farm, growing season and investment • Demonstration of Horticultural produce processing machines • Recent approaches in Pre and post harvest management of horticultural crops for enhanced farm income • Post Harvest Management and Value Addition • Post harvest Management of Horticultural crops in organic production system • Innovations in food processing technologies for better marketability • Post Harvest Management of turmeric and ginger		

5.	Dr. R K Raigar Assistant Professor (Dairy Engioneering)	CAEPHT Ranipool	• Organized 3 days training on "Intensive Dairy Farming and Energy Management" as Course Director during 19-21.09.19 sponsored by CCS- National Institute of Agricultural marketing (NIAM) Jaipur, Rajasthan • Organized 03 days training on "Design and construction of fish farm and hatchery" during 05.03.20-07.03.20 funded by CAU, Imphal	2017-till date	

Department of Soil and water conservation Engineering

Sl. No.	Name and Designation	Institution	Details of work done	Duration	Remarks
1	Dr. Deepak Jhajharia, Professor	CAEPHT	6) Adaptation of energy-efficient agricultural technologies for climate change mitigation" under the theme area of Climate Change Adaptation and Mitigation Strategies 7) Low-cost greenhouse technology in NEH region 8) 9th Congress of Society of Extension Education (Agra) and National Conference 9) Sensitization of establishment of Agri-clinics and Agri-business centre scheme 10) Convener of a session of National Workshop of Soil Conservation Society of India(New Delhi) 11) Construction and use of low-cost bamboo-based polyhouse for high-value vegetables cultivation in farmers field 12) Installation of Gravity-fed Irrigation system in the Green house of a local progressive farmer 13) Construction of solar tunnel dryers in two SC progressive farmers	June, 04-24, 2018 17 Sept., to 15 Dec, 2018 15-17 Nov, 2018 4 February, 2019 2017 2018-20	Course Director of 21 days ICAR summer school Course Director of 90 days PFC (New Delhi) Skill Development Training program Joint Secretary of local organizing committee Resource Person in

			fields **14) Video** A video on progressive farmer Mr. Mitra Lal Sharma of Soureni village, Assam Lingzey was also released during 14th Annual Workshop of AICRP on PET 15) Off-campus awareness camp on Plasticulture Engineering Technology was organized by AICRP on PET through the SCSP Funds at Upper Bhasmey, Padamchey, East Pandam and Soureni, Assam Lingzey. 16) Off-campus training program on "Applications of the plasticulture engineering technologies for vegetable cultivations in greenhouse" by AICRP-PET at Soureni village, Assam Lingzey (East Sikkim).	-do- 2019-20202	workshop MANAGE, Hyderabad Organized jointly by SCSI, New Delhi and CPGS Barapani ICAR-CIPHET, Ludhiana -do- SCSP scheme of ICAR-CIPHET, Ludhiana, Punjab
2	Dr. Jagabandhu Panda, Associate Professor	CAEPHT	Natural Conservation & Management Planning using Open Source Software	27th Nov- 1st December, 2018	As Course Coordinator
3	Dr. Santosh Rangrao Yadav	CAEPHT	(1) Training programme on 'Cultivation of vegetables and flowers under protected condition & demonstration of different polyhouse structures for hill agriculture' (2) Conducted a training programme for 30 farmers from Sikkim on 'Improved System of Vanaraja Poultry Farming under Backyard Condition' (3) Training programme on 'GIS and Remote Sensing Application in Watershed Management and Developmental Planning'	January 19-21, 2015 January 06-08, 2016 February 28 to March 4, 2017 December 11-	As an instructor As Course Director As an

			(4) Training programme on 'Estimation of water availability and rainfall analysis' in training programme on 'Planning for enhancing water use efficiency with emphasis on efficient utilization of agricultural water' (5) Regional Workshop on 'Environmental Science and Management Development' (6) Training programme on 'Natural Resource Conservation and Management Planning using Open Source Software'	15, 2017 March 27-28, 2018 November 27 to December 01, 2018	instructor As an instructor As an instructor As an instructor
4	Dr. Ghanashyam Singh Yurembam, Assistant Professor	CAEPHT	1) "Natural Conservation & Management Planning using Open Source Software"	27th Nov- 1st December, 2018	Course Co-Cordinator
			2) Sensitization Programme on Agri-Clinics and Agri-Business Centres (AC & ABC) Scheme	4th Feb, 2019	Course Co-Cordinator
			3) "Natural Conservation & Management Planning using Open Source Software"	27th Nov- 1st December, 2018	As Instructor
			4) Sensitization Programme on Agri-Clinics and Agri-Business Centres (AC & ABC) Scheme	4th Feb, 2019	As Instructor
			5) "Climate Change Risk Mitigation for Marginal Farmers of Himalayan Region in Sikkim"	26-28, Sep, 2019	Resource Person
			6) Installation of Gravity-fed Irrigation system in the Green house of a local progressive farmer	3-6 feb, 2020	Hands on Training at Assam Lingzey, Sohreni

					Village, East Sikkim,

S. No.	Name and Designation	Institution	Details of work done	Duration	Remarks
1	Dr. B C Kusre Professor	CAEPHT Ranipool	Delivered Lecture on District Level Program on Jal Shakti Abhiyan at KVK Namthang	October 02, 2019	Organized by KVK Namthang
			Participated in KrishiMela organized by KVK, Namthang	September 03, 2019	Organized by KVK Namthang
			Organized 3 days training program on Planning for enhancing water use efficiency with emphasis on efficient utilization of Agricultural water	March 22-24, 2019	Sponsored by ATARI through CAU, Imphal
			Delivered lecture in training program on "Natural Resources Conservation and Management planning using open source software	November 29, 2018	CAEPHT
			Delivered lecture of "Water Management Strategies under organic farming" in training program on Advance Organic Technologies and its promotion through innovative extension approach at Kalimpong.	October 26, 2018	ICAR-Kalimpong
			Organized a two days regional workshop on Environmental Science and Management Development"	March 29-30, 2018	in collaboration with NERIWALM, Tezpur
			Delivered lecture on Significance of World Soil Day	December 05, 2017	World Soil Day
			Delivered lecture on Opportunities in Agricultural Sector	December 03, 2017	Agricultural Education Day
			Conducted workshop on water resources management and scope for future	May 03,	Sponsored by

			research and development in Sikkim	2017	NRDMS Division of DST
			Conducted Training program on Remote Sensing and GIS Application for Watershed Management and Development planning for the officers of State Government	February 28 to March 04, 2017	CAU
			Organized an interaction session of Students with Sri V K Agarwala on student career counselling	August 20, 2016	CAEPHT
			Organized one day workshop on "Problems, prospects and developing strategy for Water Resources Management in South Sikkim	June 16, 2016	Sponsored by NRDMS Division of DST
			Delivered lecture in one day seminar on Agro Textiles: Holistic alternative to enhance yield and profitability of horticulture and agriculture.	February 10, 2016	Organized by Ministry of Textiles, Government of Sikkim
			Delivered lecture on Roof top rain water harvesting and runoff estimation for design of water harvesting structure	September 17, 2015	Training sponsored by Government of Orissa
2	Dr. Ajay Kumar Vashisht, Associate Professor	CAEPHT Imphal	**Trainings organized** Organized one-week training program on "Water Management Through Sprinkler and Drip Irrigation & Water Savingdevices" under the Sub-Mission on Agricultural Mechanization (SMAM).	April 11-16, 2016	Sponsored by Govt. of Sikkim
			Organized one-day training on the topic "Water Management Strategies for Sikkim".	March 30, 2017	Sponsored by CAU Imphal
			Invited Lectures **Topic**: Groundwater management through skimming wells. Five-days capacity building program on "Sustainable Agriculture for Food Security & enhancing income to the farming community" for officers of agriculture department of Odisha	April 4-8, 2016	Sponsored by Govt. of Odisha

			Topic: Agro textiles: Productivity enhancement by protection of crops using crop covers. One-day seminar on "Holistic alternative to enhance yield and profitability of Horticulture and Agriculture".	February 10, 2016	Organized by Ministry of Textiles, Government of Sikkim
			Topic: Springs as a source of water and their rejuvenation. A 10-days training program on "Diversification of Hill Agriculture: An Approach for Climate Change Adaptation and Mitigation".	February 23, 2016	Organized by ICAR under the aegis of NICRA
			Topic: Soil moisture conservation strategies for improving waterproductivity. A 10-days training program on "Diversification of Hill Agriculture: An Approach for Climate Change Adaptation and Mitigation".	February 24, 2016	Organized by ICAR under the aegis of NICRA
			Topic: Soil moisture conservation strategies for improving water productivity. A 10-days training program on "Agro-Ecological Approaches for Sustainable Mountain Farming under Changing Climatic Scenario".	March 19, 2015	Organized by ICAR under the aegis of NICRA
3	Dr. Ghanshyam T. Patle, Assistant Professor	CAEPHT Imphal	1. Course coordinator of Capacity Building Programme on Sustainable Agricultural Production and Processing: Equipment and Technologies during September 14-18, 2015 sponsored by Agricultural and Food Department, Govt. of Odisha 2. Course coordinator of Dairy farming an option for improving livelihood of small and marginal farmers of Sikkim during September 8-10, 2015 3. Delivered a lecture on Efficient Water Management Technique for sustainable Hill Agriculture during the training programme on Sustainable Agricultural Production and Processing: Equipment and Technologies organized by CAEPHT, (CAU), Sikkim and Sponsored by the Directorate of Agriculture & Food Production, Govt. Of Odisha, Bhubaneswar duringSeptember 14-18, 2015 4. Lecture delivered on More crops per drop of Water in hill agriculture during one-day Seminar on Agro textiles: Holistic alternative to enhance yield and profitability of Horticulture and Agriculture organised by Ministry of Textiles & Government of Sikkim & COE- Agrotech, SASMIRA in	2015-2016	

			association CAEPHT on 10th February, 2016 5. Tour leader for Regional Agri Fair, 2016 held at C. V. Sc. & A. H., Aizawl, Mizoram organized by the CAU, Imphal during February, 03-05, 2016 for exhibiting the stall of CAEPHT (CAU), Ranipool, Sikkim 6. Tour leader for KrishiUnnatiMela, 2016 held at IARI campus, New Delhi organized by the Ministry of Agriculture and farmers' Welfare, GOI during March, 19-21, 2016 for exhibiting the stall of CAEPHT (CAU), Ranipool 7. Lead Speakerduring KisanGosthi: Farmers-Scientists Interaction session CAU Regional Agri-Fair, 2016 8. Rapporteur for farmers scientists Interaction forum on 04/02/2016 during CAU Regional Agri – Fair, 2016.		
			1. Course Coordinator of five days' capacity building training on sustainable agriculture for food Security and enhancing income to the farming community sponsored by Directorate of Agriculture and Food Production, Govt. of Odisha during April 4-8, 2016 2. Course Coordinator of five days' capacity building training on Conservation Agricultural practices and Post-harvest management for value addition sponsored by Directorate of Agriculture and Food Production, Govt. of Odisha during June 6-10, 2016 3. Course Coordinator of Awareness on Skill Development programs in Agricultural Engineering and Technology stream on July 31, 2016 4. Course Coordinator of five days' capacity building training on Integrated farming system for sustainable agriculture sponsored by Directorate of Agriculture and Food Production, Govt. of Odisha during September 5-9 2016 5. Course Coordinator of one week MTC on Adoption for secondary agriculture for employment generation Sponsored by the Ministry of Agriculture and Farmer's Welfare, GOI, New Delhi October 17-24, 2016 6. Course coordinator of training program on water management strategies for Sikkim held at CAEPHT on March 30 2017 **7. Lectures delivered:** - Resource person for five days' capacity building training on sustainable agriculture for food Security and enhancing income to the farming	2016-2017	

			community sponsored by Directorate of Agriculture and Food Production, Govt. of Odisha during April 4-8, 2016 - Resource person for five days' capacity building training on Conservation Agricultural practices and Post-harvest management for value addition sponsored by Directorate of Agriculture and Food Production, Govt. of Odisha during June 6-10, 2016 - Resource person for one-day awareness on Skill Development programs in Agricultural Engineering and Technology stream on July 31, 2016 - Resource person for five days' capacity building training on Integrated farming system for sustainable agriculture sponsored by Directorate of Agriculture and Food Production, Govt. of Odisha during September 5-9 2016 - Resource person for one week MTC on Adoption for secondary agriculture for employment generation Sponsored by the Ministry of Agriculture and Farmer's Welfare, GOI, New Delhi October 17-24, 2016 - Resource person for training program on water management strategies for Sikkim held at CAEPHT on March 30 2017. - Resource person for training organized by AICRP on Plasticulture Engineering and Technologies (PET), CAEPHT during March 23-24, 2017 - Resource person for ICAR Sponsored training under PanditDeenDayalUpadhyayUnnatiKrishiShikshaYojana on Organic Farming/ Natural Farming and Cow based economy held during 24-28 March, 2017. - Resource person for One day off campus training program on "Use of plastics on protected organic cultivation in Sikkim" Organized by AICRP on PET, CAEPHT on 06/01/2017. - Resource person for Training on Simulation Models in Irrigation, Drainage and Water Resources Management organized by College of Agricultural Engineering, Bapatla, Andhra Pradesh during 2-4 March, 2017		
			1. Course coordinator of training program on Livestock based Integrated Farming System during June 20-22, 2017 2. Course coordinator of training program on Integrated Farming System for Sustainable Hill Agriculture during September 18-20,2017 3. Course coordinator of training program on Planning for enhancing water	2017-2018	

			use efficiency with emphasis on efficient utilization of agricultural water during December 11-15, 2017 sponsored by Directorate of Extension Education, Imphal 4. Resource person for ICAR Sponsored Training under Pt. DeenDayalUpadhyayUnnatKrishiSikshaYojana, Organized by ICAR-NRC for Orchids, Pakyong, Sikkim during 13/03/2018 to 17/03/ 5. Resource person for Training program on Integrated farming system for sustainable hill agriculture during September 18-20, 2017. 6. Resource person for Training Program on Sustainable water management for boosting productivity in hilly region organized by Organized by ATMA, East Sikkim department of FS&ADD, Sikkim during 22.08.2017 & 28.08.2017		
			1. Convener of Local Organizing Committee of the 9th National Extension Education Congress-2018 on Climate Smart Agricultural Technologies: Innovations and Interventions held at CAPHET, Ranipool during November 15-17, 2018. 2. Organised one-day Agricultural Workshop as Organizing Secretary on Utilization of Fuel Efficient Water Pump and Solar PV Water Pump for Conservation of Petroleum Products sponsored by PCRA, Ministry of Petroleum and Natural Gas, Govt. of India held at CAEPHT Ranipool on 27.03.2019. 3. Course Coordinator: of 21 days Summer School on "Energy Efficient Agricultural technologies for climate change mitigation" sponsored by the ICAR and organized at CAEPHT, Ranipool, Gangtok, Sikkim during June 4-24, 2018 4. Co-course coordinator for training programme on "Planning for improving water use efficiency for enhanced crop production" Sponsored by ICAR-ATARI, ZONE-VII, Umiam and organised at CAEPHT, Ranipool, Sikkim during March 22-24, 2019 5. Four lectures delivered during ICAR sponsored 21 days Summer School on Energy Efficient Agricultural technologies for climate change mitigation organized at CAEPHT, Ranipool, Gangtok, Sikkim. During June 04-24, 2018	2018-2019	

			6. Three lectures delivered during Ninety days PFC sponsored Skill Development Training Programme on "Low-cost Greenhouse Technology in NEH Region" during September 17, 2018 to December 15, 2018 sponsored by Power Finance Corporation Limited, New Delhi 7. Resource person for Training program on Planning for improving water use efficiency for enhanced crop production during 22-24th March, 2019 sponsored by Sponsored by: ICAR-ATARI, ZONE-VII, Umiam; Meghalaya 8. Resource person for 25 days Skill Development Training on "Solar Pump Technician during February 14, 2019 to March 10, 2019 sponsored by Agriculture Skill Council of India (ASCI), New Delhi 9. Resource person for the One day Agricultural Workshop on Utilization of fuel efficient water pump and solar PV water pump for conservation of petroleum products		
			1. Organised one-day Agricultural Workshop as **Organizing Secretary** on "Utilization of Fuel Efficient Water Pump and Solar PV Water Pump for Conservation of Petroleum Products" sponsored by PCRA, Ministry of Petroleum and Natural Gas, Govt. of India held at CAEPHT Ranipool on February 22, 2020. 2. Course Coordinator of Three Days Training Programme on "Intensive Dairy Farming and Energy Management" sponsored by CCS-NIAM, Jaipur, Rajasthan and held at CAEPHT, Sikkim during September 19-21, 2019 3. Course Coordinator of Three Days Training Programme on "Climate Change Risk Mitigation for Marginal Farmers of Himalayan Region in Sikkim" sponsored by CCS-NIAM, Jaipur, Rajasthan and held at CAEPHT, Sikkim during September 26- 28, 2019 4. Course Coordinator of Awareness cum training programme on "Rainwater harvesting and use of micro irrigation" at Parkha Block of East district of Sikkim on 16.03.2020 5. Course Coordinator of one-day Training and Demonstration of Gravity fed drip irrigation system for hilly terrain at Nimthang, East district of Sikkim on 13.10.2019	2019-2020	

			6. Resource person for the three days Training Programme on Intensive Dairy Farming and Energy Management held at CAEPHT, Sikkim during September 19-21, 201 sponsored by CCS-NIAM, Jaipur. 7. Resource person for Three Days Training Programme on Climate Change Risk Mitigation for Marginal Farmers of Himalayan Region in Sikkim held at CAEPHT, Sikkim during September 26-28, 2019 sponsored by CCS-NIAM, Jaipur. 8. Resource person forOne Day Agricultural Workshop on Utilization of fuel efficient water pump and solar PV water pump for conservation of petroleum products sponsored by PCRA, Ministry of Petroleum and Natural Gas, Govt. of India on 22.02.2020 9. Resource person for National Workshop on Benchmarking of Irrigation Schemes organized by Water Resources Department, Nagaland at Kohima, Nagaland on 18.10.2019 10. Resource person for One day Seminar on low cost technologies for water conservation and solid liquid waste management organized by the MSME, Gangtok Centre at KVK, Namthang, South Sikkim on 30.08.201		
4	Dr Shivam Assistant Professor	CAEPHT, Ranipool	Presentation on snowmelt runoff modeling, NRSC, ISRO	April 2018	
			Delivered expert lecture at KVK South Sikkim, Namthang	September 15 2019	
			Delivered expert lecture on climate risk mitigation for marginal farmers of Himalayan region of Sikkim	September 26-28 2019	
			Delivered 2 expert lectures on application of mulch in vegetable cultivation	February 3-6 2020	

Department of Renewable Energy Engineering

Sl. No.	Name and designation	Institution	Details of work done	Duration	Remarks
			Conducted Training for State Govt. Official and FarmersOfficial and Farmers as Course Director/Coordinator (During Last 05 Years)		
1	Prof. Mahendra S.	College of	Double Pot Improved Biomass Cook Stoves Construction	July 29-31, 2015	**Total Number of**

	Seveda Professor and Head-REE	Agricultural Engineering and Post Harvest Technology, Ranipool, Gangtok, Sikkim	in rural areas of Sikkim	(03 Days)	**Farmers/Govt. Official/Faculty Members/Unemployed Youth:** 406
			Sustainable Agricultural Production and Processing: Equipment and Technologies	September 14-18, 2015 (05 Days)	
			Utilization of Non-conventional Energy Sources in Agriculture	January 11-16, 2016 (One Week)	
			Sustainable Agriculture For Food Security & Enhancing Income to the Farming Community	April 4-8, 2016 (5 days)	
			Conservation Agricultural Practices and Post Harvest Management for Value Addition	June 06-10, 2016 (5 days)	
			Awareness on Skill Development Programmes in Agril. Engineering & Technology Stream	July 31, 2016 (1 Day)	
			Integrated Farming System for Sustainable Agriculture	September 05-09, 2016 (5 days)	
			Model Training Course on Adoption of Secondary Agriculture for Employment Generation	October 17-24, 2016 (8 days)	
			Awareness Programme on Skill Development on Greenhouse Technology including Solar Technology and Micro Irrigation Systems	Two days (July 28-29, 2018)	
			Skill Development Training On Job Role of Solar Pump Technician	25 Days (February 14, 2019 to March 10, 2019)	
			Intensive Dairy Farming and Energy Management.	3 days (September 19-21, 2019)	
			Climate Change Risk Mitigation for Marginal Farmers of Himalayan Region in Sikkim.	3 days (September 26-28, 2019)	
			Organized International/National:		On the Occasion of

			Workshop/Seminar/Conference/Congress/Winter School: 07 (Last 05 Years)		Silver Jubilee Year-2018 of Central Agricultural University, Imphal, Manipur, 21 days ICAR sponsored Summer School on "Adoption of energy efficient agricultural technologies for climate change mitigation" was Successfully Completed as Course Coordinator at College of Agricultural Engineering and Post Harvest Technology, Ranipool, Gangtok, Sikkim during June 04-24, 2018 &9th National Extension Education Congress-2018 on Climate Smart Agricultural Technologies: Innovations and Interventions was Successfully Organized as Organizing Secretaryat College of Agricultural Engineering and Post Harvest Technology, Ranipool, Gangtok,
			Workshop on Utilization of Energy Efficient Improved Biomass Cook Stoves	October 29, 2015	
			International Conference on Emerging Trends in Science, Technology, Agriculture & Management-2016	April 21-23, 2016	
			National Workshop on Soft Computing Modeling-Food Processing, Pharmaceutical Science & Export Management	April 21-23, 2016	
			Twenty-one days ICAR sponsored Summer School on "Adoption of energy efficient agricultural technologies for climate change mitigation	21 days (June 04-24, 2018)	
			9th National Extension Education Congress-2018 on Climate Smart Agricultural Technologies: Innovations and Interventions	November 15-17, 2018	
			Workshop on Utilization of Fuel Efficient Water Pump & Solar PV Water Pump for Conservation of Petroleum Products	March 27, 2019	
			Workshop on Utilization of Fuel Efficient Water Pump & Solar PV Water Pump for Conservation of Petroleum Products	February 22, 2020	

					Sikkim during November 15-17, 2018.
2.	S M Kamaruzzaman Assistant Professor	College of Agricultural Engineering and Post Harvest Technology, Ranipool, Gangtok, Sikkim	1. Acted as Resource person for farmers training programmes. 2. Developed 3 solar dryer under PET AICRP 3. Designed & Developed a Solar Tunnel Dryer which was funded by Natures Gift RangpoSikkim . total cost was 2.50 lakhs	July 2006- Till date	Dissemination of Renewable Energy Technologies through lectures and training programmes
3.	Dr. Narale Pradip Digambar Assistant Professor	College of Agricultural Engineering and Post Harvest Technology, Ranipool, Gangtok, Sikkim	1. Resource person for "Intensive Dairy Farming and Energy Management" program and delivered lecture on *"Biogas Production from Animal Waste",* Organised by NIAM, Jaipur Rajasthan during September 19-21, 2019. 2. Resource person for "Climate change mitigation in agriculture for NEH region of Sikkim" program and delivered lecture on *"Role of Biogas Technology for Climate Change Mitigation"* Organised by NIAM, Jaipur Rajasthan during September 26-28, 2019 3. Resource person for "Scope of plasticulture engineering technologies in agriculture and allied activities" and delivered lecture on *"Study of different components of the FRP based biogas plant in NEH region"* organised by AICRP on PET, CAEPHT, CAU, Ranipool, Gangtok Sikkim during 3-6 March 2020. 4. Organized One day Training Workshop on Utilization of Fuel Efficient Water Pump and Solar PV Water Pump for Conservation of Petroleum Products	July 2019- Till date	Popularization of Renewable Energy Technologies through lectures and training programmes

			as Organising Secretary on February 22,2020.		
4.	Dr. Kharpude Sudhir Narayan Assistant Professor	College of Agricultural Engineering and Post Harvest Technology, Ranipool, Gangtok, Sikkim	1. Resource person for "Intensive Dairy Farming and Energy Management" program and delivered lecture on *Energy Conservation and management in Dairy farming*, Organised by NIAM, Jaipur Rajasthan during September 19-21, 2019. 2. Resource person for "Climate change mitigation in agriculture for NEH region of Sikkim" program and delivered lecture on *Climate change mitigation in agriculture by processing of Biomass (agricultural residues and by-product)* Organised by NIAM, Jaipur Rajasthan during September 26-28, 2019 3. Resource person for "Scope of plasticulture engineering technologies in agriculture and allied activities" and delivered lecture on *Application of solar tunnel dryer for value addition of spices* organised by AICRP on PET, CAEPHT, CAU, Ranipool, Gangtok Sikkim during 3-6 March 2020. 4. Organized One day Training Workshop on Utilization of Fuel Efficient Water Pump and Solar PV Water Pump for Conservation of Petroleum Products as Organising Secretary on February 22,2020.	July 2019- Till date	Popularization of Renewable Energy Technologies through lectures and training programmes

Department of Basic Engineering and Applied Science

Sl. No.	Name and designation	Institution	Details of work done	Duration	Remarks
1.	Dr A. B. Sherpa, Assistant Professor (Sr. Scale) of Agronomy	CAEPHT (Central Agricultural University, Imphal), Ranipool, Sikkim	AICRP on APA Scheme 1. Equipment and technology to mechanize conservation agriculture to protect the crop from stress on terraces under rainfed hill farming condition in Sikkim of NEH Region. As Co-PI 2. Feasibility study of round the year production of broccoli, brinjal and mushroom in low cost bamboo poly house structure. As PI of Sub- project 3. Feasibility study of round the year production of flower(Gerbera and Gladiolus) in low cost bamboo poly house structure. As Co-PI	03 yrs.(2010-2013)	Completed
			ICAR project entitle Development of equipment and technology to mechanize conservation agriculture (CA) on terraces under rain fed hill farming condition of NEH Region. As Co-PI	02 yrs.(2016 & 2017)	Completed
			IRP project entitle Genotypic variation in growth and yield parameters and nutrient uptake of rice genotype under aerobic and wetland rice cultivation in Sikkim. As Co-PI	03 yrs.(Since 2018)	Continue
2	Dr Dhananjoy Roy, Assistant Professor (Sr. Scale) of English	Nil	Nil	Nil	Nil
3	Er.Nandita Sen Asst.Professor (Electrical Engg.)	Nil	Nil	Nil	Nil
4	Phuritshabam Robert, Assistant Professor,	Nil	Nil	Nil	Nil

	(Computer Science &Engineering) Currently Pursuing PhD.				
5	Dr. Chakpram Birendrajit Assistant Professor (Soil Science)	College of Agricultural Engineering and Post Harvest Technology, (C.A.U.) Ranipool, Gangtok, Sikkim	Soil sampling, survey and analysis of physical and chemical properties of soil	College of Agricultural Engineering and Post Harvest Technology, (C.A.U.) Ranipool, Gangtok, Sikkim	Soil sampling, survey and analysis of physical and chemical properties of soil
6	Dr. Abujam Anuradha Devi, Assistant Professor (ABM) and Co.PI	ICAR (4.21 lakhs)	ICAR project entitled “Critical Analysis of Examination System in Agricultural Education in India” as Co. PI	One year (2017-18) completed on March, 2018	Completed
		ICAR-NIAP (49.00 lakhs)	ICAR-NIAP-CAU Collaborative Project “Policy Imperatives for Promoting Value Chains of Agricultural Commodities in India” as Co. PI	Three (03) years (2018-2020)	Ongoing extended till March, 2021
		National Mission On Himalayan Studies (NMHS) G.B. Pant National Institute of Himalayan Environment and Sustainable Development (GBPNIHESD), Uttarakhan (33 lakhs)	NMHS-SG project entitled "Livelihood Option for Small Land Holding Rural Farmers of Sikkim -Integrated Pyramidal Farming Model" as PI	Three (03) years Initiation of the project w.e.f. 10.01.2019	Ongoing
7	Er. Rajiv Pradhan, Assistant Professor (Electronics Engineering & Instrumentation)	Nil	Nil	Nil	Nil

8	Dr. Srikanta Kumar Meher Assistant Professor (Mathematics)	CAEPHT, CAU, Sikkim	Research Advisory Committee Member: Mr. Solanke Krishna Rustam Rao (PhD FMPE) Mrs. Patil Swati (PhD. PFE) Mr. Mayanglambam Ukil Singh (PhD. FMPE) Ms. Jyoti Lehre (PhD. FMPE) Mr. Asif Beg (PhD. FMPE) MS. Prachi Yadav (MTech. SWCE) Mr. Sandeep Kumar (MTech. SWCE) Research Paper Published: Analytical Treatment and Convergence of Adomian Decomposition Method for FIngero-Imbibition Phenomena Arising during Oil Recovery Process; Mathematical Science Letters; Vol.5, No. 3, 303-308. Lie Theoretic Approach to Instability Phenomenon Arising in Double Phase Flow through Porous Medium with Capillary Pressure. Communicated Book Publication: Group Analysis Method for Solving Non-linear Differential Equation, Lambart Academic Publishing .ISBN: 3659971472 Thousand Formulas Book for Mathematic and Statistics Part-I, Communicated for Publication.	2016-2020 2017-2020 2018-2020 2019-2020 2019-2020 2016-2018 2017-2019 2016-2020 2016-2020	
9	Smt.T. Loidang Chanu,Assistant Professor ,Statistics	Nil	Nil	Nil	Nil
10	Dr. Sushma Gurumayum, Assistant Professor	Nil	Nil	Nil	Nil
11	Dr. Ph. Baleshwor Sharma, Assistant Professor (Biochemistry)	Nil	Nil	Nil	Nil

Department of Farm Machinery and Power Engineering

Sr. No.	Name and designation	institution	Details of work done	duration	Remark
1.	Dr. NS Chauhan Professor	CEAPHT (CAU), Ranipool, Sikkim	• PI of AICRP on ESA (Since May 2017 to till date • Guided 6 B.Tech. students and 02 M.Tech. Students • Conducted Adoptive trials, front-line demonstrations and training of ergonomically designed farm tools and equipment • Development of ergonomically designed farm equipment matching to body dimensions and strength parameters of Sikkim workers • Research Papers published:2	24/12/2014 to Till date	

2.	Dr. S N Yadav Associate Professor /Professor	CAU-CAEPHT, Ranipool, Sikkim	1. Mechanization Status and its Impact on Production of Rice and Maize crops in Sikkim 2. Feasibility testing of manual four row pre-germinated rice seeder for improving the productivity and sustainability of rain fed rice cultivation of Sikkim 3. Development of light weight knapsack type surface residue chopper for adoption in no-tillage cultivation of crops in valley/terraces and hill slopes 4. Development of manually operated engine assisted light weight zero till drill for direct seeding on terraces for conservation mechanization 5. Production of charcoal briquettes from selected forest waste of Sikkim and their feasibility testing Studies on some relevant properties of large cardamom for conceptual design of harvester	9 months 01 year 1 year 3 months 1 year 1 year 1 year	Intramural Research project of CAU, Imphal	
		ICAR under NAIP	A value chain of aromatic crops of NE India	5 years	-	
		ICAR-AICRP	1. AICRP on Ergonomics and Safety in Agriculture AICRP on Utilization of Animal Energy in Agriculture (UAE)	2 years 1 year	-	
		ICAR	Development of equipment and technology to mechanize conservation agriculture on terraces under rainfed hill farming condition of NEH Region	2 years	-	

		Ministry of Agriculture and Farmer's Welfare	Establishment of Farm machinery Testing Centre	Continue	-	
3.	Dr. S.K. Satpathy, Asst. Professor	CEAPHT (CAU), Ranipool, Sikkim	• Completed one IRP project • Guided 11 B.Tech. students and 01 M. Tech. Student • Awarded Ph.D in 2018 from IIT Delhi • developed small farm equipments and machines suitable for hill agriculture prototype feasibility testing and front line demonstration of various small farm tools, equipment and machines	24/08/2007 to till date	I/C PI of AICRP on FIM w.e.f. 25/02/2015	
4	Shankar Swarup Das (Assistant Professor)	National Institute of Technology, Agartala (during Ph. D. study leave period)	Title of Research: 1. Study of Friction and Wear Behaviour of Hip Joint Prosthesis: Experiments and Analysis	3 years	06 published papers based on the research works.	
		College of Agricultural Engineering and Post-Harvest Technology, Ranipool	2. Initiated on new project on Foot stepped power generation for thresher machine as Co-PI of AICRP on ESA	2 years	proposed	
5	Sujeet Kumar Chauhan (Assistant Professor)	College of Agricultural Engineering and Post-Harvest Technology, Ranipool	1. Completed **09** sub projects, and 03 sub project are ongoing. 2. Developed 12 no. of Improved Animal drawn implements for North Eastern hill region 3.Research paper published in referred journals (15 number) 4.Research paper published in Non referred journals (33 numbers) 5.Popular Article: 13 No. 6. Technical bulletin 03 number	2012-2021	Working in the capacity PI AICRP on UAE w.e.f 05.05.2014 to till continue	

			7. Technical report 06 number			
6	Ngangkham Devarani (Assistant Professor)	Nil	Nil	Nil	Nil	

Department of Processing and Food Engineering

Sl. No.	Name and designation	Institution	Details of work done	Duration	Remarks
1.	Dr. R.P. Misra, Professor	IARI, CARI, CIRG, ICAR HQ.	i) Agricultural structures ii) Animal Environment interaction iii) Feeding and watering devices for small ruminant 1. iv) International and National training of scientists	1976-2015 (39 years)	During 1976-2020 I was also engaged in coordination, management and administration
2.	Dr Sujata Jena Associate Professor		• Technology development for production of hurdle processed passion fruit jam and jelly • Application of blending/mixture technology for development of different types of beverages using locally produced horticultural crops like Sikkim Mandarin, passion fruit and ginger etc. • Establishment of Institutional Level Biotech Hubs (IBThubs) by DBT under Special Programme for North Eastern States of India • Design and development of a	• 2009-2011 • 2009-2010 • 2014-2019	• Standardized process for production of passion fruit jam and jelly using passion fruit skin and pulp. • Standardized process for production of blended beverages like RTS and squash from Sikkim mandarin, passion fruit and ginger • One IBT hub was established at CAEPHT, Ranipool and about 128 students/staff were trained in microbial food analysis and fermentation.

			composite osmotic dehydrator for fruits and vegetables • Enhancing livelihood of farmers in Sikkim Darjeeling Himalayan belt thorough possible interventions in processing and value addition of underrated horticultural and spice crops	• Ongoing since 2017 • Ongoing since 2019	• Practical classes and research work of UG, PG and PhD were conducted utilizing the chemicals and glassware procured through the projects • DG set procured through the project is being utilized for providing uninterrupted power supply to various laboratories of the department. • A composite osmotic dehydrator skid is being developed. • Benchmark survey of selected villages is under process
3.	Dr B K Singh Assistant Professor		• Status of fishing gears and crafts of west and south districts of Tripura • Strategy and approach for comprehensive development of fisheries involving community based programs with special reference to NE region • Mapping of Fisheries Resources and Water quality of Major Rivers and Lakes of Sikkim		
4	Dr Said P P	CAU, Imphal	• Enhancing Livelihood of Farmers in	2016-till date	• Conducted survey in four districts

	Assistant Professor		Sikkim Through Process Standardization and Mechanization of Yak Milk Cottage Cheese (Hard Churpi) Processing • Enhancing livelihood of farmers in Sikkim Darjeeling Himalayan belt through possible interventions in processing and value addition of underrated horticultural and spice crops • Establishment of Institutional Level Biotech Hubs (IBT hubs) • Genotypic variations in growth and yield parameters and nutrient uptake of rice genotypes under aerobic and wetland rice cultivation in Sikkim		of Sikkim and Database of physiochemical properties of chayote, dalle, yalk milk were generated • Facilitated practical classes of B. Tech (Food Technology), M. Tech & PhD (Processing and Food Engineering) through chemicals and glassware procured through the hub • The Biotech Hub received Good rating amongst all Hubs and project got extension of a Year 2016-17 • Identified and reported four different species of Bixa plant
5.	Dr. Rakesh Kumar Raigar Assistant Professor (Dairy Engineering)	CAEPHT Ranipool	• Enhancing Livelihood of Farmers in Sikkim Through Process Standardization and Mechanization of Yak Milk Cottage Cheese (Hard Churpi) Processing. • Process standardization of Yak milk paneer • Development of Instant Herbal Black Tea Tablet • Development of Paneer Whey Enriched Fruit Beverage	2017 to till date	

			• Development of Micronutrient Fortified Energy Bar for Malnutrition children and Adolescent girls		

Department of Soil and Water Conservation Engineering

Sl.No.	Name and Designation	Institution	Details of work done	Duration	Remarks
1	Dr. Deepak Jhajharia, Professor	CAEPHT	1. Effect of organic manures and different moisture depletion levels on off season capsicum cultivation under poly house conditions in Sikkim. Funded by AICRP-PET, ICAR-CIPHET, Ludhiana 2. Effect of different types of soil less media on growth parameters and fruits yield of strawberry in eastern Himalayan region. Funded by AICRP-PET, ICAR-CIPHET, Ludhiana 3. Onion cultivation under low cost low tunnels for restricting over winter in eastern Himalayan region. Funded by AICRP-PET, ICAR-CIPHET, Ludhiana 4. Trends in Aridity Index over Northeast India – under Master's thesis 5. Drought analysis using Copula over Northeast India – under Master's thesis 6. Drought analysis over different districts of Arunachal Pradesh – B. Tech. Thesis. 7. Climatology of wind speed over Sikkim – B. Tech. Thesis. 8. Pan coefficient: analysis and trends identification over Northeast India 9. Estimation of monthly reference evapotranspiration and trend analysis: case studies from Northeast India	Three Years (2017-2020) -do- -do- 2017 2019 2019 2020 2020 2020	Completed
2	Dr. Jagabandhu Panda, Associate	CAEPHT	1. Developed regression model to predict the soil aggregate stability of Sikkim soils – under Master's thesis 2. Geomorphological analysis of Watersheds of Sikkim using RS	2 years each	Completed

	Professor		& GIS- under Master's thesis 3. Developing Geostatistics model to predict soil erodibility of Sikkim soils – under Master's research 4. Predicting Agricultural and meteorological drought using RS and GIS for Sikkim - under Master's thesis		
3	Dr. Santosh Rangrao Yadav		(1) ICAR, New Delhi funded AICRP on Plasticulture Engineering and Technologies (PET) (Myself as I/C PI) (2) ICAR, New Delhi funded ERP on 'Development of equipment and technology to mechanize conservation agriculture on terraces under rain fed hill farming condition of NEH Region' (Myself as Co-PI & I/C PI in the absence of regular PI) (3) Member of Organizing Committee of International Conference on Emerging Trends in Science, Technology and Management-2016 at CAEPHT-CAU, Ranipool (4) Member of Organizing Committee of National Workshop on Soft Computing Modeling- Food Processing, Pharmaceutical Science and Export Management at CAEPHT-CAU, Ranipool (5) Co-Course Coordinator of training GIS and Remote Sensing Application in Watershed Management and Developmental Planning	January 06, 2015 to June 04, 2016 November 2015 to September 2017 April 21-23, 2016 April 21-23, 2016 February 28 to March 4, 2017	
4	Dr. Ghanashyam Singh Yurembam, Assistant Professor	**CAEPHT**	1. "Effect of organic manures and different moisture depletion levels on off season capsicum cultivation under poly house conditions in Sikkim", AICRP, (C0-PI since 2016) 2. Development of a laboratory Model of Fog Harvesting Mechanism	**4 years** **2 Years**	**Completed** **Awaiting Sanction**

Department of Irrigation and Drainage Engineering

S. No.	Name and Designation	Institution	Details of work done	Duration	Remarks
1	Dr. B C Kusre Professor	CAEPHT Ranipool	Research papers published: 7 Books published: Nil	2015-2020	

			Book chapters: 1 Conference proceeding: 2		
			Conducted research project on"Determination of Hydraulic Performance of Micro irrigation System emitter for selection in Hilly Terrain of NE Region", Sponsored by Central Agricultural University.	Completed 2014	CAU sponsored research project
			"Natural Resources Mapping and Developing strategy for Water Resources Mapping" Sponsored by Natural Resources Data Management System (NRDMS) Division; Department of Science and Technology, Government of India.	Completed 2017	DST Sponsored research Project
			"Soil Moisture Characterization and its impact on productivity of large cardamom in Sikkim"; Sponsored by Science and Engineering Research Board (SERB); Department of Science and Technology, Government of India.	Completed 2018	SERB-DST Sponsored research Project
			As **Co- Principal Investigator-** Mapping of Fishery resources and water quality of major rivers and Lakes of Sikkim. Sponsored by Natural Resources Data Management System (NRDMS) Division; Department of Science and Technology, Government of India.	Completed 2019	DST Sponsored research Project
			Development of Soil Moisture Balance Models and Estimation of Water Foot prints of Major Crops in Sikkim.	2017	M Tech Project
			Developing Water Resource Management Strategy for Sikkim using Remote Sensing and GIS.	2015	B Tech Project
			Estimation of Soil Erodibility Indices of East Sikkim District.	2016	B Tech Project
			Rainfall characterization and its analysis for improving Water Use Planning for Agricultural Development in Meghalaya.	2017	B Tech Project
			Applicability of TRMM rainfall data andits spatial and temporal analysis over Sikkim.	2018	B Tech Project
			Development of Soil Moisture Index in Sikkim.	2020	B Tech Project
2	Dr. Ajay Kumar Vashisht, Associate Professor	CAEPHT Ranipool	Research papers published: 9 Books published: 2 Book chapters: 3 Conference proceeding: 1	2015-2020	
			As **Principal Investigator**: Prediction of lean season discharge of springsforefficiently managing it to fulfil water needs ofthe mountain inhabitants	2012-2017	DST Project
			As **Principal Investigator**:Managing natural resources of a watershed for its	2017-2020	IRP

			sustainable development		
			As **Principal Investigator**:Impact of particle size distribution of filtermaterial on water turbidity and flow rate for usein drip irrigation and ground water recharge	2015-2016	IRP
3	Dr.Ghanshyam T. Patle, Assistant Professor	CAEPHT, Ranipool	Research papers published: 19 Books published: 1 Book chapters: 6 Conference proceeding: Nil	2015-2020	
			CRP on Micro Irrigation Systems: **Project Investigator**	2020-2023	ICAR Funded Research Project
			Design development of micro irrigation system for hilly terrain. ICAR Network project on Engineering Intervention in Micro Irrigation Systems. (Amount: Rs. 23.35 Lakh) **Principal Investigator**	2018-2020	ICAR Funded Research Project
			Effect of different types of soil less media on growth parameters and fruit yield of strawberry in eastern Himalayan Region (Amount: 16.84 Lakh), **Co-PI**	2017-2019	ICAR-AICRP on PET
			Performance of Asparagus (Asparagus officinalis) cultivation within naturally ventilated polyhouse as compared to open condition (Amount: 9.40 lakh), **Co-PI**	2015-2017	ICAR-AICRP on PET
			Assessment of infiltration rate of a paddy growing area in a micro watershed of East Sikkim (Amount: 1.16 Lakh), **Project Investigator**	2017-2020	IRP
			Development and performance evaluation of roof water harvesting system of a polyhouse for vegetable production (Amount: Rs. 5 Lakh), **Project Investigator**	2017-2020	IRP
			Evaluating the effect of hydraulic head and slope on gravity fed drip irrigation system in hills of Sikkim (Amount: Rs. 2 Lakh), **Project Investigator**	2017-2019	IRP
			Development of Solar Photovoltaic Water Pumping System for Micro Irrigation in NEH Region of India. (Amount: Rs. 5 Lakh), **Co PI**	2017-2020	IRP
			Spatio-temporal trend analysis of total rainfall and one-day maximum rainfall and its influence on agriculture in terms of drought in northeast India. (Amount: Rs. 2 Lakh), **Co PI**	2017-2020	IRP
4	Dr. Shivam, Assistant Professor	Assistant Professor, CAEPHT, Ranipool, Sikkim	Published Research Papers: 4 Published Book Chapter: 4 Submitted Project Proposals: 1	August 2017 – 2020	

		Research Scientist NRSC, ISRO, Hyderabad	Snowmelt runoff modeling, irrigation water management using remote sensing data	December 2017 – August 2019	

Department of Renewable Energy Engineering

Sl. No.	Name and designation	Institution	Details of work done	Duration	Remarks
			Research Projects: Completed		
1.	Prof. Mahendra S. Seveda Professor and Head-REE	College of Agricultural Engineering and Post Harvest Technology, Ranipool, Gangtok, Sikkim	Promotion of Energy Efficient Improved Biomass Cook Stoves in Rural Areas of Sikkim	Three Years Three Months (16-08-2012 to 31-10-2015)	**Renewable Energy Technologies Designed and Developed:** 09 Natural Convection type Solar Tunnel Dryer Natural Convection direct type Solar Dryer Portable PV Powered Forced Convection Solar Dryer Energy Efficient Double Pot Improved Biomass Cook Stove Mixed Mode Photovoltaic Powered Forced Convection Solar Dryer Solar Biomass Hybrid Dryer for Large Cardamom Drying Improved Large Cardamom Harvesting Knife Low-cost Gravity-based
			Design and development of the mixed model photovoltaic powered forced convection solar dryer of 10 Kg capacity for agro industrial application of NEH region	One Year (01-02-2014 to 31-01-2015)	
			Gap Analysis of Skill Development in Agricultural Engineering and Technology Education	One Year (01-04-2016 to 31-03-2017)	
			Critical Analysis of Quality of Post Graduate Research in Physical Sciences of Agricultural Education System	One Year (01-04-2016 to 31-03-2017)	
			Impact of Information and Communication Technologies (ICTs) in Agricultural Education in India	One Year Two Months (29-01-2016 to 31-03-2017)	
			Value Chain Analysis of Ginger (Zingiber Officinale L.) in North Eastern Hill Region of India	One Year One Month (01-03-2016 to 31-03-2017)	
			Critical Analysis of Examination System in Agricultural Education in India	One Year (01-04-217 to 31-03-2018)	

					ropeway for Transportation of Agricultural Produce and Inputs Portable side Feed Smokeless Cook Stove
			Research Projects: Ongoing		
			Development of Solar Photovoltaic Water Pumping System for Micro Irrigation in NEH Region of India	Started on 01-08-2017	Solar PV water pumping system was developed and installed at Instructional Farm of College of Agricultural Engineering and Post-Harvest Technology, Ranipool, Gangtok, Sikkim for micro irrigation. The system consists of 2 nos. of solar PV modules (wattage: 40 watt each), DC motor (120 Watt capacity) water pump, Controller, cable, suction pipe, delivery pipe and drip irrigation system (100 m^2). Both the solar PV modules were connected with parallel. The solar PV array generated 12 to 18 voltage current of 5 Ampere.
			Performance Analysis of Solar Photovoltaic Module with changing Solar Insolation, Temperature and Tilt Angle on the Basis of Indoor and Outdoor Conditions in Sikkim	Started on 23-12-2019	
2.	**S M Kamaruzzaman** **Assistant Professor**	College of Agricultural Engineering & Post Harvest Technology,	development of walk in type solar tunnel dryer useful for Sikkim performance analysis of polycarbonate covered walk in type solar tunnel dryer	October 2006 to Till date	Student Research projects

		Ranipool, Gangtok.	design & performance analysis of elevated absorber type solar tunnel dryer design of an elevated absorber solar tunnel dryer design and development of semi automatic type sun tracking solar tray dryer performance evaluation of elevated absorber solar tunnel dryer study of solar thermal water pump suitable for hilly region of Sikkim design amd fabrication of solar thermal water pump		
		Jadavpur University Kolkata as JRF in DRDO project	Study of variation of thermal diffusivity of advanced composite materials of E-Glass fiber reinforced plastic(GFRP) in Temperature range 5-300K thermal diffusivity of advanced composite materials of e-Glass fiber reinforced plastic in Temperature range 5-120K	February 2004 to September 2005	Published in Refereed journal: Indian journal of Pure and Applied Physics (Vol: 47 No4 April.2009) Indian journal of Pure and Applied Physics (Vol: 47 No4 April.2009)
		College of Agricultural Engineering & Post Harvest Technology, Ranipool, Gangtok.	Application of Effective Scattering theory for validating Effective Thermal Diffusivity of Glass Epoxy Composite in the temperature range 50K-300K. Design of Inclined Absorber Modified Walk in Type Solar Tunnel Dryer.	October 2006 to Till date	Published in non-Refereed journal: Teachers' Journal, Vol II, 116-128ISSN No. 2395-5627 Teachers' Journal , Vol-III :223-232ISSN No. 2395-5627
3.	**Dr. Narale Pradip Digambar**	College of Agricultural	Development of small scale portable biochar kiln for biochar production from agricultural waste	4 December 2019 – 19 July 2019	The research work was carried out under AICRP

	Assistant Professor	Engineering, Birsa Agricultural University, Ranchi, Jharkhand.	residue. Bio-methanation study of piggery waste, poultry waste and goat/sheep waste in co-digestion with kitchen waste.		on EAAI scheme of ICAR at BAU Ranchi.
		College of Agricultural Engineering and Post Harvest Technology, Ranipool, Gangtok, Sikkim	Design and economic analysis of community size floating drum biogas plant for NEH region of India. Sizing and economic evaluation of solar off-grid photovoltaic system for household electrification.	20 July 2019- Till date	The work was carries out under student research projects.
4.	**Dr. Kharpude Sudhir Narayan** **Assistant Professor**	Dadasaheb Mokashi CAE&T, Rajmachi, Maharashtra (affiliated MPKV Rahuri)	Development of DSS for Silo Design Development of Expert System for Drip Irrigation System Design Performance Evaluation and Comparative Analysis of Improved Metallic Biomass Cookstove with Traditional Cookstove Performance Evaluation Of Box Type Solar Cooker	January 2017 – July 2019	Student Research projects
		College of Agricultural Engineering and Post Harvest Technology, Ranipool, Gangtok, Sikkim	Life cycle impact, costing and embodied energy analysis of Double Mirror reflector box type solar cooker	January 2020- July 2020	Student Research project Student Research project

Annexure 6.5.3.2
Farm facilities

Farm facilities, workshops and other instructional units

Sl. No.	Name of the Department	Farm Area (ha)	Irrigated / No irrigated (ha)	Crops grown
1	Irrigation and Drainage Engineering	0.07	Irrigated	Cauliflower, Broccoli, Coriander,
2	Soil and Water Conservation Engineering (under AICRP On PET)	0.01 (under 4 greenhouses)	Irrigated	Cauliflower, Broccoli, Tomato, Onion, Garlic, Capsicum,
3	Renewable Energy Engineering	0.004	Irrigated	Tomato
4	Farm section	0.004	Irrigated	Flowers

Poly house and Shade nets

Poly house and Shade nets available area wise and crop details

Sl. No.	particulars	Total available numbers	Area (m2)	Crops grown
1	Polyhouse	07 (4 in AICRP PET, 1 in IDE, 1 in REE,1 under Farm section)	30 sq. m. to 120 sq. m	vegetable crops
2	Shadenet	02 under AICRP PET	10 sq. m.	Seedlings

Facilities available in farm section: available Facilities to farm section

Sl. No.	Facility	Remarks
1	10hp motor	For supply and water pumping
2	Drip irrigation systems	For irrigation of land and polyhouses
3	Solar water pumping system with farm pond source	For supply and water pumping from farm pond and tanks
4	Water supply tanks	Water storage and supply

Diary Plant, water storage ponds, Farm equipment and Meteorological units:

List of available facilities under Diary Plant, water storage ponds, Farm equipment and Meteorological units

Sl. No.	Particulars	Details	Remarks/ Area
1	Dairy Plant	Available	

2	Vermicomposting	1 No.	For production of organic compost to field supply
3	Farm Equipment	Hand tools	Used by farm sections for farming and maintenance of campus
		Grass cutters	
		Utilize equipments from FMPE department	
4	Farm ponds/water tanks	1 farm pond SPV powered water pumping unit	For supply and water pumping from farm pond and tanks
		Water Tank – 2 Nos	Water storage and supply
5	Meteorological units	1 full-fledged Weather monitoring station (In Collaboration with ISRO)	Recording of weather conditions
6	Misc.	Pilot Plant for Milk Processing including Dairy Technology Lab, chiller unit, spray dryer unit & milk reception unit etc.	201.51 m^2
		Pilot Plant for Fruits and Vegetable including Cottage scale soya paneer plant	124.03 m^2
		Multi stage evaporator with aroma recovery system	20.9m^2
		Shed for Feed and Fodder crusher and seed processing unit etc	119.66 m^2
		Mini Rice Mill	148.65m^2
		Farmer's Produce Processing cum Skill Development Centre	Area 265.26 m^2) (consisting of Ginger & Turmeric Processing Plant – Area 72 m^2, Unit of Minimal Processing of Fruits and Vegetable– Area 17.84m^2, Bakery unit– Area 23.78m^2, Noodles unit– Area17.84 m^2, Potato Chips unit –Area 17.84 m^2, store–Area 25.65 m^2, kitchen –Area 17.84 m^2, class room–Area 27.87 m^2, training hall –Area 44.6 m^2)

Farm Workshop cum Vehicle shed

Details of Farm workshop, Implement shed and vehicle shed

Facility	Particulars	Remarks
Farm Workshop	1	The workshop of college is used for fabrication and repairing of farm tools and equipment
Implement shed	1	Farm implements are placed in the Farm Machinery department passage and used by farm section on need basis.
Vehicle shed	0	As such vehicle shed is not available. Vehicles are parked on free space available near college workshop and parking space allotted for various vehicles.

Annexure 6.5.3.3

Student Ready/In-plant/Experiential Learning

Experiential Learning Modules for B. Tech (Agricultural Engineering)

Department	Module for B. Tech (Agricultural Engineering)
IDE	Layout of irrigation system on field and its cost estimation Planning, design and installation of pressurized irrigation systems. Maintenance and Management of Pressurized Irrigation Systems. Cropping pattern and irrigation management in canal command for major/minor/medium irrigation projects Irrigation and Nutrient Management in Greenhouse
SWCE	Watershed Planning, Development and Evaluation Design & Development of Rainwater Harvesting
FMPE	Farm Mechanization Manufacturing of Agricultural Tools & Implements
REE	Drying of Different Vegetables using Solar dryer Preparation of Briquettes for Furnaces, & Cook Stoves
PFE	Processing and value addition of Milk Products Processing of Horticultural crop Bakery Products Production of Soya Products

Major skills imparted through Experiential Learning Modules for B. Tech (Agricultural Engineering) implemented during 2015-16 and 2019-20

Sl. No.	Year	No. of students trained	Major skills imparted
1	2015-16	07	a) Formulation and manufacture of value added products b) Operation and maintenance of processing equipments

			c) Development of managerial skills under protected environment d) Skill to develop Detailed Project Proposal to start entrepreneurship- e) Registration and licensing enterprise to run business
2	2016-17	06	a) Formulation and manufacture of value added products b) Operation and maintenance of processing equipments c) Development of managerial skills under protected environment d) Skill to develop Detailed Project Proposal to start entrepreneurship e) Registration and licensing enterprise to run business
3	2016-17	04	a) Concept of Venn diagram was developed. SWOT analysis and problem identification in village b) Information on Indigenous and technological knowledge were also obtained
4	2017-18	07	a) Formulation and manufacture of value added products b) Operation and maintenance of processing equipments c) Development of managerial skills under protected environment d) Skill to develop Detailed Project Proposal to start entrepreneurship e) Registration and licensing enterprise to run business
5	2017-18	04	Design and installation of gravity Drip Irrigation
6	2017-18	04	Fabrication of improved farm implement
7	2017-18	04	Learned about drying mechanisms and dryer design, installations and utilization
8	2018-19	04	Skill was imparted to design and Construction of naturally ventilated polyhouse
9	2018-19	06	a) Formulation and manufacture of value added products b) Operation and maintenance of processing equipments c) Development of managerial skills under protected environment d) Skill to develop Detailed Project Proposal to start entrepreneurship e) Registration and licensing enterprise to run business
10	2018-19	04	Installation, Maintenance and Hydraulic Evaluation of Drip Irrigation system
11	2018-19	03	Learned about drying mechanisms and dryer design, installations and utilization
12	2018-19	06	• Understanding the components in a machine e.g. Paddy thresher

			• Determining the accurate dimensions of the machine components • Development of 3D models of the machine components using CATIA V6 • Assembly of the components developed to make the 3D model of the machine Understanding the working mechanism of the machine
13	2019-20	06	a) Formulation and manufacture of value added products b) Operation and maintenance of processing equipments c) Development of managerial skills under protected environment d) Skill to develop Detailed Project Proposal to start entrepreneurship e) Registration and licensing enterprise to run business
14	2019-20	07	Fabrication of Parshall Flume, Layout of Irrigation System on field, Cost estimation
15	2019-20	07	Learned about drying mechanisms and dryer design, installations and utilization
16	2019-20	07	• Understanding the components in a machine e.g. Paddy thresher • Determining the accurate dimensions of the machine components • Development of 3D models of the machine components using CATIA V6 • Assembly of the components developed to make the 3D model of the machine Understanding the working mechanism of the machine
17	2019-20	04	Study was carried out to obtain information of the natural resource conservation and management by local community

Annexure: 6.5.5.3

Sports and other Miscellaneous Items

Sl. No.	Name of the items
1	Badminton Racket
2	T.T. BAT
3	Football Pump (Plastic)
4	Ankle wrap
5	Football
6	volleyball
7	Basketball

8	Shin gourd
9	Cricket keeping glove
10	Whistle
11	Cricket gourd
12	Spike nails
13	Football boot (shoes)
14	Cricket bat
15	Anklet
16	Stop watch
17	Measuring tape
18	Javeline
20	Badminton net
21	Carom coin
22	Carom board
23	Running spike shoes
24	Socks
25	Suttle cocks
26	Suttle feather
27	T.t. ball
28	Cricket ball
29	Cricket stump
30	Cricket stump bale
31	Shot put
32	Discuss
33	Clapper
34	Cricket bat grip
35	Football jersey set
36	Ramba
37	Chess board
38	College flag
39	Godrej lock seven levers with key
40	MS SHEET BOS (KIT BOX)
41	FIRST Aid BOX
42	College week Tshirt for green house and red house
43	TT NET
45	Volleyball net
46	Running Torch
47	Basketball
48	Athletic suit

Gymnasium Items

Sl.no	Name of the items	Quantity	Location
1	Hack squat	1	Gym hall (boys hostel)
2	Incline/decline bench pump	2	Gym hall (boys hostel)
3	Steel bars 3 feet 4 feet 5 feet 6feet	 1 2 1 -	Gym hall (boys hostel)
4	E bar (4 feet)	2	Gym hall (boys hostel)
5	Dumbbell (14'')	10	Available in girls hostel
6	Dumbbell (14'')	5	Available in boys hostel
8	Weights	145 kg	Gym hall (boys hostel)
9	Abdominar	1	Gym hall (boys hostel)
10	6- Station multi gym set	1 set	Gym hall (boys hostel)
11	Home gym set	2	One in Gym hall (boys hostel) and one in girls hostel
12	Jogger (old)	2	One in Gym hall (boys hostel) and one in girls hostel
13	T.T. Board	2	One in Gym hall (boys hostel) and one in girls hostel
14	Jogger (new)	2	One in Gym hall (boys hostel) and one in girls hostel
15	Rowing Machine	1	Gym hall (boys hostel)
16	Gym mirror	2	Gym hall (boys hostel)

Musical Instruments/Items and Audio systems for Cultural activities

Sl no.	Name of the items
1	Guitar, L & C American Series with cord
2	Drum set
3	Keyboard, Roland GW-7
4	Grason electric guitar
5	Zumba
6	Tabla with extra Baya
7	Ahuja Amplifier with the following components TAZ-4000EM Speaker box

	Column speaker Mics Cordless mic set, Tie mic Microphone stand Box stand Audio mixer
8	Speaker set
9	Wire & jack
10	Speaker boxes (SRX-120 DX)
11	SSA-160 amplifier
12	GM0601L Gooseneck microphone
13	GMB-6C Stand
14	AWM-690 VL
15	Conference Microphone unit set (1 amplifier + 14 microphone)
16	Bass Guitar
17	Guitar Acoustic BSB King
18	Digital Audio Workstation
19	Ahuja double hand Microphone
20	Tabla Bira
21	Zoom (guitar)
22	Jack
23	Echo (Wireless microphone)
24	Ahuja (Wired microphone)
25	Drum ball stick
26	Drum snare
27	Adaptor (Keyboard)
28	Extension cord (goldmedal)
29	Ahuja MIC $490V_2$
30	VHF MIC LhV4-32SR
31	Stereo cord
32	Jack metal + plastic
33	9V Battery
34	AA Battery
35	Ahuja Cordless Mic (new)
36	Keyboard cover
37	Lyric stand
38	Keyboard stand
39	Electric string (guitar string)
40	Power strip (extension cord)
41	Intex woofer (4 in 1)-NEW
42	AV CABLE -NEW
43	Audio mixer cable-new
44	wire

Annexure: 6.5.7.3

Faculty Awards
Department of Basic Engineering and Applied Science

Sl. No.	Name of the faculty	Name of the award/ recognition	Awarding organization (place/country)	Year	National/International /Professional society
1	Dr A. B. Sherpa, Assistant Professor (Sr. Scale) of Agronomy	Nil	Nil	Nil	Nil
2	Dr Dhananjoy Roy, Assistant Professor (Sr. Scale) of English	Nil	Nil	Nil	Nil
3	Er.Nandita Sen Asst.Professor(Electrical Engg.)	Nil	Nil	Nil	Nil
4	Phuritshabam Robert, Assistant Professor, (Computer Science & Engineering) Currently Pursuing PhD.	Nil	Nil	Nil	Nil
5	Dr. Chakpram Birendrajit Assistant Professor (Soil Science)	Nil	Nil	Nil	Nil
6	Dr. Abujam Anuradha Devi, Assistant Professor (ABM)	Awarded Best Paper presentation for the paper entitled as **Horti-Business Opportunities for livelihood security in Sikkim**"	In Regional Seminar of The Indian Society of Agricultural Economics (ISAE) on "**Perspectives of Horti-Business Development in North East Region"** during 24-25 February, 2020, organized by College of Horticulture & Forestry, CAU, Pasighat, co-organized by NABARD-Itanagar & in	2020	The Indian Society of Agricultural Economics (ISAE)

			association with ICAR-ATARI, Guwahati and Rajiv Gandhi University, Itanagar		
7	Er. Rajiv Pradhan, Assistant Professor (Electronics Engineering & Instrumentation)	Nil	Nil	Nil	Nil
8	Dr. Srikanta Kumar Meher Assistant Professor (Mathematics)	Nil	Nil	Nil	Nil
9	Smt.T. Loidang Chanu,Assistant Professor ,Statistics	Nil	Nil	Nil	Nil
10	**Dr. Sushma Gurumayum, Assistant Professor**	Nil	Nil	Nil	Nil
11	Dr. Ph. Baleshwor Sharma, Assistant Professor (Biochemistry)	NA	NA	NA	NA

Department of Farm Machinery and Power Engineering

Sr. No.	Name of the faculty	Name of the award/recognition	Awarding organization (place/country)	Year	National/international/professional society
1	Dr. NS Chauhan	The Institution of Engineers (India)	Fellow	2014	Professional Society
2	Dr. S N Yadav	Nil	Nil	Nil	Nil
3	Dr. S.K. Satpathy	Canadian Common Wealth Scholarship	University of Saskatchewan, Saskatoon, Canada	2013	Canadian Bureau for International Education
		Winner, Oral presentation	University of Saskatchewan,	2013	The Canadian Society for Bioengineering

			Saskatoon, Canada		
		Master Trainer for the job role of Tractor operator	Agricultural Skill Council of India, National Skill Development Corporation, Govt. of India, New Delhi	2018	-
		Innovation Ambassador	Institutional Innovation Council, MHRD, New Delhi, India	2019	-
4	Shankar Swarup Das (Assistant Professor)	College of Agricultural Engineering and Post-Harvest Technology, Ranipool	Best paper award for oral presentation at ICMMRE-2019 conference at SMIT Sikkim	2019	---
5	Sujeet Kumar Chauhan (Assistant Professor)	Nil	Nil	Nil	Nil
6	Ngangkham Devarani (Assistant Professor)	Nil	Nil	Nil	Nil

Department of Processing and Food Engineering

SL. No.	Name of the faculty	Name of the award/Recognition	Awarding organization	Year	National/International/Professional Society
1.	Dr. R P Misra Professor	Rafi Ahmed Kidwai Memorial Award for Agricultural Research for the Trienium 1996-98	Indian Council of Agricultural Research	1999	National
2.	Dr Sujata Jena Associate Professor	Third prize in poster presentation in	*ICFOST-2005*, 17th Indian Convention of Food	2005	Professional society

			Scientists and Technologists Association of Food Scientists and Technologists, India		
3.	Dr B K Singh Assistant Professor	-	-	-	
4	Dr Said P. P. Assistant Professor	First prize for paper presentation	International Conference on Global Scenario of Traditional System of Medicine, Ayurveda, Agriculture and Education-2013	2014	Professional society
		First prize for paper presentation	International Conference on Global Scenario of Traditional System of Medicine, Ayurveda, Agriculture and Education-2013	2014	Professional society
5.	Dr. Rakesh Kumar Raigar Assistant Professor (Dairy Engineering)	• Gandhian Young Technological Innovation (GYTI) Award. • Young scientist Award	Society for Research and Initiatives for Sustainable Technologies and Institutions (SRISTI). Ahmedabad	2018	National

			Gujrat		
			National Extension Education Congress-2018 by Society of Extension Education, Agra on "Climate Smart Agricultural Technologies: Innovations and Interventions" to be held at CAPHET, Ranipool, Sikkim	2018	National

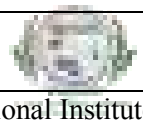
Department of Soil and Water Conservation Engineering

Sl.No.	Name of the faculty	Name of the award/ recognition	Awarding organization (place/country)	Year	National/International /Professional society
1	Dr. Deepak Jhajharia, Professor	Fellow (Indian Association of Hydrologist)	NIH Roorkee, Uttarakhand	2015	Indian Association of Hydrologist, Roorkee
		Distinguished Alumni Award	CTAE (MPUAT), Udaipur, Rajasthan	2016	Alumni Society of CTAE, Udaipur
		Young Scientist Award	Society of Extension Education, Uttar Pradesh	2018	Society of Extension Education, Agra
		Best Extension Scientist Award (AICRP-PET)	ICAR-CIPHET, Ludhiana, Punjab	2018	ICAR-CIPHET, Ludhiana, Punjab
		Fellow (Indian Water Resources Society, Roorkee)	Roorkee, Uttarakhand	2019	Indian Water Resources Society, Roorkee
		Best paper award by Society of Extension	Society of Extension Education, Uttar Pradesh	2018	Society of Extension Education, Agra
				2018	-do-

		Education, Agra Life membership of Extension Society of India	-do-		
2	Dr. Jagabandhu Panda, Associate Professor	N. A.	-	-	-
3	Dr. Santosh Rangrao Yadav, Assistant Professor	-	-	-	-
4	Dr. Ghanashyam Singh Yurembam, Assistant Professor	-	-	-	-

Department of Irrigation and Drainage Engineering

S. No.	Name of the faculty	Name of the award/ recognition	Awarding organization (Place/ Country)	Year	National/ International/ Professional Society
1	Dr. B C Kusre	Nil	-	-	-
2	Dr. Ajay Kumar Vashisht	1. Fourth Dr. H. K. Jain-CAU Award in Agricultural Sciences for Excellence in Agricultural Research in the North-Eastern States of India for the biennium 2017-18	CAU Imphal, Manipur, India	2019	National
		2. ISAE Commendation Medal for the year 2018 for Professional Achievements in the field of Soil and Water Engineering	Indian Society of Agricultural Engineers (ISAE), New Delhi, India	2019	Professional Society
3	Dr.Ghanshyam T. Patle	1. Young Scientist Award	Society of Extension Education, Agra, India--	2018	Professional Society
		2. Distinguished Service Certificate Award	Indian Society of Agricultural	2016	Professional Society

			Engineers (ISAE), New Delhi, India		
		3. Certificate of Appreciation award	ICAR-NRC for Orchids, Sikkim, India	2017	National Institute
		4. Best Paper Award	Society of Ornamental Horticulture, New Delhi	2018	Professional Society
		5. Best paper presentation Award- 2018	Society of Extension Education, Agra, India	2018	Professional Society
4	Dr. Shivam	Nil	-	-	-

Department of Renewable Energy Engineering

Sl. No.	Name of the faculty	Name of the Award/ Recognition	Awarding Organization (Place/country)	Year	National/International/Professional Society
1	Prof. Mahendra S. Seveda Professor and Head-REE	Distinguished Alumni (Academic) Award	CTAE Alumni Society, College of Technology and Engineering, Maharana Pratap University of Agriculture and Technology, Udaipur, Rajasthan, India	2020	Professional Society
		Best Paper Award	Central Agricultural University, Imphal, Manipur, India	2020	National
		ISAE Commendation Medal Award	Indian Society of Agricultural Engineers, New Delhi, India	2019	Professional Society
		Fellow Award	Society of Extension Education, India	2018	Professional Society
		Best Paper Award	Society of Extension Education, India	2018	Professional Society
		Young Scientist Award	Society of Extension Education, India	2017	Professional Society
		Best Paper Award	Society of Extension Education, India	2017	Professional Society
2	S M Kamaruzzaman Assistant Professor	--	--	--	--
3	Dr. Narale Pradip	Pradip Pimpley ENERTIA award	ENERTIA Foundation, Mumbai, India.	2013	Professional Society.

	Digambar Assistant Professor	for idea innovation by student in the academic institution.			
4	Dr. Kharpude Sudhir Narayan Assistant Professor	--	--	--	--

SELF STUDY REPORT FOR

UG Programme (B. Tech Agricultural Engineering and Food Technology)

SUBMITTED TO

National Agricultural Education Accreditation Board,

Indian Council of Agricultural Research, Krishi Bhavan,

New Delhi.

SUBMITTED BY

College of Agricultural Engineering & Post Harvest Technology

(Central Agricultural University, Imphal, Manipur)

Ranipool, Sikkim

2021

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COLLEGE OF AGRICULTURAL ENGINEERING AND POST HARVEST TECHNOLOGY

CENTRAL AGRICULTURAL UNIVERSITY

RANIPOOL,

GANGTOK-737135 (SIKKIM)

SELF STUDY REPORT

(Year: 2015-16 to 2019-20)

For

Degree Programme of B. Tech. (Agricultural Engineering)

Submitted to

NATIONAL AGRICULTURAL EDUCATION ACCREDITATION BOARD

INDIAN COUNCILOFAGRICULTURAL RESEARCH

NEW DELHI-110011

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6.4. Self-Study Report for the Degree Programme, College of Agricultural Engineering and Post Harvest Technology, Ranipool, Gangtok, Sikkim,

For the college offering degree programme as per recommendations of 5thDean'sCommittees of ICAR/VCI/BSMA

6.4.1. Brief History of the Degree Programme:

The College of Agricultural Engineering and Post Harvest Technology (CAEPHT) was established on 20th May, 2006 as one of the constituent colleges of Central Agricultural University, Imphal, Manipur. It is situated at Ranipool, Gangtok on National Highway 10 connecting Siliguri in West Bengal to Gangtok, the capital of Sikkim State. The campus of college is spread over an area of 7.71 ha. The total campus is located in mostly hilly terrain and sloppy and valley land at an altitude of approximately 914.4 m. (3000 ft.) above the mean sea level. Two rivers, namely Rani-Khola and Basuk-Khola, touch the college boundary towards the east side while the national highway NH- 10 is towards the west side of college campus. The college building, situated in the terraces and valleys and surrounded by rivers, provide an ideal atmosphere for academic and research activities.

The CAEPHT, Ranipool, Gangtok, Sikkim imparts education in different branches of Agricultural Engineering. The College started its first academic programme i.e., 4-year B. Tech. (Agricultural Engineering) programme from academic session 2006-07 with intake capacity of 20 students. Afterwards, a new degree programme was initiated as B.Tech in Food Process Engineering during 2010 with with intake capacity of 19 students. As per the ICAR Policy, this Degree Programme was renamed as B.Tech in Food Technology during 2012 and this programme is running since then.

The course curriculum and syllabi of both the degree programme are based on the model academic regulations and syllabi as proposed by the 5th Dean Committee of Indian Council of Agricultural Research (ICAR), New Delhi. While designing curriculum, outmost care has been taken to consider the global development in Science & Technology to equip graduates to meet new challenges thrown open as a result of economic globalization and climate changes and preparing farmers for emerging opportunities at national and international level.

At present 10+2+4 pattern which comprises Student READY programme (in summer break after semester IV: Skill Development Training-I for 05 weeks; in summer break after semester VI Skill Development Training-I for 05 weeks; in semester VII: Industrial attachment of 10 weeks, on campus Experience Learning for 10 weeks; in semester VIII: Project planning and Report Writing) is offered from the academic year 2016-17.

College started offering M.Tech.(FMPE) programme from 2013 in the department of FMPE andProcess and Food Engineeringwith an intake capacity of 3 students. In 2015-2016 the M Tech programme has been introduced in the department of Soil and Water Engineering. In the year 2017-18 the nomenclature of both the programmes has been changed to M.Tech. Soil and Water Conservation Engineering and M.Tech. Processing and Food Engineering. In the year 2016-17 the department of FMPE started PhD programme with an intake capacity of 2 followed by the department of PFE and SWCE with intake capacity of 1 in each department in the year 2017-18.From A.Y. 2019-20 two more M. Tech Programmes were started in Irrigation & Drainage Engineering and Renewable Energy Engineering.

Mandate of the Institution

The College of Agricultural Engg & PHT, Ranipool Gangtok Sikkim is a unique campus under the Central Agricultural University, Imphal with complete integration of all the three functions viz.; teaching, research and extension. The college has the mandate to develop, strengthen and promote the understanding, knowledge and skills to improve profitability and utilization in the field of agricultural engineering, not only in Sikkim but also in the entire North-Eastern Region. The college shall also endeavor to establish linkages with other scientific institutions of ICAR, other zonal and national bodies in the field of its domain located in the region and outside the region. The mission and major objectives of the college are:

Mission

To train technical manpower, pursue high quality and high impact research, design and development of sustainable technologies/equipment related to agricultural engineering and disseminate the developed technology to the farmers' field/ agro- industries of NEH region of India.

Vision

In accordance with the vision of CAU, Imphal the vision of CAEPHT is to produce world class professionals who are equipped to meet the demands of global outfit, have analytical abilities and entrepreneurship for making career of self employment and as contributors, to livelihood and food/nutritional security.

Objectives

- To establish and develop excellent academic facilities for offering undergraduate and postgraduate education in discipline of agricultural engineering and post-harvest technology, appropriate to various states of NEH region in particular and country in general.
- To impart quality education so as to produce globally competitive graduates and post graduates in areas of agricultural engineering and post-harvest technology including inter disciplinary area so that confident and capable human resource, suitable for working as scientists, academics, managers, entrepreneurs etc., could be developed.
- To establish specialized research laboratories fitted with state of art machineries equipment and instruments for taking up basic and applied research by the scientists/teachers and post-graduate students and experiential learning facilities including pilot plants for 'hands – on training' of undergraduate students.
- To develop and demonstrate modern and mechanized farming system appropriate to NEH states which may help the farmers to improves their productivity and profitability while preserving and improving the environment.
- To develop need based improved agro-technologies and equipment for NEH region for household and on farm operations, post-harvest management and utilization of renewable sources of energy.

Accomplishments:

Performance of the students during 2010 to 2020 is given in Table 1.

Table 1: Database of Pass out students (UG) 2010-2020

Year	**No. of Student**	**Student undergo higher studies**		**Employment status**					
		State University/ National Institute	International Institute	State Department	Banking / Private Company / University	UPSC	Central Govt /ARS /Asst Professor	Entrepreneurs	Unemployed
2010	16 (AE)	04 (AE)	02 (AE)	08			01		
2011	18 (AE)	03 (AE)		09			04 (ARS) 01 (Asst. Prof.)		
2012	24 (AE)	07 (AE)	1 (AE)	04	07		02 (ARS) 01 (Asst. Prof.)		

2013	26 (AE)	08 (AE)	-	08	05				
2014	31 (AE)	08 (AE)		04	10				
2015	17 (AE)	01 (AE)		06	01				
2016	29 (AE)	07 (AE)		03	01				
2017	26 (AE)	12 (AE)		-					
2018	22 (AE)	13 (AE)		-					
2019	26 (AE)	18 (AE)	01 (AE)	-					
2020	37 (AE)	24 (AE)		-			01 (AE)		

6.4.2. Faculty strength

Table:2. Faculty strength sanctioned, vacant and recommended by ICAR

Sl. No.	Sanction Faculty	Faculty Sanctioned	Faculty in Place	Vacant Position	Faculty recommended By ICAR/UGC/VCI/Other regulatory bodies
1.	Professor	4	2	2	**07**(# 1 professor as DEAN)
2.	Associate Professor	11	6*	5	**13**
3.	Assistant Professor	30	25	5	**24**
4.	MTTC/VTC Faculty	5	5	0	**NA**
Total		**50**	**38**	**12**	**45**
	***3 promoted as Professor under CAS**				

Table: 3. Department wise Faculty strength

Sl. No.	Department	Professor	Faculty recommended By ICAR	Associate Professor	Faculty recommended By ICAR	Assistant Professor	Faculty recommended By ICAR
1.	Farm Machinery and Power Engineering	02	01	-	2	04	3
2.	Processing and Food Engineering	01*	01	01	2	03	3

3.	Soil and Water Conservation Engineering	01	01	01	2	02	3
4.	Irrigation and Drainage Engineering	01	01	01	2	02	3
5.	Renewable Energy Engineering	01	01	-	2	03	3
6.	Basic Engineering and Applied Science	-	01	-	3	11	9
Total		06	07 (# 1 professor as DEAN)	03	13	25	24

***Contractual**

Table: 4. Faculty strength of Multi Technology Testing Center and Vocational Training Centre (MTTC &VTC)

Sl. No.	Department	Professor	Associate Professor	Assistant Professor
1.	Agronomy	-	-	01
2.	Plant Protection	-	-	01
3.	Horticulture	-	-	01
4.	Plant Breeding Genetics	-	-	01
5.	Extension Education	-	-	01
Total		-	-	05

6.4.3. Technical and Supporting Staff

Table: 5. Strength of Technical & Supporting Staff: Available posts and actual filled

Sl. No.	Name of the Post	No. of Post	Actual Filled	Vacancy
E. Dean office				
1.	Sr. Stenographer	01	00	01
2.	Computer Operator	01	01	00
3.	MTS	02	02	00
F.	**Establishment**			
1.	Asstt. Registrar(Estt.)	01	00	01
2.	Head Assistant	01	01	00
3.	Assistant	01	01	00
4.	UDC	01	00	01
5.	MTS	01	01	00
G.	**Store and Purchase**			
1.	UDC	02	01	01
2.	MTS	01	01	00
H.	**Account Section**			

1.	Assistant Comptroller	01	00	01
2.	Accountant	02	01	01
3.	Account Assistant/ Cashier	02	02	00
4.	UDC	01	01	00
5.	LDC	01	01	00
5.	MTS	01	01	00
F.	**Academic Section**			
1.	Assistant Registrar (Acsad)	01	00	01
2.	UDC	02	01	01
3.	MTS	01	01	00
G.	**Engineering Section/ Estate section**			
1.	Assistant Engineer(Civil)/ Assistant estate officer-Civil	01	01	00
2.	Junior Engineer- Civil	01	01	00
3.	Junior Engineer- Electrical	01	00	01
4.	UDC	01	01	00
5.	Electrician	01	01	00
6.	Carpenter	01	01	00
7.	Plumber	01	01	00
8.	MTS	01	01	00
H.	**Transport Section**			
1.	Driver	05	04	01
2.	Handyman(MTS)	02	02	00
I.	**Library Staff**			
1.	Librarian	01	00	01
2.	Sr. Library Assistant	01	01	00
3.	Library Asstt.	01	01	00
4.	MTS	03	03	00
J.	**Students Welfare**			
1.	Student Welfare Officer	01	**00**	**01**
K.	**Hostel Staff**			
1.	Cook (MTS)	03	03	00
L.	**Technical Staff**			
1.	Field-cum-Lab assistant	17	11	06

2.	Horticulture Assistant	01	01	00
3.	Livestock Assistant /Farm Assistant	05	04	01
M.	**Medical Unit**			
1.	Medical Officer	01	01	00
2.	Compounder	01	01	00
3.	Female Health Worker	02	02	00
4.	Male Health Worker	01	01	00
N.	**Security**			
1.	Security Guard	02	02	00
2.	Chawkidar(MTS)	02	02	00
O.	**MTTC/VTC**			
1.	Account Assistants	02	02	00
	ATTIC			
1.	MTS	01	01	00
	Guest House			
1.	MTS	01	01	00
	FMPE			
	UDC	01	01	00
P.	**MTS(Multi-tasking staff) in various departments**	21	21	00
	Total	**107**	**88**	**19**

6.4.4. Classrooms and Laboratories:

07 well-equipped classrooms for UG and 03 well-equipped classrooms for PG are made available with this college. There are 02 smart class rooms also for UG and PG Students. These are well equipped with audio-visual aids for effective teaching. Different department of this college also have well-equipped laboratories for conducting practical classes of the students. Since the laboratories are equipped with most of the instruments, it also enables staff of this college to carry out research.

Table: 6. Class room available

Class Room	Smart class room/interactive Board
UG 7 Nos.	Having Projector facility with Desktop
PG - 05 Nos.	--
English Lab (UG) .=01 nos.	Having Projector facility with Desktop
Smart Class Room (UG & PG) =-02	Having smartboard and interactive board
Total = 15	

Table: 7. Number of laboratories available

Sl. No.	Section	No. of laboratories available for UG
1.	Farm Machinery	01
2.	Farm Power	01
3.	Ergonomics and Safety	01
4.	Soil Dynamics	01
5.	Farm Machinery Testing	01
6.	Thermodynamics and Heat Engine	01
7.	Theory of Machine	01
8.	Workshop	01
9.	Renewable Energy	01
10.	Renewable Energy Field Lab 1	01
11.	Renewable Energy Field Lab 2	01
12.	Surveying Lab	01
13.	Engineering Mechanics Lab	01
14.	Soil and water Conservation &Soil Mechanics Lab	01
15.	Strength of Material Lab	01
16.	Remote Sensing and GIS lab	01
17.	Engineering Drawing	01
18.	Fluid Mechanics & Irrigation Drainage Engg.	01
19.	Soil &Water Quality	01
20.	Food Engineering Laboratory	01
21.	Process Engineering Laboratory	01
22.	Agricultural Structures & Environmental Control Engineering Laboratory	01
23.	Food Analytics Laboratory	01
24.	Pilot Plant	07
25.	Farmers' Produce processing – cum – Skill Development Center	01
26.	Biochemistry and Microbiology Laboratory	01
27.	Electrical, Electronics and Instrumentation Laboratory	01
28.	Computer Laboratory	01
29.	Physics Laboratory	01

Table: 8. Department/Section wise Functional Laboratories available

Sl. No.	Department/Section	Area (Sq. m.)	Remarks
1.	***Farm Machinery and Power Engineering***		
	08 Laboratories	90 m^2 128 m^2 135 m^2 160 m^2	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements *etc*.

		40 m^2 34 m^2 34 m^2 323 m^2	
2.	***Soil and Water Conservation Engineering***		
2.	06 Laboratories	39 m^2 81 m^2 135 m^2 105 m^2 58.5 m^2	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc.
3.	***Irrigation and Drainage Engineering***		
	02 Laboratories	225 m^2 40.32 m^2	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements *etc*.
4.	***Processing and Food Engineering***		
	06 Laboratory	228.28 m^2 92.77 m^2 80.71 m^2 93.24 m^2 124.03 201.51 m^2	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements *etc*. Equipment for processing of horticultural produces.
5.	***Renewable Energy Engineering***		
	01 Laboratory 02 Field Laboratories	140 m^2 75 m^2each	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements *etc*
6.	***Basic Engineering and Applied Sciences***		
	03 Laboratory	225 m^2 133.48 m^2 53.4 m^2	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements *etc*

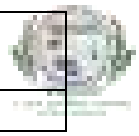
(d) Farm facilities, workshops and other instructional units:

Farm facilities

Table: 10. Farm facilities, workshops and other instructional units

Sl. No.	**Name of the Department**	**Farm Area (ha)**	**Irrigated / No irrigated (ha)**	**Crops grown**
1	Irrigation and Drainage Engineering	0.07	Irrigated	Cauliflower, Broccoli, Coriander,
2	Soil and Water Conservation Engineering (under AICRP On PET)	0.01 (under 4 green houses)	Irrigated	Cauliflower, Broccoli, Tomato, Onion, Garlic, Capsicum,

3	Renewable Energy Engineering	0.004	Irrigated	Tomato
4	Farm section	0.004	Irrigated	Flowers



Poly house and Shade nets

Table: 11.Poly house and Shade nets available area wise and crop details

Sl. No.	particulars	Total available numbers	Area (m2)	Crops grown
1	Polyhouse	07 (4 in AICRP PET, 1 in IDE, 1 in REE,1 under Farm section)	30 sq. m. to 120 sq. m	vegetable crops
2	Shadenet	02 under AICRP PET	10 sq. m.	Seedlings

Facilities available in farm section:

Table 12. Available Facilities to farm section

Sl. No.	Facility	Remarks
1	10hp motor	For supply and water pumping
2	Drip irrigation systems	For irrigation of land and polyhouses
3	Solar water pumping system with farm pond source	For supply and water pumping from farm pond and tanks
4	Water supply tanks	Water storage and supply

Diary Plant, water storage ponds, Farm equipment and Meteorological units:

Table 13. List of available facilities under Diary Plant, water storage ponds, Farm equipment and Meteorological units

Sl. No.	Particulars	Details	Remarks/ Area
1	Dairy Plant		
2	Vermicomposting	1 No.	For production of organic compost to field supply
3	Farm Equipment	Hand tools	Used by farm sections for farming and maintenance of campus
		Grass cutters	
		Utilize equipments from FMPE department	
4	Farm ponds/water tanks	1 farm pond SPV powered water pumping unit	For supply and water pumping from farm pond and tanks
		Water Tank – 2 Nos	Water storage and supply
5	Meteorological units	1 full-fledged Weather monitoring station (In Collaboration with ISRO)	Recording of weather conditions
6	Misc.	Pilot Plant for Milk Processing including Dairy Technology Lab, chiller unit, spray dryer	201.51 m^2

		unit & milk reception unit etc.	
		Pilot Plant for Fruits and Vegetable including Cottage scale soya paneer plant	124.03 m^2
		Multi stage evaporator with aroma recovery system	20.9m^2
		Shed for Feed and Fodder crusher and seed processing unit etc	119.66 m^2
		Mini Rice Mill	148.65m^2
		Farmer's Produce Processing cum Skill Development Centre	Area 265.26 m^2) (consisting of Ginger & Turmeric Processing Plant – Area 72 m^2, Unit of Minimal Processing of Fruits and Vegetable– Area 17.84m^2, Bakery unit– Area 23.78m^2, Noodles unit– Area17.84 m^2, Potato Chips unit –Area 17.84 m^2, store–Area 25.65 m^2, kitchen –Area 17.84 m^2, class room–Area 27.87 m^2, training hall –Area 44.6 m^2)

Farm Workshop cum Vehicle shed

Table 14. Details of Farm workshop, Implement shed and vehicle shed

Facility	Particulars	Remarks
Farm Workshop	1	The workshop of college is used for fabrication and repairing of farm tools and equipment
Implement shed	1	Farm implements are placed in the Farm Machinery department passage and used by farm section on need basis.
Vehicle shed	0	As such vehicle shed is not available. Vehicles are parked on free space available near college workshop and parking space allotted for various vehicles.

(f) Theory and practical batches for the Degree Programme: The number of intake students is manageable due to limited number of seats.

Table 15: Average number of students in theory and practical classes

Sl. No.	Name of the degree programme	Batch of student in theory	Batch of student in practical
1.	B. Tech. (Ag. Engg.)	Full strength	2 batches of equal strength

The class rooms and laboratories are sufficient to meet course curricula requirement of the degree programme.

6.4.5. Conduct of Practical and Hands-On-Training:

The College of Agricultural Engineering and Post Harvest Technology is equipped well with different laboratories and equipments specified as per 5th Dean Syllabus and mentioned in 6.4.4. The conduction of practical courses for Undergraduate, Post-Graduate and Ph.D. is carried out through actual on-field and laboratory experimentation as per credits allotted to the specified courses and hands on training. Practical and Hands on training are carried out as per the syllabus of 5th DEAN committee. The Student Ready Programme for B. Tech (Agricultural Engineering) is performed as per the guidelines provided by the ICAR.

The practical of courses for B. Tech (Agricultural Engineering) is carried out in the laboratories and fields fully equipped with desired instrumentation and facilities. Student practical are conducted as per batches divided based on strength of admitted candidates and as per academic schedule. Students are allowed to perform practical after proper demonstration and skill presentation with precautionary measures. The laboratories and facilities for practical and hands-on-training are fully equipped with number of instruments allowing each individual student to perform practical.

The students of Agricultural Engineering discipline undergo Two five weeks Skill Development Trainings under Hands-on-training after IV and VI semester. The industrial attachment training for 10 weeks and Experiential Learning on campus programme of 12 weeks is carried out in VII semester. The requisite facilities for conduction of experiential learning programme are provided to students to practically fulfill programme requirements and achieve desired skills. Within VIII semester students perform 12 Weeks Project planning and report writing as per ICAR guidelines. The facilities for project are provided to the students as per requirement.

Students have undergone the hands on training for the skill development during the training programme to make them fit for demonstrating the responsibilities effectively in the professional career. During the training students developed the skill in the field of farm machinery training and testing, repair and maintenance, renewable energy, soil and water conservation, design structures, Irrigation and water management, food processing & value addition, post-harvest management etc.

6.4.6 Supervision of students in UG/PG / Ph. D Programmes:

(number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.)

This college have started PG programs in 2013 onwards and Ph. D. from 2016 onwards. Currently all departments are running PG programs and 3 departments are having PhD program.

Table. 18a) Number of PG/PhD students passed out till Academic year 2019-20

S. No	Degree	Discipline wise	Total
1	M. Tech. (Agril. Engg.)	FMPE- 5 SWCE- 6 PFE-6	17
2	PhD (Agril. Engg.)	0	0

Table. 18 b) Number of faculty eligible for PG and PhD supervision department wise

S. No	Degree	Department	Intake	Qualified faculty
1	M. Tech. (Agril. Engg.)	FMPE	3+2*	4
		SWCE	3+2*	4
		PFE	3+2*	4
		IDE	2+1#	4

		REE	2+1#	3
2	PhD (Agril. Engg.)	FMPE	2	3
		SWCE	2	2
		PFE	2	2
		IDE	0	2
		REE	0	1

**ICAR Quota (Currently available)*

 # ICAR Quota from CAU, Imphal allotted, Programmes will be opting for accreditation once first batch is passed out)

6.4.7.Feedback of stakeholders:(Students, Parents, Industries, Employers, Farmers *etc*.)

This college has kept suggestion and complaints box in college premises. Regular counseling meetings are organized and in emergency parents are also participated for the personality developments of students. This college has provided an excellent platform and infrastructure to establish rapport between students and teachers. The farmers, entrepreneurs and trainees from various Government, Private and public sector units, stakeholders and unemployed youth coming to various programme provide feedbacks through open platform available at programmes, through feedback books, emails, WhatsApp and available platforms. These feedbacks are taken righteously and proper discussion and action is taken by concerned persons and college authorities time to time.

6.4.8. Student intake and attrition in the programme for the last five years

Table: 19. Student intake and attrition in the programme for the five years

Name of the Degree Programme	Actual students admitted in last five years					Attrition (%)				
	2015-16	2016-17	2017-18	2018-19	2019-20	2015-16	2016-17	2017-18	2018-19	2019-20
B. Tech (Agril. Engg.)	30	40	36	33	39	3.33	2.5	8.33	0	12.82
B. Tech (Food Technology)	11	09	09	9	10	15	22.2	11.11	18.18	10
M. Tech (FMPE)	01	0	02	03	2	0	0	0	0	0
M. Tech (SWCE)	03	01	02	05	2	0	0	0	0	0
M. Tech (PFE)	02	02	02	04	2	0	0	0	0	0
M. Tech (IDE)	NA	NA	NA	NA	1	0	0	0	0	0
M. Tech (REE)	NA	NA	NA	NA	1	0	0	0	0	0
Ph.D. (FMPE)	-	1	-	1	2	0	0	0	0	0
Ph.D. (SWCE)	-	-	-	1	0	0	0	0	0	0

Ph.D. (PFE)	-	-	1	1	1	0	0	0	0	0

6.4.9. ICT Application in curricula delivery:

- **Interactive whiteboards and touch based computer system:**

The College of Agricultural Engineering and Post-Harvest Technology (CAEPHT) Computer Laboratory, under Central Agricultural University (CAU), Imphal, is well-equipped with 2 smart classrooms having facilities of Interactive whiteboards for conduction of online lectures and smartboard allows projection of images, manipulation of images, dragging, clicking and copying of matter. Simultaneously Teacher is availed with facility to provide handwritten notes on board and same can be saved for later use.

- **Computer facilities:**

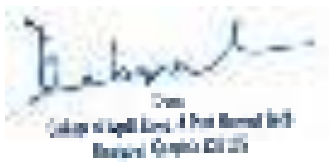
The College of Agricultural Engineering and Post-Harvest Technology (CAEPHT) Computer Laboratory, under Central Agricultural University (CAU), Imphal, is well-equipped with 20 computersfor computing facilities to all the students of the college, teaching and non-teaching staff members along with Internet connectivity.It also provides Internet facilities to all teaching staff, administrative staff and all students of the college. There are approximately more than 300 users who are availing the Internet and computing facilities.The Computer Centre supports a wide 1000 Mbps fiber optic network (OFN) that connects all the academic units, hostels, library, dispensary, residence and other central facilities to the Computer Centre. Users can use the computing resources of Computer Center from their offices, academics unit, hostels and residences. Login is provided to all the students, faculty and staff members for Internet browsing. Besides, Wi-Fi facility is provided to boys' hostel, girls' hostel, ATIC Building, guest house, dispensary, VC camp, and Dean's residence. LAN is provided through optical fiber connection in North Academic building, South Academic building, new girls' hostel, auditorium, staff quarter, medical unit and Farmers Produce Processing cum Skill Development Centre. The network Security is Provided through UTM/Firewall.

6.4.10. The information pertaining to 6.4.1 to 6.4.9 has been provided for UG programme *i.e.,* B.Tech.(Agricultural Engineering) of College of Agricultural Engg & PHT, CAU, Ranipool Gangtok Sikkim, Sikkim is correctly.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate

I,Parmendra Prasad Dabral, the **Dean, College of Agricultural Engg & PHT, CAU, Ranipool Gangtok Sikkim** hereby certify that the information contained in Sections 6.4.1 to 6.4.9 are furnished as per the record available in the college and degree awarding university.



(P. P. Dabral)

Dean

Self study report of UG (B. Tech. (Food Technology) programme

SUBMITTED BY
COLLEGE OF AGRICULTURAL ENGINEERING & POST HARVEST TECHNOLOGY
(CENTRAL AGRICULTURAL UNIVERSITY, IMPHAL)
RANIPOOL, SIKKIM

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6.4. SELF STUDY REPORT FOR DEGREE PROGRAMME

6.4.1 Brief History of Degree Programme

Keeping in view the high potential of applications of agricultural engineering and post-harvest technological interventions in improving the agricultural scenario of NEH region and to address to the issues of shortage of trained human resource in this discipline, the College of Agricultural Engineering and Post Harvest Technology (CAEPHT) was established in May 2006 by Central Agricultural University (CAU), Imphal at Ranipool, Gangtok (Sikkim). In the first batch, 20 students were admitted in B.Tech. (Agril. Engg.) Programme, at the time of establishment in 2006. The college has marched ahead to offer two B.Tech. (Agri. Engg.&Food Tech.), five M.Tech. (Farm Power & Machinery, Soil & Water Engg., Processing& Food Engg., Irrigation and Drainage Engineering and Renewable Energy Engineering) and three Ph. D. (Farm Power & Machinery, Soil & Water Engg. and Processing & Food Engg.) degree programme.

Initially only one Degree Programme i.e. B.Tech. in Agricultural Engineering was running in the college. During the initial stages of the college a need was felt for the development of scientific man power in the area of Food Technology for NEH. To fulfill this need another area of Food Technology was aided. A new Degree Programme was initiated as B.Tech. in Food Process Engineering during 2010 with 19 students. As per the ICAR Policy, this Degree Programme was renamed as B.Tech.in Food Technology during 2012 and this programme is running since then.

At B.Tech level, students are admitted only from all the State of NEH. Few seats are filled on all India bases through ICAR quota. The quota of various States is fixed. The State Governments recommend students (on the basis of competitive examinations within their state) for admission. Similarly ICAR nominate (on the basis of all India competitive examination) students for their quota. The intake capacity, number of students admitted, number of students graduated number of fellowship received by the students in various academic years are given in following two tables.

Student Intake and passed out

1. UG (B. Tech. (Food Technology)

Sl. No.	Year	Intake capacity	No. of Student Admitted	No. of Student Graduated	No. of Students receiving NTS during the academic year (First year to final year)	No. of Students receiving Univ. Merit Scholarship/ Univ. Institutional Fellowship	Any other Scholarships during the academic year (First year to final year)
1.	2015-16	20	09	05	12	03	-
2.	2016-17	20	09	07	03	02	-
3.	2017-18	19	09	09	03	02	9, State Scholarship
4.	2018-19	19	09	06	05	03	02, Ishan Uday (UGC) 9, State Scholarship
5.	2019-20	22	10	10	04	04	02, Ishan Uday (UGC) 02, State

							Scholarship

The total no. of students of B.Tech.Food Technology (1st year, 2nd year, 3rd year & 4th year) available during various academic yearsis given below.

Year	1st	2nd	3rd	4th	Total no of student	Total scholarship
2015-16	14	06	09	07	36	15
2016-17	09	11	06	09	35	05
2017-18	10	6	10	6	32	14
2018-19	09	10	06	10	35	19
2019-20	12	07	09	05	33	12

6.4.2 Faculty Strength

College of Agricultural Engineering and Post Harvest Technology (CAEPHT) offer B. Tech Food Technology in addition to B. Tech. Agricultural Engineering program. **There is no separate sanctioned faculty strength and staff for the programme. Hence, all the departments, faculty and laboratories as required for a separate college under fifth deans' committee recommendations are not available. However, the faculties, laboratories and other facilities of CAEPHT are being utilized for smooth running of B. Tech., Food Technology program.**

Strength of Faculty members involved in teaching and guiding the students of B.Tech.(Food Technology) during 2015-2020are as follows:

Sl. No.	Faculty associated with Food Technology programme	Permanent	Guest faculty	Total
1.	Professor	2	1(on contract) 1(as guest)	4
2.	Associate Professor	2	1(as guest)	3
3.	Assistant Professor	22	2(as guest) 3 (sister organization-COH) 3 (on Contract)	30

** All the faculty were assigned the responsibility for the multiple programme (Bachelor level, PG level and Ph. D Levels)

6.4.3 Technical and Supporting Staff

The college is employing staff as per the recommendations of various Dean's Committee. All the Technical, Supporting, Administrative and Ministerial Staffs are **having responsibilities for multiple programs (B.Tech, M.Tech and Ph.D.)**. Along with the various teaching facilities the college is also having **well furnished/ equipped and well staffed**, separate hostels (including Mess) for Boys and Girls, Medical Unit (including one Medical Officer, Pharmacist, Male and Female Nurses), Gymnasium in Boys and Girls Hostel, Sports facilities (Indoor within the college and Outdoor in collaboration with Sikkim Government School/College) , Guest House, Canteen, Auditorium, Mini Auditorium, ATIC, Library, Farmers Produce Processing cum Skill Development Centre, Business Incubator, Academic Unit, Audit & Account Unit, Establishment Unit, Purchase Unit, Vehicle section (including one Big Bus , one Mini Bus, two trucks, one jeep and one Ambulance), Estate Section,

Security section, parking space, separate toilets(for ladies and gents) within the buildings and outside the buildings etc. All these facilities are available to the students. The hostels are managed by wardens (one male Professor for Boys Hostel and one female professor for Girls Hostel). There are facilities for Yoga and Meditation, Self Defence etc. A student welfare Officer had guided and helped the students during the period under report. Various laboratory/facilities are having one Field-cum-Lab Assistant and Multi-Tasking Staff. There are various outside funded projects including four All India Coordinated Research Projects & one Farm Machinery Testing Centre. Many University projects are also running in the various departments of the college. In these projects many technical personals and Multi Tasking staff are also working. Similarly many technical and supporting staffs are working in the college on contract. All these staff/ man power are available to the students during course of their Practical Work and Project Work.

6.4.4 Classrooms and Laboratories

There are four classrooms, which are exclusively being used by the students of B.Tech (Food Technology).The smart class room facility (consisting of interactive board, Wi-Fi, PA speaker and sound system, podium, projector etc.) is also being utilized by the students of Food Technology. There are various labs which are being utilized by various UG, PG & Ph.D. Programs. These labs are well equipped as per the recommendations of various Dean's Committee. The details are given below.

Sl. No.	Name of the Laboratory
1.	**Food Engineering laboratory** (consisting of Food Process Technology unit and Food Product Development unit)(Area- 228.28m^2)
2.	**Process Engineering laboratory** (consisting of unit operation lab, packaging unit etc.)(Area- 92.77m^2)
3.	**Food Analysis laboratory** (consisting of Food Rheology and sensory unit, Food Bio-Technology unit and Food Analytics unit etc.) (Area-93.24 m^2)
4.	**Agricultural Structures & Environmental Control Laboratory Engineering laboratory**(consisting of Heat, Mass & Refrigeration – Air Conditioning Unit)(Area- 80.71 m^2)
5.	**Pilot Plant for Milk& Milk Product Processing**including Dairy Technology Lab(Area-201.51m^2)
6.	**Pilot Plant for Fruits and Vegetable**including Cottage scale soya paneer plant(Area-124.03 m^2)
7.	**Multi stage evaporator with aroma recovery system**(Area-20.9m^2)
8.	**Shed for Feed and Fodder crusher and seed processing unit** etc.(119.66 m^2)
9.	**Mini Rice Mill**(Area 148.65m^2)
10.	**Farmer's Produce Processing cum Skill Development Centre**(Area 265.26 m^2) (consisting of Ginger & Turmeric Processing Plant – Area 72 m^2, Unit of Minimal Processing of Fruits and Vegetable– Area 17.84m^2, Bakery unit– Area 23.78m^2, Noodles unit– Area17.84 m^2, Potato Chips unit–Area 17.84 m^2, store– Area 25.65 m^2, kitchen –Area 17.84 m^2, class room–Area 27.87 m^2, training hall –Area 44.6 m^2)
11.	**Biochemistry Lab**
12.	**Microbiology Lab**
13.	**Thermodynamics & Heat Engg. Lab**
14.	**Irrigation Drainage & Fluid Mechanics lab**

15.	**Electrical , Electronics Engineering Instrumentation & Process Control Lab**
16.	**Engineering Drawing Lab**
17.	**Workshop**
18.	**Computer Lab**
19.	**Language Lab (Under development)**
20.	**ATIC including Technology Transfer Lab**

Major Equipment in Processing & Food Engineering Department

- Steam Distillation set up
- Fruit pulper
- Feed mixer (planatory mixer,
- planatory mixer (vacuum jacketed), planatory mixer (heating jacketed), double cone mixer, Blender SVB, Cube Mixer, Lab Kneader, Powder Mixer, Agitator, Drum Hoop Mixer-SDHM, Lab mass mixer SLMM, horizontal main drive SHMD-A.C., Universal Gear)
- Coconut tree climber
- Coconut dehusker
- Pasta Extruder
- Essential Oil distillation Unit
  - Solid Liquid Extraction unit
  - Steam Distillation Set up
  - Simple batch distillation unit
- Refrigerated centrifuge with
- Micro processor
- Rotary vacuum filter & Leaf Filter
- Refrigerated centrifuge CPR 24
- Plate heat exchanger
- Usha make Gerber Centrifuge
- Usha make centrifuge separator
- Vegetable Blancher
- Vacuum Tray Dryer
- General cycle refrigeration trainer
- Heat transfer through lagged pipe apparatus
- Heat transfer through composite walls apparatus
- Mechanical heat pump trainer
- Plate type heat exchanger
- Recirculation type air conditioning trainer
- Vacuum Packaging Machine
- Steam Jacketed cooking kettle
- Butter churn
- Vacuum oven
- Vacuum Tray Dryer
- Laboratory Pasteurizer
- Shrink Packaging Machine Model-CP-2030
- Laboratory homogenizer
- Micro Pulverizer (hammer mill)
- Feed and Fodder crusher
- Feed Block Formation Machine
- Food Extruder
- Fruit and Vegetable Juice and
- paste Processing Plant
- Boerner conical divider
- Bucket elevator
- Multipurpose grain mill
- Super critical fluid extraction unit
- Foot Sealer
- Fermenter
- Hand sealer
- Electronics Grain Moisture Meter
- Angle of Repose apparatus
- Digital Humidity Sensor and Indicator
- Hot Air Oven
- Electronic weighing balance (2.2kg)
- Electronic weighing balance ZSP-350 (300g)
- Digital balance model –(A-224) make Contech Capacity-220gm
- Digital Precision Electronic Balance
- Apparatus for thermal conductivity of insulating powder
- Convection apparatus (natural)
- Convection apparatus (forced)
- Concentric tube heat exchanger

- Stefan Boltzmann apparatus
- Thermal conductivity of insulating slabs by guarded hot plate method
- Thermal conductivity of insulating powder
- Micrometer Precise Thickness
- Shrink Wrapping Machine
- Aspirator/ Cyclone Separator
- Automatic Foam Fill Seal packaging Machine
- Rubber Roll Sheller
- Rice Whitener/Polisher
- Indented Cylinder Grader/ Separator
- Vibratory Screen Grader
- Freeze Dryer
- Food texture analyzer
- Rapid visco analyzer
- BOD Incubator with shaker
- Automatic Fibre Extraction system
- Digital Refractrometer PAL
- Laminar Flow
- Fruit and Vegetable Plant
- Milk Processing Plant
- Multi stage evaporator with aroma recovery system
- Cottage scale soya paneer plant
- Seed processing plant
- Modern rice mill (0.5 t/h capacity)
- Mini Dal Mill
- Milk analyzer Master Clasic
- Oxygen and CO_2 Headspace Gas analyzer plus Flexible packaging kit
- Microwave oven
- Water Bath
- Laboratory Spray Dryer
- Cream Separator
- Freeze Drier
- Digital Satorious Infra-red Moisture Meter
- pH meter
- Chroma meter
- Autoclave

(finned tube type)

- Concentric tube heat exchanger (plain tube type)
- Emissivity measurement apparatus
- Digital temperature meter
- Electronics Socs Plus Automatic Three Place Solvent Extraction Apparatus (Soxlet)
- Microscope-Ex-21 set Binocular Brand-OLYMPUS
- Viscometer
- Usha Make Centrifuge Separator
- Usha Make Gerber Centrifuge (2nos)
- Water Activity Meter
- Samsung Freeze with stand
- Water Purification System
- Ginger Washing Machine
- Vegetable Cutting Machine
- Spice processing plant
  - Ginger /Turmeric peeler cum polisher
  - Garlic Bulb Breaking Machine
  - Garlic Clove Flaking Machine
- Ginger Processing Machine (Complete Unit)
- Turmeric Grinder
- Potato Slicer
- Vegetable Washing Machine
- Complete unit of Potato Chips Machine
- Complete Unit of Biscuits Making Machine
- Complete Unit of Noodle Making Machine
- Ginger Paste and Powder Making Machine
- OTG Oven

6.4.5 Conduct of Practical and Hands on Training

Theory and Practical batches for the Degree Programme

There are manageable number of students (Maximum 22)who are kept in one batch during Theory & Practical classes to ensure better delivery of information, encourage students' participation and active monitoring.**We have provided practical as well as hands on training to students of various other universities, such as Sikkim University, CAU(COFT, COH), NIFTEM, Mizoram University etc. also.**

Year	B.Tech. (Processing and Food Engineering)	
	Batch of students in theory class	Batch of students in practical class
2015-16	05	05
2016-17	07	07
2017-18	09	09
2018-19	06	06
2019-20	10	10
2020-21	05	05

Short duration training/visit

During the course of study students also visited the following industries for short duration training.

- FCI Go Down, Sikkim
- Yuksom Breweries ltd, Sikkim
- CG Foods India Pvt. Ltd., Sikkim
- Tripti's Bakery, Sikkim
- Temi Tea Estate, Sikkim

Study Tour

Under student ready program in VIII Semester students were deputed for Study Tour (two – three weeks).Earlier all the students during course of their study used to undertake study tour twice (two to three weeks duration each time), one to NEH region and one to All India.The tour to NEH region was stopped after implementation of 5th Dean's committee. Now students are going only on All India Study Tour. However, due to covid-19 the tour couldn't be undertaken during 2020-21. The details of various tours undertaken by the students are given below.

NE Study Tour

Year	Places visited
2016-17	• NEHARI (Brahmputra board), Guwahati • IIT, Guwahati • IICPT, Guwahati • CPGS-CAU, Barapani • ICAR Research Complex for NE Region, Umiam, Barapani • NEHU, Shillong • Don Bosco Centre for Indigenous cultures (Agricultural gallery) • CPRI, Shillong • Tezpur University, Tezpur • NERIWALM, Tezpur • FMTTI, Biswanath Chariali
2017-18	• CPGS-CAU, Barapani • ICAR Research Complex for NE Region, Umiam, Barapani • Meterological station, Sohra, Meghalaya • NEHU, Shillong • CPRI, Shillong • Don Bosco Centre for Indigenous cultures (Agricultural gallery)

	• CAU, Imphal • Krishi Vigyan Kendra, Research farm, Andro, Imphal • Thangjam Agro Industry Pvt. Ltd.(Food processing unit), Imphal • Nilkuthi Fod Park .(Food processing unit), Imphal • Multi crop cold storage, Ukhrul, Manipur • Loktak Downstream Hydroelectric corporation ltd, Manipur • NEHARI (Brahmputra board), Guwahati • IIFPT, Guwahati • Annapurna group industry (Food processing unit), Guwahati

All India Study Tour

Year	Places visited
2016-17	• NIRJAFT (National Institute of Research on Jute and Fibre Technology, Kolkata) • CIFE (Central Institute for Fisheries Education), Versova, Mumbai • M/s Jain Irrigation Systems Ltd. Jalgaon, Maharashtra • CIRCOT (Central Institute for Research on Cotton Technology), Mumbai • Tractor Division Mahindra & Mahindra Ltd., Worli, Mumbai • ICAR- Central Coastal Agricultural Research Institute, Goa • M/s. Sagar Feeds and food processing industry, Cuncolim, Goa • M/s Nestle India Ltd., Goa • Hindustan Foods, Usgaon, Ponda, Goa
2017-18	• PJ Telangana State Agriculture University, Hyderabad • Central Research Institute for dry land agriculture, Hyderabad • Directorate of Rice Research, Rajendra nagar, Hyderabad • CIFE (Central Institute for Fisheries Education), Versova, Mumbai • Tractor Division Mahindra & Mahindra Ltd., Worli, Mumbai • Central Coastal Agricultural Research Institute, Goa • Krishi Vigyan Kendra, Panjim, Goa • Botanical Garden, Goa
2018-19	• NIRJAFT (National Institute of Research on Jute and Fibre Technology, Kolkata) • Agricultural and Food Engineering Department of IIT Kharagpur • M/s Jain Irrigation Systems Ltd. Jalgaon, Maharashtra • CIRCOT (Central Institute for Research on Cotton Technology), Mumbai • ICAR- Central Coastal Agricultural Research Institute, Goa
2019-20	• CIFT (Central Institute of Fisheries Technology), Andhra Pradesh • CMFRI ((Central Marine Fisheries Research Institute), Andhra Pradesh • ICAR- IIOR, Rajendranagar, Hyderabad • PJ Telangana State Agriculture University, Hyderabad • CIFE (Central Institute for Fisheries Education), Versova, Mumbai • CIRCOT (Central Institute for Research on Cotton Technology), Mumbai • Mumbai Veterinary College, Mumbai • CSMT, Mumbai • National Library, Kolkata

Conduct of the hands on training under STUDENT READY programme
Within the Country

A. Hand on training within the college

Under student ready program in VII semester students of B.Tech. (Food Technology) are being provided hands on training (**Skill Development/In-plant training**) in the following pilot plants.

- Milk & Milk Product Processing plant
- Fruit and vegetable processing plant
- Farmers Produce Processing cum Skill Development Centre
- Rice Mill

B. Hands on training outside the college

a) Research institute

i) Under student ready program in VIII Semester students were deputed to **CSIR-Central Food Technological Research Institute, Mysore (In-plant/Skill Development II for 13 weeks in Semester VIII)** for working in their various research projects. Few students undertook training at College of Agriculture Imphal, Manipur.

ii) Under summer training programme students used to be deputed to Institutions of higher learning and various industries. During 2015 students were deputed to Indian Institute Technology, Kharagpur, for their training.

b) Industries

Under student ready program, students were also deputed to the following industries for In-plant training in Semester VIII,related to milk processing and product development, fruits & vegetable processing and their products, spices processing and their products etc.

- Sikkim Milk Union Ltd., Sikkim
- Govt. Fruit Preservation factory (Sikkim Supreme), Sikkim
- Zydus healthcare pvt. Ltd., Sikkim
- Mehsana Dairy & Food Products ltd, Mehsana, Gujrat

Considering the input/work of the students two industries namely Govt. Fruit Preservation factory (Sikkim Supreme), Sikkim & Zydus healthcare pvt. Ltd., Sikkim has paid students a handsome amount.

6.4.6 Supervision of Students

There is a provision of advisory systems for Undergraduate degree programme. TheDean of the college nominates a teacher as the advisor for a group of 5-10 students within 10days of the admission. The advisor once nominated continues till the concerned studentscomplete their degree programme. The advisor explains students about various academicregulations and guides them in planning their academic programme. The meeting ofindividual advisory group of the UG students under each teacher is conducted for one hour inevery week by the advisor. Combined meeting of all advisory groups of individualdepartments is conducted by HOD once in two months. Combined meeting of all advisorygroups of all departments is conducted by Dean in each semester.

All the students of B.Tech. (Food Technology) are given project work for one semester. During this project work they are allotted a guide/supervisor and a topic for research work. After completion of the research work they analyze the data and submit the report. They make a presentation also on the work carried out by them.

6.4.7 Feedback of Stake Holders

In our University most of the faculty members are made Advisor of about 10 students. There has to be at least one meeting(mostly on Saturday) of the students with their Advisors. Students raised their various problems (academic, personal etc.) with the Advisor. The Advisors helped the students to solve their problem. In case, help of some particular faculty member/ staff/ Dean were needed, Advisors took their help and solved the problem.

There was / is a register with the Student Welfare Officer of the College, in which any student can raise their problems (related to academic, hostels etc.). The Student Welfare Officer brought the problem to the notice of the Dean of the College. Dean discussed the issue with the Student/ Group of Students/faculties/officials and took remedial measures.

For example fourteen complaints were received on 10/08/16. Most of the complaints were regarding repair of electrical items and civil work in Hostels which was promptly attended by AE (Civil) and JE (Electrical). Few problems were related to Wi-fi lan etc. which was tackled by computer operator. There was a suggestion regarding digitalization of library which was already in progress. On 22/0/16 a complaint was received regarding issue of identitycard which was immediately attended. On 21/10/16 complaints were received regarding practical of two courses. Chemicals etc were purchased and practical were completed within a week. On 08/12/16 a complaint was received regarding water purifier in Girl's Hostel which was attended and rectified in due course of time. On 24/03/18 a complaint was received regarding non- working of lan in New Girl's Hostel which was immediately attended by computer operator. During Farewell of the final year students they sometimes raised the problem faced by them during their stay of four years in the college. After knowing their problems Dean and Faculty tried to implement their suggestions. In every Semester there was a meeting of Dean with representative of Students to discuss their problems related to teaching, hostels, etc. Generally Students raised their issue which used to be discussed in the meeting. The issues which can be solved at the College level were settled in the College itself. The issues which needed the attention of the Vice-Chancellor weresent to him for satisfactory solution.

CAU organized Agricultural Fair every year in various states of NEH. During these fair many parents visited these fairs. Many times parents also visited the college or talked to various officials over phone. During these visits and discussions they appreciate the facilities and academic atmosphere of the college. Sometimes they also made various suggestions. Many times college implemented these suggestions. Every Year College also organized Technology Demonstration Mela / Farmers' Agriculture Fair. Many farmers of NEH region visited these Mela /Fair. During their visit interaction between various faculties and farmers were held and we got their opinion regarding various academic works, hostels and other facilities of the college**.**

Extension council meeting of the college and University were regularly held every year. During these meeting, progressive farmers, members of FPO, members of SHG, state government officials, entrepreneurs etc. participated and gave their feedbacks and suggestion.

During hands on training students interacted with various industries. During discussion of owners/ officials of these industries with various faculty members they appreciated the theoretical, practical knowledge and hard work of the students.**Govt. Fruit Preservation Factory (Sikkim Supreme) and Zydus Healthcare Pvt. Ltd., Sikkim have paid students a handsome amount during their hands on training.** During their hands on training students interacted/ worked with entrepreneurs, farmers, FPO, SHG etc. During discussion with the faculty members these people appreciated the help, knowledge and hard work of the students.

A brain storming session was held in Dec 2020 at CAEPHT, Sikkim to discuss and finalize the researchable issues related to Post Harvest Technology for Central Agricultural University. All the faculty member of various colleges and KVK related to Post Harvest Technology participated in this session. **Two expert's namely Dr. Suvendu Bhattacharya, Professor, ACSIR & Chief Scoientist (Retd.), Central Food Technological Research Institute, Mysore, and Dr. Abhijit Kar, Principal**

Scientist, Division of Food Science & Post Harvest Technology, Indian Agricultural Research Institute, New Delhi, also participated in this session. Their suggestions have been incorporated.

6.4.8 Student Intake and Attrition in the Programme for Last FiveYears

In our university admission is given to the students of NEH region. The Quota for various states of NEH and ICAR are fixed. Various State Governments and ICAR take competitive examination and nominate selected candidate for admission in CAU. We have to admit these students if they are fulfilling the eligibility requirements.

State Wise Quota for B.Tech. (Food Technology)

State	Arunachal Pradesh	Manipur	Meghalaya	Mizoram	Nagaland	Sikkim	Tripura	ICAR	Total
No. of students	02	04	02	02	02	03	04	03	22

Name of Degree programme	Actual student admitted in last five years						Attrition (%)					
	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
B. Tech. (Food Tech.)	9	09	09	09	10	09	41	41	41	41	45	41

6.4.9 ICT application in curricula delivery

College is having a well equipped Computer Lab with Internet LAN Connection, 10 KVA UPS, 20 Computers. All the six departments and various externally funded Projects are having Computer facilities which were usedfor teaching, practical, project work analysis etc of students. The college is having a system (e- collection) through which students deposited their fees etc. online itself. All the funds either from the University or from various funding agencies for various outside funded projects were/are deposited in the college account through Public Finance Management System. Wi-Fi availability and internet services are available in the whole campus (Academic buildings including class rooms, hostels, residential colony).

Our Library is having more than 7832 Books for use by the Students. It is also having various facilities where student can go through various Journals, Books etc. online either in the Library or Class Rooms or Departments or in their Hostel rooms etc. The Library provides Circulation and reference services. All the in-house operations of the Library are fully computerized using the network version of the library software KOHA with web OPAC (Online Public Access Catalogue) facilities. The library has also access to online e-journals through CERA (Consortium for e-Resources in Agriculture) and IP address has been activated to access the online journals through CERA in entire CAEPHT Campus. Plagiarism check for M.Tech & Ph.D. thesis was/is done through Ant plagiarism software URKUND in library. Photocopying & Printing facilities are also available in the library.Students used all these facilities during the period under report.

Furthermore, occasionally college organized various courses on Computer programming and on their use. During 2015-16 a course on Computer Aided Design was organized for the students. Er. B. K. Garg, Retired Principal Scientist, Central Institute of Agricultural Engineering, Bhopal

coordinated this training. For data analysis students used software viz., Design Expert, Origin etc. related to statistical analysis. Use of CATIA software by students for 3D modeling and design of processing equipment was very useful for them.

Workshop on 'Online Safety: social surfing 30' was organized on 18.11.17. There were/are many videos on various topics related to various subjects and machines. These videos are prepared by faculties of renowned organization such as Indian Institute of Technology. Our faculties have also prepared many videos, presentations (slide with audio). These videos (mostly available in YouTube) are being used by various faculty members for teaching various courses.

In view of the above it is clear that Degree programme in B.Tech (Food Technology) is meeting the expectations of ICT application in curricula delivery.

6.4.10. The information pertaining to 6.4.1 to 6.4.9 has been provided for UG programme *i.e.,* **B.Tech (Food Technology)** of College of Agricultural Engg & PHT, CAU, Ranipool Gangtok Sikkim, Sikkim is correctly.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12

CERTIFICATE

I the Dean, P. P. Dabral, College of Agricultural Engineering & Post Harvest Technology, Ranipool, Sikkim, hereby certify that the information contained is furnished as per the records available in the college and degree awarding university.

Date:

(P. P. Dabral)
Dean

SELF STUDY REPORT FOR

M.Tech (Farm Machinery and Power Engineering)

SUBMITTED TO

Indian Council of Agricultural Research, Krishi Bhavan, New Delhi.

SUBMITTED BY

College of Agricultural Engineering & Post Harvest Technology

(Central Agricultural University, Imphal, Manipur)

Ranipool, Sikkim

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6.4. SELF STUDY REPORT FOR POST GRADUATEDEGREE NPROGRAMME

6.4.1 Brief History of the M.Tech (Farm Machinery and Power Engineering) Degree Programme

Background Information

College of Agricultural Engineering & Post Harvest Technology, Ranipool was established during the year 2006 under the administration of Central Agricultural University, Imphal) to address the issue of shortage of trained manpower (human resource) in the disciplines of agricultural engineering and post-harvest technology besides other issues, pertaining to natural resource management, farm mechanization, post-harvest technology, processing & value addition, utilization of renewable sources of energy, creation of agro-industries etc. in the region.

The department of Farm Machinery and Power Engineering (FMPE)started M.Tech. program in Farm Machinery and Power Engineering in 2013 with an initial intake capacity of three students, which was later increased to five students. The activity of the department pertains to the areas of small farm mechanization, conservation agriculture machineries, soil dynamics in tillage and traction, ergonomics and safety in farm machinery, effective utilization of animal energy and testing of farm equipment. FMPE department gives exposures about different aspects of farm machinery design, computer aided design, ergonomics study, soil dynamics study and conservation agriculture machineries.

The Department of Farm Machinery and Power Engineeringis mainly engaged in teaching to under graduate, post graduate and Ph.D. students. The faculty of the department is actively engaged in academic, research as well as extension activities based on local and future needs of the farmers, field engineers and entrepreneurs. The faculty of the department has completed 01Extra Mural Research Project and 8 Intra Mural Research Project.The Department of Farm Machinery and Power Engineering is having three All India Coordinated Research Projects since 2009 namely Farm Implements and Machinery, Ergonomics and safety in Agriculture and Utilization of Animal Energy. The department has also established a farm machinery testing center in 2012 to cater to the need of manufacturers for testing of farm machineries in the region.

To date, 7 students have completed post- graduation from the department and 05 students are presently undergoing their M Tech (Agri Engg) with specialization in Farm Machinery and Power Engineeringin the department. The department also hosted one international student for M.Tech. program in 2017-19.

FMPE department is having Farm Machinery, Farm Power, Soil Dynamics, Testing, Ergonomics, Theory of Machine and Thermodynamics laboratories provide practical knowledge to the students and also to demonstrate and organize training to farmers and field engineers, entrepreneurs etc. The department also has a well equipped mechanical workshop to cater to the need of PG research of the department as well as college. The Workshop is also sued for imparting practical training to UG students as well as trainees. The resources of the AICRPs of the department are helpful in the conduct of PG research.

6.4.2 Faculty Strength

Faculty Strength (Cadre-wise)

Designation / Cadre	2015			2016			2017*			2018			2019			2020			2021		
	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V
Professor	1	1	0	1	1	0	1	1	1	1	1	0	1	1	0	1	1	0	1	1	0

Associate Professor	4	3	1	4	2	2	2	1	1	2	1**	1	2	1	1	2	1	1	2	1	1
Assistant Professor	6	3	3	6	4	2	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
Total	11	7	4	11	7	4	7	6	2	7	6	1	7	6	1	7	6	1	7	6	1

S-Sanctioned, F-Filled, V-Vacant

*FMPE department was bifurcated into Farm Machinery and Power Engineering (FMPE) and Renewable Energy Engineering (REE) from 2017 onward

**Incumbent has been promoted to the post of professor through CAS in 2018*

Faculty Strength

Department	Sanctioned Faculty			Faculty in place			Vacant position			Recommended by ICAR			Deviation from ICAR recommendation		
	Prof.	Assoc. Prof.	Asst. Prof.	Prof.	Assoc. Prof.	Asst. Prof.	Prof.	Assoc. Prof.	Asst. Prof.	Prof.	Assoc. Prof.	Asst. Prof.	Prof.	Assoc. Prof.	Asst. Prof.
FMPE	1	2	4	1	1	4	0	1	0	**1**	**2**	**4**	**0**	**1**	**0**

6.4.3 Technical and Supporting Staff

Sl. No.	Name of the Post	No. of Post	Actual Filled
1	Field cum Lab Assistant	3	3
2	Technician (T1)	8	8
3	Technician (T2)	1	1
4	MTS	2	2
Total		**14**	**14**

6.4.4 Classrooms & Laboratory

Classrooms

Sl. No.	Class room No.	Area (sq. m)	Seating capacity	Other facilities (LCD, Projectors, Computers, Smart board etc.)
1.	PG classroom 1	14.00	8	Whiteboard, Chairs

The department has one LCD projector which is used by the faculty for delivering lectures and seminars

Laboratory

The Department of Farm Machinery and Power Engineering has7 laboratories and one workshop to

carry out UG/ PG practical as well as PG research. All the laboratories are well equipped with all facilities to carry outresearch.

(a) Details of Laboratories available

Sl. No.	Name of laboratory	Area (Sq m)	Remarks
1	Farm Machinery Laboratory	90	Well-equipped will all necessary equipment to conduct hands on training and practical classes for the UG students. The laboratories are also equipped with up-to-date equipment which are useful for the research activities. The lists of the equipment available are given below.
2	Farm Power Laboratory	128	
3	Ergonomics And Safety Laboratory	135	
4	Soil Dynamics Laboratory	160	
5	Farm Machinery Testing Laboratory	40	
6	Thermodynamics and Heat Engine Laboratory	17	
7	Theory Of Machine Laboratory	17	
8	Workshop	323	

(b) Lists major Equipments:

The laboratories are well equipped to conduct the practical/hands on training to the students and carry out PG research. The lists of instruments/ equipments available in the laboratories are furnished below.

Table 7: List of major equipment in department of Farm Machinery and Power Engineering

1. Farm Machinery Laboratory
1. Multi Crop Thresher, Self Propelled Vertical Conveyor reaper, T/D inclined plate planter 2. Pedal cum power operated cleaner and grader 3. Rigid tyne 4. ted thresher 5. Power operated wire-loop thresher with winnower 6. Small power paddy thresher (hold-on type) 7. Small power paddy thresher (Axial Flow type) 8. Animal drawn patella harrow 9. Animal drawn patella puddler 10. Animal drawn three row seed drill 11. Animal drawn 3 row seed cum fertilizer drill 12. Animal drawn 2 row mustard drill 13. Animal drawn lug wheel puddler 14. Animal drawn ground nut digger 15. Mini power maize sheller 16. Mini power chaff shredder 17. Manual and motor operated chaff cutter
2. Farm power laboratory

1. Single cylinder two stroke petrol engine
2. Single cylinder 4 stroke diesel engine
3. Tractors (Mahindra B 275, New Holland)
4. Power tillers (12 hp, 6.5 hp, 5.5 hp)
5. Tractor Working Cut Model
6. Diesel fuel supply system model
7. Clutch system model
8. Brake System model
9. Stearing mechanism of tractor model
10. Cut model of 2 stroke Diesel engine
11. Cut model of 4 stroke Diesel engine
12. Actual cut model of single cylinder 2-stroke engine
13. Cross section of cylinder block
14. Components of engine (crank shaft, piston, connecting rod, rocker shaft, valve, valve spring guide etc.)

3. Ergonomics And Safety Laboratory

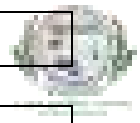
1. Integrated Composite anthropometer (ICA)
2. computerized electric ergometer
3. Computerized human energy measurement system with telemetry (K4B2)
4. Polar heart rate monitor
5. Strength measurement setup
6. Novatech load cell
7. Sphygmo manometer
8. Stethoscope
9. Thermometer (digital)
10. Digital Camera

4. Soil Dynamics Laboratory

1. Automated soil bin with sensors and digital control panel
2. Dynamometer
3. Motorized sieve shaker
4. IS Sieve set for soil analysis
5. soil analysis kit
6. Proving ring cone penetrometer

5. Farm Machinery Testing Laboratory

1. Digital tachometer
2. Digital soil moisture meter
3. Digital thermometer
4. Digital anemometer/barometer/humidity sensor
5. Digital weighing balance
6. Digital vibration and noise meter
7. Digital soil penetrometer
8. Digital energy logger
9. Spray patternator testing rig
10. Mini tractor (Kubota 21 hp)

Rotavator for small tractor 

6. Thermodynamics And Heat Engine Laboratory
1. Multi-cylinder petrol engine test rig with electric dynamometer 2. Twin cylinder diesel engine test rig with electric dynamometer 3. Two stroke petrol engine test rig with rope brake dynamometer 4. single stage air compressor test rig 5. Lancashire Boiler model 6. Cochran Boiler model 7. cornish Boiler model 8. Vertical water tube boiler model 9. Locomotive Boiler model 10. Babcock & Wilcox Boiler Model 11. Model of steam engine 12. Boiler mountings and accessories model (Blow off cock, stop valve, feed check valve, economiser, pressure gauge, water gauge, fusible plug, dead weight safety valve, spring loaded safety valve)
7. Theory Of Machine Laboratory
1. Universal Governor Apparatus 2. Cam Analysis Apparatus 3. Motorized Gyroscope 4. Static & Dynamic Balancing Apparatus 5. Coriollis component of acceleration apparatus 6. Epicycle Gear train apparatus
8. Workshop 1. HMT Lathe machine (05 Nos) 2. wood working lathe machine 3. Power hacksaw machine 4. Radial drill machine 5. Overhead crank shearing machine 6. Hydraulic press 7. Arc welding machine (2 Nos) 8. MIG welding machine 9. TIG welding machine 10. Gas welding setup 11. Pipe bending machine 12. Sheet rolling machine 13. Pedestal grinder machine 14. Chop saw machine 15. Work tables with bench vices 16. Carburizing furnace 17. Painting oven 18. Sheet shearing machine 19. Milling machine

20. Shaper machine Smithy furnace with envils and swedge blocks

(c) Average Number of Students in Theory and Practical Classes

Postgraduate students are less in number and are grouped into one theory batch and one practical batch.

Sl. No.	Name of the department	Theory Batch	Practical Batch
1.	Farm Machinery and Power Engineering	Full strength	Full strength

6.4.5Conduct of Practical and Hands-On-Training

Course curriculum for master degree programme has been designed with special emphasis on novel areas of farm machinery and power engineering.Systematically planned practical classes are conducted for the students in the department as per the credit assigned for the course. Whenever required, hands-on-training are also conducted for courses like system simulation and computer aided problem solving in engineering for PG students of the department. Further as a part of their course curriculum, the PG students are sent for training for twenty days to different research institutes, industries. Besides, the students are also sent to progressive farmers' field to gain a firsthand experience and exposure to the practical problems in farming especially in hilly terrain conditions.The students also get exposure to farmers and interact with them during Technology and Machinery Demonstration Mela organized by the college every year.

6.4.6. Supervision of students in PG Programme:

The number of students supervised by Faculty in the Department of Farm Machinery and Power Engineering as per the guidelines is listed below.

Table 10: Number of students supervised in last five years in FMPE department

Name of the Degree Programme	year				
	2015-16	2016-17	2017-18	2018-19	2019-20
Number of M. Tech (FMPE) students	1	-	1	2	3
PG Recognized teacher	3	3	2	3	3
student to teacher ratio	1:3	-	1:2	2:3	1:1

Table 11: Details of the Master thesis supervised in FMPE

Sl. No.	Title of the Thesis	Name of the Student	Year of Completion
1.	Design and Development of Mechanically Metered Self Propelled Rhizome Planter	Mr. Kshitij Adhikari	2015
2.	Design and Development of Solar - Biomass Hybrid Dryer for Large Cardamom Drying	Mr. Vishnu Sankar A	2017
3.	Development of Ergonomically Designed Pedal Operated Maize Sheller for Sikkim Women Workers	Ms. Vusa Manisha	2019
4.	Optimization of Operating Parameters of Rotavator for Soil Tillage Quality of Medium Textured Soil under Soil Bin Condition	Mr. Philipo William Kulaya	2019
5.	Design, Development and Performance Evaluation of Zero-Till Planter Matching to Mini Tractor for Small Farm Mechanization	Mr. Lilesh Patel	2020
6.	Development of Ergonomically Designed Cashew Nut Sheller	Mr. Rahul Nath	2020
7.	Design and Development of a buckwheat thresher for small farm mechanization	Mr. M. Mohammad Sohail	2020

Faculty profile

Sl. No.	Name of the faculty	Designation	Qualification	Experience, Years	No. of students guided/guiding		
					B.Tech	M.Tech	Ph.D
1.	Dr. S. N. Yadav	Professor	Ph.D.	38	11	4	2
2.	Dr. N. S. Chauhan	Professor	Ph.D.	19	14	3	1
3.	Dr. S. K. Satpathy	Assistant Professor	Ph.D.	16	8	2	0
4.	Er. S. S. Das	Assistant Professor	M.Tech*	18	6	0	0
5.	Er. S. K. Chauhan	Assistant Professor	M.Tech	9	10	0	0
6.	Er. Ng. Devrani	Assistant Professor	M.Tech*	4	3	0	0

***PursuingPh.D. program**

6.4.7. Feedback of stakeholders: (Students, Parents, Industries, Employers, Farmers *etc*.)

- Regular advisory meetings are conducted for the students by their respective supervisors and collect feedbacks from the students.

- Every year in in the month of Feb-March, Technology and Machinery Demonstration Mela is being organized by the department where a farmer-scientist interaction meeting is organized for getting feedback from the farmers
- Improved technologies developed by the department are being demonstrated to the farmers and through Front line demonstration programmes under AICRPs and farmers feedback are obtained for further improvement in the machines, if needed.
- Interface meetings with line department officials, KVKs, ICAR -NOFRI, are organized for planning of future research and extension activities of the department.

6.4.8 Student Intake and Attrition in the Programme for Last FiveYears

Year wise information on sanctioned strength, actual intake and attrition during the last five years of the degree programme are furnished in the tabular form. This attrition is due to students getting regular jobs in their respective state government etc.

Year	Departments	Sanctioned seats	Actual intake	Attrition	Attrition Percentage
2015-16	Farm Machinery and Power Engineering	3	1	0	0
2016-17		5	1	1	100
2017-18		5	2	0	0
2018-19		5	3	0	0
2019-20		5	2	0	0

6.4.9 ICT Application in Curricula Delivery

ICT enabled teaching-learning encompasses a variety of techniques, tools, content and resources aimed at improving the quality of learning and variety of options are available to the teacher and students to utilize various ICT tools at CAEPHT, Ranipool for effective teaching and learning. Teachers participate in selection and critical evaluation of digital content and resources. They are also encouraged to develop their own digital resources, sharing them with colleagues and students through the digital repositories. For this each individual staff allotted with high configured computer system and connected with high-speed Internet facilities for sharing digital contents. During the time of corona pandemic, the classes were conducted totally via online mode using Google meet, zoom etc.

Below Mentioned ICT facilities are well established in the college during the period of 2015-16 to 2020-21. Detailed ICT Lab facilities are listed below:

S. No.	Name of Lab/facility	Equipment	Usage
1.	ICT Enabled smart Class Rooms	1 PG Class rooms with Computer Systems and LCD Projectors	For educational video, PPT, conferencing, teaching and learning
2.	AUTO CAD Lab	CATIA (V6) installed in 17 computers in the central computer lab	used for practical class, imparting trainings and used by the students and faculty for 3D modeling and designing

3.	ICT Enabled Seminar Hall	High Speed Internet Line connectivity, Computer Systems and LCD Projectors camera	For online interaction with university key officials by students and staff, online interaction with different subject experts in different streams

Our Library is having more than 7832 Books for use by the students. It is also having various facilities where student can go through various Journals, Books etc. online either in the Library or Class Rooms or Departments or in their Hostel rooms etc. The library provides Circulation and reference services. All the in-house operations of the library are fully computerized using the network version of the library software KOHA with web OPAC (Online Public Access Catalogue) facilities. The library has also access to online e-journals through CERA (Consortium for e-Resources in Agriculture) and IP address has been activated to access the online journals through CERA in entire CAEPHT Campus. Plagiarism check for M.Tech & Ph.D. thesis was/is done through Ant plagiarism software URKUND in library. Photocopying & Printing facilities are also available in the library. Students used all these facilities during the period under report.For data analysis students used software viz., Design Expert, Origin etc. related to statistical analysis.

6.4.10. The information pertaining to 6.4.1 to 6.4.9 has been provided for PG programme *i.e.,* M.Tech. (Agricultural Engineering) in Farm Machinery and Power Engineering of College of Agricultural Engg & PHT, CAU, Ranipool Gangtok Sikkim, Sikkim is correctly.

6.4.11. Since the accreditation of Programmes is related to the All-India Admission from ICAR and also having weightage for college accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12 CERTIFICATE

I the Dean, P. P. Dabral, College of Agricultural Engineering & Post Harvest Technology, Ranipool, Sikkim, hereby certify that the information contained is furnished as per the records available in the college and degree awarding university.

Date:

(P. P. Dabral)
Dean

CENTRAL AGRICULTURAL UNIVERSITY, IMPHAL, MANIPUR

SELF STUDY REPORT FOR THE

M. Tech. in

IRRIGATION AND DRAINAGE ENGINEERING,

COLLEGE OF AGRICULTURAL ENGINEERINGAND POST HARVEST TECHNOLOGY, RANIPOOL, GANGTOK

2015-16 to 2019-20

SUBMITTED TO

Indian Council of Agricultural Research,Krishi Bhavan, New Delhi.

SUBMITTED BY

Central Agricultural University, Imphal, Manipur- 795004

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6.4: Self-Study Report for M. Tech. (Agril. Engg.) With Specialization in Irrigation and Drainage Engineering at CAEPHT, RANIPOOL, SIKKIM.

6.4.1 Brief History of the Degree Program

College of Agricultural Engineering & Post Harvest Technology, Ranipool was established during the year 2006 under the administration of Central Agricultural University, Imphal to address the issue of shortage of trained manpower (human resource) in the disciplines of agricultural engineering and post-harvest technology besides other issues, about natural resource management, farm mechanization, utilization of renewable sources of energy, creation of agro-industries, etc. in the region.

The Department of Soil and Water Engineering (SWE) started offering M. Tech. (Agril. Engg.) with specialization in **Soil and Water Engineering** during the academic year 2015-16, later the degree name changed to M. Techwith specialization in **Irrigation and Drainage Engineering(IDE**)with the bifurcation of Soil and Water Conservation Engineering (SWCE) department from the previous SWE department in the academic year 2016-17.The activity of the department includes the areas ofirrigation water management, drainage engineering, groundwater hydrology, well hydraulics, irrigation systems and pumps, and GIS and remote sensing.

The Department of Irrigation and DrainageEngineering is mainly engaged in teaching undergraduate and post-graduate and Ph.D. students. It offers various courses of PG like Open Channel Flow, Design of Farm Irrigation Systems, Groundwater Engineering, Agricultural Drainage Systems, Water Quality, and Pollution Control, and Design of Pumps for Irrigation and Drainage,etc. to the PG students.

The faculty of the department is actively engaged in academic, research as well as extension activities based on local and future needs of the farmers, field engineers, and entrepreneurs. The faculty of the department has completed **5 Extra Mural Research Projects** (4 as PI and 1 as Co-PI) and **9 Intra Mural Research Projects** (7 as PI and 2 as Co-PI). Presently the faculty of the department is handling **1**Extra Mural Research Project.To date, **2** students have completed post-graduation from the department and **3** students are presently undergoing their M Tech (Agril. Engg.) with specialization in Irrigation and DrainageEngineering in the department.

Irrigation and Drainage Department has four laboratories namely Fluid Mechanics, Pump Engineering, Irrigation and Drainage, and Soil and Water Quality. Other than these laboratories, the department also conducts field experiments on terraces (in the college)and the river bed (flowing at the periphery of the college).

Statistics of Master's degree program (2015-16 to 2019-20)

Year of Admission	Admitted			Dropped			Passed			Degree award during the year	Remarks
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total		
Department of Soil and Water Engineering (2015-2016)											
2015-16	3		3	-	-	-	3	-	3	2017-2018	Two students belong to the IDE faculty
Department of Irrigation and Drainage Engineering (Started 2016-2017)											
2019-2020		1	1	-	-	-				2020-2021	Yet to complete
2020-2021	1	1	2	-	-	-				2022-2023	Yet to complete
Total	4	2	6		-	-	3	-	3		

Award of CAU, GOI &ICAR authorities' Scholarships

	Scholarship Type			
	University Scholarship (CAU)	ICAR scholarship(NTS)	SC/ST Fellow Ship	GOI Scholarship (SC+ST)
M. Tech.(SWE)				
2015-16	**3**			
M. Tech. (IDE)				
2019-20	**1**			
2020-21	**2**			
TOTAL	**6**			

6.4.2. FACULTYSTRENGTH

Faculty Strength (Cadre-wise)

	Department of SWE						Department of IDE														
Designation/ Cadre	**2015**			**2016**			**2017**			**2018**			**2019**			**2020**			**2021**		
	S	**F**	**V**	**S**	**F**	**V**	**S**	**F**	**V**	**S**	**F**	**V**	**S**	**F**	**V**	**S**	**F**	**V**	**S**	**F**	**V**
Professor (Direct Selection)	1	0	1	1	0	1	No Sanctioned Post of Professor after bifurcation of department														
Professor (CAS)				One Professor under CAS																	
Associate Professor	4	4	0	4	4	0	2	2	0	2	2	0	2	2	0	2	2	0	2	2	0
Assistant Professor	5	4	1	5	4	1	2	1	1	2	1	1	2	2	0	2	2	0	2	2	0
Total	10	8	2	10	8	2	4	3	1	4	3	1	4	4	0	4	4	0	4	4	0
Contractual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

S-Sanctioned, F-Filled, V-Vacant

* SWE department was bifurcated into Soil and Water Conservation Engg. (SWCE) and Irrigation & Drainage Engg. (IDE) department from 2017 onwards.

Faculty Strength

Department	**Sanctioned Faculty**			**Faculty in place**			**Vacant position**			**Recommended by ICAR**			**Deviation from ICAR recommendation**		
	Prof.	**Assoc. Prof.**	**Asst. Prof.**	**Prof.**	**Assoc. Prof.**	**Asst. Prof.**	**Prof.**	**Assoc. Prof.**	**Asst. Prof.**	**Prof.**	**Assoc. Prof.**	**Asst. Prof.**	**Prof.**	**Assoc. Prof.**	**Asst. Prof.**

IDE	-	2	2	1*	1	2	-	-	-	**1**	**2**	**3**	**1**	**0**	**1**
Total	1	2	3	1	1	2	-	-	-	1	2	3	1	0	1

* Promoted under CAS

6.4.3. TECHNICAL AND SUPPORTINGSTAFF

S. No.	POST	2020-21				
		Sanctioned	Filled	Vacant	Recommended by CAU	Diversion from recommendation (Sanctioned)
1.	Lab. Assistant		0			
2.	Messenger(MTS)		3			
3.	Lab Labor		-			
	Total		3			

6.4.4. CLASSROOMS AND LABORATORIES:

Classrooms

S. No.	Classroom No.	Area (sq. m)	Seating capacity	Other facilities (LCD, Projectors, Computers, Smartboard, etc.)
1.	PG classroom 1	10.00	5	Black Board
2.	PG classroom 2	10.00	5	White Board
3.	PG classroom 3		4	Computer room

Laboratory

The Irrigation and Drainage Engineering department has 4 laboratories to carry out UG/ PG practical as well as PG research. Three laboratories are up to mark and the fourth one is under development stage.

S. No.	Name of the laboratory	Area (sq.m)	Seating capacity
1.	Fluid Mechanics Lab	112.50	25
2.	Irrigation and Drainage Lab.	56.00	25
3.	Pump Engineering Lab.	56.00	25
4.	Soil and Water Quality Lab.	55.00	25
5.	Computer Lab	9.00	5
Field Laboratories			
6.	Field demonstration facility for gravity-fed micro-irrigation system on terraces	700.00	Any strength
7.	Rooftop rainwater harvesting system for	40.00	Any strength

	low-cost poly-house with drip irrigation system.		
8.	The river bed of the 0.68 km long river flowing at the periphery of the college campus	2040.00	Any strength

Major equipment

S. No	Particulars	No.
1.	Hot Air Oven	2
2.	Sieve shaker	2
3.	Tensiometers	10
4.	Hydrocyclone filter	1
5.	Rain gun	1
6.	Core cutters	2
7.	Canopy analyzer (Make Kaizen, Imperial, India)	1
8.	Hand-Held GPS (Orgeon 650 Garmin)	1
9.	Automatic Weather Station (Model- WS 501, Make OTT Hydromet, Germany)	1
10.	Turbidity meter	1
11.	High sensitivity thermometer	1
12.	Escherichia Coli counting set up (including hot water bath, vacuum pump, flasks, Petri dishes, Kovac's indole agent, Coliform agar, and Escherichia coli detects)	1 set
13.	Francis Turbine	1
14.	Hydraulic Bench	1
15.	Pelton Wheel Turbine	1
16.	Centrifugal Pump Test Set up	1
17.	Determination of Bernoulli's Theorem	1
18.	Darcy's Apparatus	1
19.	Friction in Pipeline	1
20.	Flow-through Mouthpiece	1
21.	Flow-through Orifice	1
22.	Reciprocating Pump Test Set-up	1
23.	Flow Over Notch Apparatus	1
24.	Gear Pump Test Set up	1
25.	Hydraulic Rig Ram (closed circuit)	1
26.	Jet Pump Test Rig	1
27.	Measurement of Irrigation Water	1
28.	Manometer and Pressure Guage	1
29.	Open Channel Apparatus(closed circuit)	1
30.	Reciprocating Pump Test Set up	1
31.	Reynolds Apparatus	1
32.	Set up for Pipe in Series	1
33.	Set up for Pipe in Parallel	1

34.	Set up for equivalent Length of Pipe	1
35.	Tilting Hydraulic Flume	1
36.	Mono-Block Single Phase Pump	1
37.	Kirloskar Pump	1
38.	Impeller (1220, KDS 5212, Bronze,Sp3L)	1
39.	Flash Pump/Tube Well Pump	1
40.	Gear Pump	1
41.	Portable Turbidity Meter	1
42.	Electrical Conductivity Meter	1
43.	Double Ring Infiltrometer	1
44.	Ph Meter	1
45.	Moisture Boxes	1
46.	Cut Section of Centrifugal Pump, Submersible Pump, and Turbine Pump	1
47.	Positive Placement Pump (Hand Pump)	1
48.	Water Level Meter	1
49.	Pump Testing Rig	1

Average Number of Students in Theory and Practical Classes

Postgraduate students are less in number and are grouped into one theory batch and one practical batch.

S. No.	Name of the department	Theory Batch	Practical Batch
1.	Irrigation and Drainage Engineering	Full strength	Full strength

6.4.5. CONDUCT OF PRACTICAL AND HANDS-ON-TRAINING

The course curriculum for the master's degree program has been designed with special emphasis on novel areas of Irrigation and Drainage engineering. Further, as a part of their course curriculum, the PG students are taken to exposure visits to different research institutes, progressive farmers' fields, private industries,and state government agencies. Industry/ Institute Training as a part of their course curriculum is mandatory for the students. Several exposure visits organized by the department arealso contributing toa better understanding of the subject and enriching their practical knowledge.

Practical Credit details

S.No.	Discipline	Number of credits for practical	Percent of time spent	
			In laboratory	Infield
1.	Open channel flow	1	40	60
2.	Design of Farm Irrigation Systems	1	40	60
3.	Agricultural Drainage Systems	1	40	60
4.	Groundwater Engineering	1	40	60
5.	Design of Pumps for irrigation and Drainage	1	80	20

6.	Water Quality and Pollution Control	1	60	40

6.4.6. SUPERVISION OF STUDENTS IN PGPROGRAM

S. No.	Year	Department	No. of PG recognized teachers		Student to teacherratio		
				Total	M.Tech.	Total (PG students)	
1.	2015-16	Soil and Water Engineering#	06	06	03	03	1:2
2.	2019-20	Irrigation and Drainage Engineering	04	04	02	01	1:2
3.	2020-21		04	04	02	02	1:2

 # During 2015-16, two students were guided by the faculty of Soil and Water Engineering later on shifted to the bifurcated department of Irrigation and Drainage Engineering

6.4.7. FEEDBACK OF STAKEHOLDERS (STUDENTS, PARENTS, INDUSTRIES, EMPLOYERS, FARMERS ETC.)

S. No.	Feedback	Action taken
Farmers :		
1.	There was feedback from the farmers of the Manipur that because of the turbidity of the water, the filters of the drip irrigation system get choked frequently and become out of service.	The department has taken an IRP and proposed one horizontal flow filter that can be fabricated with the locally available material and reduces the turbidity level of natural stream and unlined pond water to a considerable extent so that it could not interfere with the irrigation system.
2.	Cost-free running of irrigation system	The department has standardized the gravity-fed irrigation system.

6.4.8. STUDENT INTAKE AND ATTRITION IN THE PROGRAMME FOR THE LAST FIVEYEARS

Year-wise information on sanctioned strength, actual intake, and attrition during the last five years of the Degree Program are furnished in tabular form. This attrition is due to students getting regular jobs in their respective state government etc.

M Tech (Agri Engg) with specialization in Irrigation and Drainage Engineering in the department.

Year	Departments	Sanctioned seats	Actual intake	Attrition	Attrition Percentage
2015-16	Soil and Water Engineering	5	3#	0	0
2019-20	Irrigation and Drainage Engineering	3	1	0	0
2020-21		3	2	0	0

During 2015-16, two students were guided by the faculty of Soil and Water Engineering later on shifted to the bifurcated department of Irrigation and Drainage Engineering

6.4.9. ICT APPLICATION IN CURRICULADELIVERY

ICT-enabled teaching-learning encompasses a variety of techniques, tools, content and resources aimed at improving the qualityare a variety of options available to the teacher and students to utilize various ICT tools at CAEPHT, Ranipool for effective teaching and learning. Teachers participate in selection and critical evaluation of digital content and resources. They are also encouraged to develop their own digital resources, sharing them with colleagues and students through the digital repositories. For this each individual staff allotted with high configured computer system and connected with high speed Internet facilities for sharing digital contents. During the time of corona pandemic, the classes were conducted totally via online mode using Google meet, zoom etc.

Below Mentioned ICT facilities are well established in the college during the period of 2015-16 to 2020-21. Detailed ICT Lab facilities are listed below:

S.No.	Name of Lab	Equipment	Usage
1.	ICT Enabled Class Rooms	1 PG Classrooms with Computer Systems and LCD Projectors	For educational video, PPT, conferencing, teaching, and learning
2.	ICT Enabled Seminar Hall	High-Speed Internet Line connectivity, camera	For online interaction with University key officials by students and staff, online interaction with different subject experts in different streams

6.4.10. The information pertaining to 6.4.1 to 6.4.9 has been provided for PG programme *i.e.,* M.Tech. (Agricultural Engineering) in Renewable Energy Engineering of College of Agricultural Engg & PHT, CAU, Ranipool Gangtok Sikkim, Sikkim is correctly.

6.4.11. Since the accreditation of Programmes is related to the All-India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12 CERTIFICATE

I the Dean, P. P. Dabral, College of Agricultural Engineering & Post Harvest Technology, Ranipool, Sikkim, hereby certify that the information contained is furnished as per the records available in the college and degree awarding university.

Date:

(P. P. Dabral)
Dean

SELF STUDY REPORT FOR

M.Tech. (Processing & Food Engineering)

SUBMITTED TO

National Agricultural Education Accreditation Board,

Indian Council of Agricultural Research, Krishi Bhavan,

New Delhi.

SUBMITTED BY

College of Agricultural Engineering & Post Harvest Technology

(Central Agricultural University, Imphal, Manipur)

Ranipool, Sikkim

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6.4. SELF STUDY REPORT FOR POST GRADUATEDEGREE PROGRAMME

6.4.1 Brief History of the M.Tech. (Processing and Food Engineering) Degree Programme

Keeping in view the high potential of applications of agricultural engineering and post-harvest technological interventions in improving the agricultural scenario of NEH region and to address to the issues of shortage of trained human resource in this discipline, the College of Agricultural Engineering and Post Harvest Technology (CAEPHT) was established in May 2006 by Central Agricultural University (CAU), Imphal at Ranipool, Gangtok (Sikkim). Initially 20 students were admitted in B.Tech. Agril. Engg. Programme, at the time of establishment in 2006. The college has marched ahead to offer two B.Tech. (B.Tech. Agri. Engg. and B.Tech. Food Tech.), five M.Tech. (Farm Power & Machinery, Soil & Water Engg., Processing & Food Engg., Irrigation and Drainage Engineering and Renewable Energy Engineering) and three PhD(Farm Power & Machinery, Soil & Water Engg. and Processing& Food Engg.) degree programme

After initiation of college in 2006 with B. Tech. in Agricultural Engineering degree programme and starting Food Technology from year 2010 and when three Batches of B.Tech in Agricultural Engineering were passed out a need was felt to initiate M.Tech. Programme in Food Engineering. Hence, a new programme entitled M.Tech (Food Engineering) was initiated during 2013. The program was renamed as Agricultural Engineering with specialization in Processing and Food Engineering after fifth dean's committee recommendation.

Statistics of Master's degree programme (2015-16 to 2019-20)

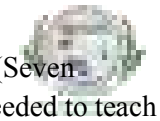
Year of Admission	Admitted			Dropped			Passed			Degree award during the year	Remarks
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total		
2015-16	01	01	02	-	-	-	01	01	02	2017-2018	
2016-17	02	-	02	-	-	-	02	-	02	2018-2019	
2017-18	02	-	02	01	-	01	01	-	01	2019-2020	
2018-19	02	02	04*	-	-	-				2020-2021	Yet to complete
2019-2020	02	-	02	-	-	-				2021-2022	Yet to complete
2020-2021	05	02	05	01	-	01				2022-2023	Yet to complete
Total	14	05	17	02	-	02	05	01	05		

***One has partial-withdrawn and joined State Government job**

Award of CAU, GOI & ICAR authorities' Scholarships

M.Tech.(PFE)	Scholarship Type			
	University Scholarship (CAU)	ICAR scholarship(NTS)	SC/ST Fellow Ship	GOI Scholarship (SC+ST)
2015-16	02	-	-	-
2016-17	03	01	-	-
2017-18	01	03	-	-
2018-19	02	04	-	-
2019-20	03	01	-	-
2020-21	04	02	-	-
TOTAL	**9**	**8**	-	-

6.4.2 FACULTYSTRENGTH



As per the Fifth Dean Committee report by ICAR, **Forty Four faculty members** (Seven Professors, Thirteen Associate Professors and Twenty Four Assistant Professors) are needed to teach and guide the students of B. Tech., M.Tech. and Ph.D. courses related to Agricultural Engineering. The sanctioned strength of various faculties at this college is **Forty Six**. At this College the following faculty members were involved in teaching and guiding the students of Two B.Tech., Five M.Tech. and Three Ph.D. level courses during 2015-2020.

Faculty	Number	Permanent	On contract/from other sister organizations/guest	Faculty recommended by the ICAR/5th Dean's Committee	Faculty involved in teaching of M.Tech. (PFE)
Professor	7 including Dean	5 including Dean	1 (On Contract) 1(as guest)	7 including Dean	4
Associate Professor	4	3	1(as guest)	13	1
Assistant Professor	34	26	2(as guest) 3 (sister organization-COH) 3 (on Contract)	24	11

** All the faculty were assigned the responsibility for the multiple programme (Bachelor level, PG level and Ph. D Levels)*

However, fifteen faculties (Four professors, One Associate Professor and Ten Assistant Professor) were involved in teaching and guiding the student in M.Tech (Processing & Food Engineering). Information regarding the designation and qualification of various faculty members are given below.

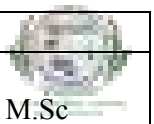
Faculty involved in teaching and guiding the student in M.Tech.(Processing & Food Engineering)

Faculty	Number
Professor	04
Associate Professor	01
Assistant Professor	10
Total	15

Information regarding faculties teaching and guidingM.Tech. (Processing and Food Engineering) programme

Area	Course Title &No. of Credits	Faculty	Qualification
Major Courses (Core)	Engineering Properties of Food Materials3 (2+1)	Dr. R.P. Misra, (Prof.) Dr. S. Jena (Associate. Prof.) (Late) Dr. A.I. Singh (Asst. Prof.)	Ph.D Ph.D Ph.D
	Unit Operations in Food Process	Dr. Sujata Jena	Ph.D

	Engineering3 (2+1)	(Associate Prof.)	
	Advanced Food Process Engineering3 (2+1)	Dr. Sujata Jena (Associate Prof.)	Ph.D
	Transport Phenomena in Food Processing 3 (2+1)	Dr Rakesh Kumar Raigar (Asst. Prof.)	Ph.D
	Agro energy audit and management 2 (2+0)	Prof. M. S. Seveda (Professor)	Ph.D
	Applied Instrumentation3 (2+1)	Er Rajiv Pradhan (Asst. Prof.)	M.Tech
Major Courses (Optional)	Food Packaging3 (2+1)	Dr Rakesh Kumar Raigar (Asst. Prof.)	Ph.D
	Food Quality and Safety Engineering 3 (2+1)	Dr. Said Prashant P (Asst. Prof.)	Ph.D
	Processing of Cereals, Pulses and Oil Seeds3 (2+1)	Dr. R.P. Misra (Professor) Dr R.K. Raigar (Asst. Prof.)	Ph.D Ph.D
Minor Courses	Water Quality and Pollution Control4(3+1)	Dr. G.S. Yurembam (Asst. Prof.)	Ph.D
	Agro-energy audit and management3(2+1)	Dr. N.P. Digambar (Asst. Prof.)	Ph.D
	Design and analysis of renewable energy conversion systems3 (3+0)	Dr. M. S. Seveda (Professor)	Ph.D
Compulsory Courses (Non Credit)	Library and Information Services1(0+1)	Mr. Pawan Kumar (Library Incharge)	M.Sc
	Agricultural Research, Research Ethics and Rural DevelopmentProgrammes1(1+0)	Dr. M. S. Seveda (Professor)	Ph.D
	Computer Applications in Agriculture 1 (0+1)	Er. Rajiv Pradhan (Asst. Prof.), Dr S R Yadav (Asst. Prof.) Mrs. T. LoidangChanu (Asst. Prof.)	M.Tech Ph.D M.Sc
	Technical Writing and Communications Skills 1(0+1)	Dr. D. Roy (Asst. Prof.)	Ph.D
	Basic Concepts in Laboratory Techniques 1(0+1)	Dr. Said P.P. (Asst. Prof.)	Ph.D
	Disaster Management1(1+0)	Dr. B.C.Kusre (Professor)	Ph.D
	Intellectual Property and its Management in Agriculture1(1+0)	Dr. S. N Yadav (Professor)	Ph.D
Seminar	Master's Seminar1 (1+0)	Dr. R. P. Misra (Professor) Dr. S. Jena (Associate Prof.) Dr. B. K. Singh	Ph.D Ph.D Ph.D

		(Asst. Prof.)	
Supporting Courses	Data Analysis using Statistical Packages 3 (2+1)	Mrs. T. LoidangChanu (Asst. Prof.) Dr. S. K. Meher(Asst. Prof.)	 M.Sc Ph.D

6.4.3 TECHNICAL AND SUPPORTING STAFF

Strength of Technical & Supporting Staff: Available posts and actual filled

Sl. No.	Name of the Post	No. of Post	Actual Filled	Vacancy
1	Field Cum Lab Assistant	04	04	00
2	MTS **(Multi-tasking staff)**	03	03	00

6.4.4 CLASSROOMS & LABORATORY

There are two classrooms, which are exclusively being used by the students of M.Tech (Processing & Food Engineering). The smart class room facility is being also utilized by the students of M.Tech (Processing & Food Engineering). There are various labs which are being utilized by various UG, PG & Ph.D. Programs. These labs are well equipped as per the recommendations of various Dean's Committee.

Sl. No.	Name of the Laboratory
21.	**Food Engineering laboratory** (consisting of Food Process Technology unit and Food Product Development unit) (Area- 228.28m^2)
22.	**Process Engineering laboratory** (consisting of unit operation lab, packaging unit etc.) (Area- 92.77m^2)
23.	**Food Analysis laboratory** (consisting of Food Rheology and sensory unit, Food Bio-Technology unit and Food Analytics unit etc.) (Area-93.24 m^2)
24.	**Agricultural Structures & Environmental Control Laboratory Engineering laboratory** (consisting of Heat, Mass & Refrigeration – Air Conditioning Unit)(Area- 80.71 m^2)
25.	**Pilot Plant for Milk Processing** including Dairy Technology Lab, chiller unit, spray dryer unit& milk reception unit etc.(Area-201.51 m^2)
26.	**Pilot Plant for Fruits and Vegetable** including Cottage scale soya paneer plant (Area-124.03 m^2)
27.	**Multi stage evaporator with aroma recovery system**(Area-20.9m^2)
28.	**Shed for Feed and Fodder crusher and seed processing unit**etc.(119.66m^2)
29.	**Mini Rice Mill** (Area 148.65m^2)
30.	**Farmer's Produce Processing cum Skill Development Centre** (Area 265.26 m^2) (consisting of Ginger & Turmeric Processing Plant – Area 72 m^2, Unit of Minimal Processing of Fruits and Vegetable– Area 17.84m^2, Bakery unit– Area 23.78m^2, Noodles unit– Area17.84 m^2, Potato Chips unit –Area 17.84 m^2, store–Area 25.65 m^2, kitchen –Area 17.84 m^2, class room–Area 27.87 m^2, training hall –Area 44.6 m^2)
31.	**Biochemistry Lab**
32.	**Microbiology Lab**
33.	**Workshop**
34.	**Computer Lab**

View of laboratories during experimental research

Major equipment of Processing & Food Engineering Department

Steam Distillation set up Fruit pulper Feed mixer (planatory mixer, planatory mixer (vacuum jacketed), planatory mixer (heating jacketed), double cone mixer, Blender SVB, Cube Mixer, Lab Kneader, Powder Mixer, Agitator, Drum Hoop Mixer-SDHM, Lab mass mixer SLMM, Horizontal main drive SHMD-A.C. Universal Gear) Coconut tree climber Coconut dehusker Pasta Extruder Essential Oil distillation Unit Solid Liquid Extraction unit Steam Distillation Set up Simple batch distillation unit Refrigerated centrifuge with Micro processor Rotary vacuum filter & Leaf Filter Refrigerated centrifuge CPR 24 Plate heat exchanger Usha make Gerber Centrifuge Usha make centrifuge separator Vegetable Blancher Vacuum Tray Dryer General cycle refrigeration trainer Heat transfer through lagged pipe apparatus Heat transfer through composite walls apparatus Mechanical heat pump trainer Plate type heat exchanger Recirculation type air conditioning trainer	Vacuum Packaging Machine Steam Jacketed cooking kettle Butter churn Vacuum oven Vacuum Tray Dryer Laboratory Pasteurizer Shrink Packaging Machine Model-CP-2030 Laboratory homogenizer Micro Pulverizer (hammer mill) Feed and Fodder crusher Feed Block Formation Machine Food Extruder Fruit and Vegetable Juice and paste Processing Plant Boerner conical divider Bucket elevator Multipurpose grain mill Super critical fluid extraction unit Foot Sealer Fermenter Hand sealer Electronics Grain Moisture Meter Angle of Repose apparatus Digital Humidity Sensor and Indicator Hot Air Oven Electronic weighing balance (2.2kg) Electronic weighing balance ZSP-350 (300g) Digital balance model –(A-224) make Contech Capacity-220gm Digital Precision Electronic Balance Apparatus for thermal conductivity of insulating powder

Stefan Boltzmann apparatus	Convection apparatus (natural)
Thermal conductivity of insulating slabs by guarded hot plate method	Convection apparatus (forced)
Thermal conductivity of insulating powder	Concentric tube heat exchanger (finned tube type)
Micrometer Precise Thickness	Concentric tube heat exchanger (plain tube type)
Shrink Wrapping Machine	Emissivity measurement apparatus
Aspirator/ Cyclone Separator	Digital temperature meter
Automatic Foam Fill Seal packaging Machine	Electronics Socs Plus Automatic Three Place
Rubber Roll Sheller	Solvent Extraction Apparatus (Soxlet)
Rice Whitener/Polisher	Microscope-Ex-21 set Binocular Brand-OLYMPUS
Indented Cylinder Grader/ Separator	Viscometer
Vibratory Screen Grader	Usha Make Centrifuge Separator
Freeze Dryer	Usha Make Gerber Centrifuge (2nos)
Food texture analyzer	Water Activity Meter
Rapid visco analyzer	Samsung Freeze with stand
BOD Incubator with shaker	Water Purification System
Automatic Fibre Extraction system	Ginger Washing Machine
Digital Refractometer PAL	Vegetable Cutting Machine
Laminar Flow	Spice processing plant
Fruit and Vegetable Plant	Ginger /Turmeric peeler cum polisher
Milk Processing Plant	Garlic Bulb Breaking Machine
Multi stage evaporator with aroma recovery system	Garlic Clove Flaking Machine
Cottage scale soya paneer plant	Ginger Processing Machine (Complete Unit)
Seed processing plant	Turmeric Grinder
Modern rice mill (0.5 t/h capacity)	Potato Slicer
Mini Dal Mill	Vegetable Washing Machine
Milk analyzer Master Clasic	Complete unit of Potato Chips Machine
Oxygen and CO_2 Headspace Gas analyzer plus Flexible packaging kit	Complete Unit of Biscuits Making Machine
Microwave oven	Complete Unit of Noodle Making Machine
Water Bath	Ginger Paste and Powder Making Machine
Laboratory Spray Dryer	OTG Oven
Cream Separator	
Freeze Drier	
Digital Satorious Infra-red Moisture Meter	
pH meter	
Chromameter	
Autoclave	

6.4.5 CONDUCT OF PRACTICAL AND HANDS-ON-TRAINING

Theory and Practical batches for the Degree Programme

There are manageable number of students who are kept in one batch during Theory & Practical classes to ensure better delivery of information, encourage students' participation and active monitoring. Students conducted their practical training in various Laboratory, Pilot plants and Farmers Produce Processing Cum Skill Development Centre of the college. We have provided practical as well as

hands on training to students of various other universities, such as Sikkim University, CAU(COFT, COH), NIFTEM, Mizoram University etc.

Average number of students in theory and practical classes

Sl. No.	Name of the degree programme	Batch of student in theory	Batch of student in practical
1.	**M.Tech. (Processing and Food Engineering)**	Full strength	Full strength

Conduct of the hands on training

A. Hands on training outside the college

a) In research institute

Students were deputed to the following research institute for undertaking advance training in latest instruments related to their project work.

- ICAR-Central Institute of Post Harvest Engineering & Technology (CIPHET) Ludhiana, Punjab
- Indian Institute of Food Processing TechnologyThanjavur, Tamil Nadu
- ICAR-The National Dairy Research Institute, Karnal, Haryana
- ICAR-Central Institute of Fisheries Technology, Visakhapatnam
- College of Agriculture, Central Agricultural University, Imphal.

b) Industries

Students were also deputed to the Thangjam Agro Industries Pvt.Ltd. (Likla) Chingmeirong, Imphal East, Manipur, a reputed industry for hands on training related to their project work.

6.4.6 SUPERVISION OF STUDENTS IN PGPROGRAMME

There are sufficient numbers of qualified and experienced faculties who are guiding M.Tech students in the area of Processing & Food Engineering. The names of the faculties who are entitled to guide M.Tech students are given below.

Sl. No.	Name of the faculty	Designation	Qualification	Experience	No. of students guided/guiding		
					B.Tech	M.Tech.	Ph.D
7.	Dr. R. P. Misra	Professor	Ph.D.	44 years	5	-	-
8.	Dr.(Mrs.)Sujata Jena	Associate Professor	Ph.D.	15 years	32	5	1
9.	Dr. B. K. Singh	Assistant Professor	Ph.D.	25 years	33	3	2
10.	Late Dr. A. I. Singh	Assistant Professor	Ph.D.	15 years	25	-	-
11.	Dr. Said P. P.	Assistant Professor	Ph.D.	6 years	11	2	-
12.	Dr. Rakesh Kr. Raigar	Assistant Professor	Ph.D.	6 years	7	2	-

Title of the Thesis by M.Tech students

S. No.	Title	Student Name
1	Standardization of Vacuum Drying Parameters for Drying Green and Red cherry Paper (Dalley)	Er. Sajesh Chhetri
2	Optimization of vacuum drying paramters for production of ginger powder from Gorubathanevarietry of Sikkim	Er. ThameridusMarak
3	Standardization of Process Technology for the Manufacture of Intermediate Moisture Foods from Chayote (Sechium edule)	Er. Taynath Santosh Jagannath
4	Functional Design and Development of a Simple Batch Type Osmotic Dehydrator for Horticultural Crops	Er. JitsonAchom
5	Standardization of Process for Development of Composite Flour Based Multi-Grain Pasta	Er. Vijay Shankar Kushwaha
6	Development of foam mat vacuum dried pomelo juice powder	Er. Sophia ChanuWarepam
7	Optimization of peeling method and process parameters for chayote peeling	Er.ChukkaluruHima Bindu
8	Development of Commercial Fish Feed for Grass Carp utilizing Local Materials.	Er. Devarakonda Rajesh
9	Process Standardization for Extraction of Oligosaccharides from Rice bean	Er. Bharat Bhushan

6.4.7 FEEDBACK OF STAKE HOLDERS

In our University most of the faculty members are made Advisor of about 10 students. There has to be at least one meeting (mostly on Saturday) of the students with their Advisors. Students raised their various problems (academic, personal etc.) with the Advisor. The Advisors helped the students to solve their problem. In case, help of some particular faculty member/ staff/ Dean were needed, Advisors took their help and solved the problem.

There was / is a register with the Student Welfare Officer of the College, in which any student can raise their problems (related to academic, hostels etc.). The Student Welfare Officer brought the problem to the notice of the Dean of the College. Dean discussed the issue with the Student/ Group of Students/faculties/ officials and took remedial measures.

For example fourteen complaints were received on 10/08/16. Most of the complaints were regarding repair of electrical items and civil work in Hostels which was promptly attended by AE (Civil) and JE (Electrical). Few problems were related to Wi-fi LAN etc. which was tackled by computer operator. There was a suggestion regarding digitalization of library which was already in progress. On 22/10/16, a complaint was received regarding issue of identity card which was immediately attended. On 21/10/16 complaints were received regarding practicals of two courses. Chemicals etc. were purchased and practicals were completed within a week. On 08/12/16. a complaint was received regarding water purifier in Girl's Hostel which was attended and rectified in due course of time. On 24/03/18 a complaint was received regarding non- working of LAN in New Girl's Hostel which was immediately attended by computer operator.

During Farewell of the final year students they sometimes raised the problem faced by them during their stay of four years in the college. After knowing their problems Dean and Faculty tried to implement their suggestions.

In every Semester there was a meeting of Dean with representative of Students to discuss their problems related to teaching, hostels, etc. Generally Students raised their issue which used to be

discussed in the meeting. The issues which can be solved at the College level were settled in the College itself. The issues which needed the attention of the Vice-Chancellor were sent to him for satisfactory solution.

CAU organized Agricultural Fair every year in various states of NEH. During these fair many parents visited these fairs. Many times parents also visited the college or talked to various officials over phone. During these visits and discussions they appreciate the facilities and academic atmosphere of the college. Sometimes they also made various suggestions. Many times college implemented these suggestions. Every Year College also organized Technology Demonstration Mela / Farmers' Agriculture Fair. Many farmers of NEH region visited these Mela /Fair. During their visit interaction between various faculties and farmers were held and we got their opinion regarding various academic works, hostels and other facilities of the college.

Extension council meeting of the college and University were regularly held every year. During these meeting, progressive farmers, members of FPO, members of SHG, state government officials, entrepreneurs etc. participated and gave their feedbacks and suggestions.

During hands on training students interacted with various industries. During discussion of owners/ officials of these industries with various faculty members they appreciated the theoretical, practical knowledge and hard work of the students. Govt. Fruit Preservation Factory (Sikkim Supreme) and Zydus Healthcare Pvt. Ltd., Sikkim have paid students a handsome amount during their hands on training.

During their hands on training students interacted/ worked with entrepreneurs, farmers, FPO, SHG etc. During discussion with the faculty members these people appreciated the help, knowledge and hard work of the students.

A brain storming session was held in Dec 2020 at CAEPHT, Sikkim to discuss and finalize the researchable issues related to Post Harvest Technology for Central Agricultural University. All the faculty member of various colleges and KVK related to Post Harvest Technology participated in this session. Two experts viz., Dr. Suvendu Bhattacharya, Professor, ACSIR & Chief Scoientist (Retd.), Central Food Technological Research Institute, Mysore, and Dr. Abhijit Kar, Principal Scientist, Division of Food Science & Post Harvest Technology, Indian Agricultural Research Institute, New Delhi, also participated in this session. Their suggestions have been incorporated.

We have trained (through demonstration, short duration training, vocational training, training in the field etc.) many entrepreneurs & farmers (around 1000 numbers) during last five years in preparation of various food products such as paneer, ice-cream, cream, ice-candy, jam, jelly, sauces, RTS, squash, candy, osmo-dehydrated pineapple rings, pasta, pickle, turmeric powder, ginger flex & powder, potato chips, noodles, yacon syrup (prepared from ground apple) minimal processing of fruits & vegetables, cookies, cake etc. At the initial stage some of the entrepreneurs used our facilities for commercial manufacturing of these items. After few years they have established their own production units. Few of the entrepreneurs/farmers have received awards also. For example Shri. Shisir Khadka (established Sundar Sikkim) and Shri Kailash Rana used the facilities available at Farmers Produce Processing cum Skill Development Centre, CAEPHT, Ranipool for few years (2015-2018) under the guidance of faculty and technical staff. Shri. Shisir Khadka was bestowned with "AIFA Progressive Farmers Award" during 2017. He was also issued an appreciation letter and appointed as State Coordinator of SEED Cell (Sikkim Entrepreneurship and Economic Development Cell) by the Sikkim Government during 2020-21.He was also made member of extension council of CAU.

Furthermore, considering the facilities, faculty, other resources, ability and interest of the college in training the farmers, entrepreneurs, and subject matter specialist, Government of Sikkim requested for conducting six training in various areas. The Government had sanctioned Rs. 7.5 lakhs for these six trainings. It was also requested to establish a Farmers' produce processing-cum-skill development center at CAEPHT, Ranipool. The Sikkim Government handed over machines (11 units, costing

approximately 100 lakhs) for processing of ginger, turmeric, vegetables, potato, bakery and noodles to the center for imparting training to farmers, entrepreneurs, students and scientists. Government of Sikkim also sectioned Rs. 9.90 lakhs for conducting 20 rounds of trainings/demonstrations in this center. The college has provided trainings to about 1000 beneficiaries. Sashastra Seema Bal had also deputed, youths from border region of the Sikkim for attending the training on processing of horticulture crops. The SSB also had sectioned fund for the training programme. Women self-help group from SSB were also provided training at the FPPSDC.

Considering the facilities, faculty, other resources, ability and interest of the college in training the Government of Orissa deputed five batches of state government officials for model development programme and provided necessary fund for the cause.

In addition to this, Power Finance Corporation ltd. sponsored three 90 days vocational training programme for Youth of North-Eastern states of India. The National Skill Development Council, New Delhi, has sponsored two one month duration vocational trainings.

6.4.8 STUDENT INTAKE AND ATTRITION IN THE PROGRAMME FOR LAST FIVEYEARS

Name of the Degree Programme	Actual students admitted in last five years						Attrition (%)					
Year	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
M. Tech. (PFE)	02	02	02	04	2	05	00	00	50	00	00	20

6.4.9 ICT APPLICATION IN CURRICULA DELIVERY

College is having a well-equipped Computer Lab with Internet LAN Connection, 10 KVA UPS, 20 Computers. All the six departments and various externally funded Projects are having Computer facilities which were used for teaching, practical, project work analysis etc. of students. The college is having a system (e- collection) through which students deposited their fees etc. online itself. All the funds either from the University or from various funding agencies for various outside funded projects were/are deposited in the college account through Public Finance Management System. Wi-Fi availability and internet services are available in the whole campus (Academic buildings including class rooms, hostels, residential colony).

Our Library is having more than 7832 Books for use by the Students. It is also having various facilities where student can go through various Journals, Books etc. online either in the Library or Class Rooms or Departments or in their Hostel rooms etc.. The Library provides Circulation and reference services. All the in-house operations of the Library are fully computerized using the network version of the library software KOHA with web OPAC (Online Public Access Catalogue) facilities. The library has also access to online e-journals through CERA (Consortium for e-Resources in Agriculture) and IP address has been activated to access the online journals through CERA in entire CAEPHT Campus. Plagiarism check for M.Tech.& Ph.D. thesis was/is done through Ant plagiarism software URKUND in library. Photocopying & Printing facilities are also available in the library. Students used all these facilities during the period under report..

Furthermore, occasionally college organized various courses on Computer programming and on their use. During 2015-16 a course on Computer Aided Design was organized for the students. Er.

B. K. Garg, Retired Principal Scientist, Central Institute of Agricultural Engineering, Bhopal coordinated this training.

For data analysis students used software viz., Design Expert, Origin etc. related to statistical analysis. Use of CATIA software by students for 3D modeling and design of processing equipment was very useful for them.

Workshop on 'Online Safety: social surfing 3.0' was organized on 18.11.17. There were/are many videos on various topics related to various subjects and machines. These videos are prepared by faculties of renowned organization such as Indian Institute of Technology. Our faculties have also prepared many videos, presentations (slide with audio). These videos (mostly available in YouTube) are being used by various faculty members for teaching various courses.

6.4.10. The information pertaining to 6.4.1 to 6.4.9 has been provided for PG programme *i.e.,* M.Tech. (Agricultural Engineering) in Processing and Food Engineering of College of Agricultural Engg.& PHT, CAU, Ranipool, Gangtok, Sikkim is correctly.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12

CERTIFICATE

I the Dean, P. P. Dabral, College of Agricultural Engineering & Post Harvest Technology,Ranipool, Sikkim, hereby certify that the information contained is furnished as per the records available in the college and degree awarding university.

Date:

(P. P. Dabral)
Dean

CENTRAL AGRICULTURAL UNIVERSITY, IMPHAL, MANIPUR

SELF STUDY REPORT

FOR

M. Tech. (Renewable Energy Engineering)

COLLEGE OF AGRICULTURAL ENGINEERING

AND POST HARVEST TECHNOLOGY, RANIPOOL, GANGTOK

2019-20 to 2020-21

SUBMITTED TO

Indian Council of Agricultural Research,

Krishi Bhavan, New Delhi.

SUBMITTED BY

Central Agricultural University,

Imphal, Manipur- 795004

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6.4 Self-Study Report for M. Tech. (Agricultural Engineering) with Specialization in Renewable EnergyEngineering at College of Agricultural Engineering and Post Harvest Technology,Ranipool, Gangtok, Sikkim

6.4.1 Brief History of the Degree Programme

College of Agricultural Engineering and Post Harvest Technology, Ranipool was established during the year 2006 under the administration of Central Agricultural University, Imphal) to address the issue of shortage of trained manpower (human resource) in the disciplines of agricultural engineering and post-harvest technology besides other issues, pertaining to natural resource management, farm mechanization, post-harvest technology, processing & value addition, utilization of renewable sources of energy, creation of agro-industries etc. in the region.

The Department of Renewable Energy Engineering (DREE) focuses on teaching, research and extension in the field of renewable energy engineering for the development of sustainable energy systems and energy efficient technologies for the future. The department is actively involved in teaching of B. Tech. (Agricultural Engineering) & B. Tech. (Food Technology) and (Agricultural Engineering) with specialization in Renewable Energy Engineeringstudents, research in the field of solar thermal energy, solar photovoltaic energy, passive solar architecture, biomass energy, waste management, wind energy, hydro power, hydrogen production from renewable sources, fuel cell technology, energy audit, energy modeling, energy conservation and management, energy planning and policy and extension activities in diverse areas of renewable energy engineering.

The Department of Renewable Energy Engineering (REE) started offering M Tech (Agricultural Engineering) with specialization in Renewable Energy Engineering during the academic year 2019-20.The activity of the department includes the areas of renewable energy, energy conservation, farm energy management, auditing, development of efficient energy sources, and value addition of food products through renewable energy utilization.

Renewable Energy Engineering department gives exposures about different energy sources like solar energy, wind energy, biomass energy, improved cookstoves, biomass briquetting, biogas technology, fuel cell technology and various alternate energy sources and various harnessing technologies, etc. The Department of Renewable Energy Engineering (REE) is mainly engaged in teaching to under graduate and post graduate and Ph.D. students. It offers various courses of PG and PhD like Agro-energy Audit and management, Biomass energy sources and utilization of wastes, solar energy utilization, etc to M. Tech and PhD programmes run by various departments of College of Agricultural Engineering and Post Harvest Technology, Ranipool. Also, courses of REE offered by B. Tech (Agricultural Engineering) are also covered as per fifth Dean'sSyllabus. UG students are offered various projects in the VIII semester and experiential learning during VII semester.

The faculty of the department is actively engaged in academic, research as well as extension activities based on local and future needs of the farmers, field engineers and entrepreneurs. The faculty of the department has completed in total 9 research projects i.e., 6 Extra Mural Research Project and 3 Intra Mural Research Project. Presently the faculty of the department is handling 2 Intra Mural Research Project. The faculty members of the department have also designed and developed 09 renewable energy technologies (solar energy conversion technologies and biomass energy conversion technologies).The faculty members have published 100 research papers in journals and conference proceedings of national and international reputes and conference proceedings. The faculty members have also published 04 books on Renewable Energy and published 15 book chapters in the international and national reputed books. The faculty members have organized 26 International and National conferences, seminars, workshops, summer school and trainings.The department is continuously arranging various training and extension activities for farmers and officials and stakeholders. To date, 02 students are presently undergoing their M Tech (Agricultural Engineering) with specialization in Renewable EnergyEngineering in the department.

Statistics of Master's degree programme (2019-20 to 2020-21)

Year of Admission	Admitted			Dropped			Passed			Degree award during the year	Remarks
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total		
2019-2020	1	0	1	-	-	-	-	-	-	2021-2022	Yet to complete
2020-2021	1	1	2	-	1	1	-	-	-	2022-23	Yet to complete
Total	**2**	**1**	**3**		**1**	**1**	**0**	**0**	**0**		

Award of CAU, GOI & ICAR authorities' Scholarships

M.Tech.(REE)	Scholarship Type			
	University Scholarship (CAU)	ICAR scholarship(NTS)	SC/ST Fellow Ship	GOI Scholarship (SC+ST)
2019-20	1	0	-	-
2020-21	1	0	-	-
TOTAL	2	0	-	-

6.4.10. FACULTY STRENGTH

Faculty Strength

Department	Sanctioned Faculty			Faculty in place			Vacant position			Recommended by ICAR		
	Prof.	Assoc. Prof.	Asst. Prof.	Prof.	Assoc. Prof.	Asst. Prof.	Prof.	Assoc. Prof.	Asst. Prof.	Prof.	Assoc. Prof.	Asst. Prof.
REE	0	2	3	1*	0	3	0	1	0	**1**	**2**	**3**
Total	0	2	3	1*	0	3	0	1	0	1	2	3

**Promoted through CAS*

6.4.11. TECHNICAL AND SUPPORTINGSTAFF

Sl. No.	POST	Sanctioned	Filled	Vacant
1.	Lab. Assistant	2	2	0
2.	Messenger(MTS)	2	2	0
	Total	**4**	**4**	**0**

6.4.12. CLASSROOMS AND LABORATORIES:

Classrooms

Sl. No.	Class room No.	Area (sq. m)	Seating capacity	Other facilities (LCD, Projectors, Computers, Smart board etc.)
1.	PG classroom: 1	16.00	8	Whiteboard and Computer Facility

Laboratory

The Renewable Energy Engineering department has 4 laboratories to carry out UG/ PG practical as well as PG research. All the laboratories are well equipped with all facilities to carry out research.

Sl. No.	Name of the laboratory	Area (sq.m)
1.	Renewable Energy – Bioenergy Laboratory	145
2.	Renewable Energy Laboratory- Solar Yard Section 1 and 2	75.00 each
3.	Renewable Energy Field Laboratory with Polyhouse and Poly tunnel dryer	85.00
4.	Physics Laboratory	95.00

Major equipment

2. Agni-star Gasifier	35. Hot wire Anemometer
3. Air Quality Meter	36. IDB Gasifier stove (Ceramic)
4. Air Quality Monitor with Laptop	37. IDB Gasifier Stove (Smokeless)
5. Aluminium Pots	38. Improved downdraft biomass combustion device
6. Bio-gas Analyzer	39. Indirect type solar cabinet dryer
7. Biogas Lamp	40. Lux meter
8. Biomass Cookstove	41. Mixed mode type solar dryer
i. Natural Draft biomass cookstove	42. Muffle furnace
ii. Forced Draft biomass cookstove	43. Multichannel digital temp. indicator
9. Bomb-Calorimeter	44. Orsat Apparatus
10. Box-type Solar Cooker	45. Parabolic Dish Solar Cooker
11. Cloud and Pour Point Apparatus	46. pH meter
12. Cookstoves with Air Insulation	47. Pressure Gauge
13. Data logger	48. Pyranometer
14. Digital Anemometer	49. Ried Vapor Pressure Test apparatus
15. Digital Balance (15 kg)	50. Shakti-SurahiBiomethanation plant
16. Digital Lux meter	51. Small scale box type biochar kiln
17. Digital Multimeter	52. Solar Concentrator Training Kit
18. Digital PH meter	53. Solar Cooker Box type
19. Digital Stop watch	54. Solar Lantern
20. Digital Tachometer	55. Solar Power Photovoltaic training Kit
21. Digital Temperature Indicator	56. Solar Refrigerator
22. Digital Thermo-hygrometer	57. Solar Still
23. Digital Thermometer Non-contact type	58. Solar Street light system
	59. Solar water pumping system
	60. Sound level meter
24. Digital Wood moisture meter	61. SPV Home lighting System
25. Direct Type Solar Dryer	62. Sunshine Recorder
26. Double distillation Apparatus	63. Test setup for thermosiphon system type solar water heater
27. Electric air blower	
28. Electric weighing balance	64. Thermocouple base thermometer with

29. Gas flow meter Glass 30. thermometer 31. Glass water distillation 32. Hand operated briquetting machine 33. High Precision balance 34. Hot Air oven	display unit 65. Turbine type flow meter 66. Water bath shaker 67. Weighing balance 68. Wood moisture meter

Average Number of Students in Theory and Practical Classes

Postgraduate students are less in number and are grouped into one theory batch and one practical batch.

Sl. No.	Name of the department	Theory Batch	Practical Batch
1.	Renewable Energy Engineering	Full strength	Full strength

6.4.13. CONDUCT OF PRACTICAL AND HANDSONTRAINING

Course curriculum for master degree programme has been designed with special emphasis on novel areas of Renewable Energy engineering. Further as a part of their course curriculum, the PG students are taken to exposure visits to different research institutes, progressive farmers' field, private industries and state government agencies. Industry/ Institute Trainings as a part of their course curriculum is mandatory for the students. Several exposure visits organized by department is also contributing for better understanding of the subject and to enrich their practical knowledge.

6.4.14. SUPERVISION OF STUDENTS IN PGPROGRAMME

Sl. No.	Year	Department of Renewable Energy Engineering	No. of PG recognized teachers		Student to teacher ratio		
			For M. Tech	Total Available faculty	M.Tech. Students admitted	M. Tech students remained due to attrition	
1.	**2019-20**		03	04	01	01	1:3
2.	**2020-21**		03	04	02	01	1:3

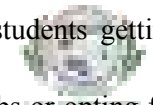
6.4.15. FEEDBACK OF STAKEHOLDERS (STUDENTS,PARENTS, INDUSTRIES, EMPLOYERS, FARMERSETC.)

College has kept suggestion and complaints box in college premises. Regular counseling meetings are organized and in emergency parents are also participated for the personality developments of students. This college has provided an excellent platform and infrastructure to establish rapport between students and teachers. The farmers, entrepreneurs and trainees from various Government, Private and public sector units, stakeholders and unemployed youth coming to various programme provide feedbacks through open platform available at programmes, through feedback books, emails, WhatsApp and available platforms. These feedbacks are taken righteously and proper discussion and action is taken by concerned persons and college authorities time to time.

6.4.16. STUDENT INTAKE AND ATTRITION IN THE PROGRAMME FOR LAST FIVEYEARS

Year wise information on sanctioned strength, actual intake and attrition during the last five years of

the Degree Programme are furnished in the tabular form. This attrition is due to students getting regular jobs in their respective state government etc.



Thestudent discontinued their degree programme due to appointment in State govt. jobs or opting for civil service examinations.

Year	Departments	Sanctioned seats	Actual intake	Attrition	Attrition Percentage
2019-20	Renewable Energy Engineering	3	1	0	0
2020-21		3	2	1	50

6.4.17. ICT APPLICATION IN CURRICULADELIVERY

Interactive whiteboards and touch based computer system:

The College of Agricultural Engineering and Post-Harvest Technology (CAEPHT) Computer Laboratory, under Central Agricultural University (CAU), Imphal, is well-equipped with 2 smart classrooms having facilities of Interactive whiteboards for conduction of online lectures and smart board allows projection of images, manipulation of images, dragging, clicking and copying of matter. Simultaneously Teacher is availed with facility to provide handwritten notes on board and same can be saved for later use.

Computer facilities:

The College of Agricultural Engineering and Post-Harvest Technology (CAEPHT) Computer Laboratory, under Central Agricultural University (CAU), Imphal, is well-equipped with 20 computers for computing facilities to all the students of the college, teaching and non-teaching staff members along with Internet connectivity. It also provides Internet facilities to all teaching staff, administrative staff and all students of the college. There are approximately more than 300 users who are availing the Internet and computing facilities.

The Computer Centre supports a wide 1000 Mbps fiber optic network (OFN) that connects all the academic units, hostels, library, dispensary, residence and other central facilities to the Computer Centre. Users can use the computing resources of Computer Center from their offices, academics unit, hostels and residences. Login is provided to all the students, faculty and staff members for Internet browsing. Besides, Wi-Fi facility is provided to boys' hostel, girls' hostel, ATIC Building, guest house, dispensary, VC camp, and Dean's residence. LAN is provided through optical fiber connection in North Academic building, South Academic building, new girls' hostel, auditorium, staff quarter, medical unit and Farmers Produce Processing cum Skill Development Centre. The network Security is Provided through UTM/Firewall.

6.4.10. The information pertaining to 6.4.1 to 6.4.9 has been provided for PG programme *i.e.,* M.Tech. (Agricultural Engineering) in Renewable EnergyEngineering of College of Agricultural Engg & PHT, CAU, Ranipool Gangtok Sikkim, Sikkim is correctly.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12

CERTIFICATE

I the Dean, P. P. Dabral, College of Agricultural Engineering & Post Harvest Technology, Ranipool, Sikkim, hereby certify that the information contained is furnished as per the records available in the college and degree awarding university.

Date:

(P. P. Dabral)
Dean

CENTRAL AGRICULTURAL UNIVERSITY,

IMPHAL, MANIPUR

SELF STUDY REPORT FOR THE

M. Tech. in

SOIL AND WATER CONSERVATION ENGINEERING,

COLLEGE OF AGRICULTURAL ENGINEERING AND POST HARVEST TECHNOLOGY, RANIPOOL, GANGTOK

2015-16 to 2019-20

SUBMITTED TO

Indian Council of Agricultural Research, Krishi Bhavan, New Delhi.

SUBMITTED BY

Central Agricultural University,

Imphal, Manipur- 795004

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6.5 Self-Study Report for M. Tech. (Agri Engg) with Specialization in Soil and Water Conservation Engineering at CAEPHT, RANIPOOL, SIKKIM.

6.4.1 Brief History of the Degree Programme

College of Agricultural Engineering & Post Harvest Technology, Ranipool was established during the year 2006 under the administration of Central Agricultural University, Imphal) to address the issue of shortage of trained manpower (human resource) in the disciplines of agricultural engineering and post-harvest technology besides other issues, pertaining to natural resource management, farm mechanization, post-harvest technology, processing & value addition, utilization of renewable sources of energy, creation of agro-industries etc. in the region.

The Department of Soil and Water Engineering (SWE) started offering M Tech (Agri Engg) with specialization in Soil and Water Engineering during the academic year 2015-16, later the degree name changed to M. Techwith specialization in Soil and Water Conservation Engineering (SWCE)with the bifurcation of Irrigation and Drainage (IDE) Engineering department from the previous SWE department in the academic year 2016-17. The activity of the department includes the areas of soil and water conservation, irrigation water management, hydrology, watershed management, ground water hydrology, irrigation systems and pumps and GIS and remote sensing.

SWCE department gives exposures about different techniques for rain water harvesting, soil conservation, water conservation, degraded land reclamation, water quality analysis and modelling, remote sensing and GIS, waste water management, watershed management, etc.

The Department of Soil and Water Conservation Engineering is mainly engaged in teaching to under graduate and post graduate and Ph.D. students. It offers various courses of PG like Watershed Hydrology, and GIS and Remote Sensing for Land & Water Resource Management,open channel hydraulics, Water quality and pollution control, Soil and Water Conservation Structures, etc. to the PG students.

The faculty of the department is actively engaged in academic, research as well as extension activities based on local and future needs of the farmers, field engineers and entrepreneurs. The department has completed various Extra Mural Research Project and Intra Mural Research Project. Presently the faculty of the department is handling 2 Extra Mural Research Project of which one is ongoing and another is awaiting sanction.In addition, the department is also handling the AICRP on PET in the department. To date, 6 students have completed post- graduation from the department and 11 students are presently undergoing their M Tech (Agri Engg) with specialization in Soil and Water Conservation Engineering in the department.

SWCE department is having Soil Water Conservation & Soil Mechanics Lab, Remote Sensing & GIS Lab, Surveying and Levelling Laboratory, Strength of Materials Lab, Applied Mechanics Lab and AICRP on PET Lab to provide practical knowledge to the students and also to demonstrate and organize training to farmers and field engineers, entrepreneurs etc. Many farmers, women and local peoples, NGO and others often visit the department to gain knowledge of different soil and water engineering aspects.

Statistics of Master's degree programme (2015-16 to 2019-20)

Year of Admission	Admitted			Dropped			Passed			Degree award during the year	Remarks
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total		
2015-16	3		3	-	-	-	3	-	3	2017-18	
2016-17	-	1	1	-	-	-		1	1	2018-2019	

2017-18	2	-	2	-	-	-	2	-	2	2019-2020	
2018-19	3	2	5	-	-	-				2020-2021	Yet to complete
2019-2020	1	1	2	-	-	-				2021-2022	Yet to complete
2020-2021	3	2	5	-	1	1				2022-23	Yet to complete
Total	**12**	**6**	**18**		**1**	**1**	**5**	**1**	**6**		

Award of CAU, GOI &ICAR authorities' Scholarships

M.Tech.(SWCE)	Scholarship Type			
	University Scholarship (CAU)	ICAR scholarship(NTS)	SC/ST Fellow Ship	GOI Scholarship (SC+ST)
2015-16	**3**			
2016-17		**1**		
2017-18		**2**		
2018-19	**3**	**2**		
2019-20	**2**			
2020-21	**1**	**3**		
TOTAL	**9**	**8**		

6.4.18. FACULTYSTRENGTH

Faculty Strength (Cadre-wise)

Designation / Cadre	2015			2016			2017			2018			2019			2020			2021		
	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V
Professor	1	0	1	1	0	1	1	0	1	1	0	1	1	1	0	1	1	0	1	1	0
Associate Professor	4	4	0	4	4	0	2	2	0	2	2	0	2	1	1	2	1	1	2	1	1
Assistant Professor	5	4	1	5	4	1	3	2	1	3	2	1	3	2	1	3	2	1	3	2	1
Total	10	8	2	10	8	2	6	4	2	6	4	2	6	4	2	6	4	2	6	4	2
Contractual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						

S-Sanctioned, F-Filled, V-Vacant

* SWE department was bifurcated into Soil and Water Conservation Engg. (SWCE) and Irrigation & Drainage Engg. (IDE) department from 2017 onwards.

Faculty Strength

Department	Sanctioned Faculty	Faculty in place	Vacant position	Recommended by ICAR	Deviation from ICAR recommendation

	Prof.	Assoc. Prof.	Asst. Prof.	Prof.	Assoc. Prof.	Asst. Prof.	Prof.	Assoc. Prof.	Asst. Prof.	Prof.	Assoc. Prof.	Asst. Prof.	Prof.	Assoc. Prof.	Asst. Prof.
SWCE	1	2	3	1	1	2	0	1	1	**1**	**2**	**3**	**0**	**0**	**0**
Total	1	2	3	1	1	2	0	1	1	1	2	3	0	0	0

6.4.19. TECHNICAL AND SUPPORTING STAFF

Sl. No.	POST	2020-21				
		Sanctioned	Filled	Vacant	Recommended by CAU	Diversion from recommendation (Sanctioned)
1.	Lab. Assistant		0			
2.	Messenger(MTS)		3			
3.	Lab Labour					
	Total		3			

6.4.20. CLASSROOMS AND LABORATORIES:

Classrooms

Sl. No.	Class room No.	Area (sq. m)	Seating capacity	Other facilities (LCD, Projectors, Computers, Smart board etc.)
1.	PG classroom 1	16.00	8	Whiteboard
2.	PG classroom 2	10.00	8	Whiteboard, LCD, Projector, Computers

Laboratory

The Soil and Water Conservation Engineering department has 7 laboratories to carry out UG/ PG practical as well as PG research. All the laboratories are well equipped with all facilities to carry outresearch.

Sl. No.	Name of the laboratory	Area (sq.m)	Seating capacity
1.	Remote Sensing & GIS Lab	39.00	25
2.	Strength of Materials Lab.	81.00	30
3.	Soil Water Conservation & Soil Mechanics Lab (2 lab)	135.00	25
4.	Applied Mechanics Lab.	105.00	25
5.	Engineering Drawing Lab	58.50	28
6.	AICRP on PET Lab	40.32	15
7.	Surveying and Levelling Laboratory	16.00	8

Major equipments

Sl. No	Particulars	No.
1.	Hook's Law	4
2.	Young Modulus Apparatus	4
3.	Worm & Worm Wheel	4
4.	Link Polygon Apparatus	4
5.	Joint of Roof Truss on Wheels	4
6.	Law of Moment Apparatus	4
7.	Law of Conservation of Mass Apparatus	4
8.	Drainage & Seepage Tank	1
9.	Anemometer	1
10.	Constant Temperature Water Bath	1
11.	Rain Gauge (Self Recording)	1
12.	Rain Gauge (Non Recording)	1
13.	Stage level recorder	1
14.	Unconfined Compression Tester	1
15.	Planimeter	2
16.	Theodolite	3
17.	Arc GIS	2
18.	Geometica Software	5
19.	GPS	1
20.	Fatique Testing Machine	1
21.	Hardness test machine	1
22.	Universal testing machine	1
23.	ERDAS	1
24.	Plotter	1

Average Number of Students in Theory and Practical Classes

Postgraduate students are less in number and are grouped into one theory batch and one practical batch.

Sl. No.	Name of the department	Theory Batch	Practical Batch
1.	Soil and Water Conservation Engineering	Full strength	Full strength

6.4.21. CONDUCT OF PRACTICAL AND HANDS-ON-TRAINING

Course curriculum for master degree programme has been designed with special emphasis on novel areas of soil and water conservation engineering. Further as a part of their course curriculum, the PG students are taken to exposure visits to different research institutes, progressive farmers' field, private industriesand state government agencies. Industry/ Institute Trainings as a part of their course curriculum is mandatory for the students. Several exposure visits organized by department is also contributing for better understanding of the subject and to enrich their practical knowledge.

Practical Credit details

Sl.No.	Discipline	Number of credits for practical	Per cent of time spent	
			In laboratory	In field*
1	Watershed Hydrology	1	40	60

.				
2.	Design of Farm Irrigation Systems	1	60	40
3.	Agricultural Drainage Systems	1	60	40
4.	Soil and Water Conservation Engineering	1	40	60
5.	GIS and Remote Sensing for Land & Water Resource Management	1	80	20
6.	Dams and Reservoir Operations	1	60	40
7.	Water Quality and Pollution Control	1	60	40

6.4.22. SUPERVISION OF STUDENTS IN PGPROGRAMME

Sl. No.	Year	Department	No. of PG recognized teachers		Student to teacher ratio		
				Total	M.Tech.	Total (PG students)	
1.	**2015-16**	**Soil and Water Conservation Engineering**	06	06	03	03	1:2
2.	**2016-17**		04	04	01	01	1:4
3.	**2017-18**		04	04	02	02	1:2
4.	**2018-19**		04	04	05	05	5:4
5.	**2019-20**		04	04	02	02	1:2
6.	**2020-21**		04	04	04	04	1:1

6.4.23. FEEDBACK OF STAKEHOLDERS (STUDENTS,PARENTS, INDUSTRIES, EMPLOYERS, FARMERSETC.)

Sl. No.	Feed back	Action taken
2017-18		
Farmers :		
1.	Exposure visitto PG students to sub-watersheds units/ progressive/ awardee farmers' fields to enrich the practical knowledge on implementation of SAU's/ICAR Institutes/farmers innovative technologies.	Exposure visits for PG students are being made to the sub-watersheds units/ progressive/awardee farmers' fields.

2.	Polyhouse inaugurated on 23rd Dec., 2017 during celebration of the "Kisan Diwas" to commemorate the birthday of Former PM of India, Shri. Choudhary Charan Singh and handed over to the family of farmer Shri. Mitralal Sharma, Ward No 1. Assam Lingzey, East Sikkim.	The programme was attended by almost 25 farmers of the ward Assam Lingzey.
2018-19		
3.	Two days awareness programme on "Skill development on greenhouse technology including solar technology and micro-irrigation systems" during July 28-29, 2018	The awareness programme was organized by AICRP-PET at CAEPHT, Ranipool. Around 30 farmers attended the programme.
2019-20		
1.	B. Sc. (Hort.) students from Department of Horticulture, Sikkim University visited AICRP-PET Research farm for the exposure of the students in Protected Cultivation and team of AICRP-PET demonstrated the protected cultivation of capsicum, onion cultivation under low tunnel and vertical farming of strawberry in soilless media on May 28th, 2019.	The students (22 in nos) was attended by the department of SWCE and AICRP-PET, Ranipool.
2.	Installation and demonstration of solar dryers requested by a famer SovyaDiyali from Soureni, East Sikkim.	19 * 11 square feet solar dryers were installed at the resident of the farmer under SCSP scheme. The farmers adopted the dryer for drying cardamom, ginger, broom grass, meat etc.
3.	Exposure to construction of low cost polyhouse by final year students	As a part of their experiential learning programme, B.Tech Final year AE students were exposed to the construction and full time harvesting of crops

6.4.24. STUDENT INTAKE AND ATTRITION IN THE PROGRAMME FOR LAST FIVEYEARS

Year wise information on sanctioned strength, actual intake and attrition during the last five years of the

Degree Programme are furnished in the tabular form. This attrition is due to students getting regular jobs in their respective state government etc.

M Tech (Agri Engg) with specialization in Soil and Water Conservation Engineering in the department.

Thestudent discontinued their degree programme due to appointment in State govt. jobs.

Year	Departments	Sanctioned seats	Actual intake	Attrition	Attrition Percentage
2015-16	**Soil and Water Conservation Engineering**	5	3	0	0
2016-17		5	1	0	0
2017-18		5	2	0	0
2018-19		5	5	0	0
2019-20		5	2	0	0
2020-21		5	5	1	20

6.4.25. ICT APPLICATION IN CURRICULADELIVERY

ICT enabled teaching-learning encompasses a variety of techniques, tools, content and resources aimed at improving the qualityare a variety of options available to the teacher and students to utilize various ICT tools at CAEPHT, Ranipool for effective teaching and learning. Teachers participate in selection and critical evaluation of digital content and resources. They are also encouraged to develop their own digital resources, sharing them with colleagues and students through the digital repositories. For this each individual staff allotted with high configured computer system and connected with high speed Internet facilities for sharing digital contents. During the time of corona pandemic, the classes were conducted totally via online mode using Google meet, zoom etc.

Below Mentioned ICT facilities are well established in the college during the period of 2015-16 to 2020-21. Detailed ICT Lab facilities are listed below:

S.No.	Name of Lab	Equipment	Usage
1.	ICT Enabled Class Rooms	1 PG Class rooms with Computer Systems and LCD Projectors	For educational video, PPT, conferencing , teaching and learning
2.	PG –R & GIS Computer Lab	10 Computers Systems	For working with different watershed, rainfall-runoff simulation
3.	ICT Enabled Seminar Hall	High Speed Internet Line connectivity, camera	For online interaction with University key officials by students and staff, online interaction with different subject experts in different streams

Different ICT Software's Used at CAEPHT, SWCE department

S. No	ICT Application	Usage
1.	Arc GIS software	ArcGIS is a geographical information system (GIS) software that allows handling and analyzing geographic information by visualizing geographical statistics through layer building maps like climate data or trade flows.

2.	ERDAS	image processing software package that allows users to process both geospatial and other imagery as well as vector data. Erdas can also handle hyperspectral imagery and LiDAR from various sensors. Erdas also offers a 3D viewing module (VirtualGIS) and a vector module for modeling.
3.	Geometica Software	a complete and integrated desktop **software** that features tools for remote sensing, digital photogrammetry, geospatial analysis, map production, mosaicking and more.
4.	Surface Water Modelling	SMS (surface-water modeling system) is a comprehensive environment for one, two, and three dimensional hydrodynamic modeling.
5.	Watershed Modelling System	A proprietary water modelling software application used to develop watershed computer simulations. The software provides tools to automate various basic and advanced delineations, calculations, and modeling processes.
6	Ansys Academic Mechanical	The software is being used by the master's students in the design of a greenhouse.

6.4.10. The information pertaining to 6.4.1 to 6.4.9 has been provided for PG programme *i.e.,*Ph.D. (Agricultural Engineering) in Soil and Water Conservation Engineering of College of Agricultural Engg & PHT, CAU, Ranipool Gangtok Sikkim, Sikkim is correctly.

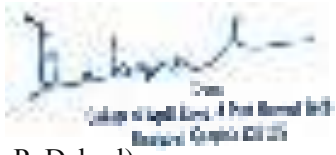
6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12

CERTIFICATE

I the Dean, P. P. Dabral, College of Agricultural Engineering & Post Harvest Technology, Ranipool, Sikkim, hereby certify that the information contained is furnished as per the records available in the college and degree awarding university.

Date:



(P. P. Dabral)
Dean

SELF STUDY REPORT FOR

Ph.D (Farm Machinery and Power Engineering)

SUBMITTED TO

Indian Council of Agricultural Research, Krishi Bhavan, New Delhi.

SUBMITTED BY

College of Agricultural Engineering & Post Harvest Technology

(Central Agricultural University, Imphal, Manipur)

Ranipool, Sikkim

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6.4. SELF STUDY REPORT FOR POST GRADUATE DEGREE PROGRAMME

6.4.1 Brief History of the P.Hd. (Farm Machinery and Power Engineering) Degree Programme

Background Information

College of Agricultural Engineering & Post Harvest Technology, Ranipool was established during the year 2006 under the administration of Central Agricultural University, Imphal) to address the issue of shortage of trained manpower (human resource) in the disciplines of agricultural engineering and post-harvest technology besides other issues, pertaining to natural resource management, farm mechanization, post-harvest technology, processing & value addition, utilization of renewable sources of energy, creation of agro-industries etc. in the region.

The department of Farm Machinery and Power Engineering (FMPE) started Ph.D program in Farm Machinery and Power Engineering in 2016 with an initial intake capacity of two students. The activity of the department pertains to the areas of small farm mechanization, conservation agriculture machineries, soil dynamics in tillage and traction, ergonomics and safety in farm machinery, effective utilization of animal energy and testing of farm equipment. FMPE department gives exposures about different aspects of farm machinery design, computer aided design, ergonomics study, soil dynamics study and conservation agriculture machineries.

The Department of Farm Machinery and Power Engineering is mainly engaged in teaching to under graduate, post graduate and Ph.D. students. The faculty of the department is actively engaged in academic, research as well as extension activities based on local and future needs of the farmers, field engineers and entrepreneurs. The faculty of the department has completed 01 Extra Mural Research Project and 8 Intra Mural Research Project. The Department of Farm Machinery and Power Engineering is having three All India Coordinated Research Projects since 2009 namely Farm Implements and Machinery, Ergonomics and safety in Agriculture and Utilization of Animal Energy. The department has also established a farm machinery testing center in 2012 to cater to the need of manufacturers for testing of farm machineries in the region.

In Ph.D presently three students are perusing Ph.D in the department. To date, 7 students have completed post-graduation from the department and 05 students are presently undergoing their M Tech (Agri Engg) with specialization in Farm Machinery and Power Engineering in the department. The department also hosted one international student for M.Tech. program in 2017-19.

FMPE department is having Farm Machinery, Farm Power, Soil Dynamics, Testing, Ergonomics, Theory of Machine and Thermodynamics laboratories provide practical knowledge to the students and also to demonstrate and organize training to farmers and field engineers, entrepreneurs etc. The department also has a well equipped mechanical workshop to cater to the need of PG research of the department as well as college. The Workshop is also sued for imparting practical training to UG students as well as trainees. The resources of the AICRPs of the department are helpful in the conduct of PG research.

6.4.2 Faculty Strength

Faculty Strength (Cadre-wise)

Designation / Cadre	2015			2016			2017*			2018			2019			2020			2021		
	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V
Professor	1	1	0	1	1	0	1	1	1	1	1	0	1	1	0	1	1	0	1	1	0
Associate Professor	4	3	1	4	2	2	2	1	1	2	1**	1	2	1	1	2	1	1	2	1	1
Assistant Professor	6	3	3	6	4	2	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
Total	11	7	4	11	7	4	7	6	2	7	6	1	7	6	1	7	6	1	7	6	1

S-Sanctioned, F-Filled, V-Vacant

*FMPE department was bifurcated into Farm Machinery and Power Engineering (FMPE) and Renewable Energy Engineering (REE) from 2017 onward

**Incumbent has been promoted to the post of professor through CAS in 2018*

Faculty Strength

Department	Sanctioned Faculty			Faculty in place			Vacant position			Recommended by ICAR			Deviation from ICAR recommendation		
	Prof.	Assoc. Prof.	Asst. Prof.	Prof.	Assoc. Prof.	Asst. Prof.	Prof.	Assoc. Prof.	Asst. Prof.	Prof.	Assoc. Prof.	Asst. Prof.	Prof.	Assoc. Prof.	Asst. Prof.
FMPE	1	2	4	1	1	4	0	1	0	**1**	**2**	**4**	**0**	**1**	**0**

6.4.3 Technical and Supporting Staff

Sl. No.	Name of the Post	No. of Post	Actual Filled
1	Field cum Lab Assistant	3	3
2	Technician (T1)	8	8
3	Technician (T2)	1	1
4	MTS	2	2
Total		**14**	**14**

6.4.4 Classrooms & Laboratory

Classrooms

Sl. No.	Class room No.	Area (sq. m)	Seating capacity	Other facilities (LCD, Projectors, Computers, Smart board etc.)
1.	PG classroom 1	14.00	8	Whiteboard

The department has one LCD projector which is used by the faculty for delivering lectures and seminars

Laboratory

The Department of Farm Machinery and Power Engineering has 7 laboratories and one workshop to carry out UG/PG/Ph.D practical as well as PG/Ph.D research. All the laboratories are well equipped with all facilities to carry out research.

(a) Details of Laboratories available

Sl. No.	Name of laboratory	Area (Sq m)	Remarks
1.	Farm Machinery Laboratory	90	Well-equipped will all necessary equipment to conduct hands on training and practical classes for the UG students.
2.	Farm Power Laboratory	128	
3.	Ergonomics And Safety Laboratory	135	

4.	Soil Dynamics Laboratory	160	The laboratories are also equipped with up-to-date equipment which are useful for the research activities. The lists of the equipment available are given below.
5.	Farm Machinery Testing Laboratory	40	
6.	Thermodynamics and Heat Engine Laboratory	17	
7.	Theory Of Machine Laboratory	17	
8.	Workshop	323	

(b) Lists major Equipments:

The laboratories are well equipped to conduct the practicals/hands on training to the students and carry out PG/Ph.D research. The lists of instruments/ equipments available in the laboratories are furnished below.

Table 7: list of major equipment in department of Farm Machinery and Power Engineering

1. Farm Machinery Laboratory
1. Multi Crop Thresher
2. Self Propelled Vertical Conveyor reaper
3. T/D inclined plate planter
4. Pedal cum power operated cleaner and grader
5. Rigid tyne cultivator
6. Spring loaded cultivator
7. Tractor mounted offset disc harrow
8. Tractor mounted disc plough
9. Tractor mounted M.B.plough
10. Modular inclined plate planter
11. Tractor mounted raised bed planter
12. Tractor mounted seed cum fertilizer drill
13. Multi crop plot thresher
14. Semi axial flow thresher (SAF 750)
15. Auger digger
16. Power tiller operated seed cum fertilizer drill
17. Manual seed cum fertilizer drill
18. manual groundnut decorticators
19. Manual rice transplanters
20. Pre-germinated paddy seeder (4 rows)
21. Manual hand tools and equipments like wheel hand hoe, Hand Ridger, Grubber weeder, Serrated sickle, Naveen Dibbler, hand maize sheller etc.
22. Knapsack sprayers
23. Rocking sprayer
24. Hand rotary duster
25. foot sprayer
26. Ganesh sprayer
27. Parth Hand Sprayer
28. Hand compression sprayer
29. Motorized knapsack mist blower cum dusterr
30. Pedal operated thresher
31. Power operated wire-loop thresher with winnower

32. Small power paddy thresher (hold-on type)
33. Small power paddy thresher (Axial Flow type)
34. Animal drawn patella harrow
35. Animal drawn patella puddler
36. Animal drawn three row seed drill
37. Animal drawn 3 row seed cum fertilizer drill
38. Animal drawn 2 row mustard drill
39. Animal drawn lug wheel puddler
40. Animal drawn ground nut digger
41. Mini power maize sheller
42. Mini power chaff shredder
43. Manual and motor operated chaff cutter
2. Farm power laboratory
15. Single cylinder two stroke petrol engine
16. Single cylinder 4 stroke diesel engine
17. Tractors (Mahindra B 275, New Holland)
18. Power tillers (12 hp, 6.5 hp, 5.5 hp)
19. Tractor Working Cut Model
20. Diesel fuel supply system model
21. Clutch system model
22. Brake System model
23. Stearing mechanism of tractor model
24. Cut model of 2 stroke Diesel engine
25. Cut model of 4 stroke Diesel engine
26. Actual cut model of single cylinder 2-stroke engine
27. Cross section of cylinder block
28. Components of engine (crank shaft, piston, connecting rod, rocker shaft, valve, valve spring guide etc.)
3. Ergonomics And Safety Laboratory
11. Integrated Composite anthropometer (ICA)
12. computerized electric ergometer
13. Computerized human energy measurement system with telemetry (K4B2)
14. Polar heart rate monitor
15. Strength measurement setup
16. Novatech load cell
17. Sphygmo manometer
18. Stethoscope
19. Thermometer (digital)
20. Digital Camera
4. Soil Dynamics Laboratory
7. Automated soil bin with sensors and digital control panel
8. Dynamometer
9. Motorized sieve shaker
10. IS Sieve set for soil analysis
11. soil analysis kit
12. Proving ring cone penetrometer
5. Farm Machinery Testing Laboratory
11. Digital tachometer

12. Digital soil moisture meter
13. Digital thermometer
14. Digital anemometer/barometer/humidity sensor
15. Digital weighing balance
16. Digital vibration and noise meter
17. Digital soil penetrometer
18. Digital energy logger
19. Spray patternator testing rig
20. Mini tractor (Kubota 21 hp)
21. Rotavator for small tractor
6. Thermodynamics And Heat Engine Laboratory
13. Multi-cylinder petrol engine test rig with electric dynamometer
14. Twin cylinder diesel engine test rig with electric dynamometer
15. Two stroke petrol engine test rig with rope brake dynamometer
16. single stage air compressor test rig
17. Lancashire Boiler model
18. Cochran Boiler model
19. cornish Boiler model
20. Vertical water tube boiler model
21. Locomotive Boiler model
22. Babcock & Wilcox Boiler Model
23. Model of steam engine
24. Boiler mountings and accessories model (Blow off cock, stop valve, feed check valve, economiser, pressure gauge, water gauge, fusible plug, dead weight safety valve, spring loaded safety valve)
7. Theory Of Machine Laboratory
7. Universal Governor Apparatus
8. Cam Analysis Apparatus
9. Motorized Gyroscope
10. Static & Dynamic Balancing Apparatus
11. Coriollis component of acceleration apparatus
12. Epicycle Gear train apparatus
8. Workshop
21. HMT Lathe machine (05 Nos)
22. wood working lathe machine
23. Power hacksaw machine
24. Radial drill machine
25. Overhead crank shearing machine
26. Hydraulic press
27. Arc welding machine (2 Nos)
28. MIG welding machine
29. TIG welding machine
30. Gas welding setup
31. Pipe bending machine
32. Sheet rolling machine
33. Pedestal grinder machine
34. Chop saw machine
35. Work tables with bench vices

36. Carburizing furnace
37. Painting oven
38. Sheet shearing machine
39. Milling machine
40. Shaper machine
41. Smithy furnace with envils and swedge blocks

(c) Average Number of Students in Theory and Practical Classes

Postgraduate students are less in number and are grouped into one theory batch and one practical batch.

Sl. No.	Name of the department	Theory Batch	Practical Batch
1.	Farm Machinery and Power Engineering	Full strength	Full strength

6.4.5 Conduct of Practical and Hands-On-Training

Course curriculum for master degree programme has been designed with special emphasis on novel areas of farm machinery and power engineering. Systematically planned practical classes are conducted for the students in the department as per the credit assigned for the course. Whenever required, hands-on-training are also conducted for courses like system simulation and computer aided problem solving in engineering for PG/Ph.D students of the department. Besides, the students are also sent to progressive farmers' field to gain a firsthand experience and exposure to the practical problems in farming especially in hilly terrain conditions. The students also get exposure to farmers and interact with them during Technology and Machinery Demonstration Mela organized by the college every year. Glimpses of the laboratory facilities and students activities are presented below.

6.4.6. Supervision of students in PG Programm:

Ph.D program started in the department in 2015-16 with intake capacity of two students. The first Ph.D student admitted in 2016-17 and is yet to submit thesis. The number of students supervised by Faculty in the Department of Farm Machinery and Power Engineering as per the guidelines is listed below.

Table 10: Number of students supervised in last five years in FMPE department

Name of the Degree Programme	year				
	2015-16	2016-17	2017-18	2018-19	2019-20
Number of Ph.D (FMPE) students	-	1	-	1	2
Ph.D Recognized teacher	0	1	1	2	2
student to teacher ratio	-	1:1	-	1:2	1:1

Table 11: Details of the Master thesis supervised in FMPE

Sl. No.	Title of the Thesis	Name of the Student	Year of Completion
1.	Design and Development of Mechanically Metered Self	Mr. Kshitij Adhikari	2015

	Propelled Rhizome Planter		
2.	Design and Development of Solar - Biomass Hybrid Dryer for Large Cardamom Drying	Mr. Vishnu Sankar A	2017
3.	Development of Ergonomically Designed Pedal Operated Maize Sheller for Sikkim Women Workers	Ms. Vusa Manisha	2019
4.	Optimization of Operating Parameters of Rotavator for Soil Tillage Quality of Medium Textured Soil under Soil Bin Condition	Mr. Philipo William Kulaya	2019
5.	Design, Development and Performance Evaluation of Zero-Till Planter Matching to Mini Tractor for Small Farm Mechanization	Mr. Lilesh Patel	2020
6.	Development of Ergonomically Designed Cashew Nut Sheller	Mr. Rahul Nath	2020
7.	Design and Development of a buckwheat thresher for small farm mechanization	Mr. M. Mohammad Sohail	2020

Faculty profile

Sl. No.	Name of the faculty	Designation	Qualification	Experience, Years	No. of students guided/guiding		
					B.Tech	M.Tech	Ph.D
13.	Dr. S. N. Yadav	Professor	Ph.D.	38	11	4	2
14.	Dr. N. S. Chauhan	Professor	Ph.D.	19	14	3	1
15.	Dr. S. K. Satpathy	Assistant Professor	Ph.D.	16	8	2	0
16.	Er. S. S. Das	Assistant Professor	M.Tech*	18	6	0	0
17.	Er. S. K. Chauhan	Assistant Professor	M.Tech	9	10	0	0
18.	Er. Ng. Devrani	Assistant Professor	M.Tech*	4	3	0	0

***Persuing Ph.D program**

6.4.7. Feedback of stakeholders: (Students, Parents, Industries, Employers, Farmers *etc*.)

- Regular advisory meetings are conducted for the students by their respective supervisors and collect feedbacks from the students.
- Every year in in the month of Feb-March, Technology and Machinery Demonstration Mela is being organized by the department where a farmer-scientist interaction meeting is organized for getting feedback from the farmers
- Improved technologies developed by the department are being demonstrated to the farmers and through Front line demonstration programmes under AICRPs and farmers feedback are obtained for further improvement in the machines, if needed.
- Interface meetings with line department officials, KVKs, ICAR -NOFRI, are organized for planning of future research and extension activities of the department.

6.4.8 Student Intake and Attrition in the Programme for Last Five Years

Year wise information on sanctioned strength, actual intake and attrition during the last five years of the degree programme are furnished in the tabular form. This attrition is due to students getting regular jobs in their respective state government etc.

Year	Departments	Sanctioned seats	Actual intake	Attrition	Attrition Percentage
2015-16	**Farm Machinery and Power Engineering**	2	0	0	0
2016-17		2	1	0	0
2017-18		2	0	0	0
2018-19		2	1	1	100
2019-20		2	2	0	0

6.4.9 ICT Application in Curricula Delivery

ICT enabled teaching-learning encompasses a variety of techniques, tools, content and resources aimed at improving the quality of learning and variety of options are available to the teacher and students to utilize various ICT tools at CAEPHT, Ranipool for effective teaching and learning. Teachers participate in selection and critical evaluation of digital content and resources. They are also encouraged to develop their own digital resources, sharing them with colleagues and students through the digital repositories. For this each individual staff allotted with high configured computer system and connected with high speed Internet facilities for sharing digital contents. During the time of corona pandemic, the classes were conducted totally via online mode using Google meet, zoom etc.

Below Mentioned ICT facilities are well established in the college during the period of 2015-16 to 2020-21. Detailed ICT Lab facilities are listed below:

S.No.	Name of Lab/facility	Equipment	Usage
1.	ICT Enabled smart Class Rooms	1 PG Class rooms with Computer Systems and LCD Projectors	For educational video, PPT, conferencing , teaching and learning
2.	AUTO CAD Lab	CATIA (V6) installed in 17 computers in the central computer lab	used for practical class, imparting trainings and used by the students and faculty for 3D modeling and designing
3.	ICT Enabled Seminar Hall	High Speed Internet Line connectivity, Computer Systems and LCD Projectors camera	For online interaction with University key officials by students and staff, online interaction with different subject experts in different streams

Our Library is having more than 7832 Books for use by the Students. It is also having various facilities where student can go through various Journals, Books etc. online either in the Library or Class Rooms or Departments or in their Hostel rooms etc.. The Library provides Circulation and reference services. All the in-house operations of the Library are fully computerized using the network version of the library software KOHA with web OPAC (Online Public Access Catalogue) facilities. The library has also access to online e-journals through CERA (Consortium for e-Resources in Agriculture) and IP address has been activated to access the online journals through CERA in entire CAEPHT Campus. Plagiarism check for M.Tech & Ph.D. thesis was/is done through Ant plagiarism software URKUND in library. Photocopying & Printing facilities are also available in the library. Students used all these facilities during the period under report. For data analysis students used software viz., Design Expert, Origin etc. related to statistical analysis.

6.4.10. The information pertaining to 6.4.1 to 6.4.9 has been provided for PG programme *i.e.,* Ph.D.

(Agricultural Engineering) in Farm Machinery and Power Engineering of College of Agricultural Engg & PHT, CAU, Ranipool Gangtok Sikkim, Sikkim is correctly.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12

CERTIFICATE

I the Dean, P. P. Dabral, College of Agricultural Engineering & Post Harvest Technology, Ranipool, Sikkim, hereby certify that the information contained is furnished as per the records available in the college and degree awarding university.

Date:

(P. P. Dabral)
Dean

SELF STUDY REPORT

FOR

Ph. D. (Processing & Food Engineering)

SUBMITTED TO

National Agricultural Education Accreditation Board

Indian Council of Agricultural Research, Krishi Bhavan,

New Delhi.

SUBMITTED BY

College of Agricultural Engineering & Post Harvest Technology

(Central Agricultural University, Imphal, Manipur)

Ranipool, Sikkim

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6.4. SELF STUDY REPORT FOR DOCTORAL DEGREE PROGRAMME

6.4.1 Brief History of the Ph. D. (Processing and Food Engineering) Degree Programme

Keeping in view the high potential of applications of agricultural engineering and post-harvest technological interventions in improving the agricultural scenario of NEH region and to address to the issues of shortage of trained human resource in this discipline, the College of Agricultural Engineering and Post Harvest Technology (CAEPHT) was established in May 2006 by Central Agricultural University (CAU), Imphal at Ranipool, Gangtok (Sikkim). Initially 20 students were admitted in B.Tech. Agril. Engg. Programme, at the time of establishment in 2006. The college has marched ahead to offer two B.Tech. (B.Tech. Agri. Engg. and B.Tech. Food Tech.), five M.Tech. (Farm Power & Machinery, Soil & Water Engg., Processing & Food Engg., Irrigation and Drainage Engineering and Renewable Energy Engineering) and three PhD (Farm Power & Machinery, Soil & Water Engg. and Processing & Food Engg.) degree programme.

Since, 2006, B.Tech in Agricultural Engineering is continuing. B.Tech in Food Technology is also continuing since 2010. After three Batches of B.Tech in Agricultural Engineering were passed out a need was felt to initiate a M.Tech Programme in Processing &Food Engineering. Hence, a new programme entitled M.Tech (Processing & Food Engineering) was initiated during 2013. After four years of M.Tech Programme a need was felt to initiate a Ph.D. programme in Processing & Food Engineering. **Since 2017-18** a Ph.D. programme in Agricultural Engineering with specialization in Processing & Food Engineering is running in the College of Agricultural Engineering & Food Technology.

Statistics of Doctoral degree programme (2015-16 to 2019-20)

Year of Admission	Admitted			Dropped			Passed			Remarks
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	
2015-16	-	-	-	-	-	-	-	-	-	
2016-17	-	-	-	-	-	-	-	-	-	
2017-18	-	01	01*	-	-	-	-	-	-	Yet to complete
2018-19	-	01	01	-	-	-	-	-	-	Yet to complete
2019-2020	-	01	01	-	-	-	-	-	-	Yet to complete
2020-2021	-	01	01	-	-	-	-	-	-	Yet to complete
Total	-	04	04	-	-	-	-	-	-	

***One has partial-withdrawn**

Award of CAU, GOI & ICAR authorities' Scholarships

Ph.D. (PFE)	Scholarship Type			
	University Scholarship (CAU)	ICAR scholarship(NTS)	SC/ST Fellow Ship	GOI Scholarship (SC+ST)
2015-16	-	-	-	-
2016-17	-	-	-	-
2017-18	01	-	-	-
2018-19	01	-	-	-
2019-20	01	-	-	-
2020-21	01	-	-	-
TOTAL	04	-	-	-

6.4.2 FACULTY STRENGTH

As per the Fifth Dean Committee, **Forty Four faculty members** (Seven Professors, Thirteen Associate Professors and Twenty Four Assistant Professors) are needed to teach and guide the students of B.Tech, M.Tech and Ph.D. courses related to Agricultural Engineering. The sanctioned strength of various faculties at this college is **Forty Six**. At this College the following Faculty members were involved in teaching and guiding the students of Two B.Tech, Five M.Tech and Three Ph.D. level courses during 2015-2020.

Faculty	Number	Permanent	On contract/ from other sister organizations/ guest	Faculty recommended by the ICAR/5th Dean's Committee	Faculties involved in teaching of Ph.D (PFE)
Professor	7 including Dean	5 including Dean	1 (On Contract) 1(as guest)	7 including Dean	2
Associate Professor	4	3	1(as guest)	13	2
Assistant Professor	34	26	2(as guest) 3 (sister organization- COH) 3 (on Contract)	24	5

** All the faculty were assigned the responsibility for the multiple programme (Bachelor level, PG level and Ph. D Levels)*

However, nine faculties (Two professors, Two Associate Professor and Five Assistant Professor) were involved in teaching and guiding the student in Ph.D. (Processing & Food Engineering). Information regarding the designation and qualification of various faculty members are given below.

Information regarding faculties teaching and guiding Ph.D. (Processing and Food Engineering) programme

Classification of Courses	Title of Course	Faculty	Qualification
Major Subject	Textural and rheological characteristics of food materials (2+1)	Dr. Said Prashant P. Asst. Prof.	Ph.D
	Advances in Food Processing (3+0)	Dr. Sujata Jena, Associate Prof.	Ph.D
	Agricultural Waste and By-Products Utilization (2+1)	Dr. Said Prashant P. Asst Prof.	Ph.D
	Mathematical Models in Food Processing (3+0)	Dr. Sujata Jena, Associate Prof.	Ph.D
	Advances in Drying of Food Materials (2+1)	Dr. Sujata Jena, Associate Prof.	Ph.D
Minor Subject	Water quality and pollution control(3+1)	Dr. G.S. Yurembam Asst.	Ph.D

		Prof.	
	Agro-energy audit and management 3(2+1)	Prof. M. S. Seveda Professor	Ph.D
	Design of Bins and Silos (2+1)	Dr. J Panda, Associate Prof.	Ph.D
Supporting Subjects	Mathematical methods for applied sciences (2+0)	Dr S. K. Meher Asst. Prof.	Ph.D
	Statistical Methods for Applied Sciences (3+1)	Mrs. T. Loidang Chanu Asst. Prof.	M.Sc
Seminar	Doctoral Seminar-I (1+0)	Dr. R.P. Misra, Professor Dr. S. Jena Associate Prof.	Ph.D Ph.D
	Doctoral Seminar-II (1+0)	Dr. R.P. Misra, Professor Dr. S. Jena Associate Prof.	Ph.D Ph.D
Research	Doctoral Research (0+45)	Dr. Sujata Jena(Associate Professor) Dr. B. K. Singh(Assistant Professor)	Ph.D Ph.D

6.4.3 TECHNICAL AND SUPPORTING STAFF

The college is employing staff as per the recommendations of various Dean's Committee. All the Technical, Supporting, Administrative and Ministerial Staffs are **having responsibilities for multiple programs (B.Tech, M.Tech and Ph.D.)**. Along with the various teaching facilities the college is also having **well furnished/ equipped and well staffed**, separate hostels (including Mess) for Boys and Girls, Medical Unit (including one Medical Officer, Pharmacist, Male and Female Nurses), Gymnasium in Boys and Girls Hostel, Sports facilities (Indoor within the college and Outdoor in collaboration with Sikkim Government School/College) , Guest House, Canteen, Auditorium, Mini Auditorium, ATIC, Library, Farmers Produce Processing cum Skill Development Centre, Business Incubator, Academic Unit, Audit & Account Unit, Establishment Unit, Purchase Unit, Vehicle section (including one Big Bus , one Mini Bus, two trucks, one jeep and one Ambulance), Estate Section, Security section, parking space, separate toilets(for ladies and gents) within the buildings and outside the buildings etc. All these facilities are available to the students. The hostels are managed by wardens (one male Professor for Boys Hostel and one female professor
for Girls Hostel). There are facilities for Yoga and Meditation, Self Defence etc. A student welfare Officer had guided and helped the students during the period under report.

Various laboratory/facilities are having one Field-cum-Lab Assistant and Multi-Tasking Staff. There are various outside funded projects including four All India Coordinated Research Projects & one Farm Machinery Testing Centre. Many University projects are also running in the various departments of the college. In these projects many technical personals and Multi Tasking staff are also working. Similarly many technical and supporting staffs are working in the college on contract. All these staff/ man power are available to the students during course of their Practical Work and Project Work.

6.4.4 CLASSROOMS&LABORATORY

There are sufficient classrooms in various divisions, which are being used by the students of Ph.D. (Processing & Food Engineering). The smart class room facility is being also utilized by the students of Ph.D. (Processing & Food Engineering). There are various labs which are being utilized by various UG, PG & Ph.D. Programs. These labs are well equipped as per the recommendations of various Dean's Committee.

Details of the Laboratory and the equipment being used are given below.

Sl. No.	Name of the Laboratory
35.	**Food Engineering laboratory** (consisting of Food Process Technology unit and Food Product Development unit) (Area- 228.28m^2)
36.	**Process Engineering laboratory** (consisting of unit operation lab, packaging unit etc.) (Area- 92.77m^2)
37.	**Food Analysis laboratory** (consisting of Food Rheology and sensory unit, Food Bio-Technology unit and Food Analytics unit etc.) (Area-93.24 m^2)
38.	**Agricultural Structures & Environmental Control Laboratory Engineering laboratory** (consisting of Heat, Mass & Refrigeration – Air Conditioning Unit)(Area- 80.71 m^2)
39.	**Pilot Plant for Milk Processing** including Dairy Technology Lab, chiller unit, spray dryer unit& milk reception unit etc.(Area-201.51 m^2)
40.	**Pilot Plant for Fruits and Vegetable** including Cottage scale soya paneer plant (Area-124.03 m^2)
41.	**Multi stage evaporator with aroma recovery system**(Area-20.9m^2)
42.	**Shed for Feed and Fodder crusher and seed processing unit** etc.(119.66 m^2)
43.	**Mini Rice Mill** (Area 148.65m^2)
44.	**Farmer's Produce Processing cum Skill Development Centre** (Area 265.26 m^2) (consisting of Ginger & Turmeric Processing Plant – Area 72 m^2, Unit of Minimal Processing of Fruits and Vegetable– Area 17.84m^2, Bakery unit– Area 23.78m^2, Noodles unit– Area17.84 m^2, Potato Chips unit –Area 17.84 m^2, store–Area 25.65 m^2, kitchen –Area 17.84 m^2, class room–Area 27.87 m^2, training hall –Area 44.6 m^2)
45.	**Biochemistry Lab**
46.	**Microbiology Lab**
47.	**Workshop**
48.	**Computer Lab**

Major equipment in Processing & Food Engineering Department

- Steam Distillation set up
- Fruit pulper
- Feed mixer (planatory mixer, planatory mixer (vacuum jacketed), planatory mixer (heating jacketed), double cone mixer, Blender SVB, Cube Mixer, Lab Kneader, Powder Mixer, Agitator, Drum Hoop Mixer-SDHM, Lab mass mixer SLMM, horizontal main drive SHMD-A.C., Universal Gear)
- Coconut tree climber
- Coconut dehusker
- Pasta Extruder
- Essential Oil distillation Unit
  - Solid Liquid Extraction unit
  - Steam Distillation Set up
  - Simple batch distillation unit
- Refrigerated centrifuge with Micro processor
- Rotary vacuum filter & Leaf Filter
- Refrigerated centrifuge CPR 24
- Plate heat exchanger
- Usha make Gerber Centrifuge
- Usha make centrifuge separator
- Vegetable Blancher
- Vacuum Tray Dryer
- General cycle refrigeration trainer
- Heat transfer through lagged pipe apparatus
- Heat transfer through composite walls apparatus
- Mechanical heat pump trainer
- Plate type heat exchanger
- Recirculation type air conditioning trainer
- Stefan Boltzmann apparatus
- Thermal conductivity of insulating slabs by guarded hot plate method
- Thermal conductivity of insulating powder
- Micrometer Precise Thickness
- Shrink Wrapping Machine
- Aspirator/ Cyclone Separator
- Automatic Foam Fill Seal packaging
- Vacuum Packaging Machine
- Steam Jacketed cooking kettle
- Butter churn
- Vacuum oven
- Vacuum Tray Dryer
- Laboratory Pasteurizer
- Shrink Packaging Machine Model-CP-2030
- Laboratory homogenizer
- Micro Pulverizer (hammer mill)
- Feed and Fodder crusher
- Feed Block Formation Machine
- Food Extruder
- Fruit and Vegetable Juice and paste Processing Plant
- Boerner conical divider
- Bucket elevator
- Multipurpose grain mill
- Super critical fluid extraction unit
- Foot Sealer
- Fermenter
- Hand sealer
- Electronics Grain Moisture Meter
- Angle of Repose apparatus
- Digital Humidity Sensor and Indicator
- Hot Air Oven
- Electronic weighing balance (2.2kg)
- Electronic weighing balance ZSP-350 (300g)
- Digital balance model –(A-224) make Contech Capacity-220gm
- Digital Precision Electronic Balance
- Apparatus for thermal conductivity of insulating powder
- Convection apparatus (natural)
- Convection apparatus (forced)
- Concentric tube heat exchanger (finned tube type)
- Concentric tube heat exchanger (plain tube type)
- Emissivity measurement apparatus

Machine • Rubber Roll Sheller • Rice Whitener/Polisher • Indented Cylinder Grader/ Separator • Vibratory Screen Grader • Freeze Dryer • Food texture analyzer • Rapid visco analyzer • BOD Incubator with shaker • Automatic Fibre Extraction system • Digital Refractrometer PAL • Laminar Flow • Fruit and Vegetable Plant • Milk Processing Plant • Multi stage evaporator with aroma recovery system • Cottage scale soya paneer plant • Seed processing plant • Modern rice mill (0.5 t/h capacity) • Mini Dal Mill • Milk analyzer Master Clasic • Oxygen and CO_2 Headspace Gas analyzer plus Flexible packaging kit • Microwave oven • Water Bath • Laboratory Spray Dryer • Cream Separator • Freeze Drier • Digital Satorious Infra-red Moisture Meter • pH meter • Chromameter • Autoclave	• Digital temperature meter • Electronics Socs Plus Automatic Three Place Solvent Extraction Apparatus (Soxlet) • Microscope-Ex-21 set Binocular Brand-OLYMPUS • Viscometer • Usha Make Centrifuge Separator • Usha Make Gerber Centrifuge (2nos) • Water Activity Meter • Samsung Freeze with stand • Water Purification System • Ginger Washing Machine • Vegetable Cutting Machine • Spice processing plant ○ Ginger /Turmeric peeler cum polisher ○ Garlic Bulb Breaking Machine ○ Garlic Clove Flaking Machine • Ginger Processing Machine (Complete Unit) • Turmeric Grinder • Potato Slicer • Vegetable Washing Machine • Complete unit of Potato Chips Machine • Complete Unit of Biscuits Making Machine • Complete Unit of Noodle Making Machine • Ginger Paste and Powder Making Machine • OTG Oven

6.4.5 CONDUCT OF PRACTICAL ANDHANDS-ON-TRAINING

Theory and Practical batches for the Degree Programme

There are manageable number of students who are kept in one batch during Theory & Practical classes to ensure better delivery of information, encourage students' participation and active monitoring. Students conducted their practical training in various Laboratory, Pilot plants and Farmers Produce Processing Cum Skill Development Centre of the college. **We have provided practical as well as hands on training to students of various other universities, such as Sikkim University, CAU (COFT, COH), NIFTEM, Mizoram University etc.**

Average number of students in theory and practical classes

Sl. No.	Name of the degree programme	Batch of student in theory	Batch of student in practical

1.	**Ph.D. (Processing and Food Engineering)**	Full strength	Full strength

6.4.6 SUPERVISION OF STUDENTS IN Ph.D. PROGRAMME

There are sufficient numbers of qualified and experienced faculties who are guiding Ph.D. students in the area of Processing & Food Engineering. The names of the faculties who are entitled to guide Ph.D students are given below.

Sl. No.	Name of the faculty	Designation	Qualification	Experience	No. of students guided/guiding		
					B.Tech	M.Tech	Ph.D
19.	Dr. R. P. Misra	Professor	Ph.D.	44 years	6	-	-
20.	Dr.(Mrs.)Sujata Jena	Associate Professor	Ph.D.	15 years	32	5	1
21.	Dr. B. K. Singh	Assistant Professor	Ph.D.	25 years	33	3	2
22.	Late Dr. A. I. Singh	Assistant Professor	Ph.D.	15 years	25	-	-
23.	Dr. Said P. P.	Assistant Professor	Ph.D.	6 years	11	2	-
24.	Dr. Rakesh Kr. Raigar	Assistant Professor	Ph.D.	6 years	7	2	-

6.4.7 FEEDBACK OF STAKE HOLDERS

In our University most of the faculty members are made Advisor of about 10 students. There has to be at least one meeting (mostly on Saturday) of the students with their Advisors. Students raised their various problems (academic, personal etc.) with the Advisor. The Advisors helped the students to solve their problem. In case, help of some particular faculty member/ staff/ Dean were needed, Advisors took their help and solved the problem.

There was / is a register with the Student Welfare Officer of the College, in which any student can raise their problems (related to academic, hostels etc.). The Student Welfare Officer brought the problem to the notice of the Dean of the College. Dean discussed the issue with the Student/ Group of Students/faculties/ officials and took remedial measures.

For example fourteen complaints were received on 10/08/16. Most of the complaints were regarding repair of electrical items and civil work in Hostels which was promptly attended by AE (Civil) and JE (Electrical). Few problems were related to Wi-fi LAN etc. which was tackled by computer operator. There was a suggestion regarding digitalization of library which was already in progress. On 22/10/16, a complaint was received regarding issue of identity card which was immediately attended. On 21/10/16, complaints were received regarding practicals of two courses. Chemicals etc. were purchased and practicals were completed within a week. On 08/12/16 a complaint was received regarding water purifier in Girl's Hostel which was attended and rectified in due course of time. On 24/03/18, a complaint was received regarding non- working of LAN in New Girl's Hostel which was immediately attended by computer operator.

During Farewell of the final year students they sometimes raised the problem faced by them during their stay of four years in the college. After knowing their problems Dean and Faculty tried to implement their suggestions.

In every Semester there was a meeting of Dean with representative of Students to discuss their problems related to teaching, hostels, etc. Generally Students raised their issue which used to be discussed in the meeting. The issues which can be solved at the College level were settled in the College itself. The issues which needed the attention of the Vice-Chancellor were sent to him for satisfactory solution.

CAU organized Agricultural Fair every year in various states of NEH. During these fair many parents visited these fairs. Many times parents also visited the college or talked to various officials over phone. During these visits and discussions they appreciate the facilities and academic atmosphere of the college. Sometimes they also made various suggestions. Many times college implemented these suggestions. Every Year College also organized Technology Demonstration Mela / Farmers' Agriculture Fair. Many farmers of NEH region visited these Mela /Fair. During their visit interaction between various faculties and farmers were held and we got their opinion regarding various academic works, hostels and other facilities of the college.

Extension council meeting of the college and University were regularly held every year. During these meeting, progressive farmers, members of FPO, members of SHG, state government officials, entrepreneurs etc. participated and gave their feedbacks and suggestions.

During hands on training students interacted with various industries. During discussion of owners/ officials of these industries with various faculty members they appreciated the theoretical, practical knowledge and hard work of the students. **Govt. Fruit Preservation Factory (Sikkim Supreme) and Zydus Healthcare Pvt. Ltd., Sikkim have paid students a handsome amount during their hands on training.**

During their hands on training students interacted/ worked with entrepreneurs, farmers, FPO, SHG etc. During discussion with the faculty members these people appreciated the help, knowledge and hard work of the students.

A brain storming session was held in Dec 2020 at CAEPHT, Sikkim to discuss and finalize the researchable issues related to Post Harvest Technology for Central Agricultural University. All the faculty member of various colleges and KVK related to Post Harvest Technology participated in this session. **Two experts viz., Dr. Suvendu Bhattacharya, Professor, ACSIR & Chief Scientist (Retd.), Central Food Technological Research Institute, Mysore, and Dr. Abhijit Kar, Principal Scientist, Division of Food Science & Post Harvest Technology, Indian Agricultural Research Institute, New Delhi,** also participated in this session. Their suggestions have been incorporated.

We have trained (through demonstration, short duration training, vocational training, training in the field etc.) many entrepreneurs & farmers (around 1000 numbers) during last five years in preparation of various food products such as paneer, ice-cream, cream, ice-candy, jam, jelly, sauces, RTS, squash, candy, osmo-dehydrated pineapple rings, pasta, pickle, turmeric powder, ginger flex & powder, potato chips, noodles, yacon syrup (prepared from ground apple) minimal processing of fruits & vegetables, cookies, cake etc. At the initial stage some of the entrepreneurs used our facilities for commercial manufacturing of these items. After few years they have established their own production units. Few of the entrepreneurs/farmers have received awards also. For example Shri. Shisir Khadka (established Sundar Sikkim) and Shri Kailash Rana used the facilities available at Farmers Produce Processing cum Skill Development Centre, CAEPHT, Ranipool for few years (2015-2018) under the guidance of faculty and technical staff. Shri. Shisir Khadka was bestowned with "**AIFA Progressive Farmers Award**" during 2017. He was also issued an appreciation letter and appointed as **State Coordinator of SEED Cell** (Sikkim Entrepreneurship and Economic Development Cell) by the Sikkim Government during 2020-21. **He was also made member of extension council of CAU.**

Furthermore, considering the facilities, faculty, other resources, ability and interest of the college in training the farmers, entrepreneurs, and subject matter specialist, Government of Sikkim requested for conducting six training in various areas. **The Government had sanctioned Rs. 7.5 lakhs for these six trainings.** It was also requested to establish a Farmers' produce processing-cum-skill development center

at CAEPHT, Ranipool. **The Sikkim Government handed over machines (11 units, costing approximately 100 lakhs)** for processing of ginger, turmeric, vegetables, potato, bakery and noodles to the center for imparting training to farmers, entrepreneurs, students and scientists. **Government of Sikkim also sectioned Rs. 9.90 lakhs for conducting 20 rounds of trainings/demonstrations in this center**. The college has provided trainings to about 1000 beneficiaries. **Sashastra Seema Bal had also deputed, youths from border region of the Sikkim for attending the training on processing of horticulture crops.** The SSB also had sectioned fund for the training programme. Women self help group from SSB were also provided training at the FPPSDC.

Considering the facilities, faculty, other resources, ability and interest of the college in training the **Government of Orissa deputed five batches of state government officials for model development programme and provided necessary fund for the cause.**

In addition to this, Power Finance Corporation ltd. sponsored three 90 days vocational training programme for Youth of North-Eastern states of India. The National Skill Development Council, New Delhi, has sponsored two one month duration vocational trainings.

6.4.8 STUDENT INTAKE AND ATTRITION IN THE PROGRAMME FOR LAST FIVEYEARS

Name of the Degree Programme	Actual students admitted in last five years				Attrition (%)			
Year	2017-18	2018-19	2019-20	2020-21	2017-18	2018-19	2019-20	2020-21
Ph.D. (PFE)	01	01	01	01	0	0	0	0

6.4.9 ICT APPLICATION IN CURRICULA DELIVERY

College is having a well-equipped Computer Lab with Internet LAN Connection, 10 KVA UPS, 20 Computers. All the six departments and various externally funded Projects are having Computer facilities which were used for teaching, practical, project work analysis etc. of students. The college is having a system (e- collection) through which students deposited their fees etc. online itself. All the funds either from the University or from various funding agencies for various outside funded projects were/are deposited in the college account through Public Finance Management System. Wi-Fi availability and internet services are available in the whole campus (Academic buildings including class rooms, hostels, residential colony).

Our Library is having more than 7832 Books for use by the Students. It is also having various facilities where student can go through various Journals, Books etc. online either in the Library or Class Rooms or Departments or in their Hostel rooms etc. The Library provides Circulation and reference services. All the in-house operations of the Library are fully computerized using the network version of the library software KOHA with web OPAC (Online Public Access Catalogue) facilities. The library has also access to online e-journals through CERA (Consortium for e-Resources in Agriculture) and IP address has been activated to access the online journals through CERA in entire CAEPHT Campus. Plagiarism check for M.Tech. & Ph.D. thesis was/is done through Ant plagiarism software URKUND in

library. Photocopying & Printing facilities are also available in the library. Students used all these facilities during the period under report.

Furthermore, occasionally college organized various courses on Computer programming and on their use. During 2015-16 a course on Computer Aided Design was organized for the students. Er. B. K. Garg, Retired Principal Scientist, Central Institute of Agricultural Engineering, Bhopal coordinated this training.

For data analysis students used software viz., Design Expert, Origin etc. related to statistical analysis. Use of CATIA software by students for 3D modeling and design of processing equipment was very useful for them.

Workshop on 'Online Safety: social surfing 30' was organized on 18.11.17. There were/are many videos on various topics related to various subjects and machines. These videos are prepared by faculties of renowned organization such as Indian Institute of Technology. Our faculties have also prepared many videos, presentations (slide with audio). These videos (mostly available in YouTube) are being used by various faculty members for teaching various courses.

6.4.10. The information pertaining to 6.4.1 to 6.4.9 has been provided for PG programme *i.e.,* Ph.D. (Agricultural Engineering) in Processing and Food Engineering of College of Agricultural Engg & PHT, CAU, Ranipool. Gangtok, Sikkim is correctly.

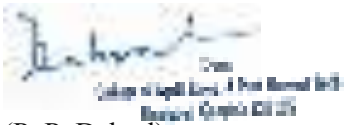
6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12

CERTIFICATE

I the Dean, P. P. Dabral, College of Agricultural Engineering & Post Harvest Technology, Ranipool, Sikkim, hereby certify that the information contained is furnished as per the records available in the college and degree awarding university.

Date:



(P. P. Dabral)
Dean

CENTRAL AGRICULTURAL UNIVERSITY,

IMPHAL, MANIPUR

SELF STUDY REPORT FOR THE

Ph. D. in

SOIL AND WATER CONSERVATION ENGINEERING,

COLLEGE OF AGRICULTURAL ENGINEERING AND POST HARVEST TECHNOLOGY, RANIPOOL, GANGTOK

2018-19 to 2020-21

SUBMITTED TO

Indian Council of Agricultural Research, Krishi Bhavan, New Delhi.

SUBMITTED BY

Central Agricultural University,

Imphal, Manipur- 795004

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6.4 Self-Study Report for Ph. D in Soil and Water Conservation Engineering at CAEPHT, RANIPOOL, SIKKIM.

6.4.1 Brief History of the Degree Programme

College of Agricultural Engineering & Post Harvest Technology, Ranipool was established during the year 2006 under the administration of Central Agricultural University, Imphal) to address the issue of shortage of trained manpower (human resource) in the disciplines of agricultural engineering and post-harvest technology besides other issues, pertaining to natural resource management, farm mechanization, post-harvest technology, processing & value addition, utilization of renewable sources of energy, creation of agro-industries etc. in the region.

The Department of Soil and Water Conservation Engineering (SWCE) started offering Ph.D. in Soil and Water Conservation Engineering degree during the **academic year 2018-19.** The activity of the department includes the areas of soil and water conservation, irrigation water management, hydrology, watershed management, ground water hydrology, irrigation systems and pumps and GIS and Remote sensing.

SWCE department gives exposures about different techniques for rain water harvesting, soil conservation, water conservation, degraded land reclamation, water quality analysis and modelling, remote sensing and GIS, waste water management, watershed management, etc.

The Department of Soil and Water Conservation Engineering is mainly engaged in teaching to under graduate and post graduate and Ph.D. students. It offers various courses of PG like Watershed Hydrology, and GIS and Remote Sensing for Land & Water Resource Management, open channel hydraulics, Water quality and pollution control, Soil and Water Conservation Structures, etc. to the PG students.

The faculty of the department is actively engaged in academic, research as well as extension activities based on local and future needs of the farmers, field engineers and entrepreneurs. The faculty of the department has completed 4 Extra Mural Research Project and 6 Intra Mural Research Project. Presently the faculty of the department is handling 2 Extra Mural Research Project of which one is ongoing and another is awaiting sanctioned.In addition, the department is also handling the AICRP on PET in the department. The Ph.D. programme started in the academic year 2018-19. To date, 2 students are presently undergoing their Ph. D in Soil and Water Conservation Engineering in the department.

SWCE department is having Soil Water Conservation & Soil Mechanics Lab, Remote Sensing & GIS Lab, Surveying and Levelling Laboratory, Strength of Materials Lab, Applied Mechanics Lab and AICRP on PET Lab to provide practical knowledge to the students and also to demonstrate and organize training to farmers and field engineers, entrepreneurs etc. Many farmers, women and local peoples, NGO and others often visit the department to gain knowledge of different soil and water engineering aspects.

Statistics of Ph.D.degree programme (2018-19 to 2020-21)

Year of Admission	Admitted			Dropped			Passed			Degree award during the year	Remarks
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total		
2018-19	1	0	1	-	-	-	-	-	-		Yet to complete
2019-2020	-	-	-	-	-	-	-	-	-		
2020-2021	1	0	1	-	-	-	-	-	-		Yet to complete
Total	2		2								

Award of CAU, GOI &ICAR authorities' Scholarships

Ph.D.(SWCE)	Scholarship Type			
	University Scholarship (CAU)	ICAR scholarship(NTS)	SC/ST Fellow Ship	GOI Scholarship (SC+ST)
2018-19	1			
2019-20	-			
2020-21	1			
TOTAL	2			

6.4.2. FACULTYSTRENGTH

Faculty Strength (Cadre-wise)

Designation / Cadre	2015			2016			2017			2018			2019			2020			2021		
	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V
Professor	1	0	1	1	0	1	1	0	1	1	0	1	1	1	0	1	1	0	1	1	0
Associate Professor	4	4	0	4	4	0	2	2	0	2	2	0	2	1	1	2	1	1	2	1	1
Assistant Professor	5	4	1	5	4	1	3	2	1	3	2	1	3	2	1	3	2	1	3	2	1
Total	10	8	2	10	8	2	6	4	2	6	4	2	6	4	2	6	4	2	6	4	2
Contractual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						

S-Sanctioned, F-Filled, V-Vacant

* SWE department was bifurcated into Soil and Water Conservation Engg. (SWCE) and Irrigation & Drainage Engg. (IDE) department from 2017 onwards.

Faculty Strength

Department	Sanctioned Faculty			Faculty in place			Vacant position			Recommended by ICAR			Deviation from ICAR recommendation		
	Prof.	Assoc. Prof.	Asst. Prof.	Prof.	Assoc. Prof.	Asst. Prof.	Prof.	Assoc. Prof.	Asst. Prof.	Prof.	Assoc. Prof.	Asst. Prof.	Prof.	Assoc. Prof.	Asst. Prof.
SWCE	1	2	3	1	1	2	0	1	1	**1**	**2**	**3**	**0**	**0**	**0**
Total	1	2	3	1	1	2	0	1	1	1	2	3	0	0	0

6.4.3. TECHNICAL AND SUPPORTINGSTAFF

Sl. No.	POST	2020-21				
		Sanctioned	Filled	Vacant	Recommended by CAU	Diversion from recommendation (Sanctioned)
1.	Lab. Assistant		0			
2.	Multi tasking Staff (MTS)		3			
3.	Lab Labour					
	Total		3			

6.4.4. CLASSROOMS AND LABORATORIES:

Classrooms

Sl. No.	Class room No.	Area (sq. m)	Seating capacity	Other facilities (LCD, Projectors, Computers, Smart board etc.)
1.	PG classroom 1	16.00	8	Whiteboard
2.	PG classroom 2	10.00	8	Whiteboard, LCD, Projector, Computers

Laboratory

The Soil and Water Conservation Engineering department has 7 laboratories to carry out UG/ PG practical as well as Ph.D. research. All the laboratories are well equipped with all facilities to carry outresearch.

Sl. No.	Name of the laboratory	Area (sq.m)	Seating capacity
1.	Remote Sensing & GIS Lab	39.00	25
2.	Strength of Materials Lab.	81.00	30
3.	Soil Water Conservation & Soil Mechanics Lab (2 lab)	135.00	25
4.	Applied Mechanics Lab.	105.00	25
5.	Engineering Drawing Lab	58.50	28
6.	AICRP on PET Lab	40.32	15
7.	Surveying and Levelling Laboratory	16.00	8

Major equipment's

Sl. No	Particulars	No.
1.	Hook's Law	4
2.	Young Modulus Apparatus	4
3.	Worm & Worm Wheel	4
4.	Link Polygon Apparatus	4
5.	Joint of Roof Truss on Wheels	4
6.	Law of Moment Apparatus	4
7.	Law of Conservation of Mass Apparatus	4
8.	Drainage & Seepage Tank	1
9.	Anemometer	1
10.	Constant Temperature Water Bath	1

11.	Rain Gauge (Self Recording)	1
12.	Rain Gauge (Non Recording)	1
13.	Stage level recorder	1
14.	Unconfined Compression Tester	1
15.	Planimeter	2
16.	Theodolite	3
17.	Arc GIS	2
18.	Geometica Software	5
19.	GPS	1
20.	Fatique Testing Machine	1
21.	Hardness test machine	1
22.	Universal testing machine	1
23.	ERDAS	1
24.	Plotter	1

Average Number of Students in Theory and Practical Classes

Ph.D.students are grouped into one theory batch and one practical batch.

Sl. No.	Name of the department	Theory Batch	Practical Batch
1.	Soil and Water Conservation Engineering	Full strength	Full strength

6.4.5. CONDUCT OF PRACTICAL AND HANDS-ON-TRAINING

Course curriculum for **Ph.D.** Degree programme has been designed with special emphasis on novel areas of soil and water conservation engineering. Further as a part of their course curriculum, the Ph.D. students are taken to exposure visits to different research institutes, progressive farmers' field, private industries and state government agencies. Industry/ Institute Trainings as a part of their course curriculum is mandatory for the students. Several exposure visits organized by department is also contributing for better understanding of the subject and to enrich their practical knowledge.

Practical Credit details

Sl.No.	Discipline	Number of credits for practical	Per cent of time spent	
			In laboratory	In field*
1.	Soil and Water Systems' Simulation and Modelling	1	40	60
2.	Modelling Soil Erosion Processes	1	60	40

6.4.6. SUPERVISION OF STUDENTS IN PGPROGRAMME

Every student shall have Advisory Committee with a Chairperson, Major Advisor, Minor Advisor and at least four members among whom two members shall be from outside the major field of specialization. Programme of Research proposed by the Advisory Committee and approved by the Director of Instruction(DI) will be carried out by the student under the supervision of Advisory Committee.

Sl. No.	Year	Department	No. of PG recognized teachers		Student to teacher ratio		
				Total	Ph.D.	Total (Ph. D. students)	
1.	**2018-19**	**Soil and Water Conservation Engineering**	02	02	01	01	1:2
2.	**2019-20**		02	02	-	-	-
3.	**2020-21**		02	02	01	01	1:2

6.4.7. FEEDBACK OF STAKEHOLDERS (STUDENTS,PARENTS, INDUSTRIES, EMPLOYERS, FARMERSETC.)

Sl. No.	Feed back	Action taken
Farmers/Student :		
2019-20		
1.	Hands on practical for Installation of Gravity-fed Irrigation system in the Green house of a local progressive farmer.	The installation was done with the Ph.D. student along with faculty members of SWCE and IDE department at Assam Lingzey, Sohreni Village, East Sikkim,
2.	Installation and request for providing farm pond at	In-situ demonstration of installation of farm pond was done at the farm land of Mr. Girimaan Dahal, a resident of Tashiding, west Sikkim. (pics at the glimpses)

6.4.8. STUDENT INTAKE AND ATTRITION IN THE PROGRAMME FOR LAST FIVEYEARS

Year wise information on sanctioned strength, actual intake and attrition during the last five years of the Degree Programme are furnished in the tabular form.

Ph.D. in Soil and Water Conservation Engineering in the department.

Year	Departments	Sanctioned seats	Actual intake	Attrition	Attrition Percentage
2018-19	**Soil and Water Conservation Engineering**	1	1	0	0
2019-20		1	-	0	0
2020-21		1	1	0	0

6.4.9. ICT APPLICATION IN CURRICULADELIVERY

ICT enabled teaching-learning encompasses a variety of techniques, tools, content and resources aimed at improving the qualityare a variety of options available to the teacher and students to utilize various ICT tools at CAEPHT, Ranipool for effective teaching and learning. Teachers participate in selection

and critical evaluation of digital content and resources. They are also encouraged to develop their own digital resources, sharing them with colleagues and students through the digital repositories. For this each individual staff allotted with high configured computer system and connected with high speed Internet facilities for sharing digital contents. During the time of corona pandemic, the classes were conducted totally via online mode using Google meet, zoom etc.

Below Mentioned ICT facilities are well established in the college during the period of 2018-19 to 2020-21. Detailed ICT Lab facilities are listed below:

S.No.	Name of Lab	Equipment	Usage
1.	ICT Enabled Class Rooms	1 PG Class rooms with Computer Systems and LCD Projectors	For educational video, PPT, conferencing , teaching and learning
2.	PG –R & GIS Computer Lab	10 Computers Systems	For working with different watershed, rainfall-runoff simulation
3.	ICT Enabled Seminar Hall	High Speed Internet Line connectivity, camera	For online interaction with University key officials by students and staff, online interaction with different subject experts in different streams

Different ICT Software's Used at CAEPHT, SWCE department

S. No	ICT Application	Usage
1.	Arc GIS software	ArcGIS is a geographical information system (GIS) software that allows handling and analyzing geographic information by visualizing geographical statistics through layer building maps like climate data or trade flows.
2.	ERDAS	image processing software package that allows users to process both geospatial and other imagery as well as vector data. Erdas can also handle hyperspectral imagery and LiDAR from various sensors. Erdas also offers a 3D viewing module (VirtualGIS) and a vector module for modeling.
3.	Geometica Software	a complete and integrated desktop **software** that features tools for remote sensing, digital photogrammetry, geospatial analysis, map production, mosaicking and more.
4.	Surface Water Modelling	SMS (surface-water modeling system) is a comprehensive environment for one, two, and three dimensional hydrodynamic modeling.
5.	Watershed Modelling System	A proprietary water modelling software application used to develop watershed computer simulations. The software provides tools to automate various basic and advanced delineations, calculations, and modeling

		processes.
6	Ansys Academic Mechanical	The software is being used by the master's students in the design of a greenhouse.

6.4.10. The information pertaining to 6.4.1 to 6.4.9 has been provided for PG programme *i.e.,* M.Tech. (Agricultural Engineering) in Soil and Water Conservation Engineering of College of Agricultural Engg & PHT, CAU, Ranipool Gangtok Sikkim, Sikkim is provided correctly.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12

CERTIFICATE

I the Dean, P. P. Dabral, College of Agricultural Engineering & Post Harvest Technology, Ranipool, Sikkim, hereby certify that the information contained is furnished as per the records available in the college and degree awarding university.

Date:

(P. P. Dabral)
Dean

SELF STUDY REPORT

2016-2021

College of Post Graduate Studies in Agricultural Sciences
Central Agricultural University (Imphal)
Umiam, Umroi Road, Meghalaya - 793 103

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Self Study Report

College of Post Graduate Studies in Agricultural Sciences, CAU (I), Umiam, Meghalaya

6.4 SELF STUDY REPORT FOR THE PROGRAM

6.4.1 Brief History of the Degree Program:

The North Eastern India is experiencing rapid population growth which has crossed 45 million mark. In order to attain economic, food and nutritional security, it is imperative to impart quality agricultural education and have sustained agricultural development in the states of northeastern region. This region is constrained by lack of adequate infrastructure, low productivity, inadequate marketing and lack of knowledge on modern farm technologies. With this genesis in background, the Central Agricultural University, Imphal established the College of Post Graduate Studies in Agricultural Sciences (**CPGSAS**) at Umiam, Meghalaya on 21st December, 2006.

MISSION of CPGSAS is to achieve excellence in teaching, research and extension education in the field of agriculture.

MANDATES of CPGS are:

1) To impart postgraduate education in different branches of Agriculture,
2) To further the advancement of learning and prosecution of research in Agriculture, and
3) To undertake such others activities as it may deem fit, from time to time, to uplift the socio-economical status of farmers in the North Eastern Region.

Objectives of CPGS are:

1) To produce globally competitive postgraduates in the field of agriculture
2) To develop robust agricultural technologies to help Indian farming systems, particularly in the northeastern region of India to be sustainable and profitable, and
3) To transform agriculture and allied activities into profitable enterprises and thereby create food and nutritional security for people of northeastern region of India.
4) The postgraduates of CPGS who are educated and trained in recent advances in agriculture and allied sciences, are expected to bring about a quantum change in the agricultural research and development systems in their respective states and also contribute towards strengthening the National Agricultural Research System.

The following degree programs are currently running at CPGSAS.

Program	Duration
Undergraduate Level	Not applicable
Post-graduate level a. M.Sc. in Agriculture b. PhD in Agriculture c. MBA in agribusiness management	 2 years full-time master's program 3 years full-time doctoral program 2 years full-time master's program

Table: Different disciplines of P.G. and Ph.D program offered

S.N.	Name of School		Master's program/ Disciplines	Ph.D. Program
1	School of Natural Resource Management	i.	Agronomy	Agronomy
		ii.	Soil Science & Agril. Chemistry	Soil Science & Agril. Chemistry
2.	School of Crop Improvement	i.	Genetics & Plant Breeding	Genetics & Plant Breeding
		ii.	Plant Molecular Biology & Biotechnology	Plant Molecular Biology & Biotechnology
3.	School of Crop Protection	i.	Entomology	-
		ii.	Plant Pathology	Plant Pathology
		iii.	Nematology	-
4.	School of Social Sciences	i.	Agricultural Economics	Agricultural Economics
		ii	Agricultural Extension	Agricultural Extension
		iii	MBA in Agri Business Management	-

In the last five years(2016-17 upto 2020-21)a total number of 189 M.Sc students and 37 Ph.D students have passed out*(details in section 6.4.8).*Out of the total passed out students,26 PG students have secured jobs in Central/State/Autonomous bodies/Banks, etc. Many students have also qualified in CSIR/ICARNET/SRF examination each year (details in *6.5.7)*. There is an increasing trend with respect to the master level students opting for higher education and 45 students are currently pursuing Ph.D degree in reputed national universities and deemed universities.

During the past five years, the college has also published 165 peer-reviewed scientific publications with 5.0 or above NAAS Rating (rating as per 2021) (detailed list is available in section 6.6.3.4).

Besides, the teachers of CPGS successfully competed at national level for acquiring research funds through externally funded projects (ERPs) sanctioned by DBT, DST, MoEF, National Funds of ICAR, DBT, DeIT, NABARD, MoA, etc. In the last five years, faculty members have completed 30 research projects. Twenty one research projects funded by the above organizations along with two AICRPs on Maize and rice are currently ongoing. The approximate total funds obtained through externally funded projects are7.2 crores.

List of ERPs at College of Post Graduate Studies in Agricultural Sciences, Umiam, Meghalaya

I. ONGOING

	Title of the project	**Principal Investigator** Email and Mobile Number	**Funding Organisation**	**Sanction Order and date**	**Duration**	**Budget (Lakhs)**
1.	Molecular mapping and construction of linkage maps for improving aluminium tolerance and phosphorus acquisition efficiency in lentil for cultivation in acidic soils of North East Hill States	Dr. K. Noren Singh Email: norensingh27@gmail.com Mobile No.: 9436890653	DBT, GOI	BT/PR25565/NER/95/1254/2017 Dated.11.09.2018	3 years	56.70

2.	Mapping and inheritance studies for Northern Corn Leaf Blight resistance in maize (*Zea mays* L.) population generated from landraces of North East Hill Region (NEHR) of India	Dr. Devyani Sen Email: devyani.sen@gmail.com Mobile No. 9402196116	DBT, GOI	BT/PR25763/NER/95/1302/2017 Dated. 18/09/2018	3 years	54.60
3.	From QTL to variety: Genomics assisted introgression and field evaluation of rice varieties with genes/QTLs for yield under drought flood and salt stress	Dr. Mayank Rai Email: mrai.cau@gmail.com Mobile No.:9436336008	DBT, GOI	BT/PR18611/AGIII/103/921/2016 Dated.01.04.2018	3 years	32.3
4.	DBT North East center for agricultural biotechnology (NECAB) satellite laboratory for biotechnology inputs	Dr. Dwipendra Thakuria Email: thakuria.dwipendra@yahoo.co.in Mobile No.:9436767009	DBT, NECAB, AAU, Jorhat	DBT-NECAB/AAU/14/2018-19 dtd. 08-05-2019	2 years	15.0
5.	Bio-efficacy and phytotoxicity evaluation of new fungicide Fluopyram 250 g/l + Trifloxystrobin 250 g/l (Luna sensation) against three diseases of Apple	PI: Dr. Pranab Dutta Email: pranabdutta74@gmail.com Mobile No: +91 9678906650/+91 9101551247	Bayer Crop Science ltd.	No. BCS/2/CAU/20 Dated 06-08-2020	2 years	14.0
6.	Bio-efficacy and phytotoxicity evaluation of Fosetyl Al 80% WP (Aliette 80% WP) in Cardamom	PI: Dr. Pranab Dutta Email: pranabdutta74@gmail.com Mobile No: +91 9678906650/+91 9101551247	Bayer Crop Science ltd.	No. BCS/2/CAU/20 Dated 29-06-2020	2 years	12.72
7.	Establishment of mass production unit of biocontrol agents and skill development of farmers/rural youths	PI: Dr. Pranab Dutta Email: pranabdutta74@gmail.com Mobile No: +91 9678906650/+91 9101551247	ICAR-NBAIR, Bengaluru	No. CAU/DEE/217/NBAIR/Bud.Exp/20-21/1460 Dated 15-07-2020	1 year	3.40
8.	Evaluation of NNI-1702 30% WG [NNI-1501 10% + Pymetrozine 20% WG] to control BPH/ WBPH in Rice	PI: Dr. Mahesh Pathak Email: maheshpathak@rediffmail.com Mobile No: +91 8132873756	Nichimo India Pvt. Ltd.	Nichino India Pvt Ltd./ U24100TG2013PTC091502, Dated 14/07/2020	2 years	7.08

9.	IPM on rice and horticultural crops in NEH region (NCIPM)	PI: Dr. Mahesh Pathak Email: maheshpathak@rediffmail.com Mobile No: +91 8132873756	ICAR-NCIPM	F.No. 1 (89)/2018/NEH Region/ IPM/600, Dated: 04/02/2020	1 Year	3.0
10.	Estimation of production and utilization pattern of milk and milk products in India	Dr. Ram Singh Email: ramsingh.cau@gmail.com Mobile No.: 9402197624/ 8787343965	NDRI, Karnal	EFT No. 67259-67264 Dated 28.04.20	2 years	3.69
11.	Integration and application of UAV for crop health assessment and monitoring with IIDS in providing evidence based agro-advisory services to farmers of North- East India.	Dr. R.K.Josmee Singh Email: josndri@gmail.com Mobile No.: 7005444989	Digital India Corporation, Ministry of Electronics and Information Technology, GOI	No.DIC/Projects/CAU/DNER/2019-20 Dated 18.09.20	2 years	43.96
12.	Policy Imperative for promoting value chain of organically produced major spices in NEHR	Dr. Ram Singh Email: ramsingh.cau@gmail.com Mobile No.: 9402197624/ 8787343965	NAIP	No. 29(63)2017-projec t (NAIP) Dated 18/12/2017	4years	44.70
13.	Promotion of Dairy Farming for uplift of Socio-Economic Status of Tribal farmers through technological intervention in Meghalaya	Dr. J. K. Chauhan Email: jkcagra@gmail.com Mobile No: 9759045777	NDRI-Karnal	No. CAU-DR4-GC/PG/2012 Vol.II/4410, Dated 20/11/2020	2 years	5.6
14.	Assessment of water poverty index for safe and equitable access of water in Meghalaya	Dr. Lala I P Ray	DST, GoI	Sanction Order dated: 23/12/2020	3 years	51. 45
15.	Understanding the *Citrus tristeza virus* resistance mechanisms in citrus species and development of disease-free quality planting material of Khasi mandarin (*Citrus reticulata* Blanco) from	Dr. Ng. TombisanaMeetei, tombisana.ci.cpgsas@cau.ac.in	DBT, GoI	Sanction No. BT/PR39878/ NER/ 95/ 1660/2020 dtd 28/01/2021	3 years	53.57

	North East India	Mob: 9402196140				
16.	Network Project for Establishment of disease free elite Khasi mandarin and Sweet Orange genetic stocks through shoot tip grafting (STG) and mass production of quality planting material for Northeastern states of India	Dr. Ng. TombisanaMeetei, tombisana.ci.cpgsas@cau.ac.in Mob: 9402196140	DBT, GoI	Sanction No. BT/ PR40114/NER/ 95/1657/2020 dtd 10/02/2021	3 years	55.62
17.	Collection, conservation and morpho-phenological characterization of citrus germplasm of North East India	Prof. D. Thakuria (Soil Microbiology) 9436767009 / 8787343877	DBT, GoI, New Delhi	DBT/PR39933/ NER/95/1658/2020 dtd. 16.02.2021	3 years	97.5
18.	Development of diagnostic Kits for quick detection of CTV, HLB and Phytophthora rot diseases in Citrus of North East India	Prof. D. Thakuria (Soil Microbiology) 9436767009 / 8787343877	DBT, GoI, New Delhi	DBT/PR39897/ NER/95/1667/2020 dtd. 04.02.2021	3 years	63.55
19.	Skill development on identified bioinoculant technologies and on-farm mass production through model organic farm in North East India	Prof. D. Thakuria (Soil Microbiology) 9436767009 / 8787343877	ICAR-NBAIM, MAU, UP	File No. 4(2)/Bank/Fin/2020-21/2513 dtd. 11.03.2021	1 year	36.4
20.	Molecular signature dynamics in aphid stylet probed vascular sap and aphid's salivary gland for the elevated levels of resistance in *Brassica* and its wild sp. against *Liphaphis erysimi*	Dr. Hossain Ali Mondal	DST, GoI	CRG/2019/004764 Dated: 25/3/21	3 years	61.78
21.	Exploring diversity of Bacillus thuringiensis in NER for mining novel insecticidal genes	Dr. Kennedy Ningthoujam	DBT, GOI	BT/PR32360/NER/95/1497/2019 Dated: 23/3/21	3 years	55.00

II. COMPLETED

	Title of the project	**Principal Investigator** Email and Mobile Number	**Funding Organisation**	**Sanction Order and date**	**Duration**	**Remarks**
1.	NAIP on "Bioprospecting and allele mining for abiotic stress tolerance" Component-IV	Dr. Wricha Tyagi Email: wtyagi.cau@gmail.com Mobile No.:9436336009	ICAR (NAIP), New Delhi (National)	No. NAIP/Comp-4/C30033s/2008-09 Dated 4.5.2009	5 years	Collaborative
2.	Improvement of locally adapted rice cultivars of North East Hill Region by incorporating Blast Resistance Genes through Marker Assisted Backcrossing	Dr. Mayank Rai Email: mrai.cau@gmail.com Mobile No.:9436336008	DBT, GOI	No. BT/PR13258/AGR/02/693/2009 Dated 30.11.2009	5 years	Individual
3.	From QTL to Variety: Marker assisted breeding of abiotic stress tolerant rice varieties with major QTLs for drought, submergence and salt tolerance	Dr. Mayank Rai Email: mrai.cau@gmail.com Mobile No.:9436336008	DBT, GOI	No. BT/PR14544/AGR/02/745/2010 Dated 5.10.2010	3 years	Collaborative
4.	Screening for Turcicum blight resistance in indigenous non elite lines of maize in North East India	Dr. Devyani Sen Email: devyani.sen@gmail.com Mobile No. 9402196116	DBT, GOI	dPD-FS(FIPF Project)/2012-13 Dated. 30.04.2012	3 years	Collaborative
5.	Establishment of Biotech hubs	Dr.V.K. Khanna Email: khannavk@rediffmail.com	DBT, GOI	No. BT/04/NE/2009 Dated 21.09.2010	3 years	Collaborative
6.	Assessment of consequences of extreme climatic variability on men and women farmers in ensuring food security and sustaining livelihoods: a case study in rice based farming in North east India	Dr. Ram Singh Email: ramsingh.cau@gmail.com Mobile No.: 9402197624/ 8787343965	IFAD	DPPC2006-79 Dated 20.12.2010	1 year	Collaborative
7.	Functioning of Micro-Credit Scheme of RMK in North Eastern States of India	Dr. S. M. Feroze Email: ferozendri@gmail.com	Planning Commission	Dated 16.08.2011	3 years	Individual

8.	Characterization of *Zanthomonas oryzae pv. Oryzae* stains causing bacterial blight in rice from North Eastern region with respect to cultural, biochemical, molecular and virulence profiles	Dr. Dipali Majumder Email: dipali_assam@yahoo.co.in Mobile No: + 1 (270) 955-3892	DBT, GOI	No.102/IFD/SAN/3535/2011-12 Dated 15/12/2011	3 years	Collaborative
9.	Phenomics of moisture deficit and low temperature stress tolerance in rice	Dr. Wricha Tyagi Email: wtyagi.cau@gmail.com Mobile No.:9436336009	NFBSFARA, ICAR, New Delhi	No.NFBSFARA/Phen-2015/ 2010-11 Dated 23.2.2011	3 years	Collaborative
10.	Development of expert system to diagnose rice diseseas in Meghalaya	Ms. P. Mercy Nesa Rani Email:mercyranip@gmail.com Mobile No.: 8787884283	NABARD, Meghalaya Regional Office	DPD-FS(FIPF Project)/2012-13 Dated 30.04.2012	2 years	Individual
11.	Endophytic diversity of wild vs. cultivated rice across environmental gradients of North East India	Dr. Dwipendra Thakuria Email: thakuria.dwipendra@yahoo.co.in Mobile No.:9436767009	DBT, GOI	Bt/PR15208/AGR/021/332/2011 Dated 02.07.12	3.5 years	Individual
12.	Development of pod borer resistant transgenic pigeonpea and chickpea	Dr. Wricha Tyagi Email: wtyagi.cau@gmail.com Mobile No.:9436336009	National Fund for Basic, Strategic and Frontier Application Research in Agriculture (NFBSFARA)	No. NFBSFARA/PB-2010/2010-11 Dated 24.1.11	3 years	Collaborative
13.	Development and deployment of mobile based agro advisory system in North East India (M4agriNEI)-Phase-I	Dr. Ram Singh Email: ramsingh.cau@gmail.com Mobile No.: 9402197624/ 8787343965	Deptt. of Information Technology, Min. of Communication & Information technology, Govt. of India	No. MLA/PROJECTS/CAU/M4agriNEI/2012-13/01/01 Dated 23.4.2012	2 years	Individual
14.	Derived crop co-efficients for enhancing water productivity of	Dr. P.K. Bora Email: pradip66@gmail.com Mobile No.:	DBT, GOI	No. SR/S4/AS-73/2001	3 years	Individual

	important crops of Meghalaya	7031934705		Dated 17.8.2011 Com: 6-1-2012		
15.	Cost and return in milk production: Development of standardized methodology and estimate for various production systems	Dr. S. M. Feroze Email: ferozendri@gmail.com	Dept. of Animal Husbandry & Dairying, MoAFW	No. 26-326/spl study(cost of milk pod.) NDR/2010-AHS Dated 9/2/2012	2 years	Individual
16.	Assessment of habitat specific environmental micro bacterial population in North East India	Dr. Dwipendra Thakuria Email: thakuria.dwipendra@yahoo.co.in Mobile No.:9436767009	Ministry of Environment Govt. of India (National)	No. 387/IFD/E/2012 Dated 05.03.2012	3 years	Individual
17.	Impact assessment of jhumming on soil microbiota resources and development of microbial inoculants for ecological restoration of jhum agroecosystem	Dr. Dwipendra Thakuria Email: thakuria.dwipendra@yahoo.co.in Mobile No.:9436767009	DBT, GOI	No. DBT-NER/Agri/14/2012 Dated 31.10.2012	4+1 years	Individual
18.	Climate change impacts on hill agriculture in North eastern Himalaya: A Socio- economic Analysis	Dr. S. M. Feroze Email: ferozendri@gmail.com	ICSSR, New Delhi	RESPRO/04/ICSSR/2012-2013/RPS Dated 29.03.13	2 years	Individual
19.	Techno-Economic Feasibility of Gravity – fed Drip Irrigation System in Hilly Regions of Meghalaya	Dr. Lala Iswari Prasad Ray Email: liprbabu4u@gmail.com Mobile No.: 9436336021	DST, New Delhi	COMPT/DST/DIS/COPG/2013/1242 Dated 28.13.2013	3 years	Individual
20.	Assessment of livelihood and income of system of rice intensificationfarmers in Tripura	Dr. Ram Singh Email: ramsingh.cau@gmail.com Mobile No.: 9402197624/ 8787343965	ICSSR/RPR	No.02-154 (GEN)/2014-15/ICSSR/RPR Dated 24.11.2014	2 years	Individual
21.	Generation of early maturing and low moisture tolerance mutant in the Brassica campestris	Dr. Wricha Tyagi Email: wtyagi.cau@gmail.com Mobile No.:9436336009	BRNS, GoI, Deptt of Atomic Energy (BARC)	No. 35/14/17/2014- BRNS Dated: 19.05.2014	3 years	Individual

22.	Consortium research platform on borers in network mode	PI: Dr. Kennedy N. Email: kennedy1982@gmail.com Mobile No: +91 7005715537/+91 9650083531	IIHR, Bengaluru	No. 33-2/2013-/A Dated 29.10.2014	3 years	Collaborative
23.	Cost of cultivation of major crops in Meghalaya	Dr. Ram Singh Email: ramsingh.cau@gmail.com Mobile No.: 9402197624/ 8787343965	Directorate of Economics and Statistic, Govt. ofMeghalaya	No.EST.50/ NI (Survey)/2013/ 110 Dated 27.03.2015	1 year	Individual
24.	Development and deployment of mobile based agro advisory system in North East India (M4AgriNEI)-Phase II	Dr. R.K.Josmee Singh Email: josndri@gmail.com Mobile No.: 7005444989	DIT, MCIT	No. MLA/Projects/CAU/M4AgriNEI/2015-16 Dated 27/5/2015	5 years	Individual
25.	Mapping of socio-economic and livelihood patterns of jhumias in North East Hill region of India	Dr. D.K. Pandey Email: dkpextension@gmail.com	ICAR	No. A.Extn.26/10/ 2015-AE-I/01	1 year	Individual
26.	Impact of information and communication technology (ICTS) in agricultural education in India	Dr. D.K. Pandey Email: dkpextension@gmail.com	ICAR	No.Edn/40/25/2016/EMF/HRD Dated 29/06/2016	1 year	Individual
27.	Value chain analysis of ginger in North Eastern Hill region of India	Dr. Ram Singh Email: ramsingh.cau@gmail.com Mobile No.: 9402197624/ 8787343965	ICAR	No. A.Extn.2/10/ 2015-AE-I/16 Dated 10/3/2016	1 year	Individual
28.	Study on endophyte metabolomics of rice in response to habitat-adaptive fitness against Al-stress (DBT-RA Program)	Dr. Dwipendra Thakuria Email: thakuria.dwipendra@yahoo.co.in Mobile No.:9436767009	DBT through IISc, Bengaluru	Indian Institute of Science Bangalore Dated 16/05.2016	3 years	Individual
29.	Understanding phosphorous deficiency and iron toxicity tolerance in rice under acidic soils of North East Hill Region	Dr. Wricha Tyagi Email: wtyagi.cau@gmail.com Mobile No.:9436336009	DBT, GOI	BT/566/NE/U-Excel/2016 Dated 31.03.2017	3 years	Individual (Unit of Excellence)

30.	Preference for agricultural stream in higher education in India: A gendered enquiry and initiatives to attract young talents	Dr. S. M. Feroze Email: ferozendri@gmail.com	ICAR, Education Division	No. AgEdu 17/11/2019/ EMF/HRD Dated. 14.3.2019	1 year	Individual

No. of ongoing AICRPs= 2 (AICRP on Maize; AIRCP on rice)

No. of ongoing EFRPs =21

No. of completed EFRPs=30

6.4.2. Faculty Strength

The following faculty is appointed on permanent basis by the University. Apart from the list mentioned below, one faculty member at the level of Professor is also employed on contract basis.

Sl. No	Sanction Faculty	Sanction Post	Faculty in position	Vacant position	Faculty recommended by the ICAR/UGC/VCI/Other regulatory bodies
01	Chairman	4	-	04	
02	Professor	11	11	Nil	
03	Associate Professor	16	7	09	
04	Assistant Professor	14	10	04	
Total		**45**	**28**	**17**	

6.4.3 Technical and Supporting staff:

Sl. No.	**Name of post sanctioned**	**No. of post sanctioned**	**Filled position**
Group-A			
1	Assistant Registrar (Academic)	1	-
2	Assistant Registrar (Establishment)	1	-
3	Assistant Comptroller	1	-
4	AE/Estate Officer	1	1
5	Security Officer	1	-
6	Student Welfare Officer	1	1
7	MedicalOfficer	1	1
8	Librarian	1	-
Group-B			
9	Junior Engineer	1	1
10	Sr. Stenographer	1	-
11	Head Assistant	1	-
12	Accountant	2	1
13	Horticulture Assistant	1	
14	Sr. Library Assistant	1	1
15	Computer Operator	1	1
Group-C			
16	Assistant	1	1
17	Account Assistant/Cashier	2	1
18	Electrician	1	1
19	Compounder/Dresser	1	1
20	Library Assistant	3	1
21	Livestock/Farm Assistant	5	3
22	Clerk-cum-Typist/LDC/UDC	14	5
23	Field-cum-Lab. Assistant	18	5

24	Driver (including tractor driver)	5	3
25	Plumber	1	1
26	Carpenter	1	1
27	Medical Attendant	3	2
28	MTS	52	30
Grand total		**123**	**62**

6.4.4 Classrooms and Laboratories:

5 Classrooms, 1 Seminar and 1 conference Room attached with LCD Projector

Sl. No.	Departments/ Schools	Name of laboratories
1	**SNRM**	1. Analytical Lab 2. Biogeochemistry Lab 3. Microbial Ecology Lab 4. GIS and Remote Sensing Lab 5. Hydraulics lab 6. Farm Lab 7. Biofertilizer production unit
2	**SCI**	1. Molecular Biology and Biotechnology Lab 2. Cytogenetics and Molecular Marker Lab 3. Media Preparation Room 4. Tissue Culture and Genetic Transformation Lab 5. Green house facilities 6. Genetics and plant breeding lab
3	**SCP**	1. Plant Pathology Lab 2. Molecular Lab 3. Biopesticide production unit 4. Mushroom production unit 5. Entomology Lab 6. Nematology Lab 7. Insectry 8. Polyhouse
4	**SSS**	1. Computer Lab 2. Multimedia Lab 3. ABM Seminar Room

6.4.5 Conduct of Practical and Hands-on-Training

The four Schools conduct practicals in PG programs as per the ICAR course curriculum. Practical and hands-on training are conducted as per the list included in the syllabi and records for all the courses are maintained and evaluated by the respective course incharges by giving marks weightages. Sometime courses which are appealing for visiting farmer fields, accordingly provisions are there to visit farmer's fields.

6.4.6 Supervision of students in PG/Ph.D programs:

The allotment of students is PG and Ph.D is as per CAU regulationwith a cap of maximum six students for Professor, five students for Associate Professor and four students for Assistant Professor are being allotted in the school. Apart from the above mentioned, School of Crop Improvement and School of Social Sciences hastwo faculty from ICAR-RC for NEH, Umiam each and two from ICAR-ATARI for School of Social Sciences with specialization in genetics and plant breeding and in Agricultural Economics and Agricultural Extension, respectively recognized for teaching and guidance of the students. The allotment of students is by

lottery and in constitution of advisory committee and allotment of research title, the interest of the student is always kept in mind.

Name of the Degree Program	Number of students being supervised by Faculty				
	2016-17	2017-18	2018-19	2019-20	2020-21
M. Sc. (Ag.) Degree Program					
A. School of Natural Resource Management					
1. Agronomy	6	4	5	5	8
2. Soil Sc. and Agril. Chemistry	7	4	6	5	7
B. School of Crop Improvement					
1. Genetic and Plant Breeding	7	5	5	5	8
2. Plant Molecular Biology and Biotechnology	6	5	3	4	6
C. School of Crop Protection					
1. Entomology	7	7	5	2	7
2. Plant Pathology	7	7	7	2	7
3. Nematology	_	_	_	_	3
D. School of Social Sciences					
1. Agril. Economics	7	1	6	4	4
2. Agril. Extension	7	3	6	1	7
Total	**54**	**36**	**43**	**28**	**57**
MBA (Agri. Business Management)	**-**	**5**	**3**	**1**	**4**
Ph.D. Program					
A. School of Natural Resource Management					
1. Agronomy	3	_	3	_	2
2. Soil Science and Agril. Chemistry	1	1	3	2	3
B. School of Crop Improvement					
1. Genetic and Plant Breeding	3	3	3	3	2
2. Plant Molecular Biology and Biotechnology	3	2	1	2	3
C. School of Crop Protection					
1. Plant Pathology	3	2	1	2	3
D. School of Social Sciences					
1. Agril.Economics	3	_	3	2	3

2. Agril. Extension	3	1	1	2	3
Total	**19**	**9**	**15**	**13**	**19**

6.4.7 Feedback of stakeholders (students, parents, industries, employers, farmers etc.)

At the end of the each semester and before the end term exam, a comprehensive feedback for each course is taken from students. The feedback includes competency of the teacher in the subject, updating the current status of the subject by the teacher, timely covering of syllabi, student teacher interactions, creating interest among the students about the course, attitude towards weak students, punctuality of the teacher etc (feedback proforma enclosed for ready reference).for the last five years:

6.4.8 Students intake and attrition in the program for last five years

Year wise information for the last five academic years (2016-17 to 2020-21) for various MSc Agric., PhD and M.B.A.program is given in table below:

Academic year 2016-17

Name of the Degree Program	Intake Capacity	Number of admitted student	Attrition (%)	Passed Out
M.Sc. (Ag.) Degree Programme				
A. School of Natural Resource Management				
1. Agronomy	5+2*	6	1	5
2. Soil Sc. and Agril. Chemistry	5+2*	7	1	5
B. School of Crop Improvement				
1. Genetic and Plant Breeding	5+2*	7	_	4
2. Plant Molecular Biology and Biotechnology	5+2*	6	_	3
C. School of Crop Protection				
1. Entomology	5+2*	7	1	5
2. Plant Pathology	5+2*	7	1	4
D. School of Social Sciences				
1. Agril. Economics	5+2*	7	2	4
2. Agril. Extension	5+2*	7	_	4
	40+16*	**54**	**6**	**34**
Ph.D Degree Program				
A. School of Natural Resource Management				
1. Agronomy	2+1*	3	_	2
2. Soil Sc. and Agril. Chemistry	2+1*	1	1	-
B. School of Crop Improvement				
1. Genetic and Plant Breeding	2+1*	3	2	1
2. Plant Molecular Biology and Biotechnology	2+1*	3	2	2
C. School of Crop Protection				
1. Plant Pathology	2+1*	3	1	-
D. School of Social Sciences				
1. Agril. Economics	2+1*	3	_	3
2. Agril. Extension	2+1*	3	_	2

	14+7*	**19**	**6**	**10**

**** To be filled by ICAR candidate**

Academic year 2017-18

Name of the Degree Program	**Intake Capacity**	**Number of admitted student**	**Attrition (%)**	**Passed Out**
M.Sc. (Ag.) Degree Program				
A. School of Natural Resource Management				
1. Agronomy	2+2*	4	1	7
2. Soil Sc. and Agril. Chemistry	2+2*	4	_	4
B. School of Crop Improvement				
1. Genetic and Plant Breeding	3+2*	5	_	6
2. Plant Molecular Biology and Biotechnology	3+2*	5	1	6
C. School of Crop Protection				
1. Entomology	5+2*	7	_	5
2. Plant Pathology	5+2*	7	1	6
D. School of Social Sciences				
1. Agril. Economics	1+2*	1	_	4
2. Agril. Extension	1+2*	3	_	6
	22+16*	**36**	**3**	**44**
MBA (Agri. Business Management)	**5**	**5**	**-**	**-**
Ph.D Degree Program	1+1*			
A. School of Natural Resource Management				
1. Agronomy	1+1*	_	_	_
2. Soil Sc. and Agril. Chemistry	1+1*	1	_	1
B. School of Crop Improvement				
1. Genetic and Plant Breeding	2+1*	3	2	_
2. Plant Molecular Biology andBiotechnology	1+1*	2	2	1
C. School of Crop Protection				
2. Plant Pathology	1+1*	2	_	_
D. School of Social Sciences				
1. Agril. Economics	1+1*	_	_	1
2. Agril. Extension	1+1*	1	_	2
	9+7*	**9**	**4**	**5**

Academic Year 2018-19

Name of the Degree Program	**Intake Capacity**	**Number of admitted student**	**Attrition (%)**	**Passed Out**
M.Sc. (Ag.) Degree Program				
A. School of Natural Resource Management				
1. Agronomy	3+2*	5	1	5
2. Soil Sc. and Agril. Chemistry	5+2*	6	_	8
B. School of Crop Improvement				

1. Genetic and Plant Breeding	3+2*	5	_	7
2. Plant Molecular Biology and Biotechnology	3+2*	3	_	6
C. School of Crop Protection				
1. Entomology	5+2*	5	_	6
2. Plant Pathology	5+2*	7	_	6
D. School of Social Sciences				
1. Agril. Economics	3+2*	6	_	6
2. Agril. Extension	2+2*	6	1	7
	29+16*	**43**	**2**	**51**
MBA (Agri. Business Management)	**5**	**3**	**_**	**-**
Ph.D Degree Program				
A. School of Natural Resource Management				
1. Agronomy	1+1*	3	_	1
2. Soil Sc. and Agril. Chemistry	2+1*	3	1	1
B. School of Crop Improvement				
1. Genetic and Plant Breeding	2+1*	3	_	2
2. Plant Molecular Biology and Biotechnology	1+1*	1	1	1
C. School of Crop Protection				
1. Plant Pathology	1+1*	1	_	-
D. School of Social Sciences				
1. Agril. Economics	1+1*	3	1	2
2. Agril. Extension	1+1*	1	_	-
	9+7*	**15**	**3**	**7**

2019-20 Batch

Name of the Degree Program	**Intake Capacity**	**Number of admitted student**	**Attrition (%)**	**Passed Out**
M.Sc. (Ag.) Degree Program				
A. School of Natural Resource Management				
1. Agronomy	3+2*	5	1	4
2. Soil Sc. and Agril. Chemistry	5+2*	5	_	2
B. School of Crop Improvement				
1. Genetic and Plant Breeding	5+2*	5	_	7
2. Plant Molecular Biology and Biotechnology	3+2*	4	_	4
C. School of Crop Protection				
1. Entomology	2+2*	2	_	7
2. Plant Pathology	2+2*	2	1	6
D. School of Social Sciences				
1. Agril. Economics	2+2*	4	_	6
2. Agril. Extension	2+2*	1	1	5
	24+16*	**28**	**3**	**41**
MBA (Agri. Business Management)	5	**1**	**_**	**7**
Ph.D Degree Program				

A. School of Natural Resource Management				
1. Agronomy	0+1*	_	_	
2. Soil Sc. and Agril. Chemistry	1+1*	2	1	**1**
B. School of Crop Improvement				
1. Genetic and Plant Breeding	2+1*	3	_	**2**
2. Plant Molecular Biology and Biotechnology	2+1*	2	1	**1**
C. School of Crop Protection				
1. Plant Pathology	1+1*	2	1	**2**
D. School of Social Sciences				
1. Agril. Economics	1+1*	2	1	**1**
2. Agril. Extension	1+1*	2	_	**5**
	8+7*	**13**	**4**	**12**

2020-21 Batch

Name of the Degree Program	**Intake Capacity**	**Number of admitted student**	**Attrition (%)**	**Passed Out**
M.Sc. (Ag.) Degree Program				
A. School of Natural Resource Management				
1. Agronomy	5+2*	8	_	-
2. Soil Sc. and Agril. Chemistry	5+2*	7	_	3
B. School of Crop Improvement				
1. Genetic and Plant Breeding	5+2*	8	1	4
2. Plant Molecular Biology and Biotechnology	5+2*	6	3	1
C. School of Crop Protection				
1. Entomology	5+2*	7	_	5
2. Plant Pathology	5+2*	7	_	4
3. Nematology	3+2*	3	1	-
D. School of Social Sciences				
1. Agril. Economics	5+2*	4	_	
2. Agril. Extension	5+2*	7	_	2
	43+16*	**57**	**5**	**19**
MBA (Agri. Business Management)	**5**	**4**	**_**	**1**
Ph.D Degree Program				
A. School of Natural Resource Management				
1. Agronomy	2+1	2	1	**-**
2. Soil Sc. and Agril. Chemistry	2+1	3	1	**2**
B. School of Crop Improvement				
1. Genetic and Plant Breeding	2+1	2	_	**-**
2. Plant Molecular Biology and Biotechnology	2+1	3	1	**-**
C. School of Crop Protection				
1. Plant Pathology	2+1	3	_	**-**
D. School of Social Sciences				
1. Agril. Economics	2+1	3	_	**1**

2. Agril. Extension	2+1	3	_	-
	14+7*	**19**	**3**	**3**

6.4.9 ICT Application in Curricula Delivery

All the class rooms, seminar and conference rooms are well equipped with LCD projectors. As per the needs of the course, power point presentation is given before the students for better explanation. Online and faculty made audio/videos are also presented to the students.

6.4.12 Certificate (Applicable when SSR is submitted for Programme)

I, the Dean **Dr. Wricha Tyagi** hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date and Seal

6.5 SELF STUDY REPORT FOR THE COLLEGE

6.5.1. COLLEGE ADMINISTRATION:

6.5.1.1 College Dean's Establishment:

Yes, the position of Dean of the College is a sanctioned post. The post of Dean at present is vacant due to the superannuation of the former Dean, Dr. N.B. Singh (31-7-2020). The University has floated advertisement for the appointment of Dean. The mode of Selection to eligible candidate is by open competitive for tenure of 5 years or attaining the age of 65 whichever is earlier.

The Dean's Secretariat consists of the following sections

Sl. No.	Name of Section	No. of employees
01.	PA's office	04
02.	Establishment Section	04
03.	Account Section	06
04.	Academic Section	03
05.	Store & Purchase	04
06.	Engineering Section	07
07.	Medical Section	04
08.	SWO	01
09.	Farm Section	04
10	I.T. Cell	02
11.	Vehicle Section	04

In all the above mentioned sections adequate infrastructure, equipments and furniture are available.

6.5.1.2 Monitoring Mechanism for Quality Education

The College is following ICAR course curriculum for every programmes. Wherever a modification in course curriculum is required within the permissible limit, a due process is followed and the matter is first presented before the Board of Studies and after its recommendation, due approval of CAU academic council is taken. All the course instructors are submitting a comprehensive lesson plan covering entire syllabi for each course and adhered to their plan during the entire semester. As per the need, besides referring the quality books in college library text material is also provided by the teachers. To assess their understanding about the subject, frequent assignments with the time limit of their submission by the students is followed. These assignments are timely evaluated and returned to the students for further improvements. Only the validated and quality materials available online is referred to the students. In addition, a number of national and international quality journal available online over CERA/DELCON are referred to the students.

Before starting the research work, every student has to present the synopsis of their proposed research program before the entire school and the advisory committee. After inclusion of the suggestion, the programme is send to the Director of Instruction, CAU, Imphal for his approval. The implementation of the approved student's research program is further duly monitored by their advisory committee and every semester they have to submit the progress report of their research work. Before the thesis submission, students again presented his/her research report before the entire school including the advisory committee. Plagiarism in their research programm if any, is checked using urkund software in college library and submission is allowed only if

plagiarism is within the permissible limit (10% or less). Their thesis is allowed to submit after inclusion of suggestions and send for external evaluation for further improvement. Final submission is allowed only after inclusion of the suggestions/comments made by Director of Instruction, CAU, Imphal office and the external examiners.

Extracurricular activities for students are organized by the college through the Student Welfare officer and they are encouraged to participate in various college level, university level, regional and national level cultural and sport events.

Academic progress of the students is evaluated by semester long evaluation process. For theory courses, 50% evaluation is done by the concern course teacher/s and for remaining 50%, question paper is set by an external examiner selected from the panel approved by the competent authority of the university. However, end term question paper is evaluated by the teacher other than the course instructor in the discipline. Two quizzes are conducted in each course by the concerned teacher at periodic intervals before the midterm exam. Next two quizzes are conducted after midterm but before end term exam. Midterm and end term examinations are organized as per the academic calendar of the CAU, Imphal. Almost 50% course is completed before midterm and the entire syllabi are completed before the end term exam. If required, teacher may conduct extra classes for timely completion of the course curriculum. Hands on training, practical experience learned during the semester in each course is evaluated at regular interval in each class by regular checking of their practical records and observing the progress made by the students in the laboratory during practical class. End term practical exam is evaluated by a committee of the senior faculty of the concerned school.

6.5.1.3 CC/ Board of Studies:

The Academic council, Central Agricultural University, Imphal, Manipur is the competent authority for decision making processes in academic matters and reserve the rights to approve/or disapprove proposals related to academic matters. The discipline-wise experts are also invited in the Academic council for scrutinizing the academic related proposals. The college adopts the semester system of education for both M.Sc. and Ph.D. degree programmes. The college follows the New and Restructured PG Curricula and Syllabi, 2009 framed by the Education Division of Indian Council of Agricultural Research, New Delhi. The common academic regulations as defined in the ICAR New and Restructured PG Curricula, 2009 are applicable for CPGS with some minor changes to suit the regional needs. The college adopts external evaluation system for course as well as comprehensive examinations both at M.Sc. and Ph.D. levels. This is implemented in order to maintain quality of education.

A board of studies for faculty of agriculture constituting four agriculture colleges, in which CPGSAS is a constituent member was reconstituted as per CAU/DI/92(i)/10-11 order dated 5-4-2018. The members of board of studies include the dean of four colleges; directors of instruction, research and extension education, CAU; internal members (3 from CoA, Imphal; 3 from CoA, Pasighat; 4 from CoA, Krydemkulai and 4 members from CPGSAS); two external experts nominated by Hon' Vice Chancellor; one representative of academic council (nominated by Hon' Vice Chancellor); one final year PG student with highest OGPA with in charge academic, CoA, Imphal as member secretary.

In last five years following meetings have been organized:

Sl.No.	Academic council (AC)/Board of studies (BOS)	Date
1	5thBOS	2-5-2018
2	6th BOS	22-5-2019
3	7thBOS	27-4-2020 (online)
4	15th AC	2-9-2016
5	16th AC	6-6-2017
6	17th AC	17-5-2018
7	18th AC	9-1-2019
8	19th AC	17-6-2019
9	20th AC	8-6-2020

10	21st AC	13-11-2020
11	22nd AC	15-12-2020

(Representative proceedings provided in Appendix-CPGS-A)

The major resolutions of BS have been pertaining to:

a) intake of MSc and PhD students in each discipline in consecutive academics sessions
b) Recognition of adjunct faculty
c) Starting of MSc program in Agriculture nematology, PhD program in entomology and masters' program in agribusiness management.

6.5.1.4 Anti Ragging Cell:

In pursuance to the "UGC Regulations on Curbing the Menace of Ragging in Higher Educational Institutions, 2009", the Anti-ragging Committee of the College of Post Graduate Studies, Central Agricultural University, Umiam is constituted in every academic year as per UGC Regulations. Apart from that, the college also constituted Anti Ragging Squad with faculty members and non-teaching staff residing in the campus for keeping constant vigil, patrolling and to remain alert in order to curb any instances of ragging in the College campus.

(Representative orders provided in Appendix-CPGS-B1)

6.5.1.5 Biological waste disposal facility:

Biological wastes are treated, autoclaved at laboratory level before being disposed.

6.5.1.6 Institutional Ethics Committee for Experiment on Animals

- NA -

6.5.1.7 Committee for Prevention of Sexual Harassment of Women at work place

The college constituted Internal Complaint Committee for safety of women employees and students compose of women faculty members, non-teaching staff, external member and students for a period of three (3) years.

Committees Constituted	Date of Constitution	Date of meeting
Dedicated Taskforce on Women's Welfare	CAU/CPGS/Estt-15/13-14/1865 dated 4/02/2013	05/04/2013
		4/04/2014
ICC	CAU/ Internal complaint/12-13/1052 dated 29/9/12	20/04/2013
		24/06/14
		27/09/14
		13/03/15
	CAU/CPGS-AS/ICC/2020-21/5125 dated 11/02/2021	19/02/2021

(Representative orders provided in Appendix-CPGS-B2)

6.5.2 FACULTY

6.5.2.1. Faculty strength:

The detail of total number of sanctioned, filled and vacant posts is enclosed below.

Sl. No.	Name of post sanctioned	No. of post sanctioned	Filled position	Vacant position
01	Chairman	4	-	04
02	Professor	11	11	Nil
03	Associate Professor	16	7	09
04	Assistant Professor	14	10	04
Total		**45**	**28**	**17**

During the last five years 19 faculty positions have been recruited directly. This includes Dean, eight professors, five associate Professors, and four Assistant Professors.

6.5.2.2. Faculty Profile (department-wise):

The department-wise or School-wise faculty profiles are given in tabular form below. The college has sufficient faculty position to meet the academic requirement of the College.

1. School of Natural Resource Management

Sl No.	Position of faculty	No. of faculty
01.	Professor	04
02.	Associate Professor	01
03.	Assistant Professor	02.

2. School of Social Science

Sl No.	Position of faculty	No. of faculty
01.	Professor	03
02.	Associate Professor	02
03.	Assistant Professor	03

3. School of Crop Improvement

Sl No.	Position of faculty	No. of faculty
01.	Professor	03
02.	Associate Professor	01
03.	Assistant Professor	03

4. School of Crop Protection

Sl No.	Position of faculty	No. of faculty
01.	Professor	03
02.	Associate Professor	03
03.	Assistant Professor	02

6.5.2.3 Credential of the Faculty:

Yes. The University has employed competent faculty members to the College to accomplish its mission and goal of the institution. All faculty members of the College are having Ph.D. degree in relevant fields/subjects.

Sl. No	Name of Faculty	Post held	Highest qualification	Teaching / Work Experience	Honors & Award	No. of Students Guided	No. of publications in NAAS

				(In Years)	s	PG	PhD	rated Journals
01	Wricha Tyagi	Professor	Ph.D.	16	08	14	04	41
02	Mayank Rai	Professor	Ph.D.	16	04	16	03	45
03	Vishram Ram	Professor	Ph. D.	19	-	05	04	08
04	Dwipendra Thakuria	Professor	Ph.D.	18	13	07	04	15
05	Ram Singh	Professor	Ph.D.	**19**	03	11	07	97
06	K. Noren Singh	Professor	Ph.D.	15	01	06	0	07
07	Mahesh Pathak	Professor	Ph.D.	16	05	04	0	23
08	R.K. Tombisana Devi	Professor	Ph.D.	32	-	07	04	06
09	Sanjay Swami	Professor	Ph.D.	18	08	11	04	63
10	Binodini Sethi	Professor	Ph.D.	19	-	10	0	22
11	N.S. Azad Thakur	Professor	Ph.D.	05	-	05	-	05
12	L. Hemochandra	Associate Professor	Ph.D.	5	-	0	0	40
13	L.Devarani	Associate Professor	Ph.D.	11	-	08	04	48
14	T. Rajesh	Associate Professor	Ph. D	13	-	13	0	27
15	Lala Iswari Prasad Ray	Associate Professor	Ph. D.	12	10	07	-	45
16	R.K. Patidar	Associate Professor	Ph. D.	14	1	0	-	08
17	Hossain Ali Mondal	Associate Professor	Ph.D.	12	-	0	0	02
18	Pranab Dutta	Associate Professor	Ph.D.	20	10	0	0	15
19	A.K. Singh	Assistant Professor	Ph.D.	13	-	09	03	16
20	Naorem Janaki Singh	Assistant Professor	Ph.D.	12	-	2	3	15
21	Devyani Sen	Assistant Professor	Ph.D.	11	-	12	01	04
22	Ng. Tombisana Meetei	Assistant Professor	Ph.D.	12	-	02	0	13
23	Rajkumar Josmee Singh	Assistant Professor	Ph.D.	11	-	09	04	16
24	P. Mercy Nesa Rani	Assistant Professor	Ph.D.	11	-	0	0	07
25	Kennedy Ningthoujam	Assistant Professor	Ph.D.	5	1	07	0	20
26	Anandkumar Singh	Assistant Professor	Ph.D.	4	-	0	0	05
27	Veronica Kadam	Assistant Professor	Ph. D.	2	-	01	0	09
28	Bingiala Laloo	Assistant	Ph.D.	1Y 9M	-	0	0	01

		Professor						

6.5.2.4. Technical and Supporting staff:

The position of technical/laboratory/farm staff are given below in tabular form.

Sl. No	Department/Section	Technical Staff	Supporting Staff	Field Staff
01	School of Natural Resource Management	-	02	02
02	School of Crop Improvement	-	02	01
03	School of Crop Protection	-	02	02
04	School of Social Sciences	-	02	-
05	Engineering Section	05	02	-
06	Medical Section	04	-	
07	Library	02	01	-
08	Farm	-	01	02
09	IT section	01	01	-
10	Vehicle section	03	01	-

Besides the above, 18 Nos. of field labours are outsourced from outsourcing agency

6.5.3 LEARNING RESOURCES

6.5.3.1 College Library (digital):

Staff Position

1	Library In-charge (Senior faculty)	1
2	Senior library assistant	1
3	Library assistant	1
4	MTS	1

Location of the library:	The College library is housed on the top floor of a 230 sq. meter (approx.) Library cum Mess Block building (2 floor building)
Present staff Position:	Sr. Library Asst. =1, Library Asst. = 1, MTS = 1
Availability of Wi Fi:	Yes. The Library is Wi Fi enabled.
Books / Reading Material(in Number)	5479 (course and reference books)
Periodicals / Research Journals (in Number)	**55** Periodicals/ Research journals subscribed and **2794** e-journals, databases such as Agristat, Krishi Prabha and Krishi Kosh Repository and eBooks through a consortium approach
Internet Facility:	Yes. LAN and Wi-Fi.
No of computers:	11 (8 user access and 3 staff access)
Seating Capacity:	45 seating capacity in the Reading Hall.

Latest technology in the library:	The Library is using Koha Integrated Library Management Software.
Stocking Arrangement:	The Library is following the Dewey Decimal Classification 23rd edition.
Collection of volumes on different subject:	Yes. The library has been building the collection in all subjects being offered in the College. Books are being procured on the recommendation of the course faculty.
Latest publications in the field of relevant subject:	Relevant new editions and up-to-date titles are being procured as per requirement.
Opening Hours:	9.30 AM - 4.30 PM on all working days of the College.
Subscription of journals of national & International repute national dailies / magazines (provide List)	The library subscribes to a total of 71 numbers of Indian published journals, 12 International journals, newspapers, magazines, etc. (List enclosed below).The subscription of International journals which are available through CeRA consortium has been discontinued.

Details of subscription of journals, national dailies, magazines, etc. subscribed by library

No	TITLE	TYPE
1	Indian Journal of Agricultural Economics	JL
2	Journal of Indian Society of Soil Science	JL
3	PHAL-PHOOL(ICAR)	JL
4	Indian Journal of Agricultural Sciences(ICAR)	JL
5	INDIAN FARMING(ICAR)	JL
6	INDIAN HORTICULTURE(ICAR)	JL
7	KHETI(ICAR)	JL
8	Resonance(IAS)	JL
9	Sadhana(IAS)	JL
10	Journal of Genetics(IAS)	JL
11	Journal of Biosciences(IAS)	JL
12	Current Science(IAS)	JL
13	Indian Journal of Biotechnology(NISCAIR)	JL
14	Indian journal of experimental biology (NISCAIR)	JL
15	Journal of Mycology and Plant Pathology	JL
16	Indian Journal of Plant Genetic Resources	JL
17	Journal of Global Communication	JL
18	Agricultural Situation in India	JL

19	Agricultural Economics Research Review	JL
20	Indian Journal of Entomology	JL
21	Indian Phytopathology	JL
22	Indian Journal of Agricultural Marketing	JL
23	Agricultural research	JL
24	Mysore journal of agricultural Science	JL
25	Economic and political weekly	Magazine
26	Kurukshetra	JL
27	Yojana	Magazine
28	Indian Journal of Horticulture	JL
29	Indian Journal of Agronomy	JL
30	Krishi Chaynika(Not renewed)	JL
31	Indian journal of weed science	JL
32	Agriculture and Industry Survey	Magazine
33	Indian Jl of Dryland Agricultural Research and Development	JL
34	Abhinav Imroz (Hindi)	Magazine
35	International Journal of Extension Education(INSEE)	JL
36	International Journal of Basic and Applied Agricultural Research(Formerly Pantnagar Journal of Research)	JL
37	Journal of progressive agriculture	JL
38	Indian journal of extension education	JL
39	Agriculture Extension Review	JL
40	Indian journal of Genetics and Plant Breeding	JL
41	Agriculture Today	Magazine
42	Journal of Insect Science	JL
43	Asian Agri-History	Magazine
44	Keanean Journal of Science	JL
45	Indian Journal of Plant Protection	JL
46	Plant Disease Research	JL
47	Annals of Agricultural Research	JL
48	Journal of Indian Water Resources Society	JL
49	Journal of Rural Development	JL

50	Mushroom Research	JL
51	MASU Journal	JL
52	Pestology	JL
53	Pest Management in Horticultural Ecosystem	JL
54	Pesticide Research	JL
55	Journal of Soil and Water Conservation	JL
56	Shillong Times	Newspaper
57	Meghalaya Guardian	Newspaper
58	Sentinel	Newspaper
59	Hindu	Newspaper
60	Times of India	Newspaper
61	Economic Times	Newspaper
62	Employment News	Newspaper
63	Purvanchal Prahiri (Hindi)	Newspaper
64	Dainik Purvaday (Hindi)	Newspaper
65	India Today	Magazine
66	Outlook	Magazine
67	Sportsstar	Magazine
68	Competition Success	Magazine
69	News and Events	Magazine
70	Down to Earth	Magazine
71	Outlook (Hindi)	Magazine

JL- journal

6.5.3.2. Laboratories, Instructional farm, Workshops, Dairy Plant, Veterinary Clinic, Hatchery, Ponds, etc.

The college is spread out across an area of 7.29 ha only. Being a Post-Graduate college, area available is being utilized to the maximum for student research purposes. Other activities like pond digging have commenced in Kyrdemkulai and are at the initial stages. The schools are equipped with laboratories to meet the research requirements of both the students and faculty.

Area under crop/farm	**2 acres** including upland and lowland in-campus CPGS

Area suitable for crop/fam	**500 sq.m** in mushroom cultivation, vermin composting and protected cultivation. **2 acres** in campus (3 acre in ICAR+farmers' field)
Area under pond	**20x10sqm**

Sl. No.	Departments	No. of laboratories
1	SCI	6
2	SNRM	7
3	SCP	8
4	SSS	3

6.5.3.3 Student READY/In-Plant Training/Internship/Experiential Learning Programmes

CPGSAS being a PG college there is no ELP running here. However, the MBA students of SSS are sent for internship programmes to expose them to industries/institutes and further improve their skills. The details of the internship programs attended by the students are as shown below;

Sl. No.	Title	Date	Organized
1	Production of food Beverage	06.06.2018 to 14.07.2018	Thangjam Agro Industries PVT Ltd. Imphal East Manipur
2	Manipur Milk Producer's Co-operative union limited, Central Dairy Plant.	04.06.2018 to 14.07.2018	Central Dairy Plant, Porompat, Govt. of Manipur
3	Study on activities of the 1917 iTeams (ITEAS)	June to July, 2018	Meghalalya Institute of Entrepreneurship, Govt. of Meghalaya.
4	Production and processing of cashew nut	6. 06. 2018 to 12.07.2018	B. R. Industries, Phulbari, West Garo Hills, Meghalaya.
5	Training on Rubber woods production, rubber wood seasoning and preservation in treatment plant, Carpentry and Bamboo Crafts, other wood products manufacturing etc.	07.06 2018 to 13.07.2018	TFDPC Industrial Estate, Anandanagar, West Tripura.
6	Fruit preservation centre	7. 06. 2019 to 18. 07.2019	Fruit Preservation Centre Dainadubi, North Garo Hills, Govt. of Meghalaya.
7	Dairy Processing Techniques and operationalization procedures of Dairy plant.	7. 06. 2019 to 19. 07.2019	Aane Dairy Plant, Pasighat and Arun Dairy Plant, Karsingsa (Nirjuli).Under the Department of A.H.Vety &Dairy Development, Govt. of Arunachal Pradesh. Nirjuli
8	Lamjingba Dairy Private Limited	13.06.2019 to 18.07.2019	Lamjingba Dairy Private Limited,
9	Training on Mushroom Cultivation	15. 12. 2020 to 28.01.2021	Horticulture Research Complex, Nagicherra, West Tripura, Govt. of Tripura, Dept. of Agriculture and Farmer's Welfare.

6.5.3.4 Curricula Delivery through IT (smart class rooms/interactive board etc.):

All the class rooms in the college as discussed above have one big size, good quality white board, internet connectivity and equipped with LCD projectors. One each seminar and conference room are also having internet connectivity and equipped with LCD projectors. In addition, one classroom in the School of Social Science is also equipped with interactive white board. The students can also avail the internet connectivity for retrieval of scientific information from the college library as well as from their hostel room. All the faculties are also equipped with a computer connected with the internet and a printer for helping them to conduct online classes, retrieve the scientific information for converting their teaching into a learning process for the students.

6.5.4 STUDENT DEVELOPMENT

6.5.4.1 Student Intake and Attrition:

Name of the Degree Programme	Actual student admitted in last five years					Attrition (%)				
	Y1 (16-17)	Y2 (17-18)	Y3 (18-19)	Y4 (19-20)	Y5 (20-21)	Y1 (16-17)	Y2 (17-18)	Y3 (18-19)	Y4 (19-20)	Y5 (20-21)
M. Sc. (Ag.) Degree Programme										
A. School of Natural Resource Management										
1. Agronomy	6	4	5	5	8	16.6%	25%	20%	12.5%	-
2. Soil Sc. and Agril. Chemistry	7	4	6	5	7	14.28 %	-	-	-	-
B. School of Crop Improvement										
1. Genetic and Plant Breeding	7	5	5	5	8	-	-	-	-	12.5%
2. Plant Molecular Biology and Biotechnology	6	5	3	4	6	-	20%	-	-	50%
C. School of Crop Protection										
1. Entomology	7	7	5	2	7	14.28 %	-	-	-	-
2. Plant Pathology	7	7	7	2	7	14.28 %	14.28 %	-	50%	-
3. Nematology	–	–	–	–	3	-	-	-	-	33.3%
D. School of Social Sciences										
1. Agril. Economics	7	1	6	4	4	2	-	-	-	-

2. Agril. Extension	7	3	6	1	7	-	-	16.67 %	100%	-
Total	54	36	43	28	57	11.11 %	8.33%	4.65%	10.71 %	8.77%
MBA (Agri. Business Management)	-	5	3	1	4	-	-	-	-	-
Ph.D. Programme										
A. School of Natural Resource Management										
1. Agronomy	3	_	3	_	2	-	-	-	-	50%
2. Soil Science and Agril. Chemistry	1	1	3	2	3	100%	-	33.33 %	50%	33.33%
B. School of Crop Improvement										
1. Genetic and Plant Breeding	3	3	3	3	2	66.67 %	66.67 %	-	-	-
2. Plant Molecular Biology and Biotechnology	3	2	1	2	3	66.67 %	100%	100%	33.33 %	50%
C. School of Crop Protection										
1. Plant Pathology	3	2	1	2	3	33.33 %	-	-	50%	-
D. School of Social Sciences										
1. Agril. Economics	3	_	3	2	3	-	-	66.67 %	50%	-
2. Agril. Extension	3	1	1	2	3	-	-	-	-	-
Total	19	9	15	13	19	31.58 %	44.44 %	20%	30.77 %	15.79%

6.5.4.2 Average Number of Students in Theory and Practical Classes

There is no disparity in number of students opting theory and practical, it depends on credit load in a particular course (theory and practical).

SL NO.	**Name of the Degree Programme**	Total intake/years	Batch of students in theory class	Batch of students in practical class
	M. Sc. (Ag.) Degree Programme			
A. School of Natural Resource Management				

1	Agronomy	5+2*	1	1
2	Soil Sc. and Agril. Chemistry	5+2*	1	1
B. School of Crop Improvement				
3	Genetic and Plant Breeding	5+2*	1	1
4	Plant Molecular Biology and Biotechnology	5+2*	1	1
C. School of Crop Protection				
5	Entomology	5+2*	1	1
6	Plant Pathology	5+2*	1	1
D. School of Social Sciences				
7	Agril. Economics	5+2*	1	1
8	Agril. Extension	5+2*	1	1
9	**MBA (Agri. Business Management)**	**5**	**1**	**1**
Ph.D. Programme				
A. School of Natural Resource Management				
10	Agronomy	2+1*	1	1
11	Soil Science and Agril. Chemistry	2+1*	1	1
B. School of Crop Improvement				
12	Genetic and Plant Breeding	2+1*	1	1
13	Plant Molecular Biology and Biotechnology	2+1*	1	1
C. School of Crop Protection				
14	Plant Pathology	2+1*	1	1
D. School of Social Sciences				
15	Agril. Economics	2+1*	1	1
16	Agril. Extension	2+1*	1	1

***reserved for ICAR nominee**

6.5.4.3 Admission Process:

For PG. Degree Program: Candidates with Bachelor's degree in concerned/related subjects from a recognized university with OGPA of 6.00/10.00 or equivalent percentage of marks for General and OBC and 5.50 in case for SC/ST shall be eligible for admission.

For MBA (Agri. Business Management Degree Program: Candidates with Bachelor's degree from any Agri. Univ./Institutions recognised by the ICAR/UGC in Agriculture and allied disciplines/Agri-Business Management/Commercial Agriculture, Agriculture Marketing and Agricultural Finance with OGPA of 6.00/10.00 or equivalent percentage of marks for General/ OBC/UPS and 5.60/10.00 in case for SC/ST/PC shall be eligible for admission.

For Ph.D. Degree Program: Candidates with Master's degree in concerned/related subjects from a recognized university with OGPA of 7.00/10.00 or equivalent percentage for General and OBC and 6.5/10 in case for SC/ST/PH. shall be eligible for admission.

Selection of candidates for admission:

i. The selection of candidates for both Master's and Doctoral Programs is based on the entrance examination marks (60% weightage) and academic performance in qualifying Degree Examination (40% weightage) 20% marks with negative marking in the entrance examination will be the qualifying mark for short listing under all categories.
ii. 25% of total seats in each department are filled up by the candidates selected by ICAR through all India Entrance Test (AIET).
iii. 15% 7.5% and 3% of the total number of seats are reserved for SC, ST and PC candidates respectively. In case enough candidates are not available, SC/ST categories seats are interchanged. Vacant seats under PC category are filled by the merit from General category.
iv. 27% of the total numbers of seats are reserved for OBC excluding creamy layers. If the University does not find the candidate from OBC category, the vacant OBC seats are converted into General category i.e. unreserved seats.

Note: Vacant seats under reserved/unreserved category shall be filled-up by the candidates on merit basis from the waiting list.

Payment of fees

The selected candidates pay the prescribed fee at the time of admission.

Admission procedure:

i. All the shortlisted candidates present themselves for counselling on the prescribed date and time in respective courses with all original documents.
ii. Based on merit, provisional admission letter is issued to the candidate by the Registrar, CAU, Imphal.
iii. The provisionally selected candidate report to the Dean of concerned College along with all original documents on the prescribed date.
iv. The Dean gets the original documents verified by a committee of three senior teachers and Asstt. Registrar (Academic). After being satisfied with genuineness of certificate, the students are admitted after payment of prescribed fee.
v. All original documents are kept in safe custody of the Dean of the College.

Refusal of admission: The Vice Chancellor reserves the right to refuse admission to any candidate whose admission in his/her opinion is detrimental to the interest of the University.

Registration:

The first day of the commencement of the semester is the date of registration by the students.

Registration of newly admitted students

i. On admission, a student is provided with four copies of Registration Cards having different colours, one for the student, one for the Advisor, one for the Dean and one for the Registrar.
ii. With registration cards in hand, the student report to the concerned Head of the Department/Dept. Incharge, who helps the student for selection of courses and filling the cards.
iii. The Registration Cards is signed by the student, his/her Advisor/HOD, the Assistant Registrar (Acad.) and countersigned by the Dean of the College.

iv. On admission and registration, the student is be provided with an identity card with his/her photograph. The identity card is returned to the College when the student leaves the Colleges after completion/discontinuation of the course/being dropped from the College/University for a specified period for good.
v. Each newly admitted student is given an admission Number by the Dean of the Concerned College and this Admission Number shall continue till allotment of Registration Number by the Registrar.

6.5.4.4 Conduct of Practical and Hand-on-Training:

At the end of every semester the end-term exam of the offered course being conducted as per scheduled of the CAU. Exam of theory as well as practical record consisting of practical exercises is being evaluated by the course leader in the presence of the school Head along with Viva-voce of practical learning. Accordingly, students are being judged and evaluated by assigning out of at least 20 marks. All the practical records prepared by the respective students in respective course are being maintained and deposited to the course leader.

6.5.4.5 Examination and Evaluation Process

Degree Programme	Mid Term Examination	Quiz (#4 in number)	End Term		Comprehensive Qualifying Written Examinations			Thesis	
			Setting of QP	Answer sheet Evaluation	Setting of QP	Answer sheet Evaluation	Viva-voce examination	Evaluation	Conducting thesis Viva-voce
P.G. Degree Programme	Internal	Internal	External	Internal	External	External	Internal	External	Internal
Ph.D. Programme	Internal	Internal	External	Internal	External	External	External	External	External

Academic progress of the students for various courses registered by them during a degree programme is evaluated by semester long evaluation process. For theory courses, 50% evaluation is done by the concern course teacher/s and for remaining 50%, question paper is set by an external examiner selected from the panel approved by the competent authority of the university. However, end term question paper is evaluated by the teacher other than the course instructor in the discipline. Two quizzes are conducted in each course by the concerned course teacher at periodic intervals before the midterm exam. Next two quizzes are conducted after midterm but before end term exam. Midterm end end term exams are of one and half hours and two and half hours, respectively, are organized as per the academic calendar of the CAU, Imphal. Almost 50% course is completed before midterm and entire syllabi are completed before the end term exam. If required, teacher may conduct extra classes for timely completion of the course curriculum. Hands on training, practical experience learned during the semester in each course is evaluated at regular interval in each class by regular checking of their practical records and observing the progress made by the students in the laboratory during practical class. End term practical exam is evaluated by a committee of the senior faculty of the concern school. Marks

secured in a course in theory and practical are multiplied by number of theory credit(s) and practical credit(s) of the course respectively and added together. This is divided by the total credits (theory +practical) of the said course to get the percentage of marks, which will be divided by the 10 to obtain the grade Point (GP).

Evaluation of credit seminar:

Every master student is required to present a one credit seminar in the last one or two week of the semester before the audience comprised of the concern School In charge, member of their advisory committee and all the teaching staff and PG students of the school/college. The performance of the student in the seminar is evaluated by the course in charge, giving average weightage to the marks given by the evaluation committee. Parameters of assessments are-

i. Coverage of literature on the aspects of the topic and the write up- 25
ii. Mode of presentation-25
iii. Use of audiovisual aids-25
iv. Ability to answer the questions-25

Comprehensive qualifying examination:

Every students have to qualify in two question papers by ensuring at least 65% marks separately in both the papers. One question paper is for the major discipline in which they are pursuing their degree and another one for minor and supporting subjects chosen by them as per the needs of the research work and on the advice of the advisory committee. Both the question papers are set by the external examiners selected from the approved panel of the competent authority of CAU, Imphal. The same examiners evaluate these question paper and after qualifying both the papers every student has to appear in comprehensive viva voce exam conducted by the advisory committee in presence of the School in charge and a Dean's nominee who is one among the senior faculty from another school.

Evaluation of the thesis research:

Every student has to submit their thesis for evaluation as per the procedure give below-

S.No.	Particulars	Master's program (M.Sc. Agric. and MBA in ABM)	Doctoral program (Ph.D.)
1	Submission	After thesis seminar and submission of manuscript for one research paper	After thesis seminar and acceptance of two research papers based on the thesis research or one application for patent filed out of research work
2	Evaluation	One external examiner	Two external examiner
3	Viva voce	External examiner (with advisory committee)	Advisory committee in presence of the Dean's nominee

6.5.4.6. NSS/NCC/RVC Unit:

- Non existent

6.5.4.7: Language Laboratory:

- NA

6.5.4.8: Cultural Center: The following facilities are available for student cultural and sports activities.

1. Multipurpose Student Utility Center

2. A 250 seater auditorium is nearing completion ***(Annual Report 2020-21)***

Cultural programmer organized during Annual College Week, Independence day, republic day, Gandhi Jayanti, World food day etc.

1. Inter-house dance competition
2. Skits
3. Individual and group singing
4. Rangoli
5. Clay modeling
6. Painting

6.5.4.9: Personality Development:

Eminent speakers, faculty, Scientist invited to deliver lecture on personality development, how to face competitive exams and interviews.

Events	2016-17	2017-18	2018-19	2019-20	2020-21
Special lectures	4	2	5	2	3
Career counselling	2	2	0	1	0
Debates	1	1	2	1	1
Essay writing	3	2	3	3	1
Poetry	1	1	1	1	0

6.5.5 PHYSICAL FACILITIES

6.5.5.1 Hostels:

There are two Girl's Hostel and one Boy's hostel inside the college campus with separate mess facilities and a student canteen which is run by the college authority. The college has two girls' hostels with capacity of 112 students and one boys' hostel with capacity for 116 students. Boys' and Girls' hostels have separate mess facilities serving regional and Indian cuisines. The students' messes are run by the students supported by college by providing manpower for cooking and cleaning.

Girls Hostel	**Boys Hostel**	
PG: No. of room = 44 **Ph.D. :** No. of room= 15	**PG:** No. of room = 48 **Ph.D.:** No. of room= 20	1. Localised Wifi Facilities are available in hostels 2. Television room 3. Students Mess (2) 4. Hostel gyms (2) 5. Table tennis (2)

6.5.5.2 Examination Hall:

A fifty seater seminar hall and classrooms act as examination halls

6.5.5.3: Sports and Recreation Facilities:

One indoor/Badminton court, Basketball court, volleyball ground. Time schedule is maintained for students during morning and evening time. Regular competitions are conducted for students.

1. Multipurpose Student Utility Center
2. Badminton court
3. Basketball court
4. Volleyball court
5. Football ground (at ICAR-RC for NEH)

6.5.5.4: Auditorium construction in progress

6.5.5.5: Exhibition Hall/Museum: No

6.5.6 RESEARCH FACILITIES

6.5.6.1 Postgraduate Laboratories and Equipments:

The four schools of the college are well equipped with laboratories utilized by both faculty and students for research work. Each school houses individual laboratories as indicated below;

Sl. No.	Departments	Name of laboratories
1	**SNRM**	1) Analytical Lab 2) Biogeochemistry Lab 3) Microbial Ecology Lab 4) GIS and Remote Sensing Lab 5) Hydraulics lab 6) Farm Lab. 7) Biofertilizer production unit
2	**SCI**	1) Molecular Biology and Biotechnology Lab 2) Cytogenetics and Molecular Marker Lab 3) Media Preparation Room 4) Tissue Culture and Genetic Transformation Lab 5) Green house facilities 6) Genetics and plant breeding lab
3	**SCP**	1) Plant Pathology Lab 2) Molecular Lab 3) Biopesticide production unit 4) Mushroom production unit 5) Entomology Lab 6) Nematology Lab 7) Insectry 8) Polyhouse
4	**SSS**	1) Computer Lab 2) Multimedia Lab 3) ABM Seminar Room

The list of equipments and facilities available in the college for undertaking research activities are as shown below

S.N.	Particulars of Asset	Quantity
1	Water Bath Shaker, Model: NUV ST402	1 no.
2	Refrigerator, Make: Vestfrost Model: FKG371	1 no.
3	Microprocessor Research Cooling Compufuge, Model: RM-12CBL, Make: REMI	1 no.
4	Microcentrifuge	1 no.
5	Dissecting Microscope, Make: Olympus, Model: 13/ MS24	1 no.
6	Stereo Binocular Microscope, Make: Olympus, Model: MSZ-BI	1 no.
7	PC Based Double Beam UV-VIS Sectrophotometer, Model: 2202, Make: Systronics	1 no.
8	Laminar Air Flow Hood, Make: Klenzaids, Model: 1500C-72-24-24	1 no.
9	Phase Contrast with Epifluores-cence Attachment and Stabilizer, Model: Axio Scope A1, Make: Carl Zeiss	1 no.
10	Auto Loop Sterilizer, Make: Himedia,	1 no.
11	Microwave Oven, Samsung-32 ltrs. Model No. CE117ALF	1 no.
12	Conductivity Meter Cyberscan 510, Eutech make	1 no.
13	Colony Counter; Cat # 0671	2 nos.
14	Autoclave Portable, Cat # 7407 PAD	2 nos.
15	Portable Oil Free Vacuum Pump, Tarsons: Rocker-400	1 nos.
16	Vortex General Purpose (Shaker), Tarsons	5 nos.
17	Water Double Distillation Plant, Make: JSGW	1 no.
18	Water Single Distillation Plant, Medica:	2 nos.
19	Willy Mill, Secor Make	1 no.
20	High Precision Water Bath, Medica	1 no.
21	Double Ring Infiltrometer Set	1 Set
22	Soil Auger (Euro design) 5 cm dia, 1m long with handle, Screw Augers 2.5 cm dia and 5 cm dia, 1m long with handle, extension rod 1m long Wrench (1 pair)	2 nos.
23	Soil Core Sampler complete with 10 SS rings, 60 mm dia, 100 cc internal volume with end caps and one nylon headed shock absorbing hammer	1 no.
24	Microcentrifuge, Spinwin: 'Tarsons' Brand, Model: MC-01	1 no.
25	Pipette Controller, Tarsons Brand , Cat No. 2003	2 nos.
26	Dancing Shaker, Tarsons Brand, Cat No. 3040	2 nos.
27	Fume Hood, NSW Brand, Cat No. 203	1 no.
28	Digital Turbidity Meter: Systronics Brand (Type: 132)	1 no.
29	Heating Mantles, Jindal Brand, Capacity-500 ml, 200 Watt	1 no.
30	Heating Mantles, Jindal Brand, Capacity-1 lt., 300 Watt.	1 no.
31	Heating Mantles, Jindal Brand, Capacity-2 lt., 450 Watt.	1 no.
32	UV-Transilluminator, Brand: UVP Ltd (UK), Model: LMS-20	1 no.
33	Top Pan Weighing Balance, Model: GE7101, Make: Sartorius	2 nos.
34	Laminar Air Flow, ACCO Make, Cat: AC071-02	1 no.
35	Laminar Air Flow, ACCO Make, Cat: AC071-04	1 no.
36	Autoclave Vertical, 7451PAD, Make: Equitron	1 no.
37	Autoclave Vertical, Make: Equitron	1 no.
38	BOD Incubator, Cat#7140-250, Make: Equitron	2 nos.
39	Student Microscope, Labomed, Model: VISION2000	4 nos.
40	Seed Germinator with Stabilizer, Remi Make	1 no.
41	5332 000.014 Mastercycler Personal (Thermocycler) with accessories	1 no.

42	5811 000.010 Centrifuge 5810R with accessories	2 nos.
43	Electronic Balance, Denver Make, Model SI 234DE	2 nos.
44	Hot Air Oven, Equitron Medica Make, Model: # 7053	1 no.
45	Vortex-Genie ® 2 Vortex (220V) 12112009-220	1 Set
46	Uniline 5 KVA/180V OL UPS Systems, with isolation Transformer Indicative Back Up Time 120 minutes, Minimum VAH 8000	2 nos.
47	Uniline 2 KVA/168V OL UPS Systems, with isolation Transformer Indicative Back Up Time 120 minutes, Minimum VAH 9600	3 nos.
48	Uniline 3 KVA/180V OL UPS Systems, with isolation Transformer Indicative Back Up Time 120 minutes, Minimum VAH 9600	3 nos.
49	Uniline 5 KVA/180V OL UPS Systems, with isolation Transformer Indicative Back Up Time 60 minutes, Minimum VAH 8000	1 nos.
50	Deep Freezer, Brand: Cryo-Scientific, Model: URC-V-380-2	1 no.
51	Isotherm Kit, Isotherm Systems & PCR Cooler 0.2 MI Starter Set	1 no.
52	Digital Burette (Top Burette M), 2.5 ml	1 no.
53	5350 000.013 Thermomixer Compact	1 no.
54	Shaker Incubator, Electronic Laboratory Incubator Shaker, Model: LIS (Rotek LIS)	3 nos.
55	Electronic Automatic KELPLUS Microprocessor Based Twelve Place Macro Block Digstion System, Model: KES 12L with accessories, Electronic Acid Neutraliser 'Scrubber', Electronic Superior Automatic Distillation System	1 Set
56	Bench Top Cooler (0°C), Tarson Make	2 nos.
57	Gel Electrophoresis-101 (Mini and Wide Midid Horizontal) With Power Supply System, Brand: Scieplus (Axygen Make), Model: HU10, HU25 and EV243	1 no.
58	Precision Hot Air Oven, Model: O-OGS -2436A, Brand: OVFU, Model CF549	3 nos.
59	Nanodrop Spectrophotometer, Make: Thermo, Model: ND-2000	1 no.
60	Electronic Balance, Denver Make, Model: SI 234DE	1 no.
61	Genogrinder, Mikrodismembrator-S Accessories, Sartorius Make	1 no.
62	Soil Moisture Meter (Mini Trase Kit with Bluetooth Aircable, Iowa State Tension Infiltro meter, Guelph Permeameter Kit	1 Set
63	Uniline Online UPS with isolation transformer suitable for single phase AC input and single phase AC output with rating of UPS 5.0 KVA and indicative back-up time 240 minutes, with minimum VAH 32000	1 no.
64	Refrigerating & Heating Circular, Model 9201, 240/50Hz, Polyscience Make	1 no.
65	Denaturing Gradient Gel Electrophoresis Apparatus Set; IV-1030 Complete system for DGGE,CDGE,TGGE, Model: IPU-S, Make: Ingeny	1 no.
66	Binocular Microscope Model: LEICA DM 750 + accessories, PC with Core 2 dual Processor, 2 GB RAM, 250 GB HDD, 17 inch TFT Monitor and Colour Photo Quality printer	3 nos.
67	U9260-0001 Premium Upright Freezer U410 with accessories, Model: U410-86	2 nos.
68	Gel Electrophoresis (Mini & Wide midi horizontal) with power supply system, Axygen Make	1 no.
69	Uniline 5 KVA/168V OL UPS Systems with 120 minutes Battery Back-Up Time Using SMF Battery	5 nos.
70	Microcentrifuge, Tarsons-1030 Spinwin MC-02, Make-Tarsons	1 no.
71	Microcentrifuge, Tarsons-3020 Spinix, Make-Tarsons	2 nos.
72	Microscope-HB Monocular, Brand-Olympus, Model-HB	8 nos.
73	Tarsons-7011-Rocker Vacuum Pump, Cat No. 7011	2 nos.
74	Hort Air Oven-Mechanical Convection, Brand OVFU 250 L, Model: 508	2 nos.
75	Hot Air Oven-O-OGS-1518 (D), Brand-OVFU	2 nos.

76	Dancing Shaker, Tarsons-3040, SP 0-60 RPM	2 nos.
77	Student Compound Microscope, MLX-B Binocular (Pathological), Brand: Magnus	6 nos.
78	Top Pan Electronic Balance (PL60001-S EL. Precision Balance), Brand: Mettler	1 no.
79	pH Meter, Brand: Eutech, Model: PHTEST 10	1 no.
80	Electronic Laboratory Shaker Variable RPM, Model: Rotek LSV	1 no.
81	Environmental Shaker, Electronic Laboratory Shaker Variable RPM, Model: Roteck LES with accessories	3 nos.
82	Gel Dryer, Genei Make, Model-Junior, Gel Drying Surface, 25x35 cm Model: GDJ, Sl.No. 1011318	2 nos.
83	Chlorophyll Meter, CCM200	1 no.
84	Automatic Weather Station Complete System, Model: Vanatage Pro2 plus, Brand: Cole Parmer	1 no.
85	Refractometer, Model No. 2812, Sl. No.B024602	1 no.
86	Data Logging Moisture Meter with Humidity (Seed Moisture Meter), Sl.No. 03-11.0002	1 no.
87	Elisa-Cum-UV-VIS Spectrophotometer, (Multiskan Spectrum Reader, Cat No. 51118650) with accessories	
88	Quantum Meter Brand: Spectrum Model: 3415F	1 no.
89	Soil Compaction Meter, Brand: Spectrum, Model: 6101, Sl. No. 669	1 no.
90	Deep Freezer, upto -30°C Net capacity: 308L	1 no.
91	Single Distillation Unit (Cat No. 72230050), Make: Reviera	1no.
92	Multiparameter Water Quality Meter, Make: M/s Hanna Instruments, USA, Model: HI 98280	1 no.
93	Semi Dry/Dry Transfer Assembly, Cat No. V10-SDB, Sl.No. 30020934, Make: Sciplas	1 no.
94	Orion 5 KVA/168V OL UPS 5KVA On Line UPS System with 120 Minutes Battery Back Up Time Using SMF Batteries	1 no.
95	Fastprep Homogeneizer, Make Thermo Scientific, Model: FP120-230	
96	Geo Media Educational Kit (5 User License)	
97	ERDAS Imagine Software, ERDAS Imagine v2011 Educational Kit (5 User License)	
98	Vertical Dual Sided High Thorough Put SSR Electrophoresis System: Imperial Life Science Brand, Model: C-DASG-400-50	
99	Samsung: Double Door System Refrigerator (345 ltrs.), Model: RT35CDLBI/XTL/2012	2 nos.
100	Hybridyzation Oven, Model: 6240 Shake 'n' Stack LIBSNSR220 6240	1 no.
101	Biosafety Cabinet, Model: 1386	1 no.
102	Microtome with accesories, Make: Leica, Germany, Model: RM2245	1 no.
103	Flame Photometer, Make: Systronic, Model: 128	1 no.
104	Dual Vertical Mini-Gel System, CE, 2-Place, 11.3 cm. (w) x 10 cm (H): Imperial Life Sciences Brand, Cat. No. MGV-202	1 no.
105	Multiple Mini Vertical Gel Casting Chamber: Imperial Life Sciences Brand, Cat. No. GCC-204 Caster	1 no.
106	Mini Power Supply: Imperial Life Sciences Brand, Cat. No. EPS-300-X	2 nos.
107	Midi Horizontal Productivity Package Gel Dimension of 14 (W) x 16 cm (L): Imperial Life Sciences Brand, Cat. No. GCMGU-602T	1 no.
108	Infrared Thermometer, Model: 2956, Make: Spectrum Technologies Inc., USA	1 no.
109	Lux Meter (Rod Type), Operating Temperature: 0-40°C , Model: 3415FX, Make: Spectrum	1 no.

110	Permeameter (Constant Head) Model: Constant Head & Falling Head, Make: Roorkee Inds.	1 no.
111	Weighing Balance Model: TTB31 Wensar	2 nos.
112	Electronic Balance, Model: MAB220, Wensar, Sl. No. 29640	1 no.
113	Line Quantum Sensor, Model: MQ-301, Make: Apogee Instruments	2 nos.
114	Table Top Microcentrifuge, Model: Heraeus Fresco21, Make: Thermo Fisher Scientific	1 no.
115	pH Meter, Microprocessor based, pH measuring range: 0.00 to 14.00, Model No. CPHTUTOR, Eutech Make	1 no.
116	Water Single Distillation Plant, Barnstead Type, Stainless Steel, 4.5 litres/hr. 3500 W, Model No. #7655, Medica Make	1 no.
117	96 well PikoREAL qPCR system, Batch No. PR0961400950	1 no.
118	Compound Light Microscope CH 20i Binocular Microscope, Brand: Olympus, Model CH20i	3 nos.
119	Laboratory Refrigerator, 380 lt. capacity with glass door, frost free, 72.8x23.4x23.4 dimensions with 2 KVA Voltage Stablilizer Model: FKG-400, Make: Celfrost	1 no.
120	BOD Incubator, Precise electronic digital temperature controller with timer with cooling system, Make: Ikon Instruments, Model: IK120	1 no.
121	LN2 (Liquid Nitrogen) Container, Cat. No. CK509X2, Make: Thermo Scientific	1 no.
122	Stereo Microscope, Model: EZ4, Make: Leica, Germany, No. 10447197	1 no.
123	UV Transilluminator, Tarsons: Make, Wavelength: 254 mm, 312 mm, Filter size: 200x210mm, 200x240mm, Dia: 380 x 242 x 114mm, 380 x 242 x 112mm	2 nos.
124	Intel Core i7 Windows 8 Desktop Computer, Make: DELL, Model: Optiplex 9020MT, Sl. No. 6RWJ882	10 nos
125	Intel Core i5 Windows 8 Desktop Computer, Make: DELL, Model: Optiplex 9020MT, Sl. No. 6RKP882	11 nos
126	Senior Precision Rotary Microtome, Radical, Model-30	1 no.
127	Soil Augur, Make: Roorkee Industries, India	1 no.
128	Digital Burette, Make: Titrettee/Tarsons	1 no.
129	Soil Core Sampler, Make: AIC	1 no.
130	EC-TDS Meter, Model: CM 183	1 no.
131	Flame Photometer, Model: CL 378, Sl. No. 02358/198	1 no.
132	Global Positioning System (GPS), Model: eTrex 30	1 no.
133	pH cum mV Meter, Model: LI-614	1 no.
134	Soil Penetrometer Compaction Meter (Imported Parts), Make: Roorkee Industries	1 no.
135	Laboratory Shaker, Make: Alliance, Brand: Lunar, India	1 no.
136	Double Beam Atomic Absorption Spectrophotomter, Model: SL-194	1 no.
137	Double Beam UV-VIS Spectrophotomter, Model: SL-210 with PC Configurable Software	1 no.
138	Constant Voltage Stabilizer, 3 KVA, (Zodin) Model: CVR-350	1 no.
139	Rotary Vacuum Pump, Model: SD-45-DS	1 no.
140	Top Pan Weighing Balance, Model: CA3102, Contech Make	1 no.
141	Analytical Balance, High Precision, Model: CA-234, Contech Make	1 no.
142	Thermo Hygrometer Digital Clock 288 CTH Jambo Brand: General	
143	Thermo Hygrometer Manual	
144	Hot Plate Cum Magnetic Stirer, Model: MS-H-280 Pro, Make: Dlab	1 no.
145	pH Meter, Model: LMPH 10, Sl.No. 11672, Cat No. L11541, Make: Wenser	3 nos.

146	pH Meter, Model: LMPH 10, Sl.No. 11672, Cat No. L11541, Make: Wenser	3 nos.

6.5.6.2. Research Contingency

The research contingency is divided amongst the four schools, viz., School of Crop Improvement, School of Natural Resource Management, School of Crop Protection and School of Social Sciences. The money is primarily utilized for research activities taken up by three of the four schools (SCI, SNRM &SCP), whereas the contingency is utilized by SSS for conducting surveys and other extension activities.

Sl. No.	School	2015-16 (Rs.)	2016-17 (Rs.)	2017-18 (Rs.)	2018-19 (Rs.)	2019-20 (Rs.)
1	Natural Resource management	476877.5	735798.5	341035.75	297744.5	74267.25
2	Crop Improvement	476877.5	735798.5	341035.75	297744.5	74267.25
3	Crop Protection	476877.5	735798.5	341035.75	297744.5	74267.25
4	Social Studies	476877.5	735798.5	341035.75	297744.5	74267.25
	Total (Rs.)	19,07,510	29,43,194	13,64,143	11,90,978	2,97,069

6.5.7 OUTCOME/OUTPUT

6.5.7.1: Student Performance in National Examination

Name of Exams	No. of Students qualified				
	2016	2017	2018	2019	2020
SRF	-	-	-	3	2
NET	20	10	7	5	-
ARS	-	-	-	1	-
UGC NET	2	4	-	1	-
CSIR NET	-	1	-	2	-

6.5.7.2 Students Placement Profile:

Name of Exams	Students qualified				
	2016	2017	2018	2019	2020
ARS	-	-	-	1	-
State Govt./ Bank jobs			7	11	-
Ph.D. or higher education	12	12	7	14	11

6.5.7.3 Awards/Recognitions/Certificates:

Information on Awards/Recognitions/Certificates for the last five years

Awards/Recognitions/Certificates for Staff for the last five years

Sl.no	Name of the department	Name of the Faculty	Designation	Details of Awards/recognition received
2016-17				
1	School of	Dr. Sanjay	Associate	Best Paper Presentation Award:

	Natural Resource Management	Swami Associate Professor	Professor	Presented my paper entitled in the 8th National Extension Education Congress, 2017 on Nutrition-Sensitive Agriculture: Changing Role of Extension, January 28-31, 2017 at ICAR-NAARM, Hyderabad and received Best Paper Presentation Award
				Best Worker Award in 8th National Extension Education Congress, 2017 on Nutrition-Sensitive Agriculture: Changing Role of Extension, January 28-31, 2017 at ICAR-NAARM, Hyderabad for extending extra-ordinary assistance in all the Congress related assignments
				Member of Editorial Board Journal of Agricultural Science, ISSN: ISSN 1916-9752 Sustainable Agriculture Research, ISSN: ISSN 1927-050X
2	School of Crop Protection	Dr. D. Majumder	Assoc. Professor	Councilor for East Zone of the Indian Society of Plant Pathologists Executive Council (2013-15)
3	School of Social Sciences	Dr. Ram Singh	Associate Professor	North-East Extension Meritorious award and it was presented by Hon'ble Vice-Chancellor, CAU, Imphal jointly with Dr. R.P. Singh, Former VC, MPUAT, Udaipur and President of SEE, Agra during 8th NEE Congress on 28-31 January, 2017 at ICAR-NAARM, Hyderabad
				Reviewer excellence award as reviewer of Indian Journal of Agricultural Research and Legume research-An international Journal, ARCC, Karnal during 2016-17
				Member Executive Committee in Indian Society of Agricultural Economics, Mumbai, (India) during 76th Annual Conference, AAU, Jorhat held on 21-23rd November, 2016
2017-18				
1	School of Social Sciences	Dr. Ram Singh	Associate Professor	Vice-president of Indian Society of Agricultural Economics, Mumbai, (India) during 77th Annual Conference at CPGS, CAU (Imphal), Umiam held on 12-14th October, 2017
2018-19				
Sl.no	Name of the Department	Name of the Faculty	Designation	Details of Awards/recognition received

Sl.no	Name of the Department	Name of the Faculty	Designation	Details of Awards/recognition received
1.	School of Crop Improvement	Dr. Konjengbam Noren Singh	Professor	Bharat Ratna Indira Gandhi Gold Medal Award conferred by GEPRA, New Delhi for their excellency in Education and Research on 9th March, 2019.
2.	School of Crop Protection	Dr.R.K.Thombisana Devi	Professor	Chaired the technical session National Symposium on "Role of Plant Pathology in empowering and doubling farmers' income". 25-27 October, ICAR Research Complex for NEH Region, Umiam, Meghalaya
3.	School of Natural Resource Management	Dr. Sanjay Swami	Associate Professor (Soil Science & Agrill. Chemistry)	**SCSI Leadership Award:** Soil Conservation Society of India (SCSI), New Delhi honoured for consistent contribution in the field of Natural Resource Management, especially Soil and Water Resource Management in Hilly tracts during 27th National Conference of SCSI on "Sustainable Management of Soil and Water Resources for Doubling Farmers' Income" held at AAU, Jorhat, Assam w.e.f. October 25-27, 2018.
	School of Natural Resource Management	Dr. Sanjay Swami	Associate Professor (Soil Science & Agrill. Chemistry)	**Best Oral Paper Award** for his paper entitled "Doubling Tribal Farmers' Income through Location Specific Integrated Farming Systems in North Eastern Hill Region of India" during Technical Session VI of the 27th National Conference of SCSI on "Sustainable Management of Soil and Water Resources for Doubling Farmers' Income" held at AAU, Jorhat, Assam w.e.f. October 25-27, 2018.
	School of Natural Resource Management	Dr. Sanjay Swami	Associate Professor (Soil Science & Agrill. Chemistry)	**Young Scientist Award:** Society of Extension Education conferred for consistent contribution in the field of Extension of Natural Resource Management Practices, especially Soil and Water Resource Management in Hilly tracts during 9th National Extension Education Congress-2018 on "Climate Smart Agriculture Technologies: Innovations and Interventions" at held at CAEPHT, Ranipool, Sikkim w.e.f. November 15-17, 2018.
	School of	Dr. Sanjay	Associate	**Reviewer Excellence Award as Reviewer**

Sl.no	Name of the Department	Name of the Faculty	Designation	Details of Awards/recognition received
	Natural Resource Management	Swami	Professor (Soil Science & Agrill. Chemistry)	of the journal *Agricultural Science Digest* by Agricultural Research Communication Center, Karnal, Haryana
	School of Natural Resource Management	Dr. Sanjay Swami	Associate Professor (Soil Science & Agri. Chemistry)	**Reviewer Excellence Award as Reviewer** of the *Indian Journal of Agricultural Research* by Agricultural Research Communication Center, Karnal, Haryana
		Dr. Sanjay Swami	Associate Professor (Soil Science & Agri. Chemistry)	**Best Poster Award:** The research paper entitled "Biochar for enhancing crop productivity and sustaining soil health" authored by O. Srikanth Yadav, Sanjay-Swami, T.V. Sowjanya and P.V. Shilpa was adjudged as Best Poster in the Technical Session –IV of the 27th National Conference of SCSI on "Sustainable Management of Soil and Water Resources for Doubling Farmers' Income" held at AAU, Jorhat, Assam w.e.f. October 25-27, 2018.
		Dr. Sanjay Swami	Associate Professor (Soil Science & Agri. Chemistry)	**Oral Paper Presentation Prize:** The research paper entitled "Biochar: Managing acidic soil in North Eastern Hill region of India" authored by O. Srikanth Yadav, Sanjay-Swami, and T.V. Sowjanya was adjudged as 3rd in the Technical Session on Managing Soil Health and Quality of the All India Post Graduate Students' Research Convention in Soil Science held at BAU, Sabour, Bhagalpur w.e.f. March 15-16, 2019.
		Dr. Dwipendra Thakuria	Professor (Soil Microbiology)	Recognized as Editor of the Journal of the India Society of Soil Science for a period of 2 years (2017 and 2018).
		Dr. Dwipendra Thakuria	Professor (Soil Microbiology)	Supervisor of the DBT-Research Associateship Programme on the topic "Endophyte metabolomics of rice in response to habitat-adaptive fitness against abiotic stresses" by the Indian Institute of Sciences, Bangalore.
		Dr. Dwipendra Thakuria	Professor (Soil Microbiology)	Mr. Sagolshem Kalidas-Singh was awarded Young Investigator's Award for the research presentation on "Phosphorus Management for Transplanted Rice in Acid Soil: Seedling-Root-Dipping in SSP-Soil Slurry Method" authored by Kalidas-Singh S. and Thakuria D. in the 3rd International

Sl.no	Name of the Department	Name of the Faculty	Designation	Details of Awards/recognition received
				Symposium on Rice Science in Global Health, 2018, Kyoto Japan.
5.	School of Social Science	L. Devarani Student: Neyoni Nkululeko	Assistant Professor	Best Paper Award during the National Agri - Business Entrepreneurship Conclave held at ICAR-RC-NER during 9-11 February 2019
		Dr. Ram Singh,	Professor	Elected as Vice-president of Indian Society of Agricultural Economics for 3 years
		Dr. Ram Singh,	Professor	Elected as an executive member in the Indian Society of Agricultural Marketing at ISEC, Bengaluru November, 2018
		Dr. Ram Singh	Professor	Reviewer Excellence Award as Reviewer of the journal *Agricultural Science Digest* by Agricultural Research Communication Center, Karnal, Haryana

2019-20

Sl.no	Name of the Department	Name of the Faculty	Designation	Details of Awards/recognition received
1	School of Crop Protection	Dr. Mahesh Pathak	Professor Entomology	Best KVK Award for effective Implementation of Cluster Frontline Demonstration (CFLD) programme in Toria (*Rabi* 2018-19)conferred by ICAR-ATARI, Zone-VI, Guwahati, Assam in Annual Review Meeting of KVKs 2019-20 held at ATARI Guwahati, Assam, 29-31st May, 2019.
		Dr. Kennedy Ningthoujam	Assistant Professor Entomology	Appreciation certificate for outstanding participation on "Production Protocol for Biocontrol agents (Predators, Parasitoids and Microbial Bio pesticides) and Biofertilizers" held at NIPHM, Hyderabad
2		Dr. Pranab Dutta	Associate Professor	Best Poster Presentation Award (Jointly) for the paper "Green synthesis of silver nanoparticles, its characterization and study the efficacy against *Fusarium oxysporum*" in IPSCONF 2020 held at ICAR-IARI, New Delhi, India during January 16-20, 2020
	School of Natural Resource Management	Dr. Pradip K. Bora	Professor	Reviewer of Research Papers by the Transactions of American Society of Agricultural and Biological Engineers (ASABE), USA
		Dr. Pradip K. Bora	Professor	Reviewer of SAINS TANAH - Journal of Soil Science and Agroclimatology (STJSSA)-A scopus rated internationaljournal published from Indonesia.

		Dr. Dwipendra Thakuria	Professor	American Phytopathological Society Travel Grant (North Eastern Zone, IPS) was awarded to Mr. Hubert Jones Shullai in the symposium "Sustainable Plant Health Management on North East India" during 6-7 November, 2019 at ICAR-RC for NEH Region, Umiam, Meghalaya
		Dr. Dwipendra Thakuria	Professor	Best Poster Presentation Award by Miss Lipa Dev in the 7th International Conference "Phytopathology in achieving UN Sustainable Development Goals" (IPSCONF2020) held on January 16-20, 2020 at ICAR-IARI, New Delhi, India
		Dr. Sanjay Swami	Professor	Agricultural Technology Development Society (ATDS), Ghaziabad awarded with the ***Outstanding Achievement Award*** for his outstanding contribution in the field of Soil Science and Agricultural Chemistry during 3rd International Conference on "Global Initiatives in Agricultural and Applied Sciences for Eco Friendly Environment (GIASE-2019)" held at Tribhuvan University, Kathmandu, Nepal w.e.f. June 16-18, 2019.
		Dr. Sanjay Swami	Professor	Pragati International Scientific Research Foundation, Meerut awarded with the ***Distinguished Scientist Award*** for his outstanding contribution in the field of Soil Science and Agricultural Chemistry during International Conference on "Sustainable Agriculture Production for Food, Nutritional and Livelihood Security: A Challenge for Asian Farmers" held at Pattaya, Thailand w.e.f. September 25-27, 2019.
		Dr. Sanjay Swami	Professor	Agricultural & Environmental Technology Development Society (AETDS), U.S. Nagar, UK with its prestigious the ***Fellow Award*** for his outstanding contribution in the field of Soil Science and Agricultural Chemistry during International Conference on "Global Perspective in Agricultural and Applied Sciences for Food and Environmental Security (GAAFES-2019)"w.e.f. December 01-02, 2019 at Kumaun University, Nainital, UK, India.
		Dr. Sanjay Swami	Professor	Agricultural Research Communication Center (ARCC), Karnal, Haryana honored with its prestigious the ***Reviewer Excellence Award*** for his outstanding contribution in meticulously reviewing research papers.

		Dr. Sanjay Swami	Professor	***Appreciation Award*** by the Soil Conservation Society of India (SCSI) New Delhi in recognition of his sincere, dedicated and hard work for successful organization of the 4th International Conference during the 4thInternational Conference of Soil Conservation Society of India (SCSI) on "Soil and Water Resources Management for Climate Smart Agriculture, Global Food and Livelihood Security" at NASC Complex, New Delhiduring November 05-09, 2019.
		Dr. Sanjay Swami	Professor	"Location Specific Traditional Practices *vis-à-vis* Soil and Water Conservation in North East India" awarded with ***Best Oral Presentation*** in the 4th International Conference of Soil Conservation Society of India (SCSI) on "Soil and Water Resources Management for Climate Smart Agriculture, Global Food and Livelihood Security" at NASC Complex, New Delhi during November 05-09, 2019.
		Dr. Sanjay Swami	Professor	"Biochar: Managing acidic soil in North Eastern Hill region of India" authored by O. Srikanth Yadav, **Sanjay-Swami,** and T.V. Sowjanya was adjudged as 3rd in the Technical Session on "Managing Soil Health and Quality" in the All India Post Graduate Students' Research Convention in Soil Science held at BAU, Sabour, Bhagalpur w.e.f. March 15-16, 2019.
		Dr. Sanjay Swami	Professor	The Visitor of Manipur University, His Excellency, The President of India nominated as a Member of the Fifth Court of Manipur University under Section 22(1) read with Amended Statute 10(5) of Manipur University Act, 2005 for a term of three years
		Dr. Sanjay Swami	Professor	The National Research Development Corporation (NRDC), Department of Scientific and Industrial Research, Ministry of Science & Technology, Government of India, New Delhi nominated as an expert for evaluating the applications of NRDC National Meritorious Invention Awards.
		Dr. Sanjay Swami	Professor	Guest Editor for the Special Issue of *Journal of Environmental Biology* (NAAS Rating 6.73) on the theme "Agricultural and Applied Sciences for Food, Nutritional and Environmental Security."
		Dr. Sanjay	Professor	Associate Editor, *Global Academic Journal of Agriculture and Bio Sciences* (An

		Swami		International Journal), ISSN (Print): 2706-8978, ISSN (Online): 2707-2568Published by Scholars Middle East Publishers, Dubai, UAE.
		Dr. Sanjay Swami	Professor	Associate Editor, *Current Advances in Agricultural Sciences* (An International Journal), Print ISSN: 0975-2315, Online ISSN: 2394-4471 Published by The Society of Agricultural Professionals, Chandra Shekhar Azad University of Agriculture & Technology, Kanpur-208002 (India).
		Dr. Sanjay Swami	Professor	Reviewer, *Journal of Agricultural and Crop Research,*ISSN: 2384-731x, Science Web Publishing
		Dr. Sanjay Swami	Professor	Reviewer, *Indian Journal of Agricultural Research,* Print ISSN: 0367-8245, Online ISSN: 0976-058X, Agricultural Research Communication Centre, Karnal, Haryana. https://arccjournals.com/journals/indian-journal-of-agricultural-research
		Dr. Sanjay Swami	Professor	Reviewer, *Legume Research,* Print ISSN: 0250-5371, Online ISSN: 0976-0571, Agricultural Research Communication Centre, Karnal, Haryana.
		Dr. Sanjay Swami	Professor	Reviewer, *Agricultural Science Digest,* Print ISSN: 0253-150X, Online ISSN: 0976-0547, Agricultural Research Communication Centre, Karnal, Haryana.
		Dr. N. J. Singh	Asst. Professor	Reviewer panel of Journal of Environmental Biology, Volume 40(5).
		Dr. N. J. Singh	Asst. Professor	Best Master Thesis Award-2019 from International Conference on "Global Perspective in Agricultural and Applied Sciences for Food and Environment Security (GAAFES 2019)"1-2 December, 2019 held at UGC-HRDC Hall, Kumaun University, Nainital, UK, India

2020-21

Sl.no	**Name of the Department**	**Name of the Faculty**	**Designation**	**Details of Awards/recognition received**
1	School of Crop Improvement	Dr. Wricha Tyagi	Professor	**5th H.K. Jain CAU Award (2018-19)**awarded on 8th March, 2021 in Agri-Fair held at CAU, Imphal during 8-10th March, 2021
2	School of Social Sciences	Dr. Ram Singh	Professor	**6th H.K. Jain CAU Award CAU (2019-2020)**awarded on 8th March, 2021 in Agri-Fair held at CAU, Imphal during 8-10th

				March, 2021

Awards/Recognitions/Certificates (Students) for the last five years

Sl. No	Name of college/ School	Name of student	Year	Details of Awards
2016-17				
1	School of Crop Improvement	Dr. Suvendhu Shekhar Dutta Ph.D. scholar	2016	Market-trait association for low light intensity tolerance in rice genotypes from Eastern India in students 'symposium on 54-genomics-based next generation crop improvement approached held at ICARI, New Delhi from 11-12 November, 2016
2	School of Social Sciences	Ms. D.Rymbai, Ms. Chipang and Mr. D.J. Samuelnavaraj. (Ph D Scholar, Economics)	2016	Best paper presentation award to three Ph D Scholar (Ms. D. Rymbai, Ms. S. Chipang and Mr. D.J. Samuelnavaraj) in 76th Annual Conference at AAU, Jorhat During 21-23 November, 2016
		Ms. Alethea Dympep (Ph D Scholar, Extension)	2016	Best paper award in the ISEE National Seminar held at Rajmata Vijayaraje Scindia Krishei Vishwavidyalay, Gwalior, November 28-30, 2016
2017-18				
1	School of Crop Improvement	Dr. Sudip Das Ph.D. scholar	2017	Best poster award in Third International Conference on Bioresource and Stress Management' held at Jaipur, Rajasthan, from 11-12 November, 2017
2		Dr. Karma L. Bhutia Ph.D. scholar	2017	Best poster award in National Conference on Plant Breeding in Genomics Era" held at University of Agricultural Science, Bengaluru from 15- Sept,2017
3	School of Social Sciences	Ms. Monika Aeibam Ph D Scholar, Economics	2017	Best paper award in the 77th conference of ISAE, held at CPGS-AS, Umiam, on 12-14th October, 2017
		Mr. N. K. Meena (Ph D Scholar, Economics)	2017	Best paper award in International Conference on 'conservation and Management of Agricultural and Natural Resources: Strategies for food security in Developing Countries' held on 8-9th Nov, 2017 at CP University, Kota.
				Best paper award in 26th National conference on Natural Resource Management for climate smart sustainable agriculture held at CPGS-AS, Umiam from 11-13th Sept, 2017
				Best paper award in 8th National

				Extension Education Congress, held in ICAR-NAARM, Hyderabad, Telangana during 28-31th Jan, 2017
				Best paper award in the 77th conference of ISAE, held at CPGS-AS, Umiam, on 12-14th October, 2017
				Best poster presentation award during 8th National Extension Education Congress, held at ICAR-NAARM, Hyderabad, Telangana during 28-31th Jan, 2017
		Ms. Nivetina Laitonjam (Ph D Scholar, Economics)	2017	Best paper oral presentation award in SFEIES at ICAR, Umiam from 19-21st September 2017.
				Best paper award in 26th National conference on Natural Resource Management for climate smart sustainable agriculture held at CPGS-AS, Umiam from 11-13th Sept, 2017
		Mr. S. Evalwell Dkhar Ph.D. (Extension)	2017	Best paper oral presentation award at SFEIES at ICAR, Umiam from 19-21st September 2017.
				Best paper award in the 77th conference of ISAE, held at CPGS-AS, Umiam, on 12-14th October, 2017
		Ms. Victoria Devi Ph.D. (Extension)	2017	Best paper award in the 77th conference of ISAE, held at CPGS-AS, Umiam, on 12-14thOctober, 2017
				Best paper award in the ISEE National Seminar held on BHU, Sabour, Bhagalpur, Bihar, From28-30th November 2017
		Singyala Chiphang Ph D Scholar, Economics	2017	Best paper award in the 77th conference of ISAE, held at CPGS-AS, Umiam, on 12-14th October, 2017
		Mun Yocha M.Sc (Economics)	2017	Best paper award in the 77th conference of ISAE, held at CPGS-AS, Umiam, on 12-14th October, 2017
2018-19				
1	School of Natural Resource Management	Mr. O. Srikanth Yadav	2018	The research paper entitled "Biochar for enhancing crop productivity and sustaining soil health' in the Technical Session –IV of the 27th National Conference of SCSI on "Sustainable Management of Soil and Water Resources for Doubling Farmers' Income" held at AAU, Jorhat, Assam w.e.f. October 25-27, 2018
2	School of Social Sciences	Mr. Ereneus MarbaniangPh.D (Extension)	2019	Innovative article award 2019

		Mr.Pynbiang Kharumnuid Ph.D. (Extension)	2019	Innovative article award for article "Urban Agriculture: A strategy for poverty alleviation, food security and environmental sustainablility" on 2019
2019-20				
1	School of Natural Resource Management	Sowjanya T. B. Msc. (Soil Science& Agril. Chemistry)	2019	Best Master Thesis Award 2019 Title of Thesis "Temporal soil nitrogen availability and its influence on rapeseed (*Brassica campestris* L.) under varying nitrogen sources" Agricultural and environment technology development society (AETDS), U.S Nagar, Uttarakhand, India held at UGC-HRDC Hall, Kumaun University, Nainital, UK, India from 1-2 December, 2019
2	School of Crop Protection	Miss Lipa Deb Ph.D. (Plant Pathology)	2020	Best Poster in the 7th International Conference "Phytopathology in achieving UN Sustainable Development Goals" (IPSCONF2020) held on January 16-20, 2020 at ICAR-IARI, New Delhi, India
3	School of Social Sciences	Ms. Jeemoni Gogoi Ph.D. (Economics)	2020	Best paper presentation in Regional Seminar on 'Perspectives of Horti-Busines in Development of North Eastern Region', February 24-25th, 2020, CoHF (CAU), Pasighat, Arunachal Pradesh.
		Ms. Dipriya lyngkhoi Ph.D. (Economics)	2020	Best paper presentation in Regional Seminar on Perspectives of Horti-Business in Development of North Eastern Region. February 24-25th, 2020, CoHF (CAU), Pasighat, Arunachal Pradesh.
		Mr. Baiarbor Nongbri Ph.D. (Economics)	2020	Best paper presentation in Regional Seminar on Perspectives of Horti-Business in Development of North Eastern Region, February 24-25th, 2020, CoHF (CAU), Pasighat, Arunachal Pradesh.
		Mr. Hehlangki Tyngkan Ph.D. (Economics)	2020	Award as 1st Position in Idea Challenge competition on National Science Day 2020 held at ICAR, Umiam on 28th February 2020
		Mr.Pynbiang Kharumnuid Ph.D. (Extension)	2020	Best paper presentation in Regional Seminar on "Perspectives of Horti-Business in Development of North Eastern Region" held on February 24-25th, 2020, at CoHF (CAU), Pasighat, Arunachal Pradesh
		Mr.Pynbiang	2020	1st Best poster Award in Global Potato

		Kharumnuid Ph.D. (Extension)		Conclave 2020 held during 28-31st Jan, 2020
		Mr.Pynbiang Kharumnuid Ph.D. (Extension)	2020	2nd Best poster Award in Global Potato Conclave 2020 held during 28-31st Jan, 2020 at Mahatma
		Mr. Ereneus Marbaniang Ph.D. (Extension)		Best article award for article entitled Agricultural knowledge and information system (AKIS)
		Mr. Hehlangki Tyngkan Ph.D. (Economics)	2020	Best oral presentation award in 3 days National conference on" Agricultural Resource Management for Atmanirbhar Bharat' on 17-19 July, 2020 through online platform.
		Mr. P. Sai Priyanka M.Sc (Extension)	2020	Best oral presentation award in 3 days National conference on" Agricultural Resource Management for Atmanirbhar Bharat' on 17-19 July, 2020 through online platform.

6.5.7.4 Employability:

The employability skills for college students need to have good communication i.e. the ability to listen effectively and communicate appropriately and accurately, leadership quality, innovative ideas. Time management, professionalism like work ethic e.g., punctuality, working productively with others, and time workload management, and understand the impact of non-verbal communication on professional work image. Ability to demonstrate integrity and ethical behaviour, act responsibly with the interests of the larger community in mind, and ability to learn from mistakes. The list of students already engaged in various institutes is summarized below:

Name of Exams	**Students qualified**				
	2016	2017	2018	2019	2020
ARS	-	-	-	1	
State Govt./ Bank jobs			7	11	-
Ph.D. or higher education	12	12	7	14	

6.5.9 Certificate (Applicable when SSR is submitted for Programmes & College)

I, the Dean **Dr. Wricha Tyagi** hereby certify that the information contained in the Sections 6.4 and Section 6.5.1 to 6.5.7.4 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date and Seal

Annexure-I

6.6.3 RESEARCH SUPPORT

6.6.3.3 Technology developed and it's Adoption:

Sl. No	Source of the technology	Year	Name of the technology
1	School of Natural Resource Management	2016	CAU-*JHUM* Bioenhancer (Liquid biofertilizer for mixed crops of *Jhum* fields)
2	School of Natural Resource Management	2018	**Biofortified Enriched Compost (BEC) for pulse promotion in acid soil**
3	School of Crop Protection	2020	***Um Comb*:** A Liquid Consortial Bio formulation of fungal antagonists, entomopathogens and plant growth promoters
4	School of Crop Improvement	Under ICAR AICRIP AVT1 trials	Improved line CAUS 107(IET28210) of paddy
5	School of Crop Improvement	Under multi-localational trials	Improved line CAUS 105 (IET27496) of paddy

Annexure-II

6.6.3.4 Research Publications

Sl. No.	Complete citation	Year	Journal	NAAS Rating (2021)
1	Singh, R., Rai,M., Singh, N.K.*(2016) From QTL to variety-harnessing the benefits of QTLs for drought, flood and salt tolerance in mega rice varieties of India through a multi-institutional network. *Plant Science* 242: 278-287	2016	Plant Science	9.59
2	Rajesh T., Maruthasalam S., Kalpana K., Poovannan K., Kumar K.K., Kohiladevi E., Sudhakar D., Samiyappan R. and Balasubramanian P., (2016) Stability of sheath blight resistance in transgenic ASD16 rice lines expressing a rice chi 11 gene encoding chitinase. Biologia Plantarum, 60 (4): 749-756	2016	Biologia Plantarum	7.6
3	Feroze, S.M., Singh, R. and Sirohi, S. 2016. Profitability and disposal pattern of milk in underdeveloped hill production system of Meghalaya, *Indian Journal of Animal Science*, 86(10):1198-1203.	2016	Indian Journal of Animal Science	6.28
4	Feroze, S.M, Singh, Ram; and Sirohi, S. (2016) Profitability and disposal pattern of milk in underdeveloped hill production system of Meghalaya" Indian Journal of Animal Sciences,	2016	Indian Journal of Animal Sciences	6.28
5	Singh, Ram, Kumar, A., Jat, P.C. and Ahmed, S.P (2016) Mobile based agro-advisory services in livestock management by tribal of Meghalaya. Indian Journal of Animal Sciences	2016	Indian Journal of Animal Sciences	6.28
6	Mahendra K., Baiswar P, Chandra S., Choudhury, B.U., Majumder D., Rajesh T. and Firake, D.M. (20016) Molecular characterization and influence of soil factors on isolates of Rhizoctonia solani in Meghalay. Indian Phytopath. 69 (3): 271-277.	2016	Indian Phytopathology	5.95
7	Saplalrinliana, H., Thakuria, D., Changkija, S. and Hazarika, S. 2016. Impact of Shifting Cultivation on Litter Accumulation and Properties of Jhum Soils of North East India. J. of the Ind. Soc. of Soil Sci., 64(4): 402-413. (ISSN: 0019-638X)	2016	J. of the Ind. Soc. of Soil Sci.	5.31
8	Sangma, C.B.K., Thakuria D. and Biam, D.E.D. 2016. Rice Ecosystems in Hill Agriculture: Effect on Soil Biological Pools of Carbon, Nitrogen and Phosphorus. *Journal of the Indian Society of Soil Science*, 64(4): 391-401. (ISSN: 0019-638X)	2016	Journal of the Indian Society of Soil Science	5.31
9	Tariang J. and Majumder D. (2016) Characterization of Ralstonia solanacearun Chusing Bacterial Wilt Solanaceous Vegetables in Meghalaya. Environment & Ecology. 34 (4B):2203—2207.	2016	Environment & Ecology	5.25
10	Singh, Ram, Chauhan, J.K., Singh, K. Johny and Saharan, S.P. (2016)Meghalaya state agricultural produce market	*2016*	Indian Res. J. Ext.Edu.	5.22

	committee act: trend analysis of arrivals and prices of major commodities. Indian Res. J. Ext.Edu.			
11	Dympep A, Singh, RJ, Chauhan JK, Pandey, DK, Hemochandra, L (2016) Standardize Index for Measuring Performance of Farmers on Mitigation and Adaptation Practices of Climate Change. Indian Research Journal Extension Education	2016	Indian Research Journal Extension Education	5.22
12	Singh, AN, Singh, R, SM Feroze, Singh RJ and PMN Rani (2016) Growth and instability of pineapple cultivation in Manipur, India. *Indian J. Agric. Res* 0-0	2016	Indian J. Agric. Res	5.2
13	Remdor D, Singh R, Feroze SM, Singh RJ and Aheibam M (2016) Profitability analysis of areca nut orchard in Meghalaya. Indian Forester,	*2016*	Indian Forester,	5.1
14	Singh AN, Singh R, SM Feroze and Singh RJ (2016) Economic evaluation of pineapple cultivation in Manipur. *Economic Affairs*0-0	2016	Economic affairs	5.08
15	Singh, Koijam Johny Feroze, S.M. Singh, Ram and Das, A. (2016) How profitable is rice cultivation in hills of North Eastern Region of India? A case study of Manipur"	2016	Economic affairs	5.08
16	Dayohimi R, Feroze SM, Singh R, Sarkar A and Ray LIP (2016) Climate change and investment in Agricultural Research: Policy challenges in India. Economic Affairs	*2016*	Economic Affairs	5.08
17	Devi G, Feroze SM, Singh, R and Sarkar A (2016) How socially sustainable are the rice farms in mountains? Evidence from Senapati district of Manipur. Economic Affairs	*2016*	Economic Affairs,	5.08
18	Singh A N, Singh R, SM Feroze and Singh RJ (2016) Analysis of Costs and returns of pineapple cultivation in Manipur. *Indian Journal of Hill Farming*	2016	Indian Journal of Hill Farming	5.04
19	Das S, Tyagi W, Rai M and Yumnam JS (2017) Understanding Fe^{2+} and P deficiency tolerance in rice for enhancing productivity under acidic soils. *Biotechnology and Genetic engineering reviews*33: 97-117.	2017	Biotechnology and Genetic engineering reviews	10.38
20	Tyagi W, Rai M (2017) Root transcriptomes of two acidic soil adapted Indica rice genotypes suggest diverse and complex mechanism of low phosphorus tolerance. *Protoplasma* 254:725–736	2017	Protoplasma	8.75
21	E Thokchom, D Thakuria, MC Kalita, CK Sharma, NC Talukdar (2017) Root colonization by host-specific rhizobacteria alters indigenous root endophyte and rhizosphere soil bacterial communities and promotes the growth of mandarin orange. *European journal of soil biology* 79, 48-56.	2017	European journal of soil biology	8.29
22	KusreBC, Bora PK, Rai D, Adhikari K, Khuman, CN and Tabing J (2017) Development of water management strategies for south Sikkim district, India. Water Science Technology, 17(4): doi: 10.2166/ws.2017.135. (ISSN:0273-1223)	2017	Water Science and Technology	7.64

23	Ray, L.I.P., Mal, B.C. and Moulick, S. 2017. Nutrient Modeling for a Semi- Intensive IMC Pond. *Water Science and Technology*, (IWA Publication) 76(10):2857-2866. doi: 10.2166/wst.2017. 458 (ISSN:0273-1223)	2017	Water Science and Technology	7.64
24	Bharat Chandra Kusre, P. K. Bora, Deependra Rai, Singam Suranjoy Singh, Aphiya Tana and Soshna Subba (2017) Combating water scarcity through roof water harvesting: planning and design with stakeholders' perception in Sikkim (India). Water Sci. Tech. Water Supply, 17(3):799-810.	2017	Water Science and Technology: Water Supply	6.9
25	Yumnam JS, Rai M, Tyagi W (2017) Allele mining across two low-P tolerant genes PSTOL1 and PupK20-2 reveals novel haplotypes in rice genotypes adapted to acidic soils. *Plant Genetic Resources: Characterization and Utilization*; 15:221-229	2017	Plant Genetic Resources: Characterization and Utilization	6.87
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129	Veronica Kadam, Rojeet Thangjam, M. Pathak and A.K.Mukhopadhyay. (2020) Management of foliar nematode, infecting tuberose, Polianthes tuberora in West Bengal, India, J. Environ. Biology- MRN-SI-277	2020	J. of Environmental Biology	6.78
130	Veronica Kadam., R.K. Patidar., Rojeet Thangjam., M. Pathak and A.K. Mukhopadhyay (2020). Management of foliar nematode, Aphelenchoides besseyi infecting tuberose, Polianthes tuberosa in West Bengal, India. Journal of Environmental Biology.	2020	J. of Environmental Biology	6.78
131	Gogoi, M., Ray, L.I.P., Swami, S., Kant, K. and Meena, N.K. 2020. Performance of potato variety Kufri Megha under different irrigation scheduling and date of planting at North Eastern Indian mid hills. *J. of Environmental Biology* 41(6): 1605-1610. doi: http://doi.org/10.22438 /jeb/41 /6/SI-225 (ISSN:0254-8704)	2020	J. of Environmental Biology	6.78
132	Lyngdoh, E.A.S. and Sanjay-Swami. 2020. Potential screening of phytoremediating crops and performance of maize in phytoremediated coal mined acid soil with phosphorus application. Journal of Environmental Biology, 41 (6): 1788-1797. (ISSN: 0254-8704)	2020	J. of Environmental Biology	6.78
133	Sanjay-Swami and Singh, S. 2020. Effect of nitrogen application through urea and Azolla on yield, nutrient uptake of rice and soil acidity indices in acidic soil of Meghalaya. Journal of Environmental Biology, 41 (1): 139-146. (ISSN: 0254-8704)	2020	J. of Environmental Biology	6.78
134	Yadav, O.S., Sanjay-Swami and Sowjanya, T.V. 2020. Impact of biochar on nutrient uptake by tomato, residual soil properties and acidity indices in acid Inceptisol of Meghalaya. Journal of Environmental Biology, 41 (6): 1761-1773. (ISSN: 0254-87042)	2020	J. of Environmental Biology	6.78
135	Korav, S*, Ram V., Krishnappa R and Premaradhya, N. 2020. Agro-physiological assessment of weed interference in groundnut (*Arachis hypogea* L.) at Sub-Himalayan hill region of Meghalaya. *Bangladesh J. Bot.* 49(2): 313-327.	2020	Bangladesh J. Bot.	6.21
136	Singh, S. and Sanjay-Swami. 2020. Temporal soil fertility with nitrogen sources in acidic soil of Meghalaya. Indian J. of Agri. Sci., 90(3): 669-671. (ISSN: 0019-5022)	2020	Indian journal of Agricultural sciences	6.21
137	Singh, Ram; Chahal, V P; Feroze, S M and Kumar, Shiv (2020). Impact of factors share on productivity of ginger (Zingiber officinale) in NEHR of India. Indian Journal of Agricultural Sciences. *Indian Journal of Agricultural Sciences*	2020	Indian Journal of Agricultural Sciences	6.21

138	Uchoi ,O and Singh, R (2020). Self-reliance of Tribal through Corporate Social Responsibility (CSR): A Case Study in Tripura. *Indian Journal of Extension Education*	2020	Indian Journal of Extension Education	5.95
139	Das, M.; Singh, Ram; Feroze, S.M. and Singh S. B. (2020). Determinants of Marketed Surplus of Milk: A Micro Level Study in Khasi Hills Region of Meghalaya. *Indian Journal of Extension Education.*	2020	Indian Journal of Extension Education	5.95
140	Rajavardhan, M. Sethi, B. and Singh, R (2020). Supply Chain of Potato in East Khasi Hills District of Meghalaya: A temporal Analysis. *Indian Journal of Extension Education*	2020	Indian Journal of Extension Education	5.95
141	Singh, Ram and Feroze, S.M. (2020). Impact of Climate Change on Animal Husbandry: A Gender Perspective Study in Meghalaya. *Indian Journal of Extension Education*	2020	Indian Journal of Extension Education	5.95
142	B Loitongbam, M Rai, W Tyagi, R Nongmaithem, L Renthlei. (2020) Assessment of Genetic Variability and Pollen Viability in Rice (Oryza sativa L.) Germplasm for Low Temperature Tolerance at Reproductive Stage. *Indian Journal of Plant Genetic Resources* 32 (3), 340-346.	2020	Indian Journal of Plant Genetic Resources	5.54
143	Karav, S., Ram, V. and Ray, L.I.P. 2020. Critical period for crop-weed competition in groundnut (Arachis hypogaea L.) under mid altitude of Meghalaya. *Journal of Crop and Weed* 16 (1): 217-222. (ISSN: 0974-6315)	2020	Journal of Crop and Weed	5.46
144	Singh, Ram; Feroze, SM and Kumar, S. (2020). Production of turmeric in North East Hill Region of India: A value chain Analysis. *Indian Journal of Agril Economics*	2020	Indian Journal of Agril Economics	5.3
145	Dutta Pranab, Deb Lipa and DebbarmaManashi (2020) First report of *Diplodia seriata*de Not. causing black rot of apple (*Malus domestica* L. Borkh.) in Meghalaya, North Eastern India. *The Pharma Innovation Journal*. 9(6):388-391.	2020	The Pharma Innovation Journal	5.23
146	Thangjam D, Chauhan J.K., Singh R.J., Singh, Ram and Hemochandra L. (2020). Performance of Agricultural Livelihood Security of the Farmers: Tribal Sub Plan Executed by CAU, Imphal in Meghalaya. *Indian Research Journal of Ext. Edu.*	2020	, Indian Research Journal of Ext. Edu.	5.22
147	Victoria D. M, Singh R.J, Devarani L, Hemochandra L, Singh, Ram and Sethi B. (2020). Identification of Climate smart Agricultural Practices in North Eastern States of India. Indian Research Journal of Ext. Edu.	2020	Indian Research Journal of Ext. Edu.	5.22
148	Ahmed, R., Singh, S.B., Singh, Ram and Hemochandra, L (2020). Public Distribution System in Kamrup (Rural) District of Assam: It's Impact and Parameters for Participation. *Indian Res. J. Ext. Edu.*	2020	Indian Res. J. Ext. Edu.	5.22
149	Kirwa, E., Singh, R.J. and Singh, Ram (2020). Cases of Climate Smart Agricultural Practices in Adopted Villages in North-East India. *Indian Res. J. Ext. Edu.*	2020	Indian Res. J. Ext. Edu.	5.22
150	Chiphang S.; Singh, Ram and Feroze, S.M., Singh, NU, Chauhan, JK and Devarani, L. (2020) Determinants of food security for the organic farm households in Sikkim: A logistic approach. *Indian Journal of Economics and Development.*	2020	Indian Journal of Economics and Development,	5.15

151	Chiphang S.; Singh, Ram and Feroze, S.M. (2020). Study of Non Timber Forest Products (NTFPS) in Meghalaya State of India: Methods for Empirical Analysis. Economic Affairs	2020	Economic Affairs,	5.08
152	Medhi, S.; Singha, A.K.;Singh, Ram and Singh, R.J. (2020). Socio-Economic, Psychological Profile and Constraints Faced by the KVK Adopted Farmers for Improved Rice Cultivation in West Garo Hills District *Economic Affairs,*	2020	Economic Affairs,	5.08
153	Das J., Sultana S., Krishnappa R., Kalita M.C. and Thakuria D. 2020. Endophyte Bacteria Alter Physiological Traits and Promote Growth of Rice (Oryza sativa L.) in Aluminium Toxic and Phosphorus Deficient Acid Inceptisols. *J. Pure Appl. Microbiol*., 14(1): 627-639. doi.org/10.22207/JPAM.14.1.65.	2020	J. Pure Appl. Microbiol.	5.05
154	MV Devi, L. Devarani, RJ Singh, L. Hemochandra (2020). Rice straw Management in Manipur: challenges and finding a way forward. *Indian Journal of Hill Farming*	2020	Indian Journal of Hill Farming	5.04
155	Singh CK, Singh D, Sharma S, Chandra S, Taunk J, Konjengbam NS, Singh D, Kumar A, Upadhyaya KC and Pal M (2021) Morpho-physiological characterization coupled with expressional accord of exclusion mechanism in wild and cultivated lentil under aluminium stress. *Protoplasma*. Doi.org/10.1007/s00709-021-01619-z.	2021	Protoplasma	8.75
156	Das, S., Deb, P., Bora, P.K., Katre, P. 2021. Comparison of RUSLE and MMF soil loss models and evaluation of catchment scale best management practices for a mountainous watershed in India. Sustainability 13 (232): 1-22. (ISSN: 2071-1050)	2021	Sustainability	8.58
157	Bhutia KL, Nongbri EL, Sharma TO, Rai M, Tyagi W (2020) A 1.84-Mb region on rice chromosome 2 carrying SPL4, SPL5 and MLO8 genes is associated with higher yield under phosphorus-deficient acidic soil. *Journal of Applied Genetics*. DOI: 10.1007/s13353-020-00601-4	2021	Journal of Applied Genetics	8.03
158	Hazarika, S., Sohliya, B., Thakuria, D., Kataki, S., Krishnappa, R. 2021. Influence of organic amendments on acidic soil responsive crop groundnut (Arachis hypogaea L.). *Environmental Progress and Sustainable Energy*, 313-592. Doi.org/10.1002/ep.13592 E088& 7.60. (ISSN:1944-7442)	2021	Environmental Progress and Sustainable Energy	7.99
159	Kemboi, E; Feroze, SM; Singh, R; Ahmed, J.and Tyngkan, H. (2021). Yield gap in milk production is considerable in Indian Himalayan state of Meghalaya. *Journal of Dairy Research*	2021	Journal of Dairy Research	7.63
160	Debnath, A., M. Rai and W. Tyagi: Identification of Swarna x O. nivara(RPBio4918) advanced backcross lines performing well under acidic soil conditions. J. Environ. Biol., 42, 240-246.	2021	Journal of Environmental Biology	6.78
161	Sailo, V. and Sanjay-Swami. 2021. Performance of pea (Pisum sativum L.) with residual phosphorus in phytoremediated heavy metal polluted soil of Jaintia Hills, Meghalaya. Journal of Environmental Biology, 42 (2): 428-437. (ISSN: 0254-8704)	2021	J. of Environmental Biology	6.78

162	Satya, M.S.S.C. and Sanjay-Swami. 2021. Performance of black gram (Vigna mungo L. Hepper) under phosphorus and boron fertilization in acid Inceptisol of Meghalaya. J. of Env. Biology, 42 (2): 534-543. (ISSN: 0254-8704)	2021	J. of Environmental Biology	6.78
163	Meena, N K; Singh, R; Feroze, S M and Joliya, P. (2021). Solar energy an income accelerating option for irrigation of Kinnow orchard: An example in Rajasthan state of India. *Indian Journal of Agricultural Sciences*	2021	Indian Journal of Agricultural Sciences	6.21
164	Boruah S and Dutta Pranab (2021) Fungus mediated biogenic synthesis and characterization of chitosan nanoparticles and its combine effect with *Trichoderma asperellum* against *Fusarium oxysporum*, *Sclerotium rolfsii*, and *Rhizoctonia solani*. Indian Phytopathology.	2021	Indian Phytopathology	5.95
165	Debanand Biswas and N S Azad Thakur (2021). Seasonal Incidence of Major Insect Pests of Apple in Mid Hills of Meghalaya . Indian Journal of Entomology. Online published Ref. No. e20110 DoI No.: 10.5958/0974-8172.2020.00204.7	2021	Indian Journal of Entomology	5.08

Annexure-III

6.6.4 EXTENSION SUPPORT

6.6.4.1. Extension Council:

CPGS-AS has a College Extension and Advisory Committee (CEAC). The present composition of the committee (constituted vide letter No. CAU/DE/27/EEC/2016-17/6408 dated the 30th September 2016) is as under

1.	Dean, CPGS	Chairperson
2.	Chairman, School of Crop Improvement, CPGS	Member
3.	Chairman, School of Social Sciences, CPGS	Member
4.	Chairman, School of Crop Protection, CPGS	Member
5.	Chairman, In-charge School of Natural Resource Management, CPGS	Member
	External Experts	
6	Dr. R.B. Dympep, Former Director of Agriculture, Govt. of Meghalaya	Member
7	Dr. A.K. Singha, Principal Scientist, ATARI, Umiam, Meghalaya	Member
	Farmer representative and Social Worker	
8	Mrs. Rose Mary, Farmer Representative, Bhoirymbong	Member
9	Mr. Tambor Lyngdoh, Mawphlang Welfare Society, EKH district	Member
	PC, KVK	
10	Dr. Md. Mokidul Islam, Sr. Scientist and Head, KVK, Ri-Bhoi	Member
	Line dept nominees	
11	Director, MAMETI, Govt. of Meghalaya	Member
12	Director, Deptt. Of Vety. And Animal Husbandry, Govt. of Meghalaya	Member
13	Joint Director of Agri (Resh and Trg), Deptt of Agri., Govt. of Meghalaya	Member
14	District Horticulture Officer, R-Bhoi, Deptt. Of Horticulture, Govt. of Meghalaya	Member
15	Dr. Ram Singh, Professor (Agri Economics), School of Social Sciences, CPGS	Member Secretary

The committee normally meets once a year to discuss the annual extension plan for the current financial year. Till now, there have been three CEAC meetings.

Sl. No	Name of the meeting	Date	Venue
1	1st CEAC meeting of CPGS-AS	23rd May 2018	Conference Room, Farmers' Hostel, CPGS-AS
2	2nd CEAC meeting of CPGS-AS	17th May 2019	Conference Room, Farmers' Hostel, CPGS-AS
3	3rd CEAC meeting of CPGS-AS	28th May 2020	Online

6.6.4.2. Directorate of Extension Education:

Present establishment and extension coordination mechanism: In the college level, a faculty member is assigned the charge of Extension Coordinator. The role of extension coordinator is to facilitate and coordinate the extension activities of the college.

Extension and technology dissemination system Types of extension activities conducted in the college are: Adoption of villages as part of MGMG and TSP program, mobile based agro-advisory services to farmers through the m4agriNEI, skill development and vocational trainings for rural youth and farmers, need/ demand based or supply based awareness/ training program for farmers and extension personnels, facilitation of linkages for farmers with various backward and forward stakeholders.

Contribution in academic programs:

- Field level problems identified during extension programs form the basis of many PG and Ph. D research problems of the students.
- Doctoral students are engaged to assist many on-farm and on-campus extension activities.
- PG and Ph. D students conduct field trials in farmers' field. This encourages farmer participatory research and technology evaluation.

6.6.4.3. Extension Planning and Technological Impact:

An annual extension plan is prepared in consultation with all the schools of the college. The CEAC members evaluate the plan and suggest necessary modifications. The Annual plan is finally sent for approval by the EEC at university level

Planning ensures target setting and smooth execution of the activities in terms of who will do what and when. Also, it ensures incorporation all important farmers' problems and technological innovations which needs to be addressed

All extension projects implemented has an inbuilt impact evaluation mechanism. Case studies of successful farmers are documented. Every skill development programmes are evaluated on the basis of outcome on knowledge and skill of trainees.

6.6.4.4. Implementation of National Initiatives:

Mention the status of implementation of Student Ready, green initiatives, Farmers First Scheme, Mera Gaon Mera Gaurav, NICRA and other similar schemes.

<table>
<tr><th>Sl. No.</th><th>Name of the Initiative</th><th>Status of Implementation</th></tr>
<tr><td>1</td><td>MGMG</td><td>Adopted a total of 22 villages by 4 teams of scientists Activities involve periodic visits for problem identification, advisory and training services, input supply, sample testing etc.
<table>
<tr><th>Year</th><th>No. of visits</th><th>No. of clients served</th></tr>
<tr><td>2016-17</td><td>43</td><td>453</td></tr>
<tr><td>2017-18</td><td>98</td><td>1156</td></tr>
<tr><td>2018-19</td><td>62</td><td>863</td></tr>
<tr><td>2019-20</td><td>21</td><td>786</td></tr>
<tr><td>2020-21</td><td>-</td><td>-</td></tr>
</table></td></tr>
<tr><td>2</td><td>TSP</td><td>Implemented during 2016-19 in two blocks of Meghalaya Rongrum block (West Garo Hills district) and Umsning Block (Ri-Bhoi district). Activities include conducting training programmes and distribution of inputs (planting</td></tr>
</table>

<table>
<tr><td></td><td></td><td>materials, birds, animals, equipments etc)
<table>
<tr><td>Year</td><td>No. of trainings</td><td>No. of clients served</td></tr>
<tr><td>2016-17</td><td>14</td><td>459</td></tr>
<tr><td>2017-18</td><td>6</td><td>160</td></tr>
<tr><td>2018-19</td><td>3</td><td>125</td></tr>
<tr><td>2019-20</td><td>-</td><td></td></tr>
<tr><td>2020-21</td><td>-</td><td>-</td></tr>
</table></td></tr>
<tr><td>3</td><td>PDDUUKSY (Pandit DeenDayal Upadhyay Unnat Krishi Siksha Yojana)</td><td>Conducted 8 nos. of 5 days training programmes with participation of a total of 223 farmers during 2017-18 and 2018-19 in collaboration with Kalyan Ashram, Shillong.
<table>
<tr><td>Year</td><td>No. of trainings</td><td>No. of clients served</td></tr>
<tr><td>2016-17</td><td>-</td><td>-</td></tr>
<tr><td>2017-18</td><td>5</td><td>155 (M=122; F=33)</td></tr>
<tr><td>2018-19</td><td>3</td><td>68 (M=9; F=59)</td></tr>
<tr><td>2019-20</td><td>-</td><td></td></tr>
<tr><td>2020-21</td><td>-</td><td>-</td></tr>
</table></td></tr>
</table>

6.6.4.5. Innovation and Best Practices:

What are the innovative efforts of an institution that help inits excellence in extension?
Some of the innovative extension models/ projects adopted by the college are provided below:

Sl. No	Name of the program/ project	Funded by	Major achievement
1.	m4agriNEI (Development and deployment of mobile based agro-advisory service in NEI (2012-2017)	MeITY	• Mobile based agro-advisory service for farmers of Meghalaya • Project Period: June 2012-March 2018 • 10,647 farmers registered from 4 districts • 7287 agro-related queries received and answered and 150 bulk SMSs sent
2.	3 months Distance Education Certificate Program in Piggery (2016)	CAU, Imphal	• Out of 93 farmers enrolled, 75 farmers successfully completed the programme to receive certificate
3.	3 months residential vocational training on mushroom cultivation (2018)	Power Finance Corporation-CSR	• 20 farmers trained in mushroom cultivation. 6 of which have started mushroom farming on a large scale.
4.	Integration and application of VAV for crop health assessment and monitoring with IIDS in providing evidence based agro-advisory services to farmers in north-east India (DhaBReT) (2020-22)	MeITY	Expected benefits: • Near real time précised agro-advisory service • Yield forecasting etc.

6.6.4.6. Consultancy/Certification/Testing:

Mention about the resources generated through Consultancy/Certification/Testing etc. in last five years. Give details of all activities. Give summary of participation of faculty in Consultancy/Certification/Testing and outreach program.

Outreach Programmes:

Type of outreach Programme	2016-17	2017-18	2018-19	2019-20	2020-21	Technologies disseminated
One day awareness programme field days	9 (287)	18 (752)	20 (431)	25 (844)	11 (343)	• Spawn production andcultivation of oyster, button and shitakae mushroom • Crop related • CAU R varieties related • Zero tillage cultivation of rapeseed and mustard • Pest management of major crops • Soil nutrient management related • FAW related • Specialty corn related • Bio-control (bio-pesticides) related • Extension methodology • Use of ICT for extension • Group formation and book keeping • Plant Tissue culture, • PPVFR, • irrigation and water harvesting
3-5 days Training programme for farmers	1 (39)	-	-		1 (15)	
6-10 days Training programme for farmers	-	-	2 (21)	-	-	
One day training/ awareness programme for extension personnel	-	-	-	-	-	
3-5 days Training programme for extension personnel	-	-	-	1 (25)	2 (40)	
6-10 days Training programme forextension personnel	-	1 (22)	-	-	-	
1 day training programme					1(25)	"Shitake mushroom cultivation

* Figure outside parentheses indicate number of events and figure inside parentheses indicate total number of participants

Annexure-IV

6.6.5 Participation of Faculty in Symposium/Workshops:

Sl. No.	**Particulars**	**2016-17**		**2017-18**		**2018-19**		**2019-20**		**2020-21**	
		N	**I**	**N**	**I**	**N**	**I**	**N**	**I**	**N**	**I**
1	Conference	14	8	5	2	10	2	2	5	2	0
	Seminars	6	0	6	1	5	0	2	0	2	2
	Symposia	1	0	0	0	3	0	1	0	0	0
	Workshops	5	0	13	1	4	0	1	0	1	0
	Training	9	0	5	0	4	0	5	0	1	0
	Consultancy visits	0	0	0	0	0	0	0	0	0	0
	Special assignments	0	0	0	0	0	0	0	0	0	0

Note: N- National, I- International

Annexure-V

6.6.6 STUDENT DEVELOPMENT

6.6.6.1 Scholarships/Stipend:

Scholarship awarded to students, 2016-17 (NTS/University Merit Scholarship/Others)

Sl. No.	Name of the College	Degree Programme	Year	No. of Students receiving NTS	No. of Students receiving Univ. Merit Scholarship/Univ. Institutional Fellowship	Any other Scholarships (Please Specify)
1	College of Post-Graduate Studies, Umiam, Meghalaya	M.Sc. (Ag.)	1st year	14	39	-
			2nd year	-	42	1 ICAR JRF
		Ph.D.	1st year	-	13	NIL
			2nd year	-	4	8 (UGC Scholarship) 1 (ICAR SRF)
			3rd year	-	03	3 (UGC Scholarship)
			4th year	-	-	2 (UGC Scholarship)

Scholarship awarded to students, 2017-18 (NTS/University Merit Scholarship/Others)

Sl. No.	Name of the College	Degree Program	Year	No. of Students receiving NTS	No. of Students receiving Univ. Merit Scholarship/Univ. Institutional Fellowship	Any other Scholarships (Please Specify)
1	College of Post-Graduate Studies, Umiam, Meghalaya	M.Sc. (Ag.)	1st year	14	22	-
			2nd year	12	37	-
		Ph.D.	1st year	-	09	-
			2nd year	-	09	1(UGC Scholarsip (JRF)
			3rd year	-	04	7(NF&SHEfor ST) 1(NF& SHE for SC) 2 (Jawaharlal Nehru Scholarship) 1(ICAR- JRF) 1(UGC Scholarship (JRF)
			4th year	-	-	3 (NF&SHE for ST)

Scholarship awarded to students, 2018-19(NTS/ University Merit Scholarship/Others)

Sl. No.	Name of the College	Degree program	Year	No. of Students receiving NTS	No. of Students receiving Univ. Merit Scholarship/ Univ. Institutional Fellowship	Any other Scholarships (Please specify)

1)	College of Post-Graduate Studies, Umiam, Meghalaya	M.Sc. (Ag.)	1st yr	16	24	3(India-African Fellowship Program III)
			2nd yr	14	20	-
		Ph.D	1st Yr		12	2 (SRF)
			2nd Yr	-	5	**1**(NF&SHEfor ST)
			3rd Yr	-	6	**3(NF&SHE for ST)**

Scholarship awarded to students, 2019-20(NTS/ University Merit Scholarship/Others)

Sl. No.	Name of the College	Degree program	Year	No. of Students receiving NTS	No. of Students receiving Univ. Merit Scholarship/ Univ. Institutional Fellowship	Any other Scholarships (Please specify)
1	College of Post-Graduate Studies in Agricultural Sciences, Umiam, Meghalaya	M.Sc. (Ag.)	1st yr	8	16	
			2nd yr	16	22	3(India-African Fellowship Program III
		MBA	1st yr			-
			2nd yr			1(PG scholarship scheme for SC/ST)
		Ph.D	1st yr	-	9	1(ICAR-SRF)
			2nd yr	-	4	4(NF&SHEfor ST) 2(ICAR-SRF)
			3rd yr	-	3	1(NF&SHE for ST) 1(ICSSR)

Scholarship awarded to students, 2020-21(NTS/ University Merit Scholarship/Others)

Sl. No.	Name of the College	Degree program	Year	No. of Students receiving NTS	No. of Students receiving Univ. Merit Scholarship/ Univ. InstitutionalFellowship	Any other Scholarships (Please specify)
1	College of Post-Graduate Studies in Agricultural Sciences, Umiam, Meghalaya	M.Sc. (Ag.)	1st yr	13	39	
			2nd yr	8	16	
		MBA	1st yr			-
			2nd yr			
		Ph.D	1st yr	-	16	
			2nd yr	-	3	1 (DST INSPIRE fellowship)
			3rd yr	-	1	1 (DST INSPIRE Fellowship)

6.6.6.2 Extra and Co-curricular Activities:

- Yes

Year	Activity	Date	Brief outline of program
2016	College week	01.10.16-07.10.16	College week was organised during 1st-7th Oct. 2016. Sports, literary, fine arts and cultural activities were conducted.
	3rd inter college youth festival	24.11.16-26.11.16	The 3rd inter college youth festival was held at College of Horticulture and Forestry, Pasighat during 24 to 26 November ,2016. A team of 27 numbers participated in the youth fest. Students bagged medals in poster making, quiz, elocution, extempore and in group song and dance.
	Republic Day		Cricket and volleyball match were organised for students and staff
2017	4th inter college games and sports meet, 2017	16.02.17-19.02.17	4th inter college games and sports meet, 2017 was held during 16 to 19 Feb at COF, Lembucherra. A team of 22 students and 3 official participated and students bagged 1 gold, 4 silver and 3 bronze medals.
	17th AGRIUNIFEST, 016-17	22.02.17-25.02.17	Mr. Nowang Wangnow and Mr. Shaikh Tabrez bagged the 2nd place in quiz competition
	College week	13th to 18th Nov,2017	College weekwas organised during 13th to 18th November,2017.
	4th Inter College Youth Festival	15.01.17-17.01.17	A team of 26 members including faculty, staff and 23 students participated in the 4th Inter College Youth Festivalheld at College of Agriculture, Iroisemba,Imphal. Students bagged prizes in Rangoli, Quiz and Elocution.
2018	18th AgriUnifest,2017-18	12.02.18-16.02.18	Mr. Nitin Hugar Participated and bagged 2nd position in the quiz competition at the 18th AgriUnifest,2017-18 held at Sri Venkateswara Veterinary University, Tirupati
	College week	08.10.2018-12.10.2018	College week was organised during 8th to 10th October 2018. Sports, literary, fine arts and cultural events were organised.
	5th Inter College Youth festival	19.11.18-21.11.18	5th Inter College Youth festival was held at College of Vety.Sc. & A.H. Selesih Mizoram. A team of 12 students participated in the youth festival. Students bagged prizes in quiz and elocution.
2019	19th Agri. Univ. Games and Sports Meet	02.01.2019-05.01.2019	Mr. Sugumar participated in shotput and discus throw in the 19th Agri. Univ. Games and Sports Meet held at PAU, Ludhiana during 2nd to 5th January, 2019

	College Week	21st to 28th September	College Week 2019was celebrated during 21st to 28th September.Sports, literary, fine arts and cultural activities were conducted during the college week. The valedictory function was held on 28th September, Dr. B.C. Deka, Director, ICAR, ATARI, Umiam, Meghalaya graced the function as the Chief Guest.
	6th Inter-Collegiate Youth Festival cum Games & Sports Meet	6th to 10th November,2019	The 6thInter-Collegiate Youth Festival cum Games & Sports Meet was held at College of Agriculture, Iroisemba during 6th to 10th November, 2019. A team of 15 contingent including 13 students, Ms. Evaphimon Kalwing,Medical Attendant and Dr.Dhanabati, SWO as team leader participated in the 6th Inter Collegiate Youth Festival cum Games & Sports Meet, 2019 during 18.11.19 to 21.11.19 held at COA, Imphal, CAU. Students bagged medals in Debate,Quiz, Extempore, Rangoli, Javelin, Shot put, 200m race
2020	Republic Day	26.01.20	Republic day was celebrated on 26th January by hoisting the National Tricolor by Dr. N.B. Singh, Dean, CPGS at the Academic building of the College of Post-Graduate Studies. Painting competition and fancy dress competition were organised for the children. A friendly volleyball match was also conducted between the staffs and the students.
	20th Agriunifest, 2019-20	8th to 12th February, 2020	Mr. Rizwan Participated the debate competition at the 20th AGRIUNIFEST, 2019-20 held at IGKV, Raipur, Chhatisgarh during 8th to 12th February,2020

6.6.6.3 Health Facilities:

The College has a medical unit with a permanent doctor, one compounder and two nurses.The unit has OPD Consultation, Supply of medicines, Ambulance for transporting patients, equipped with oxygen cylinder,mask. Nebulizer for airway related problems, Availability of Blood pressure, Hemoglobin Meter, Blood glucose Test,Pulse Oxymeter for oxygen saturation recording, Autoclave for sterilization of instruments, Minor OT procedures available like suturing,incision and drainage,excision under Local Anaesthesia, Fogging machine for fumigation of room, Vaccines available for Rabies,Tetanus, Anti- venom,Hepatitis B, etc, Two bedded observation room, Refrigerator for storage of vaccines. Apart from routine check-up and treatment the medical unit of the college has organized voluntary Blood Donation Camp.

6.6.6.4 Sports and Cultural Facilities:

One indoor/Badminton court or Students' Utility Centre, Basketball court, volleyball ground is available for Sports and cultural programs.

6.6.6.5 Student counseling and Placement Cell:

As this is a post graduate college students either go for further studies or central jobs and state services, in KVKs etc.

6.6.6.6 Disabled Friendly Facilities:

- NA

Annexure-VI

6.6.7 INFRASTRUCTURE

6.6.7.1 Physical facilities including administrative building and lands:

Campus area in acres	17 acres approx.
Academic blocks	2000 sqm
Green houses/Farm	150 sqm
Auditorium	500 sqm
Students' Utility Center (Indoor)	450 sqm
Hostels (4) Boys' Hostel Girls' Hostel	 2000 sqm 2200 sqm
Library (Dining & Mess Hall)	230 sqm
Farmers' Hostel	800 sqm
Sub Station	80 sqm
Students Canteen	70 sqm
Wooden Structures	60 sqm
Type –V Qtrs	170 sqm
Type-IV Qtrs	820 sqm
Type-III Qtrs	460 sqm
Types-II Qtrs	430 sqm
Medical Unit	70 sqm
Transit Hostels	120 sqm
Pump House	15 sqm
Over Ground Water Reservoir	40 sqm
Under Ground Water Reservoir	90 sqm
Total	11,255 sqm

6.6.7.2 IT Infrastructure:

Sl. No.	Particulars	Remarks
1.	LAN Connectivity	A decentralized LAN concept using BSNL FTTH Fibernet connections at the 50Mbps bandwidth is provided all over campus buildings.
2.	Wifi / Internet Facilities in campus and	Localised Wifi Facilities are available in campus

	hostels	and hostels.
3.	Computer-based Library Management	KOHA (OPAC) Online Library Server is maintained in-house and distributed through OpenVPN.
4.	Video conferencing Facility	Audio Video Setup for the same is available.
5.	Smart Class Rooms	Not Available
6.	Workshops	Not Available
7.	University ARIS Cell Report	Not Available

6.6.7.3 Students and Staff Amenities:

One indoor/Badminton court, Basketball court, volleyball ground and an outsource Students' Canteen is available.

6.6.8. FINANCIAL RESOURCE MANAGEMENT:

6.6.8.1 Budget Allocation:

Clarification: This College has not received any amount for salary, contingency through ICAR Development Grant.

Budget received by college from University headquarters is furnished below:

Financial year	Salary (Rs in lakhs)	TA	Recurring	Non Recurring	Total
2020-21	0	2.00	293.25	25.20	320.45
2019-20	0	4.64	241.51	21.00	267.15
2018-19	1014.86	5.00	180.00	8.00	1207.86
2017-18	805.00	5.00	178.50	14.00	1002.50
2016-17	700.00	15.00	251.06	31.72	997.78

6.6.8.3. Internal resource generation of the last five years

The college was able to generate income through the following revenue receipts

Sl. No.	Revenue receipts	2016-17 (Rs.)	2017-18 (Rs.)	2018-19 (Rs.)	2019-20 (Rs.)	2020-21 (Rs.)
1	Bank interest	10,32,103	3,66,365	7,32,390	3,39,540	2,70,293
2	Xerox charge	1,42,831	1,16,499	1,35,377	1,24,058	33,973
3	Student admission fee	7,14,115	24,26,350	30,55,430	22,28,414	19,53,410
4	Guest house rent	2,68,010	7,16,300	7,94,600	8,17,718	1,91,100
5	Sale of farm produce	13,322	2,305	3,299	15,020	5343
6	Other miscellaneous receipts	4,43,217	4,31,775	8,26,214	4,97,027.5	13,44,027
7	Total revenue receipt	26,13,598	40,59,594	55,47,310	40,21,777.5	37,98,146

Annexure: VII

Proforma for Assessment of the Programme

Criteria	Key aspects	Remarks	Assessment of the Peer Review Team
	• Faculty strength of the programme (as per ICAR guidelines) • Technical and supporting staff (as per ICAR guidelines)		
	• Class rooms and laboratory (as per ICAR guidelines)		
	• Conduct of Practical and hands on training		
	• Numbers of students being supervised for Thesis in Lieu of Abstract (as in Programme (as per ICAR guidelines		
	• Feedback of stakeholders (Students, Alumni, employers, farmers etc.)		
	• Students intake and attrition in the programme for last five years		
	• [illegible]		

(Signature of the Dean/Associate Dean/Principal/Director of the College)

List of the students admitted for 1st Yr. M.Sc Nematology 2020-21

Sl. No	Name of the student	Admission No
1.	Mr. Imran H	CAU/CNGS-AS/NEMA/2020/01
2.	Mr. Eqbaluna Nongbri	CAU/CNGS-AS/NEMA/2020/02

27/02/2021
(Dr.R.S.Tarafdar) Dean
I/c SCP, CNGS AS, Tura

Annexure - VII

Proforma for Assessment of the Programme

Criteria	Key aspects	Remarks	Assessment of the Peer Review Team (to be left blank for Self-assessment by the Programme)
1.1(Min – for Business Management)	• Faculty strength in the programme as per CAU guidelines	Two faculties (Dr Jatindra Nath Bhattacharjee, Dr Jaya Chakraborty) in the department	
	• Specific area of faculty (Ph.D degree holder in MBA programme)	Two PhDs (Dr Jatindra Nath Bhattacharjee, Dr Jaya Chakraborty) in the department	
	• Class room and laboratory as per CAU guidelines	Five well equipped classrooms as per the requirement of the programme.	
	• Conduct of Practical and Internship	Summer Training, Industrial Training and Internship Agency Training are conducted as per requirement of the programme	
	• Number of students getting guidance by Faculty in case of (UG/PG), VIII Programme as per (CAU/UGC) guidelines	All the students are provided guidance by Dept. Faculty members as per requirement of the programme	
	• Feedback of stakeholders (Students, Alumni, Employers, Academic Experts)	Feedback is collected	
	• Co-curricular and extra-curricular activities in the programme for the four years	Co-curricular activities are conducted every year	
	• ICT enabled teaching	The class is fully equipped with ICT facility. Faculty members use ICT enabled teaching aids in the classroom.	

(Signature of the Peer Team Members with date)

Submitted by

MEERA FOODS

To,

Dear Madam,

Managing Director

Meera Foods

COLKS

INTERNSHIP CERTIFICATE OF COMPLETION

90

Government of Meghalaya
Office of the Assistant Director of Horticulture (FP)
Fruit preservation Centre
Dainadubi, North Garo Hills

To whom it may concern

91

Annexure-IX

Student Research Farm

College Laboratories

Student Amenities

Annexure-X

A glimpse of technology inventory of CPGSAS
TECHNOLOGY: NECTAR-CM-14

1. **Name of the Technology:**Root-dipping in SSP-MC Slurry Method of P Management in rice-vegetable rotation

TECHNOLOGY: NECTAR-CM-15

2. **Name of the technology:**CAU-*JHUM*Bioenhancer (Liquid biofertilizer for mixed crops of *Jhum* fields)

3. ***Um Comb*****:** A Liquid Consortial Bio formulation of fungal antagonists, entomopathogens and plant growth promoters

***Um Comb*: A Liquid Consortial Bio formulation of fungal antagonists, entomopathogens and plant growth promoter**

Seed treatment with *UmComb*

Root dip treatment with *UmComb*

Foliar spray of *UmComb* against fall army worm of maize

Preparation of enriched compost with *UmComb*

TECHNOLOGY: NECTOR-CI-09

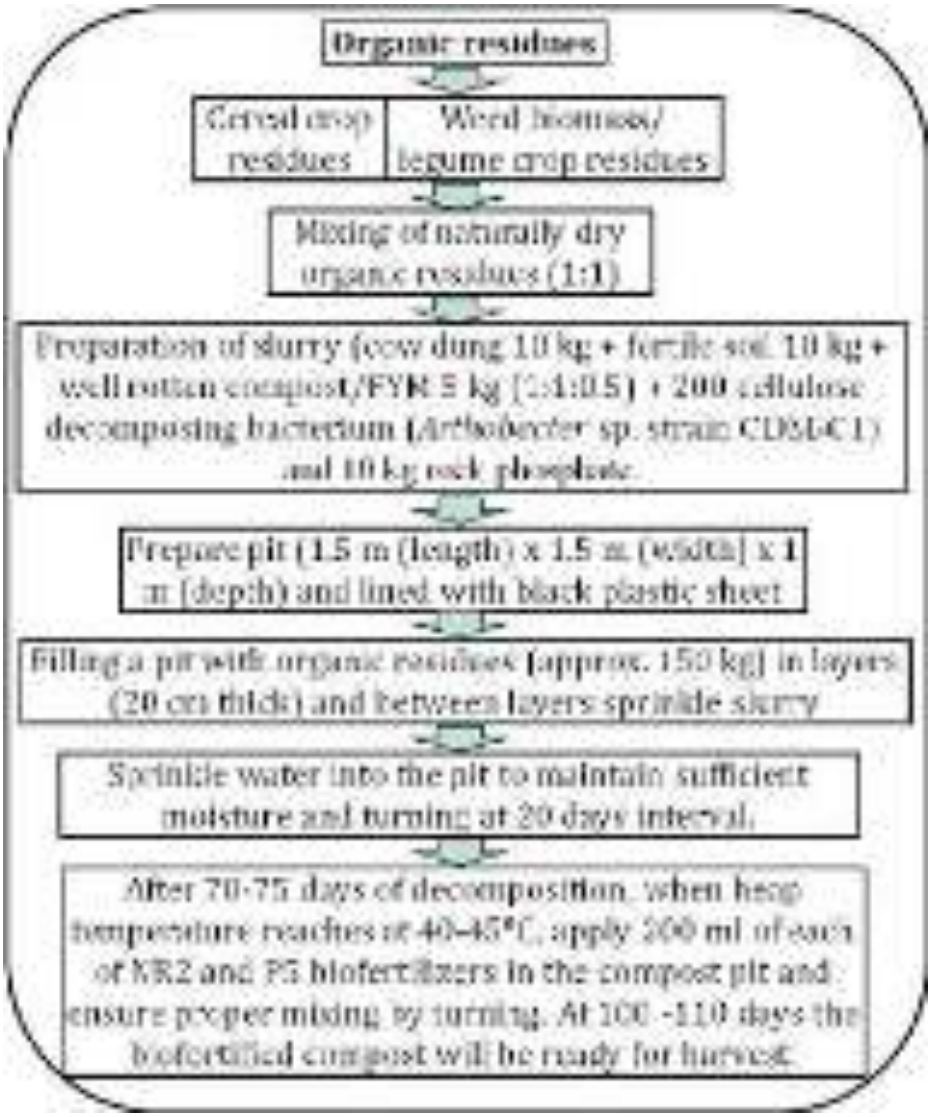
4. **Name of the technology:**Improved line CAUS 107(IET28210) of paddy

TECHNOLOGY: NECTOR-CI-08

5. Name of the technology: Improved line CAUS 105(IET27496)of paddy

TECHNOLOGY: NECTAR-CM-17

6. Name of the Technology:Biofortified Enriched Compost (BEC) for pulse promotion in acid soil



Appendix-CPGSAS-A

Proceedings of the Twenty-first Meeting of Academic Council of Central Agricultural University, Imphal held on 13th November, 2020 at CAU Headquarters, Lamphelpat, Imphal through Webinar/Videoconference

Agenda Item No. 5 – Starting Ph.D. programme in Entomology. (AC 21/5/2020)

Preamble:

The proposal to start Ph.D. Programme in Entomology with intake capacity of 2 seats in the academic session 2020-21 at College of Post Graduate Studies in Agricultural Sciences, Umiam, Meghalaya was discussed in the 18th Meeting of the Academic Council held on 8th June, 2018. It was approved in principle subject to production of details of syllabus and faculty position. The requisite documents were received from the College after the admission notification for long vacation. Accordingly, it was intimated to the College that the Ph.D. Programme in Entomology may be started from the next academic session 2020-21. Hence, the Agenda was placed before the Hon'ble Members of the Academic Council for kind approval.

Resolution:

The proposal was discussed by the Members of the Academic Council and it was approved to start from the next academic session 2020-21.

Agenda Item No. 6 (AC 21/6/2020) – Provision for pursuing Ph.D. Programme in constituent Colleges under CAU, Imphal.

Preamble:

There has been many requests for the SMS working in KVKs under CAU, Imphal and faculties of University to pursue Ph.D. Programmes in constituent Colleges under the University. If they are permitted, it will strengthen research and extension activity of the University. It is also highlighted that in other universities like Assam Agricultural University, Jorhat, faculties and KVK SMSs are allow to undergo Ph.D. programme in their University.

At present, University sponsored some limited number of faculties/SMS every year to undergo Ph.D. programme in the universities with which university has MoU with a condition that after completion of course work, research work will be carried out in their place of posting so that they can also enroll the student officially there. So far, there is no policy decision of the university that faculties/SMS of university who are willing to do Ph.D. in our university will be allowed or not.

Since our admission procedure for Ph.D. programme is open competitive admission, therefore SMS of our university may be allowed to appear our competitive examination for Ph.D. admission and if they are selected, they may be allow to undergo Ph.D. course in our university. The Agenda was placed before the Academic Council for deliberation and appropriate decision.

Resolution:

The proposal was discussed by the Members of the Academic Council and it was deferred.

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

N O T I F I C A T I O N

Imphal, the 27th December, 2019

Sub: Specific guidelines to undertake the course of Special Problems for PG & Ph.D. students in the CAU Academic Regulations, 2016.

No. CAU/Reg/UG&PG/Ch.AC(19)/[illegible]: In pursuance of the decision of the Academic Council recorded in its 20th Meeting held on 27.28.03.19 at College of Agril. Engg. & PHT, Barapani, Meghalaya under Agenda Item No. 20, the Vice Chancellor, CAU, Imphal is pleased to issue notification for incorporation of the following provisions under Clause No. 2.15(B)(iv) of words of CAU Academic Regulations 2016 for Master and Ph.D. Degree Programmes.

2.15 Plan of work

2.15.3 "The course of Special Problem will be offered by the Advisor of Student's Advisory Committee in the second semester or later. The student has to submit a brief synopsis of the work to be done through the Chairman of the Student's Advisory Committee to Dean within 30 days of offering the course. A final report on the special problem will be submitted by the student, in his/her hands, which will be sent to Dean along with the evaluation report indicating marks in prescribed format".

The above revised clause shall be applicable from the ensuing academic session 2019-20.

(Prof. K. Manorath Singh)
Registrar
Imphal, the 27th December, 2019

Memo No. CAU/Reg/UG&PG/Ch.AC(19)/[illegible]

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. Director of Instruction, CAU, Imphal for kind information
3. Dean, College of Agriculture, Imphal, Manipur / Veterinary Science & Animal Husbandry, Aizawl, Mizoram / Fisheries, Lembucherra, Tripura / Agril. Engg. & PHT, Ranipool, Sikkim / Horticulture & Forestry, Pasighat, Arunachal Pradesh / Post Graduate Studies in Agril. Sciences, Barapani, Meghalaya / Community Science, Tura, Meghalaya for kind information and further necessary action.
4. Guard File

(Prof. K. Manorath Singh)
Registrar

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL : MANIPUR

O R D E R
Imphal, 27th December, 2019

Sub: Proposal for Question Pattern in the theory examination of PG/Ph.D. final Term Examination.

No. CAU/Reg(1188)/GTB-AC(19)/ 8624 In pursuance of the decision of the Academic Council recorded in its 19th Mtg/Reg held on 27/06/2019 at College of Agril. Engg. & PHT, Ranipool, Sikkim under Agenda Item No. 48, the Hon'ble Chancellor, CAU, Imphal is pleased to issue orders as below:

"The standard question pattern for Theory Examinations of PG and Ph.D. Degree programme may be adopted as 20 percent objective type (0.5 marks each) on True/False and no choice), 20 percent Short Answer Type (2.5 marks each with choice for answering five questions) and 60 percent Descriptive/Long Answer Type Question (10 marks each with choice for answering four each)."

(Prof. K. Manglem Singh)
Registrar
Imphal, the 27th December, 2019

Memo No. CAU/Reg(1188)/GTB-AC(19)/ 8624-8653

Copy to:

1. Secy. to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal.
2. Director of Extension, CAU, Imphal for kind information and necessary action.
3. Dean, College of Agriculture, Tripura / Veterinary Sciences & Animal Husbandry, Aizawl, Mizoram / Fisheries, Tripura/ Horticulture & Forestry, Selesih, Aizawl, Mizoram/ Agril. Engg. & PHT, Ranipool,Sikkim/ Post Graduate Studies in Agril. Sciences, Barapani, Meghalaya / Community Science, Tura, Meghalaya for kind information and further necessary action.
4. Guard file.

(Prof. K. Manglem Singh)
Registrar

Agenda Item No. 16 (AC 17/6/2018)	Introduction of best Thesis award at the University level across all the disciplines in the Faculty of Agriculture.

Preamble:

Awards are always a source of encouragement. It is more so when it is due to academic excellence conferred at the young age with impartial judgment done in a transparent manner. A student doing excellent work in Central Agricultural University if goes out of the University with accurate appreciation and award, it will definitely help the student to excel in research in particular and in life and consequently will contribute immensely to the University as well as to the society at large.

Proposal: It is proposed that an award for the best thesis be started at the University level for M.Sc. and PhD. works judged by a committee of external experts after initial screening at the college level. The college level screening may be done by a committee of senior faculty from all the disciplines and a total of five theses will be selected for final evaluation by the external experts. A citation may be given to the awardee in the convocation.

The Board of studies discussed the proposal in details and recommended that best thesis award will be given for all schools and referred to Academic Council for approval.

Resolution: (AC 17/6/2018)

The Academic Council discussed the proposal in length and decided to constitute a committee to prepare the detail guidelines.

Agenda Item No. 17 (AC-17/7/2018)	Pre-Requisite Courses for Agri-Business Management in CPGS.

Preamble:

As the admission to ABM is taken from allied disciplines also, there is a requirement for offering pre-requisite course in order to equip the students to fundamentals of basic economics relevant to Management courses.

Proposal:

Keeping in view the importance of the pre-requisite courses, the same may be offered as non-credit courses to those students who did not take the subject during their B.Sc. Degree programme.

Sl. No.	Course Code and Title	Credit
1.	AGECON 241 Agricultural Marketing, Trade and Prices	3 (2+1)
2.	ABM (Elective)- Agri-Business Management	3 (2 + 1)

The Board of studies discussed the proposal in details and forwarded the matter to Academic Council for further approval.

Resolution: (AC-17/7/2018)

The Academic Council discussed the agenda and approved as proposed.

Agenda Item No. 28 (AC-17/8/2018)	Renaming of College of Post Graduate Studies as Post Graduate College in Agricultural Sciences (PGCAS)

Preamble:

As listed in the recommendation of Expenditure Management Committee (EMC) of CAU, Imphal (Sl. No. 01), the College of Post Graduate Studies is to be renamed as College of Post Graduate Studies in Agricultural Sciences and the matter is to be put up in the Board of Studies of the Faculty/Academic Council Meeting.

Proposal:

The College of Post Graduate Studies may be renamed as Post Graduate College in Agricultural Sciences (PGCAS) and not as College of Post Graduate Studies in Agricultural Sciences as recommended.

The Board of studies discussed the proposal in details and recommended that the name of the college should be College of Post Graduate Studies in Agricultural Sciences and matter may be put to Academic Council for further approval.

Resolution: (AC 17/8/2018)

The Academic Council discussed the agenda and approved as proposed.

Appendix-CPGSAS-B1

OFFICE ORDER

Dated, the 26th July, 2017

No. CAU/CPGS/Anti-Ragging/2013-[illegible] In pursuance of the "UGC Regulations on Curbing the Menace of Ragging in Higher Educational Institutions, 2009" the Anti-ragging Committee of the College of Post Graduate Studies, Central Agricultural University, Umiam is hereby re-constituted for the academic Session, 2017-18 in order to curb the menace

01.	Dr. R. G. Nagda, Dean	Chairman
02.	Deputy Commandant [illegible]	Member
03.	Registrar or Dy. Registrar or Superintendent of Police, [illegible]	Member
04.	[illegible]	Member
05.	Dr. V. K. [illegible]	Member
06.	Dr. P. K. [illegible]	Member
07.	Dr. K. K. [illegible]	Member
08.	Dr. B. K. [illegible]	Member
09.	Dr. [illegible]	Member
Representative of Non-Teaching Staff		
10.	Mr. [illegible]	Member
11.	Mr. [illegible]	Member
Representative of NCC/Scouts		
12	Mrs. [illegible], Chairperson, Child Welfare Committee, [illegible]	Member
Representative of parents of the students		
13.	To be nominated later	Member
Representative of the students		
14.	Ms. [illegible], B.Sc. Agril. 2nd Year	Member
15.	Mr. [illegible], B.Sc. Agril. 3rd Year	Member
16.	Mr. [illegible], M.Sc. 2nd Year	Member
17	Mr. [illegible], M.Sc. 2nd Year	Member
18	Mr. [illegible], Ph.D. 2nd Year	Member
19.	Mr. [illegible], PGDA 2nd Year	Member
20.	Dr. L. Dkhar, Student Welfare Officer	Nodal Officer

The Committee shall function as stipulated in UGC guidelines so as to ensure compliance with the provisions specified therein, to save for and oversee the performance of anti-ragging squad in prevention, of any act of ragging in the institution.

Memo No. CAU/CPGS/Committee/2012-13/ [illegible] Dated, the 26th July, 2017

Copy to:-

1. The PS to VC for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal.
2. The Deputy Commissioner, [illegible] for kind nomination of representative.
3. The Superintendent of Police, [illegible] for kind nomination of representative.
4. The Director of Instruction, CAU, Imphal, for kind information.
5. The Registrar, CAU, Imphal, for kind information.
6. All the concerned members for information and necessary action.
7. The Jr. Assistant, CPGS, CAU for information.
8. The Nodal Officer, Anti-Ragging Committee, CPGS, CAU, Umiam for needful action.

COLLEGE OF POST-GRADUATE STUDIES
(CENTRAL AGRICULTURAL UNIVERSITY, IMPHAL)
UMROI ROAD, UMIAM – 793 103 (MEGHALAYA)

OFFICE ORDER

Dated, the 3rd August, 2018

No. CAU/CPGS/Antiragging/2018-19/ : In pursuance to the "UGC Regulations on Curbing the Menace of Ragging in Higher Educational Institutions, 2009", the Anti-ragging Committee of the College of Post Graduate Studies, Umiam & College of Agriculture, Kyrdemkulai, Central Agricultural University(Imphal), Umiam is hereby re-constituted for the Academic Session, 2018-19 as under until further orders.

01.	Dr. R. B. Singh, Dean, CPGS	Chairman
02.	Dr. U.K. Behera, Dean, COA	Co-Chairman
03.	Representative of Superintendent of Police, Ri-Bhoi District	Member
04.	Dr. V.K. Choudhary, Chairman, SCI	Member
05.	Dr. R. K. Tonthang, Professor, Dr.SCT & Warden Girls' Hostel	Member
06.	Dr. P. K. Ram Prasad, Dr.NEH	Member
07.	Dr. Ram Singh, Professor, Dr.SSS	Member
08.	Dr. Sanjay Swami, Assoc. Prof. & Warden Boys' Hostel	Member
09.	Dr. N.P. Mehta, Dr. Academic, CPGS	Member
10.	Dr. L. Ramachandra Singh, Dr. Academic, COA	Member
Representatives of Non-Teaching Staff		
11.	Dr. Shewali G. Sing, Medical Officer	Member
12.	Mr. G. Ganeshan Thevar, Farm Assistant	Member
Representatives of general body of the students		
13.	Mr. Sahdev Mongia Rai	Member
Representatives of the students		
14.	Mr. Shekant Sharma, M.Sc. 2nd Year	Member
15.	Mr. Shantanu Gogoi, M.Sc. 2nd Year	Member
16.	Mr. Dipankar Borah, M.Sc. 1st Year	Member
17.	Mr. Hanky Chesky Bhutia, M.Sc.1st Year	Member
18.	Mr. Tr. Sajjalwa, B.Sc. 3rd Year	Member
19.	Mr. Sylvanus Sailo, B.Sc.3rd Year	Member
20.	Dr. L. Chandan, Student Welfare Officer	Nodal Officer

The Committee shall function as stipulated in UGC guidelines so as to ensure compliance with the provisions specified therein, to monitor and oversee the performance of anti-ragging squad in prevention of any act of ragging in the institution.

Memo No. CAU/CPGS/Antiragging/2018-19/ Dated, the 3rd Aug, 2018

Copy to:-

1. The PS to VC for kind information of Hon'ble Vice-Chancellor, CAU, Imphal.
2. The Superintendent of Police, Ri Bhoi District, Nongpoh for kind nomination of representative.
4. The Director of Instruction, CAU, Imphal, for kind information.
5. The Registrar, CAU, Imphal, for kind information.
6. All the concerned members for information and necessary action.
7. The Nodal Officer, Anti-Ragging Committee, CPGS, CAU, Umiam for needful action.
8. Notice Board.

COLLEGE OF POST-GRADUATE STUDIES
(CENTRAL AGRICULTURAL UNIVERSITY, IMPHAL)
UMROI ROAD, UMIAM – 793 103 (MEGHALAYA)

OFFICE ORDER

Dated, the 6th August, 2019

No. CAU/CPGS/Anti-ragging/2016-17/[illegible] : In pursuance to the UGC Regulations on Curbing the Menace of Ragging in Higher Educational Institutions, 2009, the Anti-ragging Committee of the College of Post Graduate Studies, Central Agricultural University (Imphal) is hereby re-constituted for the Academic Session, 2019-20 as under and further orders.

11.	Dr. K. H. Singh, Dean	Chairman
12.	Representative of Superintendent of Police (Civil), Ri-Bhoi District	Member
13.	Dr. V.K. Chaturvedy, Chairman, SCI	Member
14.	Dr. K. K. Tamuluwas Devi, Professor, Dy. SCP	Member
15.	Dr. P. K. Bora, Professor, Dy. SSW	Member
16.	Dr. Ram Singh, Professor, AC, SSS	Member
17.	Dr. Bikash Sah, Assoc. Prof., Warden Girls' Hostel	Member
18.	Dr. N.T. Meena, Asst. Prof., AC Academics	Member
Representative of Non-Teaching Staff		
19.	Dr. Hemen C. Sarma, Medical Officer	Member
20.	Mr. B.K. Singh, Junior Engineer	Member
Representative of parents of the students		
21.	Mr. Ershad Khatib	Member
Representative of the students		
22.	Mr. Biswas Anand, M.Sc. 2nd Year	Member
23.	Ms. Gyana Tuki, M.Sc. 2nd Year	Member
24.	Mr. Sarthak R, M.Sc. 2nd Year	Member
25.	Ms. P. Sai Priyanka, M.Sc. 2nd Year	Member
26.	Mr. Debanlang Warisang, M.Sc. 1st Year	Member
27.	Ms. Chandra Thakchom, M.Sc. 1st Year	Member
28.	Dr. L Dhanaraj, Student Welfare Officer	Nodal Officer

The Committee shall function as stipulated in UGC guidelines so as to ensure compliance with the provisions specified therein, to monitor and oversee the performance of anti-ragging squad in prevention of any act of ragging in the institution.

Memo No. CAU/CPGS/Anti-ragging/2016-17/[illegible] Date, the 6th Aug, 2019

Copy to :-

1. The PS to VC for kind information of Hon'ble Vice-Chancellor, CAU, Imphal.
2. The Superintendent of Police, Ri-Bhoi District, Nongpoh for kind nomination of representative.
3. The Director of Instruction, CAU, Imphal, for kind information.
4. The Registrar, CAU, Imphal, for kind information.
5. All the concerned members for information and necessary action.
6. The Nodal Officer, Anti-Ragging Committee, CPGS, CAU, Umiam for record.

Dean

COLLEGE OF POST-GRADUATE STUDIES
(CENTRAL AGRICULTURAL UNIVERSITY IMPHAL)
UMIAM ROAD, UMIAM – 793 103 (MEGHALAYA)

OFFICE ORDER

Dated, the 3rd August, 2018

No. CAU/CPGS/Anti-ragging/2018-19/[illegible] : In pursuance to the "UGC Regulations on Curbing the Menace of Ragging in Higher Educational Institutions, 2009", the Anti-Ragging Squads of the College of Post Graduate Studies, Umiam and College of Agriculture, Kyrdemkulai, Central Agricultural University, Tripura, Umiam is hereby constituted for the Academic Session 2018-19 with the following staff for keeping constant vigil, patrolling and to remain alert in order to avoid any instances of ragging in the College campus.

Sl. No.	Dr. U.S. Behera, CSKHPKV	Chairman, Anti-Ragging Squads
	Anti-Ragging Squad in collaboration with Hall Administration	
01.08.18	Dr. Sanjay Swain	Dr. P.K. Kondakar Singh	Mr. Ramkrishna Sharma
02.08.18	Dr. Sanjay Swain	Dr. P.K. Kondakar Singh	Mr. Ramkrishna Sharma
06.08.18	Dr. Sanjay Swain	Dr. Ranjan K. Deka	Mr. Balakumar Sharma
09.08.18	Dr. S. Bhakuni	Dr. Ramesh C. Deka	Dr. Yogendra Singh
10.08.18	Dr. S.J. Nongkynrih	Ms. L. Bio Bulu	Mr. Edgar Lamin Singh
20.08.18	Dr. Bikram Singh	Ms. L. Bio Bulu	Mr. Edgar Lamin Singh
30.08.18	Dr. K. Lenin Singh	Ms. L. Kanthoibi	Mr. Rajat Saini
23.08.18	Dr. Mukesh Sai	Dr. Binod Kr. Deka	Mr. Rajat Saini
31.08.18	Dr. Akhilesh Lal	Dr. Binod Kr. Deka	Mr. Rajat Saini
13.08.18	Dr. Sher Singh	Dr. L.D. Kannan	Mr. A. Jawahar Singh
22.08.18	Dr. Ram Singh	Dr. L.D. Kannan	Mr. A. Jawahar Singh
24.08.18	Dr. Sanjay S.	Dr. L.D. Kannan	Mr. A. Jawahar Singh
31.08.18	Dr. Sanjay S.	Mr. Brijesh Ram Meena	Mr. Dr. Pankaj Lal Meena
07.08.18	Dr. S. Harish Singh	Mr. Jagannatha Mishra	Mr. Dr. Pankaj Lal Meena
18.08.18	Dr. S. Harish Singh	Mr. Jagannatha Mishra	Mr. Dr. Pankaj Lal Meena
15.08.18	Dr. L. Ramachandra	Ms. Sapna Sharma	Er. K.K. Mishra
03.08.18	Dr. Lakshmikant Jha	Ms. Sapna Sharma	Er. K.K. Mishra
21.08.18	Dr. Jayanta Kumar Das	Ms. Sapna Sharma	Er. K.K. Mishra
03.08.18	Dr. P. Singh	Dr. Binod Kr. Deka	Mr. Gopal Ji Sahu
29.08.18	Dr. P. Singh	Dr. Binod Kr. Deka	Mr. Gopal Ji Sahu
06.08.18	Dr. P. Singh	Dr. Akhilesh Lal	Mr. Rajat Saini
28.08.18	Dr. S.M. Hussain	Dr. Bikram Singh	Dr. N.C. Singh
10.08.18	Dr. S.M. Hussain	Mr. Dr. Angka Sema	Dr. N.C. Singh
24.08.18	Dr. S.M. Hussain	Mr. Dr. Angka Sema	Dr. N.C. Singh
27.08.18	Dr. Rajeev Singh	Mr. Dr. Angka Sema	Mr. Dr. Pankaj Lal Meena
20.08.18	Dr. Rajeev Singh	Mr. L. Bio Bulu	Mr. Dr. Pankaj Lal Meena
30.08.18	Dr. Sanjay S.	Dr. Arup Chowdhury	Mr. Dr. Pankaj Lal Meena
11.08.18	Dr. Th. Robert Singh	Dr. Arup Chowdhury	Mr. Dr. Pankaj Lal Meena
08.08.18	Dr. Th. Robert Singh	Dr. J. Bharali	Mr. Dr. Pankaj Lal Meena
02.08.18	Dr. P.K. Rout	Dr. J. Bharali	Mr. Dr. Pankaj Lal Meena
16.08.18	Dr. P.K. Rout	Dr. J. Bharali	Mr. Dr. Pankaj Lal Meena

All the wardens of the Boys' and Girls' Hostels are requested to remain vigilant and alert to the students during the period. The squad members are requested to make surprise visit in hostels and other hot spots of ragging. The squad members and invited members are also requested to immediately report any act of ragging to the Anti-Ragging Committee for taking necessary course of action.

(Dean)
Umiam, the 3rd Aug 2018

Memo No. CAU/CPGS/Anti-ragging/2018-19/[illegible]

Copy to:

1. The Hon'ble VC for kind information of Hon'ble Vice-Chancellor, CAU, Imphal.
2. The Director of Instruction, CAU, Imphal, for kind information.
3. The Registrar, CAU, Imphal, for kind information.
4. All the concerned members for information and necessary action.
5. The Nodal Officer, Anti-Ragging Committee, CPGS, CAU, Umiam for needful action.

(Dean)

Appendix-CPGSAS-B2

COLLEGE OF POST-GRADUATE STUDIES

(CENTRAL AGRICULTURAL UNIVERSITY)

[illegible]

[illegible]

OFFICE ORDER

Dated, the 1st April, 2013

No. CAU/CPGS/Committees/2012-13/[illegible] In continuation to this office order No. CAU/CPGS/Committees/2012-13/[illegible], dated [illegible] March, 2013, on the orientation of certain committees, this is to further convey the constitution of the Internal Complaints Committee which would be consisting of the following members:

1. Dr. Wrichu Tyagi	Chairperson
2. Mr. Lalita Nath	Member
3. Dr. Hemi Mekenda	Member
4. Student' Welfare Officer	Member
5. Military M. Sylem	Member
6. Mr. Tilottoy Nath	External Member

Terms of Reference:

1. Preventive and redressal of complaints of harassment of women at workplace.
2. To ensure a safe, free and peaceful working environment for women.
3. To meet periodically to consider issues on the prevalence of grievances related to gender issues.

During the absence of the Chairperson, the responsibility of holding that charge will automatically be vested with the member next in order so as to avoid any slackness in the safe performance of the Committee's / Cells.

The order will come into force from 1st April, 2013 and will remain effective until it is superseded by relevant orders in that regard.

All the members are requested to kindly comply.

In-charge Dean

Memo No. CAU/CPGS/Committees/2012-13/[illegible] Dated, the 31st March, 2013

Copy to:-

1. The Secretary to Vice-Chancellor, for kind information to the Hon'ble Vice-Chancellor, CAU, Imphal.
2. All Chairmen & members of the Committee for necessary action.
3. All the In-charges of Cells for information.
4. All faculty for information.

In-charge Dean

स्नातकोत्तर कृषि विज्ञान महाविद्यालय
(केंद्रीय कृषि विश्वविद्यालय, इम्फाल)
लामलाई, इम्फाल- ७९५००४
College of Post Graduate Studies in Agricultural Sciences
(Central Agricultural University, Imphal)
Lamalai, Imphal-795004
E-mail: deancpgs@gauimphal.ac.in, deancpgs-mn@gov.in
Telefax : 0364-2570650

OFFICE ORDER

Dated, 11th February, 2021

No. CAU/CPGSAS/ICC/2020-21/ : In supersession of the previous order, the **External Complaint Committee** has been reconstituted with the following members and terms and conditions.

1.	Dr. Lenkham Devanand, Assoc. Prof.	**Chairperson**
2.	Dr. Reyani Sen, Asstt. Prof.	Faculty Member
3.	Dr. Brojala Laloo, Asstt. Prof.	Faculty Member
4.	Ms. Ramolarai M. Marbaniang	Member- Non-teaching
5.	Mrs. Durlin Kharsyntiew	Member- Non-teaching
6.	Ms. Balarisha Lyngdoh, (NGO- Keeping Her Nature's Gift)	External Member

Terms of References:

1. Prevention and redressal of complaints of harassment of women at work place
2. To ensure a safe, ideal and peaceful working atmosphere for women
3. To meet periodically to sensitize women on the provisions for redressal of grievances related to gender issues.
4. The duration of the committee will be for 3 (three) years.

(P. K. Dora)
Dean In-charge

No. CAU/CPGSAS/ICC/2020-21/ 512-5 **Dated 11th February, 2021**

Copy to:

1. The A.R. (Est), CAU for kind information of the Hon'ble Vice-Chancellor, CAU, Imphal
2. The Director of Instruction, CAU, Imphal for kind information.
3. The Registrar, CAU, Imphal for kind information.
4. The concerned members for information and necessary action.
5. All Schools/Section In-charges for information.
6. Guard file.

(P. K. Dora)
Dean In-charge

COLLEGE OF POST-GRADUATE STUDIES
(CENTRAL AGRICULTURAL UNIVERSITY)
UMROI ROAD, UMIAM – 793 103 (MEGHALAYA)

No. CAU/CPGS/Estt-16/13-94/1956 Dated: 4th February, 2013

OFFICE ORDER

As per the order No. CAU/Reg/326/Misc-TS/2013/375 Dated 1st February, 2013 of the Registrar, CAU, the following Dedicated Taskforce is constituted with immediate effect for ensuring the safe working environment for women employees and girl students of the college:

1. Dr. R. J. Ravindra, Dean – Chairman
2. Dr. V. K. Khanna, Chairman SCI – Member
3. Dr. P.K. Bora, Assoc. Prof. NRM – Member
4. Dr. Nivedita Tyagi, Assoc. Prof. SCI – Member
5. Ms. Lorina Syiemlieh, Sr. Library Asstt. – Member
6. Ms. Julie Sawkar Yvonne – Student Representative Member
7. Dr. Dipali Majumdar, Assoc. Prof. SCP – Convener

1. The mandate of the committee is to meet every month to collect feedback information on the safety and accessibility of the environment for women employees and girl students.
2. Recommend proposals for improving gender based facilities and security for the lady staff and students.
3. Regarding the movement of students and visitors to the Girls' Hostel.

(R.J. Ravindra)
Dean

Copy to:

- Individuals with the copy of the letter from the Registrar, CAU, Imphal.
- Registrar, CAU, Imphal for information.
- P.A. to Hon'ble V.C., CAU, Imphal, for information.
- Guard File.
- Assistant Registrar (Estt/Hostels), CPGS, CAU, Umiam.
- Warden (Boys and Girls Hostel), CPGS, CAU, Umiam.

(R.J. Ravindra)

SELF STUDY REPORT
for degree accreditation
MSc. (Ag)
Soil Science and Agricultural Chemistry

College of Post Graduate Studies in Agricultural Sciences
Central Agricultural University (Imphal)
Umiam, Umroi Road, Meghalaya - 793 103

Telefax: 0364-2570030
e-mail: dean.cpgsas@cau.ac.in/deancpgs@gmail.com website: www.cpgsas.ac.in

	Particulars
1.	Sections 6.4
2.	Sections 6.4.2 to 6.4.3
3.	Section 6.4.4 to Section 6.4.6
4.	Section 6.4.7 to 6.4.8
5.	Section 6.4.9 to Section 6.4.12

6.4. **Self-Study Report for MSc. (Ag) Soil Science and Agricultural Chemistry Programme**

6.4.1. Brief History of the Degree Programme

The North Eastern India is experiencing rapid population growth which has crossed 45 million mark. In order to attain economic, food and nutritional security, it is imperative to impart quality agricultural education and have sustained agricultural development in the states of northeastern region. This region is constrained by lack of adequate infrastructure, low productivity, inadequate marketing and lack of knowledge on modern farm technologies. With this genesis in background, the Central Agricultural University, Imphal established the College of Post Graduate Studies in Agricultural Sciences (**CPGSAS**) at Umiam, Meghalaya on 21st December, 2006.

MISSION of CPGSAS is to achieve excellence in teaching, research and extension education in the field of agriculture.

MANDATES of CPGS are:

1) to impart postgraduate education in different branches of Agriculture,
2) to further the advancement of learning and prosecution of research in Agriculture, and
3) to undertake such others activities as it may deem fit, from time to time, to uplift the socioeconomical status of farmers in the North Eastern Region.

Objectives of CPGS are:

1) To produce globally competitive postgraduates in the field of agriculture
2) To develop robust agricultural technologies to help Indian farming systems, particularly in the northeastern region of India to be sustainable and profitable, and
3) To transform agriculture and allied activities into profitable enterprises and thereby create food and nutritional security for people of northeastern region of India.
4) The postgraduates of CPGS who are educated and trained in recent advances in agriculture and allied sciences, are expected to bring about a quantum change in the agricultural research and development systems in their respective states and also contribute towards strengthening the National Agricultural Research System.

The MSc. degree program in Soil Science and Agricultural Chemistry currently running at CPGSAS is a 2 years full-time master's program following the ICAR course curriculum and has been offered at School of Natural Resource Management since 2009.

In the last five years (2016-17 upto 2020-21) a total number of 23M.Sc students have passed out. The research work has led to several publications. The details of which are given below:

FULL length RESEARCH PAPERS

Ray, L.I.P., Bora, P.K., Singh, A.K., Ram, V., Singh, R. and Feroze, S.M. (2019) Dry and Wet spell Rainfall probabilities in planning rice based cropping system of Meghalaya. *Journal of Agrometeorology*, 21 (Special issue -"NASA 2014" part-III): 8-17.
Gurjar, G.N. and Sanjay-Swami. 2019. Climate change impacts in Rajasthan: A mitigation approach. Int. J. Chem. Studies, 7(3): 902-905. (ISSN: 2349-8528)
Gurjar, G.N. and Sanjay-Swami. 2019. Impacts of irrigation and rainfall on agricultural production under climate change. Int. J. Chem. Studies, 7(3): 750-752. (ISSN: 2349-8528)

Gurjar, G.N. Ram V. and Swami, S. 2019. Effect of organic mulches and planting date on soil chemo-biological properties and economics of rice-potato system in Meghalaya: A review. International Journal of Chemical Studies. 7(2): 779-783. (ISSN: 2349-8528)

Sailo, V. and Sanjay-Swami. 2019. Performance of pea (*Pisum sativum* L.) with residual phosphorus in phytoremediated heavy metal polluted soil of Jaintia hills, Meghalaya. *Int. J. Chem. Studies,* 7(3): 3270-3273. (ISSN: 2349-8528)

Sanjay-Swami and Konyak, Chingak P.W. 2020. Soil properties and productivity of cabbage (Brassica oleracea L. var. capitata) under integrated nutrient management system in acid Inceptisol of Meghalaya. Int. J. Chem. Studies, 8(2): 2131-2137. (ISSN: 2349-8528)

Sanjay-Swami, Maurya, A. and Yadav, O.S. 2019. Towards oilseeds sufficiency in North Eastern Hill Region of India: Augmenting oilseed production in acid soils. Int. J. Chem. Studies, 7(2): 768-772. (ISSN: 2349-8528)

Sanjay-Swami. 2020. Soil health management under organic production system. Int. J. Chem. Studies, 8(2): 330-339. (ISSN: 2349-8528)

Satya, M.S.S.C. and Sanjay-Swami. 2020. Response of black gram (Vigna mungo L. Hepper) to phosphorus and boron fertilization in acidic soil of Meghalaya. Int. J. Chem. Studies, 8(4): 3344-3348. (ISSN: 2349-8528)

Saplalrinliana, H., Thakuria, D., Changkija, S. and Hazarika, S. 2016. Impact of Shifting Cultivation on Litter Accumulation and Properties of Jhum Soils of North East India. J. of the Ind. Soc. of Soil Sci., 64(4): 402-413. (ISSN: 0019-638X)

Surchand-Singh, K., Hazarika, S., Thakuria, D., Bordoloi, L.J. and Deka, B.C. 2017. Long-term Management Impact on Soil Quality under Peach (Prunus persica L.) Orchard in Humid Subtropics of Eastern Himalayas. J. of the Ind. Soc. of Soil Sci., 65(4): 401-409. (ISSN: 0019-638X)

Hazarika, S., Nabam, A., Thakuria, D., Kataki, S. and Krishnappa R. 2020. Lime equivalence of organic manures and scope of their utilization as acid soil amendments. Archives of Agronomy and Soil Science, doi: 10.1080/03650340.2020.1749266 A267 & 7.68. (ISSN: 0365-0340)

Korav, S, Ram V., Krishnappa R and Premaradhya, N. 2020. Agro-physiological assessment of weed interference in groundnut (*Arachis hypogea* L.) at Sub-Himalayan hill region of Meghalaya. *Bangladesh J. Bot.* 49(2): 313-327.

Wanshnong, R.K., Thakuria, D, Sangma, C.B., Ram, V., Bora, P.K. (2013). Influence of hill slope on biological pools of carbon, nitrogen, and phosphorus in acidic alfisols of citrus orchard. Catena 111(2013)1-8.

Lyngdoh, M.S., Singh, N. J., Thakuria, D., Ram,V., Ray, L.I.P. and Singh. K. M. 2020. Soil Acidity Indices, Nutrient Availability and Plant Growth through Amelioration Practices in Adjacent Coal-mine Paddy Soil. Current J. of App. Sci. and Tech., 39(7): 7-19. (ISSN:2457-1024)

Dey, K.K., Talukdar, N.C., Nongkhlaw, F.M.W. and Thakuria D. 2018. Isolation, characterization and practical significance of cellulose degrading bacteria from the gut wall of two ecologically distinct earthworms. *Cur. Sci.*, 114 (7): 1474-1484.(ISSN: 0011-3891)

Hazarika, S., Sohliya, B., Thakuria, D., Kataki, S., Krishnappa, R. 2021. Influence of organic amendments on acidic soil responsive crop groundnut (Arachishypogaea L.). *Environmental Progress and Sustainable Energy*, 313-592. Doi.org/10.1002/ep.13592 E088& 7.60. (ISSN:1944-7442)

E Thokchom, D Thakuria, MC Kalita, CK Sharma, NC Talukdar (2017) Root colonization by host-specific rhizobacteria alters indigenous root endophyte and rhizosphere soil bacterial communities and promotes the growth of mandarin orange. *European journal of soil biology* 79, 48-56.

Kumar, R., Luikham, E., Babu S. and Singh. A.K. 2017. Productivity, nutrient acquisition and economics of summer maize (Zea maize) under various levels of phosphorus and potash in valley lands of Manipur. *Indian J. of Agri. Sci.* 87(11): 1572-1574.(ISSN:0019-5022)

Singh, S. and Sanjay-Swami. 2020. Temporal soil fertility with nitrogen sources in acidic soil of Meghalaya. Indian J. of Agri. Sci., 90(3): 669-671. (ISSN: 0019-5022)

Telkar, S.G. and Singh, A.K. 2018. Productivity, profitability and soil bio chemical properties in maize and soybean intercropping as influenced by population proportion of component crops. Indian J. Agric Sci. 88(3): 458-62. (ISSN:0019-5022)

Bamon, M., Majumder, D., Thakuria, D. and Rajesh T. 2018. In Vitro Efficacy of Bacterial Endophytes against Pythium sp. Causing Soft Rot of Ginger in Meghalaya. *Int. J. Curr. Microbiol. App. Sci.,* 7(8): 367-374. (ISSN: 2319-7692)

Gurjar, G.N. and Sanjay-Swami. 2019. Enhancement of carbon sequestration in soils under climate change scenario in India. *Int. J. Curr. Microbiol. App. Sci.,* 8(2): 714-721. (ISSN: 2319-7692)

Gurjar, G.N., Sanjay-Swami and Meena, N.K. 2018. Effect of age of seedling and number of seedlings per hill on growth and yield of low land rice cultivation in Asia – A review. Int. J. Curr. Microbiol. App. Sci. 7(6): 3751-3760. (ISSN: 2319-7692)

Konyak, Chingak P.W. and Sanjay-Swami. 2018. Effect of organic and inorganic nutrient sources on yield, quality and nutrient uptake by cabbage (*Brassica oleracea* L. var*capitata)* in acid Inceptisol. *Int. J. Curr. Microbiol. App. Sci.,* 7(7): 3035-3039. (ISSN: 2319-7692)

Korav, S., Ram, V., Ray, L.I.P., Krishnappa, R., Singh, N.J. and Premaradhya, N. 2018. Weed Pressure on Growth and Yield of Groundnut (*Arachishypogaea*L.) in Meghalaya, India. *International Journal of Current Microbiology and Applied Sciences* 7(3): 2852-2858. (ISSN- 2319-7706)

Lyngdoh, E.A.S. and Sanjay-Swami . 2018. Phytoremediation effect on heavy metal polluted soils of Jaintia Hills in North Eastern Hill Region. Int. J. Curr. Microbiol. App. Sci., 7(11): 1734-1743. (ISSN: 2319-7692)

Sanjay-Swami. 2020. Soil microbes for securing the future of sustainable farming. Int. J. Curr. Microbiol. App. Sci., 9(04): 2687-2706. (ISSN: 2319-7692)

Singh, S., Sanjay-Swami and Gurjar, G.N. 2018. Effect of nitrogen application through urea and Azolla on growth and biological yield of rice (Oryza sativa L.) in acidic soil of Meghalaya. Int. J. Curr. Microbiol. App. Sci., 7(7): 3135-3140. (ISSN: 2319-7692)

Yadav, O.S. and Sanjay-Swami . 2019. Performance of tomato (Solanum lycopersicum L.) in acid soil under integrated nutrient management with biochar as a component. Int. J. Curr. Microbiol. App. Sci., 8(05): 793-803. (ISSN: 2319-7692)

Zothansiami, C. and Thakuria, D. 2020. Effect of Burning, Cropping and Synthetic Microbial Community Inoculation on Soil Enzyme Activities in 5 Year Jhum Cycle. Int. J. Curr. Microbiol. App. Sci. 9(2): 2872-2884. doi.org/10.20546/ijcmas.2020.902.327. I201& 5.3.8. (ISSN: 2319-7692)

Chanu P.H., Bora, P.K., Thakuria D. and V Ram. 2019. Influence of land use type on different aggregating elements of acidic soil of Meghalaya, India. *International Journal of Chemical Studies* 7(1): 1819-1823. (ISSN: 2349-8528)

Challam, L.L., Singh, N.J., Debbarma, K., Ray, L.I.P., Swami, S. 2016. Effect of topographical Settings on Distribution of Soil Organic Carbon Fractions in Rice Ecosystem of North East India. *International Journal of Ecology and Environmental Sciences* 42(S): 129-135. (ISSN: 0377-015X; 2320-5199)

Kusre, B.C., Bora, P.K., Rai, D. and Gajmer,L. 2020. Assessing water footprint of large cardamom and developing management strategies in Sikkim, India. Irrigation and Drainage, 1-10. doi: 10.1002/ird.2503. (ISSN:1531-0353)

Gogoi, M., Ray, L.I.P., Swami, S., Kant, K. and Meena, N.K. 2020. Performance of potato variety KufriMegha under different irrigation scheduling and date of planting at North Eastern Indian mid hills. *J. of Environmental Biology* 41(6): 1605-1610. doi: http://doi.org/10.22438 /jeb/41 /6/SI-225 (ISSN:0254-8704)

Lyngdoh, E.A.S. and Sanjay-Swami. 2020. Potential screening of phytoremediating crops and performance of maize in phytoremediated coal mined acid soil with phosphorus application. Journal of Environmental Biology, 41 (6): 1788-1797. (ISSN: 0254-8704)

Sailo, V. and Sanjay-Swami. 2021. Performance of pea (Pisum sativum L.) with residual phosphorus in phytoremediated heavy metal polluted soil of Jaintia Hills, Meghalaya. Journal of Environmental Biology, 42 (2): 428-437. (ISSN: 0254-8704)

Sanjay-Swami and Singh, S. 2020. Effect of nitrogen application through urea and Azolla on yield, nutrient uptake of rice and soil acidity indices in acidic soil of Meghalaya. Journal of Environmental Biology, 41 (1): 139-146. (ISSN: 0254-8704)

Satya, M.S.S.C. and Sanjay-Swami. 2021. Performance of black gram (Vigna mungo L. Hepper) under phosphorus and boron fertilization in acid Inceptisol of Meghalaya. J. of Env. Biology, 42 (2): 534-543. (ISSN: 0254-8704)

Yadav, O.S., Sanjay-Swami and Sowjanya, T.V. 2020. Impact of biochar on nutrient uptake by tomato, residual soil properties and acidity indices in acid Inceptisol of Meghalaya. Journal of Environmental Biology, 41 (6): 1761-1773. (ISSN: 0254-87042)

Das J., Sultana S., Krishnappa R., Kalita M.C. and Thakuria D. 2020. Endophyte Bacteria Alter Physiological Traits and Promote Growth of Rice (Oryza sativa L.) in Aluminium Toxic and Phosphorus Deficient Acid Inceptisols. *J. Pure Appl. Microbiol.*, 14(1): 627-639. doi.org/10.22207/JPAM.14.1.65.

Kant, K, Bora, P.K. and Saikia, Uday. (2018) Calibration of DSSAT-CERES-Rice model for rice cultivars under different N-levels in Meghalaya, India. *J.Agromet*20(4): 322-324.

Tahashildar. M., Bora, P.K., Ray, L.I.P. and Thakuria, D. 2017. Comparison of different reference evapotranspiration (ET_0) models and determination of crop-coefficients of french bean (*Phesiolus vulgaris*.) in mid hill region of Meghalaya. *Journal of Agrometeorology* 19 (3): 233-237. (ISSN:0972-1665)

Karav, S., Ram, V. and Ray, L.I.P. 2020. Critical period for crop-weed competition in groundnut (Arachishypogaea L.) under mid altitude of Meghalaya. *Journal of Crop and Weed* 16 (1): 217-222. (ISSN: 0974-6315)

Sanjay-Swami and Maurya, A. 2018. Critical limits of soil available phosphorous for rapeseed (Brassica Compestris var. Toria) growing acidic soils of Meghalaya, Journal of Experimental Biology and Agricultural Sciences, 6(4): 732-738.

Gupta, R., Rai, A.P. and Sanjay-Swami. 2019. Soil enzymes, microbial biomass carbon and microbial population as influenced by integrated nutrient management under onion cultivation in sub-tropical zone of Jammu. *Journal of Pharmacognosy and Phytochemistry,* 8(3): 194-199. (ISSN:2349-8234)

Gurjar, G.N. and Sanjay-Swami. 2019. Sustainable management of soils under climate change: Mitigation approach. Journal of Pharmacognosy and Phytochemistry, 8(2): 1937-1941. (ISSN: 2349-8234)

Kurkalang, S.M. and Singh, A.K. 2020. Maize+Legume intercropping response to different levels of nitrogen. *J. of Pharmacognosy and Phytochemistry* 9(1): 2214-2219. (ISSN:2349-8234)

Lyngdoh, D.D., Singh, A.K., Ray, L.I.P. and Rangappa, K. 2020. Effect of planting pattern of intercropped legumes (Soybean, groundnut and mungbean) on yield and nutrient uptake of legumes from the intercropping system at mid altitude of Meghalaya. J. of Pharmacognosy and Phytochemistry; 9(2): 2137-2140. (ISSN:2278-4136)

Sanjay-Swami and Konyak, Chingak P.W. 2020. Soil dehydrogenase enzyme and microbial biomass carbon as influenced by integrated nutrient management under cabbage cultivation in acid Inceptisol of Meghalaya. *Journal of Pharmacognosy and Phytochemistry*, 9(2): 1638-1642. (ISSN:2349-8234)

Telkar, S.G. and Singh, A. K. 2018. Determination of effective spatial arrangement for intercropping of maize + soybean using dry matter yield and competition interaction. Journal of Pharmacognosy and Phytochemistry, 7(4): 2239-2245. (ISSN:2349-8234)

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List of MSc. (Soil Science and Agricultural Chemistry) theses submitted (2016-2021)

Name of the student	Year of passing	Thesis Title
Mr. Bondre Vaibhao Uttam	2016	Evaluation of Soil Test Methods for Available Zinc in Acidic Soils
Ms. E. Precila Patton	2016	Formulation of Liquid Biofertilizer Using Multifaceted Plant Growth Promoting Microbial Consortium
Ms. Labuhty Giri Mawlong	2016	Soil Biochemical Properties Under Nutrient Management Regimes in Acid Soil
Ms. Thungjano Tsopoe	2016	Aluminum, Phosphorus and Lime Interaction on Pea (*Pisum sativum* L.) in Acid Soil
Mr. Bhukya Naresh	2017	Aluminum Toxicity Tolerance of Maize (*Zea mays* L.) Cultivars of North East India
Mr. Alok Maurya	2017	Critical Limits of Available Phosphorus for Rapeseed (*Brassica campestris* var. *toria*) Growing Acidic Soils of Meghalaya
Mr. Basant Tamang	2017	Effect of Phosphorus and Sulphur on Nutrient Uptake of Black Gram (*Vigna mungo* L. Hepper) in Acid Inceptisol
Mr. Manjunatha R.L.	2017	Effect of Fallow Age of Jhum on Soil Properties in West Garo Hills District, Meghalaya
Mr. Techi Tagung	2017	Rhizosphere Based Phosphorus Management for Broccoli Grown in Acid Soil
Ms. Bidisha Borpatragohain	2018	Phosphorus Fixation Capacity and Release Pattern in Dominant Soil Orders of North East India
Mr. Chingak PW Konyak	2018	Effect of Organic and Inorganic Nutrient Sources on Performance of Cabbage (*Brassica oleracea* L. var*capitata*) in Inceptisol
Mr. Manish Olaniya	2018	Development of Soil Erodibility Index Map for Ri-Bhoi District of Meghalaya
Ms. Pukhrambam Helena Chanu	2018	Land use Effects on Aggregation of Acid Soils under Humid Sub-Tropics
Ms. Shamulaitpam Shidayaichenbi Devi	2018	Screening of Rice Endophytes for ACC-deaminase Activity and Rice Growth Promotion Under Acidity Stress
Mr. Shubham Singh	2018	Effect of Nitrogen Application through Urea and Azolla on Growth, Yield of Rice (*Oryza Sativa* L.) and Temporal Soil Phosphorus Availability
Mr. Libi Robin P.	2019	Comparison of Infiltration Models for Suitability on Hilly Slopes-
Mr. Oguboyana Srikanth Yadav	2019	Biochar as Component of Integrated Nutrient Management and its Significance in Tomato (*Solanum lycopersicum*L.) Productivity in Acid Soil
Ms. Sowjanya T. V.	2019	Temporal Soil Nitrogen Availability and its Influence on Rapeseed (*Brassica campestris* L.) Under Varying Nitrogen Sources

Ms. VanlalmalsawmiSailo	2019	Performance of Pea (*Pisum sativum* L.) under Phytoremediated Heavy Metal Polluted Soil with Residual Phosphorus
Ms. Muddana Sri Sai Charan Satya	2020	Response of Black Gram (*Vigna mungo* L. Hepper) to Phosphorus and Boron Fertilization and their Temporal Availability in Acid Inceptisol
Ms. Shilpi Gupta	2021	Dynamics of Soil Nitrogen and Phosphorus vis-à-vis Nutrient Regimes in Lowland Rice Field
Ms. Narang Ampi	2021	Development of Soil Physico-Chemical Quality Index of Rice-Fish Farming System in Apatani Plateau
Ms. Anindita Das	2021	Assessment of Soil Biochemical Quality Indices of Rice-Fish Farming System in Apatani Plateau

6.4.2. Faculty Strength

S.No.	Sanctioned Faculty	Faculty in place#	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	4	Nil	1
2.	Associate Professor	1	1	2
3.	Assistant Professor	2	1	3

* Assistant professor (#1) promoted to Assoc. Professor and three associate professors promoted to Professor level.

For School of Natural Resource Management ie., Agronomy and Soil Science & Agricultural Chemistry. Additionally, Scientists from ICAR are recognized as faculty by the academic council and as per MOU.

6.4.3.Technical and Supporting staff

Sl. No.	Name of post sanctioned	No. of post sanctioned	Filled position
1	Livestock/Farm Assistant	2	1
2	Clerk-cum-Typist/LDC/UDC	1	-
3	Field-cum-Lab. Assistant	2	1
4	MTS	4	2
Grand total		**9**	**6**

For School of Natural Resource Management ie., Agronomy and Soil Science & Agricultural Chemistry.

6.4.4. Classrooms and Laboratories: 5 Classrooms, 1 Seminar and 1 conference room attached with LCD Projector are available. Following labs are available

1. Analytical Lab
2. Biogeochemistry Lab
3. Microbial Ecology Lab
4. GIS and Remote Sensing Lab
5. Hydraulics lab
6. Biofertilizer production unit

List of equipments and facilities available are as mentioned

S.N.	Particulars of Asset	Quantity
1	Auto Loop Sterilizer, Make: Himedia,	1 no.
2	Microwave Oven, Samsung-32 ltrs. Model No. CE117ALF	1 no.
3	Conductivity Meter Cyberscan 510, Eutech make	1 no.
4	Colony Counter; Cat # 0671	2 nos.
5	Autoclave Portable, Cat # 7407 PAD	2 nos.
6	Portable Oil Free Vacuum Pump, Tarsons: Rocker-400	1 nos.
7	Vortex General Purpose (Shaker), Tarsons	5 nos.
8	Water Double Distillation Plant, Make: JSGW	1 no.
9	Water Single Distillation Plant, Medica:	1 nos.
10	Willy Mill, Secor Make	1 no.
11	High Precision Water Bath, Medica	1 no.
12	Double Ring Infiltrometer Set	1 Set
13	Soil Auger (Euro design) 5 cm dia, 1m long with handle, Screw Augers 2.5 cm dia and 5 cm dia, 1m long with handle, extension rod 1m long Wrench (1 pair)	2 nos.
14	Soil Core Sampler complete with 10 SS rings, 60 mm dia, 100 cc internal volume with end caps and one nylon headed shock absorbing hammer	1 no.
15	Microcentrifuge, Spinwin: 'Tarsons' Brand, Model: MC-01	1 no.
16	Pipette Controller, Tarsons Brand , Cat No. 2003	2 nos.
17	Dancing Shaker, Tarsons Brand, Cat No. 3040	2 nos.
18	Fume Hood, NSW Brand, Cat No. 203	1 no.
19	Digital Turbidity Meter: Systronics Brand (Type: 132)	1 no.
20	Heating Mantles, Jindal Brand, Capacity-500 ml, 200 Watt	1 no.
21	Heating Mantles, Jindal Brand, Capacity-1 lt., 300 Watt.	1 no.
22	Heating Mantles, Jindal Brand, Capacity-2 lt., 450 Watt.	1 no.
23	UV-Transilluminator, Brand: UVP Ltd (UK), Model: LMS-20	1 no.
24	Top Pan Weighing Balance, Model: GE7101, Make: Sartorius	2 nos.
25	Laminar Air Flow, ACCO Make, Cat: AC071-02	1 no.
26	Laminar Air Flow, ACCO Make, Cat: AC071-04	1 no.
27	Autoclave Vertical, 7451PAD, Make: Equitron	1 no.
28	Autoclave Vertical, Make: Equitron	1 no.
29	BOD Incubator, Cat#7140-250, Make: Equitron	2 nos.
30	Student Microscope, Labomed, Model: VISION2000	4 nos.
31	Seed Germinator with Stabilizer, Remi Make	1 no.
32	5332 000.014 Mastercycler Personal (Thermocycler) with accessories	1 no.
33	5811 000.010 Centrifuge 5810R with accessories	1 nos.
34	Electronic Balance, Denver Make, Model SI 234DE	2 nos.
35	Hot Air Oven, EquitronMedica Make, Model: # 7053	1 no.
36	Vortex-Genie ® 2 Vortex (220V) 12112009-220	1 Set
37	Uniline 5 KVA/180V OL UPS Systems, with isolation Transformer Indicative Back Up Time 120 minutes, Minimum VAH 8000	1 nos.
38	Uniline 2 KVA/168V OL UPS Systems, with isolation Transformer Indicative Back Up Time 120 minutes, Minimum VAH 9600	2 nos.
39	Uniline 3 KVA/180V OL UPS Systems, with isolation Transformer Indicative Back Up Time 120 minutes, Minimum VAH 9600	3 nos.
40	Uniline 5 KVA/180V OL UPS Systems, with isolation Transformer Indicative	1 nos.

	Back Up Time 60 minutes, Minimum VAH 8000	
41	Deep Freezer, Brand: Cryo-Scientific, Model: URC-V-380-2	1 no.
42	Isotherm Kit, Isotherm Systems & PCR Cooler 0.2 MI Starter Set	1 no.
43	Digital Burette (Top Burette M), 2.5 ml	1 no.
44	5350 000.013 Thermomixer Compact	1 no.
45	Shaker Incubator, Electronic Laboratory Incubator Shaker, Model: LIS	3 nos.
46	Electronic Automatic KELPLUS Microprocessor Based Twelve Place Macro Block Digstion System, Model: KES 12L with accessories, Electronic Acid Neutraliser 'Scrubber', Electronic Superior Automatic Distillation System	1 Set
47	Bench Top Cooler (0°C), Tarson Make	2 nos.
48	Gel Electrophoresis-101 (Mini and Wide Midid Horizontal) With Power Supply System, Brand: Scieplus (Axygen Make), Model: HU10, HU25 and EV243	1 no.
49	Precision Hot Air Oven, Model: O-OGS -2436A, Brand: OVFU, Model CF549	3 nos.
50	Nanodrop Spectrophotometer, Make: Thermo, Model: ND-2000	1 no.
51	Electronic Balance, Denver Make, Model: SI 234DE	1 no.
52	Soil Moisture Meter (Mini Trase Kit with Bluetooth Aircable, Iowa State Tension Infiltro meter, Guelph Permeameter Kit	1 Set
53	Uniline Online UPS with isolation transformer suitable for single phase AC input and single phase AC output with rating of UPS 5.0 KVA and indicative back-up time 240 minutes, with minimum VAH 32000	1 no.
54	Refrigerating & Heating Circular, Model 9201, 240/50Hz, Polyscience Make	1 no.
55	Denaturing Gradient Gel Electrophoresis Apparatus Set; IV-1030 Complete system for DGGE,CDGE,TGGE, Model: IPU-S, Make: Ingeny	1 no.
56	Binocular Microscope Model: LEICA DM 750 + accessories, PC with Core 2 dual Processor, 2 GB RAM, 250 GB HDD, 17 inch TFT Monitor and Colour Photo Quality printer	3 nos.
57	U9260-0001 Premium Upright Freezer U410 with accessories, Model: U410-86	2 nos.
58	Gel Electrophoresis (Mini & Wide midi horizontal) with power supply system, Axygen Make	1 no.
59	Uniline 5 KVA/168V OL UPS Systems with 120 minutes Battery Back-Up Time Using SMF Battery	5 nos.
60	Microcentrifuge, Tarsons-1030 Spinwin MC-02, Make-Tarsons	1 no.
61	Microcentrifuge, Tarsons-3020 Spinix, Make-Tarsons	2 nos.
62	Microscope-HB Monocular, Brand-Olympus, Model-HB	8 nos.
63	Tarsons-7011-Rocker Vacuum Pump, Cat No. 7011	2 nos.
64	Hort Air Oven-Mechanical Convection, Brand OVFU 250 L, Model: 508	2 nos.
65	Hot Air Oven-O-OGS-1518 (D), Brand-OVFU	2 nos.
66	Dancing Shaker, Tarsons-3040, SP 0-60 RPM	2 nos.
67	Top Pan Electronic Balance (PL60001-S EL. Precision Balance), Mettler	1 no.
68	pH Meter, Brand: Eutech, Model: PHTEST 10	1 no.
69	Electronic Laboratory Shaker Variable RPM, Model: Rotek LSV	1 no.
70	Environmental Shaker, Electronic Laboratory Shaker Variable RPM, Model: Roteck LES with accessories	3 nos.
71	Gel Dryer, Genei Make, Model-Junior, Gel Drying Surface, 25x35 cm Model: GDJ, Sl.No. 1011318	2 nos.
72	Chlorophyll Meter, CCM200	1 no.
73	Automatic Weather Station Complete System, Model: Vanatage Pro2 plus, Brand: Cole Parmer	1 no.
74	Refractometer, Model No. 2812, Sl. No.B024602	1 no.
75	Data Logging Moisture Meter with Humidity (Seed Moisture Meter), Sl.No. 03-11.0002	1 no.
76	Elisa-Cum-UV-VIS Spectrophotometer, (Multiskan Spectrum Reader, Cat No. 51118650) with accessories	1 no.
77	Quantum Meter Brand: Spectrum Model: 3415F	1 no.
78	Soil Compaction Meter, Brand: Spectrum, Model: 6101, Sl. No. 669	1 no.
79	Deep Freezer, upto -30°C Net capacity: 308L	1 no.
80	Single Distillation Unit (Cat No. 72230050), Make: Reviera	1no.
81	Multiparameter Water Quality Meter, Make: M/s Hanna Instruments, USA,	1 no.

	Model: HI 98280	
82	Semi Dry/Dry Transfer Assembly, Cat No. V10-SDB, Sl.No. 30020934, Make: Sciplas	1 no.
83	Orion 5 KVA/168V OL UPS 5KVA On Line UPS System with 120 Minutes Battery Back Up Time Using SMF Batteries	1 no.
84	FastprepHomogeneizer, Make Thermo Scientific, Model: FP120-230	1 no.
85	Geo Media Educational Kit (5 User License)	1 no.
86	ERDAS Imagine Software, ERDAS Imagine v2011 Educational Kit (5 User License)	1 no.
87	Lux Meter (Rod Type), Operating Temperature: 0-40°C , Model: 3415FX, Make: Spectrum	1 no.
88	Permeameter (Constant Head) Model: Constant Head & Falling Head, Roorkee Inds.	1 no.
89	Weighing Balance Model: TTB31 Wensar	2 nos.
90	Electronic Balance, Model: MAB220, Wensar, Sl. No. 29640	1 no.
91	Line Quantum Sensor, Model: MQ-301, Make: Apogee Instruments	2 nos.
92	Table Top Microcentrifuge, Model: Heraeus Fresco21, Make: Thermo Fisher Scientific	1 no.
93	pH Meter, Microprocessor based, pH measuring range: 0.00 to 14.00, Model No. CPHTUTOR, Eutech Make	1 no.
94	Water Single Distillation Plant, Barnstead Type, Stainless Steel, 4.5 litres/hr. 3500 W, Model No. #7655, Medica Make	1 no.
95	Intel Core i7 Windows 8 Desktop Computer, Make: DELL, Model: Optiplex 9020MT, Sl. No. 6RWJ882	5nos
96	Intel Core i5 Windows 8 Desktop Computer, Make: DELL, Model: Optiplex 9020MT, Sl. No. 6RKP882	4nos
97	Senior Precision Rotary Microtome, Radical, Model-30	1 no.
98	Soil Augur, Make: Roorkee Industries, India	1 no.
99	Digital Burette, Make: Titrettee/Tarsons	1 no.
100	Soil Core Sampler, Make: AIC	1 no.
101	EC-TDS Meter, Model: CM 183	1 no.
102	Flame Photometer, Model: CL 378, Sl. No. 02358/198	1 no.
103	Global Positioning System (GPS), Model: eTrex 30	1 no.
104	pH cum mV Meter, Model: LI-614	1 no.
105	Soil Penetrometer Compaction Meter (Imported Parts),	1 no.
106	Laboratory Shaker, Make: Alliance, Brand: Lunar, India	1 no.
107	Double Beam Atomic Absorption Spectrophotomter, Model: SL-194	1 no.
108	Double Beam UV-VIS Spectrophotomter, Model: SL-210	1 no.
109	Constant Voltage Stabilizer, 3 KVA, (Zodin) Model: CVR-350	1 no.
110	Rotary Vacuum Pump, Model: SD-45-DS	1 no.
111	Top Pan Weighing Balance, Model: CA3102, Contech Make	1 no.
112	Analytical Balance, High Precision, Model: CA-234, Contech Make	1 no.
113	Thermo Hygrometer Digital Clock 288 CTH Jambo Brand: General	1 no.
114	Hot Plate Cum Magnetic Stirer, Model: MS-H-280 Pro, Make: Dlab	1 no.
115	pH Meter, Model: LMPH 10, Sl.No. 11672, Cat No. L11541, Make: Wenser	3 nos.

6.4.5 Conduct of Practical and Hands-on-Training

The practicals in PG program (**MSc. (Ag) Soil Science and Agricultural Chemistry**) are conducted as per the ICAR course curriculum. Practical and hands-on training are conducted as per the list included in the syllabi and records for all the courses are maintained and evaluated by the respective course incharges by giving marks/weightage.

6.4.6 Supervision of students in PG programs

The allotment of students is PG is as per CAU regulation with a cap of maximum six students for Professor, five students for Associate Professor and four students for Assistant Professor are being allotted in the school. The allotment of students is by lottery and in constitution of advisory committee and allotment of research title, the interest of the student is always kept in mind.

Name of Faculty	Number of students guided	Number of students being guided
Dr. P. K. Bora	10	1
Dr. Dwipendra Thakuria	14	3
Dr. Sanjay Swami	7	4
Dr. N. Janaki Singh	6	3

6.4.7 Feedback of stakeholders (students, parents, industries, employers, farmers etc.)

At the end of the each semester and before the end term exam, a comprehensive feedback for each course is taken from students. The feedback includes competency of the teacher in the subject, updating the current status of the subject by the teacher, timely covering of syllabi, student teacher interactions, creating interest among the students about the course, attitude towards weak students, punctuality of the teacher, etc for the last five years.
(Representative documents are provided in Appendix-CPGSAS-C)

6.4.7 Feedback of stakeholders (students, parents, industries, employers, farmers etc.)

At the end of the each semester and before the end term exam, a comprehensive feedback for each course is taken from students. The feedback includes competency of the teacher in the subject, updating the current status of the subject by the teacher, timely covering of syllabi, student teacher interactions, creating interest among the students about the course, attitude towards weak students, punctuality of the teacher,etcfor the last five years:

6.4.8 Students intake and attrition in the program for last five years

Year wise information for the last five academic years (2016-17 to 2020-21) for MSc. **(Ag.) Soil Science and Agri. Chemistry**program is given in table below:

Academic year	Intake Capacity	Number of admitted student	Attrition (%)	Passed Out
2016-17	5+2*	7	1	5
2017-18	2+2*	4	-	4
2018-19	5+2*	6	-	8
2019-20	5+2*	5	-	2
2020-21	5+2*	7	-	4

*** To be filled by ICAR candidate**

6.4.9 ICT Application in Curricula Delivery

All the class rooms, seminar and conference rooms are well equipped with LCD projectors. As per the needs of the course, power point presentation is given before the students for better explanation. Online and faculty made audio/videos are also presented to the students.

Table: A brief summary of existing facility in the College Library for MSc students

Sl. No.	Facility exist	Status
1	Availability of books (Nos.)	5433
2	Access to print copy of Indian Journals (Nos.) and Periodicals	20
4	Access to Indian on-line journals	2 titles
5	Consortia	2794 e-journals through CeRA consortium
6	MSc. And PhD Theses	356 MSc; 37 PhD
7	Research Reports and Technical Bulletins	475
8	CDs	85
9	Magazines	8
10	Newspapers (national and local)	8
11	Statistical Database	1
12	Analytical Software	1

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate (Applicable when SSR is submitted for Programme) I, the Dean **Dr. Wricha Tyagi** hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

Student Feedback Form

Please limit to 1 feedback for each course taken.

* Required

1. Academic year *

Mark only one oval.

- 1
- 2
- 3
- 4

2. Semester *

Mark only one oval.

- I
- II
- III
- IV
- V
- VI
- VII
- VIII

3. Degree *

Mark only one oval.

- PhD
- MSc
- BSc

4. Discipline *

5. School *

Mark only one oval.

- SCI
- SCP
- SNRM
- SSS

6. Name of the teacher *

7. Course number *

8. Teaching skills *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Competence in the subject matter	☐	☐	☐	☐	☐
Communication skills	☐	☐	☐	☐	☐
Utilization of teaching aids (multimedia, charts and illustations, etc.	☐	☐	☐	☐	☐
Ability to create and uphold interest in the course among students	☐	☐	☐	☐	☐
Responsiveness to students' questions and problems	☐	☐	☐	☐	☐
Ability to ensure timely covering of syllabi	☐	☐	☐	☐	☐
Teacher remaining updated with current status	☐	☐	☐	☐	☐
Skills in linking the course with other relevant course (s)	☐	☐	☐	☐	☐

9. Student-teacher interaction *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Extent of availability of teacher for post-class consultation, if any	☐	☐	☐	☐	☐
Degree of demonstrated interest for holding interactive class sessions	☐	☐	☐	☐	☐
Timeliness in students' evaluation	☐	☐	☐	☐	☐
Attitude/ Response towards weak students	☐	☐	☐	☐	☐

10. Personality of teacher *

Mark only one oval per row.

	Outstanding	Excellent	Good	Average	Poor
Punctuality/Regularity	⬭	⬭	⬭	⬭	⬭
Sincerity and Commitment	⬭	⬭	⬭	⬭	⬭
Fairness in grading/evaluation	⬭	⬭	⬭	⬭	⬭
Helping attitude	⬭	⬭	⬭	⬭	⬭
Integrity of teaching profession	⬭	⬭	⬭	⬭	⬭
Patience	⬭	⬭	⬭	⬭	⬭
Behavior	⬭	⬭	⬭	⬭	⬭
Interpersonal relationship	⬭	⬭	⬭	⬭	⬭

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Google Forms

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signature
1	[illegible]	2	[illegible]	[illegible]	[illegible]
2	FARZANA NIYAZ	7	17/5/21	11:05	[illegible]
3	MALLIKHARJUNA KEERTHAN	7	17/5/21	11:17 am	[illegible]
4	TINKUNIYANG	7	17/5/21	11:27 am	[illegible]
5	[illegible]	2	[illegible]	[illegible]	[illegible]
6	[illegible]	7	[illegible]	[illegible]	[illegible]
7	[illegible]	6	[illegible]	[illegible]	[illegible]
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16	Yeluguri Eshwariya	8	[illegible]	[illegible]	[illegible]
17	Mangalada Manjula	6	[illegible]	[illegible]	[illegible]
18	Anil Kumar	6	[illegible]	[illegible]	[illegible]
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7 × 12 = 84
6 × 2 = 12
5 × 2 = 10
106

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29	Payal Prasad	4	13/4/21	11:05	
30	A. Geetha Reddy	8	11/4/21	11:06	
31	Shravan.H	4	13/4/21	12:04	
32	Sneha Hanitha	6	13/4/21	11:47	
33	M. Sachin	6	11/4/21	11:48	
34	E. Naveen	6	13/4/21	11:54	
35	Dr. Manoranjan	4	11/4/21	11:53	
36	Nilesh Sharma	3	11/4/21	12:30	
37	Mouli	7	11/4/21	11:23	
38	Vinay Prakash	7	12/4/21	11:19	
39	Hanumanth - P	4	11/4/21	12:19	
40	[illegible]	4	11/4/21	12:31	
41	Vallamuila prasad	4	11/4/21	12:32	
42	Abhishek Prakash	9	11/4/21	12:55	
43	Abhay Kumar	7	11/4/21	12:56	
44	[illegible]	7	11/4/21	12:55	
45	[illegible]	7	11/4/21	11:59	
46	Bimal Kumar Sahu	7	13/4/21	12:05	
47	Kailash Patel	7	13/4/21	12:13	
48	MANICKAM V	7	13/4/21	12:17	
49	Shashidhar MP	4	11/4/21	12:18	
50	D. Sainath Reddy	7	13-4-21	12:24	
51	Jayaram Bhat	3	13/4/21	12:30	

9 x 6 = 54

134

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signatures
AF	Vanitha yuvaraj	5	18/5/21	12:45	
49	Kavya Sai Gupta	4	18/5/21	12:47	
49	Kavya Vanitha	7	18/5/21	4:47	
50	Jayashreedevi Ayyar	7	19/5/21	10:15	
51	Dhanyashree Vasanth Kumar	2	19/5/21	12:45	
52	Bala Tarai	6	19-05-21	12:04	
53	Sanjana Pattanayak	6	19-05-21	12:55	
54	Abhi Abhi	7	19-05-21	12:59	
55	Kavya K Jayashree	4	20-05-21	10:19	
56	Sudarshan Sahu	5	19-05-21	12:11	
57	Dhanshri Shinkar	3	19-05-21	12:52	
58	Tanmay Vaidya	7	19/5/21	12:40	
59	Bhavya Kumar Jain	3	19/5/21	11:30	
60	R. Sanjukta Rout	5	19/5/21	10:00	
61	R. Ambika Mishra	3	19/5/21	1:15	
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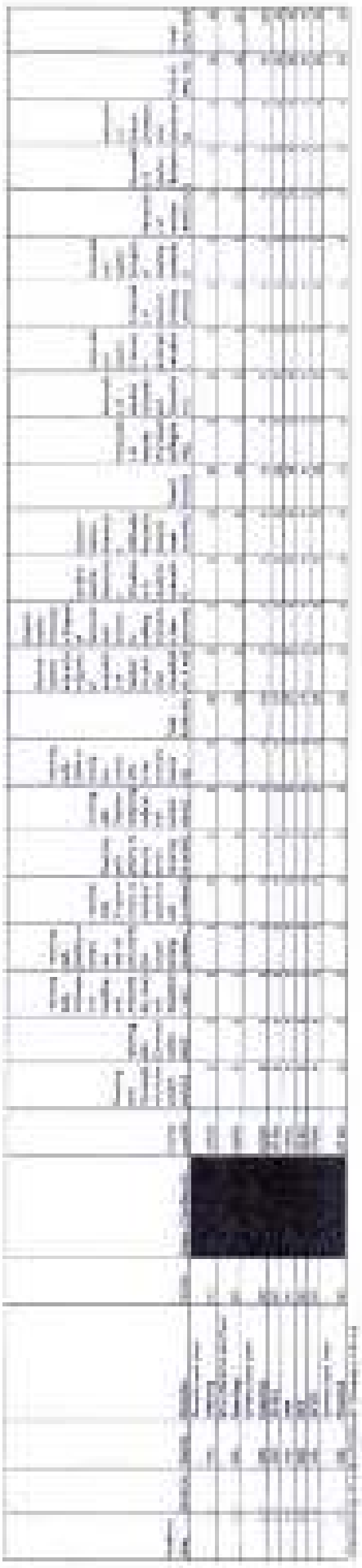
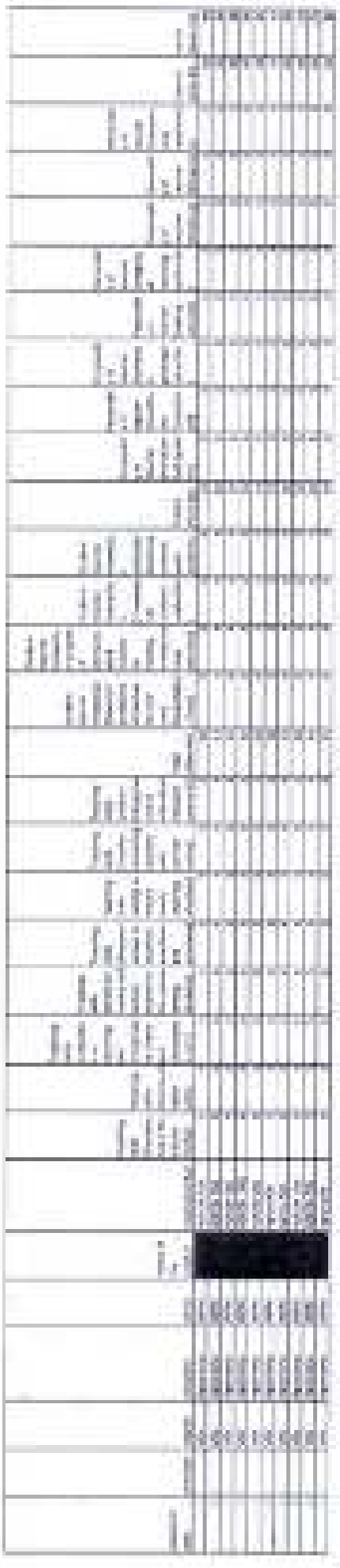
129
105
348





SELF STUDY REPORT
for degree accreditation
MSc. (Ag)
Agronomy

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	Particulars
1.	Sections 6.4
2.	Sections 6.4.2 to 6.4.3
3.	Section 6.4.4 to Section 6.4.6
4.	Section 6.4.7 to 6.4.8
5.	Section 6.4.9 to Section 6.4.12

6.4. **Self-Study Report for the MSc. (Ag) Agronomy**

6.4.1. Brief History of the Degree Programme

The North Eastern India is experiencing rapid population growth which has crossed 45 million mark. In order to attain economic, food and nutritional security, it is imperative to impart quality agricultural education and have sustained agricultural development in the states of northeastern region. This region is constrained by lack of adequate infrastructure, low productivity, inadequate marketing and lack of knowledge on modern farm technologies. With this genesis in background, the Central Agricultural University, Imphal established the College of Post Graduate Studies in Agricultural Sciences (**CPGSAS**) at Umiam, Meghalaya on 21st December, 2006.

MISSION of CPGSAS is to achieve excellence in teaching, research and extension education in the field of agriculture.

MANDATES of CPGS are:

1) to impart postgraduate education in different branches of Agriculture,
2) to further the advancement of learning and prosecution of research in Agriculture, and
3) to undertake such others activities as it may deem fit, from time to time, to uplift the socioeconomical status of farmers in the North Eastern Region.

Objectives of CPGS are:

1) To produce globally competitive postgraduates in the field of agriculture
2) To develop robust agricultural technologies to help Indian farming systems, particularly in the northeastern region of India to be sustainable and profitable, and
3) To transform agriculture and allied activities into profitable enterprises and thereby create food and nutritional security for people of northeastern region of India.
4) The postgraduates of CPGS who are educated and trained in recent advances in agriculture and allied sciences, are expected to bring about a quantum change in the agricultural research and development systems in their respective states and also contribute towards strengthening the National Agricultural Research System.

The MSc. degree program in Agronomy currently running at CPGSAS is a 2 years full-time master's program following the ICAR course curriculum and has been offered at School of Natural Resource Managementsince 2009.

In the last five years (2016-17 upto 2020-21) a total number of 21M.Sc students have passed out. The research work has led to several publications. The details of which are given below:

FULL length RESEARCH PAPERS

Ray, L.I.P., Bora, P.K., Singh, A.K., Ram, V., Singh, R. and Feroze, S.M. (2019) Dry and Wet spell Rainfall probabilities in planning rice based cropping system of Meghalaya. *Journal of Agrometeorology*, 21 (Special issue -"NASA 2014" part-III): 8-17.
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List of MSc. (Agronomy) theses submitted (2016-2021)

Name of the student	Year of passing	Thesis Title
Ms. Saphina Mary Kurkalang	2016	Nitrogen management for maize-legum intercropping in acidic soil
Ms. DaphibanriDonbarLyngdoh	2016	Effect of Intercropped Legumes and their Planting Pattern on the Performance of Maize Based Cropping System
Ms. HoineichongSingson	2016	Zinc Biofortification in Rice Grain Through Zinc Fertilization
Mr. Joy Kumar Dey	2016	Evaluation of Potato Varieties under different Irrigation Methods in Mid Altitude of Meghalaya
Mr. PemThinley	2016	Micro-climatic Characterization of *Kharif* Maize (*Zea mays* L.) Under Different Dates of Sowing at Mid Hill Condition of Meghalaya
Mr. YearbokMarwein	2016	Influence of Organic Mulching on Soil Moisture and Yield of Rajma (*Phaseolus vulgaris* L.) Varieties Under Mid Altitude of Meghalaya
Mr. Kamal Kant	2017	Response of Lowland Rice Cultivars to Nitrogen Application – A modeling approach
Ms. Meghna Gogoi	2017	Planting time and irrigation scheduling on the performance of potato in Ri-Bhoi, Meghalaya
Mr. Santosh Basant Korav	2017	Seasonal Variation of Critical Period for Crop-Weed Competition in Groundnut (*Arachishypogaea* L.)
Mr. TelkarShivkumar Gajanan	2017	Effect of Population Proportion of Component Crops on the Productivity of Maize-Soybean Intercropping
Ms. Yami Bei	2017	Influence of Micro-climate on Performance of *kharif* Black gram (*Vigna mungo* L.)
Mr. MayanglambamBishonath Singh	2018	Effect of Sowing Time on Summer Pulse(s) in Lowland Rice Fallows
Ms. PhurailatpamMenaka Sharma	2018	Effect of Integrated Nitrogen Management and Planting Geometry on Yield and Quality of Lowland Black Rice var. *Chakhao Poireiton*
Mr. Laishram Platini Singh	2018	Agronomic Evaluation of Rice Cultivars Under Delayed Transplanting Condition in Midhills of Meghalaya
Ms. MesayaRangsaMarak	2018	Simulating Effect of Climate Change on Growth and Yield of Maize under Varying N-Application in the Sub-tropical Hills of Meghalaya-

Ms. ShayanaLaishram	2018	Development of Nitrogen Dilution Curve for Baby Corn Based on Leaf and Plant Dry Matter
Ms. Shreyosi Roy	2018	Dynamics of Mineralization of Crop Residues Under Baby Corn-Baby Corn System
Mr. Tage Lampung	2018	Effect of Climate Change on the Performance of Lowland Rice (*Oryza sativa* L.) under N-levels through DSSAT CERES-Rice Model
Ms. Jolyne Margaret Mawthoh	2019	Performance of Potato (*Solanum tuberosum* L.) under Different Irrigation Scheduling and Organic Manure in Mid Hills of Meghalaya
Ms. Dhivya R.S.	2019	Performance of Black Gram (*Vigna mungo* L. Hepper) with Organic Amendments under Mid Hills of Meghalaya
Mr. SidharthaPriyatam	2019	Evaluation of Sweet Corn Hybrids under Varied Date of Sowing in Mid Hill of Meghalaya
Ms. Sushree Panda	2020	Integrated Nutrient Management in Groundnut (*Arachishypogaea* L.) in Acidic Soils of Meghalaya

6.4.2. Faculty Strength

S.No.	Sanctioned Faculty	Faculty in place#	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	4	Nil	1
2.	Associate Professor	1	1	2
3.	Assistant Professor	2	1	3

* Assistant professor (#1) promoted to Assoc. Professor and three associate professors promoted to Professor level.

For School of Natural Resource Management ie., Agronomy and Soil Science & Agricultural Chemistry. Additionally, Scientists from ICAR are recognized as faculty by the academic council and as per MOU.

6.4.3.Technical and Supporting staff

Sl. No.	Name of post sanctioned	No. of post sanctioned	Filled position
1	Livestock/Farm Assistant	2	1
2	Clerk-cum-Typist/LDC/UDC	1	-
3	Field-cum-Lab. Assistant	2	1
4	MTS	4	2
Grand total		**9**	**6**

For School of Natural Resource Management ie., Agronomy and Soil Science & Agricultural Chemistry.

6.4.4. Classrooms and Laboratories: 5 Classrooms, 1 Seminar and 1 conference room attached with LCD Projector are available. Following labs are available

1. Analytical Lab
2. Biogeochemistry Lab
3. Microbial Ecology Lab
4. GIS and Remote Sensing Lab
5. Hydraulics lab
6. Biofertilizer production unit

List of equipments and facilities available are as mentioned

S.N.	Particulars of Asset	Quantity
1	Auto Loop Sterilizer, Make: Himedia,	1 no.
2	Microwave Oven, Samsung-32 ltrs. Model No. CE117ALF	1 no.
3	Conductivity Meter Cyberscan 510, Eutech make	1 no.
4	Colony Counter; Cat # 0671	2 nos.
5	Autoclave Portable, Cat # 7407 PAD	2 nos.
6	Portable Oil Free Vacuum Pump, Tarsons: Rocker-400	1 nos.
7	Vortex General Purpose (Shaker), Tarsons	5 nos.
8	Water Double Distillation Plant, Make: JSGW	1 no.
9	Water Single Distillation Plant, Medica:	1 nos.
10	Willy Mill, Secor Make	1 no.
11	High Precision Water Bath, Medica	1 no.
12	Double Ring Infiltrometer Set	1 Set
13	Soil Auger (Euro design) 5 cm dia, 1m long with handle, Screw Augers 2.5 cm dia and 5 cm dia, 1m long with handle, extension rod 1m long Wrench (1 pair)	2 nos.
14	Soil Core Sampler complete with 10 SS rings, 60 mm dia, 100 cc internal volume with end caps and one nylon headed shock absorbing hammer	1 no.
15	Microcentrifuge, Spinwin: 'Tarsons' Brand, Model: MC-01	1 no.
16	Pipette Controller, Tarsons Brand , Cat No. 2003	2 nos.
17	Dancing Shaker, Tarsons Brand, Cat No. 3040	2 nos.
18	Fume Hood, NSW Brand, Cat No. 203	1 no.
19	Digital Turbidity Meter: Systronics Brand (Type: 132)	1 no.
20	Heating Mantles, Jindal Brand, Capacity-500 ml, 200 Watt	1 no.
21	Heating Mantles, Jindal Brand, Capacity-1 lt., 300 Watt.	1 no.
22	Heating Mantles, Jindal Brand, Capacity-2 lt., 450 Watt.	1 no.
23	UV-Transilluminator, Brand: UVP Ltd (UK), Model: LMS-20	1 no.
24	Top Pan Weighing Balance, Model: GE7101, Make: Sartorius	2 nos.
25	Laminar Air Flow, ACCO Make, Cat: AC071-02	1 no.
26	Laminar Air Flow, ACCO Make, Cat: AC071-04	1 no.
27	Autoclave Vertical, 7451PAD, Make: Equitron	1 no.
28	Autoclave Vertical, Make: Equitron	1 no.
29	BOD Incubator, Cat#7140-250, Make: Equitron	2 nos.
30	Student Microscope, Labomed, Model: VISION2000	4 nos.
31	Seed Germinator with Stabilizer, Remi Make	1 no.
32	5332 000.014 Mastercycler Personal (Thermocycler) with accessories	1 no.
33	5811 000.010 Centrifuge 5810R with accessories	1 nos.
34	Electronic Balance, Denver Make, Model SI 234DE	2 nos.
35	Hot Air Oven, EquitronMedica Make, Model: # 7053	1 no.
36	Vortex-Genie ® 2 Vortex (220V) 12112009-220	1 Set
37	Uniline 5 KVA/180V OL UPS Systems, with isolation Transformer Indicative Back Up Time 120 minutes, Minimum VAH 8000	1 nos.
38	Uniline 2 KVA/168V OL UPS Systems, with isolation Transformer Indicative Back Up Time 120 minutes, Minimum VAH 9600	2 nos.
39	Uniline 3 KVA/180V OL UPS Systems, with isolation Transformer Indicative	3 nos.

	Back Up Time 120 minutes, Minimum VAH 9600	
40	Uniline 5 KVA/180V OL UPS Systems, with isolation Transformer Indicative Back Up Time 60 minutes, Minimum VAH 8000	1 nos.
41	Deep Freezer, Brand: Cryo-Scientific, Model: URC-V-380-2	1 no.
42	Isotherm Kit, Isotherm Systems & PCR Cooler 0.2 MI Starter Set	1 no.
43	Digital Burette (Top Burette M), 2.5 ml	1 no.
44	5350 000.013 Thermomixer Compact	1 no.
45	Shaker Incubator, Electronic Laboratory Incubator Shaker, Model: LIS (Rotek LIS)	3 nos.
46	Electronic Automatic KELPLUS Microprocessor Based Twelve Place Macro Block Digstion System, Model: KES 12L with accessories, Electronic Acid Neutraliser 'Scrubber', Electronic Superior Automatic Distillation System	1 Set
47	Bench Top Cooler (0°C), Tarson Make	2 nos.
48	Gel Electrophoresis-101 (Mini and Wide Midid Horizontal) With Power Supply System, Brand: Scieplus (Axygen Make), Model: HU10, HU25 and EV243	1 no.
49	Precision Hot Air Oven, Model: O-OGS -2436A, Brand: OVFU, Model CF549	3 nos.
50	Nanodrop Spectrophotometer, Make: Thermo, Model: ND-2000	1 no.
51	Electronic Balance, Denver Make, Model: SI 234DE	1 no.
52	Soil Moisture Meter (Mini Trase Kit with Bluetooth Aircable, Iowa State Tension Infiltro meter, Guelph Permeameter Kit	1 Set
53	Uniline Online UPS with isolation transformer suitable for single phase AC input and single phase AC output with rating of UPS 5.0 KVA and indicative back-up time 240 minutes, with minimum VAH 32000	1 no.
54	Refrigerating & Heating Circular, Model 9201, 240/50Hz, Polyscience Make	1 no.
55	Denaturing Gradient Gel Electrophoresis Apparatus Set; IV-1030 Complete system for DGGE,CDGE,TGGE, Model: IPU-S, Make: Ingeny	1 no.
56	Binocular Microscope Model: LEICA DM 750 + accessories, PC with Core 2 dual Processor, 2 GB RAM, 250 GB HDD, 17 inch TFT Monitor and Colour Photo Quality printer	3 nos.
57	U9260-0001 Premium Upright Freezer U410 with accessories, Model: U410-86	2 nos.
58	Gel Electrophoresis (Mini & Wide midi horizontal) with power supply system, Axygen Make	1 no.
59	Uniline 5 KVA/168V OL UPS Systems with 120 minutes Battery Back-Up Time Using SMF Battery	5 nos.
60	Microcentrifuge, Tarsons-1030 Spinwin MC-02, Make-Tarsons	1 no.
61	Microcentrifuge, Tarsons-3020 Spinix, Make-Tarsons	2 nos.
62	Microscope-HB Monocular, Brand-Olympus, Model-HB	8 nos.
63	Tarsons-7011-Rocker Vacuum Pump, Cat No. 7011	2 nos.
64	Hort Air Oven-Mechanical Convection, Brand OVFU 250 L, Model: 508	2 nos.
65	Hot Air Oven-O-OGS-1518 (D), Brand-OVFU	2 nos.
66	Dancing Shaker, Tarsons-3040, SP 0-60 RPM	2 nos.
67	Student Compound Microscope, MLX-B Binocular (Pathological), Magnus	6 nos.
68	Top Pan Electronic Balance (PL60001-S EL. Precision Balance), Mettler	1 no.
69	pH Meter, Brand: Eutech, Model: PHTEST 10	1 no.
70	Electronic Laboratory Shaker Variable RPM, Model: Rotek LSV	1 no.
71	Environmental Shaker, Electronic Laboratory Shaker Variable RPM, Model: Roteck LES with accessories	3 nos.
72	Gel Dryer, Genei Make, Model-Junior, Gel Drying Surface, 25x35 cm Model: GDJ, Sl.No. 1011318	2 nos.
73	Chlorophyll Meter, CCM200	1 no.
74	Automatic Weather Station Complete System, Model: Vanatage Pro2 plus, Brand: Cole Parmer	1 no.
75	Refractometer, Model No. 2812, Sl. No.B024602	1 no.
76	Data Logging Moisture Meter with Humidity (Seed Moisture Meter), Sl.No. 03-11.0002	1 no.
77	Elisa-Cum-UV-VIS Spectrophotometer, (Multiskan Spectrum Reader, Cat No. 51118650) with accessories	1 no.
78	Quantum Meter Brand: Spectrum Model: 3415F	1 no.

79	Soil Compaction Meter, Brand: Spectrum, Model: 6101, Sl. No. 669	1 no.
80	Deep Freezer, upto -30°C Net capacity: 308L	1 no.
81	Single Distillation Unit (Cat No. 72230050), Make: Reviera	1no.
82	Multiparameter Water Quality Meter, Make: M/s Hanna Instruments, USA, Model: HI 98280	1 no.
83	Semi Dry/Dry Transfer Assembly, Cat No. V10-SDB, Sl.No. 30020934, Make: Sciplas	1 no.
84	Orion 5 KVA/168V OL UPS 5KVA On Line UPS System with 120 Minutes Battery Back Up Time Using SMF Batteries	1 no.
85	FastprepHomogeneizer, Make Thermo Scientific, Model: FP120-230	1 no.
86	Geo Media Educational Kit (5 User License)	1 no.
87	ERDAS Imagine Software, ERDAS Imagine v2011 Educational Kit (5 User License)	1 no.
88	Lux Meter (Rod Type), Operating Temperature: 0-40°C , Model: 3415FX, Make: Spectrum	1 no.
89	Permeameter (Constant Head) Model: Constant Head & Falling Head, Make: Roorkee Inds.	1 no.
90	Weighing Balance Model: TTB31 Wensar	2 nos.
91	Electronic Balance, Model: MAB220, Wensar, Sl. No. 29640	1 no.
92	Line Quantum Sensor, Model: MQ-301, Make: Apogee Instruments	2 nos.
93	Table Top Microcentrifuge, Model: Heraeus Fresco21, Make: Thermo Fisher Scientific	1 no.
94	pH Meter, Microprocessor based, pH measuring range: 0.00 to 14.00, Model No. CPHTUTOR, Eutech Make	1 no.
95	Water Single Distillation Plant, Barnstead Type, Stainless Steel, 4.5 litres/hr. 3500 W, Model No. #7655, Medica Make	1 no.
96	Intel Core i7 Windows 8 Desktop Computer, Make: DELL, Model: Optiplex 9020MT, Sl. No. 6RWJ882	5nos
97	Intel Core i5 Windows 8 Desktop Computer, Make: DELL, Model: Optiplex 9020MT, Sl. No. 6RKP882	4nos
98	Senior Precision Rotary Microtome, Radical, Model-30	1 no.
99	Soil Augur, Make: Roorkee Industries, India	1 no.
100	Digital Burette, Make: Titrettee/Tarsons	1 no.
101	Soil Core Sampler, Make: AIC	1 no.
102	EC-TDS Meter, Model: CM 183	1 no.
103	Flame Photometer, Model: CL 378, Sl. No. 02358/198	1 no.
104	Global Positioning System (GPS), Model: eTrex 30	1 no.
105	pH cum mV Meter, Model: LI-614	1 no.
106	Soil Penetrometer Compaction Meter (Imported Parts), Make: Roorkee Industries	1 no.
107	Laboratory Shaker, Make: Alliance, Brand: Lunar, India	1 no.
108	Double Beam Atomic Absorption Spectrophotomter, Model: SL-194	1 no.
109	Double Beam UV-VIS Spectrophotomter, Model: SL-210	1 no.
110	Constant Voltage Stabilizer, 3 KVA, (Zodin) Model: CVR-350	1 no.
111	Rotary Vacuum Pump, Model: SD-45-DS	1 no.
112	Top Pan Weighing Balance, Model: CA3102, Contech Make	1 no.
113	Analytical Balance, High Precision, Model: CA-234, Contech Make	1 no.
114	Thermo Hygrometer Digital Clock 288 CTH Jambo Brand: General	
115	Hot Plate Cum Magnetic Stirer, Model: MS-H-280 Pro, Make: Dlab	1 no.
116	pH Meter, Model: LMPH 10, Sl.No. 11672, Cat No. L11541, Make: Wenser	3 nos.

6.4.5 Conduct of Practical and Hands-on-Training

The practicals in PG program (**MSc. (Ag)Agronomy**) are conducted as per the ICAR course curriculum. Practical and hands-on training are conducted as per the list included in the syllabi and records for all the courses are maintained and evaluated by the respective course incharges by giving marks/weightage.

6.4.6 Supervision of students in PG programs

The allotment of students is PG is as per CAU regulation with a cap of maximum six students for Professor, five students for Associate Professor and four students for Assistant Professor are being allotted in the school. The allotment of students is by lottery and in constitution of advisory committee and allotment of research title, the interest of the student is always kept in mind.

Name of Faculty	Number of students guided	Number of students being guided
Dr. Vishram Ram, Professor	8	3
Dr. Lala I.P. Ray, Assoc. Prof.	6	2
Dr. A. K. Singh, Asst. Prof.	11	5

6.4.7 Feedback of stakeholders (students, parents, industries, employers, farmers etc.)

At the end of the each semester and before the end term exam, a comprehensive feedback for each course is taken from students. The feedback includes competency of the teacher in the subject, updating the current status of the subject by the teacher, timely covering of syllabi, student teacher interactions, creating interest among the students about the course, attitude towards weak students, punctuality of the teacher,etcfor the last five years.
(Representative documents are provided in Appendix-CPGSAS-C)

6.4.8 Students intake and attrition in the program for last five years

Year wise information for the last five academic years (2016-17 to 2020-21) for MSc. **(Ag.) Agronomy**program is given in table below:

Academic year	Intake Capacity	Number of admitted student	Attrition (%)	Passed Out
2016-17	5+2*	6	1	5
2017-18	2+2*	4	1	7
2018-19	3+2*	5	1	5
2019-20	3+2*	5	1	4
2020-21	5+2*	8	_-	-

*** To be filled by ICAR candidate**

6.4.9 ICT Application in Curricula Delivery

All the class rooms, seminar and conference rooms are well equipped with LCD projectors. As per the needs of the course, power point presentation is given before the students for better explanation. Online and faculty made audio/videos are also presented to the students.

Table: A brief summary of existing facility in the College Library for MSc students

Sl. No.	Facility exist	Status
1	Availability of books (Nos.)	5433
2	Access to print copy of Indian Journals (Nos.) and Periodicals	20
4	Access to Indian on-line journals	2 titles

5	Consortia	2794 e-journals through CeRA consortium
6	MSc. And PhD Theses	356 MSc; 37 PhD
7	Research Reports and Technical Bulletins	475
8	CDs	85
9	Magazines	8
10	Newspapers (national and local)	8
11	Statistical Database	1
12	Analytical Software	1

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate (Applicable when SSR is submitted for Programme) I, the Dean **Dr. Wricha Tyagi** hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

Student Feedback Form

Please limit to 1 feedback for each course taken.

* Required

1. Academic year *

Mark only one oval.

- 1
- 2
- 3
- 4

2. Semester *

Mark only one oval.

- I
- II
- III
- IV
- V
- VI
- VII
- VIII

3. Degree *

Mark only one oval.

- ◯ PhD
- ◯ MSc
- ◯ BSc

4. Discipline *

_____

5. School *

Mark only one oval.

- ◯ SCI
- ◯ SCP
- ◯ SNRM
- ◯ SSS

6. Name of the teacher *

_____

7. Course number *

_____

8. Teaching skills *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Competence in the subject matter	☐	☐	☐	☐	☐
Communication skills	☐	☐	☐	☐	☐
Utilization of teaching aids (multimedia, charts and illustations, etc.	☐	☐	☐	☐	☐
Ability to create and uphold interest in the course among students	☐	☐	☐	☐	☐
Responsiveness to students' questions and problems	☐	☐	☐	☐	☐
Ability to ensure timely covering of syllabi	☐	☐	☐	☐	☐
Teacher remaining updated with current status	☐	☐	☐	☐	☐
Skills in linking the course with other relevant course (s)	☐	☐	☐	☐	☐

9. Student-teacher interaction *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Extent of availability of teacher for post-class consultation, if any	☐	☐	☐	☐	☐
Degree of demonstrated interest for holding interactive class sessions	☐	☐	☐	☐	☐
Timeliness in students' evaluation	☐	☐	☐	☐	☐
Attitude/ Response towards weak students	☐	☐	☐	☐	☐

10. Personality of teacher *

Mark only one oval per row.

	Outstanding	Excellent	Good	Average	Poor
Punctuality/Regularity	⬭	⬭	⬭	⬭	⬭
Sincerity and Commitment	⬭	⬭	⬭	⬭	⬭
Fairness in grading/evaluation	⬭	⬭	⬭	⬭	⬭
Helping attitude	⬭	⬭	⬭	⬭	⬭
Integrity of teaching profession	⬭	⬭	⬭	⬭	⬭
Patience	⬭	⬭	⬭	⬭	⬭
Behavior	⬭	⬭	⬭	⬭	⬭
Interpersonal relationship	⬭	⬭	⬭	⬭	⬭

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Google Forms

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signature
1	[illegible]	2	[illegible]	[illegible]	[illegible]
2	FARZANA NIYAZ	7	17/5/21	11:05	[illegible]
3	MALLIKHARJUNA KEERTHAN	7	17/5/21	11:17 am	[illegible]
4	TINKUNIYANG	7	17/5/21	11:28 am	[illegible]
5	[illegible]	2	[illegible]	[illegible]	[illegible]
6	[illegible]	7	[illegible]	[illegible]	[illegible]
7	[illegible]	6	[illegible]	[illegible]	[illegible]
8	V. PREETI KUMARI	7	[illegible]	[illegible]	[illegible]
9	[illegible]	7	[illegible]	[illegible]	[illegible]
10	[illegible]	11	[illegible]	[illegible]	[illegible]
11	[illegible]	7	[illegible]	[illegible]	[illegible]
12	[illegible]	6	[illegible]	[illegible]	[illegible]
13	ATEEFA	7	[illegible]		
14	[illegible]	15	[illegible]	[illegible]	[illegible]
15	M Shanmukh Raju	6	[illegible]	[illegible]	[illegible]
16	Yeluguri Sikhasanya	9	[illegible]	[illegible]	[illegible]
17	Mangalada Pavithra	6	[illegible]	[illegible]	[illegible]
18	Anil Kumar	6	[illegible]	[illegible]	[illegible]
19	[illegible]	5	[illegible]	[illegible]	[illegible]
20	[illegible]	5	[illegible]	[illegible]	[illegible]
21	[illegible]	6	[illegible]	[illegible]	[illegible]
22	[illegible]	7	[illegible]	[illegible]	[illegible]
23	[illegible]	1	[illegible]	[illegible]	[illegible]

[illegible]

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signatures
24	Payal Prasad	4	13/4/21	11:05	
25	A. Geetha Reddy	8	11/4/21	11:06	
26	Naveen.H	4	12/4/21	12:04	
27	Sneha Hanitha	6	12/4/21	11:47	
28	M. Sachin	6	11/4/21	11:48	
29	E. Naveen	6	12/4/21	11:54	
30	Dr. Manasa	4	11/4/21	11:53	
31	Nandi Sharma	3	11/4/21	12:38	
32	Monika	7	11/4/21	11:23	
33	Vinay Kumar	7	12/4/21	11:19	
34	Nandigama - P	5	11/4/21	12:19	
35	Gaddi Vidhadhi Rathaya	4	11/4/21	12:33	
36	Vallamuila prasad	9	11/4/21	12:22	
37	Abhishek Prakash	9	11/4/21	12:55	
38	Abhinay Varma	7	11/4/21	12:16	
39	KUMARI CHALLAM	7	11/4/21	11:55	
40	Rithi Verma	9	11/4/21	12:19	
41	Bimal Kumar Sahu	7	12/4/21	12:50	
42	Kailash Patil	7	12/4/21	12:53	
43	MANICKAM V	7	12/4/21	12:53	
44	Shashidhar MP	4	11/4/21	12:13	
45	D. Sainath Reddy	7	12-4-21	12:54	
46	Jayasree Bhanu	3	12/4/21	12:30	

9 x 6 = 54

135

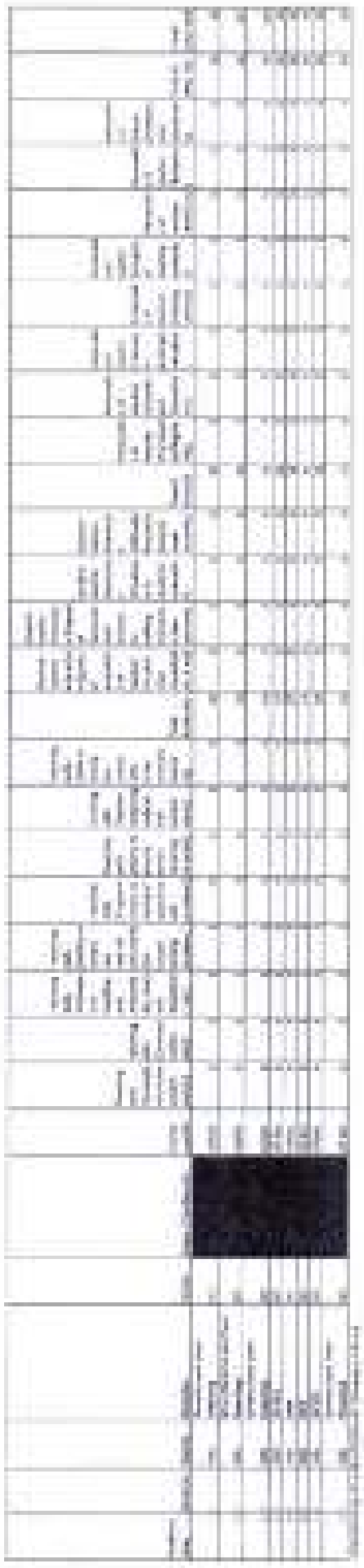
Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signatures
AF	Vanitha yuvaraj	5	18/5/21	12:45	
48	Kavya Sai Gupta	4	18/5/21	12:47	
49	Kavya Vinitha	7	18/5/21	4:47	
50	Jayashree Ayyar	7	19/5/21	11:15	
51	Dhanyashree Vasanth Kumar	2	19/5/21	12:45	
52	Bala Tarni	6	19-05-21	12:04	
53	Sanjana Pattanayak	6	19-05-21	12:55	
54	Alka Bisht	7	19-05-21	12:59	
55	Kavya K Jayashree	4	20-05-21	11:19	
56	Sahithya Sahu	5	19-05-21	12:11	
57	Shrishti Srivastava	3	19-05-21	12:52	
58	Tanmay Vaidya	7	19/5/21	12:49	
59	Bhavya Kumar Jain	3	19/5/21	11:30	
60	Dr. Sanjukta Rout	5	19/5/21	11:00 pm	
61	Dr. Anchala Kalra	8	19/5/21	1:1 pm	
			-		

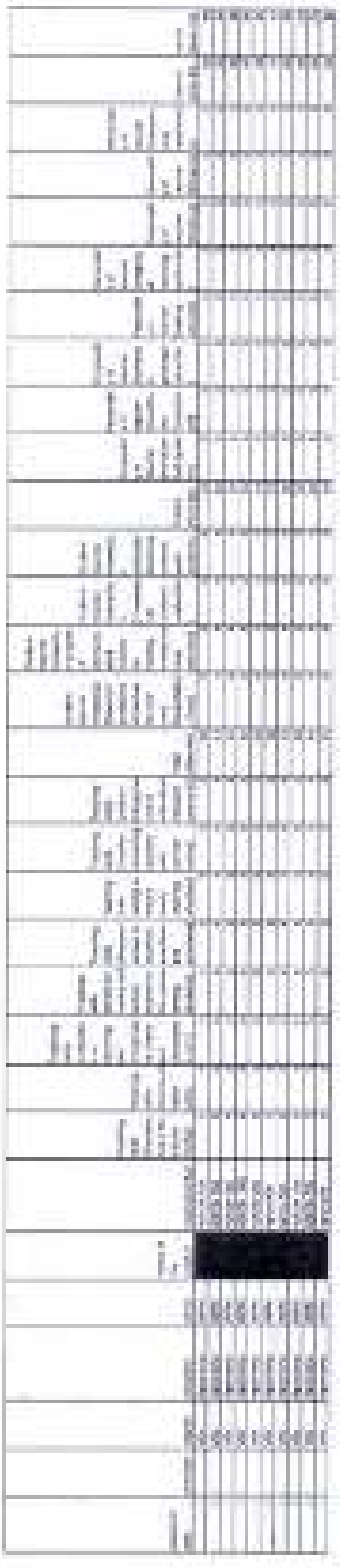
5 = 1
4 × 4 = 16
3 × 3 = 24
2 × 3 = 6

105
127
105 =

342

411





SELF STUDY REPORT
for degree accreditation
MSc. (Ag) in
Agricultural Economics

College of Post Graduate Studies in Agricultural Sciences
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	Particulars
1.	Sections 6.4
2.	Sections 6.4.2 to 6.4.3
3.	Section 6.4.4 to Section 6.4.6
4.	Section 6.4.7 to 6.4.8
5.	Section 6.4.9 to Section 6.4.12

6.4. **Self-Study Report for the MSc. (Ag) in Agricultural Economics**

6.4.1. Brief History of the Degree Programme

The North Eastern India is experiencing rapid population growth which has crossed 45 million mark. In order to attain economic, food and nutritional security, it is imperative to impart quality agricultural education and have sustained agricultural development in the states of northeastern region. This region is constrained by lack of adequate infrastructure, low productivity, inadequate marketing and lack of knowledge on modern farm technologies. With this genesis in background, the Central Agricultural University, Imphal established the College of Post Graduate Studies in Agricultural Sciences (**CPGSAS**) at Umiam, Meghalaya on 21st December, 2006.

MISSION of CPGSAS is to achieve excellence in teaching, research and extension education in the field of agriculture.

MANDATES of CPGS are:

1) to impart postgraduate education in different branches of Agriculture,
2) to further the advancement of learning and prosecution of research in Agriculture, and
3) to undertake such others activities as it may deem fit, from time to time, to uplift the socioeconomical status of farmers in the North Eastern Region.

Objectives of CPGS are:

1) To produce globally competitive postgraduates in the field of agriculture
2) To develop robust agricultural technologies to help Indian farming systems, particularly in the northeastern region of India to be sustainable and profitable, and
3) To transform agriculture and allied activities into profitable enterprises and thereby create food and nutritional security for people of northeastern region of India.
4) The postgraduates of CPGS who are educated and trained in recent advances in agriculture and allied sciences, are expected to bring about a quantum change in the agricultural research and development systems in their respective states and also contribute towards strengthening the National Agricultural Research System.

The MSc. degree program in Agricultural Economics currently running at CPGSAS is a 2 years full-time master's program following the ICAR course curriculum and has been offered at School of Social Sciencessince 2009.

In the last five years (2016-17 upto 2020-21) a total number of 20 M.Sc students have passed out. The research work has led to several publications. The details of which are given below:

FULL length RESEARCH PAPERS

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Dkhar, D.K., Feroze, S.M., Ray, L.I.P., Singh, Ram (2020). Weekly wet and dry spell during kharif rice season in Meghalaya. *Journal of Science and Environment*
Rajavardhan, M. Sethi, B. and Singh, Ram (2020). Supply Chain of Potato in East Khasi Hills District of Meghalaya: A temporal Analysis. *Indian Journal of Extension Education*
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Singh, Ram; Feroze, SM and Kumar, S. (2020). Production of turmeric in North East Hill Region of India: A value chain Analysis. *Indian Journal of Agril Economics*
MV Devi, L. Devarani, RJ Singh, L. Hemochandra (2020). Rice straw Management in Manipur: challenges and finding a way forward. *Indian Journal of Hill Farming*
Meena, N K Singh R, Feroze SM and Joliya P (2021). Solar energy an income accelerating option for irrigation of Kinnow orchard: An example in Rajasthan state of India. *Indian Journal of Agricultural Sciences*
Kemboi E, Feroze SM, Singh R, Ahmed Jand Tyngkan H (2021). Yield gap in milk production is considerable in Indian Himalayan state of Meghalaya. *Journal of Dairy Research*
P. M. N. Rani, T. Rajesh and L. Hemochandra (2021). Agricultural Crop Diseases Detection Using Deep Learning Technique: An Overview. *Multilogic in Science*
Laitonjam, N., Singh, Ram, Feroze, SM. Effect of pre-monsoon rainfall on maize yield in Manipur (2018). Economic Affairs

List of MSc. (Agri. Eco) theses submitted (2016-2021)

Name of the student	Year of passing	Thesis Title
Ms. Astha Barman	2016	Economics of Chow-Chow (*sechium edule*) Cultivation in West Khasi Hills District of Meghalaya
Ms. A. Tovinoli Shohe	2016	Economics of large Cardamom Production in Zunheboto District of Nagaland
Mr. Baiarbor Nongbri	2016	Risk to Drought in Nagaland: An Empirical Study of Farm Households
Ms. Juicy Debbarma	2016	Economic Analysis of Pineapple Production in Triupra
Ms. Singyala Chiphang	2016	Economic Assessment of Lemon Production in Ukhrul District of Manipur
Ms. Ainy Taloh	2017	Production and Marketing of Kiwi in West Kameng District of Arunachal Pradesh: Economic Analysis
Ms. Mun Yomcha	2017	Rice Cultivation Under Climate Change in West Siang District of Arunachal Pradesh: An Economic Study
Mr. N. Chinglen Meitei	2017	Value Chain Analysis of Fish in Loktak Lake of

		Manipur
Mr. Sukheimon Passah	2017	Economics of Khasi Mandarin in East Khasi Hills and West Khasi Hills District of Meghalaya
Mr. Limasunep Ozukum	2018	Valuation of Alder Based Farming System in Nagaland
Ms. Sedeno Chale	2018	Value Chain Analysis of Dairy Industry in Nagaland
Mr. Kunchum Suresh Krishna	2018	Consumer Behaviour of Tourists for Agri-Products in Meghalaya
Mr. Shaikh Tabrez	2018	Socio-Economic Study on Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) in Ri-Bhoi District of Meghalaya
Mr. Nowang Wangnow	2019	Economics of Tea Cultivation in Tirap District of Arunachal Pradesh
Ms. Minam Gamoh	2019	Performance of Agriculture in Sikkim: Assessing the Satisfaction of Farmers"
Mr. Rizwan Ahmed	2020	An Evaluation of the Public Distribution System in Kamrup (Rural) District of Assam
Ms. Kota Karuna Sri	2020	Economic Analysis of Cabbage Production in East Khasi Hills District of Meghalaya
Mr. Evans Kiprono Kemboi	2020	Economic Analysis of Milk Production in Ri-Bhoi District of Meghalaya
Mr. Mumadi Rajavardhan	2020	A Study on Marketing Pattern of Potato in Meghalaya: Special Reference to East Khasi Hills District
Mr. Jabir Ahmed	2020	Economic Analysis of Milk Production in East Khasi Hills District of Meghalaya
Mr. Mridupaban Das	2020	Economic Analysis of Milk Production in West Khasi and South-West Khasi Hills Districts of Meghalaya

6.4.2. Faculty Strength

S.No.	Sanctioned Faculty	Faculty in place#	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	2	1	1
2.	AssociateProfessor*	2	Nil	2
3.	AssistantProfessor	3	1	3

* Associate professors (#2) promoted to Professor and two assistant professors to associate level.

For School of Social Science ie., Agricultural Economics and Extension Education. Additionally, Scientists from ICAR are recognized as faculty by the academic council and as per MOU.

6.4.3.Technical and Supporting staff

Sl. No.	Name of post sanctioned	No. of post sanctioned	Filled position
Group-C			
1	Clerk-cum-Typist/LDC/UDC	1	-
2	MTS	4	2
Grand total		**5**	**2**

For School of Social Science ie., Agricultural Economics and Extension Education.

6.4.4. Classrooms and Laboratories: 5 Classrooms, 1 Seminar and 1 conference room attached with LCD Projector are available.
Following laboratories and facilities are available; Computer Lab and Multimedia Lab

The facilities available includewell-furnished Computer Lab which is well equipped with the computer of 20 nos. The Lab has 5 numbers of SPSS users license which is updated time to time.

6.4.5 Conduct of Practical and Hands-on-Training
The practicals in PG program (**MSc. (Ag) in Agricultural Economics**) are conducted as per the ICAR course curriculum. Practical and hands-on training are conducted as per the list included in the syllabi and records for all the courses are maintained and evaluated by the respective course incharges by giving marks/weightage. For some of the courses which require visits to farmer fields, provisions are made accordingly for such visits.

6.4.6 Supervision of students in PG programs
The allotment of students is PG is as per CAU regulation with a cap of maximum six students for Professor, five students for Associate Professor and four students for Assistant Professor are being allotted in the school. Apart from the above mentioned, School of Social Sciences has two faculty each from ICAR-RC for NEH, Umiam and ICAR-ATARI, Umiam with specialization in Agricultural Economics and Agricultural Extension recognized for teaching and guidance of the students. The allotment of students is by lottery and in constitution of advisory committee and allotment of research title, the interest of the student is always kept in mind.

Name of Faculty	Number of students guided	Number of students being guided
Dr. Ram Singh	11	4
Dr. Sheikh Mohammad Feroze	8	0
Dr. S. Basanta Singh	1	0
Dr. Anandkumar Singh	0	3

6.4.7 Feedback of stakeholders (students, parents, industries, employers, farmers etc.)
At the end of the each semester and before the end term exam, a comprehensive feedback for each course is taken from students. The feedback includes competency of the teacher in the subject, updating the current status of the subject by the teacher, timely covering of syllabi,

student teacher interactions, creating interest among the students about the course, attitude towards weak students, punctuality of the teacher,etcfor the last five years.
(Representative documents are provided in Appendix-CPGSAS-C)

6.4.8 Students intake and attrition in the program for last five years

Year wise information for the last five academic years (2016-17 to 2020-21) for MSc. **(Ag.) in Agricultural Economics** program is given in table below:

Academic year	Intake Capacity	Number of admitted student	Attrition (%)	Passed Out
2016-17	5+2*	7	2	4
2017-18	1+2*	1	-	4
2018-19	3+2*	6	-	6
2019-20	2+2*	4	-	6
2020-21	5+2*	4	-	-

*** To be filled by ICAR candidate**

6.4.9 ICT Application in Curricula Delivery

All the class rooms, seminar and conference rooms are well equipped with LCD projectors. As per the needs of the course, power point presentation is given before the students for better explanation. Online and faculty made audio/videos are also presented to the students.

Table: A brief summary of existing facility in the College Library for MSc students

Sl. No.	Facility exist	Status
1	Availability of books (Nos.)	5433
2	Access to print copy of Indian Journals (Nos.) and Periodicals	20
4	Access to Indian on-line journals	2 titles
5	Consortia	2794 e-journals through CeRA consortium
6	MSc. And PhD Theses	356 MSc; 37 PhD
7	Research Reports and Technical Bulletins	475
8	CDs	85
9	Magazines	8
10	Newspapers (national and local)	8
11	Statistical Database	1
12	Analytical Software	1

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate (Applicable when SSR is submitted for Programme) I, the Dean **Dr. Wricha Tyagi**. hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

Student Feedback Form

Please limit to 1 feedback for each course taken.

* Required

1. Academic year *

Mark only one oval.

- 1
- 2
- 3
- 4

2. Semester *

Mark only one oval.

- I
- II
- III
- IV
- V
- VI
- VII
- VIII

3. Degree *

Mark only one oval.

- ◯ PhD
- ◯ MSc
- ◯ BSc

4. Discipline *

_____

5. School *

Mark only one oval.

- ◯ SCI
- ◯ SCP
- ◯ SNRM
- ◯ SSS

6. Name of the teacher *

_____

7. Course number *

_____

8. Teaching skills *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Competence in the subject matter	☐	☐	☐	☐	☐
Communication skills	☐	☐	☐	☐	☐
Utilization of teaching aids (multimedia, charts and illustations, etc.	☐	☐	☐	☐	☐
Ability to create and uphold interest in the course among students	☐	☐	☐	☐	☐
Responsiveness to students' questions and problems	☐	☐	☐	☐	☐
Ability to ensure timely covering of syllabi	☐	☐	☐	☐	☐
Teacher remaining updated with current status	☐	☐	☐	☐	☐
Skills in linking the course with other relevant course (s)	☐	☐	☐	☐	☐

9. Student-teacher interaction *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Extent of availability of teacher for post-class consultation, if any	☐	☐	☐	☐	☐
Degree of demonstrated interest for holding interactive class sessions	☐	☐	☐	☐	☐
Timeliness in students' evaluation	☐	☐	☐	☐	☐
Attitude/ Response towards weak students	☐	☐	☐	☐	☐

10. Personality of teacher *

Mark only one oval per row.

	Outstanding	Excellent	Good	Average	Poor
Punctuality/Regularity	⬭	⬭	⬭	⬭	⬭
Sincerity and Commitment	⬭	⬭	⬭	⬭	⬭
Fairness in grading/evaluation	⬭	⬭	⬭	⬭	⬭
Helping attitude	⬭	⬭	⬭	⬭	⬭
Integrity of teaching profession	⬭	⬭	⬭	⬭	⬭
Patience	⬭	⬭	⬭	⬭	⬭
Behavior	⬭	⬭	⬭	⬭	⬭
Interpersonal relationship	⬭	⬭	⬭	⬭	⬭

This content is neither created nor endorsed by Google.

Google Forms

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signature
1	[illegible]	2	[illegible]	[illegible]	[illegible]
2	FARZANA AHMAD	7	[illegible]	[illegible]	[illegible]
3	MALLIKHARJUNA KEERTHAN	7	[illegible]	[illegible]	[illegible]
4	TINKUNIYANG	7	[illegible]	[illegible]	[illegible]
5	[illegible]	2	[illegible]	[illegible]	[illegible]
6	[illegible]	7	[illegible]	[illegible]	[illegible]
7	[illegible]	6	[illegible]	[illegible]	[illegible]
8	V. PREETI KUMARI	7	[illegible]	[illegible]	[illegible]
9	[illegible]	7	[illegible]	[illegible]	[illegible]
10	[illegible]	11	[illegible]	[illegible]	[illegible]
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12	[illegible]	6	[illegible]	[illegible]	[illegible]
13	ATEEFA	7	[illegible]	[illegible]	[illegible]
14	[illegible]	15	[illegible]	[illegible]	[illegible]
15	M. Shanmukh Raju	6	[illegible]	[illegible]	[illegible]
16	Yeluguri Sikhasanya	8	[illegible]	[illegible]	[illegible]
17	Mangalada Gangadhar	6	[illegible]	[illegible]	[illegible]
18	Anil Kumar	6	[illegible]	[illegible]	[illegible]
19	[illegible]	5	[illegible]	[illegible]	[illegible]
20	[illegible]	5	[illegible]	[illegible]	[illegible]
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22	[illegible]	7	[illegible]	[illegible]	[illegible]
23	[illegible]	1	[illegible]	[illegible]	[illegible]

[illegible]

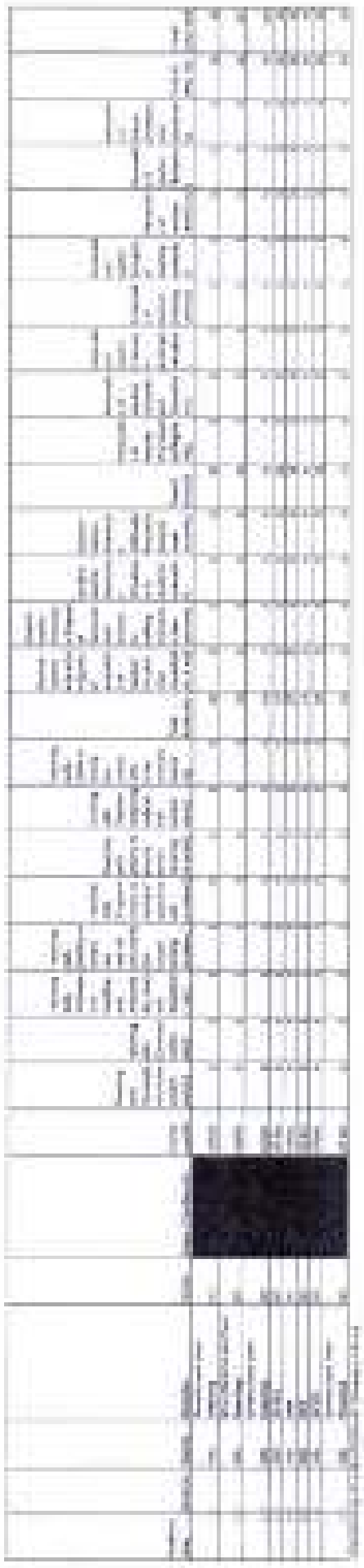
Sl. No	Name	No. of feedback forms submitted	Date	Time	Signatures
29	Payal Prasad	4	13/4/21	11:05	Payal
30	A. Geetha Reddy	8	11/4/21	11:06	
31	Naveen.H	4	17/4/21	12:44	
32	Sneha Hemitha	6	15/4/21	11:47	S.Hemitha
33	M. Sachin	6	11/4/21	11:48	M. Sachin
34	E. Naveen	6	13/4/21	11:54	
35	Dr. Mahendra	4	11/4/21	11:55	Dr. Mahendra
36	Nilesh Sharma	3	11/4/21	12:38	Nilesh
37	Monika	7	14/4/21	11:23	Monika
38	Vinay Prakash	7	12/4/21	11:59	Vinay
39	Ramesh Chauhan	7	14/4/21	12:06	
40	Rekha Verma	7	15/4/21	12:55	Rekha Verma
41	Bimal Kumar Sahu	7	13/4/21	12:56	B.K. Sahu
42	Kailash Patel	7	13/4/21	12:57	Kailash Patel
43	Manickam V	7	13/4/21	12:57	V Manickam
44	Shashidhar M P	4	11/4/21	12:58	
45	D. Sainath Reddy	7	17-4-21	12:59	D. Sainath Reddy
46	Jayaram Bhat	3	12/4/21	12:59	

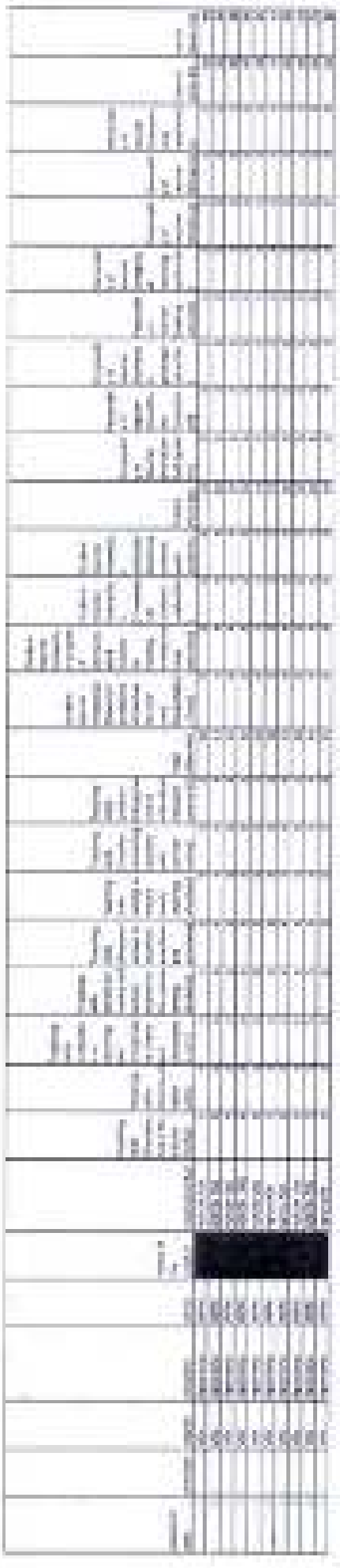
9 x 2 = 18
8 x 2 = 16
6 x 3 = 18
2 + 4 = 42

9 x 6 = 54

154

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signatures
AF	Vanitha yuvaraj	5	12.45		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]





SELF STUDY REPORT
for degree accreditation
MSc. (Ag)
Entomology

College of Post Graduate Studies in Agricultural Sciences
Central Agricultural University (Imphal)
Umiam, Umroi Road, Meghalaya - 793 103

Telefax: 0364-2570030
e-mail: dean.cpgsas@cau.ac.in/deancpgs@gmail.com website: www.cpgsas.ac.in

	Particulars
1.	Sections 6.4
2.	Sections 6.4.2 to 6.4.3
3.	Section 6.4.4 to Section 6.4.6
4.	Section 6.4.7 to 6.4.8
5.	Section 6.4.9 to Section 6.4.12

6.4. **Self-Study Report for the MSc. (Ag) Entomology**

6.4.1. Brief History of the Degree Programme

The North Eastern India is experiencing rapid population growth which has crossed 45 million mark. In order to attain economic, food and nutritional security, it is imperative to impart quality agricultural education and have sustained agricultural development in the states of northeastern region. This region is constrained by lack of adequate infrastructure, low productivity, inadequate marketing and lack of knowledge on modern farm technologies. With this genesis in background, the Central Agricultural University, Imphal established the College of Post Graduate Studies in Agricultural Sciences (**CPGSAS**) at Umiam, Meghalaya on 21st December, 2006.

MISSION of CPGSAS is to achieve excellence in teaching, research and extension education in the field of agriculture.

MANDATES of CPGS are:

1) to impart postgraduate education in different branches of Agriculture,
2) to further the advancement of learning and prosecution of research in Agriculture, and
3) to undertake such others activities as it may deem fit, from time to time, to uplift the socioeconomical status of farmers in the North Eastern Region.

Objectives of CPGS are:

1) To produce globally competitive postgraduates in the field of agriculture
2) To develop robust agricultural technologies to help Indian farming systems, particularly in the northeastern region of India to be sustainable and profitable, and
3) To transform agriculture and allied activities into profitable enterprises and thereby create food and nutritional security for people of northeastern region of India.
4) The postgraduates of CPGS who are educated and trained in recent advances in agriculture and allied sciences, are expected to bring about a quantum change in the agricultural research and development systems in their respective states and also contribute towards strengthening the National Agricultural Research System.

The MSc. degree program in Entomology currently running at CPGSAS is a 2 years full-time master's program following the ICAR course curriculum and has been offered at School of Crop Protectionsince 2009.

In the last five years (2016-17 upto 2020-21) a total number of 28 M.Sc students have passed out. The research work has led to several publications. The details of which are given below:

FULL length RESEARCH PAPERS

Moakala Jamir, T. Rajesh, R.K. Tombisana Devi, D. Majumder, Kennedy Ningthoujam and L. Hemochandra (2018). Cultural and Morphological Variability in Phomopsis vexans(Sacc. & Syd.) Harter Causing Fruit Rot of Brinjal
Sangma E.M.1 , Devi R.K.T. 1 , Rajesh T. 1 , Patra S.2 , Hemochandra L.1 , Rymbai H. Evaluation of Plant Products and Antagonistic Microbes against PestalotiopsisVersicolor, A Pathogen of Gauva. International Journal of Trends in Biosciences
Moakala Jamir, T. Rajesh, RK Tombisana, L. Hemochandra. Cultural and Morphological Variability in Phomopsisvexans (Sacc. &Syd.) Harter Causing Fruit Rot of Brinjal. *International Journal of Current Microbiology and Applied Sciences*

B.K. Namriboi1 , R.K. Tombisana Devi , Dipali Majumder1 , N.S. Azad Thakur1 and L. Hemochandra. Efficacy of Plant Extracts and Chemicals against Ascochytaphaseolorum, Causal Agents of Ascochyta Blight of Vignaanguiculata (L.) Walp. *International Journal of Current Microbiology and Applied Sciences,*
Rojeet Thangjam, Veronica Kadam, L Hemochandra, V Ramalaxmi, D Gokul Krishna and Likhit Patnaik. Studies on the diversity and abundance of butterfly in and around CUTM, Paralakhemundi campus, Odisha (India). Journal of Entomology and Zoology Studies,
Mahendra K., Baiswar P, Chandra S., Choudhury, B.U., Majumder D., Rajesh T. and Firake, D.M. (20016) Molecular characterization and influence of soil factors on isolates of Rhizoctonia solani in Meghalay. Indian Phytopath. 69 (3) : 271-277.
Kipgen T. L. , Majumder D. , Tyagi, W. Thakuria, D. and Nath B. C (2016) Characterization of fluorescent pseudomonads from maize and rice rhizosphere of meghalaya and screened for their antagonistic ability against Ralstonia solanacearum. The Bioscan. 11(2): 699-704
A. War and D. Majumder (2016) In vitro efficacy of chemicals, antibiotics and plant extract against bacterial soft rot in king chilli. Plant Disease Research: 31(1): 72-78.
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Singh Y.Herojit, Singh N.I., Devi R.K. Tombisana., Bireshwar S., Sharma S.K., Singh Th. Surjit (2016) Prevalence of leaf spot of turmeric in Manipur and in vitro evaluation of fungicides. 31(2) : 146-149.
Das T., Hajong M., Majumder D., Devi R.K. Tombisana and Rajesh T. (2016) Climate chang e impacts on plant diseases. SAARC J. Agri ., 14(2) : 200-209
Rajesh T., Maruthasalam S., Kalpana K., Poovannan K., Kumar K.K., Kohiladevi E., Sudhakar D., Samiyappan R. and Balasubramanian P., (2016) Stability of sheath blight resistance in transgenic ASD16 rice lines expressing a rice chi 11 gene encoding chitinase. Biologia Plantarum, 60 (4): 749-756
Manpoong N.S., Firake D.M., Behere G.T., and Rajesh T (2016) Biological attributes and feeding potential of three dominants predators of Lipaphis erysimi (Kaltenbach). Journal of Biological Control, 30 (3) : 190-194
Mittal, A., Ningthoukhongjam J., Malthankar P.A., Ningthoujam K., Kalia V. and Gujar G.T. (2016). Toxicity of Cry1Ac., Inheritance of Cry1Ac Resistance and Fitness Cost Association in the Pink Bollworm, Pectinophora gossypiella (Lepidoptera: Gelechiidae). Biopestic. Int. 12(2):127-138.
Arpana Manger, G.T. Behere, D.M. Firake, Bhagawati Sharma, N.A. Deshmukh, P.D. Firake, N.S. Azad Thakur & S.V. Ngachan. (2017). Genetic characterization of Bactrocera fruit flies (Diptera : Tephritidae) from Northeastern India based on DNA barcodes. Indian Journal of Hill Farming , 28(5): 792-799.
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Lavanya Sravani Balguri, NS Azad Thakur, DM Firake, P Sandip, T Rajesh, E Sankarganesh (2018). Effect of Different Temperature Regimes on Biology of Bruchid, Callosobruchus maculatus (Fab.) and Curculionid, Sitophilus zeamais (Mots.). Indian Journal of Hill Farming 31(2): 314-318
Ganesh T, Rajesh T, Banerjee A, Rymbai H, Behere GT and Krishnappa R (2018) Survey on Citrus tristeza virus and Haunglongbing (Citrus greening) associated with Citrus decline of Khasi mandarin in Meghalaya. Research Journal of Chemical and Environmental Sciences, 6(3): 92-95.
Ganesh T, Rajesh T, Banerjee A and Rymbai H (2018) One step RT-PCR method for quick and reliable detection of Citrus tristeza virus (CTV) in mid-hills of Meghalaya, India. International Journal of Current Microbiology and Applied Sciences, 7(5): 1296-1300.

Jamir M, Rajesh T, Devi RKT, Majumder D, Ningthoujam K and Hemochandra L (2018) Cultural and morphological variability in Phomopsis vexans (Sacc. & Syd.) Harter causing fruit rot of brinjal. International Journal of Current Microbiology and Applied Sciences, 7(7): 2807-2814.

Namriboi, B.K., Devi, R..K.T., Majumder, D., Azad Thakur, N.S. and Hemochandra, L. (2018). Efficacy of plant extracts and chemicals against Ascochyta Blight of Vigna anguiculata (L.) Wall. International Journal of Current Microbiology and Applied Sciences 7 (8): 403-412.

Bamon M, Majumder D, Thakuria D and Rajesh T (2018) In-vitro efficacy of bacterial endophytes against Pythium sp. causing soft rot of ginger in Meghalaya. International Journal of Current Microbiology and Applied Sciences, 7(8): 367-374.

Larinfeli, R., Behere, G.T., Firake, D.M., Sharma, B, Banerjee, A. and T. Rajesh. (2019) Development of DNA Barcodes for Major Insect Pest of Cole Crops in Mid-Hills of Meghalaya. International Journal of Current Microbiology and Applied Sciences, 8(2): 1-11.

Suraj, Y., Ningthoujam, K., Nakambam, S., Azad Thakur, N.S., Rajesh, T., Devi, R..K.T., and Balasubramanian, P. (2019). Studies on the biology of Helicoverpa armigera on different semi synthetic diet. Journal of Entomology and Zoology studies 7 (1): 709-712.

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Thangjam, R., Veronica, K., Ningthoujam, K. and M. Sorokhaibam (2019). Hoverflies of Assam (Diptera: Syrphidae): New records and their diversity. Journal of Entomology and Zoology Studies. 7(4): 965-969

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List of MSc. (Entomology) theses submitted (2016-2021)

Name of the student	Year of passing	Thesis Title
Mr. Khrieketou Kuotsu	2016	Development of DNA Barcodes of Insect Pests and Natural Enemies of Major Cereal Crops in Mid Hills of Meghalaya
Ms. K. Lalruatsangi	2016	Eco-friendly Management of Major Insect Pest of Tomato in Mid-Hills of Meghalaya
Mr. Partha Debnath	2016	Screening of Germplasms and Evaluation of Botanicals Against Mustard Aphid, *Lipaphis erysimi* (Kaltenbach) in Mustard in Mid Hills of Meghalaya
Mr. Pitchaimurugan M	2016	Ecological Aspects and Management of Fruit Infesting Tephritids in Guava (*Psidium guajava* L.)
Mr. Remiioo Newyear Bamon	2016	Pollination Biology of Honey Bee in Chow-chow (*Sechium edule* Jacquez) and its Impact on Yield at Mid Hills of Meghalaya
Mr. Ajit Tripura	2016	Seasonal Incidence and Bio-rational Management of Shoot and Fruit borer (*Leucinodes orbonalis* Guenee) of Brinjal in Mid-Hills of Meghalaya
Mr. Along Bryan M. Sangma	2017	Studies on Major Soil Borne Insect Pest and Parasitic Nematodes Affecting Potato Crop and Their Management
Mr. Kaleeswaran G.	2017	Insecticidal Activities of *Zanthoxylum armatum* Extract Against Major lepidopteran Defoliators of Vegetables
Ms. Lency Tangu	2017	Studies on Aphidophagous Coccinellids of Cowpea Ecosystem

		in Mid Hills of Meghalaya
Mr. Sakil Dhamala	2017	Studies on Bio-Efficacy, Persistency and Non-Target Toxicity of Chlorfenapyr and Indoxacarb in Brinjal and Cabbage
Mr. Sankarganesh E	2017	Development of DNA Barcodes for Major Insect Pests and Natural Enemies of Solanaceous Crops Ecosystem in Mid Hills of Meghalaya
Ms. Arensungla Pongen	2018	Development of DNA Barcodes for Major Insect Pests and Natural Enemies of Cucurbitaceous Crops in Mid Hills of Meghalaya
Ms. Baiamon Sutnga	2018	Bioefficacy and Dissipation of Imidacloprid and Thiacloprid in/on Chilli (*Capsicum annuum* L.)
Mr. Challa Girish Kumar	2018	Assessment of Toxicity of Bio-pesticides to the Indian Honey Bee, *Apis cerana indica* (Fabricius) in Oilseed Brassica
Ms. Pebam Inija Devi	2018	Effect of Plant Extracts and Essential Oils on Major Lepidopteran Pests of Cruciferous Crops
Mr. Yengkhom Suraj Singh	2018	Studies on Various Histological Changes in Haemocytes Associated with NPV Infection in *Helicoverpa armigera* Hübner)
Ms. Balguri Lavanya Sravani	2018	Effect of Different Temperatures and Plant Oils on Bruchid, *Callosobruchus maculatus* (Fab.) and Curculionid, *Sitophilus zeamais* (Mots.)
Mr. Debanand Biswas	2019	Insect Biodiversity and Seasonal Incidence of Major Insect Pests of Apple (*Malus sylvestris* Mill.) in Mid Hills of Meghalaya
Mr. Krishna Kumar. S.	2019	Investigation on Role of Insect and Nematode Pests for Decline of Khasi Mandarin in East and West Khasi Hills Districts of Meghalaya
Mr. Penumajji Ganesh Kumar	2019	Insect Biodiversity and Seasonal Abundance of Major Insect Pests of Black Gram (*Vigna mungo* L. Hepper) Ecosystem in Mid-Hills of Meghalaya
Ms. Sonali Nakambam	2019	Arthropod Diversity in Rice Ecosystem with Special Reference to Spiders in Mid-hills of Meghalaya
Mr. Wankitkupar Fernando Nadon	2019	Insect Biodiversity and Seasonal Incidence of Major Insect Pests in Wheat (*Triticum aestivum* L.) Ecosystem in Mid-hills of Meghalaya
Mr. Jyotim Gogoi	2020	Arthropod Diversity in Agricultural, Horticultural and Silvicultural Ecosystems with Special Reference to Spiders in Mid-Hills of Meghalaya
Mr. Nitin Hugar	2020	Studies on Population Dynamics and Monitoring Insect Pests in Potato Agro-Ecosystem Through Different Pheromone Traps and Lures in the State of Meghalaya
Mr. Harish R.	2020	Diversity and Morphometric Study of Termites in Mid-hills of Meghalaya
Ms. Adhikari Mounika	2020	Biodiversity and Molecular Characterization of Insect pests and Natural Enemies of Potato ecosystem in Mid Hills of Meghalaya
Mr. Thota Narendrakumar	2020	Spatial and Temporal Distribution of Stingless Bees in Mid Hills of Meghalaya
Mr. Karthik R	2020	Dietary Influence on the Biology and Susceptibility of Fall

		Armyworm, *Spodoptera frugiperda* (J.E. Smith) to Cry Toxins from *Bacillus thuringiensis*
Ms. Deepika Gadaily	2020	Study on Biodiversity of Soil Arthropods in Mid-Hills of Meghalaya

6.4.2. Faculty Strength

S.No.	Sanctioned Faculty	Faculty in place#	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	3	Nil	1
2.	Associate Professor	3	Nil	2
3.	Assistant Professor	2	1	3

* Assistant professor (#1) promoted to Assoc. Professor and three associate professors promoted to Professor level.

For School of Crop Protection ie., Plant Pathology and Entomology. Additionally, Scientists from ICAR are recognized as faculty by the academic council and as per MOU.

6.4.3.Technical and Supporting staff

Sl. No.	Name of post sanctioned	No. of post sanctioned	Filled position
1	Livestock/Farm Assistant	1	0
2	Clerk-cum-Typist/LDC/UDC	1	-
3	Field-cum-Lab. Assistant	2	1
4	MTS	4	2
Grand total		**9**	**5**

For School of Crop Protection ie., Plant Pathology and Entomology.

6.4.4. Classrooms and Laboratories: 5 Classrooms, 1 Seminar and 1 conference room attached with LCD Projector are available. Following labs are available

1. Plant Pathology Lab
2. Molecular Lab
3. Biopesticide production unit
4. Mushroom production unit
5. Entomology Lab
6. Nematology Lab
7. Insectry
8. Polyhouse

List of equipments and facilities available are as mentioned

S.N.	Particulars of Asset	Quantity
1	Auto Loop Sterilizer, Make: Himedia,	1 no.

2	Microwave Oven, Samsung-32 ltrs. Model No. CE117ALF	1 no.
3	Conductivity Meter Cyberscan 510, Eutech make	1 no.
4	Colony Counter; Cat # 0671	2 nos.
5	Autoclave Portable, Cat # 7407 PAD	2 nos.
6	Vortex General Purpose (Shaker), Tarsons	5 nos.
7	Water Single Distillation Plant, Medica:	2 nos.
8	Microcentrifuge, Spinwin: 'Tarsons' Brand, Model: MC-01	1 no.
9	Pipette Controller, Tarsons Brand , Cat No. 2003	2 nos.
10	Dancing Shaker, Tarsons Brand, Cat No. 3040	2 nos.
11	Fume Hood, NSW Brand, Cat No. 203	1 no.
12	Digital Turbidity Meter: Systronics Brand (Type: 132)	1 no.
13	Heating Mantles, Jindal Brand, Capacity-500 ml, 200 Watt	1 no.
14	Heating Mantles, Jindal Brand, Capacity-1 lt., 300 Watt.	1 no.
15	Heating Mantles, Jindal Brand, Capacity-2 lt., 450 Watt.	1 no.
16	UV-Transilluminator, Brand: UVP Ltd (UK), Model: LMS-20	1 no.
17	Top Pan Weighing Balance, Model: GE7101, Make: Sartorius	2 nos.
18	Laminar Air Flow, ACCO Make, Cat: AC071-02	1 no.
19	Laminar Air Flow, ACCO Make, Cat: AC071-04	1 no.
20	Autoclave Vertical, 7451PAD, Make: Equitron	1 no.
21	Autoclave Vertical, Make: Equitron	1 no.
22	BOD Incubator, Cat#7140-250, Make: Equitron	2 nos.
23	Student Microscope, Labomed, Model: VISION2000	4 nos.
24	Seed Germinator with Stabilizer, Remi Make	1 no.
25	Mastercycler Personal (Thermocycler) with accessories	1 no.
26	Centrifuge 5810R with accessories	1 nos.
27	Electronic Balance, Denver Make	2 nos.
28	Hot Air Oven, Equitron Medica Make	1 no.
29	Vortex-Genie ® 2 Vortex (220V)	1 Set
30	Uniline 3 KVA/180V OL UPS Systems, with isolation Transformer Indicative Back Up Time 120 minutes, Minimum VAH 9600	2 nos.
31	Uniline 5 KVA/180V OL UPS Systems, with isolation Transformer Indicative Back Up Time 60 minutes, Minimum VAH 8000	1 nos.
32	Deep Freezer, Brand: Cryo-Scientific, Model: URC-V-380-2	1 no.
33	Shaker Incubator, Electronic Laboratory Incubator Shaker, Model: LIS (Rotek LIS)	3 nos.
34	Bench Top Cooler (0°C), Tarson Make	2 nos.
35	Gel Electrophoresis-101 (Mini and Wide Midid Horizontal) With Power Supply System, Brand: Scieplus (Axygen Make), Model: HU10, HU25 and EV243	1 no.
36	Precision Hot Air Oven, Model: O-OGS -2436A, Brand: OVFU, Model CF549	3 nos.
37	Binocular Microscope Model: LEICA DM 750 + accessories, PC with Core 2 dual Processor, 2 GB RAM, 250 GB HDD, 17 inch TFT Monitor and Colour Photo Quality printer	3 nos.
38	U9260-0001 Premium Upright Freezer U410 with accessories, Model: U410-86	2 nos.
39	Gel Electrophoresis (Mini & Wide midi horizontal) with power supply system, Axygen Make	1 no.
40	Uniline 5 KVA/168V OL UPS Systems with 120 minutes Battery Back-Up Time Using SMF Battery	5 nos.
41	Microcentrifuge, Tarsons-1030 Spinwin MC-02, Make-Tarsons	1 no.
42	Microcentrifuge, Tarsons-3020 Spinix, Make-Tarsons	2 nos.
43	Microscope-HB Monocular, Brand-Olympus, Model-HB	8 nos.
44	Tarsons-7011-Rocker Vacuum Pump, Cat No. 7011	2 nos.
45	Hort Air Oven-Mechanical Convection, Brand OVFU 250 L, Model: 508	2 nos.
46	Hot Air Oven-O-OGS-1518 (D), Brand-OVFU	2 nos.
47	Dancing Shaker, Tarsons-3040, SP 0-60 RPM	2 nos.

48	Student Compound Microscope, MLX-B Binocular (Pathological), Brand: Magnus	6 nos.
49	Weighing Balance Model: TTB31 Wensar	2 nos.
50	Electronic Balance, Model: MAB220, Wensar, Sl. No. 29640	1 no.
51	Table Top Microcentrifuge	1 no.
52	pH Meter, Microprocessor based, pH measuring range: 0.00 to 14.00	1 no.
53	Water Single Distillation Plant	1 no.
54	Compound Light Microscope CH 20i Binocular Microscope, Brand: Olympus, Model CH20i	
55	Laboratory Refrigerator, 380 lt. capacity with glass door, frost free, 72.8x23.4x23.4 dimensions with 2 KVA Voltage Stablilizer Model: FKG-400, Make: Celfrost	3 nos.
56	BOD Incubator, Precise electronic digital temperature controller with timer with cooling system, Make: Ikon Instruments, Model: IK120	1 no.
57	Stereo Microscope, Model: EZ4, Make: Leica, Germany, No. 10447197	1 no.
58	UV Transilluminator, Tarsons: Make	1 no.
59	Intel Core i7 Windows 8 Desktop Computer, Make: DELL, Model: Optiplex 9020MT, Sl. No. 6RWJ882	2 nos.
60	Top Pan Weighing Balance, Model: CA3102, Contech Make	5 nos
61	Hot Plate Cum Magnetic Stirer, Model: MS-H-280 Pro, Make: Dlab	1 no.
62	pH Meter, Model: LMPH 10, Sl.No. 11672, Cat No. L11541, Make: Wenser	1 no.

6.4.5 Conduct of Practical and Hands-on-Training

The practicals in PG program (**MSc. (Ag)Entomology**) are conducted as per the ICAR course curriculum. Practical and hands-on training are conducted as per the list included in the syllabi and records for all the courses are maintained and evaluated by the respective course incharges by giving marks/weightage.

6.4.6 Supervision of students in PG programs

The allotment of students is PG is as per CAU regulation with a cap of maximum six students for Professor, five students for Associate Professor and four students for Assistant Professor are being allotted in the school. The allotment of students is by lottery and in constitution of advisory committee and allotment of research title, the interest of the student is always kept in mind.

Name of Faculty	Number of students guided	Number of students being guided
Dr. Mahesh Pathak	0	4
Dr. N. Kennedy	7	5
Dr. N. S. Azad Thakur	5	0

6.4.7 Feedback of stakeholders (students, parents, industries, employers, farmers etc.)

At the end of the each semester and before the end term exam, a comprehensive feedback for each course is taken from students. The feedback includes competency of the teacher in the subject, updating the current status of the subject by the teacher, timely covering of syllabi, student teacher interactions, creating interest among the students about the course, attitude towards weak students, punctuality of the teacher, etc for the last five years.

(Representative documents are provided in Appendix-CPGSAS-C)

6.4.8 Students intake and attrition in the program for last five years

Year wise information for the last five academic years (2016-17 to 2020-21) for MSc. **(Ag.) Entomology** program is given in table below:

Academic year	Intake Capacity	Number of admitted student	Attrition (%)	Passed Out
2016-17	5+2*	7	1	5
2017-18	5+2*	7	_	5
2018-19	5+2*	5	_	6
2019-20	2+2*	2	_	7
2020-21	5+2*	7	_	5

*** To be filled by ICAR candidate**

6.4.9 ICT Application in Curricula Delivery

All the class rooms, seminar and conference rooms are well equipped with LCD projectors. As per the needs of the course, power point presentation is given before the students for better explanation. Online and faculty made audio/videos are also presented to the students.

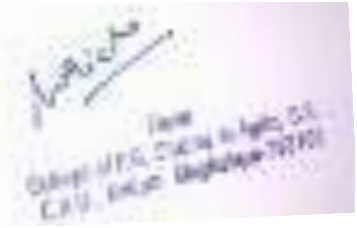
Table: A brief summary of existing facility in the College Library for MSc students

Sl. No.	Facility exist	Status
1	Availability of books (Nos.)	5433
2	Access to print copy of Indian Journals (Nos.) and Periodicals	20
4	Access to Indian on-line journals	2 titles
5	Consortia	2794 e-journals through CeRA consortium
6	MSc. And PhD Theses	356 MSc; 37 PhD
7	Research Reports and Technical Bulletins	475
8	CDs	85
9	Magazines	8
10	Newspapers (national and local)	8
11	Statistical Database	1
12	Analytical Software	1

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate (Applicable when SSR is submitted for Programme) I, the Dean **Dr. Wricha Tyagi** hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.



Signature of Dean of the College with Date & Seal

Student Feedback Form

Please limit to 1 feedback for each course taken.

* Required

1. Academic year *

Mark only one oval.

- 1
- 2
- 3
- 4

2. Semester *

Mark only one oval.

- I
- II
- III
- IV
- V
- VI
- VII
- VIII

3. Degree *

Mark only one oval.

- ◯ PhD
- ◯ MSc
- ◯ BSc

4. Discipline *

_____

5. School *

Mark only one oval.

- ◯ SCI
- ◯ SCP
- ◯ SNRM
- ◯ SSS

6. Name of the teacher *

_____

7. Course number *

_____

8. Teaching skills *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Competence in the subject matter	☐	☐	☐	☐	☐
Communication skills	☐	☐	☐	☐	☐
Utilization of teaching aids (multimedia, charts and illustations, etc.	☐	☐	☐	☐	☐
Ability to create and uphold interest in the course among students	☐	☐	☐	☐	☐
Responsiveness to students' questions and problems	☐	☐	☐	☐	☐
Ability to ensure timely covering of syllabi	☐	☐	☐	☐	☐
Teacher remaining updated with current status	☐	☐	☐	☐	☐
Skills in linking the course with other relevant course (s)	☐	☐	☐	☐	☐

9. Student-teacher interaction *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Extent of availability of teacher for post-class consultation, if any	☐	☐	☐	☐	☐
Degree of demonstrated interest for holding interactive class sessions	☐	☐	☐	☐	☐
Timeliness in students' evaluation	☐	☐	☐	☐	☐
Attitude/ Response towards weak students	☐	☐	☐	☐	☐

10. Personality of teacher *

Mark only one oval per row.

	Outstanding	Excellent	Good	Average	Poor
Punctuality/Regularity	⬭	⬭	⬭	⬭	⬭
Sincerity and Commitment	⬭	⬭	⬭	⬭	⬭
Fairness in grading/evaluation	⬭	⬭	⬭	⬭	⬭
Helping attitude	⬭	⬭	⬭	⬭	⬭
Integrity of teaching profession	⬭	⬭	⬭	⬭	⬭
Patience	⬭	⬭	⬭	⬭	⬭
Behavior	⬭	⬭	⬭	⬭	⬭
Interpersonal relationship	⬭	⬭	⬭	⬭	⬭

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Google Forms

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signature
1	[illegible]	2	[illegible]	[illegible]	[illegible]
2	FARZANA NIYAZ	7	17/5/21	11:05	[illegible]
3	MALLIKHARJUNA KEERTHAN	7	17/5/21	11:17 am	[illegible]
4	TINKUNIYANG	7	17/5/21	11:27 am	[illegible]
5	[illegible]	2	[illegible]	[illegible]	[illegible]
6	[illegible]	7	[illegible]	[illegible]	[illegible]
7	[illegible]	6	[illegible]	[illegible]	[illegible]
8	V. PREETI KUMARI	7	[illegible]	[illegible]	[illegible]
9	[illegible]	7	[illegible]	[illegible]	[illegible]
10	[illegible]	11	[illegible]	[illegible]	[illegible]
11	[illegible]	7	[illegible]	[illegible]	[illegible]
12	[illegible]	6	[illegible]	[illegible]	[illegible]
13	ATEEFA	7	[illegible]		
14	[illegible]	15	[illegible]	[illegible]	[illegible]
15	M Shanmukh Raju	6	[illegible]	[illegible]	[illegible]
16	Yeluguri Sikhasanya	9	[illegible]	[illegible]	[illegible]
17	Mangalada Pavithra	6	[illegible]	[illegible]	[illegible]
18	Anil Kumar	6	[illegible]	[illegible]	[illegible]
19	[illegible]	5	[illegible]	[illegible]	[illegible]
20	[illegible]	5	[illegible]	[illegible]	[illegible]
21	[illegible]	6	[illegible]	[illegible]	[illegible]
22	[illegible]	7	[illegible]	[illegible]	[illegible]
23	[illegible]	1	[illegible]	[illegible]	[illegible]

7 × 12 = 84
6 × 2 = 12
5 × 2 = 10
106

Sl. No	Name	No. of feedback forms submitted	Date	Time	Signatures
29	Payal Prasad	4	13/4/21	11:05	Payal
30	A. Geetha Reddy	8	11/4/21	11:06	
31	Naveen.H	4	12/4/21	12:04	
32	Sneha Hemitha	6	12/4/21	11:47	S.Hemitha
33	M. Sachin	6	11/4/21	11:48	M. Sachin
34	E. Naveen	6	12/4/21	11:54	
35	Dr. Manoranjan	4	11/4/21	11:53	
36	Nandi Sharma	3	11/4/21	12:30	
37	Monika	7	11/4/21	11:23	Monika
38	Vinay Prakash	7	12/4/21	11:19	
39	Hanumanth - P	5	11/4/21	12:05	
40	Gaddi Akhanda Sathyam	4	11/4/21	12:33	
41	Vallumuila prasad	9	11/4/21	12:22	
42	Abhishek Prakash	9	11/4/21	12:55	
43	Abhinay Varma	7	11/4/21	12:16	
44	[illegible]	7	12/4/21	11:55	
45	[illegible]	7	12/4/21	12:11	
46	[illegible]	7	12/4/21	12:17	
47	MANICKAM V	7	12/4/21	12:27	
48	Shashidhar MP	4	11/4/21	12:13	
49	D. Sainath Reddy	7	12-4-21	12:24	
50	[illegible]	3	12/4/21	12:30	

9 x 2 = 18
8 x 2 = 16
6 x 3 = 18
2 x 9 = 18

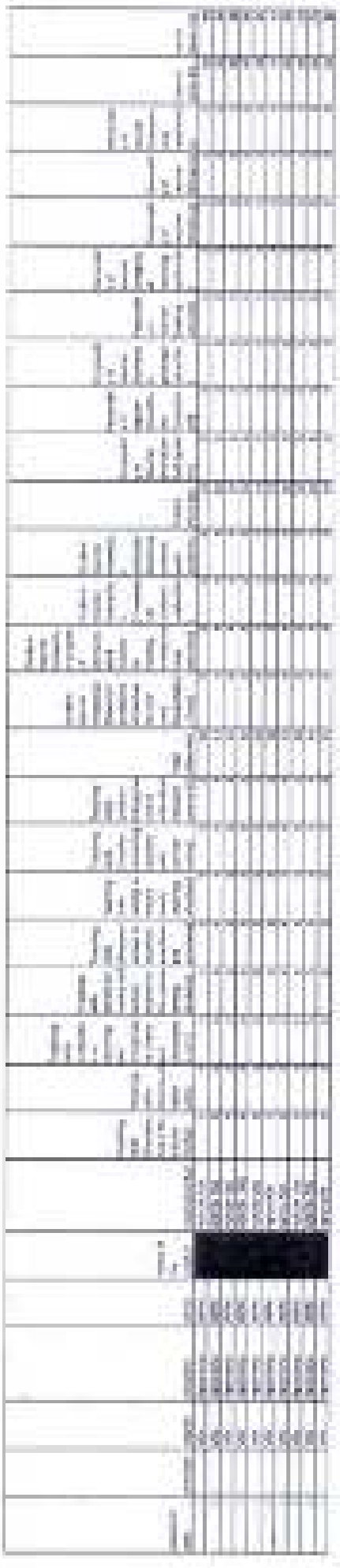
9 x 6 = 54

154

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signatures
47	Vanitha yuvaraj	5	17/9/21	12:45	
48	Kavya Sai Gupta	4	17/9/21	12:47	
49	Kavya	7	17/9/21	4:47	
50	Jayashree Ayer	7	17/9/21	12:56	
51	Dhanyashree Vasanth Kumar	2	17/9/21	13:45	
52	Balla Tanvi	6	17-09-21	12:04	
53	Sanjana Pattanayak	6	17-09-21	13:55	
54	[illegible]	7	17-09-21	13:59	
55	Kavya K Jayashree	4	17-09-21	14:19	
56	Sahithya Sahu	5	17-09-21	14:31	
57	Chekuri Chinnu	3	17-09-21	12:52	
58	Tanmay [illegible]	7	17/9/21	12:49	
59	Bhavya Kumar JM	3	17/9/21	11:30	
60	R. Sanjukta Rout	5	17/9/21	11:00	
61	R. Ankita Mishra	8	17/9/21	1:1 pm	
			-		

4 x 4 = 16
5 x 5 = 25 125
4 x 3 = 12 105 = 347

491



SELF STUDY REPORT
for degree accreditation
MSc. (Ag) in
Agricultural Extension

College of Post Graduate Studies in Agricultural Sciences
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	Particulars
1.	Sections 6.4
2.	Sections 6.4.2 to 6.4.3
3.	Section 6.4.4 to Section 6.4.6
4.	Section 6.4.7 to 6.4.8
5.	Section 6.4.9 to Section 6.4.12

6.4. **Self-Study Report for the MSc. (Ag) in Agricultural Extension**

6.4.1. Brief History of the Degree Programme

The North Eastern India is experiencing rapid population growth which has crossed 45 million mark. In order to attain economic, food and nutritional security, it is imperative to impart quality agricultural education and have sustained agricultural development in the states of northeastern region. This region is constrained by lack of adequate infrastructure, low productivity, inadequate marketing and lack of knowledge on modern farm technologies. With this genesis in background, the Central Agricultural University, Imphal established the College of Post Graduate Studies in Agricultural Sciences (**CPGSAS**) at Umiam, Meghalaya on 21st December, 2006.

MISSION of CPGSAS is to achieve excellence in teaching, research and extension education in the field of agriculture.

MANDATES of CPGS are:

1) to impart postgraduate education in different branches of Agriculture,
2) to further the advancement of learning and prosecution of research in Agriculture, and
3) to undertake such others activities as it may deem fit, from time to time, to uplift the socioeconomical status of farmers in the North Eastern Region.

Objectives of CPGS are:

1) To produce globally competitive postgraduates in the field of agriculture
2) To develop robust agricultural technologies to help Indian farming systems, particularly in the northeastern region of India to be sustainable and profitable, and
3) To transform agriculture and allied activities into profitable enterprises and thereby create food and nutritional security for people of northeastern region of India.
4) The postgraduates of CPGS who are educated and trained in recent advances in agriculture and allied sciences, are expected to bring about a quantum change in the agricultural research and development systems in their respective states and also contribute towards strengthening the National Agricultural Research System.

The MSc. degree program in Agricultural Extensioncurrently running at CPGSAS is a 2 years full-time master's program following the ICAR course curriculum and has been offered at School of Social Sciencessince 2009.

In the last five years (2016-17 upto 2020-21) a total number of 24M.Sc students have passed out. The research work has led to several publications. The details of which are given below:

FULL length RESEARCH PAPERS

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Stina, K.; Devarani, L.; Singh, R. J.; Singh, Ram and Hemochandra, L. (2020). Impact of Employment and Livelihood Programmes on Empowerment Level of the Beneficiaries. *International Journal of Current Microbiology and Applied Sciences,*
Das, M.; Singh, Ram; Feroze, S.M. and Singh S. B. (2020). Determinants of Marketed Surplus of Milk: A Micro Level Study in Khasi Hills Region of Meghalaya. *Indian Journal of Extension Education.*

Medhi, S.; Singha, A.K.;Singh, Ram and Singh, R.J. (2020). Socio-Economic, Psychological Profile and Constraints Faced by the KVK Adopted Farmers for Improved Rice Cultivation in West Garo Hills District *Economic Affairs,*
Dkhar, D.K., Feroze, S.M., Ray, L.I.P., Singh, Ram (2020). Weekly wet and dry spell during kharif rice season in Meghalaya. *Journal of Science and Environment*
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Ahmed, R., Singh, S.B., Singh, Ram and Hemochandra, L (2020). Public Distribution System in Kamrup (Rural) District of Assam: It's Impact and Parameters for Participation. *Indian Res. J. Ext. Edu.*
Kirwa, E., Singh, R.J. and Singh, Ram (2020). Cases of Climate Smart Agricultural Practices in Adopted Villages in North-East India. *Indian Res. J. Ext. Edu.*
Singh, Ram and Feroze, S.M. (2020). Impact of Climate Change on Animal Husbandry: A Gender Perspective Study in Meghalaya. *Indian Journal of Extension Education*
Sri, KK; Choudhury, A; Singh, Ram, Feroze, SM and Chiphang, S. (2020). Cabbage production in East Khasi Hills of Meghalaya: A feasibility Analysis. *e-planet*
Singh, Ram; Feroze, SM and Kumar, S. (2020). Production of turmeric in North East Hill Region of India: A value chain Analysis. *Indian Journal of Agril Economics*
MV Devi, L. Devarani, RJ Singh, L. Hemochandra (2020). Rice straw Management in Manipur: challenges and finding a way forward. *Indian Journal of Hill Farming*
Meena, N K Singh R, Feroze SM and Joliya P (2021). Solar energy an income accelerating option for irrigation of Kinnow orchard: An example in Rajasthan state of India. *Indian Journal of Agricultural Sciences*
Kemboi E,Feroze SM, Singh R, Ahmed Jand Tyngkan H (2021). Yield gap in milk production is considerable in Indian Himalayan state of Meghalaya. *Journal of Dairy Research*
P. M. N. Rani, T. Rajesh and L. Hemochandra (2021). Agricultural Crop Diseases Detection Using Deep Learning Technique: An Overview. *Multilogic in Science*
Laitonjam, N., Singh, Ram, Feroze, SM. Effect of pre-monsoon rainfall on maize yield in Manipur (2018). Economic Affairs

List of MSc. (Agri. Ext.) theses submitted (2016-2021)

Name of the student	Year of passing	Thesis Title
Ms. Konjengbam Monika Devi	2016	A Study on Information Management Behaviour (IMB) of Rice Farmers in Imphal West District of Manipur
Ms. Inne Lego	2016	Training Needs Assesment of Agricultural Extension Personnel in Arunachal Pradesh
Ms. Muthulakshmi B	2016	Social Networks of Farmers on Climate Change Mitigation and Adaptation in Western Agro-Climate Zone of Tamil Nadu
Mr. Pankaj Kumar Meghwal	2016	Farmers' Mitigation and Adaptation of Climate Change in Moderate and High Vulnerable Districts of Madhya Pradesh: A Stakeholder Analysis
Mr. AchinKharmudai	2017	Communication Behaviour of the Farmers Enrolled in m4agriNEI-
Mr. Deena Dayalan .S.K.	2017	A Study on Attitude of Agriculture Collegian towards opting Farming as a Profession

Ms. Ditolyn Sumi	2017	Usage of ICT in Agriculture by the Farmers and Extension Personnel in Dimapur District of Nagaland
Ms. Mayalanglambam Victoria Devi	2017	Usage of Information and Communication Technologies (ICTs) by Rural Youth of Manipur
Mr. Meghajit Sharma Shijagurumayum	2017	Gender Differences in Economics Empowerment in Farm-Households of Manipur
Mr. Samir Medhi	2017	A Study on Effectiveness of Training Programmes Conducted by Krishi Vigyan Kendra (KVK) West Garo Hills of Meghalaya on Socio-Economic Improvement of Rice Growers
Ms. Chekame A. Sangma	2018	A Study on Entrepreneurial Behaviour of the Members of Women Self Help Groups in West Garo Hills District of Meghalaya
Ms. Debjani Das	2018	Adoption Behaviour of Rice Growers on Improved Rice Technology Through Krishi Vigyan Kendra (KVK) in Khowai District of Tripura
Mr. Guruprasad Nagesh Hedge	2018	Assessment of Child Poverty in Rural Farm Households of Garo Hills, Meghalaya
Mr. Irshad Hussain	2018	Agro-Advisory Effectiveness of m4agriNEI on Climate Sensitive Sustainable Agriculture: An Evaluative Study
Mr. Salam Prabin Singh	2018	Ascertaining m4agriNEI Farmers' Innovations on Climate-Smart Agriculture: A Case Study
Mr. Biswajit Debnath	2018	A Study on Entrepreneurial Behaviour of Tribal Farmers in Adoption of Improved Pig Farming Practices in Dhalai District of Tripura
Mr. Sachin V R	2018	A Study on Organizational Climate as Perceived by the Employees of District Agricultural Offices in Meghalaya
Mr. Nikhil .J.	2019	A Study on E-Readiness of Extension Personnel in Agricultural Institutions in Ri-Bhoi District of Meghalaya
Ms. Sengmitchi D. Sangma	2019	Analysis of Innovation System of Horticulture in Meghalaya
Mr. Kungumaselvan.T.	2019	Impact of Horticulture-Hubs on the Farmers of Meghalaya
Mr. Elly Kipkorir Kirwa	2020	Dynamics of Design Thinking on Climate Smart Agriculture by Under-Graduate Students in Agriculture under Central Agricultural University Imphal
Mr. NkululekoNyoni	2020	Nutrition Competencies of Agricultural Extension and Advisory Service (AEAS) Providers in Meghalaya
Ms. Pagadala Sai Priyanka	2020	Community Participation and Perceptions in Rural Tourism: A Study in Khasi Hills of Meghalaya
Ms. PolasaBhuvanasri	2020	Mapping Informal Networks of Mera Gaon Mera Gaurav (MGMG) Beneficiary Farmers in Ri-Bhoi District on Adoption of Climate-smart Agricultural Practices

6.4.2. Faculty Strength

S.No.	Sanctioned Faculty	Faculty in place#	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other

				regulatory bodies
1.	Professor	2	1	1
2.	AssociateProfessor*	2	Nil	2
3.	AssistantProfessor	3	1	3

* Associate professors (#2) promoted to Professor and two assistant professors to associate level.

For School of Social Science ie., Agricultural Economics and Extension Education. Additionally, Scientists from ICAR are recognized as faculty by the academic council and as per MOU.

6.4.3.Technical and Supporting staff

Sl. No.	Name of post sanctioned	No. of post sanctioned	Filled position
Group-C			
1	Clerk-cum-Typist/LDC/UDC	1	-
2	MTS	4	2
Grand total		**5**	**2**

For School of Social Science ie., Agricultural Economics and Extension Education.

6.4.4. Classrooms and Laboratories: 5 Classrooms, 1 Seminar and 1 conference room attached with LCD Projector are available.
Following laboratories and facilities are available; Computer Lab and Multimedia Lab

The facilities available include well-furnished Computer Lab which is well equipped with the computer of 20 nos. The Lab has 5 numbers of SPSS users license which is updated time to time.

6.4.5 Conduct of Practical and Hands-on-Training

The practicals in PG program (**MSc. (Ag) in Agricultural Economics**) are conducted as per the ICAR course curriculum. Practical and hands-on training are conducted as per the list included in the syllabi and records for all the courses are maintained and evaluated by the respective course incharges by giving marks/weightage. For some of the courses which require visits to farmer fields, provisions are made accordingly for such visits.

6.4.6 Supervision of students in PG programs

The allotment of students is PG is as per CAU regulation with a cap of maximum six students for Professor, five students for Associate Professor and four students for Assistant Professor are being allotted in the school. Apart from the above mentioned, School of Social Sciences has two faculty each from ICAR-RC for NEH, Umiam and ICAR-ATARI, Umiam with specialization in Agricultural Economics and Agricultural Extensionrecognized for teaching and guidance of the students. The allotment of students is by lottery and in constitution of

advisory committee and allotment of research title, the interest of the student is always kept in mind.

Name of Faculty	Number of students guided	Number of students being guided
Dr. Loukham Devarani	11	3
Dr. R. Josmee Singh	9	2
Dr. A. K. Singha (ATARI)	3	3

6.4.7 Feedback of stakeholders (students, parents, industries, employers, farmers etc.)

At the end of the each semester and before the end term exam, a comprehensive feedback for each course is taken from students. The feedback includes competency of the teacher in the subject, updating the current status of the subject by the teacher, timely covering of syllabi, student teacher interactions, creating interest among the students about the course, attitude towards weak students, punctuality of the teacher,etcfor the last five years.
(Representative documents are provided in Appendix-CPGSAS-C)

6.4.8 Students intake and attrition in the program for last five years

Year wise information for the last five academic years (2016-17 to 2020-21) for MSc. **(Ag.) in Agricultural Extension**program is given in table below:

Academic year	Intake Capacity	Number of admitted student	Attrition (%)	Passed Out
2016-17	5+2*	7	-	4
2017-18	1+2*	3	-	6
2018-19	2+2*	6	1	7
2019-20	2+2*	1	1	5
2020-21	5+2*	7	-	2

*** To be filled by ICAR candidate**

6.4.9 ICT Application in Curricula Delivery

All the class rooms, seminar and conference rooms are well equipped with LCD projectors. As per the needs of the course, power point presentation is given before the students for better explanation. Online and faculty made audio/videos are also presented to the students.

Table: A brief summary of existing facility in the College Library for MSc students

Sl. No.	Facility exist	Status
1	Availability of books (Nos.)	5433
2	Access to print copy of Indian Journals (Nos.) and Periodicals	20
4	Access to Indian on-line journals	2 titles
5	Consortia	2794 e-journals through CeRA consortium
6	MSc. And PhD Theses	356 MSc; 37 PhD
7	Research Reports and Technical Bulletins	475

8	CDs	85
9	Magazines	8
10	Newspapers (national and local)	8
11	Statistical Database	1
12	Analytical Software	1

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate (Applicable when SSR is submitted for Programme) I, the Dean **Dr. Wricha Tyagi**. hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

Student Feedback Form

Please limit to 1 feedback for each course taken.

* Required

1. Academic year *

Mark only one oval.

- 1
- 2
- 3
- 4

2. Semester *

Mark only one oval.

- I
- II
- III
- IV
- V
- VI
- VII
- VIII

3. Degree *

Mark only one oval.

- PhD
- MSc
- BSc

4. Discipline *

5. School *

Mark only one oval.

- SCI
- SCP
- SNRM
- SSS

6. Name of the teacher *

7. Course number *

8. Teaching skills *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Competence in the subject matter	☐	☐	☐	☐	☐
Communication skills	☐	☐	☐	☐	☐
Utilization of teaching aids (multimedia, charts and illustations, etc.	☐	☐	☐	☐	☐
Ability to create and uphold interest in the course among students	☐	☐	☐	☐	☐
Responsiveness to students' questions and problems	☐	☐	☐	☐	☐
Ability to ensure timely covering of syllabi	☐	☐	☐	☐	☐
Teacher remaining updated with current status	☐	☐	☐	☐	☐
Skills in linking the course with other relevant course (s)	☐	☐	☐	☐	☐

9. Student-teacher interaction *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Extent of availability of teacher for post-class consultation, if any	☐	☐	☐	☐	☐
Degree of demonstrated interest for holding interactive class sessions	☐	☐	☐	☐	☐
Timeliness in students' evaluation	☐	☐	☐	☐	☐
Attitude/ Response towards weak students	☐	☐	☐	☐	☐

10. Personality of teacher *

Mark only one oval per row.

	Outstanding	Excellent	Good	Average	Poor
Punctuality/Regularity	⬭	⬭	⬭	⬭	⬭
Sincerity and Commitment	⬭	⬭	⬭	⬭	⬭
Fairness in grading/evaluation	⬭	⬭	⬭	⬭	⬭
Helping attitude	⬭	⬭	⬭	⬭	⬭
Integrity of teaching profession	⬭	⬭	⬭	⬭	⬭
Patience	⬭	⬭	⬭	⬭	⬭
Behavior	⬭	⬭	⬭	⬭	⬭
Interpersonal relationship	⬭	⬭	⬭	⬭	⬭

This content is neither created nor endorsed by Google.

Google Forms

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signature
1	[illegible]	2	[illegible]	[illegible]	[illegible]
2	FARZANA NIYAZ	7	17/5/21	11:05	[illegible]
3	MALLIKHARJUNA KEERTHAN	7	17/5/21	11:17 am	[illegible]
4	TINKUNIYANG	7	17/5/21	11:27 am	[illegible]
5	[illegible]	2	[illegible]	[illegible]	[illegible]
6	[illegible]	7	[illegible]	[illegible]	[illegible]
7	[illegible]	6	[illegible]	[illegible]	[illegible]
8	V. PREETI KUMARI	7	[illegible]	[illegible]	[illegible]
9	[illegible]	7	[illegible]	[illegible]	[illegible]
10	[illegible]	11	[illegible]	[illegible]	[illegible]
11	[illegible]	7	[illegible]	[illegible]	[illegible]
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15	M Shanmukh Raju	6	[illegible]	[illegible]	[illegible]
16	Yeluguri Sikhasanya	9	[illegible]	[illegible]	[illegible]
17	Mangalada Pavithra	6	[illegible]	[illegible]	[illegible]
18	Anil Kumar	6	[illegible]	[illegible]	[illegible]
19	[illegible]	5	[illegible]	[illegible]	[illegible]
20	[illegible]	5	[illegible]	[illegible]	[illegible]
21	[illegible]	6	[illegible]	[illegible]	[illegible]
22	[illegible]	7	[illegible]	[illegible]	[illegible]
23	[illegible]	1	[illegible]	[illegible]	[illegible]

[illegible]

Sl. No	Name	No. of feedback forms submitted	Date	Time	Signatures
29	Payal Prasad	4	13/4/21	11:05	
30	A. Geetha Reddy	8	11/4/21	11:06	
31	Sravan.H	4	13/4/21	12:04	
32	Sikha Hanitha	6	13/4/21	11:47	
33	M. Sachin	6	11/4/21	11:08	
34	E. Naveen	6	13/4/21	11:54	
35	Dr. Manoranjan	4	13/4/21	11:03	
36	Nilesh Sharma	3	11/4/21	12:38	
37	Mouli	7	11/4/21	11:23	
38	Vinay Prakash	7	13/4/21	11:19	
39	Hanamanth - P	5	11/4/21	12:05	
40	Gaddi Nikhade Kashyap	4	11/4/21	12:33	
41	Vallumuila prasad	9	11/4/21	12:22	
42	Abhishek Prakash	9	11/4/21	12:55	
43	Abhay Kumar	7	11/4/21	12:16	
44	RAMAKRISHNA CHALLAM	7	11/4/2021	11:55	
45	Rekha Verma	9	13/4/21	12:19	
46	Bimal Kumar Sahu	7	13/4/21	11:45	
47	Kailash Patel	7	13/4/21	12:13	
48	MANICKAM V	7	13/4/21	12:33	
49	Shashidhar MP	4	11/4/21	12:13	
50	D. Sainath Reddy	7	13-4-21	12:24	
51	Jayaram Bhanu	3	13/4/21	12:30	

9 x 2 = 18
8 x 2 = 16
6 x 3 = 18
2 x 9 = 18

9 x 6 = 54

154

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signatures
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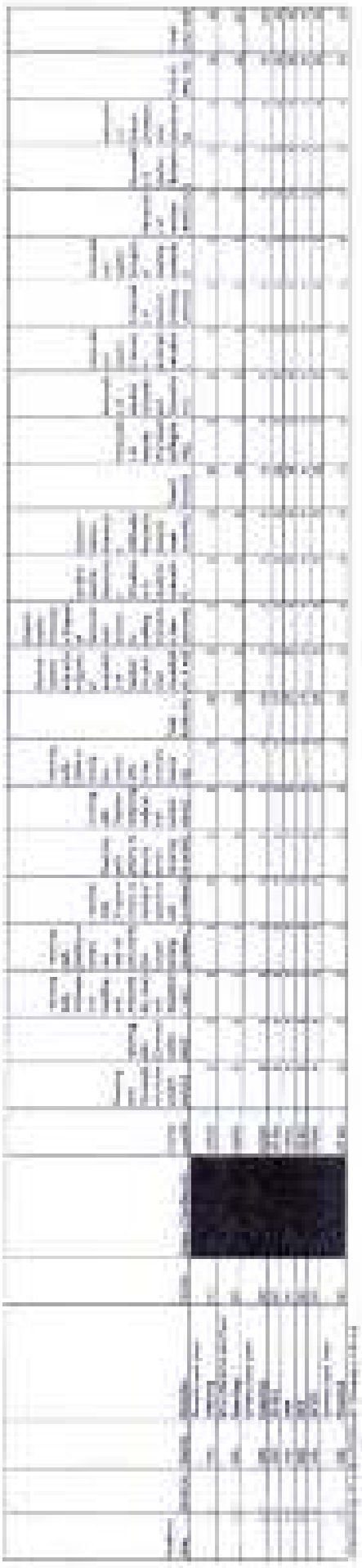
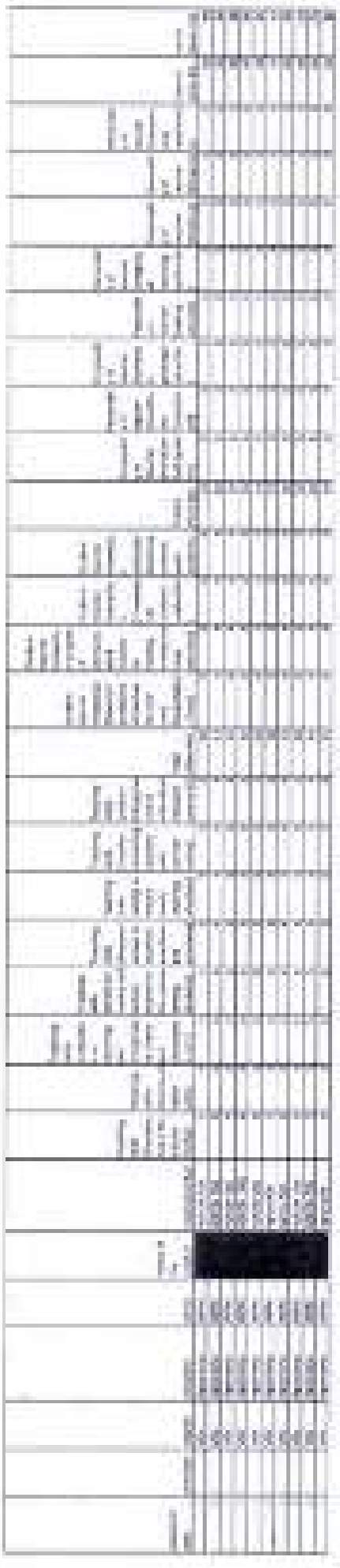
48	Kavya Sai Gupta	4	18/5/21	12:47	
49	Kavya Vinitha	7	18/5/21	12:47	
50	Jayashree Ayyar	7	18/5/21	12:48	
51	Dhanyashree Vasanth Kumar	2	18/5/21	12:55	
52	Bala Tarni	6	18-05-21	12:04	
53	Sanjana Pattanayak	6	18-05-21	12:55	
54	Abhi Abhi	7	19-05-21	12:59	
55	Kavya K Jayashree	4	19-05-21	12:59	
56	Jahnavi Sahu	6	19-05-21	12:59	
57	Chakali Chinnu	3	19-05-21	12:59	
58	Tanmay Vala	7	19/5/21	12:59	
59	Bhanu Kumar JM	3	19/5/21	12:59	
60	R. Sanjanashree Rout	5	19/5/21	12:59	
61	R. Anchala Krishna	8	19/5/21	1:1pm	
			-		

4 × 4 = 16
5 × 5 = 25 — 105
4 × 3 = 12 — 105 — 342

(411)





SELF STUDY REPORT
for degree accreditation
MSc. (Ag) in
Genetics And Plant Breeding

College of Post Graduate Studies in Agricultural Sciences
Central Agricultural University (Imphal)
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Telefax: 0364-2570030
e-mail: dean.cpgsas@cau.ac.in/deancpgs@gmail.com website: www.cpgsas.ac.in

	Particulars
1.	Sections 6.4
2.	Sections 6.4.2 to 6.4.3
3.	Section 6.4.4 to Section 6.4.6
4.	Section 6.4.7 to 6.4.8
5.	Section 6.4.9 to Section 6.4.12

6.4. **Self-Study Report for the Programme (MSc. (Ag) in Genetics and Plant Breeding**

6.4.1. Brief History of the Degree Programme:

The North Eastern India is experiencing rapid population growth which has crossed 45 million mark. In order to attain economic, food and nutritional security, it is imperative to impart quality agricultural education and have sustained agricultural development in the states of northeastern region. This region is constrained by lack of adequate infrastructure, low productivity, inadequate marketing and lack of knowledge on modern farm technologies. With this genesis in background, the Central Agricultural University, Imphal established the College of Post Graduate Studies in Agricultural Sciences (**CPGSAS**) at Umiam, Meghalaya on 21st December, 2006.

MISSION of CPGSAS is to achieve excellence in teaching, research and extension education in the field of agriculture.

MANDATES of CPGS are:

1) to impart postgraduate education in different branches of Agriculture,
2) to further the advancement of learning and prosecution of research in Agriculture, and
3) to undertake such others activities as it may deem fit, from time to time, to uplift the socioeconomical status of farmers in the North Eastern Region.

Objectives of CPGS are:

1) To produce globally competitive postgraduates in the field of agriculture
2) To develop robust agricultural technologies to help Indian farming systems, particularly in the northeastern region of India to be sustainable and profitable, and
3) To transform agriculture and allied activities into profitable enterprises and thereby create food and nutritional security for people of northeastern region of India.
4) The postgraduates of CPGS who are educated and trained in recent advances in agriculture and allied sciences, are expected to bring about a quantum change in the agricultural research and development systems in their respective states and also contribute towards strengthening the National Agricultural Research System.

The MSc. degree program in Genetics and Plant Breedingcurrently running at CPGSAS is a 2 years full-time master's program following the ICAR course curriculum and has been offered at School of Crop Improvement since 2009.

In the last five years (2016-17 upto 2020-21) a total number of 29M.Sc students have passed out. The research work has lead to several publications. The details of which are given below:

A. FULL length RESEARCH PAPERS

Singh R, … Rai M…Singh NK (2016) From QTL to variety-harnessing the benefits of QTLs for drought, flood and sal tolerance in mega rice varieties of India through a multi-institutional network. *Plant Science* 242: 278-287
Tyagi W, Rai M (2017) Root transcriptomes of two acidic soil adapted Indica rice genotypes suggest diverse and complex mechanism of low phosphorus tolerance. *Protoplasma* 254:725–736
Yumnam JS, Rai M,Tyagi W(2017) *In silico* characterisation of novel rice transcripts expressed only in phosphorus deficient conditions suggests role of multiple abiotic stress. *Acta BiologicaHungarica*68:398–411.

Yumnam JS, Rai M, Tyagi W (2017) Allele mining across two low-P tolerant genes PSTOL1 and PupK20-2 reveals novel haplotypes in rice genotypes adapted to acidic soils. *Plant Genetic Resources: Characterization and Utilization*; 15:221-229

Das S, Tyagi W, Rai M and Yumnam JS (2017) Understanding Fe^{2+} and P deficiency tolerance in rice for enhancing productivity under acidic soils. *Biotechnology and Genetic engineering reviews*33: 97-117.

Dutta SS, Tyagi W, Pale G, Pohlong J, C. Aochen, Pandey A, Pattanayak A, Rai M (2018) Marker–trait association for low-light intensity tolerance in rice genotypes from Eastern India.*Molecular Genetics and Genomics*.293:1493-1506.

Colney L, Tyagi W, Rai M (2018) Morphological and molecular characterization of two distinct chilli cultivars from North Eastern India with special reference to pungency related genes. *Scientia Horticulturae.* 240: 1–10.

Bhutia KL, Nongbri EL, Gympad E, Rai M, Tyagi W (2020) In silico characterization, and expression analysis of rice golden 2-like (OsGLK) members in response to low phosphorous. *Molecular Biology Reports*, 47: 2529.

Tyagi W, Yumnam JS, Sen D, Rai M (2020) Root transcriptome reveals efficient cell signaling and energy conservation key to aluminum toxicity tolerance in acidic soil adapted rice genotype. *Scientific Reports*. 10:1-14.

Bhandari A, Jayaswal S, Yadav N et al., (2019) Genomics-assisted backcross breeding for infusing climate resilience in high-yielding green revolution varieties of rice. *Indian J. of Genet.* 79 (1)Suppl: 160-170.

Devi YS, Pandey A, Kumar A, Ansari MA, Tyagi W, Rai M (2018) Genetic divergence, path coefficient and cluster analysis of ricebean (*Vigna umbellate*) genotypes in the mid-altitudes of Meghalaya. *Indian journal of Agricultural Sciences*. 88(7): 1054-62.

Tiwari KK, Singh A, Pattnaik S et al. (2015). Identification of a diverse mini-core panel of Indian rice germplasm based on genotyping using microsatellite markers. *Plant Breeding* doi:10.1111/pbr.12252.

Chulet H, Noren SK, Tyagi W, Meetei NT, Khanna VK, Pattanayak A, Datt S, Choudhury PR and Kumar M (2014) Assessment of genetic diversity in pea (*Pisum sativum* L.) using morphological and molecular markers. *Indian J. Genet*.74(2): 205-212.

Rani W, SK Noren, Rai M, Tyagi W, VK Khanna. (2019) Physico-chemical characteristics and nutritional quality analysis of aromatic rice (Oryza sativa L.) genotypes. *Indian J. Genet* 79 (4), 641-650

KL Naveenkumar, D Sen, S Vashum, M Sanjenbam. (2020) Genetic characterization and divergence studies of maize (Zea mays L.) lines developed from landraces indigenous to North Eastern Hill Region (NEHR) of India. *Plant Genetic Resources* 18 (4), 231-242

Singh AK, Meetei NT, Singh BK, Mondal N. (2017) High incidence of citrus tristeza virus in mandarin (*Citrus reticulata*) in North-East states of India. *Virus disease*. 28(4): 401–407.

Meetei NT, Singh AK, Singh BK, Mondal N. (2019) Disease incidence and molecular indexing of viruses infecting King chilli (Capsicum chinense Jacq) in North East India. *Indian Phytopathology* 73(1):1-8

Debnath, A., M. Rai and W. Tyagi (2021) Identification of Swarna x O. nivara (RPBio4918) advanced backcross lines performing well under acidic soil conditions. J. Environ. Biol., 42, 240-246.

B Loitongbam, M Rai, W Tyagi, R Nongmaithem, L Renthlei. (2020) Assessment of Genetic Variability and Pollen Viability in Rice (Oryza sativa L.) Germplasm for Low Temperature Tolerance at Reproductive Stage. *Indian Journal of Plant Genetic Resources* 32 (3), 340-346.

A Bhandari, P Jayaswal, N Yadav, R Singh, Y Singh, B Singh, N Singh, …M Rai… NK Singh (2018). Genomics-assisted backcross breeding for infusing climate resilience in high-yielding green revolution varieties of rice. *Indian J. Genet.*

YS Devi, A Pandey, A Kumar, MA Ansari, W Tyagi, M Rai, A Das. (2018). Genetic divergence, path coefficient and cluster analysis of ricebean genotypes, in the Mid-altitudes of Meghalaya. *Indian Journal of Agricultural Sciences* 88 (7),
Sanjenbam M, Sen D, Tyagi W and Chand R (2018). Phenotypic Diversity Analysis and Screening for Northern Corn Leaf Blight Resistance in Maize (Zea mays L.) Landraces Grown in North Eastern Hill Region of India. *Indian J. Plant Genet. Resour.* 31(3): 286-294.
Chandan Kumar Singh, Dharmendra Singh, Shristi Sharma, Shivani Chandra, Jyoti Taunk, Noren Singh Konjengbam, Deepti Singh, Arun Kumar, Upadhyaya KC and Madan Pal (2021) Morpho-physiological characterization coupled with expressional accord of exclusion mechanism in wild and cultivated lentil under aluminium stress. *Protoplasma*. Doi.org/10.1007/s00709-021-01619-z.
Syiemlieh P, Noren SK, Khanna VK, Rai M, Meetei NT and Pattanayak A (2019). Assessment of genetic diversity of upland rice (Oryza sativa L.) genotypes from North Eastern Hill Region of India. *Vegetos.* doi.org/10.1007/s42535-019-00037-0.
Bhutia KL, Nongbri EL, Sharma TO, Rai M, Tyagi W (2020) A 1.84-Mb region on rice chromosome 2 carrying SPL4 , SPL5 and MLO8 genes is associated with higher yield under phosphorus-deficient acidic soil. *Journal of Applied Genetics*. DOI: 10.1007/s13353-020-00601-4
Mallikarjun, P. K., Noren, S. K., Singh, N. B., Mohan Lal, Singh, A.K., Singh, N. J. and Sharma, G. (2021). Evaluation of Genotype × environment interaction for essential oil yield and its related traits for identification of suitable cultivars in citronella (*Cymbopogonwinterianus*Jowitt.) in Meghalaya, India. The Bioscan (Accepted) (ISSN:0973-7049)

B. In National/International seminars (Students' participation)

[1] Bezil M, Boobana P, Tyagi W and Rai M (2020) Identification of contrasting genotypes of linseed for response to P deficiency and Al toxicity under acidic upland soils and hydroponic conditions. Plant Genetics and Genomics conference organized by SRM University, Chennai. January 23-24, 2020.

[2] Lap B, Tyagi W and Rai M (2019) Genetics of purple colour in chakhaopoireiton, an economically important landrace of Manipur. 5th International conference on plant genetics and genomics-"Germplasm to Genome Engineering"

[3] Chandrakanthi Sand Tyagi W (2019) Screening and characterization of putative mutant population in rapeseed-mustard (Brassica) genotypes for low moisture stress tolerance. 3rd international conference global initiatives in agricultural and applied sciences for eco friendly environment (GIASE-2019).

[4] Rai M, Tyagi W, Lap B, Debnath A, Sumpi H, Najiar MRJ, Saio Y and Sinha A (2019) Understanding and deploying rice blast resistance in north eastern hill region of India. Indian Plant Science Congress 2019. p-65. 23rd -25th January, 2019, SRM IST, Chennai.

[5] Shanmugan A, Lap B, Tyagi, W and Rai M (2019). Genetic analysis of elite breeding lines for allelic status of agronomically important genes and combining ability. Indian Plant Science Congress 2019. p-65. 23rd -25th January, 2019, SRM IST, Chennai.

[6] Mariyappan SB and Sen D (2019). Selection for hard endosperm, tryptophan content and yield contributing traits in $F_{3:4}$ QPM families. Indian Plant Science Congress 2019. p-35. 23rd -25th January, 2019, SRM IST, Chennai.

[7] I. Gopinath, Rai A, Rai M and Tyagi W (2019). Evaluation of advanced breeding lines of lowland rice for grain quality traits. National seminar on strengthening of

seed systems in the North Eastern and unreached regions- problems, prospects and policies. Indian Society of Seed Science and Technology. p23. 5th to 7th February, 2019, Imphal, Manipur.

[8] Sumpi H, Debnath A, Tyagi W and Rai M (2018) Generation and characterization of diverse natural and bi-parental populations: a key resource for mapping leaf and neck blast resistance in rice. In proceedings of International Symposium on Biodiversity and Biobanking, Biodiverse 2018 (ABSTRACT CODE: PP-FAB014; URID-12180001/12150008; Theme: Food and Agro-biodiversity). (pp 124) held at IIT, Guwahati from 27-29th Jan, 2018.

[9] Bhutia KL, Sharma OT, Rai M and Tyagi W (2018)Utilization of two tolerant rice genotypes to understand the mechanisms involved in imparting tolerance to phosphorus deficiency under acidic soil conditions. International symposium on biodiversity and biobanking "biodiverse 2018" (pp 128-129) held at IIT, Guwahati from 27-29th Jan, 2018.

[10] Vashum S, Kumar N and Sen D (2018) Characterization of full sib maize (Zea mays L.) families developed from landraces of North East Hill Region (NEHR) of India for *Turcicum*blight resistance. In proceedings of International Symposium on Biodiversity and Biobanking, Biodiverse 2018 (ABSTRACT CODE- PP-FAB006; Theme: Food and Agro-biodiversity) pp-123, 27th-29th January, 2018 IIT Guwahati.

[11] Kumar N, Momin B and Sen D (2018) Phenotypic screening at seedling stage for Aluminium toxicity and water logging tolerance in early generation full-sib maize (Zea mays L.) families. In proceedings of International Symposium on Biodiversity and Biobanking, Biodiverse 2018 (ABSTRACT Code: PP-FAB005; Theme: Food and Agro-biodiversity) pp-122-123, 27th-29th January, 2018 IIT Guwahati.

[12] Debnath A, Rai M and Tyagi W (2018). Evaluation of rice minicore and F_2popuation for resistance to leaf and neck blast pathotypes prevelant in NEH region.1st National Genetics Congress on Genetics for sustainable food health and nutrition. P-179. 14th- 16th December, 2018, ICAR-IARI, NewDelhi

[13] Debnath A, Rai M, Tyagi W and Das S (2017) Identification of potential genotype influencing stress tolerance to Fe toxicity and P deficiency under lowland acidic soils condition of North Eastern rice. In proceedings of Third International Conference on Bioresource and Stress Management (pp294) held at Jaipur, Rajasthan from 8-11th Nov, 2017. (Abstract ID: 3ICBSM0341)

[14] Lap B, Pandey A, Kumar A, Aochen C, Tyagi W, Rai M, Das A (2017) Assessment of genetic diversity in Job's tears (*Coixlacyma*-Jobi L.) germplasm using morphological and molecular markers. In the proceedings of "XIII Agriculture Science Congress-2017: Climate Smart Agriculture" held at UAS, Bangalore from 21-24 February, 2017 (Abstract ID: B424; Theme II: Adaptation to climate change).

[15] Debnath A, Sen D, Tyagi W, Rai M (2016) Genetic analysis of yield contributing traits in lowland rice genotypes in acidic soil and hydroponics condition. In the proceeding of international conference on "emerging trends in science, technology, agriculture and management-2016" held at College of Engineering and Post-harvest technology, CAU (Imphal), Raniphool, Sikkim, from 21-23 April, 2016 (ISBN 978-

93-84124-70-0; pp7).

[16] Dutta SS, Pale G, Poholong J, Aochen C, Pandey A, Tyagi W, Rai M (2016) Marker-trait association for low light intensity tolerance in rice genotypes from Eastern India. Students' symposium on "genomics-based next generation crop improvement approaches" held at IARI, New Delhi (11-12 November, 2016). Recipient of the best poster award

List of MSc. (GPB) theses submitted (2016-2021)

Name of the student	Year of passing	Thesis Title	Advisor's Name
Ms. Pungdila Valentina	2016	Hybridization and genetic diversity studies in Brinjal	V.K. Khanna
Ms. Babuhlin Kharjana	2016	Genetic divergence study in selected germplasm lines of *Mucunaprurien*susing morphological, biochemical and molecular markers	K.P. Mohapatra
Ms Backiyalakshmi C.	2016	Combining ability studies of a set of QPM (Quality Protein Maize) inbred lines under acidic soil conditions	Devyani Sen
Ms. Baltachina. G. Momin	2016	Evaluation of full sib families for aluminium and water logging stress in a set of identified maize *(Zea mays* L.) landraces	Devyani Sen
Ms. Bharati Lap	2016	Assessment of geneticdiversity in Job's Tears germplasm using morphological and SSR markers	Avinash Pandey
Ms. Pungdila Valentina	2016	Hybridization and genetic diversity studies in brinjal	V.K. Khanna
Mr. HiralalDebbarma	2017	Response to selection for yield contributing traits in *Brassica campestris*under acidic upland soils	K.P.Mohapatra
Ms. Anni Lego	2017	Morphological and molecular characterization of upland rice germplasm and screening for the presence of fertility restorer genes	Avinash Pandey
Ms. YengkhomSanatombi Devi	2017	Assessment of genetic diversity in ricebean (*Vigna umbellata*) germplasm using morphological and molecular markers	Avinash Pandey
Mr. ShimreisoVashum	2017	Characterization of identified maize Inbred lines for resistance to northern corn leaf blight (NCLB)	Vijay K. Chowdhury
Mr. Santhosh B. L.	2017	Standardization of *in vitro*regenaration protocol, crossability and genetic diversity studies in bottle gourd (*Lagenariasiceraria* (Mol.) Standal.)	V.K. Chowdhury
Mr. Pawan Kumar Khati	2018	Tryptophan content analysis in $F_{2:3}$ families of six quality protein Maize crosses	Devyani Sen

Mr. PuyamTondonbasingh	2018	Crossability studies and genetic diversity in black gram using molecular markers	V.K. Khanna
Mr. I. Gopinath	2018	Molecular characterization of advanced breeding lines of loland rice and their evaluation for grain quality traits	Mayank Rai
Ms. Chumki Dutta	2018	Morphological characterization and *in vitro* regeneration in strawberry (*Fragaria sp.*)	Devyani Sen
Mr. Ashish Rai	2018	Characterization and evaluation of advanced breeding lines of lowland rice with respect to agro-morphological traits	Mayank Rai
Mr. Mariyappan. S. B.	2018	Selection for hard endosperm, tryptophan content and yield contribution traits in $F_{3:4}$ QPM families	Devyani Sen
Mr. Wadbok Rani	2018	Grain quality characterization and molecular diversity analysis of aromatic rice (*Oryza sativa* L.) genotypes using SSR markers	K. Noren Singh
Mr. Pramod Kumar	2019	Agro-morphological characterization and genetic diversity analysis of aromatic rice (*Oryza sativa* L.) genotypes using SSR Markers	K. Noren Singh
Mr. PuyumTondonba Singh	2019	Crossability Studies and Genetic Diversity in Blackgram Using Molecular Marker	V. K. Khanna
Mr. Samuthirapandi S.	2019	Molecular characterisation and evaluation of a panel of aromatic mutant-M_7 rice (*Oryza sativa* L.) for yield performance and blast resistance	K. Noren Singh
Mr. Shanmugam A	2019	Genetic analysis of elite rice breeding lines for allelic status of agronomically important genes and combining ability	Mayank Rai
Mr. Harsha Vardhan Rayudu Jamedar	2019	Combining ability studies for yield and yield attributing traits in maize (*Zea mays* L) inbred lines developed from north eastern hill region (NEHR) of India	Devyani Sen
Ms. ViolinaBharali	2019	Generation Mean Analysis for inheritance of Northern Corn Leaf Blight Resistance in maize of North East Hill condition	Devyani Sen
Ms. Bezil M	2020	Evaluation of *Linumusitatissimum* genotypes and F1 hybrids under acidic upland conditions of Meghalaya	Mayank Rai
Ms. Dake Deepika	2020	Marker assisted pyramiding of drought tolerant QTLs qDTY1.1 and qDTY3.1 in rice variety Samba Mahsuri Sub-1	Mayank Rai
Mr. Sugumar. S	2020	Phenotypic and genotypic characterization in segregating bi-parental population of maize (*Zea mays* L.) for *Turcicum*blight resistance	Devyani Sen

Mr. Mallikarjun P. K.	2020	Evaluation of Citronella (*CymbopogonWinterianus*Jowitt.) Genotypes for Their Oil Yield and Essential Oil Content under Meghalaya Conditions	K. Norem Singh
Ms. Puthem Victoria Devi	2020	Assessment of genetic variation in Lentil (*Lens culinaris*Medik) for its agronomic performance, aluminium tolerance and phosphorus uptake efficiency	K. Norem Singh

6.4.2. Faculty Strength

S.No.	Sanctioned Faculty	Faculty in place	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	3	Nil	1
2.	AssociateProfessor*	1	1	2
3.	AssistantProfessor	3	Nil	3

* Associate professors (#3) promoted to Professor.

For School of Crop Improvement ie., Genetics & Pant Breeding and Plant Molecular Biology & Biotechnology. Additionally, Scientists from ICAR are recognized as faculty by the academic council and as per MOU.

6.4.3.Technical and Supporting staff: The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in- place.

Sl. No.	Name of post sanctioned	No. of post sanctioned	Filled position
1	Livestock/Farm Assistant	1	1
2	Clerk-cum-Typist/LDC/UDC	1	-
3	Field-cum-Lab. Assistant	2	1
4	MTS	4	2
Grand total		**8**	**6**

For School of Crop Improvement ie., Genetics & Pant Breeding and Plant Molecular Biology & Biotechnology.

6.4.4. Classrooms and Laboratories: 5 Classrooms, 1 Seminar and 1 conference room attached with LCD Projector are available.
Following laboratories and facilities are available

1.Molecular Biology and Biotechnology Lab
2.Cytogenetics and Molecular Marker Lab
3.Media Preparation Room

4.Tissue Culture and Genetic Transformation Lab
5.Green house facilities

The list of equipments and facilities available in the various laboratories are listed below

Sl.No.	Name of equipment
1	Mega Gel High Throughput Electrophoresis System
2	DNA Extraction System with centrifuge
3	Binocular (Pathological) (Qty1)
4	Refrigerators (Qty 4)
5	Mastercycler (Qty5)
6	Gel Documentation System
7	Horizontal Gel electrophoresis with power supply (Qty5)
8	pH meters, Bench top
9	1 KVA online UPS with 2 hr. backup. Make: Orion
10	Table top Centrifuge machine (Qty5)
11	Refrigerators (Qty4)
12	Deep Freezer, upto-20°C (Qty4)
13	Biosafety hood
14	UV – Transilluminator
15	Top pan electronic balance
16	Growth Chamber with controlled environment light and temperature
17	Spinnix-Vortex Shake
18	Microwave Oven
19	Hot plate cum Magnetic Stirrer
20	pH meters, Bench top
21	Hot Air Ovens (Qty 4)
22	Vertical Autoclave
23	Seed Germinator
24	Refrigerator ready dessicators
25	Mini Bead Beater with 96 well Micro plate and stainless steel beads
26	Tensiometer
27	CTD Infrared Gun
28	Auto Desicator Cabinets
29	Rocker Vacuum Pump
30	Weighing balances
31	Liquid nitrogen cans
32	Realtime PCR machine
33	Laminar hoods
34	Vertical gel electrophoresis system
35	Phase contrast microscope
36	Students' microscopes

6.4.5 Conduct of Practical and Hands-on-Training

The practicals in PG program (**MSc. (Ag) in Genetics and Plant Breeding**) are conducted as per the ICAR course curriculum. Practical and hands-on training are conducted as per the list included in the syllabi and records for all the courses are maintained and evaluated by the respective course incharges by giving marks/weightage.

6.4.6 Supervision of students in PG programs

The allotment of students is PG is as per CAU regulation with a cap of maximum six students for Professor, five students for Associate Professor and four students for Assistant Professor are being allotted in the school. Apart from the above mentioned, School of Crop Improvement has two faculty from ICAR-RC for NEH, Umiam with specialization in genetics and plant breeding recognized for teaching and guidance of the students. The allotment of students is by lottery and in constitution of advisory committee and allotment of research title, the interest of the student is always kept in mind.

Name of Faculty	Number of students guided	Number of students being guided
Dr. Mayank Rai	11	1
Dr. K. Noren Singh	10	3
Dr. Hossain Ali Mondal	0	1
Dr. Dr. Devyani Sen	11	3
Dr. Bingiala Laloo	0	1
Dr. Amit Kumar (ICAR-RC, NEH)	0	2
Dr. Philanim Shimray (ICAR-RC, NEH)	0	1

6.4.7 Feedback of stakeholders (students, parents, industries, employers, farmers etc.)

At the end of the each semester and before the end term exam, a comprehensive feedback for each course is taken from students. The feedback includes competency of the teacher in the subject, updating the current status of the subject by the teacher, timely covering of syllabi, student teacher interactions, creating interest among the students about the course, attitude towards weak students, punctuality of the teacher, etc for the last five years.
(Representative documents are provided in Appendix-CPGSAS-C)

6.4.8 Students intake and attrition in the program for last five years

Year wise information for the last five academic years (2016-17 to 2020-21) for MSc. **(Ag.) in Genetics and Plant breeding** program is given in table below:

Academic year	Intake Capacity	Number of admitted student	Attrition (%)	Passed Out
2016-17	5+2*	7	_	4

2017-18	3+2*	5	_	6
2018-19	3+2*	5	_	7
2019-20	5+2*	5	_	7
2020-21	5+2*	8	1	5

*** To be filled by ICAR candidate**

6.4.9 ICT Application in Curricula Delivery

All the class rooms, seminar and conference rooms are well equipped with LCD projectors. As per the needs of the course, power point presentation is given before the students for better explanation. Online and faculty made audio/videos are also presented to the students.

Table: A brief summary of existing facility in the College Library for MSc students

Sl. No.	Facility exist	Status
1	Availability of books (Nos.)	5433
2	Access to print copy of Indian Journals (Nos.) and Periodicals	20
4	Access to Indian on-line journals	2 titles
5	Consortia	2794 e-journals through CeRA consortium
6	MSc. And PhD Theses	356 MSc; 37 PhD
7	Research Reports and Technical Bulletins	475
8	CDs	85
9	Magazines	8
10	Newspapers (national and local)	8
11	Statistical Database	1
12	Analytical Software	1

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate (Applicable when SSR is submitted for Programme) I, the Dean **Dr. Wricha Tyagi**. hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

Student Feedback Form

Please limit to 1 feedback for each course taken.

* Required

1. Academic year *

Mark only one oval.

- 1
- 2
- 3
- 4

2. Semester *

Mark only one oval.

- I
- II
- III
- IV
- V
- VI
- VII
- VIII

3. Degree *

Mark only one oval.

- PhD
- MSc
- BSc

4. Discipline *

5. School *

Mark only one oval.

- SCI
- SCP
- SNRM
- SSS

6. Name of the teacher *

7. Course number *

8. Teaching skills *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Competence in the subject matter	☐	☐	☐	☐	☐
Communication skills	☐	☐	☐	☐	☐
Utilization of teaching aids (multimedia, charts and illustations, etc.	☐	☐	☐	☐	☐
Ability to create and uphold interest in the course among students	☐	☐	☐	☐	☐
Responsiveness to students' questions and problems	☐	☐	☐	☐	☐
Ability to ensure timely covering of syllabi	☐	☐	☐	☐	☐
Teacher remaining updated with current status	☐	☐	☐	☐	☐
Skills in linking the course with other relevant course (s)	☐	☐	☐	☐	☐

9. Student-teacher interaction *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Extent of availability of teacher for post-class consultation, if any	☐	☐	☐	☐	☐
Degree of demonstrated interest for holding interactive class sessions	☐	☐	☐	☐	☐
Timeliness in students' evaluation	☐	☐	☐	☐	☐
Attitude/ Response towards weak students	☐	☐	☐	☐	☐

10. Personality of teacher *

Mark only one oval per row.

	Outstanding	Excellent	Good	Average	Poor
Punctuality/Regularity	⬭	⬭	⬭	⬭	⬭
Sincerity and Commitment	⬭	⬭	⬭	⬭	⬭
Fairness in grading/evaluation	⬭	⬭	⬭	⬭	⬭
Helping attitude	⬭	⬭	⬭	⬭	⬭
Integrity of teaching profession	⬭	⬭	⬭	⬭	⬭
Patience	⬭	⬭	⬭	⬭	⬭
Behavior	⬭	⬭	⬭	⬭	⬭
Interpersonal relationship	⬭	⬭	⬭	⬭	⬭

This content is neither created nor endorsed by Google.

Google Forms

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signature
1	[illegible]	2	[illegible]	[illegible]	[illegible]
2	FARZANA NIYAZ	7	[illegible]	[illegible]	[illegible]
3	MALLIKHARJUNA KEERTHAN	7	[illegible]	[illegible]	[illegible]
4	TINKUNIYANG	7	[illegible]	[illegible]	[illegible]
5	[illegible]	2	[illegible]	[illegible]	[illegible]
6	[illegible]	7	[illegible]	[illegible]	[illegible]
7	[illegible]	6	[illegible]	[illegible]	[illegible]
8	V. PREETI KUMARI	7	[illegible]	[illegible]	[illegible]
9	[illegible]	7	[illegible]	[illegible]	[illegible]
10	[illegible]	11	[illegible]	[illegible]	[illegible]
11	[illegible]	7	[illegible]	[illegible]	[illegible]
12	[illegible]	6	[illegible]	[illegible]	[illegible]
13	ATEEFA	7	[illegible]	[illegible]	[illegible]
14	[illegible]	15	[illegible]	[illegible]	[illegible]
15	M. Shanmukh Raju	6	[illegible]	[illegible]	[illegible]
16	Yeluguri Eshwaraiah	8	[illegible]	[illegible]	[illegible]
17	[illegible]	6	[illegible]	[illegible]	[illegible]
18	Anil Kumar	6	[illegible]	[illegible]	[illegible]
19	[illegible]	5	[illegible]	[illegible]	[illegible]
20	[illegible]	5	[illegible]	[illegible]	[illegible]
21	[illegible]	6	[illegible]	[illegible]	[illegible]
22	[illegible]	7	[illegible]	[illegible]	[illegible]
23	[illegible]	1	[illegible]	[illegible]	[illegible]

[illegible]

Sl. No	Name	No. of feedback forms submitted	Date	Time	Signatures
29	Payal Prasad	4	13/4/21	11:05	
30	A. Geetha Reddy	8	11/4/21	11:16	
31	Shravan.H	4	17/4/21	12:34	
32	Sneha Harsha	6	15/4/21	11:47	
33	M. Sachin	6	11/4/21	11:48	
34	E. Naveen	6	13/4/21	11:39	
35	Dr. Manoranjan	4	11/4/21	11:33	
36	Nandi Sharma	3	11/4/21	12:38	
37	Mouli	7	14/4/21	11:23	
38	Vinay Kumar	7	12/4/21	11:19	
39	Hanamanth - P	4	11/4/21	12:19	
40	[illegible]	4	11/4/21	12:31	
41	Vallamuila prasad	4	11/4/21	12:32	
42	Abhishek Prakash	9	11/4/21	12:55	
43	Abhay Kumar	7	17/4/21	12:56	
44	[illegible]	7	17/4/21	12:56	
45	Bhanu Kumar Sahu	7	13/4/21	11:45	
46	Kailash Patil	7	13/4/21	12:57	
47	MANICKAM V	7	19/4/21	12:57	
48	Shashidhar MP	4	11/4/21	12:58	
49	D. Sainath Reddy	7	17-4-21	12:59	
50	Jayaram Naik	3	12-4-21	12:40	

9 x 2 = 18
7 x 2 = 14
6 x 3 = 18
2 x 9 = 18

9 x 6 = 54

154

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signatures
AF	Vanitha yuvaraj	5	17/5/21	12:45	
48	Kavya Sai Gupta	4	17/5/21	12:47	
49	Kavya Vanitha	7	17/5/21	4:47	
50	Jayalakshmi Ayyar	7	17/5/21	12:56	
51	Dhanyashree Vasanth Kumar	2	17/5/21	13:45	
52	Balla Tanvi	6	17-05-21	12:04	
53	Sanjana Pattanayak	6	17-05-21	13:55	
54	Alla Akhila	7	17-05-21	13:59	
55	Kavya K Jayakar	4	17-05-21	14:19	
56	Sahithee Sahu	5	17-05-21	14:51	
57	Chekuri Chinnu	3	17-05-21	15:54	
58	Tanmay Vats	7	17/5/21	17:49	
59	Bhavya Kumar Jain	3	17/5/21	11:30	
60	R. Sanjukta Rout	5	17/5/21	11:00pm	
61	R. Anchala Krishna	3	18/5/21	1:15pm	
			-		

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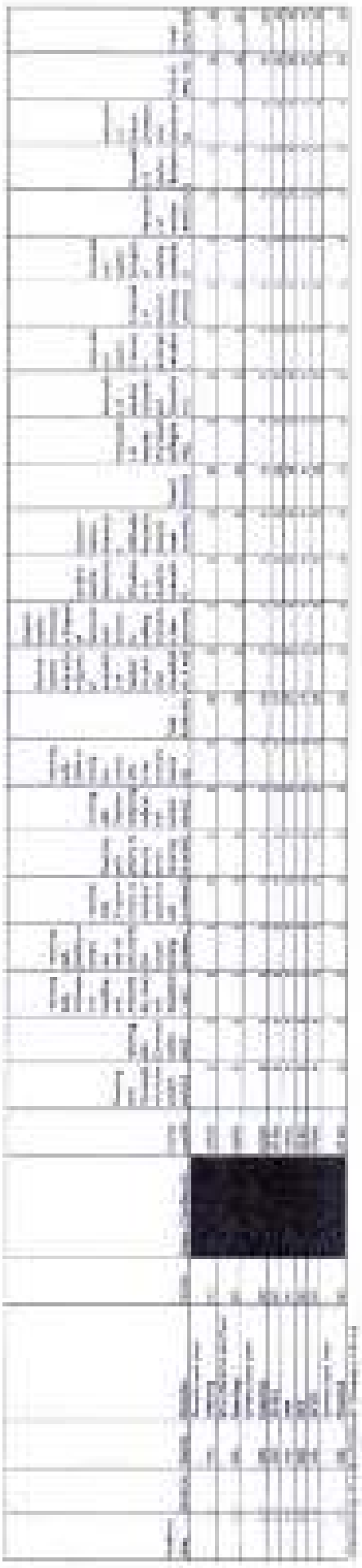
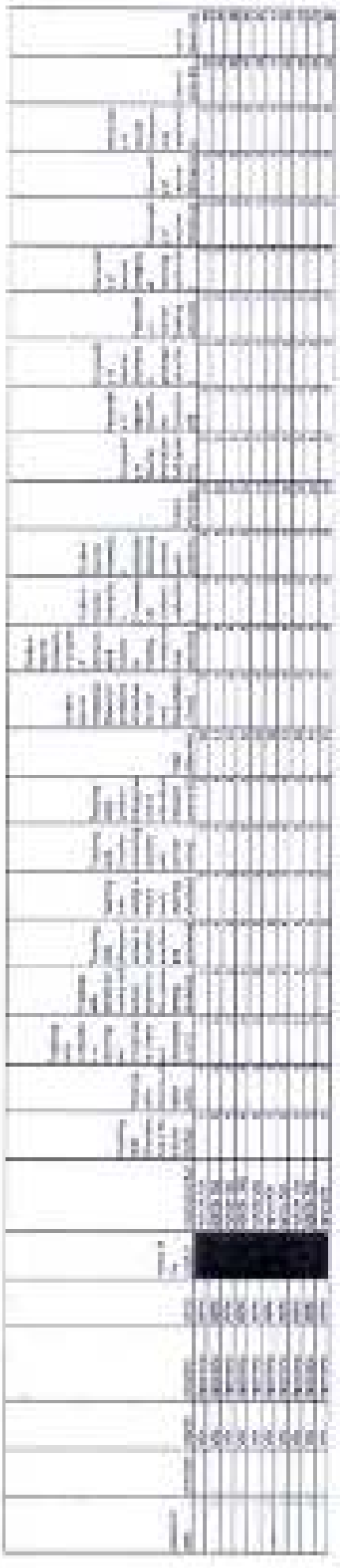
3 × 3 = 24 105
2 × 3 = 6 105 - 342

(411)





SELF STUDY REPORT
for degree accreditation
MSc. (Ag)
Plant Pathology

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	Particulars
1.	Sections 6.4
2.	Sections 6.4.2 to 6.4.3
3.	Section 6.4.4 to Section 6.4.6
4.	Section 6.4.7 to 6.4.8
5.	Section 6.4.9 to Section 6.4.12

6.4. **Self-Study Report for MSc. (Ag) Plant Pathology**

6.4.1. Brief History of the Degree Programme

The North Eastern India is experiencing rapid population growth which has crossed 45 million mark. In order to attain economic, food and nutritional security, it is imperative to impart quality agricultural education and have sustained agricultural development in the states of northeastern region. This region is constrained by lack of adequate infrastructure, low productivity, inadequate marketing and lack of knowledge on modern farm technologies. With this genesis in background, the Central Agricultural University, Imphal established the College of Post Graduate Studies in Agricultural Sciences (**CPGSAS**) at Umiam, Meghalaya on 21st December, 2006.

MISSION of CPGSAS is to achieve excellence in teaching, research and extension education in the field of agriculture.

MANDATES of CPGS are:

1) to impart postgraduate education in different branches of Agriculture,
2) to further the advancement of learning and prosecution of research in Agriculture, and
3) to undertake such others activities as it may deem fit, from time to time, to uplift the socioeconomical status of farmers in the North Eastern Region.

Objectives of CPGS are:

1) To produce globally competitive postgraduates in the field of agriculture
2) To develop robust agricultural technologies to help Indian farming systems, particularly in the northeastern region of India to be sustainable and profitable, and
3) To transform agriculture and allied activities into profitable enterprises and thereby create food and nutritional security for people of northeastern region of India.
4) The postgraduates of CPGS who are educated and trained in recent advances in agriculture and allied sciences, are expected to bring about a quantum change in the agricultural research and development systems in their respective states and also contribute towards strengthening the National Agricultural Research System.

The MSc. degree program in Plant Pathologycurrently running at CPGSAS is a 2 years full-time master's program following the ICAR course curriculum and has been offered at School of Crop Protectionsince 2009.

In the last five years (2016-17 upto 2020-21) a total number of 28M.Sc students have passed out. The research work has led to several publications. The details of which are given below:

FULL length RESEARCH PAPERS

Moakala Jamir, T. Rajesh, R.K. Tombisana Devi, D. Majumder, Kennedy Ningthoujam and L. Hemochandra (2018). Cultural and Morphological Variability in Phomopsisvexans(Sacc. & Syd.) Harter Causing Fruit Rot of Brinjal
Sangma E.M.1 , Devi R.K.T. 1 , Rajesh T. 1 , Patra S.2 , Hemochandra L.1 , Rymbai H. Evaluation of Plant Products and Antagonistic Microbes against PestalotiopsisVersicolor, A Pathogen of Gauva. International Journal of Trends in Biosciences
Moakala Jamir, T. Rajesh, RK Tombisana, L. Hemochandra. Cultural and Morphological Variability in Phomopsisvexans (Sacc. &Syd.) Harter Causing Fruit Rot of Brinjal. *International Journal of Current Microbiology and Applied Sciences*

B.K. Namriboi1 , R.K. Tombisana Devi , Dipali Majumder1 , N.S. Azad Thakur1 and L. Hemochandra. Efficacy of Plant Extracts and Chemicals against Ascochytaphaseolorum, Causal Agents of Ascochyta Blight of Vignaanguiculata (L.) Walp. *International Journal of Current Microbiology and Applied Sciences,*
RojeetThangjam, Veronica Kadam, L Hemochandra, V Ramalaxmi, D Gokul Krishna and Likhit Patnaik. Studies on the diversity and abundance of butterfly in and around CUTM, Paralakhemundi campus, Odisha (India). Journal of Entomology and Zoology Studies,
Mahendra K., Baiswar P, Chandra S., Choudhury, B.U., Majumder D., Rajesh T. and Firake, D.M. (20016) Molecular characterization and influence of soil factors on isolates of Rhizoctoniasolani in Meghalay. Indian Phytopath. 69 (3) : 271-277.
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Boruah S and Dutta Pranab (2021) Fungus mediated biogenic synthesis and characterization of chitosan nanoparticles and its combine effect with *Trichoderma asperellum* against *Fusarium oxysporum*, *Sclerotium rolfsii*, and *Rhizoctoniasolani*. Indian Phytopathology.

List of MSc. (Plant Pathology) theses submitted (2016-2021)

Name of the student	Year of passing	Thesis Title
Mr. Korla Saratbabu	2016	Characterization of *Papaya ring spot virus* Pathotype P from Mid-Hills of Meghalaya
Ms. Lopi Rebi Kojum	2016	Evaluation of antagonistic potential of native *Trichoderma* spp. against major soil borne pathogens
Ms. R. Saveinai	2016	Pathogenicity of *Rhizoctonia solani* Kuhn on Major Weeds Prevalent in Rice and Maize Ecosystem in Meghalaya
Ms. Rimikini Laloo	2016	Host plant resistance against *Rhizoctonia solani* Kuhn causing foliar blight in soybean (*Glycine max* L. Merril) in Meghalaya
Mr. Tirumuru Ganesh	2016	Virus and virus like pathogens associated with citrus decline of khasi mandarin (*Citrus reticulata* Blanco) in Meghalaya
Ms. Yashi Umbrey	2016	Identification and characterization of yellow mosaic virus (s) associated with yellow mosaic disease of legumes in mid-hills of Meghalaya
Mr. Abdel Baset Hassan Mohhammed Mohmoud	2016	Evaluation of biocontrol potential of bacterial endophytes against major diseases of rice
Mr. Abhishek Gowda M.N.	2017	Evaluation of microbial antagonists against major plant pathogens and development of microbial consortium in liquid formulation
Mr. Emanuel M.	2017	Studies on *Pesalotiopsis versicolor* (Speg.) Steyaert Causing

Sangma		Yellow Leaf Spot of Guava in Meghalaya and its Management *in vitro*
Ms. LeezaLoya	2017	Studies on the Antagonistic Potential of *Metarhizium*spp. Against Major Soil Borne Pathogens
Ms. Lipa Deb	2017	Studies on antagonistic potential of *Beauveria* spp. against major soil borne pathogens
Mr. Pamala Prince Jayasimha	2017	Pathogenecity of major soil borne plant pathogens on common weeds in Meghalaya
Ms. T. Lalnunsangi	2017	Studies on morphology, cultural and physiological variability of *Colletotrichum capsici* (Sydow.) butler and bisby isolates causing chilli anthracnose
Ms. B.K. Namriboi	2018	Studies on *Ascochyta phaseolorum* Sacc. causing ascochyta blight on cowpea and its management
Mr. Heipormi Papang	2018	Management of *Alternaria* spp. causing black leaf spot of cauliflower in Meghalaya
Ms. Moakala Jamir	2018	Variability Studies of *Phomopsisvexans* (Sacc. & Syd.) Harter and Eco-friendly Management of Fruit Rot of Brinjal
Mr. MeshankiBamon	2018	Evaluation of bacterial endophytes against ginger rhizome rot
Mr. Pranab Malakar	2018	Evaluation of potential bacterial endophytes against major vegetable pathogens
Ms. Sushanti Thokchom	2018	Formulation of bacterial endophyte consortium for the management of alternaria blight of mustard
Ms. Ashwini E.	2019	Incidence of bacterial soft rot of carrot in Meghalaya and ecofriendly postharvest management
Ms. Bhashwati Sharma	2019	Incidence of postharvest fruit rot of chilli (*Capsicum annum* L.) and its management in Meghalaya
Mr. Madhan N.	2019	Cultivation of Shiitake Mushroom (*Lentinula edodes* (Berk.) Pegler) in Wood Logs under Net House Conditions of Meghalaya
Mr. M. Roopesh	2019	Cultivation of *Ganodermalucidum* (W. Curt.:Fr.) P. Karst and its Antifungal Properties Against Phytopathogenic Fungi
Mr. Nandeesha S.V.	2019	Standardization of Shiitake Mushroom (*Lentinula edodes* (Berk.) Pegler) Production Technology in Meghalaya
Ms. Anjana Rai	2020	Management of *Alternaria brassicae* (Berk.) Sacc. Causing Alternaria Blight of Mustard in Meghalaya
Ms. Liza Kalita	2020	Studies on post-harvest fruit rot of banana caused by *Colletotrichummusae* Corda in Meghalaya
Ms. Shaik Munnysha	2020	Management of Pod Rot of French bean (*Phaseolus vulgaris* L.) incited by *Sclerotium rolfsii*Sacc
Ms. Madhusmita Mahanta	2020	Incidence, severity and management of turmeric leaf spot disease (*Colletotrichum* spp.) in Meghalaya
Mr. Ellendula Pradeep Kumar	2020	Management of *Alternaria* Leaf Blotch of Apple
Ms. Jyotismita Das	2021	Phytopathogenic microflora associated with rice grains and their management
Ms. Chinka Sireesha	2021	Exploitation of endophytes for the management of Ascochyta blight of cowpea

6.4.2. Faculty Strength

S.No.	Sanctioned Faculty	Faculty in place#	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	3	Nil	1
2.	Associate Professor	3	Nil	2
3.	Assistant Professor	2	1	3

* Assistant professor (#1) promoted to Assoc. Professor and three associate professors promoted to Professor level.

For School of Crop Protection ie., Plant Pathology and Entomology. Additionally, Scientists from ICAR are recognized as faculty by the academic council and as per MOU.

6.4.3.Technical and Supporting staff

Sl. No.	Name of post sanctioned	No. of post sanctioned	Filled position
1	Livestock/Farm Assistant	1	0
2	Clerk-cum-Typist/LDC/UDC	1	-
3	Field-cum-Lab. Assistant	2	1
4	MTS	4	2
Grand total		**9**	**5**

For School of Crop Protection ie., Plant Pathology and Entomology.

6.4.4. Classrooms and Laboratories: 5 Classrooms, 1 Seminar and 1 conference room attached with LCD Projector are available. Following labs are available

1. Plant Pathology Lab
2. Molecular Lab
3. Biopesticide production unit
4. Mushroom production unit
5. Entomology Lab
6. Nematology Lab
7. Insectry
8. Polyhouse

List of equipments and facilities available are as mentioned

S.N.	Particulars of Asset	Quantity
1	Auto Loop Sterilizer, Make: Himedia,	1 no.
2	Microwave Oven, Samsung-32 ltrs. Model No. CE117ALF	1 no.
3	Conductivity Meter Cyberscan 510, Eutech make	1 no.
4	Colony Counter; Cat # 0671	2 nos.
5	Autoclave Portable, Cat # 7407 PAD	2 nos.
6	Vortex General Purpose (Shaker), Tarsons	5 nos.
7	Water Single Distillation Plant, Medica:	2 nos.
8	Microcentrifuge, Spinwin: 'Tarsons' Brand, Model: MC-01	1 no.
9	Pipette Controller, Tarsons Brand , Cat No. 2003	2 nos.
10	Dancing Shaker, Tarsons Brand, Cat No. 3040	2 nos.
11	Fume Hood, NSW Brand, Cat No. 203	1 no.

12	Digital Turbidity Meter: Systronics Brand (Type: 132)	1 no.
13	Heating Mantles, Jindal Brand, Capacity-500 ml, 200 Watt	1 no.
14	Heating Mantles, Jindal Brand, Capacity-1 lt., 300 Watt.	1 no.
15	Heating Mantles, Jindal Brand, Capacity-2 lt., 450 Watt.	1 no.
16	UV-Transilluminator, Brand: UVP Ltd (UK), Model: LMS-20	1 no.
17	Top Pan Weighing Balance, Model: GE7101, Make: Sartorius	2 nos.
18	Laminar Air Flow, ACCO Make, Cat: AC071-02	1 no.
19	Laminar Air Flow, ACCO Make, Cat: AC071-04	1 no.
20	Autoclave Vertical, 7451PAD, Make: Equitron	1 no.
21	Autoclave Vertical, Make: Equitron	1 no.
22	BOD Incubator, Cat#7140-250, Make: Equitron	2 nos.
23	Student Microscope, Labomed, Model: VISION2000	4 nos.
24	Mastercycler Personal (Thermocycler) with accessories	1 no.
25	Centrifuge 5810R with accessories	1 nos.
26	Electronic Balance, Denver Make	2 nos.
27	Hot Air Oven, EquitronMedica Make	1 no.
28	Vortex-Genie ® 2 Vortex (220V)	1 Set
29	Uniline 3 KVA/180V OL UPS Systems, with isolation Transformer Indicative Back Up Time 120 minutes, Minimum VAH 9600	2 nos.
30	Uniline 5 KVA/180V OL UPS Systems, with isolation Transformer Indicative Back Up Time 60 minutes, Minimum VAH 8000	1 nos.
31	Deep Freezer, Brand: Cryo-Scientific, Model: URC-V-380-2	1 no.
32	Shaker Incubator, Electronic Laboratory Incubator Shaker, (Rotek LIS)	3 nos.
33	Bench Top Cooler (0°C), Tarson Make	2 nos.
34	Gel Electrophoresis-101 (Mini and Wide Midid Horizontal) With Power Supply System, Brand: Scieplus (Axygen Make), Model: HU10, HU25 and EV243	1 no.
35	Precision Hot Air Oven, Model: O-OGS -2436A, Brand: OVFU, Model CF549	3 nos.
36	Binocular Microscope Model: LEICA DM 750 + accessories, PC with Core 2 dual Processor, 2 GB RAM, 250 GB HDD, 17 inch TFT Monitor and Colour Photo Quality printer	3 nos.
37	U9260-0001 Premium Upright Freezer U410 with accessories, Model: U410-86	2 nos.
38	Gel Electrophoresis (Mini & Wide midi horizontal) with power supply system, Axygen Make	1 no.
39	Uniline 5 KVA/168V OL UPS Systems with 120 minutes Battery Back-Up Time Using SMF Battery	5 nos.
40	Microcentrifuge, Tarsons-1030 Spinwin MC-02, Make-Tarsons	1 no.
41	Microcentrifuge, Tarsons-3020 Spinix, Make-Tarsons	2 nos.
42	Microscope-HB Monocular, Brand-Olympus, Model-HB	8 nos.
43	Tarsons-7011-Rocker Vacuum Pump, Cat No. 7011	2 nos.
44	Hort Air Oven-Mechanical Convection, Brand OVFU 250 L, Model: 508	2 nos.
45	Hot Air Oven-O-OGS-1518 (D), Brand-OVFU	2 nos.
46	Dancing Shaker, Tarsons-3040, SP 0-60 RPM	2 nos.
47	Student Compound Microscope, MLX-B Binocular (Pathological)	6 nos.
48	Weighing Balance Model: TTB31 Wensar	2 nos.
49	Electronic Balance, Model: MAB220, Wensar, Sl. No. 29640	1 no.
50	Line Quantum Sensor	2 nos.
51	Table Top Microcentrifuge	1 no.
52	pH Meter, Microprocessor based, pH measuring range: 0.00 to 14.00	1 no.
53	Water Single Distillation Plant, Barnstead Type, Stainless Steel, 4.5 litres/hr. 3500 W, Model No. #7655, Medica Make	1 no.
54	Compound Light Microscope CH 20i Binocular Microscope, Brand: Olympus, Model CH20i	6 nos.
55	Laboratory Refrigerator, 380 lt. capacity with glass door, frost free, 72.8x23.4x23.4 dimensions with 2 KVA Voltage Stablilizer Model: FKG-400, Make: Celfrost	3 nos.

56	BOD Incubator, Precise electronic digital temperature controller with timer with cooling system, Make: Ikon Instruments, Model: IK120	1 no.
57	Stereo Microscope, Model: EZ4, Make: Leica, Germany, No. 10447197	1 no.
58	UV Transilluminator, Tarsons: Make	1 no.
59	Intel Core i7 Windows 8 Desktop Computer, Make: DELL, Model: Optiplex 9020MT, Sl. No. 6RWJ882	2 nos.
60	Top Pan Weighing Balance, Model: CA3102, Contech Make	5nos
61	Hot Plate Cum Magnetic Stirer, Model: MS-H-280 Pro, Make: Dlab	1 no.
62	pH Meter, Model: LMPH 10, Sl.No. 11672, Cat No. L11541, Make: Wenser	1 no.

6.4.5 Conduct of Practical and Hands-on-Training

The practicals in PG program (**MSc. (Ag) Plant Pathology**) are conducted as per the ICAR course curriculum. Practical and hands-on training are conducted as per the list included in the syllabi and records for all the courses are maintained and evaluated by the respective course incharges by giving marks/weightage.

6.4.6 Supervision of students in PG programs

The allotment of students is PG is as per CAU regulation with a cap of maximum six students for Professor, five students for Associate Professor and four students for Assistant Professor are being allotted in the school. The allotment of students is by lottery and in constitution of advisory committee and allotment of research title, the interest of the student is always kept in mind.

Name of Faculty	Number of students guided	Number of students being guided
Dr. R. K. Tombisana Devi	10	3
Dr. T. Rajesh	18	2
Dr. Pranab Dutta	0	2

6.4.7 Feedback of stakeholders (students, parents, industries, employers, farmers etc.)

At the end of the each semester and before the end term exam, a comprehensive feedback for each course is taken from students. The feedback includes competency of the teacher in the subject, updating the current status of the subject by the teacher, timely covering of syllabi, student teacher interactions, creating interest among the students about the course, attitude towards weak students, punctuality of the teacher,etcfor the last five years.
(Representative documents are provided in Appendix-CPGSAS-C)

6.4.8 Students intake and attrition in the program for last five years

Year wise information for the last five academic years (2016-17 to 2020-21) for MSc. **(Ag.) Plant Pathology** program is given in table below:

Academic year	Intake Capacity	Number of admitted student	Attrition (%)	Passed Out
2016-17	5+2*	7	1	4
2017-18	5+2*	7	1	6
2018-19	5+2*	7	-	6

2019-20	2+2*	2	1	6
2020-21	5+2*	7	-	6

*** To be filled by ICAR candidate**

6.4.9 ICT Application in Curricula Delivery

All the class rooms, seminar and conference rooms are well equipped with LCD projectors. As per the needs of the course, power point presentation is given before the students for better explanation. Online and faculty made audio/videos are also presented to the students.

Table: A brief summary of existing facility in the College Library for MSc students

Sl. No.	Facility exist	Status
1	Availability of books (Nos.)	5433
2	Access to print copy of Indian Journals (Nos.) and Periodicals	20
4	Access to Indian on-line journals	2 titles
5	Consortia	2794 e-journals through CeRA consortium
6	MSc. And PhD Theses	356 MSc; 37 PhD
7	Research Reports and Technical Bulletins	475
8	CDs	85
9	Magazines	8
10	Newspapers (national and local)	8
11	Statistical Database	1
12	Analytical Software	1

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate (Applicable when SSR is submitted for Programme) I, the Dean **Dr. Wricha Tyagi** hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

Student Feedback Form

Please limit to 1 feedback for each course taken.

* Required

1. Academic year *

Mark only one oval.

- 1
- 2
- 3
- 4

2. Semester *

Mark only one oval.

- I
- II
- III
- IV
- V
- VI
- VII
- VIII

3. Degree *

Mark only one oval.

- PhD
- MSc
- BSc

4. Discipline *

5. School *

Mark only one oval.

- SCI
- SCP
- SNRM
- SSS

6. Name of the teacher *

7. Course number *

8. Teaching skills *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Competence in the subject matter	☐	☐	☐	☐	☐
Communication skills	☐	☐	☐	☐	☐
Utilization of teaching aids (multimedia, charts and illustations, etc.	☐	☐	☐	☐	☐
Ability to create and uphold interest in the course among students	☐	☐	☐	☐	☐
Responsiveness to students' questions and problems	☐	☐	☐	☐	☐
Ability to ensure timely covering of syllabi	☐	☐	☐	☐	☐
Teacher remaining updated with current status	☐	☐	☐	☐	☐
Skills in linking the course with other relevant course (s)	☐	☐	☐	☐	☐

9. Student-teacher interaction *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Extent of availability of teacher for post-class consultation, if any	☐	☐	☐	☐	☐
Degree of demonstrated interest for holding interactive class sessions	☐	☐	☐	☐	☐
Timeliness in students' evaluation	☐	☐	☐	☐	☐
Attitude/ Response towards weak students	☐	☐	☐	☐	☐

10. Personality of teacher *

Mark only one oval per row.

	Outstanding	Excellent	Good	Average	Poor
Punctuality/Regularity	⬭	⬭	⬭	⬭	⬭
Sincerity and Commitment	⬭	⬭	⬭	⬭	⬭
Fairness in grading/evaluation	⬭	⬭	⬭	⬭	⬭
Helping attitude	⬭	⬭	⬭	⬭	⬭
Integrity of teaching profession	⬭	⬭	⬭	⬭	⬭
Patience	⬭	⬭	⬭	⬭	⬭
Behavior	⬭	⬭	⬭	⬭	⬭
Interpersonal relationship	⬭	⬭	⬭	⬭	⬭

This content is neither created nor endorsed by Google.

Google Forms

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signature
1	[illegible]	2	[illegible]	[illegible]	[illegible]
2	FARZANA NIYAZ	7	[illegible]	[illegible]	[illegible]
3	MALLIKHARJUNA KEERTHAN	7	[illegible]	[illegible]	[illegible]
4	[illegible]	7	[illegible]	[illegible]	[illegible]
5	[illegible]	2	[illegible]	[illegible]	[illegible]
6	[illegible]	7	[illegible]	[illegible]	[illegible]
7	[illegible]	6	[illegible]	[illegible]	[illegible]
8	V. PREETI KUMARI	7	[illegible]	[illegible]	[illegible]
9	[illegible]	7	[illegible]	[illegible]	[illegible]
10	[illegible]	11	[illegible]	[illegible]	[illegible]
11	[illegible]	7	[illegible]	[illegible]	[illegible]
12	[illegible]	6	[illegible]	[illegible]	[illegible]
13	[illegible]	7	[illegible]	[illegible]	[illegible]
14	[illegible]	15	[illegible]	[illegible]	[illegible]
15	M. Shanmukh Raju	6	[illegible]	[illegible]	[illegible]
16	Yeluguri Sharanya	9	[illegible]	[illegible]	[illegible]
17	[illegible]	6	[illegible]	[illegible]	[illegible]
18	[illegible]	6	[illegible]	[illegible]	[illegible]
19	[illegible]	5	[illegible]	[illegible]	[illegible]
20	[illegible]	5	[illegible]	[illegible]	[illegible]
21	[illegible]	6	[illegible]	[illegible]	[illegible]
22	[illegible]	7	[illegible]	[illegible]	[illegible]
23	[illegible]	1	[illegible]	[illegible]	[illegible]

[illegible]

Sl. No	Name	No. of feedback forms submitted	Date	Time	Signatures
29	Payal Prasad	4	13/4/21	11:05	
30	A. Geetha Reddy	8	11/4/21	11:06	
31	Shravan.H	4	17/4/21	12:34	
32	Sneha Hanitha	6	15/4/21	11:47	
33	M. Sachin	6	11/4/21	11:48	
34	E. Naveen	6	13/4/21	11:54	
35	Dr. Manoranjan	4	11/4/21	11:55	
36	Nilesh Sharma	3	11/4/21	12:28	
37	Mouli	7	14/4/21	11:23	
38	Vinay Prakash	7	12/4/21	11:59	
39	Hanamanth - P	5	11/4/21	12:05	
40	[illegible]	4	11/4/21	12:33	
41	Vallamalla prasad	5	11/4/21	12:52	
42	Abhishek Prakash	9	11/4/21	12:55	
43	Abhay Kumar	7	17/4/21	12:56	
44	[illegible]	7	17/4/21	12:57	
45	[illegible]	7	11/4/21	12:58	
46	Dr. Sripath Reddy	7	17-4-21	12:59	
47	[illegible]	3	17-4-21	12:59	

4 x 2 = 8 . 9 x 6 = 54

5 x 2 = 10

6 x 3 = 18

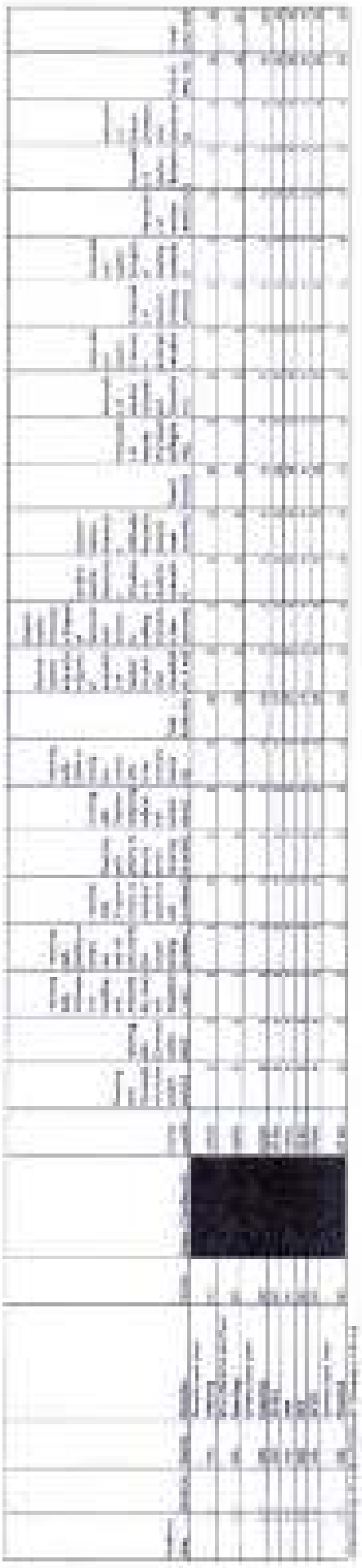
7 x 9 = 63

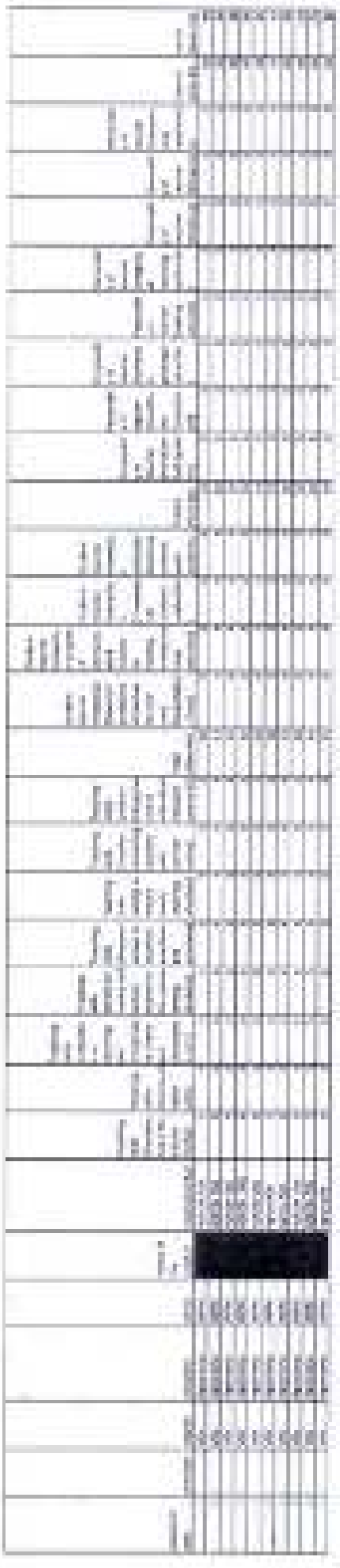
134

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signatures
47	Vanitha yuvaraj	5	17/9/21	12:45	
48	Kavya Sai Gupta	4	17/9/21	12:47	
49	Keerthi	7	17/9/21	12:47	
50	Jayashree Ayer	7	17/9/21	12:48	
51	Dhanyashree Vasanth Kumar	2	17/9/21	12:55	
52	Bala Tarri	6	17-09-21	12:04	
53	Sanjana Pattanayak	6	17-09-21	12:55	
54	[illegible]	7	17-09-21	12:57	
55	Keerthi K Jayashree	4	17-09-21	12:58	
56	Sahithya Sahu	6	17-09-21	12:59	
57	Chandni Chauhan	3	17-09-21	12:59	
58	Tanmay Vaidya	7	17/9/21	12:59	
59	Bhavya Kumar Jain	3	17/9/21	12:59	
60	R. Sanjukta Rout	8	17/9/21	1:00pm	
61	R. Ancharla Keerthana	8	17/9/21	1:1pm	
			-		

4 x 4 = 16
5 x 5 = 25 — 125
6 x 3 = 18 — 105 — 347

(491)





SELF STUDY REPORT
for degree accreditation
MSc. (Ag)
Plant Molecular Biology and Biotechnology

College of Post Graduate Studies in Agricultural Sciences
Central Agricultural University (Imphal)
Umiam, Umroi Road, Meghalaya - 793 103

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	Particulars
1.	Sections 6.4
2.	Sections 6.4.2 to 6.4.3
3.	Section 6.4.4 to Section 6.4.6
4.	Section 6.4.7 to 6.4.8
5.	Section 6.4.9 to Section 6.4.12

6.4. **Self-Study Report for the Programme (MSc. (Ag) in Plant Molecular Biology and Biotechnology**

6.4.1. Brief History of the Degree Programme

The North Eastern India is experiencing rapid population growth which has crossed 45 million mark. In order to attain economic, food and nutritional security, it is imperative to impart quality agricultural education and have sustained agricultural development in the states of northeastern region. This region is constrained by lack of adequate infrastructure, low productivity, inadequate marketing and lack of knowledge on modern farm technologies. With this genesis in background, the Central Agricultural University, Imphal established the College of Post Graduate Studies in Agricultural Sciences (**CPGSAS**) at Umiam, Meghalaya on 21st December, 2006.

MISSION of CPGSAS is to achieve excellence in teaching, research and extension education in the field of agriculture.
MANDATES of CPGS are:
1) to impart postgraduate education in different branches of Agriculture,
2) to further the advancement of learning and prosecution of research in Agriculture, and
3) to undertake such others activities as it may deem fit, from time to time, to uplift the socioeconomical status of farmers in the North Eastern Region.
Objectives of CPGS are:

1) To produce globally competitive postgraduates in the field of agriculture
2) To develop robust agricultural technologies to help Indian farming systems, particularly in the northeastern region of India to be sustainable and profitable, and
3) To transform agriculture and allied activities into profitable enterprises and thereby create food and nutritional security for people of northeastern region of India.
4) The postgraduates of CPGS who are educated and trained in recent advances in agriculture and allied sciences, are expected to bring about a quantum change in the agricultural research and development systems in their respective states and also contribute towards strengthening the National Agricultural Research System.

The MSc. degree program in Plant Molecular Biology and Biotechnologycurrently running at CPGSAS is a 2 years full-time master's program following the ICAR course curriculum and has been offered at School of Crop Improvement since 2009.

In the last five years (2016-17 upto 2020-21) a total number of 20 M.Sc students have passed out.Several publications have resulted from the research work conducted.

A. Full length RESEARCH PAPERS

Singh R, … Rai M…Singh NK (2016) From QTL to variety-harnessing the benefits of QTLs for drought, flood and sal tolerance in mega rice varieties of India through a multi-institutional network. *Plant Science* 242: 278-287
Tyagi W, Rai M (2017) Root transcriptomes of two acidic soil adapted Indica rice genotypes suggest diverse and complex mechanism of low phosphorus tolerance. *Protoplasma* 254:725–736
Yumnam JS, Rai M, Tyagi W(2017) *In silico* characterisation of novel rice transcripts expressed only in phosphorus deficient conditions suggests role of multiple abiotic stress. *Acta BiologicaHungarica*68:398–411.

Yumnam JS, Rai M, Tyagi W (2017) Allele mining across two low-P tolerant genes PSTOL1 and PupK20-2 reveals novel haplotypes in rice genotypes adapted to acidic soils. *Plant Genetic Resources: Characterization and Utilization*; 15:221-229

Das S, Tyagi W, Rai M and Yumnam JS (2017) Understanding Fe^{2+} and P deficiency tolerance in rice for enhancing productivity under acidic soils. *Biotechnology and Genetic engineering reviews*33: 97-117.

Dutta SS, Tyagi W, Pale G, Pohlong J, C. Aochen, Pandey A, Pattanayak A, Rai M (2018) Marker–trait association for low-light intensity tolerance in rice genotypes from Eastern India. *Molecular Genetics and Genomics*.293:1493-1506.

Colney L, Tyagi W, Rai M (2018) Morphological and molecular characterization of two distinct chilli cultivars from North Eastern India with special reference to pungency related genes. *Scientia Horticulturae.* 240: 1–10.

Bhutia KL, Nongbri EL, Gympad E, Rai M, Tyagi W (2020) In silico characterization, and expression analysis of rice golden 2-like (OsGLK) members in response to low phosphorous. *Molecular Biology Reports*, 47: 2529.

Tyagi W, Yumnam JS, Sen D, Rai M (2020) Root transcriptome reveals efficient cell signaling and energy conservation key to aluminum toxicity tolerance in acidic soil adapted rice genotype. *Scientific Reports.* 10:1-14.

Bhandari A, Jayaswal S, Yadav N et al., (2019) Genomics-assisted backcross breeding for infusing climate resilience in high-yielding green revolution varieties of rice. *Indian J. of Genet.* 79 (1)Suppl: 160-170.

Devi YS, Pandey A, Kumar A, Ansari MA, Tyagi W, Rai M (2018) Genetic divergence, path coefficient and cluster analysis of ricebean (*Vigna umbellate*) genotypes in the mid-altitudes of Meghalaya. *Indian journal of Agricultural Sciences*. 88(7): 1054-62.

Tiwari KK, Singh A, Pattnaik S et al. (2015). Identification of a diverse mini-core panel of Indian rice germplasm based on genotyping using microsatellite markers. *Plant Breeding* doi:10.1111/pbr.12252.

Chulet H, Noren SK, Tyagi W, Meetei NT, Khanna VK, Pattanayak A, Datt S, Choudhury PR and Kumar M (2014) Assessment of genetic diversity in pea (*Pisum sativum* L.) using morphological and molecular markers. *Indian J. Genet*.74(2): 205-212.

Rani W, SK Noren, Rai M, Tyagi W, VK Khanna. (2019) Physico-chemical characteristics and nutritional quality analysis of aromatic rice (Oryza sativa L.) genotypes. *Indian J. Genet* 79 (4), 641-650

KL Naveenkumar, D Sen, S Vashum, M Sanjenbam. (2020) Genetic characterization and divergence studies of maize (Zea mays L.) lines developed from landraces indigenous to North Eastern Hill Region (NEHR) of India. *Plant Genetic Resources* 18 (4), 231-242

Singh AK, Meetei NT, Singh BK, Mondal N. (2017) High incidence of citrus tristeza virus in mandarin (*Citrus reticulata*) in North-East states of India. *Virus disease*. 28(4): 401–407.

Meetei NT, Singh AK, Singh BK, Mondal N. (2019) Disease incidence and molecular indexing of viruses infecting King chilli (*Capsicum chinense* Jacq) in North East India. *Indian Phytopathology* 73(1):1-8

Debnath, A., M. Rai and W. Tyagi (2021) Identification of Swarna x O. nivara (RPBio4918) advanced backcross lines performing well under acidic soil conditions. J. Environ. Biol., 42, 240-246.

B Loitongbam, M Rai, W Tyagi, R Nongmaithem, L Renthlei. (2020) Assessment of genetic variability and pollen viability in rice (*Oryza sativa* L.) germplasm for low temperature tolerance at reproductive stage. *Indian Journal of Plant Genetic Resources* 32 (3), 340-346.

A Bhandari, P Jayaswal, N Yadav, R Singh, Y Singh, B Singh, N Singh, …M Rai… NK Singh (2018). Genomics-assisted backcross breeding for infusing climate resilience in high-yielding green revolution varieties of rice. *Indian J. Genet.*

YS Devi, A Pandey, A Kumar, MA Ansari, W Tyagi, M Rai, A Das (2018). Genetic divergence, path coefficient and cluster analysis of ricebean genotypes, in the Mid-altitudes of Meghalaya. *Indian Journal of Agricultural Sciences* 88 (7),
Sanjenbam M, Sen D, Tyagi W and Chand R (2018). Phenotypic diversity analysis and screening for northern corn leaf blight resistance in Maize (Zea mays L.) landraces grown in North Eastern Hill Region of India. *Indian J. Plant Genet. Resour.* 31(3): 286-294.
Chandan Kumar Singh, Dharmendra Singh, Shristi Sharma, Shivani Chandra, Jyoti Taunk, Noren Singh Konjengbam, Deepti Singh, Arun Kumar, Upadhyaya KC and Madan Pal (2021) Morpho-physiological characterization coupled with expressional accord of exclusion mechanism in wild and cultivated lentil under aluminium stress. *Protoplasma*. Doi.org/10.1007/s00709-021-01619-z.
Syiemlieh P, Noren SK, Khanna VK, Rai M, Meetei NT and Pattanayak A (2019). Assessment of genetic diversity of upland rice (*Oryza sativa* L.) genotypes from North Eastern Hill Region of India. *Vegetos.* doi.org/10.1007/s42535-019-00037-0.
Bhutia KL, Nongbri EL, Sharma TO, Rai M, Tyagi W (2020). A 1.84-Mb region on rice chromosome 2 carrying SPL4 , SPL5 and MLO8 genes is associated with higher yield under phosphorus-deficient acidic soil. *Journal of Applied Genetics*. DOI: 10.1007/s13353-020-00601-4
Mallikarjun PK, Noren SK, Singh NB, Mohan Lal, Singh AK, Singh NJ and Sharma G (2021). Evaluation of Genotype × environment interaction for essential oil yield and its related traits for identification of suitable cultivars in citronella (*Cymbopogonwinterianus*Jowitt.) in Meghalaya, India. The Bioscan (Accepted) (ISSN:0973-7049)

B. In National/International seminars (students' participation)

[1] Bezil M, Boobana P, Tyagi W and Rai M (2020) Identification of contrasting genotypes of linseed for response to P deficiency and Al toxicity under acidic upland soils and hydroponic conditions. Plant Genetics and Genomics conference organized by SRM University, Chennai. January 23-24, 2020.

[2] Lap B, Tyagi W and Rai M (2019) Genetics of purple colour in chakhaopoireiton, an economically important landrace of Manipur. 5th International conference on plant genetics and genomics-"Germplasm to Genome Engineering"

[3] Chandrakanthi Sand Tyagi W (2019) Screening and characterization of putative mutant population in rapeseed-mustard (Brassica) genotypes for low moisture stress tolerance. 3rd international conference global initiatives in agricultural and applied sciences for eco friendly environment (GIASE-2019).

[4] Rai M, Tyagi W, Lap B, Debnath A, Sumpi H, Najiar MRJ, Saio Y and Sinha A (2019) Understanding and deploying rice blast resistance in north eastern hill region of India. Indian Plant Science Congress 2019. p-65. 23rd -25th January, 2019, SRM IST, Chennai.

[5] Shanmugan A, Lap B, Tyagi, W and Rai M (2019). Genetic analysis of elite breeding lines for allelic status of agronomically important genes and combining ability. Indian Plant Science Congress 2019. p-65. 23rd -25th January, 2019, SRM IST, Chennai.

[6] Mariyappan SB and Sen D (2019). Selection for hard endosperm, tryptophan content and yield contributing traits in $F_{3:4}$ QPM families. Indian Plant Science Congress 2019. p-35. 23rd -25th January, 2019, SRM IST, Chennai.

[7] I. Gopinath, Rai A, Rai M and Tyagi W (2019). Evaluation of advanced breeding lines of lowland rice for grain quality traits. National seminar on strengthening of

seed systems in the North Eastern and unreached regions- problems, prospects and policies. Indian Society of Seed Science and Technology. p23. 5th to 7th February, 2019, Imphal, Manipur.

[8] Sumpi H, Debnath A, Tyagi W and Rai M (2018) Generation and characterization of diverse natural and bi-parental populations: a key resource for mapping leaf and neck blast resistance in rice. In proceedings of International Symposium on Biodiversity and Biobanking, Biodiverse 2018 (ABSTRACT CODE: PP-FAB014; URID-12180001/12150008; Theme: Food and Agro-biodiversity). (pp 124) held at IIT, Guwahati from 27-29th Jan, 2018.

[9] Bhutia KL, Sharma OT, Rai M and Tyagi W (2018)Utilization of two tolerant rice genotypes to understand the mechanisms involved in imparting tolerance to phosphorus deficiency under acidic soil conditions. International symposium on biodiversity and biobanking "biodiverse 2018" (pp 128-129) held at IIT, Guwahati from 27-29th Jan, 2018.

[10] Vashum S, Kumar N and Sen D (2018) Characterization of full sib maize (Zea mays L.) families developed from landraces of North East Hill Region (NEHR) of India for *Turcicum*blight resistance. In proceedings of International Symposium on Biodiversity and Biobanking, Biodiverse 2018 (ABSTRACT CODE- PP-FAB006; Theme: Food and Agro-biodiversity) pp-123, 27th-29th January, 2018 IIT Guwahati.

[11] Kumar N, Momin B and Sen D (2018) Phenotypic screening at seedling stage for Aluminium toxicity and water logging tolerance in early generation full-sib maize (Zea mays L.) families. In proceedings of International Symposium on Biodiversity and Biobanking, Biodiverse 2018 (ABSTRACT Code: PP-FAB005; Theme: Food and Agro-biodiversity) pp-122-123, 27th-29th January, 2018 IIT Guwahati.

[12] Debnath A, Rai M and Tyagi W (2018). Evaluation of rice minicore and F_2popuation for resistance to leaf and neck blast pathotypes prevelant in NEH region.1st National Genetics Congress on Genetics for sustainable food health and nutrition. P-179. 14th- 16th December, 2018, ICAR-IARI, NewDelhi

[13] Debnath A, Rai M, Tyagi W and Das S (2017) Identification of potential genotype influencing stress tolerance to Fe toxicity and P deficiency under lowland acidic soils condition of North Eastern rice. In proceedings of Third International Conference on Bioresource and Stress Management (pp294) held at Jaipur, Rajasthan from 8-11th Nov, 2017. (Abstract ID: 3ICBSM0341)

[14] Lap B, Pandey A, Kumar A, Aochen C, Tyagi W, Rai M, Das A (2017) Assessment of genetic diversity in Job's tears (*Coixlacyma*-Jobi L.) germplasm using morphological and molecular markers. In the proceedings of "XIII Agriculture Science Congress-2017: Climate Smart Agriculture" held at UAS, Bangalore from 21-24 February, 2017 (Abstract ID: B424; Theme II: Adaptation to climate change).

[15] Debnath A, Sen D, Tyagi W, Rai M (2016) Genetic analysis of yield contributing traits in lowland rice genotypes in acidic soil and hydroponics condition. In the proceeding of international conference on "emerging trends in science, technology, agriculture and management-2016" held at College of Engineering and Post-harvest technology, CAU (Imphal), Raniphool, Sikkim, from 21-23 April, 2016 (ISBN 978-

93-84124-70-0; pp7).

[16] Dutta SS, Pale G, Poholong J, Aochen C, Pandey A, Tyagi W, Rai M (2016) Marker-trait association for low light intensity tolerance in rice genotypes from Eastern India. Students' symposium on "genomics-based next generation crop improvement approaches" held at IARI, New Delhi (11-12 November, 2016). Recipient of the best poster award

List of theses submitted for the award of degree programme in **Plant Molecular Biology and Biotechnology**

Name of the student	Year of passing	Thesis Title	Advisor's Name
Mr. Limasunep Longkumer	2016	Evaluation of putative mutant populations in rice *(Oryza sativa* L.) and rapeseed (*Brassica rapa syn. campestris*)for aluminium toxicity tolerance	Wricha Tyagi
Ms. Chandrakanthi S	2016	Screening and characterization of putative mutant population in *Brassica* for low moisture stress	Wricha Tyagi
Ms. Chongdeilhing Kipgen	2016	Studies on hybridization between various accessions and genetic diversity in cucumber (*Cucumis sativa*)	V.K. Khanna
Ms. Diezelhouno Chuchua	2017	Marker assisted pyramiding of drought tolerant QTLs in rice variety SambaMahsuri Sub-1	Mayank Rai
Mr. Lalduhzuala Colney	2017	Molecular Characterization of King Chilli (Bhutjolokia) and DalleKhursani accessions with reference to pungency related genes	Mayank Rai
Mr. Dharmendra Singh Lagoriya	2017	Hybridization and genetic diversity in pea	V.K. Chowdhury
Mr. Bipramani Nameirakpam	2017	Studies on crossability between various accessions and genetic diversity in cowpea (*Vigna unguiculata* (L.) Walp.)	V.K. Khanna
Ms. Tanni Rangkham	2017	Hybridization and genetic diversity in (*Vigna unguiculata* (L.) Walp.)	V.K. Khanna
Mr. Dipen Nama Adhikari	2017	Crossability and genetic diversity studies in Pea (*Pisum sativum*)	V.K. Khanna
Ms. Careen Nongrum	2018	Genetic fidelity assessment of *in vitro* regenerated king Chilli (*Capsicum chinensis Jacq.*) using molecular markers	V.K. Chowdhury
Ms. Hage Sumpi	2018	Bulk segregation for blast resistance in F_2populatrion derived from two contrasting rice genotypes of North Eastern hill region	Mayank Rai
Mr. Shaikh Akbar Rasul	2018	Characterization of advanced inbreed lines for low phosphorous and iron toxicity tolerance	Wricha Tyagi
Ms. T. Oshin Sharma	2018	Molecular characterization of selected RILs derived from two low phosphorous tolerant	Wricha Tyagi

		rice genotypes	
Mr. Ebenazar Gympad	2018	Characterization of a panel of contrasting rice genotypes for low phosphorous tolerance using morphological and molecular markers	Wricha Tyagi
Ms. Flamia Chimachi R. Marak	2018	*In vitro* regeneration and genetic variation analysis using molecular markers in selected banana cultivars of Meghalaya	V.K. Chowdhury
Ms. Vedulla Usha Tejaswini	2019	Standardisation of *in vitro* regeneration protocol and genetic diversity analysis in Blackgram using RAPD markers	V. K. Khanna
Ms. Sakuonuo Theunuo	2019	*In vitro* regeneration and genetic diversity analysis in soybean using SSR markers	V. K. Khanna
Ms. Saumika Bhattacharjee	2019	Production of virus free quality planting material in chilli var. Dallekhursani by *in vitro* meristem tip culture	Ng. Tombisana Meetei
Ms. Magar Sayali Ganesh	2019	Evaluation of curcumin content and genetic diversity using molecular marker in turmeric genotypes cultivated in North East India	V.K. Chowdhury
Mr. Balaji S.	2020	Genetic variability analysis of Faba bean (*Vicia faba* L.) Genotypes of North East Hill region of India using Morphological Characteristics and SSR markers	Ng. Tombisana Meetei

6.4.2. Faculty Strength

S.No.	Sanctioned Faculty	Faculty in place#	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	3	Nil	1
2.	Associate Professor*	1	1	2
3.	Assistant Professor	3	Nil	3

* Associate professors (#3) promoted to Professor.

For School of Crop Improvement ie., Genetics & Pant Breeding and Plant Molecular Biology & Biotechnology. Additionally, Scientists from ICAR are recognized by the academic council and as per MOU.

6.4.3.Technical and Supporting staff

Sl. No.	Name of post sanctioned	No. of post sanctioned	Filled position
1	Livestock/Farm Assistant	1	1
2	Clerk-cum-Typist/LDC/UDC	1	-

3	Field-cum-Lab. Assistant	2	1
4	MTS	4	2
Grand total		**8**	**6**

For School of Crop Improvement ie., Genetics & Pant Breeding and Plant Molecular Biology & Biotechnology.

6.4.4. Classrooms and Laboratories: 5 Classrooms, 1 Seminar and 1 conference room attached with LCD Projector are available.
Following laboratories and facilities are available

1.Molecular Biology and Biotechnology Lab
2.Cytogenetics and Molecular Marker Lab
3.Media Preparation Room
4.Tissue Culture and Genetic Transformation Lab
5.Green house facilities

The list of equipments and facilities available in the various laboratories are listed below

Sl. No.	Name of equipment
1	Mega Gel High Throughput Electrophoresis System
2	DNA Extraction System with centrifuge
3	Binocular (Pathological) (Qty1)
4	Samsung – Refrigerators (Qty 4)
5	Mastercycler (Qty5)
6	Gel Documentation System
7	Horizontal Gel electrophoresis with power supply (Qty5)
8	pH meters, Bench top
9	1 KVA online UPS with 2 hr. backup. Make: Orion
10	Table top Centrifuge machine (Qty5)
11	Refrigerators (Qty4)
12	Deep Freezer, upto-20°C (Qty4)
13	Biosafety hood
14	UV – Transilluminator
15	Top pan electronic balance
16	Growth Chamber with controlled environment light and temperature
17	Spinnix-Vortex Shake
18	Microwave Oven
19	Hot plate cum Magnetic Stirrer
20	pH meters, Bench top
21	Hot Air Oven (Qty 4)
22	Vertical Autoclave
23	Seed Germinator
24	refrigerator ready dessicators
25	Mini Bead Beater with 96 well Micro plate and stainless steel beads
26	Tensiometer

27	CTD Infrared Gun
28	Auto Dessicator Cabinets
29	Rocker Vacuum Pump
30	Weighing balances
31	Liquid nitrogen cans
32	Realtime PCR machine
33	Laminar hoods
34	Vertical gel electrophoresis system
35	Phase contrast microscope
36	Students' microscopes

6.4.5 Conduct of Practical and Hands-on-Training

The practicals in PG program (**MSc. (Ag) in Plant Molecular Biology and Biotechnology**) are conducted as per the ICAR course curriculum. Practical and hands-on training are conducted as per the list included in the syllabi and records for all the courses are maintained and evaluated by the respective course incharges by giving marks weightages.

6.4.6 Supervision of students in PG programs

The allotment of students is PG is as per CAU regulation with a cap of maximum six students for Professor, five students for Associate Professor and four students for Assistant Professor are being allotted in the school. Apart from the above mentioned, School of Crop Improvement has two faculty from ICAR-RC for NEH, Umiam with specialization in genetics and plant breeding and in Agricultural Economics recognized for teaching and guidance of the students. The allotment of students is by lottery and in constitution of advisory committee and allotment of research title, the interest of the student is always kept in mind.

Name of Faculty	Number of students guided	Number of students being guided
Dr. Wricha Tyagi	13	4
Dr. Mayank Rai	4	0
Dr. Hossain Ali Mondal	0	1
Dr. Ng. Tombisana Meetei	2	3

6.4.7 Feedback of stakeholders (students, parents, industries, employers, farmers etc.)

At the end of the each semester and before the end term exam, a comprehensive feedback for each course is taken from students. The feedback includes competency of the teacher in the subject, updating the current status of the subject by the teacher, timely covering of syllabi, student teacher interactions, creating interest among the students about the course, attitude towards weak students, punctuality of the teacher,etcfor the last five years.
(Representative documents are provided in Appendix-CPGSAS-C)

6.4.8 Students intake and attrition in the program for last five years

Year wise information for the last five academic years (2016-17 to 2020-21) for MSc**(Ag.) Plant Molecular Biology and Biotechnology** program is given in table below:

Academic year	Intake Capacity	Number of admitted student	Attrition (%)	Passed Out
2016-17	5+2*	6	_	3
2017-18	3+2*	5	1	6
2018-19	3+2*	3	_	6
2019-20	3+2*	4	_	4
2020-21	5+2*	6	3	1

*** To be filled by ICAR candidate**

6.4.9 ICT Application in Curricula Delivery

All the class rooms, seminar and conference rooms are well equipped with LCD projectors. As per the needs of the course, power point presentation is given before the students for better explanation. Online and faculty made audio/videos are also presented to the students.

Table: A brief summary of existing facility in the College Library for MSc. students

Sl. No.	Facility exist	Status
1	Availability of books (Nos.)	5433
2	Access to print copy of Indian Journals (Nos.) and Periodicals	20
4	Access to Indian on-line journals	2 titles
5	Consortia	2794 e-journals through CeRA consortium
6	MSc. And PhD Theses	356 MSc; 37 PhD
7	Research Reports and Technical Bulletins	475
8	CDs	85
9	Magazines	8
10	Newspapers (national and local)	8
11	Statistical Database	1
12	Analytical Software	1

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate (Applicable when SSR is submitted for Programme) I, the Dean **Dr. Wricha Tyagi**. hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

Student Feedback Form

Please limit to 1 feedback for each course taken.

* Required

1. Academic year *

Mark only one oval.

- 1
- 2
- 3
- 4

2. Semester *

Mark only one oval.

- I
- II
- III
- IV
- V
- VI
- VII
- VIII

3. Degree *

Mark only one oval.

- ◯ PhD
- ◯ MSc
- ◯ BSc

4. Discipline *

_____

5. School *

Mark only one oval.

- ◯ SCI
- ◯ SCP
- ◯ SNRM
- ◯ SSS

6. Name of the teacher *

_____

7. Course number *

_____

8. Teaching skills *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Competence in the subject matter	☐	☐	☐	☐	☐
Communication skills	☐	☐	☐	☐	☐
Utilization of teaching aids (multimedia, charts and illustations, etc.	☐	☐	☐	☐	☐
Ability to create and uphold interest in the course among students	☐	☐	☐	☐	☐
Responsiveness to students' questions and problems	☐	☐	☐	☐	☐
Ability to ensure timely covering of syllabi	☐	☐	☐	☐	☐
Teacher remaining updated with current status	☐	☐	☐	☐	☐
Skills in linking the course with other relevant course (s)	☐	☐	☐	☐	☐

9. Student-teacher interaction *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Extent of availability of teacher for post-class consultation, if any	☐	☐	☐	☐	☐
Degree of demonstrated interest for holding interactive class sessions	☐	☐	☐	☐	☐
Timeliness in students' evaluation	☐	☐	☐	☐	☐
Attitude/ Response towards weak students	☐	☐	☐	☐	☐

10. Personality of teacher *

Mark only one oval per row.

	Outstanding	Excellent	Good	Average	Poor
Punctuality/Regularity	⬭	⬭	⬭	⬭	⬭
Sincerity and Commitment	⬭	⬭	⬭	⬭	⬭
Fairness in grading/evaluation	⬭	⬭	⬭	⬭	⬭
Helping attitude	⬭	⬭	⬭	⬭	⬭
Integrity of teaching profession	⬭	⬭	⬭	⬭	⬭
Patience	⬭	⬭	⬭	⬭	⬭
Behavior	⬭	⬭	⬭	⬭	⬭
Interpersonal relationship	⬭	⬭	⬭	⬭	⬭

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Google Forms

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signature
1	[illegible]	2	[illegible]	[illegible]	[illegible]
2	FARZANA AHMAD	7	[illegible]	[illegible]	[illegible]
3	MALLIKHARJUNA KEERTHAN	7	[illegible]	[illegible]	[illegible]
4	TINKUNIYANG	7	[illegible]	[illegible]	[illegible]
5	[illegible]	2	[illegible]	[illegible]	[illegible]
6	[illegible]	7	[illegible]	[illegible]	[illegible]
7	[illegible]	6	[illegible]	[illegible]	[illegible]
8	V. PREETI KUMARI	7	[illegible]	[illegible]	[illegible]
9	[illegible]	7	[illegible]	[illegible]	[illegible]
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13	ATEEFA	7	[illegible]	[illegible]	[illegible]
14	[illegible]	15	[illegible]	[illegible]	[illegible]
15	M. Shanmukh Raju	6	[illegible]	[illegible]	[illegible]
16	Yeluguri Sikhasanya	9	[illegible]	[illegible]	[illegible]
17	Mangalada Pavankumar	6	[illegible]	[illegible]	[illegible]
18	Anil Kumar	6	[illegible]	[illegible]	[illegible]
19	[illegible]	5	[illegible]	[illegible]	[illegible]
20	[illegible]	5	[illegible]	[illegible]	[illegible]
21	[illegible]	6	[illegible]	[illegible]	[illegible]
22	[illegible]	7	[illegible]	[illegible]	[illegible]
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[illegible]

Sl. No	Name	No. of feedback forms submitted	Date	Time	Signatures
29	Payal Prasad	4	13/4/21	11:05	
30	A. Geetha Reddy	8	11/4/21	11:06	
31	Shravan.H	4	13/4/21	12:04	
32	Sikha Haritha	6	13/4/21	11:47	
33	M. Sachin	6	11/4/21	11:08	
34	E. Naveen	6	13/4/21	11:54	
35	Dr. Manoranjan	4	13/4/21	11:03	
36	Nitish Sharma	3	11/4/21	12:38	
37	Monika	7	11/4/21	11:23	
38	Vinay Prakash	7	13/4/21	11:19	
39	Harikrishna. P	5	11/4/21	12:05	
40	[illegible]	4	11/4/21	12:21	
41	Vallamalla prasad	9	11/4/21	12:22	
42	Abhishek Prakash	9	11/4/21	12:55	
43	Abhinay Varma	7	13/4/21	12:16	
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45	[illegible]	7	13/4/21	12:11	
46	Sai Prem Kumar	7	13/4/21	12:13	
47	Manickam V	7	13/4/21	12:17	
48	Shashidhar M P	4	11/4/21	12:13	
49	D. Sainath Reddy	7	13-4-21	12:24	
50	Jayasree Bhanu	3	13/4/21	12:30	

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8 x 2 = 16
6 x 3 = 18
2 x 9 = 18

9 x 6 = 54

154

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signatures
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48	Kavya Sai Gupta	4	17/9/21	12:47	
49	Kavya	7	17/9/21	4:47	
50	Jayashree Ayer	7	17/9/21	12:56	
51	Dhanyashree Vasanth Kumar	2	17/9/21	13:45	
52	Balla Tanvi	6	17-09-21	12:04	
53	Sanjana Pattanayak	6	17-09-21	13:55	
54	[illegible]	7	17-09-21	13:59	
55	Kavya K Jayashree	4	17-09-21	14:19	
56	Sahithya Sahu	5	17-09-21	14:31	
57	Shreshti Shivalkar	3	17-09-21	12:52	
58	Tanmay [illegible]	7	17/9/21	12:49	
59	Bhavya Kumar Jain	3	17/9/21	11:30	
60	R. Sanjukta Rout	5	17/9/21	11:00	
61	R. Ankesha Mishra	3	17/9/21	1:15 pm	
			-		

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5 × 3 = 24
3 × 3 = 15

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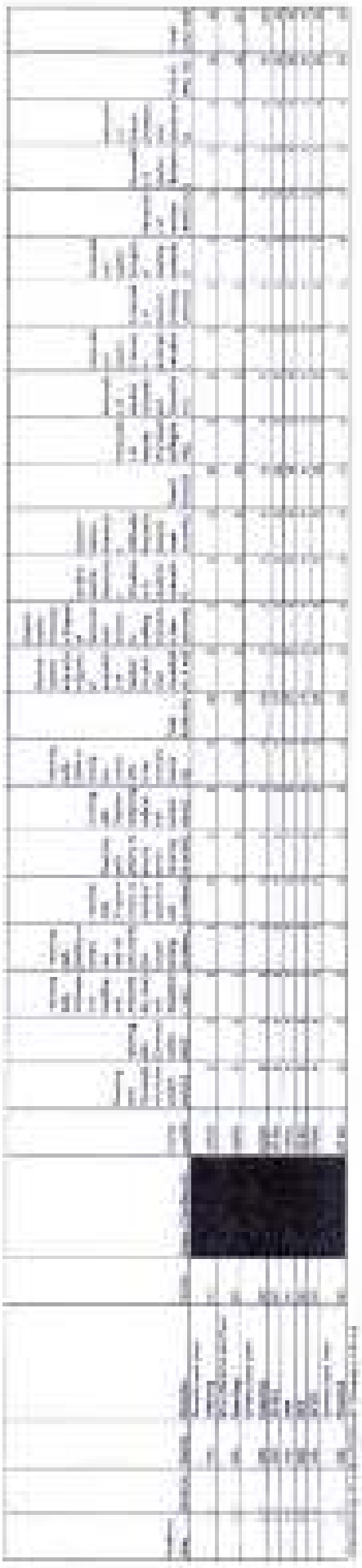
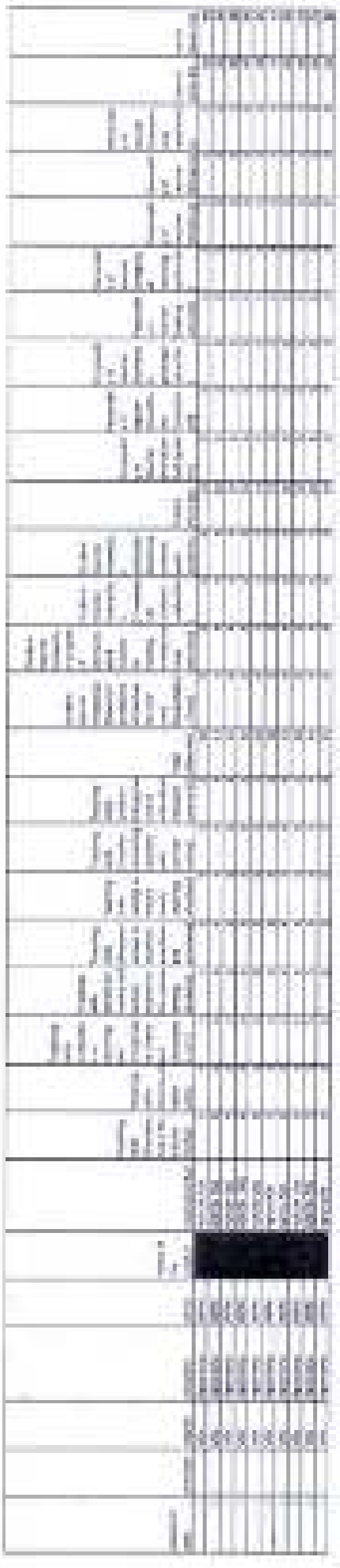
127
105 = 347

411





SELF STUDY REPORT
for degree accreditation
MBA (Agri Business Management)

College of Post Graduate Studies in Agricultural Sciences
Central Agricultural University (Imphal)
Umiam, Umroi Road, Meghalaya - 793 103

Telefax: 0364-2570030
e-mail: dean.cpgsas@cau.ac.in/deancpgs@gmail.com website: www.cpgsas.ac.in

	Particulars
1.	Sections 6.4
2.	Sections 6.4.2 to 6.4.3
3.	Section 6.4.4 to Section 6.4.6
4.	Section 6.4.7 to 6.4.8
5.	Section 6.4.9 to Section 6.4.12

6.4. **Self-Study Report for the MBA (Agri. Business Management)**

6.4.1. Brief History of the Degree Programme

The North Eastern India is experiencing rapid population growth which has crossed 45 million mark. In order to attain economic, food and nutritional security, it is imperative to impart quality agricultural education and have sustained agricultural development in the states of northeastern region. This region is constrained by lack of adequate infrastructure, low productivity, inadequate marketing and lack of knowledge on modern farm technologies. With this genesis in background, the Central Agricultural University, Imphal established the College of Post Graduate Studies in Agricultural Sciences (**CPGSAS**) at Umiam, Meghalaya on 21st December, 2006.

MISSION of CPGSAS is to achieve excellence in teaching, research and extension education in the field of agriculture.

MANDATES of CPGS are:

1) to impart postgraduate education in different branches of Agriculture,
2) to further the advancement of learning and prosecution of research in Agriculture, and
3) to undertake such others activities as it may deem fit, from time to time, to uplift the socioeconomical status of farmers in the North Eastern Region.

Objectives of CPGS are:

1) To produce globally competitive postgraduates in the field of agriculture
2) To develop robust agricultural technologies to help Indian farming systems, particularly in the northeastern region of India to be sustainable and profitable, and
3) To transform agriculture and allied activities into profitable enterprises and thereby create food and nutritional security for people of northeastern region of India.
4) The postgraduates of CPGS who are educated and trained in recent advances in agriculture and allied sciences, are expected to bring about a quantum change in the agricultural research and development systems in their respective states and also contribute towards strengthening the National Agricultural Research System.

The MBA degree program in Agri Business Management currently running at CPGSAS is a 2 years full-time master's program following the ICAR course curriculum and has been offered at School of Social Sciencessince 2017.

In the last five years (2016-17 upto 2020-21) a total number of 8 MBA students have passed out. The details of which are given below

List of MBA (Agri. Business Management) theses submitted (2016-2021)

Name of the student	Year of passing	Thesis Title
Mr. Oliver Uchoi	2019	Tripura Forest Development and Plantation Corporation and Livelihood Security of Tribals: A Study of Corporate Social Responsibility
Ms. Missal Elbe Ch Momin	2019	Value Chain Analysis of Honey in Meghalaya - A Case Study
Mr. Hijam Thoiba Meitei	2019	A Study on Value Chain of Tea in Manipur
Ms. Amenri Thongam	2019	Value Chain of Agro Products in Manipur-A Case Study

Ms. Iarasa Lakiang	2019	Scope of Value Chain Management of Agri-Products in Meghalaya
Mr. Thoudam Umashankar Singh	2020	Study of Machal Spices Industry in Manipur
Mr. Albert Schweitzer R Sangma	2020	Scope of Value Chain Management of Agri-Products in Meghalaya
Ms. Dogin Mamung Anjalee	2020	A Study of Lambu-Subu Food and Beverages in Arunachal Pradesh

6.4.2. Faculty Strength

The ABM discipline in School of Social Sciences started during 2017-18 with 3 number of sanctioned faculty (Professor, Associate Professor and Asstt. Professor) and all were Ph D in agricultural Economics. Two more faculties were there in the discipline of agricultural economics. Hence, collectively 5 faculties were running the ABM and Agricultural Economics programme in the school. Later on one faculty retired and presently two faculties are there in ABM. But the discipline of Agricultural Economics at present there are 3 faculties (Professor-1 and Asstt Prof.-2), hence in total there are 5 faculties to run the ABM as well as the discipline of Agricultural Economics. The details are as under

S.No.	Sanctioned Faculty	Faculty in place#	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	2	Nil	1
2.	Associate Professor	0	1	2
3.	Assistant Professor	3	Nil	3

Including faculty from agricultural economics. Additionally, Scientists from ICAR are recognized as faculty by the academic council and as per MOU.

6.4.3.Technical and Supporting staff

Sl. No.	Name of post sanctioned	No. of post sanctioned	Filled position
Group-C			
1	Clerk-cum-Typist/LDC/UDC	1	-
2	MTS	4	2
Grand total		**5**	**2**

For School of Social Science

6.4.4. Classrooms and Laboratories: 5 Classrooms, 1 Seminar and 1 conference room attached with LCD Projector are available.
Following laboratories and facilities are available; Computer Lab and Multimedia Lab
The facilities available includewell-furnished Computer Lab which is well equipped with the computer of 20 nos. The Lab has 5 numbers of SPSS users license which is updated time to time.

6.4.5 Conduct of Practical and Hands-on-Training

The practicals in PG program **MBA (Agri. Business Management)** are conducted as per the ICAR course curriculum. Practical and hands-on training are conducted as per the list included in the syllabi and records for all the courses are maintained and evaluated by the respective course incharges by giving marks/weightage. For some of the courses which require visits to farmer fields, provisions are made accordingly for such visits.

The MBA students are sent for internship programmes for exposure. The details of the internships programs attended by the students are indicated below.

Sl No.	Title	Date	Organized
1	Production of food Beverage	06.06.2018 to 14.07.2018	Thangjam Agro Industries PVT Ltd. Imphal East Manipur
2	Manipur Milk Producer's Co-operative union limited, Central Dairy Plant.	04.06.2018 to 14.07.2018	Central Dairy Plant, Porompat, Govt. of Manipur
3	Study on activities of the 1917 iTeams (ITEAS)	June to July, 2018	Meghalalya Institute of Entrepreneurship, Govt. of Meghalaya.
4	Production and processing of cashew nut	6. 06. 2018 to 12.07.2018	B. R. Industries, Phulbari, West Garo Hills, Meghalaya.
5	Training on Rubber woods production, rubber wood seasoning and preservation in treatment plant, Carpentry and Bamboo Crafts, other wood products manufacturing etc.	07.06 2018 to 13.07.2018	TFDPC Industrial Estate, Anandanagar, West Tripura.
6	Fruit preservation centre	7. 06. 2019 to 18. 07.2019	Fruit Preservation Centre Dainadubi, North Garo Hills, Govt. of Meghalay.
7	Dairy Processing Techniques and operationalization procedures of Dairy plant.	7. 06. 2019 to 19. 07.2019	Aane Dairy Plant, Pasighat and Arun Dairy Plant, Karsingsa (Nirjuli).Under the Department of A.H.Vety&Dairy Development, Govt. of Arunachal Pradesh. Nirjuli
8	Lamjingba Dairy Private Limited	13.06.2019 to 18.07.2019	Lamjingba Dairy Private Limited,
9	Training on Mushroom Cultivation	15. 12. 2020 to 28.01.2021	Horticulture Research Complex, Nagicherra, West Tripura, Govt. of Tripura, Deptt of Agriculture and Farmer's Welfare.

6.4.6 Supervision of students in PG programs

The allotment of students is PG is as per CAU regulation with a cap of maximum six students for Professor, five students for Associate Professor and four students for Assistant Professor

are being allotted in the school. The allotment of students is by lottery and in constitution of advisory committee and allotment of research title, the interest of the student is always kept in mind.

Name of Faculty	Number of students guided	Number of students being guided
Dr. Ram Singh	1	0
Dr. Binodini Sethi	4	3
Dr. Anju Chaudhary	4	0
Dr. Anandkumar Singh	0	1

6.4.7 Feedback of stakeholders (students, parents, industries, employers, farmers etc.)
At the end of the each semester and before the end term exam, a comprehensive feedback for each course is taken from students. The feedback includes competency of the teacher in the subject, updating the current status of the subject by the teacher, timely covering of syllabi, student teacher interactions, creating interest among the students about the course, attitude towards weak students, punctuality of the teacher,etcfor the last five years.
(Representative documents are provided in Appendix-CPGSAS-C)

6.4.8 Students intake and attrition in the program for last five years

Year wise information for the last five academic years (2016-17 to 2020-21) for **MBA (Agri. Business Management)** program is given in table below:

Academic year	Intake Capacity	Number of admitted student	Attrition (%)	Passed Out
2017-18	**5**	**5**	**-**	**-**
2018-19	**5**	**3**	**-**	**-**
2019-20	5	**1**	**-**	**7**
2020-21	**5**	**4**	**-**	**1**

6.4.9 ICT Application in Curricula Delivery
All the class rooms, seminar and conference rooms are well equipped with LCD projectors. As per the needs of the course, power point presentation is given before the students for better explanation. Online and faculty made audio/videos are also presented to the students.

Table: A brief summary of existing facility in the College Library for MBA students

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8	CDs	85
9	Magazines	8

10	Newspapers (national and local)	8
11	Statistical Database	1
12	Analytical Software	1

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate (Applicable when SSR is submitted for Programme) I, the Dean **Dr. Wricha Tyagi**. hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

Student Feedback Form

Please limit to 1 feedback for each course taken.

* Required

1. Academic year *

Mark only one oval.

- 1
- 2
- 3
- 4

2. Semester *

Mark only one oval.

- I
- II
- III
- IV
- V
- VI
- VII
- VIII

3. Degree *

Mark only one oval.

- PhD
- MSc
- BSc

4. Discipline *

5. School *

Mark only one oval.

- SCI
- SCP
- SNRM
- SSS

6. Name of the teacher *

7. Course number *

8. Teaching skills *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Competence in the subject matter	☐	☐	☐	☐	☐
Communication skills	☐	☐	☐	☐	☐
Utilization of teaching aids (multimedia, charts and illustations, etc.	☐	☐	☐	☐	☐
Ability to create and uphold interest in the course among students	☐	☐	☐	☐	☐
Responsiveness to students' questions and problems	☐	☐	☐	☐	☐
Ability to ensure timely covering of syllabi	☐	☐	☐	☐	☐
Teacher remaining updated with current status	☐	☐	☐	☐	☐
Skills in linking the course with other relevant course (s)	☐	☐	☐	☐	☐

9. Student-teacher interaction *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Extent of availability of teacher for post-class consultation, if any	☐	☐	☐	☐	☐
Degree of demonstrated interest for holding interactive class sessions	☐	☐	☐	☐	☐
Timeliness in students' evaluation	☐	☐	☐	☐	☐
Attitude/ Response towards weak students	☐	☐	☐	☐	☐

10. Personality of teacher *

Mark only one oval per row.

	Outstanding	Excellent	Good	Average	Poor
Punctuality/Regularity	⬭	⬭	⬭	⬭	⬭
Sincerity and Commitment	⬭	⬭	⬭	⬭	⬭
Fairness in grading/evaluation	⬭	⬭	⬭	⬭	⬭
Helping attitude	⬭	⬭	⬭	⬭	⬭
Integrity of teaching profession	⬭	⬭	⬭	⬭	⬭
Patience	⬭	⬭	⬭	⬭	⬭
Behavior	⬭	⬭	⬭	⬭	⬭
Interpersonal relationship	⬭	⬭	⬭	⬭	⬭

This content is neither created nor endorsed by Google.

Google Forms

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signature
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2	FARZANA AHMAD	7	17/6/21	11:05	[illegible]
3	MALLIKHARJUNA KEERTHAN	7	17/6/21	11:17 am	[illegible]
4	TINKUNIYANG	7	17/6/21	11:28 am	[illegible]
5	[illegible]	2	[illegible]	[illegible]	[illegible]
6	[illegible]	7	[illegible]	[illegible]	[illegible]
7	[illegible]	6	[illegible]	[illegible]	[illegible]
8	V. PREETI KUMARI	7	[illegible]	[illegible]	[illegible]
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13	ATEEFA	7	[illegible]		
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15	M Shanmukh Raju	6	[illegible]	[illegible]	[illegible]
16	Yeluguri Sharanya	9	[illegible]	[illegible]	[illegible]
17	Mangalada Pavan	6	[illegible]	[illegible]	[illegible]
18	Anil Kumar	6	[illegible]	[illegible]	[illegible]
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21	[illegible]	6	[illegible]	[illegible]	[illegible]
22	[illegible]	7	[illegible]	[illegible]	[illegible]
23	[illegible]	1	[illegible]	[illegible]	[illegible]

[illegible]

Sl. No	Name	No. of feedback forms submitted	Date	Time	Signatures
29	Payal Prasad	4	13/4/21	11:05	Payal
30	A. Geetha Reddy	8	11/4/21	11:06	
31	Naveen.H	4	17/4/21	12:04	
32	Sneha Harsha	6	15/4/21	11:47	Sneha
33	M. Sachin	6	11/4/21	11:08	M. Sachin
34	E. Naveen	6	13/4/21	11:59	
35	Dijin Mohanakrishnan	4	11/4/21	11:03	Dijin M.
36	Nilesh Sharma	3	11/4/21	11:38	Nilesh
37	Monika	7	11/4/21	11:03	Monika
38	Vinay Prakash	7	12/4/21	11:19	Vinay
39	Manikandan. P	4	11/4/21	12:09	Manikandan
40	Sanil Kumar Gupta	1	11/4/21	11:33	Sanil
41	Vallamalla prasad	9	11/4/21	12:12	Vallamalla
42	Abhishek Prakash	9	11/4/21	12:55	Abhishek Prakash
43	Abhinay Varma	7	17/4/21	12:16	Abhinay
44	ESWARAN CHALLAM	7	17/4/2021	12:55	
45	Rahul Verma	9	11/4/21	11:19	Rahul Verma
46	Bimal Kumar Sahoo	7	13/4/21	11:05	B.K. Sahoo
47	Kailash Patel	7	13/4/21	12:13	Kailash Patel
48	MANICKAM V	7	13/4/21	12:13	V Manickam
49	Shashidhar M P	4	11/4/21	12:13	Shashidhar
50	D. Sainath Reddy	7	17-4-21	12:14	D. Sainath Reddy
51	Jayaram Bhanu	3	12-4-21	12:10	Jayaram

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6 x 3 = 18
2 x 9 = 18

9 x 6 = 54

154

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signatures
AF	Vanitha yuvaraj	5	18/5/21	12:45	
48	Kavya Sai Teja	4	18/5/21	12:47	
49	Keerthi	7	18/5/21	4:47	
50	Jayashree Ayyar	7	19/5/21	10:15	
51	Dhanyashree Vasanth Kumar	2	19/5/21	12:45	
52	Bala Tarni	6	19-05-21	12:04	
53	Sanjana Pattanayak	6	19-05-21	12:55	
54	[illegible]	7	19-05-21	12:59	
55	Keerthi K Jayashree	4	19-05-21	4:19	
56	Sahithya Sahu	6	19-05-21	12:11	
57	Prakruthi Shankar	3	19-05-21	12:52	
58	Tanmayi [illegible]	7	19/5/21	12:49	
59	Bhavya Kumar [illegible]	3	19/5/21	11:30	
60	R. Sanjukta Rout	8	19/5/21	12:00pm	
61	R. Ancharla Mallika	8	19/5/21	1:15pm	
			-		

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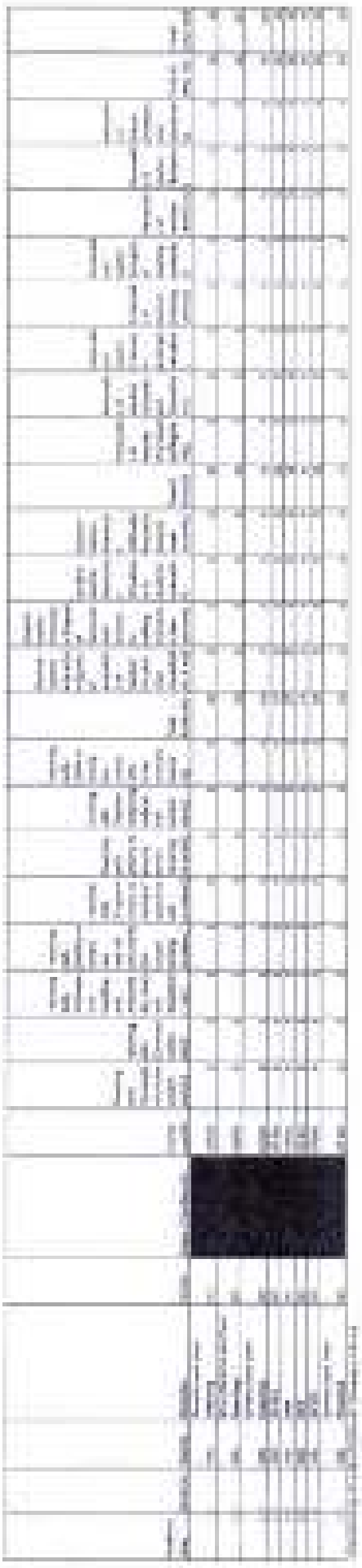
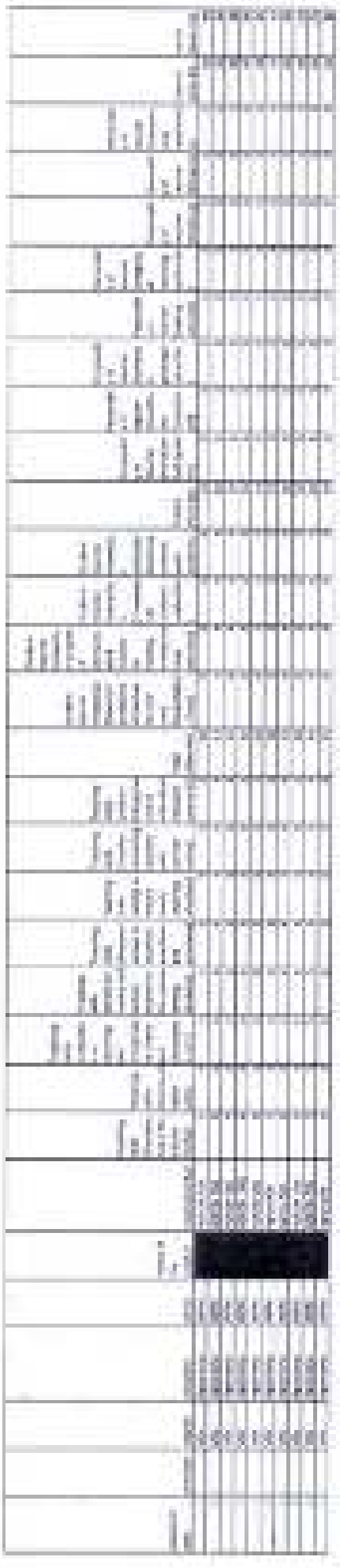
3x3 = 24
2x3 = 6

105
127
105 =

342

(411)





SELF STUDY REPORT
for degree accreditation
Ph.D.
(Soil Science and Agricultural Chemistry)

College of Post Graduate Studies in Agricultural Sciences
Central Agricultural University (Imphal)
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	Particulars
1.	Sections 6.4
2.	Sections 6.4.2 to 6.4.3
3.	Section 6.4.4 to Section 6.4.6
4.	Section 6.4.7 to 6.4.8
5.	Section 6.4.9 to Section 6.4.12

6.4. **Self-Study Report for Ph.D. (Soil Science and Agricultural Chemistry Programme**

6.4.1. Brief History of the Degree Programme

The North Eastern India is experiencing rapid population growth which has crossed 45 million mark. In order to attain economic, food and nutritional security, it is imperative to impart quality agricultural education and have sustained agricultural development in the states of northeastern region. This region is constrained by lack of adequate infrastructure, low productivity, inadequate marketing and lack of knowledge on modern farm technologies. With this genesis in background, the Central Agricultural University, Imphal established the College of Post Graduate Studies in Agricultural Sciences (**CPGSAS**) at Umiam, Meghalaya on 21st December, 2006.

MISSION of CPGSAS is to achieve excellence in teaching, research and extension education in the field of agriculture.

MANDATES of CPGSAS are:

1) to impart postgraduate education in different branches of Agriculture,
2) to further the advancement of learning and prosecution of research in Agriculture, and
3) to undertake such others activities as it may deem fit, from time to time, to uplift the socioeconomical status of farmers in the North Eastern Region.

Objectives of CPGSAS are:

1) To produce globally competitive postgraduates in the field of agriculture
2) To develop robust agricultural technologies to help Indian farming systems, particularly in the northeastern region of India to be sustainable and profitable, and
3) To transform agriculture and allied activities into profitable enterprises and thereby create food and nutritional security for people of northeastern region of India.
4) The postgraduates of CPGS who are educated and trained in recent advances in agriculture and allied sciences, are expected to bring about a quantum change in the agricultural research and development systems in their respective states and also contribute towards strengthening the National Agricultural Research System.

The Ph.D. degree program in Soil Science and Agricultural Chemistry currently running at CPGSAS is a 3 years full-time doctoral program following the ICAR course curriculum and has been offered at School of Natural Resource Management since 2011.

In the last five years (2016-17 upto 2020-21) a total number of 7 Ph.D. students have passed out. The research work has led to several publications. The details of which are given below:

FULL length RESEARCH PAPERS

Ray, L.I.P., Bora, P.K., Singh, A.K., Ram, V., Singh, R. and Feroze, S.M. (2019) Dry and Wet spell Rainfall probabilities in planning rice based cropping system of Meghalaya. *Journal of Agrometeorology*, 21 (Special issue -"NASA 2014" part-III): 8-17.
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List of Ph.D. (Soil Science and Agricultural Chemistry) theses submitted (2016-2021)

Name of the student	Year of passing	Thesis Title
Mr. Henry Saplalrinliana	2016	Plant litter-soil enzyme interactions and biochemical index of soil fertility in *Jhum* agroecosystem
Ms. Christy Berylnight K. Sangma	2018	Development of native rhizobium compatible enriched compost for use in lentil (*Lens culinaris* Medik.) grown in acid soil
Ms. Mayanglambam Homeshwari Devi	2018	Effect of phosphorus, zinc and silicon amended root-dip methods on rice in acid soils
Ms. Euwanrida Adleen Shylla Lyngdoh	2019	Phytoremediation of heavy metal polluted soils of coal mine areas of Jaintia Hills and determination of critical limit of phosphorus for maize (*Zea mays* L.)
Mr. Kabir Debbarma	2020	Soil Organic Carbon Mapping and Carbon Sequestration of Hill Agro-Ecosystems of Ri-Bhoi District
Mr. Chandan Goswami	2021	Hyperspectral spectroscopic study of soil properties in acid soils of North East India
Mr. Markynti S. Lyngdoh	2021	Effect of amelioration practices on soil productivity of coal mine affected lowland field

6.4.2. Faculty Strength

S.No.	Sanctioned Faculty	Faculty in place#	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	4	Nil	1
2.	Associate Professor	1	1	2
3.	Assistant Professor	2	1	3

* Assistant professor (#1) promoted to Assoc. Professor and three associate professors promoted to Professor level.

For School of Natural Resource Management ie., Agronomy and Soil Science & Agricultural Chemistry. Additionally, Scientists from ICAR are recognized as faculty by the academic council and as per MOU.

6.4.3.Technical and Supporting staff

Sl. No.	Name of post sanctioned	No. of post sanctioned	Filled position
1	Livestock/Farm Assistant	2	1

2	Clerk-cum-Typist/LDC/UDC	1	-
3	Field-cum-Lab. Assistant	2	1
4	MTS	4	2
Grand total		**9**	**6**

For School of Natural Resource Management ie., Agronomy and Soil Science & Agricultural Chemistry.

6.4.4. Classrooms and Laboratories: 5 Classrooms, 1 Seminar and 1 conference room attached with LCD Projector are available. Following labs are available

1. Analytical Lab
2. Biogeochemistry Lab
3. Microbial Ecology Lab
4. GIS and Remote Sensing Lab
5. Hydraulics lab
6. Biofertilizer production unit

List of equipments and facilities available are as mentioned

S.N.	Particulars of Asset	Quantity
1	Auto Loop Sterilizer, Make: Himedia,	1 no.
2	Microwave Oven, Samsung-32 ltrs. Model No. CE117ALF	1 no.
3	Conductivity Meter Cyberscan 510, Eutech make	1 no.
4	Colony Counter; Cat # 0671	2 nos.
5	Autoclave Portable, Cat # 7407 PAD	2 nos.
6	Portable Oil Free Vacuum Pump, Tarsons: Rocker-400	1 nos.
7	Vortex General Purpose (Shaker), Tarsons	5 nos.
8	Water Double Distillation Plant, Make: JSGW	1 no.
9	Water Single Distillation Plant, Medica:	1 nos.
10	Willy Mill, Secor Make	1 no.
11	High Precision Water Bath, Medica	1 no.
12	Double Ring Infiltrometer Set	1 Set
13	Soil Auger (Euro design) 5 cm dia, 1m long with handle, Screw Augers 2.5 cm dia and 5 cm dia, 1m long with handle, extension rod 1m long Wrench (1 pair)	2 nos.
14	Soil Core Sampler complete with 10 SS rings, 60 mm dia, 100 cc internal volume with end caps and one nylon headed shock absorbing hammer	1 no.
15	Microcentrifuge, Spinwin: 'Tarsons' Brand, Model: MC-01	1 no.
16	Pipette Controller, Tarsons Brand , Cat No. 2003	2 nos.
17	Dancing Shaker, Tarsons Brand, Cat No. 3040	2 nos.
18	Fume Hood, NSW Brand, Cat No. 203	1 no.
19	Digital Turbidity Meter: Systronics Brand (Type: 132)	1 no.
20	Heating Mantles, Jindal Brand, Capacity-500 ml, 200 Watt	1 no.
21	Heating Mantles, Jindal Brand, Capacity-1 lt., 300 Watt.	1 no.
22	Heating Mantles, Jindal Brand, Capacity-2 lt., 450 Watt.	1 no.
23	UV-Transilluminator, Brand: UVP Ltd (UK), Model: LMS-20	1 no.
24	Top Pan Weighing Balance, Model: GE7101, Make: Sartorius	2 nos.
25	Laminar Air Flow, ACCO Make, Cat: AC071-02	1 no.
26	Laminar Air Flow, ACCO Make, Cat: AC071-04	1 no.
27	Autoclave Vertical, 7451PAD, Make: Equitron	1 no.
28	Autoclave Vertical, Make: Equitron	1 no.
29	BOD Incubator, Cat#7140-250, Make: Equitron	2 nos.
30	Student Microscope, Labomed, Model: VISION2000	4 nos.

31	Seed Germinator with Stabilizer, Remi Make	1 no.
32	5332 000.014 Mastercycler Personal (Thermocycler) with accessories	1 no.
33	5811 000.010 Centrifuge 5810R with accessories	1 nos.
34	Electronic Balance, Denver Make, Model SI 234DE	2 nos.
35	Hot Air Oven, EquitronMedica Make, Model: # 7053	1 no.
36	Vortex-Genie ® 2 Vortex (220V) 12112009-220	1 Set
37	Uniline 5 KVA/180V OL UPS Systems, with isolation Transformer Indicative Back Up Time 120 minutes, Minimum VAH 8000	1 nos.
38	Uniline 2 KVA/168V OL UPS Systems, with isolation Transformer Indicative Back Up Time 120 minutes, Minimum VAH 9600	2 nos.
39	Uniline 3 KVA/180V OL UPS Systems, with isolation Transformer Indicative Back Up Time 120 minutes, Minimum VAH 9600	3 nos.
40	Uniline 5 KVA/180V OL UPS Systems, with isolation Transformer Indicative Back Up Time 60 minutes, Minimum VAH 8000	1 nos.
41	Deep Freezer, Brand: Cryo-Scientific, Model: URC-V-380-2	1 no.
42	Isotherm Kit, Isotherm Systems & PCR Cooler 0.2 MI Starter Set	1 no.
43	Digital Burette (Top Burette M), 2.5 ml	1 no.
44	5350 000.013 Thermomixer Compact	1 no.
45	Shaker Incubator, Electronic Laboratory Incubator Shaker, Model: LIS (Rotek LIS)	3 nos.
46	Electronic Automatic KELPLUS Microprocessor Based Twelve Place Macro Block Digstion System, Model: KES 12L with accessories, Electronic Acid Neutraliser 'Scrubber', Electronic Superior Automatic Distillation System	1 Set
47	Bench Top Cooler (0°C), Tarson Make	2 nos.
48	Gel Electrophoresis-101 (Mini and Wide Midid Horizontal) With Power Supply System, Brand: Scieplus (Axygen Make), Model: HU10, HU25 and EV243	1 no.
49	Precision Hot Air Oven, Model: O-OGS -2436A, Brand: OVFU, Model CF549	3 nos.
50	Nanodrop Spectrophotometer, Make: Thermo, Model: ND-2000	1 no.
51	Electronic Balance, Denver Make, Model: SI 234DE	1 no.
52	Soil Moisture Meter (Mini Trase Kit with Bluetooth Aircable, Iowa State Tension Infiltro meter, Guelph Permeameter Kit	1 Set
53	Uniline Online UPS with isolation transformer suitable for single phase AC input and single phase AC output with rating of UPS 5.0 KVA and indicative back-up time 240 minutes, with minimum VAH 32000	1 no.
54	Refrigerating & Heating Circular, Model 9201, 240/50Hz, Polyscience Make	1 no.
55	Denaturing Gradient Gel Electrophoresis Apparatus Set; IV-1030 Complete system for DGGE,CDGE,TGGE, Model: IPU-S, Make: Ingeny	1 no.
56	Binocular Microscope Model: LEICA DM 750 + accessories, PC with Core 2 dual Processor, 2 GB RAM, 250 GB HDD, 17 inch TFT Monitor and Colour Photo Quality printer	3 nos.
57	U9260-0001 Premium Upright Freezer U410 with accessories, Model: U410-86	2 nos.
58	Gel Electrophoresis (Mini & Wide midi horizontal) with power supply system, Axygen Make	1 no.
59	Uniline 5 KVA/168V OL UPS Systems with 120 minutes Battery Back-Up Time Using SMF Battery	5 nos.
60	Microcentrifuge, Tarsons-1030 Spinwin MC-02, Make-Tarsons	1 no.
61	Microcentrifuge, Tarsons-3020 Spinix, Make-Tarsons	2 nos.
62	Microscope-HB Monocular, Brand-Olympus, Model-HB	8 nos.
63	Tarsons-7011-Rocker Vacuum Pump, Cat No. 7011	2 nos.
64	Hort Air Oven-Mechanical Convection, Brand OVFU 250 L, Model: 508	2 nos.
65	Hot Air Oven-O-OGS-1518 (D), Brand-OVFU	2 nos.
66	Dancing Shaker, Tarsons-3040, SP 0-60 RPM	2 nos.
67	Student Compound Microscope, MLX-B Binocular (Pathological), Magnus	6 nos.
68	Top Pan Electronic Balance (PL60001-S EL. Precision Balance), Mettler	1 no.
69	pH Meter, Brand: Eutech, Model: PHTEST 10	1 no.
70	Electronic Laboratory Shaker Variable RPM, Model: Rotek LSV	1 no.
71	Environmental Shaker, Electronic Laboratory Shaker Variable RPM, Model: Roteck LES with accessories	3 nos.

72	Gel Dryer, Genei Make, Model-Junior, Gel Drying Surface, 25x35 cm Model: GDJ, Sl.No. 1011318	2 nos.
73	Chlorophyll Meter, CCM200	1 no.
74	Automatic Weather Station Complete System, Model: Vanatage Pro2 plus, Brand: Cole Parmer	1 no.
75	Refractometer, Model No. 2812, Sl. No.B024602	1 no.
76	Data Logging Moisture Meter with Humidity (Seed Moisture Meter), Sl.No. 03-11.0002	1 no.
77	Elisa-Cum-UV-VIS Spectrophotometer, (Multiskan Spectrum Reader, Cat No. 51118650) with accessories	1 no.
78	Quantum Meter Brand: Spectrum Model: 3415F	1 no.
79	Soil Compaction Meter, Brand: Spectrum, Model: 6101, Sl. No. 669	1 no.
80	Deep Freezer, upto -30°C Net capacity: 308L	1 no.
81	Single Distillation Unit (Cat No. 72230050), Make: Reviera	1no.
82	Multiparameter Water Quality Meter, Make: M/s Hanna Instruments, USA, Model: HI 98280	1 no.
83	Semi Dry/Dry Transfer Assembly, Cat No. V10-SDB, Sl.No. 30020934, Make: Sciplas	1 no.
84	Orion 5 KVA/168V OL UPS 5KVA On Line UPS System with 120 Minutes Battery Back Up Time Using SMF Batteries	1 no.
85	FastprepHomogeneizer, Make Thermo Scientific, Model: FP120-230	1 no.
86	Geo Media Educational Kit (5 User License)	1 no.
87	ERDAS Imagine Software, ERDAS Imagine v2011 Educational Kit (5 User License)	1 no.
88	Lux Meter (Rod Type), Operating Temperature: 0-40°C , Model: 3415FX, Make: Spectrum	1 no.
89	Permeameter (Constant Head) Model: Constant Head & Falling Head, Make: Roorkee Inds.	1 no.
90	Weighing Balance Model: TTB31 Wensar	2 nos.
91	Electronic Balance, Model: MAB220, Wensar, Sl. No. 29640	1 no.
92	Line Quantum Sensor, Model: MQ-301, Make: Apogee Instruments	2 nos.
93	Table Top Microcentrifuge, Model: Heraeus Fresco21, Make: Thermo Fisher Scientific	1 no.
94	pH Meter, Microprocessor based, pH measuring range: 0.00 to 14.00, Model No. CPHTUTOR, Eutech Make	1 no.
95	Water Single Distillation Plant, Barnstead Type, Stainless Steel, 4.5 litres/hr. 3500 W, Model No. #7655, Medica Make	1 no.
96	Intel Core i7 Windows 8 Desktop Computer, Make: DELL, Model: Optiplex 9020MT, Sl. No. 6RWJ882	5nos
97	Intel Core i5 Windows 8 Desktop Computer, Make: DELL, Model: Optiplex 9020MT, Sl. No. 6RKP882	4nos
98	Senior Precision Rotary Microtome, Radical, Model-30	1 no.
99	Soil Augur, Make: Roorkee Industries, India	1 no.
100	Digital Burette, Make: Titrettee/Tarsons	1 no.
101	Soil Core Sampler, Make: AIC	1 no.
102	EC-TDS Meter, Model: CM 183	1 no.
103	Flame Photometer, Model: CL 378, Sl. No. 02358/198	1 no.
104	Global Positioning System (GPS), Model: eTrex 30	1 no.
105	pH cum mV Meter, Model: LI-614	1 no.
106	Soil Penetrometer Compaction Meter (Imported Parts),	1 no.
107	Laboratory Shaker, Make: Alliance, Brand: Lunar, India	1 no.
108	Double Beam Atomic Absorption Spectrophotomter, Model: SL-194	1 no.
109	Double Beam UV-VIS Spectrophotomter, Model: SL-210	1 no.
110	Constant Voltage Stabilizer, 3 KVA, (Zodin) Model: CVR-350	1 no.
111	Rotary Vacuum Pump, Model: SD-45-DS	1 no.
112	Top Pan Weighing Balance, Model: CA3102, Contech Make	1 no.
113	Analytical Balance, High Precision, Model: CA-234, Contech Make	1 no.
114	Thermo Hygrometer Digital Clock 288 CTH Jambo Brand: General	1 no.

115	Hot Plate Cum Magnetic Stirer, Model: MS-H-280 Pro, Make: Dlab	1 no.
116	pH Meter, Model: LMPH 10, Sl.No. 11672, Cat No. L11541, Make: Wenser	3 nos.

6.4.5 Conduct of Practical and Hands-on-Training

The practicals in PG program **Ph.D.(Soil Science and Agricultural Chemistry**) are conducted as per the ICAR course curriculum. Practical and hands-on training are conducted as per the list included in the syllabi and records for all the courses are maintained and evaluated by the respective course incharges by giving marks/weightage.

6.4.6 Supervision of students in PG programs

The allotment of students is PG is as per CAU regulation with a cap of maximum six students for Professor, five students for Associate Professor and four students for Assistant Professor are being allotted in the school. The allotment of students is by lottery and in constitution of advisory committee and allotment of research title, the interest of the student is always kept in mind.

Name of Faculty	Number of students guided	Number of students being guided
Dr. P. K. Bora	0	1
Dr. Dwipendra Thakuria	4	1
Dr. Sanjay Swami	1	3
Dr. N. Janaki Singh	3	1

6.4.7 Feedback of stakeholders (students, parents, industries, employers, farmers etc.)

At the end of the each semester and before the end term exam, a comprehensive feedback for each course is taken from students. The feedback includes competency of the teacher in the subject, updating the current status of the subject by the teacher, timely covering of syllabi, student teacher interactions, creating interest among the students about the course, attitude towards weak students, punctuality of the teacher,etcfor the last five years.
(Representative documents are provided in Appendix-CPGSAS-C)

6.4.8 Students intake and attrition in the program for last five years

Year wise information for the last five academic years (2016-17 to 2020-21) for Ph.D. **(Soil Science and Agri. Chemistry)**program is given in table below:

Academic year	Intake Capacity	Number of admitted student	Attrition (%)	Passed Out
2016-17	**2+1***	**1**	**1**	**-**
2017-18	**1+1***	**1**	**-**	**1**
2018-19	**2+1***	**3**	**1**	**1**
2019-20	**1+1***	**2**	**1**	**1**
2020-21	**2+1**	**3**	**1**	**3**

*** To be filled by ICAR candidate**

6.4.9 ICT Application in Curricula Delivery

All the class rooms, seminar and conference rooms are well equipped with LCD projectors. As per the needs of the course, power point presentation is given before the students for better explanation. Online and faculty made audio/videos are also presented to the students.

Table: A brief summary of existing facility in the College Library for Ph.D. students

Sl. No.	Facility exist	Status
1	Availability of books (Nos.)	5433
2	Access to print copy of Indian Journals (Nos.) and Periodicals	20
4	Access to Indian on-line journals	2 titles
5	Consortia	2794 e-journals through CeRA consortium
6	MSc. And PhD Theses	356 MSc; 37 PhD
7	Research Reports and Technical Bulletins	475
8	CDs	85
9	Magazines	8
10	Newspapers (national and local)	8
11	Statistical Database	1
12	Analytical Software	1

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate (Applicable when SSR is submitted for Programme) I, the Dean **Dr. Wricha Tyagi** hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

Student Feedback Form

Please limit to 1 feedback for each course taken.

* Required

1. Academic year *

Mark only one oval.

- 1
- 2
- 3
- 4

2. Semester *

Mark only one oval.

- I
- II
- III
- IV
- V
- VI
- VII
- VIII

3. Degree *

Mark only one oval.

- PhD
- MSc
- BSc

4. Discipline *

5. School *

Mark only one oval.

- SCI
- SCP
- SNRM
- SSS

6. Name of the teacher *

7. Course number *

8. Teaching skills *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Competence in the subject matter	☐	☐	☐	☐	☐
Communication skills	☐	☐	☐	☐	☐
Utilization of teaching aids (multimedia, charts and illustations, etc.	☐	☐	☐	☐	☐
Ability to create and uphold interest in the course among students	☐	☐	☐	☐	☐
Responsiveness to students' questions and problems	☐	☐	☐	☐	☐
Ability to ensure timely covering of syllabi	☐	☐	☐	☐	☐
Teacher remaining updated with current status	☐	☐	☐	☐	☐
Skills in linking the course with other relevant course (s)	☐	☐	☐	☐	☐

9. Student-teacher interaction *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Extent of availability of teacher for post-class consultation, if any	☐	☐	☐	☐	☐
Degree of demonstrated interest for holding interactive class sessions	☐	☐	☐	☐	☐
Timeliness in students' evaluation	☐	☐	☐	☐	☐
Attitude/ Response towards weak students	☐	☐	☐	☐	☐

10. Personality of teacher *

Mark only one oval per row.

	Outstanding	Excellent	Good	Average	Poor
Punctuality/Regularity	⬭	⬭	⬭	⬭	⬭
Sincerity and Commitment	⬭	⬭	⬭	⬭	⬭
Fairness in grading/evaluation	⬭	⬭	⬭	⬭	⬭
Helping attitude	⬭	⬭	⬭	⬭	⬭
Integrity of teaching profession	⬭	⬭	⬭	⬭	⬭
Patience	⬭	⬭	⬭	⬭	⬭
Behavior	⬭	⬭	⬭	⬭	⬭
Interpersonal relationship	⬭	⬭	⬭	⬭	⬭

This content is neither created nor endorsed by Google.

Google Forms

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signature
1	[illegible]	2	[illegible]	[illegible]	[illegible]
2	FARZANA NIYAZ	7	17/5/21	11:05	[illegible]
3	MALLIKHARJUNA KEERTHAN	7	17/5/21	11:17 am	[illegible]
4	TINKUNIYANG	7	17/5/21	11:27 am	[illegible]
5	[illegible]	2	[illegible]	[illegible]	[illegible]
6	[illegible]	7	[illegible]	[illegible]	[illegible]
7	[illegible]	6	[illegible]	[illegible]	[illegible]
8	V. PREETI KUMARI	7	[illegible]	[illegible]	[illegible]
9	[illegible]	7	[illegible]	[illegible]	[illegible]
10	[illegible]	11	[illegible]	[illegible]	[illegible]
11	[illegible]	7	[illegible]	[illegible]	[illegible]
12	[illegible]	6	[illegible]	[illegible]	[illegible]
13	[illegible]	7	[illegible]	[illegible]	[illegible]
14	[illegible]	15	[illegible]	[illegible]	[illegible]
15	M. Shanmukh Raju	6	[illegible]	[illegible]	[illegible]
16	Yeluguri Sikhasanya	9	[illegible]	[illegible]	[illegible]
17	[illegible]	6	[illegible]	[illegible]	[illegible]
18	Anil Kumar	6	[illegible]	[illegible]	[illegible]
19	[illegible]	5	[illegible]	[illegible]	[illegible]
20	[illegible]	5	[illegible]	[illegible]	[illegible]
21	[illegible]	6	[illegible]	[illegible]	[illegible]
22	[illegible]	7	[illegible]	[illegible]	[illegible]
23	[illegible]	1	[illegible]	[illegible]	[illegible]

[illegible]

Sl. No	Name	No. of feedback forms submitted	Date	Time	Signatures
24	Payal Prasad	4	13/4/21	11:05	
25	A. Geetha Reddy	8	11/4/21	11:06	
26	Naveen.H	4	12/4/21	12:04	
27	Sneha Hanitha	6	12/4/21	11:47	
28	M. Sachin	6	11/4/21	11:48	
29	E. Naveen	6	12/4/21	11:54	
30	Dr. Manasa Reddy	4	11/4/21	11:53	
31	Nilesh Sharma	3	11/4/21	12:38	
32	Monika	7	11/4/21	11:23	
33	Vinay Kumar	7	12/4/21	11:19	
34	Venkatesh. P	4	11/4/21	12:19	
35	Sunil Vilhekar Rathore	4	11/4/21	12:33	
36	Vallamalla prasad	4	11/4/21	12:32	
37	Abhishek Prakash	9	11/4/21	12:55	
38	Abhay Kumar	7	11/4/21	12:16	
39	KUMARAN CHALLAM	7	11/4/2021	11:55	
40	Rekha Verma	9	11/4/21	12:19	
41	Bimal Kumar Sahu	7	12/4/21	11:45	
42	Kailash Patil	7	12/4/21	12:13	
43	MANICKAM V	7	12/4/21	12:33	
44	Shashidhar MP	4	11/4/21	12:13	
45	D. Sainath Reddy	7	12-4-21	12:24	
46	Jayasree Bhanu	3	12-4-21	12:30	

9 x 2 = 18
8 x 2 = 16
6 x 3 = 18
2 x 9 = 18

9 x 6 = 54

154

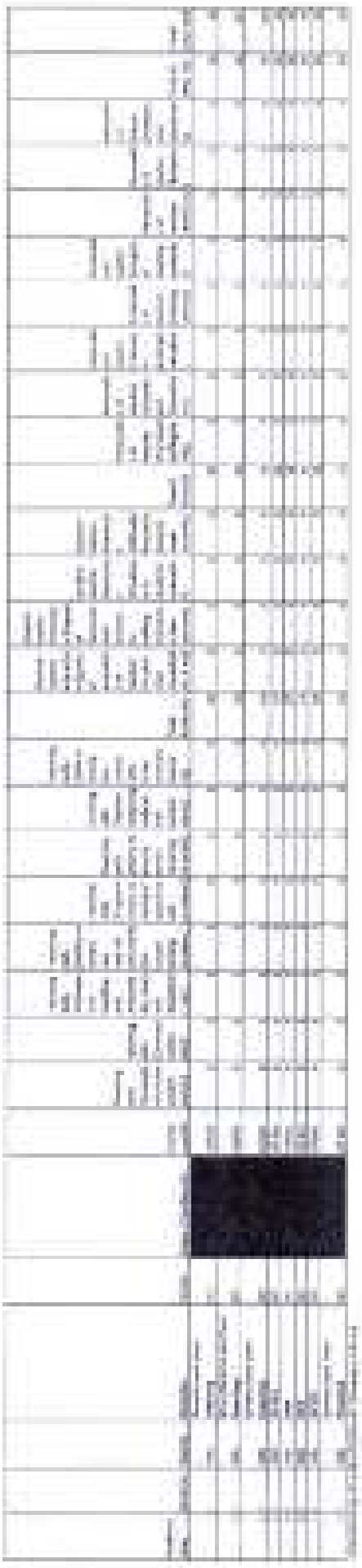
Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signatures
47	Vanitha yuvaraj	5	17/5/21	12:45	
48	Kavya Sai Gupta	4	17/5/21	12:47	
49	Kavya	7	17/5/21	4:47	
50	Jayashree Ayer	7	17/5/21	12:56	
51	Dhanyashree Vasanth Kumar	2	17/5/21	13:45	
52	Bala Tarri	6	17-05-21	12:04	
53	Sanjana Pattanayak	6	17-05-21	13:55	
54	[illegible]	7	17-05-21	13:59	
55	Kavya K Jayashree	4	17-05-21	14:19	
56	Sahithya Sahu	5	17-05-21	14:31	
57	Shreshti Srivastava	3	17-05-21	12:52	
58	Tanmay Vaidya	7	17/5/21	12:49	
59	Bhavya Kumar Jain	3	17/5/21	11:30	
60	R. Sanjukta Rout	5	17/5/21	11:00	
61	R. Ancharla Keerthana	8	17/5/21	1:1 pm	
			-		

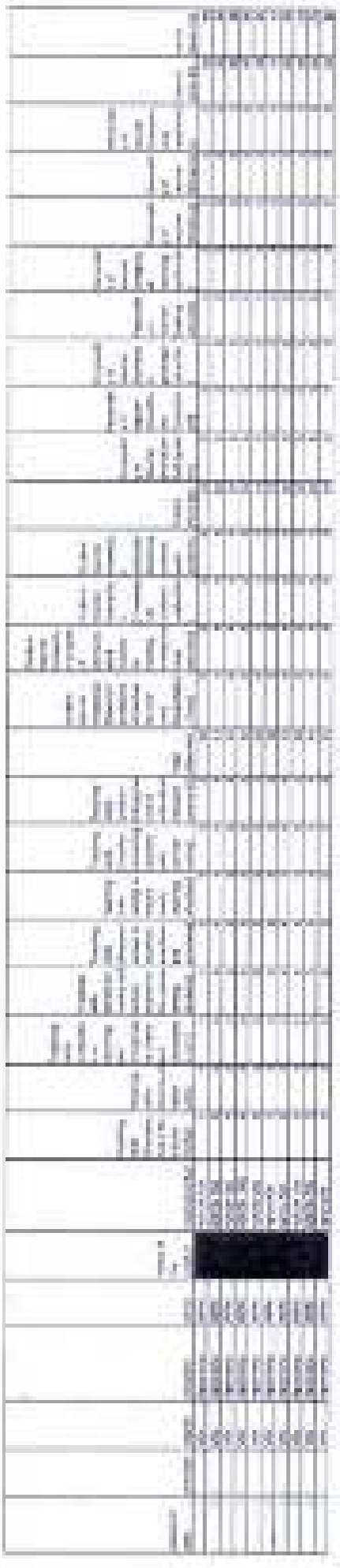
4 x 4 = 16
5 x 3 = 24
3 x 3 = 15

105
127
105 =

342

(411)





SELF STUDY REPORT
for degree accreditation
Ph.D.
(Agronomy)

College of Post Graduate Studies in Agricultural Sciences
Central Agricultural University (Imphal)
Umiam, Umroi Road, Meghalaya - 793 103

Telefax: 0364-2570030
e-mail: dean.cpgsas@cau.ac.in/deancpgs@gmail.com website: www.cpgsas.ac.in

	Particulars
1.	Sections 6.4
2.	Sections 6.4.2 to 6.4.3
3.	Section 6.4.4 to Section 6.4.6
4.	Section 6.4.7 to 6.4.8
5.	Section 6.4.9 to Section 6.4.12

6.4. **Self-Study Report for Ph.D. (Agronomy) Programme**

6.4.1. Brief History of the Degree Programme

The North Eastern India is experiencing rapid population growth which has crossed 45 million mark. In order to attain economic, food and nutritional security, it is imperative to impart quality agricultural education and have sustained agricultural development in the states of northeastern region. This region is constrained by lack of adequate infrastructure, low productivity, inadequate marketing and lack of knowledge on modern farm technologies. With this genesis in background, the Central Agricultural University, Imphal established the College of Post Graduate Studies in Agricultural Sciences (**CPGSAS**) at Umiam, Meghalaya on 21st December, 2006.

MISSION of CPGSAS is to achieve excellence in teaching, research and extension education in the field of agriculture.

MANDATES of CPGS are:

1) to impart postgraduate education in different branches of Agriculture,
2) to further the advancement of learning and prosecution of research in Agriculture, and
3) to undertake such others activities as it may deem fit, from time to time, to uplift the socioeconomical status of farmers in the North Eastern Region.

Objectives of CPGS are:

1) To produce globally competitive postgraduates in the field of agriculture
2) To develop robust agricultural technologies to help Indian farming systems, particularly in the northeastern region of India to be sustainable and profitable, and
3) To transform agriculture and allied activities into profitable enterprises and thereby create food and nutritional security for people of northeastern region of India.
4) The postgraduates of CPGS who are educated and trained in recent advances in agriculture and allied sciences, are expected to bring about a quantum change in the agricultural research and development systems in their respective states and also contribute towards strengthening the National Agricultural Research System.

The Ph.D. degree program in Agronomy currently running at CPGSAS is a 3 years full-time doctoral program following the ICAR course curriculum and has been offered at School of Natural Resource Management since 2013.

In the last five years (2016-17 upto 2020-21) a total number of 3 Ph.D. students have passed out. The research work has led to several publications. The details of which are given below:

FULL length RESEARCH PAPERS

Ray, L.I.P., Bora, P.K., Singh, A.K., Ram, V., Singh, R. and Feroze, S.M. (2019) Dry and Wet spell Rainfall probabilities in planning rice based cropping system of Meghalaya. *Journal of Agrometeorology*, 21 (Special issue -"NASA 2014" part-III): 8-17.
Gurjar, G.N. and Sanjay-Swami. 2019. Climate change impacts in Rajasthan: A mitigation approach. Int. J. Chem. Studies, 7(3): 902-905. (ISSN: 2349-8528)
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Sailo, V. and Sanjay-Swami. 2019. Performance of pea (*Pisum sativum* L.) with residual phosphorus in phytoremediated heavy metal polluted soil of Jaintia hills, Meghalaya. *Int. J. Chem. Studies,* 7(3): 3270-3273. (ISSN: 2349-8528)
Sanjay-Swami and Konyak, Chingak P.W. 2020. Soil properties and productivity of cabbage (Brassica oleracea L. var. capitata) under integrated nutrient management system in acid Inceptisol of Meghalaya. Int. J. Chem. Studies, 8(2): 2131-2137. (ISSN: 2349-8528)
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Hazarika, S., Nabam, A., Thakuria, D., Kataki, S. and Krishnappa R. 2020. Lime equivalence of organic manures and scope of their utilization as acid soil amendments. Archives of Agronomy and Soil Science, doi: 10.1080/03650340.2020.1749266 A267 & 7.68. (ISSN: 0365-0340)
Korav, S, Ram V., Krishnappa R and Premaradhya, N. 2020. Agro-physiological assessment of weed interference in groundnut (*Arachis hypogea* L.) at Sub-Himalayan hill region of Meghalaya. *Bangladesh J. Bot.* 49(2): 313-327.
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List of Ph.D. (Agronomy) theses submitted (2016-2021)

Name of the student	Year of passing	Thesis Title
Mr. Sanjenbam Dayananda Singh	2017	Evaluation of urine as an alternative fertilizer source for crop production in North East India
Ms. Yanglem Sofia Devi	2017	Seed priming of pea (*Pisum sativum* L.) and residual soil moisture conservation in rice (*Oryza sativa* L.) fallow
Mr. Samborlang K. Wanniang	2018	Integrated nutrient management in vegetable pea-maize cropping sequence

6.4.2. Faculty Strength

S.No.	Sanctioned Faculty	Faculty in place#	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	4	Nil	1
2.	Associate Professor	1	1	2
3.	Assistant Professor	2	1	3

* Assistant professor (#1) promoted to Assoc. Professor and three associate professors promoted to Professor level.

For School of Natural Resource Management ie., Agronomy and Soil Science & Agricultural Chemistry. Additionally, Scientists from ICAR are recognized as faculty by the academic council and as per MOU.

6.4.3.Technical and Supporting staff

Sl. No.	Name of post sanctioned	No. of post sanctioned	Filled position
1	Livestock/Farm Assistant	2	1
2	Clerk-cum-Typist/LDC/UDC	1	-
3	Field-cum-Lab. Assistant	2	1
4	MTS	4	2
Grand total		**9**	**6**

For School of Natural Resource Management ie., Agronomy and Soil Science & Agricultural Chemistry.

6.4.4. Classrooms and Laboratories: 5 Classrooms, 1 Seminar and 1 conference room attached with LCD Projector are available. Following labs are available

1. Analytical Lab
2. Biogeochemistry Lab
3. Microbial Ecology Lab
4. GIS and Remote Sensing Lab
5. Hydraulics lab
6. Biofertilizer production unit

List of equipments and facilities available are as mentioned

S.N.	Particulars of Asset	Quantity
1	Auto Loop Sterilizer, Make: Himedia,	1 no.
2	Microwave Oven, Samsung-32 ltrs. Model No. CE117ALF	1 no.
3	Conductivity Meter Cyberscan 510, Eutech make	1 no.
4	Colony Counter; Cat # 0671	2 nos.
5	Autoclave Portable, Cat # 7407 PAD	2 nos.
6	Portable Oil Free Vacuum Pump, Tarsons: Rocker-400	1 nos.
7	Vortex General Purpose (Shaker), Tarsons	5 nos.
8	Water Double Distillation Plant, Make: JSGW	1 no.
9	Water Single Distillation Plant, Medica:	1 nos.
10	Willy Mill, Secor Make	1 no.
11	High Precision Water Bath, Medica	1 no.
12	Double Ring Infiltrometer Set	1 Set
13	Soil Auger (Euro design) 5 cm dia, 1m long with handle, Screw Augers 2.5 cm dia and 5 cm dia, 1m long with handle, extension rod 1m long Wrench (1 pair)	2 nos.
14	Soil Core Sampler complete with 10 SS rings, 60 mm dia, 100 cc internal volume with end caps and one nylon headed shock absorbing hammer	1 no.
15	Microcentrifuge, Spinwin: 'Tarsons' Brand, Model: MC-01	1 no.
16	Pipette Controller, Tarsons Brand , Cat No. 2003	2 nos.
17	Dancing Shaker, Tarsons Brand, Cat No. 3040	2 nos.

18	Fume Hood, NSW Brand, Cat No. 203	1 no.
19	Digital Turbidity Meter: Systronics Brand (Type: 132)	1 no.
20	Heating Mantles, Jindal Brand, Capacity-500 ml, 200 Watt	1 no.
21	Heating Mantles, Jindal Brand, Capacity-1 lt., 300 Watt.	1 no.
22	Heating Mantles, Jindal Brand, Capacity-2 lt., 450 Watt.	1 no.
23	UV-Transilluminator, Brand: UVP Ltd (UK), Model: LMS-20	1 no.
24	Top Pan Weighing Balance, Model: GE7101, Make: Sartorius	2 nos.
25	Laminar Air Flow, ACCO Make, Cat: AC071-02	1 no.
26	Laminar Air Flow, ACCO Make, Cat: AC071-04	1 no.
27	Autoclave Vertical, 7451PAD, Make: Equitron	1 no.
28	Autoclave Vertical, Make: Equitron	1 no.
29	BOD Incubator, Cat#7140-250, Make: Equitron	2 nos.
30	Student Microscope, Labomed, Model: VISION2000	4 nos.
31	Seed Germinator with Stabilizer, Remi Make	1 no.
32	5332 000.014 Mastercycler Personal (Thermocycler) with accessories	1 no.
33	5811 000.010 Centrifuge 5810R with accessories	1 nos.
34	Electronic Balance, Denver Make, Model SI 234DE	2 nos.
35	Hot Air Oven, EquitronMedica Make, Model: # 7053	1 no.
36	Vortex-Genie ® 2 Vortex (220V) 12112009-220	1 Set
37	Uniline 5 KVA/180V OL UPS Systems, with isolation Transformer Indicative Back Up Time 120 minutes, Minimum VAH 8000	1 nos.
38	Uniline 2 KVA/168V OL UPS Systems, with isolation Transformer Indicative Back Up Time 120 minutes, Minimum VAH 9600	2 nos.
39	Uniline 3 KVA/180V OL UPS Systems, with isolation Transformer Indicative Back Up Time 120 minutes, Minimum VAH 9600	3 nos.
40	Uniline 5 KVA/180V OL UPS Systems, with isolation Transformer Indicative Back Up Time 60 minutes, Minimum VAH 8000	1 nos.
41	Deep Freezer, Brand: Cryo-Scientific, Model: URC-V-380-2	1 no.
42	Isotherm Kit, Isotherm Systems & PCR Cooler 0.2 MI Starter Set	1 no.
43	Digital Burette (Top Burette M), 2.5 ml	1 no.
44	5350 000.013 Thermomixer Compact	1 no.
45	Shaker Incubator, Electronic Laboratory Incubator Shaker, Model: LIS (Rotek LIS)	3 nos.
46	Electronic Automatic KELPLUS Microprocessor Based Twelve Place Macro Block Digstion System, Model: KES 12L with accessories, Electronic Acid Neutraliser 'Scrubber', Electronic Superior Automatic Distillation System	1 Set
47	Bench Top Cooler (0°C), Tarson Make	2 nos.
48	Gel Electrophoresis-101 (Mini and Wide Midid Horizontal) With Power Supply System, Brand: Scieplus (Axygen Make), Model: HU10, HU25 and EV243	1 no.
49	Precision Hot Air Oven, Model: O-OGS -2436A, Brand: OVFU, Model CF549	3 nos.
50	Nanodrop Spectrophotometer, Make: Thermo, Model: ND-2000	1 no.
51	Electronic Balance, Denver Make, Model: SI 234DE	1 no.
52	Soil Moisture Meter (Mini Trase Kit with Bluetooth Aircable, Iowa State Tension Infiltro meter, Guelph Permeameter Kit	1 Set
53	Uniline Online UPS with isolation transformer suitable for single phase AC input and single phase AC output with rating of UPS 5.0 KVA and indicative back-up time 240 minutes, with minimum VAH 32000	1 no.
54	Refrigerating & Heating Circular, Model 9201, 240/50Hz, Polyscience Make	1 no.
55	Denaturing Gradient Gel Electrophoresis Apparatus Set; IV-1030 Complete system for DGGE,CDGE,TGGE, Model: IPU-S, Make: Ingeny	1 no.
56	Binocular Microscope Model: LEICA DM 750 + accessories, PC with Core 2 dual Processor, 2 GB RAM, 250 GB HDD, 17 inch TFT Monitor and Colour Photo Quality printer	3 nos.
57	U9260-0001 Premium Upright Freezer U410 with accessories, Model: U410-86	2 nos.
58	Gel Electrophoresis (Mini & Wide midi horizontal) with power supply system, Axygen Make	1 no.
59	Uniline 5 KVA/168V OL UPS Systems with 120 minutes Battery Back-Up Time Using SMF Battery	5 nos.

60	Microcentrifuge, Tarsons-1030 Spinwin MC-02, Make-Tarsons	1 no.
61	Microcentrifuge, Tarsons-3020 Spinix, Make-Tarsons	2 nos.
62	Microscope-HB Monocular, Brand-Olympus, Model-HB	8 nos.
63	Tarsons-7011-Rocker Vacuum Pump, Cat No. 7011	2 nos.
64	Hort Air Oven-Mechanical Convection, Brand OVFU 250 L, Model: 508	2 nos.
65	Hot Air Oven-O-OGS-1518 (D), Brand-OVFU	2 nos.
66	Dancing Shaker, Tarsons-3040, SP 0-60 RPM	2 nos.
67	Student Compound Microscope, MLX-B Binocular (Pathological), Brand: Magnus	6 nos.
68	Top Pan Electronic Balance (PL60001-S EL. Precision Balance), Brand: Mettler	1 no.
69	pH Meter, Brand: Eutech, Model: PHTEST 10	1 no.
70	Electronic Laboratory Shaker Variable RPM, Model: Rotek LSV	1 no.
71	Environmental Shaker, Electronic Laboratory Shaker Variable RPM, Model: Roteck LES with accessories	3 nos.
72	Gel Dryer, Genei Make, Model-Junior, Gel Drying Surface, 25x35 cm Model: GDJ, Sl.No. 1011318	2 nos.
73	Chlorophyll Meter, CCM200	1 no.
74	Automatic Weather Station Complete System, Model: Vanatage Pro2 plus, Brand: Cole Parmer	1 no.
75	Refractometer, Model No. 2812, Sl. No.B024602	1 no.
76	Data Logging Moisture Meter with Humidity (Seed Moisture Meter), Sl.No. 03-11.0002	1 no.
77	Elisa-Cum-UV-VIS Spectrophotometer, (Multiskan Spectrum Reader, Cat No. 51118650) with accessories	1 no.
78	Quantum Meter Brand: Spectrum Model: 3415F	1 no.
79	Soil Compaction Meter, Brand: Spectrum, Model: 6101, Sl. No. 669	1 no.
80	Deep Freezer, upto -30°C Net capacity: 308L	1 no.
81	Single Distillation Unit (Cat No. 72230050), Make: Reviera	1no.
82	Multiparameter Water Quality Meter, Make: M/s Hanna Instruments, USA, Model: HI 98280	1 no.
83	Semi Dry/Dry Transfer Assembly, Cat No. V10-SDB, Sl.No. 30020934, Make: Sciplas	1 no.
84	Orion 5 KVA/168V OL UPS 5KVA On Line UPS System with 120 Minutes Battery Back Up Time Using SMF Batteries	1 no.
85	FastprepHomogeneizer, Make Thermo Scientific, Model: FP120-230	1 no.
86	Geo Media Educational Kit (5 User License)	1 no.
87	ERDAS Imagine Software, ERDAS Imagine v2011 Educational Kit (5 User License)	1 no.
88	Lux Meter (Rod Type), Operating Temperature: 0-40°C , Model: 3415FX, Make: Spectrum	1 no.
89	Permeameter (Constant Head) Model: Constant Head & Falling Head, Make: Roorkee Inds.	1 no.
90	Weighing Balance Model: TTB31 Wensar	2 nos.
91	Electronic Balance, Model: MAB220, Wensar, Sl. No. 29640	1 no.
92	Line Quantum Sensor, Model: MQ-301, Make: Apogee Instruments	2 nos.
93	Table Top Microcentrifuge, Model: Heraeus Fresco21, Make: Thermo Fisher Scientific	1 no.
94	pH Meter, Microprocessor based, pH measuring range: 0.00 to 14.00, Model No. CPHTUTOR, Eutech Make	1 no.
95	Water Single Distillation Plant, Barnstead Type, Stainless Steel, 4.5 litres/hr. 3500 W, Model No. #7655, Medica Make	1 no.
96	Intel Core i7 Windows 8 Desktop Computer, Make: DELL, Model: Optiplex 9020MT, Sl. No. 6RWJ882	5nos
97	Intel Core i5 Windows 8 Desktop Computer, Make: DELL, Model: Optiplex 9020MT, Sl. No. 6RKP882	4nos
98	Senior Precision Rotary Microtome, Radical, Model-30	1 no.
99	Soil Augur, Make: Roorkee Industries, India	1 no.

100	Digital Burette, Make: Titrettee/Tarsons	1 no.
101	Soil Core Sampler, Make: AIC	1 no.
102	EC-TDS Meter, Model: CM 183	1 no.
103	Flame Photometer, Model: CL 378, Sl. No. 02358/198	1 no.
104	Global Positioning System (GPS), Model: eTrex 30	1 no.
105	pH cum mV Meter, Model: LI-614	1 no.
106	Soil Penetrometer Compaction Meter (Imported Parts), Make: Roorkee Industries	1 no.
107	Laboratory Shaker, Make: Alliance, Brand: Lunar, India	1 no.
108	Double Beam Atomic Absorption Spectrophotomter, Model: SL-194	1 no.
109	Double Beam UV-VIS Spectrophotomter, Model: SL-210 with PC Configurable Software	1 no.
110	Constant Voltage Stabilizer, 3 KVA, (Zodin) Model: CVR-350	1 no.
111	Rotary Vacuum Pump, Model: SD-45-DS	1 no.
112	Top Pan Weighing Balance, Model: CA3102, Contech Make	1 no.
113	Analytical Balance, High Precision, Model: CA-234, Contech Make	1 no.
114	Thermo Hygrometer Digital Clock 288 CTH Jambo Brand: General	1 no.
115	Hot Plate Cum Magnetic Stirer, Model: MS-H-280 Pro, Make: Dlab	1 no.
116	pH Meter, Model: LMPH 10, Sl.No. 11672, Cat No. L11541, Make: Wenser	3 nos.

6.4.5 Conduct of Practical and Hands-on-Training

The practicals in PG program (**Ph.D. (Agronomy**) are conducted as per the ICAR course curriculum. Practical and hands-on training are conducted as per the list included in the syllabi and records for all the courses are maintained and evaluated by the respective course incharges by giving marks/weightage.

6.4.6 Supervision of students in PG programs

The allotment of students is PG is as per CAU regulation with a cap of maximum six students for Professor, five students for Associate Professor and four students for Assistant Professor are being allotted in the school. The allotment of students is by lottery and in constitution of advisory committee and allotment of research title, the interest of the student is always kept in mind.

Name of Faculty	Number of students guided	Number of students being guided
Dr. Vishram Ram, Professor	4	4
Dr. Lala I.P. Ray, Assoc. Prof.	0	1
Dr. A. K. Singh, Asst. Prof.	1	2

6.4.7 Feedback of stakeholders (students, parents, industries, employers, farmers etc.)

At the end of the each semester and before the end term exam, a comprehensive feedback for each course is taken from students. The feedback includes competency of the teacher in the subject, updating the current status of the subject by the teacher, timely covering of syllabi, student teacher interactions, creating interest among the students about the course, attitude towards weak students, punctuality of the teacher,etcfor the last five years.

(Representative documents are provided in Appendix-CPGSAS-C)

6.4.8 Students intake and attrition in the program for last five years

Year wise information for the last five academic years (2016-17 to 2020-21) for Ph.D.(**Agronomy**)program is given in table below:

Academic year	Intake Capacity	Number of admitted student	Attrition (%)	Passed Out
2016-17	2+1*	3	-	2
2017-18	1+1*	-	-	_
2018-19	1+1*	3	_-	1
2019-20	0+1*	-	-	-
2020-21	2+1*	2	1	**-**

*** To be filled by ICAR candidate**

6.4.9 ICT Application in Curricula Delivery

All the class rooms, seminar and conference rooms are well equipped with LCD projectors. As per the needs of the course, power point presentation is given before the students for better explanation. Online and faculty made audio/videos are also presented to the students.

Table: A brief summary of existing facility in the College Library for Ph.D. students

Sl. No.	Facility exist	Status
1	Availability of books (Nos.)	5433
2	Access to print copy of Indian Journals (Nos.) and Periodicals	20
4	Access to Indian on-line journals	2 titles
5	Consortia	2794 e-journals through CeRA consortium
6	M.Sc. And Ph.D. Theses	356 MSc 37 PhD
7	Research Reports and Technical Bulletins	475
8	CDs	85
9	Magazines	8
10	Newspapers (national and local)	8
11	Statistical Database	1
12	Analytical Software	1

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate (Applicable when SSR is submitted for Programme) I, the Dean **Dr. Wricha Tyagi** hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

Student Feedback Form

Please limit to 1 feedback for each course taken.

* Required

1. Academic year *

Mark only one oval.

- 1
- 2
- 3
- 4

2. Semester *

Mark only one oval.

- I
- II
- III
- IV
- V
- VI
- VII
- VIII

3. Degree *

Mark only one oval.

- PhD
- MSc
- BSc

4. Discipline *

5. School *

Mark only one oval.

- SCI
- SCP
- SNRM
- SSS

6. Name of the teacher *

7. Course number *

8. Teaching skills *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Competence in the subject matter	☐	☐	☐	☐	☐
Communication skills	☐	☐	☐	☐	☐
Utilization of teaching aids (multimedia, charts and illustations, etc.	☐	☐	☐	☐	☐
Ability to create and uphold interest in the course among students	☐	☐	☐	☐	☐
Responsiveness to students' questions and problems	☐	☐	☐	☐	☐
Ability to ensure timely covering of syllabi	☐	☐	☐	☐	☐
Teacher remaining updated with current status	☐	☐	☐	☐	☐
Skills in linking the course with other relevant course (s)	☐	☐	☐	☐	☐

9. Student-teacher interaction *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Extent of availability of teacher for post-class consultation, if any	☐	☐	☐	☐	☐
Degree of demonstrated interest for holding interactive class sessions	☐	☐	☐	☐	☐
Timeliness in students' evaluation	☐	☐	☐	☐	☐
Attitude/ Response towards weak students	☐	☐	☐	☐	☐

10. Personality of teacher *

Mark only one oval per row.

	Outstanding	Excellent	Good	Average	Poor
Punctuality/Regularity	⬭	⬭	⬭	⬭	⬭
Sincerity and Commitment	⬭	⬭	⬭	⬭	⬭
Fairness in grading/evaluation	⬭	⬭	⬭	⬭	⬭
Helping attitude	⬭	⬭	⬭	⬭	⬭
Integrity of teaching profession	⬭	⬭	⬭	⬭	⬭
Patience	⬭	⬭	⬭	⬭	⬭
Behavior	⬭	⬭	⬭	⬭	⬭
Interpersonal relationship	⬭	⬭	⬭	⬭	⬭

This content is neither created nor endorsed by Google.

Google Forms

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signatures
1	[illegible]	2	[illegible]	[illegible]	[illegible]
2	FARZANA AHMAD	7	17/5/21	11:05	[illegible]
3	MALLIKHARJUNA KRISHNA	7	17/5/21	11:17 am	[illegible]
4	TINKUNIYANG	7	17/5/21	11:28 am	[illegible]
5	[illegible]	2	[illegible]	[illegible]	[illegible]
6	[illegible]	7	[illegible]	[illegible]	[illegible]
7	[illegible]	6	[illegible]	[illegible]	[illegible]
8	V. PREETI KUMARI	7	[illegible]	[illegible]	[illegible]
9	[illegible]	7	[illegible]	[illegible]	[illegible]
10	[illegible]	11	[illegible]	[illegible]	[illegible]
11	[illegible]	7	[illegible]	[illegible]	[illegible]
12	[illegible]	6	[illegible]	[illegible]	[illegible]
13	ATEEFA	7	[illegible]		
14	[illegible]	15	[illegible]	[illegible]	[illegible]
15	M Shanmukh Raju	6	[illegible]	[illegible]	[illegible]
16	Yeluguri Sikhasanya	9	[illegible]	[illegible]	[illegible]
17	Mangalada Ranjan	6	[illegible]	[illegible]	[illegible]
18	Anil Kumar	6	[illegible]	[illegible]	[illegible]
19	[illegible]	5	[illegible]	[illegible]	[illegible]
20	[illegible]	5	[illegible]	[illegible]	[illegible]
21	[illegible]	6	[illegible]	[illegible]	[illegible]
22	[illegible]	7	[illegible]	[illegible]	[illegible]
23	[illegible]	1	[illegible]	[illegible]	[illegible]

[illegible]

Sl. No	Name	No. of feedback forms submitted	Date	Time	Signatures
29	Payal Prasad	4	13/4/21	11:05	Payal
30	A. Geetha Reddy	8	11/4/21	11:06	
31	Naveen.H	4	17/4/21	12:04	
32	Sneha Hanitha	6	15/4/21	11:47	S.Hanitha
33	M. Sachin	6	11/4/21	11:48	M. Sachin
34	E. Naveen	6	13/4/21	11:54	
35	Dr. Manoranjan	4	11/4/21	11:53	
36	Nandi Sharma	3	11/4/21	12:30	
37	Monika	7	11/4/21	11:23	Monika
38	Vinay Kumar	7	12/4/21	11:19	
39	Hanamanth - P	4	11/4/21	12:19	
40	Gaddi Akhanda Sathyam	4	11/4/21	12:33	
41	Vallamuila prasad	9	11/4/21	12:32	
42	Abhishek Prakash	9	11/4/21	12:55	
43	Abhinay Varma	7	11/4/21	12:56	
44	KUMARI CHALLAM	7	11/4/21	12:55	
45	Rekha Verma	9	11/4/21	12:59	
46	Bimal Kumar Sahu	7	13/4/21	12:56	
47	Kailash Patel	7	13/4/21	12:57	
48	MANICKAM V	7	13/4/21	12:57	
49	Shashidhar MP	4	11/4/21	12:58	
50	D. Sainath Reddy	7	17-4-21	12:59	
51	Narayana Bhanu	3	12-4-21	12:30	

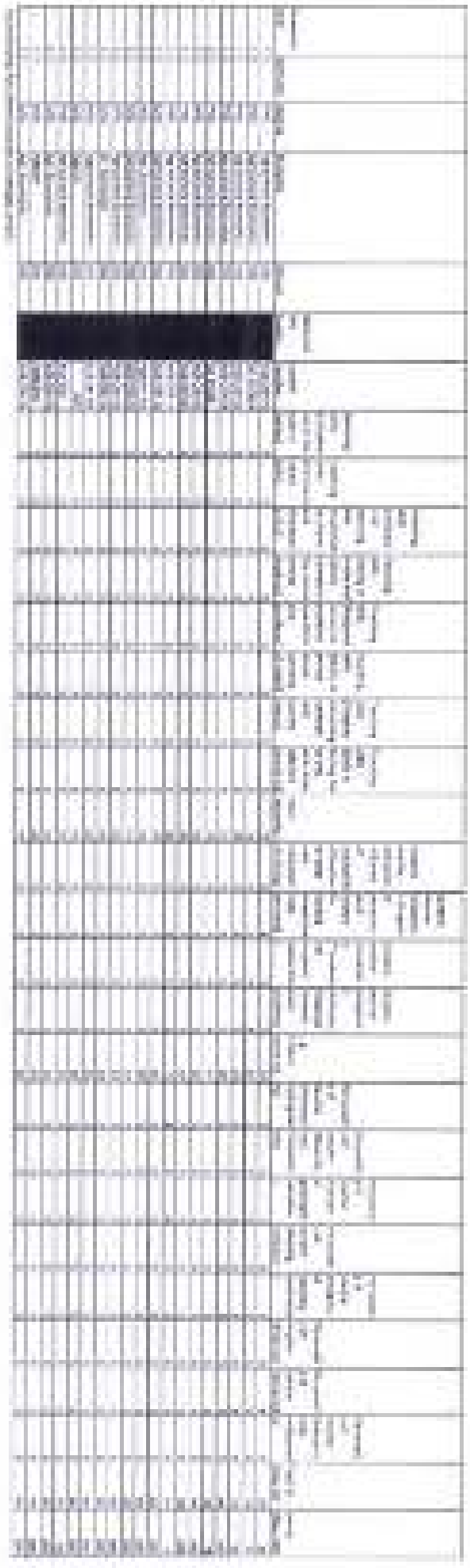
9 x 2 = 18
8 x 2 = 16
6 x 3 = 18
2 x 9 = 18

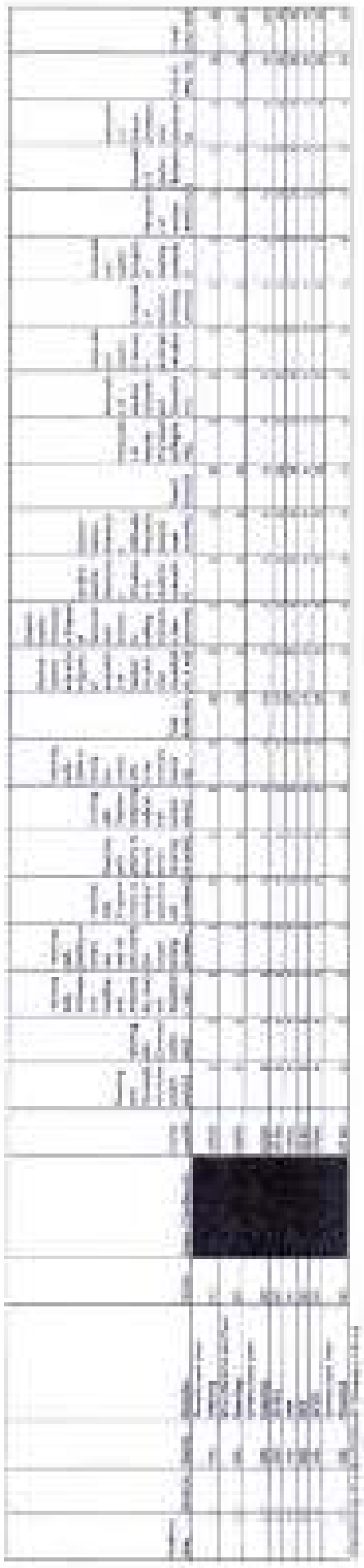
9 x 6 = 54

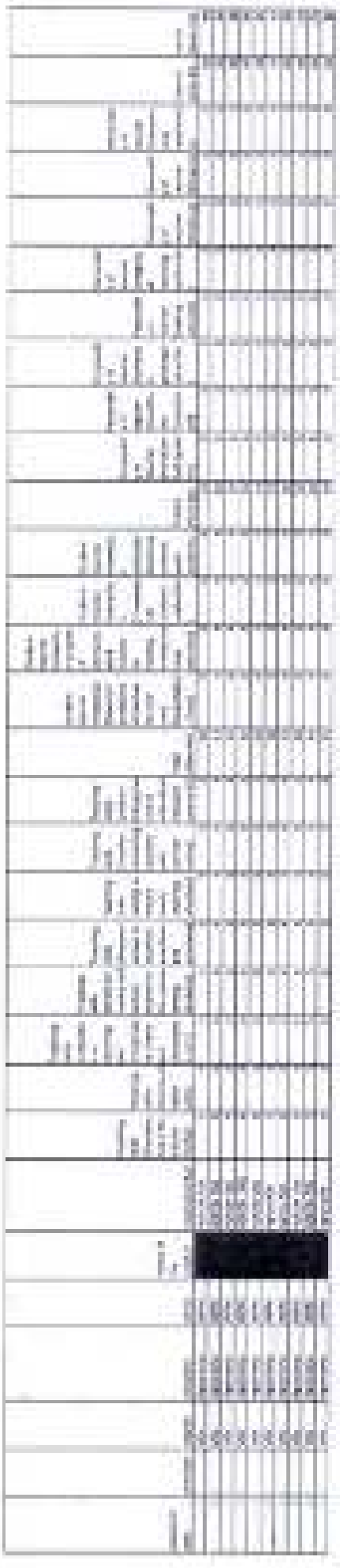
154

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signatures
47	Vanitha yuvaraj	5	17/9/21	12:45	
48	Kavya Sai Gupta	4	17/9/21	12:47	
49	Keerthi	7	17/9/21	12:47	
50	Jayashree Ayer	7	17/9/21	12:48	
51	Dhanyashree Vasanth Kumar	2	17/9/21	12:55	
52	Bala Tarri	6	17-09-21	12:04	
53	Sanjana Pattanayak	6	17-09-21	12:55	
54	[illegible]	7	17-09-21	12:57	
55	Keerthi K Jayashree	4	17-09-21	12:58	
56	Sudeshna Sahoo	6	17-09-21	12:59	
57	Dhanush Srivatsa	3	17-09-21	12:59	
58	Tanmay Vasu	7	17/9/21	12:59	
59	Bhavya Kumar JM	3	17/9/21	13:00	
60	Dr. Sanjeevini Kaur	5	17/9/21	13:00	
61	Dr. Deepika Reddy	8	17/9/21	1:1 pm	
			-		

4 × 4 = 16
5 × 5 = 25 125
5 × 4 = 20 145
3 × 3 = 9 154 = 342







SELF STUDY REPORT
for degree accreditation
Ph.D.
(Agricultural Economics)

College of Post Graduate Studies in Agricultural Sciences
Central Agricultural University (Imphal)
Umiam, Umroi Road, Meghalaya - 793 103

Telefax: 0364-2570030
e-mail: dean.cpgsas@cau.ac.in/deancpgs@gmail.com website: www.cpgsas.ac.in

	Particulars
1.	Sections 6.4
2.	Sections 6.4.2 to 6.4.3
3.	Section 6.4.4 to Section 6.4.6
4.	Section 6.4.7 to 6.4.8
5.	Section 6.4.9 to Section 6.4.12

6.4. **Self-Study Report for Ph.D. (Agricultural Economics) programme**

6.4.1. Brief History of the Degree Programme

The North Eastern India is experiencing rapid population growth which has crossed 45 million mark. In order to attain economic, food and nutritional security, it is imperative to impart quality agricultural education and have sustained agricultural development in the states of northeastern region. This region is constrained by lack of adequate infrastructure, low productivity, inadequate marketing and lack of knowledge on modern farm technologies. With this genesis in background, the Central Agricultural University, Imphal established the College of Post Graduate Studies in Agricultural Sciences (**CPGSAS**) at Umiam, Meghalaya on 21st December, 2006.

MISSION of CPGSAS is to achieve excellence in teaching, research and extension education in the field of agriculture.

MANDATES of CPGS are:

1) to impart postgraduate education in different branches of Agriculture,
2) to further the advancement of learning and prosecution of research in Agriculture, and
3) to undertake such others activities as it may deem fit, from time to time, to uplift the socioeconomical status of farmers in the North Eastern Region.

Objectives of CPGS are:

1) To produce globally competitive postgraduates in the field of agriculture
2) To develop robust agricultural technologies to help Indian farming systems, particularly in the northeastern region of India to be sustainable and profitable, and
3) To transform agriculture and allied activities into profitable enterprises and thereby create food and nutritional security for people of northeastern region of India.
4) The postgraduates of CPGS who are educated and trained in recent advances in agriculture and allied sciences, are expected to bring about a quantum change in the agricultural research and development systems in their respective states and also contribute towards strengthening the National Agricultural Research System.

The Ph.D. degree program in Agricultural Economics currently running at CPGSAS is a 3years full-time doctoral program following the ICAR course curriculum and has been offered at School of Social Sciences since 2013.

In the last five years (2016-17 upto 2020-21) a total number of9Ph.D. students have passed out. The research work has led to several publications. The details of which are given below:

FULL length RESEARCH PAPERS

Feroze, S.M., Singh, R. and Sirohi, S. 2016. Profitability and disposal pattern of milk in underdeveloped hill production system of Meghalaya, *Indian Journal of Animal Science*, 86(10):1198-1203.
Mog, R., Singh, R. and Feroze, S. M. 2018. Economic appraisal of fish culture: A case study from Gomati District in Tripura, *Indian J. Fish.*, 65(1): 96-100, DOI: 10.21077/ijf.2018.65.1.62833-15.
Rymbai, D. and Feroze S.M. 2018. The insight of agricultural adaptation to climate change: A case of rice growers in Eastern Himalaya, India, *International Journal of Biometeorology* 62(10):1833-1845.

Singh R and Roy S. (2018) Mobile based agro advisory for tribals of Meghalaya, India. *Current Science* 114(10): 1-2.
Feroze, S.M., Rahman, S., Singh, KJ, Singh, R.and Dkhar, S.E.2018. Climate change effect on dairy in North Eastern hills of India, *Indian Journal of Animal Sciences* 89(2): 176-181.
Feroze, S.M., Ray, LIP, Singh, K.J. and Singh, R. 2019. Pastoral yak rearing system is changing with change in climate: An Exploration of North Sikkim in Eastern Himalaya, Climatic Change. doi.org/10.1007/s10584-019-02551-1.
Singh, Anandkumar, N.; Singh, Ram, S.M. Feroze and Singh, R.J. (2016) Economic evaluation of pineapple cultivation in Manipur. *Economic Affairs*
Singh, Anandkumar, N.; Singh, Ram, S.M. Feroze Singh, R.J. and P.M.N. Rani (2016) Growth and instability of pineapple cultivation in Manipur, India. *Indian J. Agric. Res*
Singh, Anandkumar, N.; Singh, Ram, S.M. Feroze and Singh, R.J. (2016) Analysis of Costs and returns of pineapple cultivation in Manipur. *Indian Journal of Hill Farming*
Singh, Koijam Johny Feroze, S.M. Singh, Ram and Das, A. (2016) How profitable is rice cultivation in hills of North Eastern Region of India? A case study of Manipur"
Dayohimi Rymbai, Feroze, S.M., Singh, Ram Sarkar A. and Ray, Lala IP (2016) Climate change and investment in Agricultural Research: Policy challenges in India. Economic Affairs
Remdor, D., Singh, Ram, Feroze, S.M., Singh, R.J. and Aheibam M. (2016) Profitability analysis of areca nut orchard in Meghalaya . Indian Forester,
Singh, Ram, Chauhan, J.K., Singh, K. Johny and Saharan, S.P. (2016)Meghalaya state agricultural produce market committee act: trend analysis of arrivals and prices of major commodities. Indian Res. J. Ext.Edu.
Meghawal, P.K., Singh, R.J., Pandey, D.K., Singh, Ram, Jadav, N.B. and Rajput, R.P. (2016) Problems faced by the farmers in adoption of mitigation and adaptation of climate change practices in agriculture. International Journal of Agri. Science
Feroze, S.M., Singh, Ram, Rathod, S.S., Sarkar A. (2016) System of Rice Intensification: an alternative to conventional rice production practice. Journal of Science and Environment Today
Dympep A, Singh RJ, Jitendra Chauhan, Pandey DK, Hemochandra, L (2016) Standardize Index for Measuring Performance of Farmers on Mitigation and Adaptation Practices of Climate Change. Indian Research Journal Extension Education
Devi, G., Feroze, S.M., Singh, Ram and Sarkar, A. (2016) How socially sustainable are the rice farms in mountains? Evidence from Senapati district of Manipur. Economic Affairs
Feroze, S.M, Singh, Ram; and Sirohi, S. (2016) Profitability and disposal pattern of milk in underdeveloped hill production system of Meghalaya" Indian Journal of Animal Sciences
Singh, Ram, Kumar, A., Jat, P.C. and Ahmed, S.P (2016) Mobile based agro-advisory services in livestock management by tribal of Meghalaya. Indian Journal of Animal Sciences
Muliar, D. Singh, Ram and Feroze, S.M. (2017). An Economic appraisal of strawberry orchard in Meghalaya". Economic Affairs
Monika, A. Singh, Ram, Feroze, S.M., Singh, N.U., Singh, R.J. and Singh, A.K. (2017) Identifying the determinants and extent of crop diversification at household level: An evidence from Ukhrul district, Manipur. Economic Affairs,
Rymbai, D.; Feroze, S.M, Singh, Ram and Ray Lala I.P. (2017) What's the benefit of adaptation to climate change? Application of partial budgeting for the rice growers of Eastern Himalaya in India. British Journal of Applied Science & Technology
Singh, Ram, Feroze, S.M, Ray Lala I.P., Singh, K.J. and Muliar, D (2017) Role of System of Rice Intensification method in improving health and nutritional security: A Micro Level Study in Tripura State Indian Res. J. Ext. Edu.

Mog, R., Singh, Ram, and Feroze, SM (2017) Economics of disposal pattern of cultured fish: A case study in Gomati District of Tripura, Ind. Jour. Mktg.,
Koyu, B., Sarkar, A., Singh, RJ, Singh, Ram (2017) Comparative assessment between beneficiaries and non-beneficiaries of MNREGA in Arunachal Pradesh: A case of two districts, Advance in Research,
Kumar, A., Dewry, R K, Singh, Ram, Jat, P.C., Singh, M. and Kadirvel G. (2017) Pregnency diagnosis in pigs using seed germination inhibition test: An evaluation study in Meghalaya. Indian Journal of Animal Sciences
Koyu, B. Sarkar, A., Singh, Ram and Singh, R. J (2017)"Is MNREGA a myth for Arunachal Pradesh? Field Evidence". Economic Affairs
Aheibam, M., Singh, Ram (2017) Inflationary Trends and Agricultural Production in India:An Empirical Analysis. Indian Journal of Economics and Development
Debnath, P.; Singh, Ram; Feroze, S.M. and Ray, Lala I.P. (2017) "Resource productivity of rice cultivation in Tripura: A spatial Analysis Agril. Res. Reviews
Dkhar, D.; Feroze, S.M.; Singh, Ram; Ray, Lala I.P.(2017) Effect of rainfall variability on rice yield in North Eastern Hills of India: A case study. Agricultural Research,
Singh, Ram and Feroze, S.M. (2017) Yield gap analysis of rice cultivars in Meghalaya: An empirical study.Indian Res. J. Ext. Edu
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List of Ph.D. (Agri. Eco) theses submitted (2016-2021)

Name of the student	Year of passing	Thesis Title
Ms. Leishangthem Geetarani Devi	2016	Sustainability of Rice Farming in Manipur: An Economic Analysis
Mr. Ningombam Anandkumar Singh	2016	Economic Analysis of Pineapple in Manipur
Ms. Dayohimi Rymbai	2016	Adaptation to Climate Change: An Economic Study of Cereal Crops in Eastern Himalaya
Mr. Pallab Debnath	2016	An Empirical Study on Economics of Rice Production in Tripura
Ms. Monika Aheibam	2017	Crop Diversification and its Impact on Farming Households of Manipur: A Micro-Level Study
Ms. Nivetina Laitonjam	2019	Vulnerability and Adaptation to Climate Change: A Study of Rice Farms in Manipur
Mr. Narendra Kumar Meena	2019	Economics of Solar Powered Pumping System in Major Crops of Rajasthan: A Comparative Study

Ms. Singyala Chiphang	2020	Livelihood Security through Organic Farming in North East Hill Region of India: An Economic Analysis
Mr. Baiarbor Nongbri	2020	Food and Nutritional Security at Farm Household Level in Meghalaya: Impact of Government Schemes

6.4.2. Faculty Strength

S.No.	Sanctioned Faculty	Faculty in place#	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	2	1	1
2.	Associate Professor*	2	Nil	2
3.	Assistant Professor	3	1	3

* Associate professors (#2) promoted to Professor and two assistant professors to associate level.

For School of Social Science ie., Agricultural Economics and Extension Education. Additionally, Scientists from ICAR are recognized as faculty by the academic council and as per MOU.

6.4.3.Technical and Supporting staff

Sl. No.	Name of post sanctioned	No. of post sanctioned	Filled position
Group-C			
1	Clerk-cum-Typist/LDC/UDC	1	-
2	MTS	4	2
Grand total		**5**	**2**

For School of Social Science ie., Agricultural Economics and Extension Education.

6.4.4. Classrooms and Laboratories: 5 Classrooms, 1 Seminar and 1 conference room attached with LCD Projector are available.
Following laboratories and facilities are available; Computer Lab and Multimedia Lab

The facilities available include well-furnished Computer Lab which is well equipped with the computer of 20 nos. The Lab has 5 numbers of SPSS users license which is updated time to time.

6.4.5 Conduct of Practical and Hands-on-Training

The practicals in Ph.D. program (**Ph.D. in Agricultural Economics**) are conducted as per the ICAR course curriculum. Practical and hands-on training are conducted as per the list included in the syllabi and records for all the courses are maintained and evaluated by the

respective course incharges by giving marks/weightage. For some of the courses which require visits to farmer fields, provisions are made accordingly for such visits.

6.4.6 Supervision of students in Ph.D. programs

The allotment of students is PhD is as per CAU regulation with a cap of maximum six students for Professor, five students for Associate Professor and four students for Assistant Professor are being allotted in the school. Apart from the above mentioned, School of Social Sciences has two faculty each from ICAR-RC for NEH, Umiam and ICAR-ATARI, Umiam with specialization in Agricultural Economics and Agricultural Extension recognized for teaching and guidance of the students. The allotment of students is by lottery and in constitution of advisory committee and allotment of research title, the interest of the student is always kept in mind.

Name of Faculty	Number of students guided	Number of students being guided
Dr. Ram Singh	7	2
Dr. Sheikh Mohammad Feroze	2	0
Dr. S. Basanta Singh	0	3

6.4.7 Feedback of stakeholders (students, parents, industries, employers, farmers etc.)

At the end of the each semester and before the end term exam, a comprehensive feedback for each course is taken from students. The feedback includes competency of the teacher in the subject, updating the current status of the subject by the teacher, timely covering of syllabi, student teacher interactions, creating interest among the students about the course, attitude towards weak students, punctuality of the teacher, etc for the last five years.
(Representative documents are provided in Appendix-CPGSAS-C)

6.4.8 Students intake and attrition in the program for last five years

Year wise information for the last five academic years (2016-17 to 2020-21) for Ph.D.(**Agricultural Economics**)program is given in table below:

Academic year	Intake Capacity	Number of admitted student	Attrition (%)	Passed Out
2016-17	2+1*	3	-	3
2017-18	1+1*	-	-	1
2018-19	1+1*	3	1	2
2019-20	1+1*	2	1	1
2020-21	2+1*	3	_-	2

*** To be filled by ICAR candidate**

6.4.9 ICT Application in Curricula Delivery

All the class rooms, seminar and conference rooms are well equipped with LCD projectors. As per the needs of the course, power point presentation is given before the students for better explanation. Online and faculty made audio/videos are also presented to the students.

Table: A brief summary of existing facility in the College Library for Ph.D. students

Sl. No.	Facility exist	Status
1	Availability of books (Nos.)	5433
2	Access to print copy of Indian Journals (Nos.) and Periodicals	20
4	Access to Indian on-line journals	2 titles
5	Consortia	2794 e-journals through CeRA consortium
6	MSc. And PhD Theses	356 MSc; 37 PhD
7	Research Reports and Technical Bulletins	475
8	CDs	85
9	Magazines	8
10	Newspapers (national and local)	8
11	Statistical Database	1
12	Analytical Software	1

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate (Applicable when SSR is submitted for Programme) I, the Dean **Dr. Wricha Tyagi**. hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

Student Feedback Form

Please limit to 1 feedback for each course taken.

* Required

1. Academic year *

Mark only one oval.

- 1
- 2
- 3
- 4

2. Semester *

Mark only one oval.

- I
- II
- III
- IV
- V
- VI
- VII
- VIII

3. Degree *

Mark only one oval.

- ◯ PhD
- ◯ MSc
- ◯ BSc

4. Discipline *

_____

5. School *

Mark only one oval.

- ◯ SCI
- ◯ SCP
- ◯ SNRM
- ◯ SSS

6. Name of the teacher *

_____

7. Course number *

_____

8. Teaching skills *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Competence in the subject matter	☐	☐	☐	☐	☐
Communication skills	☐	☐	☐	☐	☐
Utilization of teaching aids (multimedia, charts and illustations, etc.	☐	☐	☐	☐	☐
Ability to create and uphold interest in the course among students	☐	☐	☐	☐	☐
Responsiveness to students' questions and problems	☐	☐	☐	☐	☐
Ability to ensure timely covering of syllabi	☐	☐	☐	☐	☐
Teacher remaining updated with current status	☐	☐	☐	☐	☐
Skills in linking the course with other relevant course (s)	☐	☐	☐	☐	☐

9. Student-teacher interaction *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Extent of availability of teacher for post-class consultation, if any	☐	☐	☐	☐	☐
Degree of demonstrated interest for holding interactive class sessions	☐	☐	☐	☐	☐
Timeliness in students' evaluation	☐	☐	☐	☐	☐
Attitude/ Response towards weak students	☐	☐	☐	☐	☐

10. Personality of teacher *

Mark only one oval per row.

	Outstanding	Excellent	Good	Average	Poor
Punctuality/Regularity	⬭	⬭	⬭	⬭	⬭
Sincerity and Commitment	⬭	⬭	⬭	⬭	⬭
Fairness in grading/evaluation	⬭	⬭	⬭	⬭	⬭
Helping attitude	⬭	⬭	⬭	⬭	⬭
Integrity of teaching profession	⬭	⬭	⬭	⬭	⬭
Patience	⬭	⬭	⬭	⬭	⬭
Behavior	⬭	⬭	⬭	⬭	⬭
Interpersonal relationship	⬭	⬭	⬭	⬭	⬭

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Google Forms

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signature
1	[illegible]	2	[illegible]	[illegible]	[illegible]
2	FARZANA NIYAZ	7	[illegible]	[illegible]	[illegible]
3	MALLIKHARJUNA KEERTHAN	7	[illegible]	[illegible]	[illegible]
4	TINKUNIYANG	7	[illegible]	[illegible]	[illegible]
5	[illegible]	2	[illegible]	[illegible]	[illegible]
6	[illegible]	7	[illegible]	[illegible]	[illegible]
7	[illegible]	6	[illegible]	[illegible]	[illegible]
8	V. PREETI KUMARI	7	[illegible]	[illegible]	[illegible]
9	[illegible]	7	[illegible]	[illegible]	[illegible]
10	[illegible]	11	[illegible]	[illegible]	[illegible]
11	[illegible]	7	[illegible]	[illegible]	[illegible]
12	[illegible]	6	[illegible]	[illegible]	[illegible]
13	ATEEFA	7	[illegible]	[illegible]	[illegible]
14	[illegible]	15	[illegible]	[illegible]	[illegible]
15	M. Shanmukh Raju	6	[illegible]	[illegible]	[illegible]
16	Yeluguri Eshwaraiah	8	[illegible]	[illegible]	[illegible]
17	[illegible]	6	[illegible]	[illegible]	[illegible]
18	Anil Kumar	6	[illegible]	[illegible]	[illegible]
19	[illegible]	5	[illegible]	[illegible]	[illegible]
20	[illegible]	5	[illegible]	[illegible]	[illegible]
21	[illegible]	6	[illegible]	[illegible]	[illegible]
22	[illegible]	7	[illegible]	[illegible]	[illegible]
23	[illegible]	1	[illegible]	[illegible]	[illegible]

[illegible]

Sl. No	Name	No. of feedback forms submitted	Date	Time	Signatures
29	Payal Prasad	4	13/4/21	11:05	Payal
30	A. Geetha Reddy	8	11/4/21	11:06	
31	Naveen.H	4	12/4/21	12:04	
32	Sneha Hanitha	6	12/4/21	11:47	S.Hanitha
33	M. Sachin	6	11/4/21	11:48	M. Sachin
34	E. Manohar	6	12/4/21	11:54	
35	Dr. Mahendra	4	11/4/21	11:53	
36	Nilesh Sharma	3	11/4/21	12:38	
37	Monika	7	11/4/21	11:23	Monika
38	Vinay Kumar	7	12/4/21	11:59	
39	Hanumanth. P	4	11/4/21	12:08	
40	[illegible]	4	11/4/21	12:11	
41	Vallamuila prasad	4	11/4/21	12:12	
42	Abhishek Prakash	9	11/4/21	12:15	Abhishek Pr
43	Abhay Kumar	7	12/4/21	12:16	
44	[illegible]	7	12/4/21	12:17	
45	[illegible]	7	12/4/21	12:18	
46	Dr. Sripathi Reddy	7	12/4/21	12:23	
47	Jayaram Naik	3	12/4/21	12:30	
48	Manickam V	7	12/4/21	12:31	
49	Shashidhar M P	4	11/4/21	12:33	
50	D. Sripathi Reddy	7	12/4/21	12:34	
51	Jayaram Naik	3	12/4/21	12:36	

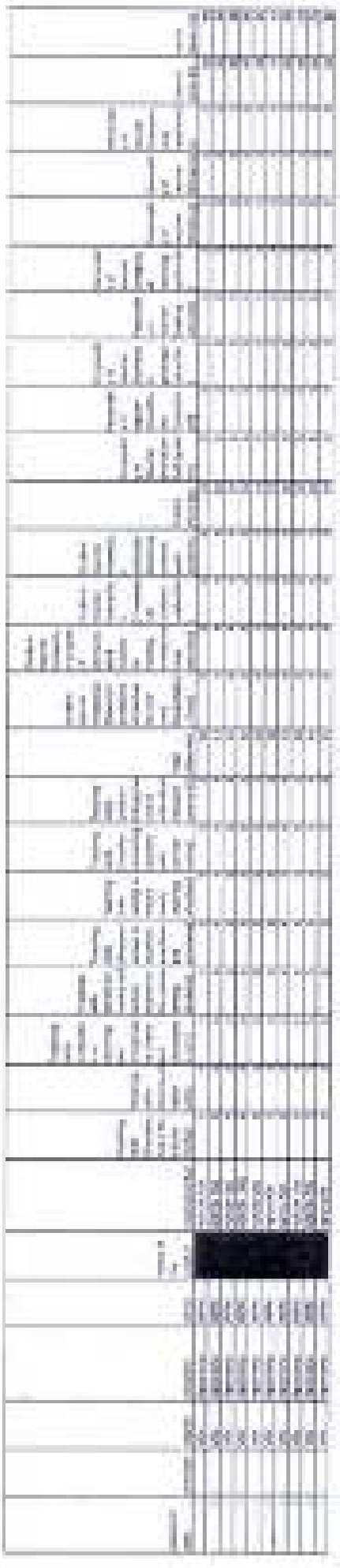
2 x 8 = 16
3 x 2 = 6
4 x 3 = 12
7 x 6 = 42

54

129

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signatures
AF	Vanitha yuvaraj	5	12/5/21	12:45	
48	Kavya Sai Gupta	4	12/5/21	12:47	
49	Kavya Vinutha	7	12/5/21	12:47	
50	Jayashree Ayer	7	12/5/21	12:48	
51	Dhanyashree Vasanth Kumar	2	12/5/21	12:55	
52	Bala Tarri	6	12-05-21	12:04	
53	Sanjana Pattanayak	6	12-05-21	12:55	
54	Alka Bisht	7	12-05-21	12:57	
55	Kavya K Jayashree	4	12-05-21	12:58	
56	Sudeshna Sahu	6	12-05-21	12:59	
57	Chandni Chauhan	3	12-05-21	12:59	
58	Tanmay Vaidya	7	12/5/21	12:59	
59	Bhavya Kumar Jain	3	12/5/21	12:59	
60	R. Sanjukta Rout	5	12/5/21	12:00PM	
61	R. Anchala Mishra	8	12/5/21	1:1pm	
			-		

4 × 4 = 16
5 × 5 = 25 125
4 × 3 = 12 105 = 347



SELF STUDY REPORT
for degree accreditation
Ph.D.
(Agricultural Extension)

College of Post Graduate Studies in Agricultural Sciences
Central Agricultural University (Imphal)
Umiam, Umroi Road, Meghalaya - 793 103

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	Particulars
1.	Sections 6.4
2.	Sections 6.4.2 to 6.4.3
3.	Section 6.4.4 to Section 6.4.6
4.	Section 6.4.7 to 6.4.8
5.	Section 6.4.9 to Section 6.4.12

6.4. **Self-Study Report for Ph.D. (Agricultural Extension) Program**

6.4.1. Brief History of the Degree Programme

The North Eastern India is experiencing rapid population growth which has crossed 45 million mark. In order to attain economic, food and nutritional security, it is imperative to impart quality agricultural education and have sustained agricultural development in the states of northeastern region.This region is constrained by lack of adequate infrastructure, low productivity, inadequate marketing and lack of knowledge on modern farm technologies. With this genesis in background, the Central Agricultural University, Imphal established the College of Post Graduate Studies in Agricultural Sciences (**CPGSAS**) at Umiam, Meghalaya on 21st December, 2006.

MISSION of CPGSAS is to achieve excellence in teaching, research and extension education in the field of agriculture.

MANDATES of CPGS are:

1) to impart postgraduate education in different branches of Agriculture,
2) to further the advancement of learning and prosecution of research in Agriculture, and
3) to undertake such others activities as it may deem fit, from time to time, to uplift the socioeconomical status of farmers in the North Eastern Region.

Objectives of CPGS are:

1) To produce globally competitive postgraduates in the field of agriculture
2) To develop robust agricultural technologies to help Indian farming systems, particularly in the northeastern region of India to be sustainable and profitable, and
3) To transform agriculture and allied activities into profitable enterprises and thereby create food and nutritional security for people of northeastern region of India.
4) The postgraduates of CPGS who are educated and trained in recent advances in agriculture and allied sciences, are expected to bring about a quantum change in the agricultural research and development systems in their respective states and also contribute towards strengthening the National Agricultural Research System.

The Ph.D. degree program in Agricultural Extensioncurrently running at CPGSAS is a 3 years full-time doctoral program following the ICAR course curriculum and has been offered at School of Social Sciencessince 2013.

In the last five years (2016-17 upto 2020-21) a totalofninePh.D. students have passed out. The research work has led to several publications. The details of which are given below:

FULL length RESEARCH PAPERS

Feroze, S.M., Singh, R. and Sirohi, S. 2016. Profitability and disposal pattern of milk in underdeveloped hill production system of Meghalaya, *Indian Journal of Animal Science*, 86(10):1198-1203.
Mog, R., Singh, R. and Feroze, S. M. 2018. Economic appraisal of fish culture: A case study from Gomati District in Tripura, *Indian J. Fish.*, 65(1): 96-100, DOI: 10.21077/ijf.2018.65.1.62833-15.
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List of Ph.D. (Agri. Ext.) theses submitted (2016-2021)

Name of the student	Year of passing	Thesis Title
Ms. Suchiradipta Bhattacharjee	2016	A micro-level study on dimensions of emerging livelihood pattern of rural tribal youth in Tripura
Ms. Khumukcham Stina	2016	A study on impact assessment of the employment and livelihood linked programmes in Manipur
Ms. Alethea Dympep	2017	Social networks of agricultural stakeholders on climate-smart agriculture in Meghalaya: A structural equation modelling
Ms. Punitha P.	2017	*Jhumias* of Manipur in North-East India: A Livelihood Analysis
Ms. Jyothi SSP	2019	Understanding the technological information networks in diffusion of improved rice varieties in Manipur
Mr. Sao Evalwell Dkhar	2019	Organisational climate and performance of Krishi Vigyan Kendras in Meghalaya
Ms. Deepa Thangjam	2019	Livelihood security of farmers in Meghalaya under

		Tribal Sub-Plan: A result-based evaluation
Mr. Termaric Oinam	2019	Implications of mobile phone applications in farming by tribal rural youth of Meghalaya
Mr. Bai Koyu	2020	Modeling e-learning for climate-smart horticulture on high value horticultural crops of Arunachal Pradesh: A quasi-experimental approach

6.4.2. Faculty Strength

S.No.	Sanctioned Faculty	Faculty in place#	Vacant position	Faculty recommended by the ICAR/UGC/VCI/ other regulatory bodies
1.	Professor	2	1	1
2.	Associate Professor*	2	Nil	2
3.	Assistant Professor	3	1	3

* Associate professors (#2) promoted to Professor and two assistant professors to associate level.

For School of Social Science ie., Agricultural Economics and Extension Education. Additionally, Scientists from ICAR are recognized as faculty by the academic council and as per MOU.

6.4.3.Technical and Supporting staff

Sl. No.	Name of post sanctioned	No. of post sanctioned	Filled position
Group-C			
1	Clerk-cum-Typist/LDC/UDC	1	-
2	MTS	4	2
Grand total		**5**	**2**

For School of Social Science ie., Agricultural Economics and Extension Education.

6.4.4. Classrooms and Laboratories: 5 Classrooms, 1 Seminar and 1 conference room attached with LCD Projector are available.
Following laboratories and facilities are available; Computer Lab and Multimedia Lab

The facilities available include well-furnished Computer Lab which is well equipped with the computer of 20 nos. The Lab has 5 numbers of SPSS users license which is updated time to time.

6.4.5 Conduct of Practical and Hands-on-Training

The practicals in Ph.D. program (**Ph.D. in Agricultural Extension**) are conducted as per the ICAR course curriculum. Practical and hands-on training are conducted as per the list included in the syllabi and records for all the courses are maintained and evaluated by the respective course incharges by giving marks/weightage. For some of the courses which require visits to farmer fields, provisions are made accordingly for such visits.

6.4.6 Supervision of students in Ph.D. programs

The allotment of students is PhD is as per CAU regulation with a cap of maximum six students for Professor, five students for Associate Professor and four students for Assistant Professor are being allotted in the school. Apart from the above mentioned, School of Social Sciences has two faculty each from ICAR-RC for NEH, Umiam and ICAR-ATARI, Umiam with specialization in Agricultural Economics and Agricultural Extension recognized for teaching and guidance of the students. The allotment of students is by lottery and in constitution of advisory committee and allotment of research title, the interest of the student is always kept in mind.

Name of Faculty	Number of students guided	Number of students being guided
Dr. Loukham Devarani	4	2
Dr. R. Josmee Singh	3	3

6.4.7 Feedback of stakeholders (students, parents, industries, employers, farmers etc.)

At the end of the each semester and before the end term exam, a comprehensive feedback for each course is taken from students. The feedback includes competency of the teacher in the subject, updating the current status of the subject by the teacher, timely covering of syllabi, student teacher interactions, creating interest among the students about the course, attitude towards weak students, punctuality of the teacher,etcfor the last five years.
(Representative documents are provided in Appendix-CPGSAS-C)

6.4.8 Students intake and attrition in the program for last five years

Year wise information for the last five academic years (2016-17 to 2020-21) for Ph.D(**Agricultural Economics**)program is given in table below:

Academic year	Intake Capacity	Number of admitted student	Attrition (%)	Passed Out
2016-17	2+1*	3	_	2
2017-18	1+1*	1	_	2
2018-19	1+1*	1	_	-
2019-20	1+1*	2	_	5
2020-21	2+1*	3	_	-

*** To be filled by ICAR candidate**

6.4.9 ICT Application in Curricula Delivery

All the class rooms, seminar and conference rooms are well equipped with LCD projectors. As per the needs of the course, power point presentation is given before the students for better explanation. Online and faculty made audio/videos are also presented to the students.

Table: A brief summary of existing facility in the College Library for Ph.D. students

Sl. No.	Facility exist	Status
1	Availability of books (Nos.)	5433
2	Access to print copy of Indian Journals (Nos.) and Periodicals	20

4	Access to Indian on-line journals	2 titles
5	Consortia	2794 e-journals through CeRA consortium
6	MSc. And PhD Theses	356 MSc; 37 PhD
7	Research Reports and Technical Bulletins	475
8	CDs	85
9	Magazines	8
10	Newspapers (national and local)	8
11	Statistical Database	1
12	Analytical Software	1

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate (Applicable when SSR is submitted for Programme) I, the Dean **Dr. Wricha Tyagi**. hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

Student Feedback Form

Please limit to 1 feedback for each course taken.

* Required

1. Academic year *

Mark only one oval.

- 1
- 2
- 3
- 4

2. Semester *

Mark only one oval.

- I
- II
- III
- IV
- V
- VI
- VII
- VIII

3. Degree *

Mark only one oval.

- ◯ PhD
- ◯ MSc
- ◯ BSc

4. Discipline *

_____

5. School *

Mark only one oval.

- ◯ SCI
- ◯ SCP
- ◯ SNRM
- ◯ SSS

6. Name of the teacher *

_____

7. Course number *

_____

8. Teaching skills *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Competence in the subject matter	☐	☐	☐	☐	☐
Communication skills	☐	☐	☐	☐	☐
Utilization of teaching aids (multimedia, charts and illustations, etc.	☐	☐	☐	☐	☐
Ability to create and uphold interest in the course among students	☐	☐	☐	☐	☐
Responsiveness to students' questions and problems	☐	☐	☐	☐	☐
Ability to ensure timely covering of syllabi	☐	☐	☐	☐	☐
Teacher remaining updated with current status	☐	☐	☐	☐	☐
Skills in linking the course with other relevant course (s)	☐	☐	☐	☐	☐

9. Student-teacher interaction *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Extent of availability of teacher for post-class consultation, if any	☐	☐	☐	☐	☐
Degree of demonstrated interest for holding interactive class sessions	☐	☐	☐	☐	☐
Timeliness in students' evaluation	☐	☐	☐	☐	☐
Attitude/ Response towards weak students	☐	☐	☐	☐	☐

10. Personality of teacher *

Mark only one oval per row.

	Outstanding	Excellent	Good	Average	Poor
Punctuality/Regularity	⬭	⬭	⬭	⬭	⬭
Sincerity and Commitment	⬭	⬭	⬭	⬭	⬭
Fairness in grading/evaluation	⬭	⬭	⬭	⬭	⬭
Helping attitude	⬭	⬭	⬭	⬭	⬭
Integrity of teaching profession	⬭	⬭	⬭	⬭	⬭
Patience	⬭	⬭	⬭	⬭	⬭
Behavior	⬭	⬭	⬭	⬭	⬭
Interpersonal relationship	⬭	⬭	⬭	⬭	⬭

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Google Forms

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signature
1	[illegible]	2	[illegible]	[illegible]	[illegible]
2	FARZANA NIYAZ	7	17/09/21	11:05	[illegible]
3	MALLIKHARJUNA KEERTHAN	7	17/09/21	11:17 am	[illegible]
4	TINKUNIYANG	7	17/09/21	11:28 am	[illegible]
5	[illegible]	2	[illegible]	[illegible]	[illegible]
6	[illegible]	7	[illegible]	[illegible]	[illegible]
7	[illegible]	6	[illegible]	[illegible]	[illegible]
8	V. PREETI KUMARI	7	[illegible]	[illegible]	[illegible]
9	[illegible]	7	[illegible]	[illegible]	[illegible]
10	[illegible]	11	[illegible]	[illegible]	[illegible]
11	[illegible]	7	[illegible]	[illegible]	[illegible]
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13	[illegible]	7	[illegible]		
14	[illegible]	15	[illegible]	[illegible]	[illegible]
15	M. Shanmukh Raju	6	[illegible]	[illegible]	[illegible]
16	Yeluguri Eshwaraiah	9	[illegible]	[illegible]	[illegible]
17	[illegible]	6	[illegible]	[illegible]	[illegible]
18	Anil Kumar	6	[illegible]	[illegible]	[illegible]
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21	[illegible]	6	[illegible]	[illegible]	[illegible]
22	[illegible]	7	[illegible]	[illegible]	[illegible]
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Sl. No	Name	No. of feedback forms submitted	Date	Time	Signatures
29	Payal Prasad	4	13/4/21	11:05	
30	A. Geetha Reddy	8	11/4/21	11:06	
31	Shravan.H	4	17/4/21	12:04	
32	Sikha Haritha	6	15/4/21	11:47	
33	M. Sachin	6	11/4/21	11:08	
34	E. Naveen	6	13/4/21	11:54	
35	Dr. Manoranjan	4	11/4/21	11:03	
36	Nilesh Sharma	3	11/4/21	11:38	
37	Mouli	7	14/4/21	11:03	
38	Vinay Prakash	7	12/4/21	11:19	
39	Hanumanth. P	4	11/4/21	12:06	
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42	Abhishek Prakash	9	11/4/21	12:55	
43	Abhay Verma	7	17/4/21	12:16	
44	RATNAKAR CHALLAM	7	17/4/21	11:55	
45	Rahul Verma	9	12/4/21	12:19	
46	Bimal Kumar Sahu	7	13/4/21	11:45	
47	Kailash Patel	7	13/4/21	12:13	
48	MANICKAM V	7	19/4/21	12:11	
49	Shashidhar MP	4	11/4/21	12:13	
50	D. Sainath Reddy	7	17-4-21	12:24	
51	Jayram Bhan	3	12-4-21	12:10	

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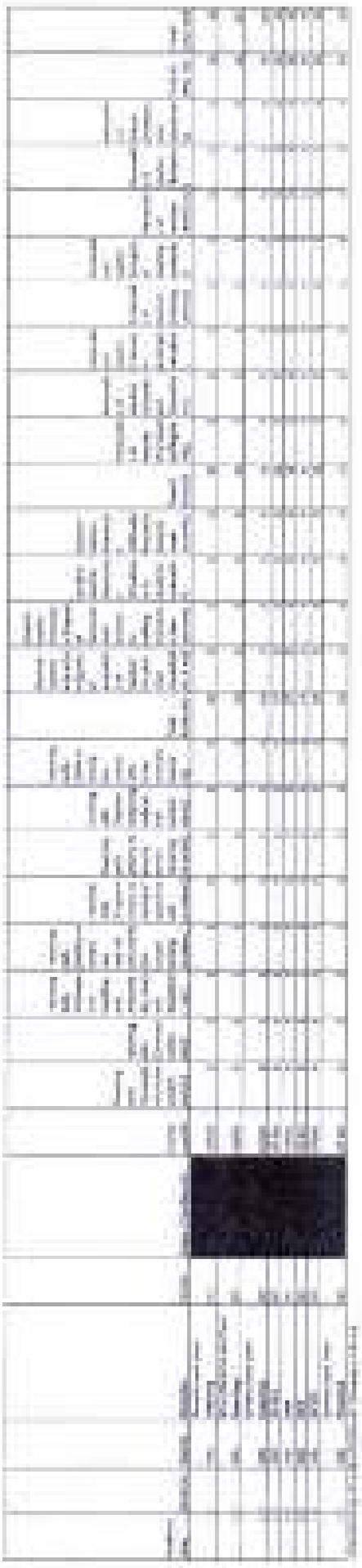
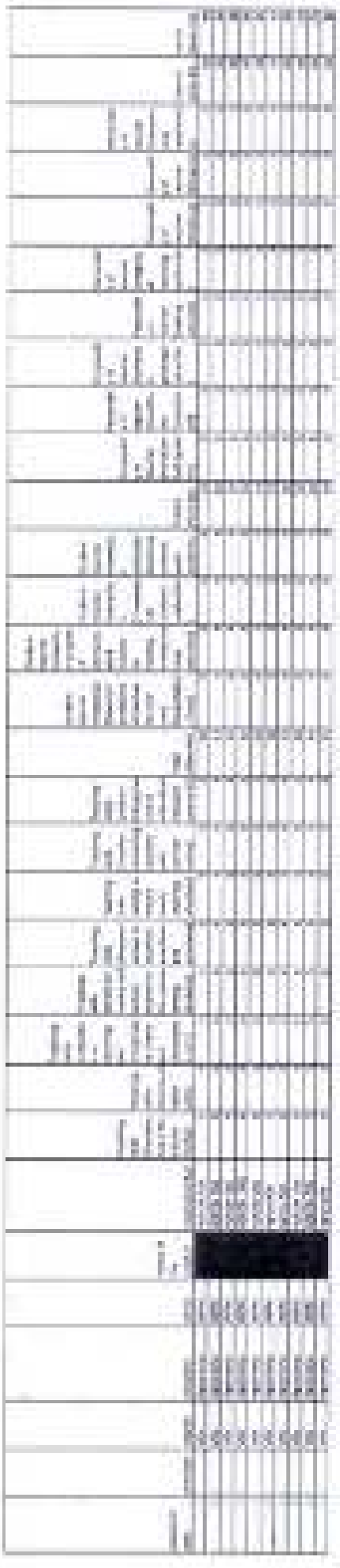
4 × 3 = 12
7 × 6 = 54

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signatures
47	Vanitha yuvaraj	5	17/9/21	12:45	
48	Kavya Sai Gupta	4	17/9/21	12:47	
49	Kavya	7	17/9/21	4:47	
50	Jayashree Ayer	7	17/9/21	12:56	
51	Dhanyashree Vasanth Kumar	2	17/9/21	13:45	
52	Bala Tarri	6	17-09-21	12:04	
53	Sanjana Pattanayak	6	17-09-21	13:55	
54	[illegible]	7	17-09-21	12:59	
55	Kavya K Jayashree	4	17-09-21	12:28	
56	Sahithya Sahu	6	17-09-21	12:11	
57	[illegible]	3	17-09-21	12:52	
58	[illegible]	7	17/9/21	12:49	
59	[illegible]	3	17/9/21	11:30	
60	[illegible]	8	17/9/21	1:00pm	
61	[illegible]	8	17/9/21	1:15pm	

4 x 4 = 16
5 x 5 = 25 — 125
5 x 4 = 20 — 120
3 x 3 = 9 — 105 — 345

(491)





SELF STUDY REPORT
for degree accreditation
Ph.D.
(Genetics And Plant Breeding)

College of Post Graduate Studies in Agricultural Sciences
Central Agricultural University (Imphal)
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	Particulars
1.	Sections 6.4
2.	Sections 6.4.2 to 6.4.3
3.	Section 6.4.4 to Section 6.4.6
4.	Section 6.4.7 to 6.4.8
5.	Section 6.4.9 to Section 6.4.12

6.4. **Self-Study Report for Ph.D. (Genetics and Plant Breeding) Programme**

6.4.1. Brief History of the Degree Programme

The North Eastern India is experiencing rapid population growth which has crossed 45 million mark. In order to attain economic, food and nutritional security, it is imperative to impart quality agricultural education and have sustained agricultural development in the states of northeastern region. This region is constrained by lack of adequate infrastructure, low productivity, inadequate marketing and lack of knowledge on modern farm technologies. With this genesis in background, the Central Agricultural University, Imphal established the College of Post Graduate Studies in Agricultural Sciences (**CPGSAS**) at Umiam, Meghalaya on 21st December, 2006.

MISSION of CPGSAS is to achieve excellence in teaching, research and extension education in the field of agriculture.

MANDATES of CPGS are:

1) to impart postgraduate education in different branches of Agriculture,
2) to further the advancement of learning and prosecution of research in Agriculture, and
3) to undertake such others activities as it may deem fit, from time to time, to uplift the socioeconomical status of farmers in the North Eastern Region.

Objectives of CPGS are:

1) To produce globally competitive postgraduates in the field of agriculture
2) To develop robust agricultural technologies to help Indian farming systems, particularly in the northeastern region of India to be sustainable and profitable, and
3) To transform agriculture and allied activities into profitable enterprises and thereby create food and nutritional security for people of northeastern region of India.
4) The postgraduates of CPGS who are educated and trained in recent advances in agriculture and allied sciences, are expected to bring about a quantum change in the agricultural research and development systems in their respective states and also contribute towards strengthening the National Agricultural Research System.

The PhD degree program in Genetics and Plant Breedingcurrently running at CPGSAS is a 3 years full-time program following the ICAR course curriculum and has been offered at School of Crop Improvement since 2013.

In the last five years (2016-17 upto 2020-21) a total number of five Ph.D. students have passed out. The research work has led to several publications. The details of which are given below:

A. Full length RESEARCH PAPERS

Singh R, … Rai M…Singh NK (2016) From QTL to variety-harnessing the benefits of QTLs for drought, flood and salt tolerance in mega rice varieties of India through a multi-institutional network. *Plant Science* 242: 278-287
Tyagi W, Rai M (2017) Root transcriptomes of two acidic soil adapted Indica rice genotypes suggest diverse and complex mechanism of low phosphorus tolerance. *Protoplasma* 254:725–736

Yumnam JS, Rai M,Tyagi W(2017) *In silico* characterisation of novel rice transcripts expressed only in phosphorus deficient conditions suggests role of multiple abiotic stress. *Acta BiologicaHungarica*68:398–411.

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Sanjenbam M, Sen D, Tyagi W and Chand R (2018). Phenotypic diversity analysis and screening for northern corn leaf blight resistance in Maize (Zea mays L.) landraces grown in North Eastern Hill Region of India. *Indian J. Plant Genet. Resour.* 31(3): 286-294.
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Bhutia KL, Nongbri EL, Sharma TO, Rai M, Tyagi W (2020). A 1.84-Mb region on rice chromosome 2 carrying SPL4 , SPL5 and MLO8 genes is associated with higher yield under phosphorus-deficient acidic soil. *Journal of Applied Genetics*. DOI: 10.1007/s13353-020-00601-4
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B. In National/International seminars (Students' participation)

[1] Bezil M, Boobana P, Tyagi W and Rai M (2020) Identification of contrasting genotypes of linseed for response to P deficiency and Al toxicity under acidic upland soils and hydroponic conditions. Plant Genetics and Genomics conference organized by SRM University, Chennai. January 23-24, 2020.

[2] Lap B, Tyagi W and Rai M (2019) Genetics of purple colour in chakhaopoireiton, an economically important landrace of Manipur. 5th International conference on plant genetics and genomics-"Germplasm to Genome Engineering"

[3] Chandrakanthi Sand Tyagi W (2019) Screening and characterization of putative mutant population in rapeseed-mustard (Brassica) genotypes for low moisture stress tolerance. 3rd international conference global initiatives in agricultural and applied sciences for eco friendly environment (GIASE-2019).

[4] Rai M, Tyagi W, Lap B, Debnath A, Sumpi H, Najiar MRJ, Saio Y and Sinha A (2019) Understanding and deploying rice blast resistance in north eastern hill region of India. Indian Plant Science Congress 2019. p-65. 23rd -25th January, 2019, SRM IST, Chennai.

[5] Shanmugan A, Lap B, Tyagi, W and Rai M (2019). Genetic analysis of elite breeding lines for allelic status of agronomically important genes and combining ability. Indian Plant Science Congress 2019. p-65. 23rd -25th January, 2019, SRM IST, Chennai.

[6] Mariyappan SB and Sen D (2019). Selection for hard endosperm, tryptophan content and yield contributing traits in $F_{3:4}$ QPM families. Indian Plant Science Congress 2019. p-35. 23rd -25th January, 2019, SRM IST, Chennai.

[7] I. Gopinath, Rai A, Rai M and Tyagi W (2019). Evaluation of advanced breeding lines of

lowland rice for grain quality traits. National seminar on strengthening of seed systems in the North Eastern and unreached regions- problems, prospects and policies. Indian Society of Seed Science and Technology. p23. 5th to 7th February, 2019, Imphal, Manipur.

[8] Sumpi H, Debnath A, Tyagi W and Rai M (2018) Generation and characterization of diverse natural and bi-parental populations:a key resource for mapping leaf and neck blast resistance in rice. In proceedings of International Symposium on Biodiversity and Biobanking, Biodiverse 2018 (ABSTRACT CODE: PP-FAB014; URID-12180001/12150008; Theme: Food and Agro-biodiversity). (pp 124) held at IIT, Guwahati from 27-29th Jan, 2018.

[9] Bhutia KL, Sharma OT, Rai M and Tyagi W (2018)Utilization of two tolerant rice genotypes to understand the mechanisms involved in imparting tolerance to phosphorus deficiency under acidic soil conditions. International symposium on biodiversity and biobanking "biodiverse 2018" (pp 128-129) held at IIT, Guwahati from 27-29th Jan, 2018.

[10] Vashum S, Kumar N and Sen D (2018) Characterization of full sib maize (Zea mays L.) families developed from landraces of North East Hill Region (NEHR) of India for *Turcicum*blight resistance. In proceedings of International Symposium on Biodiversity and Biobanking, Biodiverse 2018 (ABSTRACT CODE- PP-FAB006; Theme: Food and Agro-biodiversity) pp-123, 27th-29th January, 2018 IIT Guwahati.

[11] Kumar N, Momin B and Sen D (2018) Phenotypic screening at seedling stage for Aluminium toxicity and water logging tolerance in early generation full-sib maize (Zea mays L.) families. In proceedings of International Symposium on Biodiversity and Biobanking, Biodiverse 2018 (ABSTRACT Code: PP-FAB005; Theme: Food and Agro-biodiversity) pp-122-123, 27th-29th January, 2018 IIT Guwahati.

[12] Debnath A, Rai M and Tyagi W (2018). Evaluation of rice minicore and F_2popuation for resistance to leaf and neck blast pathotypes prevelant in NEH region.1st National Genetics Congress on Genetics for sustainable food health and nutrition. P-179. 14th- 16th December, 2018, ICAR-IARI, NewDelhi

[13] Debnath A, Rai M, Tyagi W and Das S (2017) Identification of potential genotype influencing stress tolerance to Fe toxicity and P deficiency under lowland acidic soils condition of North Eastern rice. In proceedings of Third International Conference on Bioresource and Stress Management (pp294) held at Jaipur, Rajasthan from 8-11th Nov, 2017. (Abstract ID: 3ICBSM0341)

[14] Lap B, Pandey A, Kumar A, Aochen C, Tyagi W, Rai M, Das A (2017) Assessment of genetic diversity in Job's tears (*Coixlacyma*-Jobi L.) germplasm using morphological and molecular markers. In the proceedings of "XIII Agriculture Science Congress-2017: Climate Smart Agriculture" held at UAS, Bangalore from 21-24 February, 2017 (Abstract ID: B424; Theme II: Adaptation to climate change).

[15] Debnath A, Sen D, Tyagi W, Rai M (2016) Genetic analysis of yield contributing traits in lowland rice genotypes in acidic soil and hydroponics condition. In the proceeding of international conference on "emerging trends in science, technology, agriculture and management-2016" held at College of Engineering and Post-harvest technology, CAU (Imphal), Raniphool, Sikkim, from 21-23 April, 2016 (ISBN 978-93-84124-70-0; pp7).

[16] Dutta SS, Pale G, Poholong J, Aochen C, Pandey A, Tyagi W, Rai M (2016) Marker-trait association for low light intensity tolerance in rice genotypes from Eastern India. Students' symposium on "genomics-based next generation crop improvement approaches" held at IARI, New Delhi (11-12 November, 2016). Recipient of the best poster award

Name of the student	Year of passing	Thesis Title	Advisor's Name
Mr. Shiva Kumar K	2017	Marker assisted selection of transgressive segregants for high yield under acidic soil conditions	Mayank Rai
Mr. Sapam Rajesh Kumar Singh	2017	Evaluation of lentil (*Lens culinaris* ssp. *CulinarisMedikus*) germplasm under low-input acidic soil conditions of North East India	V. K. Khanna
Mr. Ashim Debnath	2018	Genetic analysis of leaf and neck blast resistance in rice	Mayank Rai
Mr. Naveen Kumar	2019	Divergence and combining ability studies in a set of inbreds developed from maize landraces of North Eastern Hill (NEH)	Devyani Sen
Mr. TalomDabi	2019	Crossability embryo rescue and genetic diversity studies in *Oryza*	V. K. Khanna

6.4.2. Faculty Strength

S.No.	SanctionedFaculty	Faculty in place#	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	3	Nil	1
2.	AssociateProfessor*	1	1	2
3.	AssistantProfessor	3	Nil	3

* Associate professors (#3) promoted to Professor.

For School of Crop Improvement ie., Genetics & Pant Breeding and Plant Molecular Biology & Biotechnology. Additionally, Scientists from ICAR are recognized as faculty by the academic council and as per MOU.

6.4.3.Technical and Supporting staff

Sl. No.	Name of post sanctioned	No. of post sanctioned	Filled position
1	Livestock/Farm Assistant	1	1
2	Clerk-cum-Typist/LDC/UDC	1	-
3	Field-cum-Lab. Assistant	2	1
4	MTS	4	2
Grand total		**8**	**6**

For School of Crop Improvement ie., Genetics & Pant Breeding and Plant Molecular Biology & Biotechnology.

6.4.4. Classrooms and Laboratories: 5 Classrooms, 1 Seminar and 1 conference room attached with LCD Projector are available.
Following laboratories and facilities are available

1.Molecular Biology and Biotechnology Lab
2.Cytogenetics and Molecular Marker Lab
3.Media Preparation Room
4.Tissue Culture and Genetic Transformation Lab
5.Green house facilities

The list of **equipments and facilities** available in the various laboratories are listed below

Sl.No.	Name of equipment
1	Mega Gel High Throughput Electrophoresis System
2	DNA Extraction System with centrifuge
3	Binocular (Pathological) (Qty1)
4	Refrigerators (Qty 4)
5	Mastercycler (Qty 5)
6	Gel Documentation System
7	Horizontal Gel electrophoresis with power supply (Qty 5)
8	pH meters, Bench top
9	1 KVA online UPS with 2 hr. backup. Make: Orion
10	Table top Centrifuge machine (Qty 5)
11	Refrigerators (Qty 4)
12	Deep Freezer, upto-20°C (Qty 4)
13	Biosafety hood
14	UV – Transilluminator
15	Top pan electronic balance
16	Growth Chamber with controlled environment light and temperature
17	Spinnix-Vortex Shake
18	Microwave Oven
19	Hot plate cum Magnetic Stirrer
20	pH meters, Bench top
21	Hot Air Ovens (Qty 4)
22	Vertical Autoclave
23	Seed Germinator
24	Refrigerator ready dessicators
25	Mini Bead Beater with 96 well Micro plate and stainless steel beads
26	Tensiometer
27	CTD Infrared Gun
28	Auto Desicator Cabinets
29	Rocker Vacuum Pump
30	Weighing balances
31	Liquid nitrogen cans
32	Realtime PCR machine
33	Laminar hoods

34	Vertical gel electrophoresis system
35	Phase contrast microscope
36	Students' microscopes

6.4.5 Conduct of Practical and Hands-on-Training

The practicals in Ph.D. program (**Ph.D. (Genetics and Plant Breeding**) are conducted as per the ICAR course curriculum. Practical and hands-on training are conducted as per the list included in the syllabi and records for all the courses are maintained and evaluated by the respective course incharges by giving marks weightages.

6.4.6 Supervision of students in Ph.D. programs

The allotment of students is Ph.D. is as per CAU regulation with a cap of maximum six students for Professor, five students for Associate Professor and four students for Assistant Professor are being allotted in the school. Apart from the above mentioned, School of Crop Improvement has two faculty from ICAR-RC for NEH, Umiam with specialization in genetics and plant breeding recognized for teaching and guidance of the students. The allotment of students is by lottery and in constitution of advisory committee and allotment of research title, the interest of the student is always kept in mind.

Name of Faculty	Number of students guided	Number of students being guided
Dr. Mayank Rai	3	4
Dr. K. Noren Singh	0	4
Dr. Dr. Devyani Sen	1	2

6.4.7 Feedback of stakeholders (students, parents, industries, employers, farmers etc.)

At the end of the each semester and before the end term exam, a comprehensive feedback for each course is taken from students. The feedback includes competency of the teacher in the subject, updating the current status of the subject by the teacher, timely covering of syllabi, student teacher interactions, creating interest among the students about the course, attitude towards weak students, punctuality of the teacher,etcfor the last five years.
(Representative documents are provided in Appendix-CPGSAS-C)

6.4.8 Students intake and attrition in the program for last five years

Year wise information for the last five academic years (2016-17 to 2020-21) for PhD.(**Ag.) in Genetics and Plant breeding** program is given in table below:

Academic year	Intake Capacity	Number of admitted student	Attrition (%)	Passed Out
2016-17	2+1*	**3**	**2**	**1**
2017-18	2+1*	**3**	**2**	**_-**
2018-19	2+1*	**3**	**-**	**2**
2019-20	2+1*	**3**	**-_**	**2**
2020-21	2+1	**2**	**-**	**-**

*** To be filled by ICAR candidate**

6.4.9 ICT Application in Curricula Delivery

All the class rooms, seminar and conference rooms are well equipped with LCD projectors. As per the needs of the course, power point presentation is given before the students for better explanation. Online and faculty made audio/videos are also presented to the students.

Table: A brief summary of existing facility in the College Library for Ph.D. students

Sl. No.	Facility exist	Status
1	Availability of books (Nos.)	5433
2	Access to print copy of Indian Journals (Nos.) and Periodicals	20
4	Access to Indian on-line journals	2 titles
5	Consortia	2794 e-journals through CeRA consortium
6	MSc. And PhD Theses	356 MSc;37 PhD
7	Research Reports and Technical Bulletins	475
8	CDs	85
9	Magazines	8
10	Newspapers (national and local)	8
11	Statistical Database	1
12	Analytical Software	1

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate (Applicable when SSR is submitted for Programme) I, the Dean **Dr. Wricha Tyagi**. hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

Student Feedback Form

Please limit to 1 feedback for each course taken.

* Required

1. Academic year *

Mark only one oval.

- 1
- 2
- 3
- 4

2. Semester *

Mark only one oval.

- I
- II
- III
- IV
- V
- VI
- VII
- VIII

3. Degree *

Mark only one oval.

- ◯ PhD
- ◯ MSc
- ◯ BSc

4. Discipline *

_____

5. School *

Mark only one oval.

- ◯ SCI
- ◯ SCP
- ◯ SNRM
- ◯ SSS

6. Name of the teacher *

_____

7. Course number *

_____

8. Teaching skills *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Competence in the subject matter	☐	☐	☐	☐	☐
Communication skills	☐	☐	☐	☐	☐
Utilization of teaching aids (multimedia, charts and illustations, etc.	☐	☐	☐	☐	☐
Ability to create and uphold interest in the course among students	☐	☐	☐	☐	☐
Responsiveness to students' questions and problems	☐	☐	☐	☐	☐
Ability to ensure timely covering of syllabi	☐	☐	☐	☐	☐
Teacher remaining updated with current status	☐	☐	☐	☐	☐
Skills in linking the course with other relevant course (s)	☐	☐	☐	☐	☐

9. Student-teacher interaction *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Extent of availability of teacher for post-class consultation, if any	☐	☐	☐	☐	☐
Degree of demonstrated interest for holding interactive class sessions	☐	☐	☐	☐	☐
Timeliness in students' evaluation	☐	☐	☐	☐	☐
Attitude/ Response towards weak students	☐	☐	☐	☐	☐

10. Personality of teacher *

Mark only one oval per row.

	Outstanding	Excellent	Good	Average	Poor
Punctuality/Regularity	◯	◯	◯	◯	◯
Sincerity and Commitment	◯	◯	◯	◯	◯
Fairness in grading/evaluation	◯	◯	◯	◯	◯
Helping attitude	◯	◯	◯	◯	◯
Integrity of teaching profession	◯	◯	◯	◯	◯
Patience	◯	◯	◯	◯	◯
Behavior	◯	◯	◯	◯	◯
Interpersonal relationship	◯	◯	◯	◯	◯

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Google Forms

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signature
1	[illegible]	2	[illegible]	[illegible]	[illegible]
2	FARZANA NIYAZ	7	17/5/21	11:05	[illegible]
3	MALLIKHARJUNA KEERTHAN	7	17/5/21	11:17 am	[illegible]
4	TINKUNIYANG	7	17/5/21	11:27 am	[illegible]
5	[illegible]	2	[illegible]	[illegible]	[illegible]
6	[illegible]	7	[illegible]	[illegible]	[illegible]
7	[illegible]	6	[illegible]	[illegible]	[illegible]
8	V. PREETI KUMARI	7	[illegible]	[illegible]	[illegible]
9	[illegible]	7	[illegible]	[illegible]	[illegible]
10	[illegible]	11	[illegible]	[illegible]	[illegible]
11	[illegible]	7	[illegible]	[illegible]	[illegible]
12	[illegible]	6	[illegible]	[illegible]	[illegible]
13	[illegible]	7	[illegible]	[illegible]	[illegible]
14	[illegible]	15	[illegible]	[illegible]	[illegible]
15	M. Shanmukh Raju	6	[illegible]	[illegible]	[illegible]
16	Yeluguri Eshwaraiah	9	[illegible]	[illegible]	[illegible]
17	[illegible]	6	[illegible]	[illegible]	[illegible]
18	[illegible]	6	[illegible]	[illegible]	[illegible]
19	[illegible]	5	[illegible]	[illegible]	[illegible]
20	[illegible]	5	[illegible]	[illegible]	[illegible]
21	[illegible]	6	[illegible]	[illegible]	[illegible]
22	[illegible]	7	[illegible]	[illegible]	[illegible]
23	[illegible]	1	[illegible]	[illegible]	[illegible]

[illegible]

Sl. No	Name	No. of feedback forms submitted	Date	Time	Signatures
29	Payal Prasad	4	13/4/21	11:05	
30	A. Geetha Reddy	8	11/4/21	11:06	
31	Shravan.H	4	13/4/21	12:04	
32	Sikha Hanitha	6	13/4/21	11:47	
33	M. Sachin	6	11/4/21	11:08	
34	E. Naveen	6	13/4/21	11:54	
35	Dr. Manoranjan	4	13/4/21	11:03	
36	Nitish Sharma	3	11/4/21	12:38	
37	Monika	7	11/4/21	11:23	
38	Vinay Prakash	7	13/4/21	11:19	
39	Hanumanth - P	5	11/4/21	12:05	
40	Sunil Vithalrao Kashyap	4	11/4/21	12:33	
41	Vallamuila prasad	7	11/4/21	12:12	
42	Abhishek Prakash	9	11/4/21	12:55	
43	Abhinay Varma	7	13/4/21	12:16	
44	ESWARAO CHALLAM	7	11/4/2021	11:55	
45	Rekha Verma	9	11/4/21	12:09	
46	Bimal Kumar Sahoo	7	13/4/21	11:45	
47	Kailash Patel	7	13/4/21	12:13	
48	MANICKAM V	7	13/4/21	12:33	
49	Shashidhar MP	4	11/4/21	12:13	
50	D. Sainath Reddy	7	13-4-21	12:24	
51	Jayaram Bhanu	3	13-4-21	12:30	

42 × 6 = 252

8 × 2 = 16

3 × 3 = 9

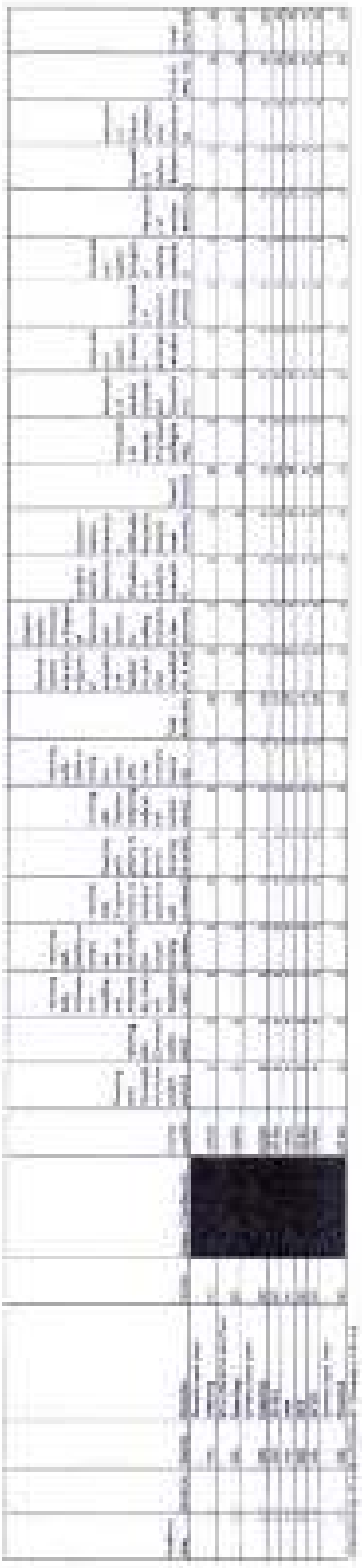
2 × 1 = 2

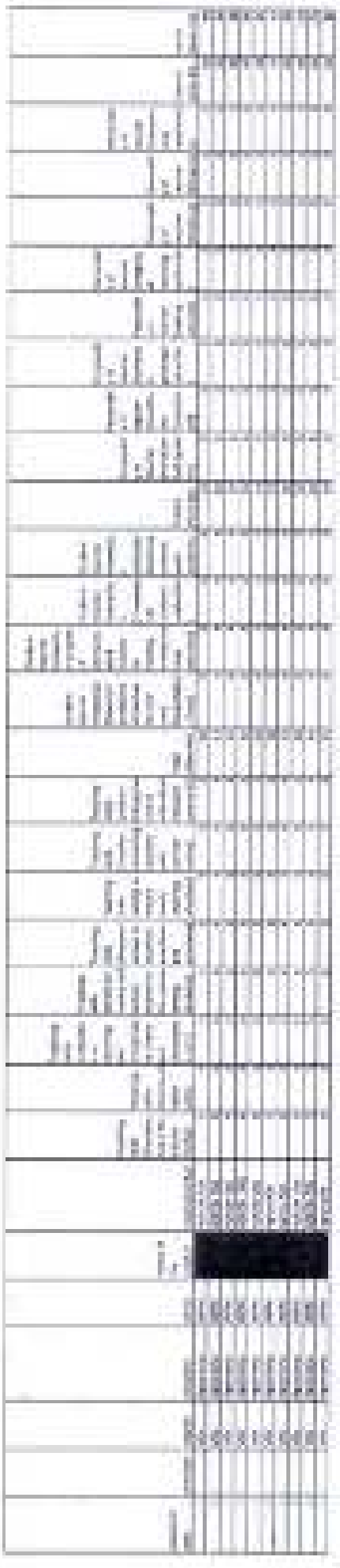
279

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signatures
47	Vanitha yuvaraj	5	17/9/21	12:45	
48	Kavya Sai Gupta	4	17/9/21	12:47	
49	Kavya	7	17/9/21	12:47	
50	Jayashree Ayer	7	17/9/21	12:48	
51	Dhanyashree Vasanth Kumar	2	17/9/21	12:55	
52	Bala Tarri	6	17-09-21	12:04	
53	Sanjana Pattanayak	6	17-09-21	12:55	
54	[illegible]	7	17-09-21	12:57	
55	Kavya K Jayashree	4	17-09-21	12:58	
56	Sahithya Sahu	6	17-09-21	12:59	
57	[illegible]	3	17-09-21	12:59	
58	[illegible]	7	17/9/21	12:59	
59	Bhavya Kumar [illegible]	3	17/9/21	12:59	
60	R. Sanjukta Rout	8	17/9/21	1:00pm	
61	R. Anchala Mishra	8	17/9/21	1:01pm	
			-		

4 x 4 = 16
5 x 5 = 25 125
6 x 3 = 18 143 = 343

(491)





SELF STUDY REPORT
for degree accreditation
Ph.D. (Plant Pathology)

College of Post Graduate Studies in Agricultural Sciences
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	Particulars
1.	Sections 6.4
2.	Sections 6.4.2 to 6.4.3
3.	Section 6.4.4 to Section 6.4.6
4.	Section 6.4.7 to 6.4.8
5.	Section 6.4.9 to Section 6.4.12

6.4. **Self-Study Report for Ph.D. (Plant Pathology)**

6.4.1. Brief History of the Degree Programme

The North Eastern India is experiencing rapid population growth which has crossed 45 million mark. In order to attain economic, food and nutritional security, it is imperative to impart quality agricultural education and have sustained agricultural development in the states of northeastern region. This region is constrained by lack of adequate infrastructure, low productivity, inadequate marketing and lack of knowledge on modern farm technologies. With this genesis in background, the Central Agricultural University, Imphal established the College of Post Graduate Studies in Agricultural Sciences (**CPGSAS**) at Umiam, Meghalaya on 21st December, 2006.

MISSION of CPGSAS is to achieve excellence in teaching, research and extension education in the field of agriculture.

MANDATES of CPGS are:

1) to impart postgraduate education in different branches of Agriculture,
2) to further the advancement of learning and prosecution of research in Agriculture, and
3) to undertake such others activities as it may deem fit, from time to time, to uplift the socioeconomical status of farmers in the North Eastern Region.

Objectives of CPGS are:

1) To produce globally competitive postgraduates in the field of agriculture
2) To develop robust agricultural technologies to help Indian farming systems, particularly in the northeastern region of India to be sustainable and profitable, and
3) To transform agriculture and allied activities into profitable enterprises and thereby create food and nutritional security for people of northeastern region of India.
4) The postgraduates of CPGS who are educated and trained in recent advances in agriculture and allied sciences, are expected to bring about a quantum change in the agricultural research and development systems in their respective states and also contribute towards strengthening the National Agricultural Research System.

The Ph.D. degree program in Plant Pathology currently running at CPGSAS is a 3 years full-time doctoral program following the ICAR course curriculum and has been offered at School of Crop Protection since 2013.

In the last five years (2016-17 upto 2020-21) a total number of 2 Ph.D. students have passed out. The research work has led to several publications. The details of which are given below:

FULL length RESEARCH PAPERS

Moakala Jamir, T. Rajesh, R.K. Tombisana Devi, D. Majumder, Kennedy Ningthoujam and L. Hemochandra (2018). Cultural and Morphological Variability in Phomopsisvexans (Sacc. & Syd.) Harter Causing Fruit Rot of Brinjal
Sangma E.M.1 , Devi R.K.T. 1 , Rajesh T. 1 , Patra S.2 , Hemochandra L.1 , Rymbai H. Evaluation of Plant Products and Antagonistic Microbes against PestalotiopsisVersicolor, A Pathogen of Gauva. International Journal of Trends in Biosciences
Moakala Jamir, T. Rajesh, RK Tombisana, L. Hemochandra. Cultural and Morphological Variability in Phomopsisvexans (Sacc. &Syd.) Harter Causing Fruit Rot of Brinjal. *International Journal of Current Microbiology and Applied Sciences*

B.K. Namriboi1 , R.K. Tombisana Devi , Dipali Majumder1 , N.S. Azad Thakur1 and L. Hemochandra. Efficacy of Plant Extracts and Chemicals against Ascochytaphaseolorum, Causal Agents of Ascochyta Blight of Vignaanguiculata (L.) Walp. *International Journal of Current Microbiology and Applied Sciences,*
RojeetThangjam, Veronica Kadam, L Hemochandra, V Ramalaxmi, D Gokul Krishna and Likhit Patnaik. Studies on the diversity and abundance of butterfly in and around CUTM, Paralakhemundi campus, Odisha (India). Journal of Entomology and Zoology Studies,
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Das T., Hajong M., Majumder D., Devi R.K. Tombisana and Rajesh T. (2016) Climate chang e impacts on plant diseases. SAARC J. Agri ., 14(2) : 200-209
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Boruah S and Dutta Pranab (2021) Fungus mediated biogenic synthesis and characterization of chitosan nanoparticles and its combine effect with *Trichoderma asperellum* against *Fusarium oxysporum*, *Sclerotium rolfsii*, and *Rhizoctoniasolani*. Indian Phytopathology.

List of Ph.D. (Plant Pathology) theses submitted (2016-2021)

Name of the student	Year of passing	Thesis Title
Ms. Janshame Tariang	2019	Management of *Penicillium* rot of khasi mandarin (*Citrus reticulata* Blanco) by using native *Bacillus subtilis* isolates
Ms. Markidahun Biam	2019	Bio-efficacy of *Trichoderma* formulation against damping-off caused by *Pythium* spp. and *Rhizoctonia solani* Kuhn. on tomato (*Solanum lycopersicum*)

6.4.2. Faculty Strength

S.No.	Sanctioned Faculty	Faculty in place#	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	3	Nil	1
2.	Associate Professor	3	Nil	2
3.	Assistant Professor	2	1	3

* Assistant professor (#1) promoted to Assoc. Professor and three associate professors promoted to Professor level.

For School of Crop Protection ie., Plant Pathology and Entomology. Additionally, Scientists from ICAR are recognized as faculty by the academic council and as per MOU.

6.4.3.Technical and Supporting staff

Sl. No.	Name of post sanctioned	No. of post sanctioned	Filled position
1	Livestock/Farm Assistant	1	0
2	Clerk-cum-Typist/LDC/UDC	1	-
3	Field-cum-Lab. Assistant	2	1
4	MTS	4	2
Grand total		**9**	**5**

For School of Crop Protection ie., Plant Pathology and Entomology.

6.4.4. Classrooms and Laboratories: 5 Classrooms, 1 Seminar and 1 conference room attached with LCD Projector are available. Following labs are available

1. Plant Pathology Lab
2. Molecular Lab
3. Biopesticide production unit
4. Mushroom production unit
5. Entomology Lab
6. Nematology Lab
7. Insectry
8. Polyhouse

List of equipments and facilities available are as mentioned

S.N.	Particulars of Asset	Quantity
1	Auto Loop Sterilizer, Make: Himedia,	1 no.
2	Microwave Oven, Samsung-32 ltrs. Model No. CE117ALF	1 no.
3	Conductivity Meter Cyberscan 510, Eutech make	1 no.
4	Colony Counter; Cat # 0671	2 nos.
5	Autoclave Portable, Cat # 7407 PAD	2 nos.
6	Vortex General Purpose (Shaker), Tarsons	5 nos.
7	Water Single Distillation Plant, Medica:	2 nos.
8	Microcentrifuge, Spinwin: 'Tarsons' Brand, Model: MC-01	1 no.
9	Pipette Controller, Tarsons Brand , Cat No. 2003	2 nos.
10	Dancing Shaker, Tarsons Brand, Cat No. 3040	2 nos.
11	Fume Hood, NSW Brand, Cat No. 203	1 no.
12	Digital Turbidity Meter: Systronics Brand (Type: 132)	1 no.
13	Heating Mantles, Jindal Brand, Capacity-500 ml, 200 Watt	1 no.
14	Heating Mantles, Jindal Brand, Capacity-1 lt., 300 Watt.	1 no.
15	Heating Mantles, Jindal Brand, Capacity-2 lt., 450 Watt.	1 no.
16	UV-Transilluminator, Brand: UVP Ltd (UK), Model: LMS-20	1 no.
17	Top Pan Weighing Balance, Model: GE7101, Make: Sartorius	2 nos.
18	Laminar Air Flow, ACCO Make, Cat: AC071-02	1 no.
19	Laminar Air Flow, ACCO Make, Cat: AC071-04	1 no.
20	Autoclave Vertical, 7451PAD, Make: Equitron	1 no.
21	Autoclave Vertical, Make: Equitron	1 no.
22	BOD Incubator, Cat#7140-250, Make: Equitron	2 nos.
23	Student Microscope, Labomed, Model: VISION2000	4 nos.
24	Seed Germinator with Stabilizer, Remi Make	1 no.
25	Mastercycler Personal (Thermocycler) with accessories	1 no.
26	Centrifuge 5810R with accessories	1 nos.
27	Electronic Balance, Denver Make	2 nos.

28	Hot Air Oven, EquitronMedica Make	1 no.
29	Vortex-Genie ® 2 Vortex (220V)	1 Set
30	Uniline 3 KVA/180V OL UPS Systems, with isolation Transformer Indicative Back Up Time 120 minutes, Minimum VAH 9600	2 nos.
31	Uniline 5 KVA/180V OL UPS Systems, with isolation Transformer Indicative Back Up Time 60 minutes, Minimum VAH 8000	1 nos.
32	Deep Freezer, Brand: Cryo-Scientific, Model: URC-V-380-2	1 no.
33	Shaker Incubator, Electronic Laboratory Incubator Shaker, Model: LIS (Rotek LIS)	3 nos.
34	Bench Top Cooler (0°C), Tarson Make	2 nos.
35	Gel Electrophoresis-101 (Mini and Wide Midid Horizontal) With Power Supply System, Brand: Scieplus (Axygen Make), Model: HU10, HU25 and EV243	1 no.
36	Precision Hot Air Oven, Model: O-OGS -2436A, Brand: OVFU, Model CF549	3 nos.
37	Binocular Microscope Model: LEICA DM 750 + accessories, PC with Core 2 dual Processor, 2 GB RAM, 250 GB HDD, 17 inch TFT Monitor and Colour Photo Quality printer	3 nos.
38	U9260-0001 Premium Upright Freezer U410 with accessories, Model: U410-86	2 nos.
39	Gel Electrophoresis (Mini & Wide midi horizontal) with power supply system, Axygen Make	1 no.
40	Uniline 5 KVA/168V OL UPS Systems with 120 minutes Battery Back-Up Time Using SMF Battery	5 nos.
41	Microcentrifuge, Tarsons-1030 Spinwin MC-02, Make-Tarsons	1 no.
42	Microcentrifuge, Tarsons-3020 Spinix, Make-Tarsons	2 nos.
43	Microscope-HB Monocular, Brand-Olympus, Model-HB	8 nos.
44	Tarsons-7011-Rocker Vacuum Pump, Cat No. 7011	2 nos.
45	Hort Air Oven-Mechanical Convection, Brand OVFU 250 L, Model: 508	2 nos.
46	Hot Air Oven-O-OGS-1518 (D), Brand-OVFU	2 nos.
47	Dancing Shaker, Tarsons-3040, SP 0-60 RPM	2 nos.
48	Student Compound Microscope, MLX-B Binocular (Pathological), Brand: Magnus	6 nos.
49	Weighing Balance Model: TTB31 Wensar	2 nos.
50	Electronic Balance, Model: MAB220, Wensar, Sl. No. 29640	1 no.
51	Line Quantum Sensor	2 nos.
52	Table Top Microcentrifuge	1 no.
53	pH Meter, Microprocessor based, pH measuring range: 0.00 to 14.00	1 no.
54	Water Single Distillation Plant, Barnstead Type, Stainless Steel, 4.5 litres/hr. 3500 W, Model No. #7655, Medica Make	1 no.
55	Compound Light Microscope CH 20i Binocular Microscope, Brand: Olympus, Model CH20i	6 nos.
56	Laboratory Refrigerator, 380 lt. capacity with glass door, frost free, 72.8x23.4x23.4 dimensions with 2 KVA Voltage Stablilizer Model: FKG-400, Make: Celfrost	3 nos.
57	BOD Incubator, Precise electronic digital temperature controller with timer with cooling system, Make: Ikon Instruments, Model: IK120	1 no.
58	Stereo Microscope, Model: EZ4, Make: Leica, Germany, No. 10447197	1 no.
59	UV Transilluminator, Tarsons: Make	1 no.
60	Intel Core i7 Windows 8 Desktop Computer, Make: DELL, Model: Optiplex 9020MT, Sl. No. 6RWJ882	2 nos.
61	Top Pan Weighing Balance, Model: CA3102, Contech Make	5nos
62	Hot Plate Cum Magnetic Stirer, Model: MS-H-280 Pro, Make: Dlab	1 no.
63	pH Meter, Model: LMPH 10, Sl.No. 11672, Cat No. L11541, Make: Wenser	1 no.

6.4.5 Conduct of Practical and Hands-on-Training

The practicals in PG program (**Ph.D. Plant Pathology**) are conducted as per the ICAR course curriculum. Practical and hands-on training are conducted as per the list included in the syllabi and records for all the courses are maintained and evaluated by the respective course incharges by giving marks/weightage.

6.4.6 Supervision of students in PG programs

The allotment of students is PG is as per CAU regulation with a cap of maximum six students for Professor, five students for Associate Professor and four students for Assistant Professor are being allotted in the school. The allotment of students is by lottery and in constitution of advisory committee and allotment of research title, the interest of the student is always kept in mind.

Name of Faculty	Number of students guided	Number of students being guided
Dr. R. K. Tombisana Devi	0	7
Dr. T. Rajesh	1	2
Dr. Pranab Dutta	0	1

6.4.7 Feedback of stakeholders (students, parents, industries, employers, farmers etc.)

At the end of the each semester and before the end term exam, a comprehensive feedback for each course is taken from students. The feedback includes competency of the teacher in the subject, updating the current status of the subject by the teacher, timely covering of syllabi, student teacher interactions, creating interest among the students about the course, attitude towards weak students, punctuality of the teacher,etcfor the last five years.
(Representative documents are provided in Appendix-CPGSAS-C)

6.4.8 Students intake and attrition in the program for last five years

Year wise information for the last five academic years (2016-17 to 2020-21) for Ph.D. **Plant Pathology** program is given in table below:

Academic year	Intake Capacity	Number of admitted student	Attrition (%)	Passed Out
2016-17	2+1*	3	1	-
2017-18	1+1*	2	-	-
2018-19	1+1*	1	-	-
2019-20	1+1*	2	1	**2**
2020-21	2+1*	3	-	**-**

*** To be filled by ICAR candidate**

6.4.9 ICT Application in Curricula Delivery

All the class rooms, seminar and conference rooms are well equipped with LCD projectors. As per the needs of the course, power point presentation is given before the students for better explanation. Online and faculty made audio/videos are also presented to the students.

Table: A brief summary of existing facility in the College Library for Ph.D. students

Sl. No.	Facility exist	Status
1	Availability of books (Nos.)	5433

2	Access to print copy of Indian Journals (Nos.) and Periodicals	20
4	Access to Indian on-line journals	2 titles
5	Consortia	2794 e-journals through CeRA consortium
6	MSc. And PhD Theses	356 MSc; 37 PhD
7	Research Reports and Technical Bulletins	475
8	CDs	85
9	Magazines	8
10	Newspapers (national and local)	8
11	Statistical Database	1
12	Analytical Software	1

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate (Applicable when SSR is submitted for Programme) I, the Dean **Dr. Wricha Tyagi** hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

Student Feedback Form

Please limit to 1 feedback for each course taken.

* Required

1. Academic year *

Mark only one oval.

- 1
- 2
- 3
- 4

2. Semester *

Mark only one oval.

- I
- II
- III
- IV
- V
- VI
- VII
- VIII

3. Degree *

Mark only one oval.

- PhD
- MSc
- BSc

4. Discipline *

5. School *

Mark only one oval.

- SCI
- SCP
- SNRM
- SSS

6. Name of the teacher *

7. Course number *

8. Teaching skills *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Competence in the subject matter	☐	☐	☐	☐	☐
Communication skills	☐	☐	☐	☐	☐
Utilization of teaching aids (multimedia, charts and illustations, etc.	☐	☐	☐	☐	☐
Ability to create and uphold interest in the course among students	☐	☐	☐	☐	☐
Responsiveness to students' questions and problems	☐	☐	☐	☐	☐
Ability to ensure timely covering of syllabi	☐	☐	☐	☐	☐
Teacher remaining updated with current status	☐	☐	☐	☐	☐
Skills in linking the course with other relevant course (s)	☐	☐	☐	☐	☐

9. Student-teacher interaction *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Extent of availability of teacher for post-class consultation, if any	☐	☐	☐	☐	☐
Degree of demonstrated interest for holding interactive class sessions	☐	☐	☐	☐	☐
Timeliness in students' evaluation	☐	☐	☐	☐	☐
Attitude/ Response towards weak students	☐	☐	☐	☐	☐

10. Personality of teacher *

Mark only one oval per row.

	Outstanding	Excellent	Good	Average	Poor
Punctuality/Regularity	⬭	⬭	⬭	⬭	⬭
Sincerity and Commitment	⬭	⬭	⬭	⬭	⬭
Fairness in grading/evaluation	⬭	⬭	⬭	⬭	⬭
Helping attitude	⬭	⬭	⬭	⬭	⬭
Integrity of teaching profession	⬭	⬭	⬭	⬭	⬭
Patience	⬭	⬭	⬭	⬭	⬭
Behavior	⬭	⬭	⬭	⬭	⬭
Interpersonal relationship	⬭	⬭	⬭	⬭	⬭

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Google Forms

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signature
1	[illegible]	2	[illegible]	[illegible]	[illegible]
2	FARZANA NIYAZ	7	17/6/21	11:05	[illegible]
3	MALLIKHARJUNA KRISHNA	7	17/6/21	11:17 am	[illegible]
4	TINKUNIYANG	7	17/6/21	11:28 am	[illegible]
5	[illegible]	2	[illegible]	[illegible]	[illegible]
6	[illegible]	7	[illegible]	[illegible]	[illegible]
7	[illegible]	6	[illegible]	[illegible]	[illegible]
8	V. PREETI KUMARI	7	[illegible]	[illegible]	[illegible]
9	[illegible]	7	[illegible]	[illegible]	[illegible]
10	[illegible]	11	[illegible]	[illegible]	[illegible]
11	[illegible]	7	[illegible]	[illegible]	[illegible]
12	[illegible]	6	[illegible]	[illegible]	[illegible]
13	ATEEFA	7	-		
14	[illegible]	8	[illegible]	[illegible]	[illegible]
15	M Shanmukh Raju	6	[illegible]	[illegible]	[illegible]
16	Yeluguri Eshwaraiah	8	[illegible]	[illegible]	[illegible]
17	[illegible]	6	[illegible]	[illegible]	[illegible]
18	[illegible]	6	[illegible]	[illegible]	[illegible]
19	[illegible]	5	[illegible]	[illegible]	[illegible]
20	[illegible]	5	[illegible]	[illegible]	[illegible]
21	[illegible]	6	[illegible]	[illegible]	[illegible]
22	[illegible]	7	[illegible]	[illegible]	[illegible]
23	[illegible]	1	[illegible]	[illegible]	[illegible]

[illegible]

Sl. No	Name	No. of feedback forms submitted	Date	Time	Signatures
29	Payal Prasad	4	13/4/21	11:05	Payal
30	A. Geetha Reddy	8	11/4/21	11:06	
31	Naveen.H	4	17/4/21	12:34	
32	Sneha Hemitha	6	15/4/21	11:47	S.Hemitha
33	M. Sachin	6	11/4/21	11:48	M. Sachin
34	E. Naveen	6	13/4/21	11:54	
35	Dr. Manoranjan	4	11/4/21	11:55	
36	Nilesh Sharma	3	11/4/21	12:30	
37	Monika	7	11/4/21	12:31	
38	Vinay Kumar	7	12/4/21	12:49	
39	Venkata Prasad - P	5	11/4/21	12:50	
40	[illegible]	4	11/4/21	12:51	
41	Vallamalla prasad	4	11/4/21	12:52	
42	Abhishek Prakash	9	11/4/21	12:55	
43	Abhinay Varma	7	11/4/21	12:56	
44	RAMAN CHALLAM	7	11/4/21	12:58	
45	Rahul Verma	9	11/4/21	12:59	
46	Bimal Kumar Sahu	7	13/4/21	13:00	
47	Kailash Patel	7	13/4/21	13:02	
48	MANICKAM V	7	13/4/21	13:03	
49	Shashidhar MP	4	11/4/21	13:13	
50	D. Sainath Reddy	7	17-4-21	13:14	
51	Jayaram Bhanu	3	13/4/21	13:30	

9 x 2 = 18
7 x 2 = 14
6 x 3 = 18
2 x 9 = 18

9 x 6 = 54

154

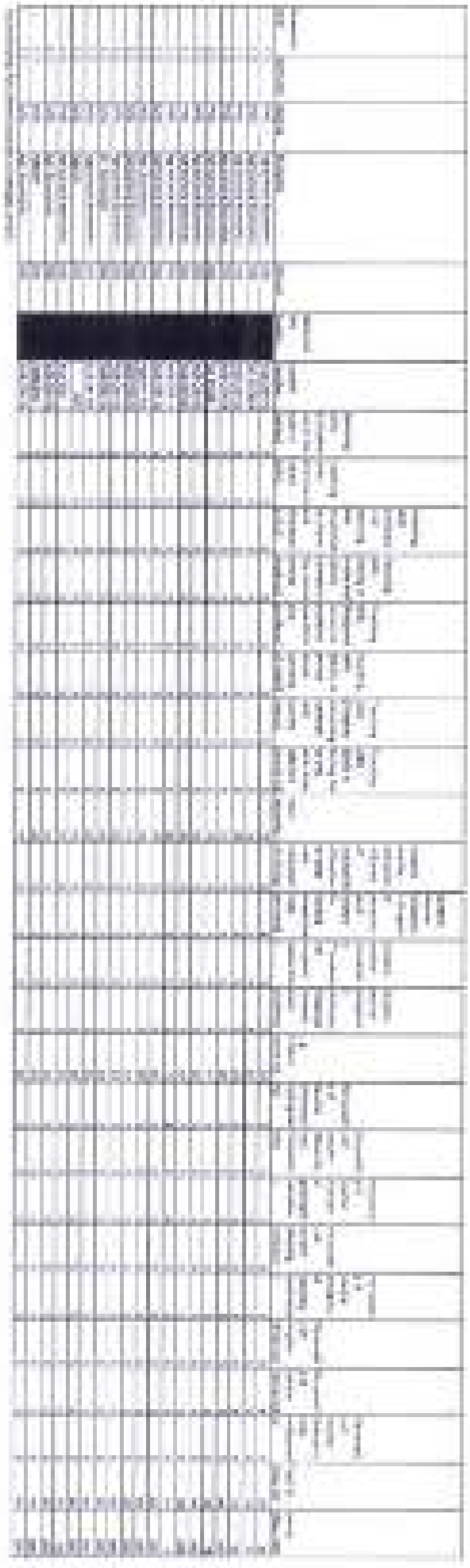
Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signatures
AF	Vanitha yuvaraj	5	12/5/21	12:45	
48	Kavya Sai Gupta	4	12/5/21	12:47	
49	Kavya Vinutha	7	12/5/21	12:47	
50	Jayashreedevi Ayyar	7	12/5/21	12:48	
51	Dhanyashree Vasanth Kumar	2	12/5/21	12:55	
52	Bala Tarai	6	12-05-21	12:04	
53	Sanjana Pattanayak	6	12-5-21	12:55	
54	[illegible]	7	12-05-21	12:57	
55	Kavya K Jayashree	4	12-05-21	12:58	
56	Sahithya Sahu	6	12-05-21	12:58	
57	[illegible]	3	12-05-21	12:59	
58	Tanmay [illegible]	7	12/5/21	12:59	
59	Bhavya Kumar Jain	3	12/5/21	12:59	
60	R. Sanjukta Rout	8	12/5/21	1:00pm	
61	R. Anchala Mishra	8	12/5/21	1:1pm	
			-		

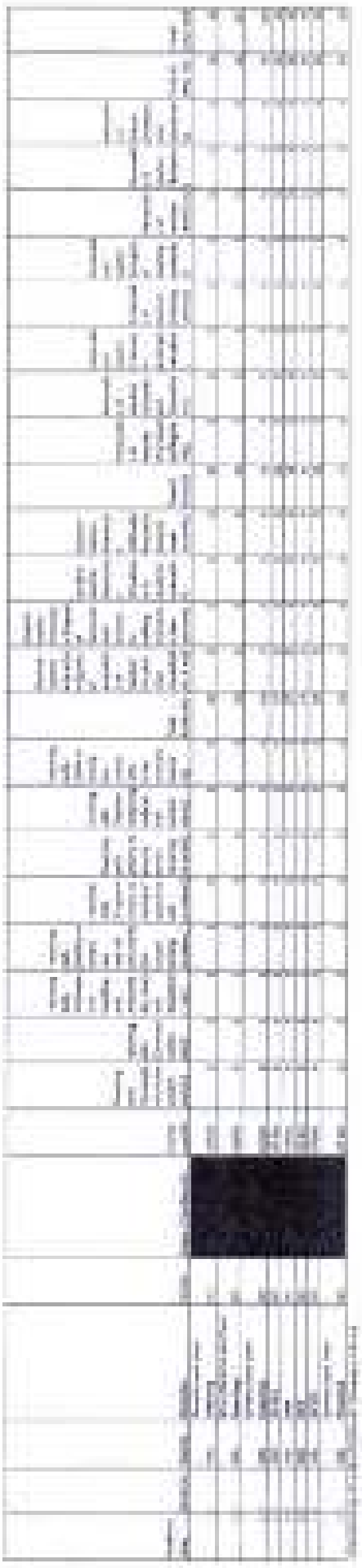
7 × 4 = 28
6 × 3 = 24
3 × 3 = 15

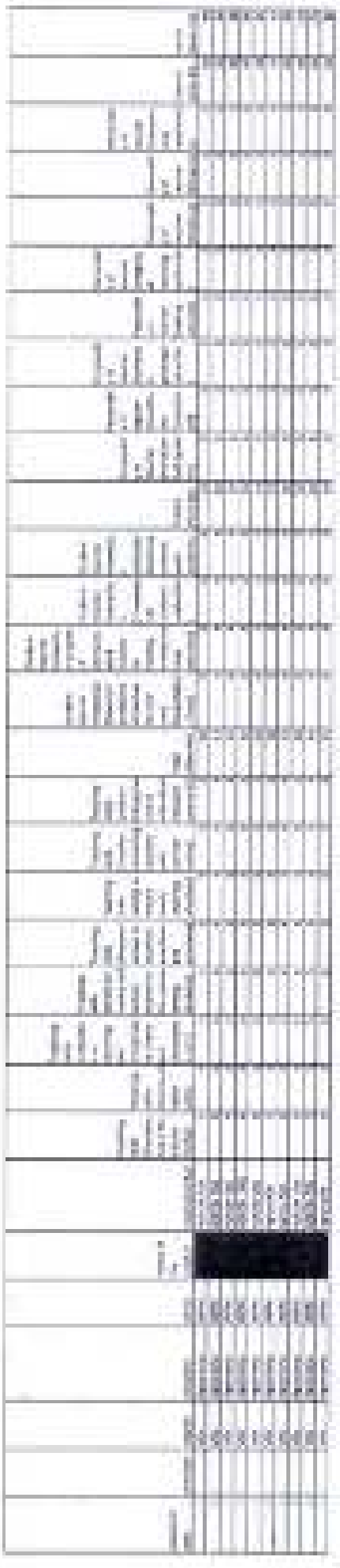
105
127
105 =

342

(411)







SELF STUDY REPORT
for degree accreditation
Ph.D.
(Plant Molecular Biology and Biotechnology)

College of Post Graduate Studies in Agricultural Sciences
Central Agricultural University (Imphal)
Umiam, Umroi Road, Meghalaya - 793 103

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e-mail: dean.cpgsas@cau.ac.in/deancpgs@gmail.com website: www.cpgsas.ac.in

	Particulars
1.	Sections 6.4
2.	Sections 6.4.2 to 6.4.3
3.	Section 6.4.4 to Section 6.4.6
4.	Section 6.4.7 to 6.4.8
5.	Section 6.4.9 to Section 6.4.12

6.4. **Self-Study Report for Ph.D. (Plant Molecular Biology and Biotechnology)Programme**

6.4.1. Brief History of the Degree Programme

The North Eastern India is experiencing rapid population growth which has crossed 45 million mark. In order to attain economic, food and nutritional security, it is imperative to impart quality agricultural education and have sustained agricultural development in the states of northeastern region. This region is constrained by lack of adequate infrastructure, low productivity, inadequate marketing and lack of knowledge on modern farm technologies. With this genesis in background, the Central Agricultural University, Imphal established the College of Post Graduate Studies in Agricultural Sciences (**CPGSAS**) at Umiam, Meghalaya on 21st December, 2006.

MISSION of CPGSAS is to achieve excellence in teaching, research and extension education in the field of agriculture.

MANDATES of CPGS are:

1) to impart postgraduate education in different branches of Agriculture,
2) to further the advancement of learning and prosecution of research in Agriculture, and
3) to undertake such others activities as it may deem fit, from time to time, to uplift the socioeconomical status of farmers in the North Eastern Region.

Objectives of CPGS are:

1) To produce globally competitive postgraduates in the field of agriculture
2) To develop robust agricultural technologies to help Indian farming systems, particularly in the northeastern region of India to be sustainable and profitable, and
3) To transform agriculture and allied activities into profitable enterprises and thereby create food and nutritional security for people of northeastern region of India.
4) The postgraduates of CPGS who are educated and trained in recent advances in agriculture and allied sciences, are expected to bring about a quantum change in the agricultural research and development systems in their respective states and also contribute towards strengthening the National Agricultural Research System.

The Ph.D. degree program in Plant Molecular Biology and Biotechnology currently running at CPGSAS is a 3 years full-time program following the ICAR course curriculum and has been offered at School of Crop Improvement since 2011.

In the last five years (2016-17 upto 2020-21) a total number of six PhD students have passed out. The research work has led to several publications. The details of which are given below:

A. Full length RESEARCH PAPERS

Singh R, … Rai M…Singh NK (2016) From QTL to variety-harnessing the benefits of QTLs for drought, flood and salt tolerance in mega rice varieties of India through a multi-institutional network. *Plant Science* 242: 278-287
Tyagi W, Rai M (2017) Root transcriptomes of two acidic soil adapted Indica rice genotypes suggest diverse and complex mechanism of low phosphorus tolerance. *Protoplasma* 254:725–736
Yumnam JS, Rai M, Tyagi W(2017) *In silico* characterisation of novel rice transcripts expressed only in phosphorus deficient conditions suggests role of multiple abiotic stress. *Acta BiologicaHungarica*68:398–411.

Yumnam JS, Rai M, Tyagi W (2017) Allele mining across two low-P tolerant genes PSTOL1 and PupK20-2 reveals novel haplotypes in rice genotypes adapted to acidic soils. *Plant Genetic Resources: Characterization and Utilization*; 15:221-229

Das S, Tyagi W, Rai M and Yumnam JS (2017) Understanding Fe^{2+} and P deficiency tolerance in rice for enhancing productivity under acidic soils. *Biotechnology and Genetic engineering reviews*33: 97-117.

Dutta SS, Tyagi W, Pale G, Pohlong J, C. Aochen, Pandey A, Pattanayak A, Rai M (2018) Marker–trait association for low-light intensity tolerance in rice genotypes from Eastern India. *Molecular Genetics and Genomics*.293:1493-1506.

Colney L, Tyagi W, Rai M (2018) Morphological and molecular characterization of two distinct chilli cultivars from North Eastern India with special reference to pungency related genes. *Scientia Horticulturae.* 240: 1–10.

Bhutia KL, Nongbri EL, Gympad E, Rai M, Tyagi W (2020) In silico characterization, and expression analysis of rice golden 2-like (OsGLK) members in response to low phosphorous. *Molecular Biology Reports*, 47: 2529.

Tyagi W, Yumnam JS, Sen D, Rai M (2020) Root transcriptome reveals efficient cell signaling and energy conservation key to aluminum toxicity tolerance in acidic soil adapted rice genotype. *Scientific Reports*. 10:1-14.

Bhandari A, Jayaswal S, Yadav N et al., (2019) Genomics-assisted backcross breeding for infusing climate resilience in high-yielding green revolution varieties of rice. *Indian J. of Genet.* 79 (1)Suppl: 160-170.

Devi YS, Pandey A, Kumar A, Ansari MA, Tyagi W, Rai M (2018) Genetic divergence, path coefficient and cluster analysis of ricebean (*Vigna umbellate*) genotypes in the mid-altitudes of Meghalaya. *Indian journal of Agricultural Sciences*. 88(7): 1054-62.

Tiwari KK, Singh A, Pattnaik S et al. (2015). Identification of a diverse mini-core panel of Indian rice germplasm based on genotyping using microsatellite markers. *Plant Breeding* doi:10.1111/pbr.12252.

Chulet H, Noren SK, Tyagi W, Meetei NT, Khanna VK, Pattanayak A, Datt S, Choudhury PR and Kumar M (2014) Assessment of genetic diversity in pea (*Pisum sativum* L.) using morphological and molecular markers. *Indian J. Genet.*74(2): 205-212.

Rani W, SK Noren, Rai M, Tyagi W, VK Khanna. (2019) Physico-chemical characteristics and nutritional quality analysis of aromatic rice (Oryza sativa L.) genotypes. *Indian J. Genet* 79 (4), 641-650

KL Naveenkumar, D Sen, S Vashum, M Sanjenbam. (2020) Genetic characterization and divergence studies of maize (Zea mays L.) lines developed from landraces indigenous to North Eastern Hill Region (NEHR) of India. *Plant Genetic Resources* 18 (4), 231-242

Singh AK, Meetei NT, Singh BK, Mondal N. (2017) High incidence of citrus tristeza virus in mandarin (*Citrus reticulata*) in North-East states of India. *Virus disease*. 28(4): 401–407.

Meetei NT, Singh AK, Singh BK, Mondal N. (2019) Disease incidence and molecular indexing of viruses infecting King chilli (*Capsicum chinense* Jacq) in North East India. *Indian Phytopathology* 73(1):1-8

Debnath, A., M. Rai and W. Tyagi (2021) Identification of Swarna x O. nivara (RPBio4918) advanced backcross lines performing well under acidic soil conditions. J. Environ. Biol., 42, 240-246.

B Loitongbam, M Rai, W Tyagi, R Nongmaithem, L Renthlei. (2020) Assessment of genetic variability and pollen viability in rice (*Oryza sativa* L.) germplasm for low temperature tolerance at reproductive stage. *Indian Journal of Plant Genetic Resources* 32 (3), 340-346.

A Bhandari, P Jayaswal, N Yadav, R Singh, Y Singh, B Singh, N Singh, …M Rai… NK Singh (2018). Genomics-assisted backcross breeding for infusing climate resilience in high-yielding green revolution varieties of rice. *Indian J. Genet.*

YS Devi, A Pandey, A Kumar, MA Ansari, W Tyagi, M Rai, A Das (2018). Genetic divergence, path coefficient and cluster analysis of ricebean genotypes, in the Mid-altitudes of Meghalaya. *Indian Journal of Agricultural Sciences* 88 (7)
Sanjenbam M, Sen D, Tyagi W and Chand R (2018). Phenotypic diversity analysis and screening for northern corn leaf blight resistance in Maize (Zea mays L.) landraces grown in North Eastern Hill Region of India. *Indian J. Plant Genet. Resour.* 31(3): 286-294.
Singh CK, Singh D, Sharma S, Chandra S, Taunk J, Konjengbam NS, Singh D, Kumar A, Upadhyaya KC and Pal M (2021) Morpho-physiological characterization coupled with expressional accord of exclusion mechanism in wild and cultivated lentil under aluminium stress. *Protoplasma*. Doi.org/10.1007/s00709-021-01619-z.
Syiemlieh P, Noren SK, Khanna VK, Rai M, Meetei NT and Pattanayak A (2019). Assessment of genetic diversity of upland rice (*Oryza sativa* L.) genotypes from North Eastern Hill Region of India. *Vegetos.* doi.org/10.1007/s42535-019-00037-0.
Bhutia KL, Nongbri EL, Sharma TO, Rai M, Tyagi W (2020). A 1.84-Mb region on rice chromosome 2 carrying SPL4 , SPL5 and MLO8 genes is associated with higher yield under phosphorus-deficient acidic soil. *Journal of Applied Genetics*. DOI: 10.1007/s13353-020-00601-4
Mallikarjun PK, Noren SK, Singh NB, Mohan Lal, Singh AK, Singh NJ and Sharma G (2021). Evaluation of Genotype × environment interaction for essential oil yield and its related traits for identification of suitable cultivars in citronella (*Cymbopogonwinterianus*Jowitt.) in Meghalaya, India. The Bioscan (Accepted) (ISSN:0973-7049)

B. In National/International seminars (Students' participation)

[1] Bezil M, Boobana P, Tyagi W and Rai M (2020) Identification of contrasting genotypes of linseed for response to P deficiency and Al toxicity under acidic upland soils and hydroponic conditions. Plant Genetics and Genomics conference organized by SRM University, Chennai. January 23-24, 2020.

[2] Lap B, Tyagi W and Rai M (2019) Genetics of purple colour in chakhaopoireiton, an economically important landrace of Manipur. 5th International conference on plant genetics and genomics- "Germplasm to Genome Engineering"

[3] Chandrakanthi Sand Tyagi W (2019) Screening and characterization of putative mutant population in rapeseed-mustard (Brassica) genotypes for low moisture stress tolerance. 3rd international conference global initiatives in agricultural and applied sciences for eco friendly environment (GIASE-2019).

[4] Rai M, Tyagi W, Lap B, Debnath A, Sumpi H, Najiar MRJ, Saio Y and Sinha A (2019) Understanding and deploying rice blast resistance in north eastern hill region of India. Indian Plant Science Congress 2019. p-65. 23rd -25th January, 2019, SRM IST, Chennai.

[5] Shanmugan A, Lap B, Tyagi, W and Rai M (2019). Genetic analysis of elite breeding lines for allelic status of agronomically important genes and combining ability. Indian Plant Science Congress 2019. p-65. 23rd -25th January, 2019, SRM IST, Chennai.

[6] Mariyappan SB and Sen D (2019). Selection for hard endosperm, tryptophan content and yield contributing traits in $F_{3:4}$ QPM families. Indian Plant Science Congress 2019. p-35. 23rd - 25th January, 2019, SRM IST, Chennai.

[7] I. Gopinath, Rai A, Rai M and Tyagi W (2019). Evaluation of advanced breeding lines of lowland rice for grain quality traits. National seminar on strengthening of seed systems in the

North Eastern and unreached regions- problems, prospects and policies. Indian Society of Seed Science and Technology. p23. 5th to 7th February, 2019, Imphal, Manipur.

[8] Sumpi H, Debnath A, Tyagi W and Rai M (2018) Generation and characterization of diverse natural and bi-parental populations: a key resource for mapping leaf and neck blast resistance in rice. In proceedings of International Symposium on Biodiversity and Biobanking, Biodiverse 2018 (ABSTRACT CODE: PP-FAB014; URID-12180001/12150008; Theme: Food and Agro-biodiversity). (pp 124) held at IIT, Guwahati from 27-29th Jan, 2018.

[9] Bhutia KL, Sharma OT, Rai M and Tyagi W (2018)Utilization of two tolerant rice genotypes to understand the mechanisms involved in imparting tolerance to phosphorus deficiency under acidic soil conditions. International symposium on biodiversity and biobanking "biodiverse 2018" (pp 128-129) held at IIT, Guwahati from 27-29th Jan, 2018.

[10] Vashum S, Kumar N and Sen D (2018) Characterization of full sib maize (Zea mays L.) families developed from landraces of North East Hill Region (NEHR) of India for *Turcicum*blight resistance. In proceedings of International Symposium on Biodiversity and Biobanking, Biodiverse 2018 (ABSTRACT CODE- PP-FAB006; Theme: Food and Agro-biodiversity) pp-123, 27th-29th January, 2018 IIT Guwahati.

[11] Kumar N, Momin B and Sen D (2018) Phenotypic screening at seedling stage for Aluminium toxicity and water logging tolerance in early generation full-sib maize (Zea mays L.) families. In proceedings of International Symposium on Biodiversity and Biobanking, Biodiverse 2018 (ABSTRACT Code: PP-FAB005; Theme: Food and Agro-biodiversity) pp-122-123, 27th-29th January, 2018 IIT Guwahati.

[12] Debnath A, Rai M and Tyagi W (2018). Evaluation of rice minicore and F_2popuation for resistance to leaf and neck blast pathotypes prevelant in NEH region.1st National Genetics Congress on Genetics for sustainable food health and nutrition. P-179. 14th- 16th December, 2018, ICAR-IARI, NewDelhi

[13] Debnath A, Rai M, Tyagi W and Das S (2017) Identification of potential genotype influencing stress tolerance to Fe toxicity and P deficiency under lowland acidic soils condition of North Eastern rice. In proceedings of Third International Conference on Bioresource and Stress Management (pp 294) held at Jaipur, Rajasthan from 8-11th Nov, 2017. (Abstract ID: 3ICBSM0341)

[14] Lap B, Pandey A, Kumar A, Aochen C, Tyagi W, Rai M, Das A (2017) Assessment of genetic diversity in Job's tears (*Coixlacyma*-Jobi L.) germplasm using morphological and molecular markers. In the proceedings of "XIII Agriculture Science Congress-2017: Climate Smart Agriculture" held at UAS, Bangalore from 21-24 February, 2017 (Abstract ID: B424; Theme II: Adaptation to climate change).

[15] Debnath A, Sen D, Tyagi W, Rai M (2016) Genetic analysis of yield contributing traits in lowland rice genotypes in acidic soil and hydroponics condition. In the proceeding of international conference on "emerging trends in science, technology, agriculture and management-2016" held at College of Engineering and Post-harvest technology, CAU (Imphal), Raniphool, Sikkim, from 21-23 April, 2016 (ISBN 978-93-84124-70-0; pp7).

[16] Dutta SS, Pale G, Poholong J, Aochen C, Pandey A, Tyagi W, Rai M (2016) Marker-trait association for low light intensity tolerance in rice genotypes from Eastern India. Students' symposium on "genomics-based next generation crop improvement approaches" held at IARI, New Delhi (11-12 November, 2016). Recipient of the best poster award

Name of the student	Year of passing	Thesis Title	Advisor's Name
Ms. Julia S Yumnam	2015	Identification of novel alleles for acidity tolerance in rice	Wricha Tyagi
Mr. Sudip Das	2016	Understanding molecular biology of acidity tolerance in rice: A case study of phosphorus deficiency and iron toxicity tolerance in Shahsarang	Wricha Tyagi
Mr. Suvendhu Sekhar Dutta	2017	Molecular mapping for low light intensity tolerance in rice	Mayank Rai
Mr. Satish Kumar Verma	2017	Isolation and characterization of tissue-specific promoter from pigeon pea	Wricha Tyagi
Mr. Karma Landup Bhutia	2019	Role of *Oryza sativa* G2-like transcription factor family in low P tolerance in acidic soil adapted rice genotypes	Wricha Tyagi
Mr. Billy Cherian	2019	Crossability, embryo rescue and genetic diversity studies using molecular markers in cultivated soybean and its wild relatives	V. K. Khanna

6.4.2. Faculty Strength

S.No.	SanctionedFaculty	Faculty in place#	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	3	Nil	1
2.	Associate Professor*	1	1	2
3.	Assistant Professor	3	Nil	3

* Associate professors (#3) promoted to Professor.

For School of Crop Improvement ie., Genetics & Pant Breeding and Plant Molecular Biology & Biotechnology. Additionally, Scientists from ICAR are recognized as faculty by the academic council and as per MOU.

6.4.3.Technical and Supporting staff

Sl. No.	Name of post sanctioned	No. of post sanctioned	Filled position
1	Livestock/Farm Assistant	1	1
2	Clerk-cum-Typist/LDC/UDC	1	-
3	Field-cum-Lab. Assistant	2	1
4	MTS	4	2
Grand total		**8**	**6**

For School of Crop Improvement ie., Genetics & Pant Breeding and Plant Molecular Biology & Biotechnology.

6.4.4. Classrooms and Laboratories: 5 Classrooms, 1 Seminar and 1 conference room attached with LCD Projector are available.
Following laboratories and facilities are available

1.Molecular Biology and Biotechnology Lab
2.Cytogenetics and Molecular Marker Lab
3.Media Preparation Room
4.Tissue Culture and Genetic Transformation Lab
5.Green house facilities

The list of **equipmentsand facilities** available in the various laboratories are listed below

Sl.No.	Name of equipment
1	Mega Gel High Throughput Electrophoresis System
2	DNA Extraction System with centrifuge
3	Binocular (Pathological) (Qty1)
4	Refrigerators (Qty 4)
5	Mastercycler (Qty 5)
6	Gel Documentation System
7	Horizontal Gel electrophoresis with power supply (Qty 5)
8	pH meters, Bench top
9	1 KVA online UPS with 2 hr. backup. Make: Orion
10	Table top Centrifuge machine (Qty 5)
11	Refrigerators (Qty 4)
12	Deep Freezer, upto-20°C (Qty 4)
13	Biosafety hood
14	UV – Transilluminator
15	Top pan electronic balance
16	Growth Chamber with controlled environment light and temperature
17	Spinnix-Vortex Shake
18	Microwave Oven
19	Hot plate cum Magnetic Stirrer
20	pH meters, Bench top
21	Hot Air Ovens (Qty 4)
22	Vertical Autoclave
23	Seed Germinator
24	Refrigerator ready dessicators
25	Mini Bead Beater with 96 well Micro plate and stainless steel beads
26	Tensiometer
27	CTD Infrared Gun
28	Auto Desicator Cabinets
29	Rocker Vacuum Pump
30	Weighing balances
31	Liquid nitrogen cans
32	Realtime PCR machine
33	Laminar hoods
34	Vertical gel electrophoresis system

35	Phase contrast microscope
36	Students' microscopes

6.4.5 Conduct of Practical and Hands-on-Training

The practicals in Ph.D. program (**Ph.D. (Plant Molecular Biology and Biotechnology**) are conducted as per the ICAR course curriculum. Practical and hands-on training are conducted as per the list included in the syllabi and records for all the courses are maintained and evaluated by the respective course incharges by giving marks/weightage.

6.4.6 Supervision of students in Ph.D. programs

The allotment of students is Ph.D. is as per CAU regulation with a cap of maximum six students for Professor, five students for Associate Professor and four students for Assistant Professor are being allotted in the school. Apart from the above mentioned, School of Crop Improvement has two faculty from ICAR-RC for NEH, Umiam with specialization in genetics and plant breeding recognized for teaching and guidance of the students. The allotment of students is by lottery and in constitution of advisory committee and allotment of research title, the interest of the student is always kept in mind.

Name of Faculty	Number of students guided	Number of students being guided
Dr. Wricha Tyagi	4	2
Dr. Mayank Rai	1	0
Dr. Hossain Ali Mondal	0	1
Dr. Ng. Tombisana Meetei	0	1

6.4.7 Feedback of stakeholders (students, parents, industries, employers, farmers etc.)

At the end of the each semester and before the end term exam, a comprehensive feedback for each course is taken from students. The feedback includes competency of the teacher in the subject, updating the current status of the subject by the teacher, timely covering of syllabi, student teacher interactions, creating interest among the students about the course, attitude towards weak students, punctuality of the teacher,etcfor the last five years.
(Representative documents are provided in Appendix-CPGSAS-C)

6.4.8 Students intake and attrition in the program for last five years

Year wise information for the last five academic years (2016-17 to 2020-21) for Ph.D.**(Ag.) in Plant Molecular Biology and Biotechnology** program is given in table below:

Academic year	Intake Capacity	Number of admitted student	Attrition (%)	Passed Out
2016-17	2+1*	3	2	2
2017-18	1+1*	2	2	1
2018-19	1+1*	1	1	1

2019-20	2+1*	2	1	**1**
2020-21	2+1	3	1	**-**

*** To be filled by ICAR candidate**

6.4.9 ICT Application in Curricula Delivery

All the class rooms, seminar and conference rooms are well equipped with LCD projectors. As per the needs of the course, power point presentation is given before the students for better explanation. Online and faculty made audio/videos are also presented to the students.

Table: A brief summary of existing facility in the College Library for Ph.D. students

Sl. No.	Facility exist	Status
1	Availability of books (Nos.)	5433
2	Access to print copy of Indian Journals (Nos.) and Periodicals	20
4	Access to Indian on-line journals	2 titles
5	Consortia	2794 e-journals through CeRA consortium
6	MSc. And PhD Theses	356 MSc; 37 PhD
7	Research Reports and Technical Bulletins	475
8	CDs	85
9	Magazines	8
10	Newspapers (national and local)	8
11	Statistical Database	1
12	Analytical Software	1

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate (Applicable when SSR is submitted for Programme) I, the Dean **Dr. Wricha Tyagi**. hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

Student Feedback Form

Please limit to 1 feedback for each course taken.

* Required

1. Academic year *

Mark only one oval.

- 1
- 2
- 3
- 4

2. Semester *

Mark only one oval.

- I
- II
- III
- IV
- V
- VI
- VII
- VIII

3. Degree *

Mark only one oval.

- PhD
- MSc
- BSc

4. Discipline *

5. School *

Mark only one oval.

- SCI
- SCP
- SNRM
- SSS

6. Name of the teacher *

7. Course number *

8. Teaching skills *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Competence in the subject matter	☐	☐	☐	☐	☐
Communication skills	☐	☐	☐	☐	☐
Utilization of teaching aids (multimedia, charts and illustations, etc.	☐	☐	☐	☐	☐
Ability to create and uphold interest in the course among students	☐	☐	☐	☐	☐
Responsiveness to students' questions and problems	☐	☐	☐	☐	☐
Ability to ensure timely covering of syllabi	☐	☐	☐	☐	☐
Teacher remaining updated with current status	☐	☐	☐	☐	☐
Skills in linking the course with other relevant course (s)	☐	☐	☐	☐	☐

9. Student-teacher interaction *

Check all that apply.

	Outstanding	Excellent	Good	Average	Poor
Extent of availability of teacher for post-class consultation, if any	☐	☐	☐	☐	☐
Degree of demonstrated interest for holding interactive class sessions	☐	☐	☐	☐	☐
Timeliness in students' evaluation	☐	☐	☐	☐	☐
Attitude/ Response towards weak students	☐	☐	☐	☐	☐

10. Personality of teacher *

Mark only one oval per row.

	Outstanding	Excellent	Good	Average	Poor
Punctuality/Regularity	⬭	⬭	⬭	⬭	⬭
Sincerity and Commitment	⬭	⬭	⬭	⬭	⬭
Fairness in grading/evaluation	⬭	⬭	⬭	⬭	⬭
Helping attitude	⬭	⬭	⬭	⬭	⬭
Integrity of teaching profession	⬭	⬭	⬭	⬭	⬭
Patience	⬭	⬭	⬭	⬭	⬭
Behavior	⬭	⬭	⬭	⬭	⬭
Interpersonal relationship	⬭	⬭	⬭	⬭	⬭

This content is neither created nor endorsed by Google.

Google Forms

Sl. No.	Name	No. of feedback forms submitted	Date	Time	Signature
1	[illegible]	2	[illegible]	[illegible]	[illegible]
2	FARZANA AHMAD	7	17/5/21	11:05	[illegible]
3	MALLIKHARJUNA KRISHNA	7	17/5/21	11:17 am	[illegible]
4	TINKUNIYANG	7	17/5/21	11:27 am	[illegible]
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7	[illegible]	6	[illegible]	[illegible]	[illegible]
8	V. PREETI KUMARI	7	[illegible]	[illegible]	[illegible]
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16	Yeluguri Sthanmayi	9	[illegible]	[illegible]	[illegible]
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[illegible]

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30	A. Geetha Reddy	8	11/4/21	11:16	
31	Sravan.M	4	12/4/21	12:24	
32	Sikha Hanitha	6	12/4/21	11:47	
33	M. Sachin	6	11/4/21	11:48	
34	E. Naveen	6	12/4/21	11:54	
35	Dijin Mohanakkan	4	11/4/21	11:11	
36	Nilesh Sharma	3	11/4/21	12:38	
37	Monika	7	11/4/21	11:21	
38	Vinay Adhikari	7	12/4/21	11:19	
39	Hanumanth - P	4	11/4/21	12:19	
40	[illegible]	4	11/4/21	12:31	
41	Vallumuila prasad	4	11/4/21	12:32	
42	Abhishek Prakash	9	11/4/21	12:55	
43	Abhay Verma	7	11/4/21	12:56	
44	ESWARAN CHALLAM	7	11/4/21	12:55	
45	Rahul Verma	9	11/4/21	12:59	
46	Bimal Kumar Sahu	7	12/4/21	12:56	
47	Kailash Patel	7	12/4/21	12:57	
48	MANICKAM V	7	12/4/21	12:57	
49	Shashidhar MP	4	12/4/21	12:58	
50	D. Sainath Reddy	7	12-4-21	12:59	
51	Jayaram Bhat	3	12/4/21	12:01	

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154

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49	Kavya	7	17/9/21	4:47	
50	Jayashree Ayer	7	17/9/21	12:56	
51	Dhanyashree Vasanth Kumar	2	17/9/21	13:45	
52	Balla Tanvi	6	17-09-21	12:04	
53	Sanjana Pattanayak	6	17-09-21	13:55	
54	[illegible]	7	17-09-21	13:59	
55	Kavya K Jayashree	4	17-09-21	14:19	
56	Sahithya Sahu	5	17-09-21	14:31	
57	Chekuri Chinnu	3	17-09-21	12:52	
58	Tanmayi [illegible]	7	17/9/21	12:49	
59	Bhavya Kumar JM	3	17/9/21	11:30	
60	R. Sanjukta Rout	5	17/9/21	11:00	
61	R. Ancheta Mishra	3	17/9/21	1:15	
			-		

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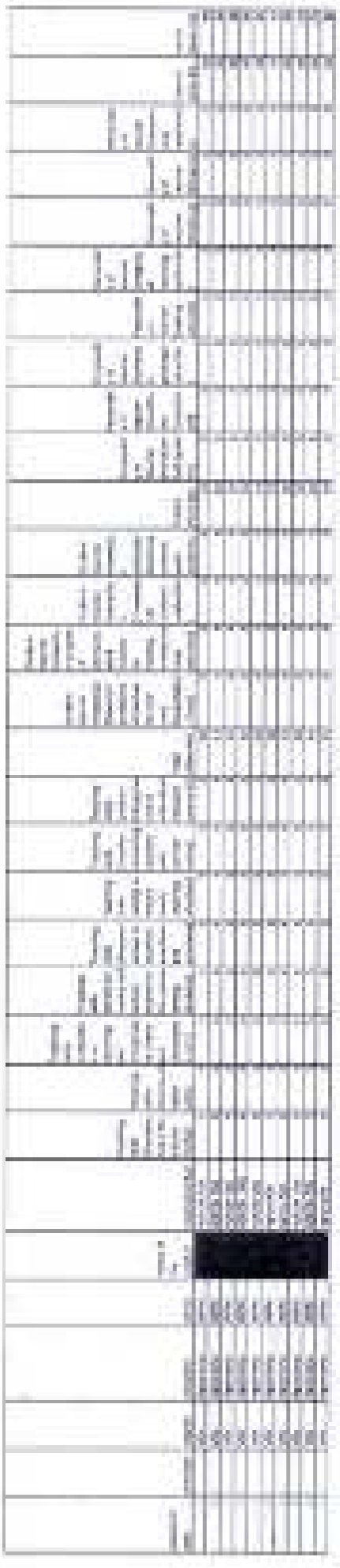

Self Study Report

College of Agriculture, Central Agricultural University
Pasighat, Arunachal Pradesh

Submitted to
National Agricultural Education Accreditation Board
ICAR New Delhi

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6.5. Self Study Report for the College

Genesis of the College

College of Agriculture, Pasighat, Arunachal Pradesh is a constituent college of Central Agricultural University (CAU), Manipur which was established on 26th November, 2013. Its first flagship 4-year degree programme was started with 24 students. The intake capacity has increased from 24 to 34 students at present. As the infrastructure construction and other developmental activities of the college are undergoing at full swing at an allotted site, the degree program of the college is presently operating with the College of Horticulture and Forestry, Pasighat, another constituent college of CAUand the Multi Technology Testing center & Vocational Training Center (MTTC &VTC) under CAU to support agricultural development in the region.The College of Agriculture has 11 departments *viz*., Agronomy, Plant Biochemistry, Plant Biotechnology, Agricultural Economics, Agricultural Engineering, Statistics, Computer Application & IPR, Extension Education, Entomology, Horticulture, Plant Pathology and Soil Science & Agricultural Chemistry to cater the academic and research needs, provide technical support and inputs to farmers to contribute overall agricultural development in the region. The college is also engaged in dissemination of technologies from laboratory to farmer's field. The college presently offers only one undergraduate programme in B.Sc. (Hons.) Agriculture. The curriculum of the degree programme is updated, and implemented as per the ICAR- Deans' Committee recommendation. Inclusion of M.Sc. and Doctoral programmes are under consideration.

The Government of Arunachal Pradesh has transferred 86.2 acres of land to CAU to establish a separate campus for College of Agriculture at Pasighat which is approximately 2km from College of Horticulture and Forestry, Pasighat campus. The land possession activities are completed and farms & infrastructure developmental works have been started with the existing resource available with College of Horticulture and Forestry. The new campus is located near the banks of Siang river, approximately 3km away from Pasighat town towards North-West direction and about 300km from Itanagar, the state capital of Arunachal Pradesh. The campus is situated at 28.0619° N latitude and 95.3260° E longitude at an elevation of 152 m. Once operational, the college will function as a fully independent college under CAU with avenues for introduction of new courses and higher degree programmes.

Mandate

- To impart education in different branches of Agriculture and allied Sciences
- To carry out research for promotion of Agriculture and allied Sciences
- To undertake different extension programmes that help in the transfer of technologies generated to the end-users

Objectives

- To impart education in different branches of agriculture and allied science as it may deem fit
- To further the advancement of learning and conducting of research in agriculture and allied sciences
- To undertake extension education programme in the states under its jurisdiction
- To undertake such other activities, as it may deem fit, from time to time

Goals

- To produce globally competitive graduates and postgraduates in agriculture and allied sciences
- To develop sustainable and profitable farming system for improving productivity, production and profitability in the agriculture and allied sectors
- To educate the extension functionaries for effective dissemination of agro technologies to the farmers, entrepreneurs and agro based industries
- To be an important link in the chain for converting agriculture and allied vocations into profitable enterprises and providing food and nutritional security to the people of NE region, and the world

6.5.1. College Administration

The overall administration of the academic, research, extension and other activities of the college including infrastructure development is monitored by the Dean, College of Horticulture and Forestry who is also looking after the College of Agriculture, CAU, Pasighat. The Academic and Administrative building of College of Agriculture, Pasighat is near completion at the selected site **(Fig. 1)**. The Dean is assisted by various teaching, non-teaching and non-technical members of the institution.

Fig. 1. Academic and Administrative building of College of Agriculture

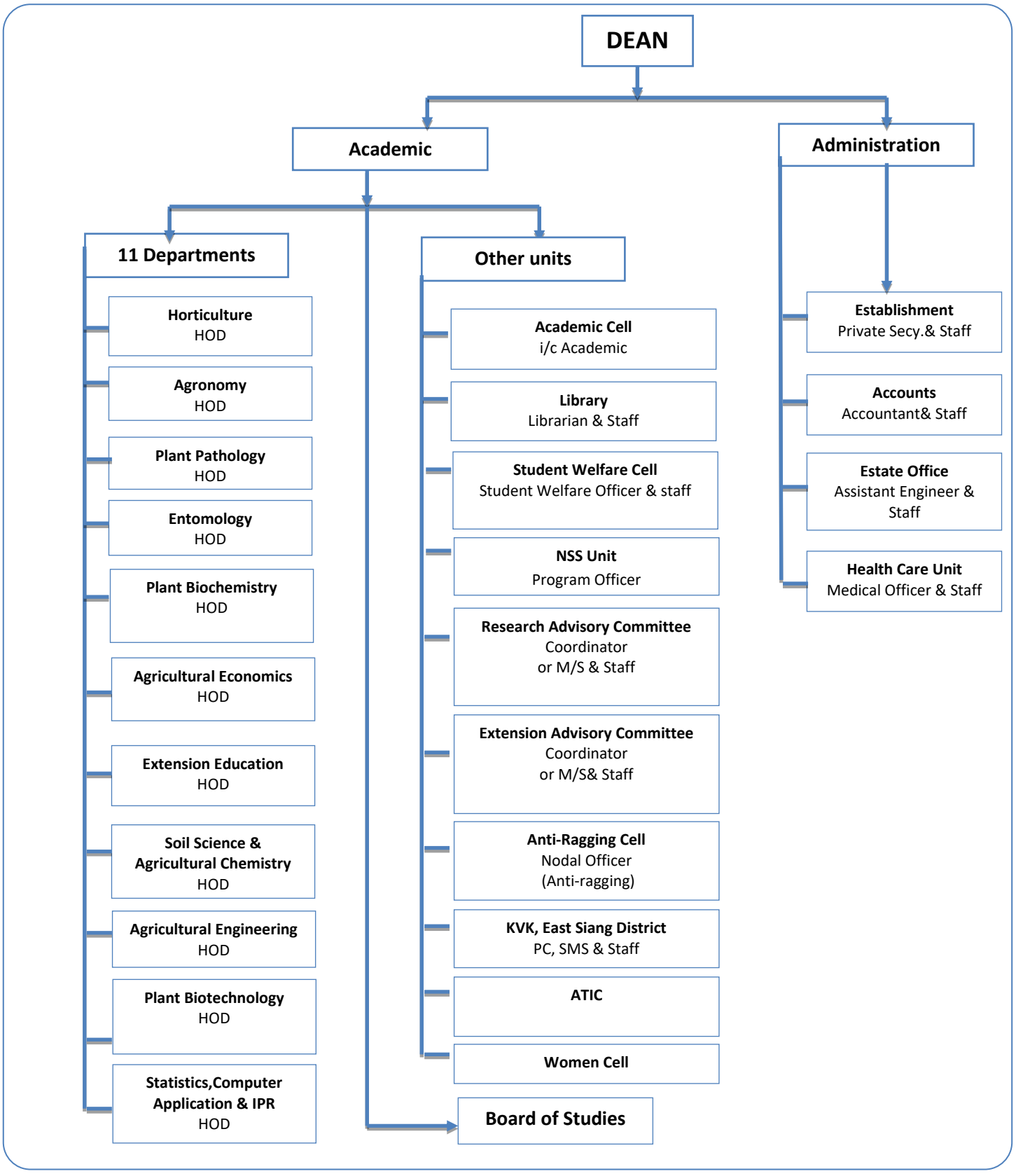
Visit of VIPs at CoA, CAU, Pasighat

Students of B.Sc(Hons)Agri, CoA, CAU, Pasighat

6.5.1.1. College Dean's Office Establishment

Sl. No.	Particulars	Response
1.	Whether Dean's post has been sanctioned by the appropriate authority as per ICAR Model Act/UGC guidelines	Yes
2.	Date of selection/joining of present Dean	Regular Dean (10.11.2017 to 11.02.2019)& then looked after by the Dean, CHF, CAU, Pasighat
3.	Mode of selection	Interview
4.	Tenure	5 years
5.	Total number of staff in Dean's office	The staff under College of Agriculture is yet to be appointed. However, the staff appointed under College of Horticulture and Forestry are performing the official works.
		2 Nos.
	• Technical staff :	2 Nos.
	• Non-technical staff :	
6.	Infrastructure facilities (Details on infra and networking facilities available)	• Computers with printers are available at the Dean's office with internet and UPS connectivity • Copier facility is available with Wi-fi connectivity • CCTV camera is installed at Dean's office for effective monitoring of staff, students and visitors

Organizational Chart



6.5.1.2. Monitoring Mechanisms for Quality Education (On-line)

Teaching

The registration of courses for each semester is made immediately after admission. The conduct of theory and practical classes are reviewed by the concerned Head of the Departments and the Dean, College of Agriculture.

Undergraduate degree programme

- Mid semester, practical and final theory examination are conducted to assess the students
- Assignments are regularly given to students in each of the courses related to the curriculum
- External system of evaluation followed for both theory and practical for each course related to the curriculum
- Academic counselling is provided to students by assigned counsellors *i.e*. the teaching faculties
- Monthly quiz programmes and group discussions are arranged for the students to ascertain their proficiencies and knowledge
- Students who are academically weak are given special guidance and extra lectures are conducted for improvement

Faculty Research

- The faculty are involved in research activities related to crop production, crop protection and plant improvement
- The research project evaluation committee appraises the research proposals at college levels
- The progress of the research is regularly monitored by the research evaluation committee
- Review of progress of research work from are evaluated by the Dean, Director of Research and the Vice Chancellor, CAU during Research Review Committee meetings
- Submission of annual report for ongoing and completed projects

Presently, the faculty of College of Agriculture are conducting research activities pertaining to cultivation and assessment of performance of different cultivars of rice, developing package of practices for rice production in the region, ascertaining the production and productivity of potato, millets and turmeric in the region, developing integrated pest and disease management programmes for maize and rice, bee keeping and honey production, floriculture etc.

Extension

- Monitoring committee to assess occurrence of insects and disease in the region
- Participations in exhibitions organized by the Government, private and non-governmental organizations
- Field visit by team of scientists on need to diagnose problems and provide solutions and recommendations

- Organize entrepreneurship development training programmes for farmers
- Vocational training programmes are organized for farmers and unemployed youths
- Distribution of agricultural accessories and planting materials to local farmers

The faculty of College of Agriculture in association with College of Horticulture and Forestry and Krishi Vigyan Kendra, Pasighat have organized the following programmes (Fig. 2, 3, 4 & 5):

- Organized the Arunachal Agri-Expo, 2019 during February 25th-27th, 2019
- Organized a 7-day training programme from 12th-18th March, 2019 on Entrepreneurship Development for Farmers
- Organized a 3-day training programme for farmers on 'Advances in Production Technology of Major Fruit Crops" from 19th-21st March, 2019
- Organized a 3-day training programme for farmers on 'Integrated Farming System for Doubling Farm Income' from 25th-27th March, 2019
- Organized a 2-day training programme for farmers on "Vermicomposting" on 29th-30th March, 2019
- Organized a 3-day training programme for farmers on "Advances in production technology of oil seed crops" from 13th-15thFebruary, 2020
- Organized a vocational training programme on **"**Horticulture nursery as production enterprise**"** for three months from 1st February, 2020 to 30th April, 2020
- Field day on "Popularization of Small Millets Cultivation in Lower Dibang valley" on 26.02.2021 at KVK, Balek, East Siang district, Arunachal Pradesh
- Field day organised on "Popularization of Small Millets Cultivation in East Siang" on 28.03.2021 at KVK, Pasighat.
- Vocational Training conducted on "Horticulture as an Enterprise" from 27.01. 2012 to 27.03.2021 (Two Months) for unemployed youths by COA, Pasighat.
- Organised 21 days online National Training Programme on "Technology Interventions Towards Transformation of Agriculture, Sericulture, Animal Husbandry and Allied Sectors into Sustainable Enterprises for Atmanirbhar Bharat" during October11-31, 2020. Organised by Gireesh Chand as Coarse Coordinator, COA (CAU), Pasighat sponsored by Agro Environmental Development Society (AEDS), India.
- Organised two days Webinar on "Protected cultivation on horticultural crops: opportunities for youths entrepreneurship" during 16-17 February, 2021 for students, entrepreneur, scientists and faculties organised by COA (CAU), Pasighat sponsored by IDP-NAHEP, CHF, CAU.
- Organised two days Webinar on "Creating awareness about intellectual property rights protection for the start-ups and entrepreneur in Agri-horti sectors" from 26-27 March, 2021 to students,

entrepreneur, scientists and faculties organised by COA (CAU), Pasighat sponsored by IDP-NAHEP, CHF, CAU.

- The College have conducted the training programme on "Formation and Promotion of Farmer Producer Organizations (FPOs) Sponsored by ICAR-ATARI, ZONE-VII, Umiam, Barapani Meghalaya for extension personals, KVKs and was organized by College of Agriculture, CAU, Pasighat, Arunachal Pradesh from 11th-13th Sept, 2020.

Fig. 2. Inauguration of Arunachal Agri-Expo, 2019

Fig. 3.7-day training on "Entrepreneurship Development for Farmers"

Fig. 4.3-day training programme for farmers on "Integrated Farming System for Doubling Farm Income"

Fig. 5. Vocational training programme on **"**Horticulture nursery as production enterprise**"**

Measures taken to improve the quality of education, research and extension

Education

- Industrial and institute relatedexposure visits related to the courses offered to the students
- Recognition and awards are given to best students at university level
- Guest lectures are arranged for the students in diversified areas related to agriculture
- Assignments and exams are conducted on regular basis

Research

- Encouraging students to actively participate in workshops, webinars and conferences

Extension

- Rural Agricultural Work Experience Programme (RAWEP) for students to understand the problems and prospects of the farming community
- Organizing group discussion programmes
- Conducting brain storming sessions for group approach

Impact of monitoring with reference to students' excelling in academics, research and extracurricular activities

Academics

- Higher academic performance of students with improved OGPA
- Improved enrolment of students each year
- Participation and selection in different competitive exams
- Participation and selection for higher education in reputed National institutes

Research

- Publication of research results in peer reviewed journals by faculty members

Extracurricular

- Participation in NSS programmes at national participate
- Participation in sports and cultural events at state and national levels

Additional information on monitoring mechanism for quality education

- Monthly meetings: The Dean conducts monthly meetings with the Heads of various departments as well the project investigators to evaluate the progress in the field of teaching, research and extension. The Dean also organizes regular meetings with the course teachers to monitor and evaluate different courses
- Annual reports: Annual reports are prepared for the college based on teaching, research and extension education activities performed during the year in consideration. The reports are used for measuring the performances of the college during the particular year and serve as guidelines for future action plan
- Student evaluation: The Dean of the college may conduct students meeting every semester. He receives the feedback from the students and gives direction to the faculties. The students are providing the feedback of course teachers who handle the classes during a particular semester in a prescribed proforma. The feedback of the students is analysed and the inadequacies are properly addressed

6.5.1.3. CC/Board of Studies

Boards of Studies meeting are being conducted where various academic issues are discussed and academic progress monitored.

Committee for Board of Studies

Vice Chancellor of Central Agricultural University	Chairman
Director of Instructions	Member
Registrar	Member
Director of Research	Member
Director of Extension Education	Member
Deans of all constituent colleges under CAU	Member
All Head of Department of the faculty not below the rank of Associate Professor	Member
Two eminent Scientists from Agril Education System not belonging to CAU, Imphal (nominated by VC)	Member
One final Year PG student with highest overall Grade point Average (OGPA)	Member
Academic In-charges of all constituent colleges under CAU	Member

Particulars	Year	Date and Place of the meeting	Major Recommendations
1st Board of Studies	2017-18	2nd May, 2018 at College of Agriculture, CAU, Imphal	As per the recommendation of the Vth Deans' committee, the course "Fundamentals of Plant Biochemistry and Biotechnology" was separated into two different disciplines for the B.Sc. (Hons) Agriculture programme. The committee further recommended that the Deans of all agricultural colleges should prepare detailed course syllabus for each discipline which was to be put forward to the Academic Council for approval.
2nd Board of Studies	2018-19	22nd May, 2019 at College of Agriculture, CAU, Imphal.	The requisition for appointment of faculties in certain disciplines for College of Agriculture, Pasighat was dropped as the

		committee members recommended that the faculty positions will be advertised shortly.
3rd Board of Studies	2019-20	27th April, 2020 through online mode (due to Covid19 pandemic)	The committee suggested to extend the 2nd semester Academic session of 2019-20 as 40 instructional days of the semester was lost due to Covid 19. All India tour for final year students was also cancelled. The members of the committee approved the proposal of internal setting of question papers and evaluation.

6.5.1.4. Anti Ragging Cell

College of Agriculture, CAU, Pasighat follows the rules and regulations as per the University Grants Commission framework on UGC regulations on "Curbing the menace of Ragging in Higher Educational institution (Third Amendment),Regulations, 2016". The faculty members of the college are unanimously and unequivocally are committed to prevent ragging of first year students and several measures are taken by the college to ensure a pleasant and encouraging environment for the students. The students have to give undertaking in a prescribed proforma for not involving in ragging activities. Anti-ragging banners are placed on notice boards of hostels and departments. The anti-ragging squad comprises of:

Date	Members of AntiRagging squad	Date	Members of AntiRagging squad
15/6/2019	Dr. Bikram Singh, Mr. N. Devacharndra, Dr. Shivani Dobhal	31/6/2019	Dr. Bikram Singh, Dr. Oken Singh, Dr. Surmina Devi
16/6/2019	Dr. D.K. Pandey, Dr. Barun Singh, Ms. Anjela Moyong, Mr. Tajing Taki	01/7/2019	Dr. Ng. Piloo Devi, Dr. N. Lyngdoh, Dr. Neeta Longjam
17/6/2019	Mr. Ashokumar Singh, Mr. N. Devachandra, Mr. L. Shantikumar, Dr. Surmina Devi	02/7/2019	Mr. Anil Kumar, Mr. Jintu R., Mr. Archan Rabha, Mrs. Nabum Yadi
18/6/2019	Dr. P. Debnath, Dr. Ng. Piloo Devi, Dr. Y. Oken Singh, Ms.	03/7/2019	Mr. Amit Kr. Singh, Mr. L. Shantikumar, Ms. T. Yatung

	Reema Longjam		
19/6/2019	Dr. T.S. Mehra, Dr. Ps. Mariam Anal, Dr. Punabati H.	04/7/2019	Dr. Raghubir Kr. Patidar, Mr. N. Devacharndra, Ms. Nancy Lego
20/6/2019	Dr. Sunil Kumar, Dr. S. Romen Singh, Dr. N.T. Chanu, Mrs. Yapang Mibang	05/7/2019	Dr. A.S. Mailappa, Mr. Togr Riba, Dr. Shivani Dobhal
21/6/2019	Dr. Bikram Singh, Dr. Ramesh C. Shakywar. Dr. N.Y. Chanu	06/7/2019	Mr. Rakesh S. Dr. Brij M. Singh, Mr. Katon Kartek, Dr. Surmina Devi
22/6/2019	Dr. L. Wangchu, Mrs. Nabum Yadi. Mr. Udit Borah, Mr. Chandrakumar	07/7/2019	Dr. ArunKumar Ph., Mr. Ch. Bobby Singh, Mrs. Yapang Mibang
23/6/2019	Dr. T.S. Mehra, Dr. R.K. Singh, Mr. Pakte Koyu, Mrs. Shimpi Dutta D.	08/7/2019	Dr. T. Shantibala, Dr. Ramesh C. Shakywar, Mr. Thangkholun Haokip
24/6/2019	Dr. P. Sharma, Mr. A. S. Singh, Dr. Arunkumar Ph., Mrs. Yaman Tamut	09/7/2019	Dr. Bikram Singh, Ms. Bishwapati Devi, Mr. Subodh Kumar Dubey
25/6/2019	Dr. P. Debnath, Mr. Pranojjal Paul, Mr. L. Mangi Singh, Mrs. Angela Pangkam	10/7/2019	Dr. N. Anandkumar Singh, Dr. L. Geetarani Devi, Mr. Kaushlesh K.
26/6/2019	Dr. Desh Bandhu Ahuja, Mr. O. R. Singh, Dr. Tisu Tayeng, Dr. N. Y. Chanu	11/7/2019	Ps. Mariam Anal, Mrs. Shimpi Dutta D., Mr. Kumar Chetri
27/6/2019	Dr. Sunil Kumar, Mr. Puspendra Kumar, Dr. H. Soibam	12/7/2019	Dr. M.Pathak, Mr. H. Paudoumang, Dr. N. Keinatombi D.
28/6/2019	Dr. Chandra Deo, Dr. Y. Disco Singh, Mrs. Ymen Mibang, Dr. L. Geetarani Devi	13/7/2019	Dr. K. Ch. Momin, Mr. A. John, Mrs. Kalpana Borang
29/6/2019	Dr. P. Raja, Dr. Arwanki Shadap, Mr. Udit Kumar, Ms. Nancy Lego	14/7/2019	Dr. Surmina Devi, Dr. Abinash M, Mr. Ripon Dam
30/6/2019	Dr. S. K.Pattanaaik, Dr. N. D. Bhutia, Dr. Shivani Dobhal	15/7/2019	Dr. Shivani Dobhal, Ms. Eloni Vida, Mr. N. Devachandra

The members of the squad are on constant vigil and patrol the campus while keeping their mobile active at all times to curb the menace of ragging. The squad is empowered to make surprise raids in all the hostels

and other places vulnerable to incidence and having the potential of ragging. On spot inquiry on such incidents of ragging and submission of immediate report is carried out by the Anti-Ragging Committee. The Committee also takes appropriate decision in regard to punishment or otherwise, depending on the facts of each incident of ragging and nature & gravity of the incident of ragging established in the recommendations of Anti Ragging Committee which are:

1. Suspension from attending classes and academic privilege
2. Withholding/ withdrawing scholarship/ fellowship and other benefits
3. Debarring from appearing in any test/ examination or other evaluation process
4. Withholding results
5. Debarring from representing the institution in any regional/ national/ international meet /tournament/ youth festivals
6. Suspension/ expulsion from the hostel
7. Rustication from the Institution for period up to three years
8. Cancellation of admission
9. Expulsion from the institution and cancellation of admission and consequent debarring from admission to any other Institution for a period of three years
10. Forfeiting campus placement opportunity or recommendations
11. Imposition of fine upto Rs 25000.00 provided that where the persons committing or abetting the act of ragging are not identified by the institution shall resort to collective punishment

6.5.1.5. Biological waste disposal facility

Efforts are undertaken to effectively recycle the waste generated and properly dispose the waste which could not be recycled. Presently, the college is utilizing the facilities available at College of Horticulture and Forestry, Pasighat campus to recycle and dispose the waste generated. The primary activity involves composting the plant waste and proper collection, segregation and disposal of waste. The following disposal mechanism is initiated and deployed:

Sl. No.	Type of waste material	Disposal mechanism
1.	Animal & insect anatomical waste	Incineration or deep burial
2.	Soiled waste	Incineration, autoclaving or deep burial as required
3.	Expired or discarded chemicals, pesticides and agro-chemicals	Expired or discarded pesticides and agro-chemicals are disposed by incineration
4.	Microbial liquid waste	Autoclaving
5.	Waste sharps including metals	Autoclaving or dry heat sterilization

6.	Glassware	Disinfection (by soaking the washed glass waste after cleaning with detergent and Sodium Hypochlorite treatment) or through autoclaving and then sent for recycling
7.	Waste water	The waste water released from the college is passed through a drainage system

Green initiatives at the college

The college is committed to ecological sustainability and thrives to establish a clean and green campus (Fig. 6). Accordingly, *Swaach Bharat* mission is undertaken every month and the campus and departments are cleaned by the faculty members and students (Fig. 7). The faculty members routinely plant trees around the campus and steps are undertaken to encourage planting of trees on World Environment Day, Independence Day and Republic Day. Landscaping and tree planting have helped transform the campus in to a lush green campus. Such steps have also improved the floral biodiversity in the campus.

Fig. 6. Clean and green campus

Fig. 7. Campus cleanliness drive by faculty and students

6.5.1.6. Institutional Ethics Committee for Experiment on Animals

The college, at present, is not undertaking any type of experiments on animals and hence the institutional ethics committee has not been constituted. However, once established as a full-fledged independent college, if such experiments are undertaken, then the college will strictly adhere to CPCSEA guidelines and will constitute an Institutional Animal Ethics Committee (IAEC).

6.5.1.7. Committee for Prevention of Sexual Harassment of Women at Work Places

Members of the Committee for Prevention of Sexual Harassment of Women comprises of:

Sl. No.	Name of Faculty	Designation
1.	Dr. Tisu Tayeng	Chairman

2.	Dr. K. Ch. Momin	Member
3.	Dr. Shivani Dobhal	Member
4.	Dr. Ps. Marial Anal	Member
5.	Mrs. Yapang Mibang	Member
6.	Ms. Odi Panyang	Member
7.	Mrs. Nabum Yadi	Member

The committee for prevention of sexual harassment of women has been formed to address all grievances pertaining to sexual harassment of women (teaching and non-teaching staff and labours) at the college. There was no complaint on sexual harassment in the college during last five years. However, details on sexual harassment of women at work place (Prevention, prohibition and redressal) Act, 2013 and a preamble of the Act and seeking remedy under this Act are clearly explained to the staff and farm workers.

6.5.2. Faculty

The College of Agriculture has 8 faculties in various disciplines to undertake the education, research and extension activities. However, as the College of Agriculture is presently utilizing the facilities of College of Horticulture and Forestry, Pasighat campus, 38teaching faculties of College of Horticulture and Forestry and Multi Technology Testing Center and Vocational Training Center (MTTC & VTC) are also conducting the classes for College of Agriculture.All faculties have necessary qualifications and have enriched themselves over the years by undergoing training programmes in teaching, research and education, participation in conference and seminars and handling research projects. Various approaches are followed by the teachers so that students are able to learn and get hand on experience on various aspects of agriculture. Guest lecturers are regularly invited to handle the courses based on necessity.

6.5.2.1. Faculty Strength

Since the College is newly established college, the regular faculties are very less but the following no of post has been proposed for the college. Out of the proposed faculty strength, only 6 teaching faculties (Assistant Professor) has been sanctioned by DoE and 2 professors are filled in place.

Sl. No.	Sanction Faculty	Faculty in Place	Vacant Position	Faculty recommended By ICAR
1.	Professor	02	04	3
2.	Associate Professor	-	-	8
3.	Assistant Professor	11	-	34

	Total	**13**	**04**	**45**
4.	CHF Faculty	35	-	
Total		**48**		

6.5.2.2. Faculty Profile (Department wise)

Department wise faculty strength of College of Agriculture& MTTC/VTC

Sl. No.	Department	Sanctioned Faculty	Filled post	Vacant post	Faculty recommended by the ICAR
1.	Agronomy	Professor	1	-	1
		Associate Professor	-	-	1
		Assistant Professor	2	-	5
2.	Genetics & Plant Breeding	Professor	-	1	1
		Associate Professor	-	-	1
		Assistant Professor	2	-	3
3.	Plant Pathology	Professor	1	-	0
		Associate Professor	-	-	1
		Assistant Professor	1	-	2
4.	Agricultural Economics	Professor	-	1	0
		Associate Professor	-	-	1
		Assistant Professor	1	-	5
5.	Agricultural Entomology	Professor	-	1	0
		Associate Professor	-	-	1
		Assistant Professor	1	-	2
6.	Agricultural Extension	Professor	-	1	0
		Associate Professor	-	-	1
		Assistant Professor	-	-	3
7.	Horticulture	Professor	-	-	1
		Associate Professor	-	-	1
		Assistant Professor	3	-	3
8.	Agricultural Biochemistry	Professor	-	-	0
		Associate Professor	-	-	0
		Assistant Professor	1	-	2
		Total	13	04	35

Faculty of College of Horticulture and Forestry utilized at COA, Pasighat

Sl. No.	Department	Professor	Associate Professor	Assistant Professor
1.	Agronomy	-	-	01
2.	Plant Pathology	-	01	02
3.	Entomology	01	01	01
4.	Agricultural Economics	-	-	01
5.	Horticulture	01	04	11
6.	Agricultural Biochemistry	-	-	01
7.	Soil Science	01	-	01
8.	Extension Education	-	01	02
9.	Agricultural Biotechnology	-	-	01
9.	Agricultural Statistic	-	-	01
10.	Agricultural Engineering	-	01	-
11.	Crop Physiology	-	-	01
Total		**03**	**08**	**23**

The existing faculty strengths of College of Agriculture, College of Horticulture and Forestry and MTTC & VTC is sufficient for academic requirement of the college.

6.5.2.3. Credentials of the Faculty

Almost all faculty members of the college are PhD holders. The college has adequate proportion of experienced and young faculty members. Many faculty members in the college have received awards for their excellence in teaching and research activities. The details of qualification, experience and professional licensure and certification and demonstrated competencies are detailed in Annexure 6.5.2.3.

COLLEGE OF AGRICULTURE, CAU, PASIGHAT

Sl. No.	Name of the faculty	Post held	Highest qualification	Teaching/ work experience (in years)	Honors & Awards	No. of Students Guided (PG / Ph.D separately)	No. of publications in NAAS rated Journals
1.	Dr. Gireesh Chand	Professor	Ph.D.	9	3	PG- 10 Phd 2	72

2.	Dr. Sanjoy K. Bandyopadhyay	Professor	Post Doc.	28	3	-	-
3.	Dr. L. Geetarani Devi	Assistant Professor	Ph.D.	3	5	PG -2	10
4.	Dr. Kh. Lily Devi	Assistant Professor	Ph.D.	2	2	PG -2	8
5.	Dr. Denisha Rajkhowa	Assistant Professor	Ph.D.	1	2	-	6
6.	Dr. Bapsila Loitongbam	Assistant professor	Ph.D.	1	3	PG-1	16
7.	Dr.Pawankumar Goudar	Assistant professor	Ph.D.	1	-	-	10
8.	Dr. Mahesh Kumar	Assistant Professor	Ph.D.	1	-	-	5

COLLEGE OF HORTICULTURE AND FORESTRY, CAU, PASIGHAT

Sl. No.	**Name of the faculty**	**Post held**	**Highest qualification**	**Teaching/ work experience (in years)**	Honors & Awards	No. of Students Guided (PG / Ph.D separately)	No. of publications in NAAS rated Journals
9.	Prof. B.N. Hazarika	Dean	Ph.D. in Horticulture	25	4	PG- 12 P	45
10.	Dr. Prankanu Debnath	Professor	Ph.D Agronomy	14	-	-	3
11.	Dr.Sunil Kumar	Professor	Ph.D. in Horticulture	15	12	PG- 9 PhD-1	11
12.	Dr. D.K.Pandey	Associate Professor	Ph.D Extension Education	12	-	-	5
13.	Dr. L. Wangchu	Associate Professor	Post-Doctorate, Horticulture	18	-	PG-8 PhD-3	41
14.	Dr T. S. Mehra	Associate Professor	PhD in Forestry	15	2	PG-1	8
15.	Dr.Pranabjyoti Sarma	Associate Professor	Ph.D. in Horticulture	14	-	PG-5 PhD-1	11
16.	Dr. Chandra Deo	Associate Professor	Ph.D. in Horticulture	19	1	PG- 4 PhD-02	12
17.	Dr. P. Raja	Associate Professor	Ph.D Plant Pathology	14	1	PG- 3	14
18.	Dr. S.K.Pattanaaik	Associate Professor	Ph.D Agricultural Engineering	14	4	-	22
19.	Dr. Bikram Singh	Associate Professor	PhD in Forestry	13	1	PG-6	4

20.	Dr. T. Shantibala	Associate Professor	Ph.D (Entomology)	12	2	PHD-1	6
21.	Dr. L.D.Hatai	Assistant professor	Ph.DAgricultural Economics	12	-	-	15
22.	Dr.ArunkumarPhurailatpam	Associate Professor	Ph. D Botany	11	-	-	12
23.	Dr.A.S.Mailappa	Associate Professor	Ph.D in Soil Science	14	11		
24.	Dr.Aatish Kumar Sahu	Associate Professor	Ph.D. (Agricultural Statistics)	10	-	-	13
25.	DrTisuTayeng	Assistant Professor	PhD in Plant Breeding &Genetics	18	-	--	05
26.	Dr.Barun Singh	Assistant Professor	Ph.D. (Horticulture) in Fruits and Orchard Management	15	3	PG-6	5
27.	Dr. Anil Kumar	Assistant Professor	PhD in Forestry	10	3	-	26
28.	Dr. Amit Kr. Singh	Assistant Professor	Ph.DAgril. Biotechnology	12	-	-	21
29.	Dr.Nilay Kumar	Assistant Professor	PhD in Forestry	11	1	-	15
30.	Dr. R.C. Shakywar	Assistant Professor	Ph.D Plant Pathology	11	-	-	15
31.	Mrs. M. Bishwapati Devi	Assistant Professor	Master in Computer Application	11	1	-	2
32.	Dr. Siddharth Singh	Assistant Professor	Ph.D Biochemistry	11	-	-	20
33.	Dr. S. Romen Singh	Assistant Professor	Ph.D. in Horticulture (Fruit Science)	10	2	PG- 2	9
34.	Ms. T. MatouleibiChanu	Assistant Professor	Undergoing Ph. D in Agricultural Extension.	6	-	-	06
35.	Mr. LukramShantikumar	Assistant Professor	M.Sc. Plant Physiology	5	-	-	02
36.	Dr.Kalkame Ch. Momin	Assistant Professor	Ph.D. in Floriculture and Landscaping	5	3	-	04
37.	Dr. N. Surmina Devi	Assistant Professor	Ph.D (Agriculture)	5	1	-	-

			in Plant Pathology				
38.	Dr. ShivaniDobhal	Assistant Professor	PhD in Forestry	5	2	1	10
39.	Dr. YumnamOken Singh	Assistant Professor	Ph.D English	17	-	-	-
40.	Mr.Nongthombam Devachandra	Assistant Professor	M. Sc. Horticulture in Pomology	5	-	1	05
41.	Dr. Ch. Victoria Devi	Assistant Professor	Ph.D Extension Education	3	-	-	05
42.	Dr. PunabatiHeisnam	Assistant Professor	Ph.D Agronomy	5	3	-	15
43.	Dr. Ng. Taibangnganbi Chanu,	Assistant Professor	Ph.D. Microbiology	2	1	-	8
44.	Dr.Arwankie Shadap	Assistant Professor	Ph.D. (Horticulture) in Spices and Plantation Crops	3	-	-	9
45.	Dr.Pushpendra Kumar	Assistant Professor	PhD,Post Harvest Management	2.5	-	-	10
46.	Dr. Y.Disco Singh	Assistant Professor	Ph.D Food Technology	3.5	2	-	
47.	Dr.Nangsol D.Bhutia	Assistant Professor	Ph.D (Horticulture)	3	3	-	6
48.	Dr.Priyanka Irungbam,	Assistant Professor	Ph.D (Agri.) in Agronomy	3	-	-	15
49.	Dr.Thiyam Jefferson Singh	Assistant Professor	PhD in Forestry	1.5	-	-	-
50.	Mr. Shankar Mayanglambam	Assistant Professor	PhD in Forestry	1.5	-	-	-
51.	Dr. P. K. Nimbolkar	Assistant Professor	Ph.D. in Fruits and Horticultural Technology	1.5	-	-	-
52.	Dr.Ajaykumara K. M.	Assistant Professor	Ph.D. (Entomology)	1.5	5	-	08
53.	Dr.Anju Choudhury	Assistant Professor	PhD in Agricultural Economics	5	-	-	10
54.	Dr.Asieleavio John	Assistant Professor (C)	PhD in Forestry	5	-	-	-

6.5.2.4: Technical and Supporting Staff

Since the College is newly established college, the regular faculties are very less but the following no of post has been proposed for the college. Out of the proposed faculty strength, only 6 teaching faculty (Assistant Professor) has been sanctioned by DoE and 2 Professors, one Assistant, 1 Account Assistant and 1 FCLA are filled in place. Since the College is under construction, the College is still attached with the College of Horticulture and Forestry in the same campus.

The advertisement for recruitment of the sanctioned regular technical and supporting staff of the College of Agriculture has been initiated. Till then the faculty of the College of Horticulture and Forestry has been utilized as both the colleges are under same campus. The technical staff for the College of Horticulture and Forestry were utilized for the College of Agriculture too and allottedin different departments whenever need arises. The administrative and accounts staff are centralized in the college and are operating under the direct control of the Dean as part of Dean's office. The details of staff involved are listed below:

COLLEGE OF AGRICULTURE, PASIGHAT

Sl.No	Department	Technical Staff	Supporting Staff	Field Staff
1.	Establishment section (Assistant)	01	-	-
2.	Account (Account Assistant)	01	-	-
3.	Account (FCLA)	-	01	-

COLLEGE OF HORTICULTURE AND FORESTRY, CAU, PASIGHAT

Sl.No	Department	Technical Staff	Supporting Staff	Field Staff
1.	Vegetable Science	02	01	Nil
2.	Fruit Science	03	01	02
3.	Floriculture (O&MAP)	01	01	Nil
4.	Post Harvest Management	01	Nil	Nil
5.	Natural Resource Management	02	01	Nil
6.	Social Science	01	Nil	Nil
7.	Basic Science and Humanities	02	Nil	Nil
8.	Tree Improvement	01	Nil	Nil
9.	Silviculture and Agroforestry	Nil	01	Nil
10.	Forest Product Utilization	01	Nil	Nil
11.	Plant Protection	02	02	Nil

No of Post proposed sanction and post filled for the College of Agriculture, CAU, Pasighat

Sl.No.	Name of the Post	Sanction post	Filled post
1.	Assistant Professor	6	6
2.	Assistant Registrar (Acad/Estt)	1	-
3.	Assistant Comptroller	1	-
4.	PA(Sr. Steno)	1	-
5.	Accountant	1	-
6.	Horticulture Assistant	1	-
7.	Assistant	1	1
8.	Account Assistant	1	1
9.	Library Assistant	1	-
10.	Livestock Assistant/Farm Assistant	2	-
11.	Clerk cum Typist/LDC	2	-
12.	Field cum Lab Assistant	3	1
13.	Medical Attendant	1	-

6.5.3. Learning Resources

Faculties are provided with computers to access the online open courseware and online portal to use it for the curriculum delivery. Faculty members access various resources for use in teaching, research and extension activities. Students are also encouraged to access various software applications in agriculture. Learning resources are texted, video lessons, and other ICT related materials that teachers used to guide students to meet the expectation for learning defined by ICAR recommended curriculum.

6.5.3.1. College Library

Fig. 8. The Library at College of Horticulture and Forestry, Pasighat

Location of Library:

The Library of College of Horticulture and Forestry, Pasighat was established in 2001.The total built up area of the library is 231 m^2 .College maintains a very spatial library and it also subscribes a good number of national and international journals, magazines and newspapers. The library has four computer terminals and one separate library server. All the computers are connected with internet access. Under the ICAR project, the college library provides access to foreign periodicals through CeRa (Consortium for e-References in Agriculture, India). Through this service, the students and faculty can access on-line Portals and Bouquet of journals from Publishers with full text of an articles such as Springerlink, Annual Reviews, CISRO (Australia) and JCCC (J-Gate Custom Content for Consortia).

- **Present Staff Position (in place):**

S.No.	Staff	Number
1.	Present staff	• 1 Librarian • 3 Library Assistants • 1 Clerk • 3 Multi-tasking Staffs

- **Availability of Wi-Fi:**
  Wi-fi facilities are available in the library with internet band width speed of 2Mbps from BSNL

- Books/ Reading material (in Number):

S.No	Particular	Number
1.	Books	17,925
2.	Newspapers	06
3.	Magazines	04
4.	Bound volumes	278

- **Periodicals/Research Journals(in Number)** : 17
- **Internet facility** :Internet band width speed of 32Mbps rom BSNL
- **No of Computers** : 06 nos
- **Seating Capacity** : 30 nos
- **Latest Technology in the library**:

The library of the college is equipped with internet facilities through which the staff and students can access OPAC (Online Public Access Catalogue) at www.chfcau.ideal.egranth.ac.in.

Necessary steps have been initiated for accessing online journals and study materials at Electronic Resource Management package for e-journals access through CeRA (Consortia for e-Resources in Agriculture)

Two Library Softwares in process: (i) Alice for Window (Softlink Asia pvt.ltd) Offline and (ii) Koha Library management Software

Krishikosh (e-theses etc. Institutional Repository of ICAR) all M.Sc. and Ph.D. Theses are uploaded. It is open repository. URL: Krishikosh.egranth.ac.in

Commonwealth Agricultural Bureau (CAB) data base access facility (database from 1972 to 2005)

- **Stocking arrangements**:
  Book stocks arranged as per the subjects
  Stock racks are available in 2 sizes, 10 racks with size of 7.3 ft. and 31 racks with size of 6 ft.26 number of book cases are available

- **Collection of volumes on different subject**:

S.No	Particular	Number
1.	Genetics and Plant Breeding	436
2.	Ag. Economics	81
3.	Soil Science& Ag. Chemistry	393
4.	Horticulture	293
5.	Ag. Extension	172
6.	Statistics, Computer Application & IPR	26
7.	Agronomy	365
8.	Crop Physiology	71
9.	Plant Pathology	103
10.	Plant Biotechnology	32
11.	Microbiology	35
12.	Entomology	35
13.	Plant Biochemistry	06
14.	Ecology	02
15.	Agroforestry	09
16.	Ag. Engineering	56
17.	Botany	49
18.	English Language	25

- **Latest publications in the field of relevant subjects:**

S.NO	NAME
1.	Manual on Manures, Fertilizers and Agro-chemicals
2.	Analytical Techniques and Instrumental Methods in Soil and Plant Analysis
3.	Essentials of Soil Science
4.	Nursery Techniques and Management of Forest Tree Species
5.	Wild Edible Fruit Trees of Arunachal Pradesh
6.	Production Technology of Forest Trees Species
7.	Vermicompost Production
8.	Soil Testing and Organic Farming for Sustainable Agriculture Management in North East India
9.	Ginger: Package and Practices for Cultivation in Arunachal Pradesh
10.	Farmer's Friendly Technologies for Doubling Farmer Income
11.	Forest Nursery and Planting Technique Training Manual
12.	Composite Fish Farming Manual
13.	Medicinal Values of Some Under Utilized Vegetables in Adi Society of Arunachal Pradesh
14.	Training Manual Rain Water Harvesting and its Management in Horticultural Crops
15.	Bee Keeping in Arunachal Pradesh

16.	Manual on Manures, Fertilizers and Agro-chemicals
17.	Analytical Techniques and Instrumental Methods in Soil and Plant Analysis

- **Automation & user services through computer:**
  Library automation under process through Koha Library management software.

- **Opening hours:** 9.30 AM to 4.30 PM

- **Subscription of journals of national & international repute national dailies/ magazines (provide list)**:
  Subscription to journals through online portal of CeRA ICAR and CAB.Through these services, the students and faculty can access on-line portals and bouquet of journals from publishers with full text of an articles such as Springer, Annual Reviews, CISRO (Australia) and JCCC (J-Gate Custom Content for Consortia).

S.NO	LIST OF THE JOURNAL
1.	Indian Journal of Agricultural Sciences
2.	Indian Journal of Agricultural Research
3.	Indian Journal of Genetics and Plant Breeding
4.	Journal of Applied Zoological Research
5.	Journal of Agro-Meteorology
6.	Indian Farming
7.	Journal of Non-Timber Forest Products
8.	Indian Forrester
9.	Indian Journal of Forestry
10.	Indian Journal of Horticulture
11.	Indian Horticulture Journal
12.	*Kheti*
13.	Pestology
14.	Potato Journal
15.	*Phalphul*
16.	Professional Journal of Library and Information Technology
17.	Indian Journal of Agricultural Sciences
18.	Indian Journal of Agricultural Research
19.	Indian Journal of Genetics and Plant Breeding

S.NO	LIST OF THE JOURNAL
1.	Times of India,
2.	Telegraph
3.	Arunachal Echo
4.	Arunachal Times
5.	Assam Tribune
6.	Employment News

S.NO	LIST OF THE MAGAZINE
1.	India Today
2.	Competition Review
3.	Competition Success

4.	Sports Star

6.5.3.2. Laboratories, Instructional farm, Workshops, Dairy Plant, Veterinary Clinic, Hatchery, Ponds etc.

Since the college of Agriculture is under construction, the college is still attached with the College of Horticulture in the same campus. The utilization of faculties and the facilities are very much needful for the functioning of the college and for the welfare of the students. The College of Horticulture and Forestry is spread over in an area of 58 hectares which includes research farm, instructional cum demonstration farm, KVK farm and experimental farm.

The laboratories of all departments are well equipped with all the necessary equipment and facilities to accomplish the academic activities. All basic chemicals and instruments are available for doing practical and research work in all the laboratories. The farm facilities, workshops and other instructional units are well designed with sufficient land area and build infrastructure, irrigation, electricity and required farm machineries supported with tractors, power tillers, cultivators, leveller, rotavator, and other farm implements for day to day work and research purpose to meet the course curricula and research requirements.

Laboratories

Under College of Agriculture, 10 laboratories occupying a total area of 860 sq.m.was approved, the construction works of which are almost complete at the allotted siteof 86 acres of land at Pasighat. At present, the college is jointly utilizing the laboratory facilities of College of Horticulture and Forestry, Pasighat which are well equipped to conduct practical classes for UG (Fig. 9, Fig. 10).

The details of the laboratories in different departments of College of Horticulture and Forestry are as:

Sl. No.	Laboratories under different departments	Area (sq. meter)
1.	Soil Science& Ag. Chemistry	150
2.	Plant Pathology	95
3.	Entomology	20
4.	Genetics and Plant Breeding	74
5.	Agronomy	90
6.	Plant Biotechnology	90
7.	Plant Biochemistry	90
8.	**Horticulture**	
	• Post-harvest	90
	• Floriculture	90
	• Vegetable Science	90

- Fruit Science 90
- Statistics, Computer Application & IPR 59

Fig. 9. Computer Laboratory

Fig. 10. Department of Horticulture Laboratory

Soil Science& Agricultural Chemistry

The department has laboratories for conducting practical classes on collection and preparation of soil samples, estimation of soil moisture, EC, pH & bulk density, textural analysis of soil, description of soil profile in the field, quantification of minerals and their abundance, determination of soil colour, estimation of water holding capacity & hydraulic conductivity of soils, estimation of infiltration rate using double ring infiltrometer method, estimation of soil moisture, soil compaction measurement, determination of pore space of soil, determination of filed capacity and permanent wilting point of soil, determination of soil water potential characteristic curves, aggregate size distribution analysis of soil and air capacity of soil.

Plant Pathology

Practical classes are conducted for students on general plant pathological laboratory and field equipment's, study of disease symptoms and signs and host parasite relationships, identification and isolation of plant pathogens, Koch's postulates, preparation of fungicidal solutions, slurries, pastes and their applications.

Entomology

The departmental laboratories are utilized for conducting practical classes on insect collection and preservation, identification of important insects, general body organization of insects, study on morphology of insects, preparation of permanent mounts of mouth parts, antennae, legs and wings, dissection of insects to study the internal morphology, observations on metamorphosis of larvae and pupae.

Genetics and Plant Breeding

Practical classes are conducted for students on breeding objectives and techniques in important crops, floral biology: its measurement, emasculation, crossing and selfing techniques in major crops,

determination of mode of reproduction in crop plants, handling of breeding material, segregating generations (pedigree, bulk and back cross methods), field layout& maintenance of experimental records in self & cross pollinated crops, demonstration of hybrid variation and production techniques, Hardy Weinberg Law and calculation, male sterility and incompatibility studies in agricultural crops, calculation of inbreeding depression, heterosis, heterobeltiosis, GCA, SCA, GA and heritability.

Agronomy

The students are delivered practical classes on identification of field crop and tillage implements, preparation of seed beds, identification of fertilizers and manures, mixing chemical fertilizers, calculating fertilizer requirements, identification of green manure plants, identification of important weeds of the region with particular reference to forest plantations, preparation of weed herbarium, calculations of spray volume and herbicide concentrations, methods of application of herbicides, identification of horticultural crops, garden tools and implements. planning and layout of orchard and plantations, digging and filling of pits for fruit and plantation crops-planting systems, training and pruning of orchard trees-preparation and application of regulators, layout of different irrigation systems, identification and management of nutritional disorder in fruits-bearing habits and maturity standards, harvesting, grading, packaging and storage.

Plant Biotechnology

The laboratory is utilized to conduct practical classes on requirements for plant tissue culture laboratory, techniques in plant tissue culture, media components & preparations, sterilization techniques & inoculation of various explants, aseptic manipulation of various explants, callus induction & plant regeneration, micro propagation of important crops, anther, embryo & endosperm culture, hardening/acclimatization of regenerated plants, somatic embryogenesis & synthetic seed production, isolation of protoplast, demonstration of culturing of protoplast, demonstration of isolation of DNA, demonstration of gene transfer techniques: direct & indirect methods, demonstration of confirmation of genetic transformation, demonstration of gel-electrophoresis techniques and green synthesis of nano particles and their size characterization.

Plant Biochemistry

Practical classes are conducted on preparation of standard solutions & reagents, qualitative reactions of carbohydrates, estimation of starch, estimation of reducing & non-reducing sugars from fruits, reactions of amino acids, estimation of proteins, estimation of free fatty acids, determination of iodine number of vegetable oils, estimation of ascorbic acid, paper chromatography, thin layer chromatography, electrophoresis of pigments extracted from flowers, extraction of oil from oil seeds and enzyme assay & immobilization.

Horticulture

- **Post-harvest:** Practical classes are directed towards identification of equipments used in food processing units, physico-chemical analysis of fruits and vegetables, canning of fruits and vegetables, preparation of squash, RTS, cordial, syrup, jam, jelly, marmalade, candies, preserves, chutneys, sauces, pickles (hot and sweet), dehydration of fruits and vegetables – tomato product dehydration, refrigeration and freezing, cut out analysis of processed foods, processing of plantation crops and visit to processing units
- **Floriculture:** Practical classes are conducted for students on identification and description of annuals, biennials, herbaceous perennials, climbers, shrubs, trees, indoor plants, ferns and selaginella, palms, cycads, cacti & succulents, planning and designing and establishment of garden features *viz*., lawn, hedge & edge, rockery, water garden, carpet bedding, shade garden, roof garden, study and creation of terrariums, vertical garden, study and practice of different types of flower arrangements, preparation of floral bouquets, preparation of floral rangoli, veni *etc*., study of *Bonsai* techniques, *Bonsai* practicing and training, visit to nurseries & floriculture units.
- **Vegetable Science:** The students are delivered practical classes on identification and description of tropical & sub-tropical vegetable crops, nursery practices & transplanting, preparation of field & sowing/planting for direct sown & planted vegetable crops, herbicide use in vegetable culture, top dressing of fertilizers & intercultural operations, use of growth regulators, identification of nutrient deficiencies, physiological disorders, harvest indices & maturity standards, post-harvest handling & storage, marketing, seed extraction (cost of cultivation for tropical & sub-tropical vegetable crops) and project preparation for commercial cultivation
- **Fruit Science:** The department has laboratories for conducting practical classes on features of orchard, planning & layout of orchard, tools & implements, identification of various horticultural crops, layout of nutrition garden, preparation of nursery beds for sowing of vegetable seeds, digging of pits for fruit plants, planting systems, training & pruning of orchard trees, preparation of fertilizer mixtures & field application, preparation & application of growth regulators, layout of different irrigation systems, identification and management of nutritional disorder in fruits, assessment of bearing habits, maturity standards, harvesting, grading, packaging and storage
- **Statistics, Computer Application & IPR:** Practicals are delivered to students on exercises on binary number system, algorithm and flow chart, MS Word, MS Excel, MS Power Point, internet applications: web Browsing, creation and operation of email account, analysis of fisheries data using MS Excel,handling of audio visual equipments, planning, preparation, presentation of posters, charts, overhead transparencies & slides and organization of an audio-visual programme

Besides these laboratories, the following facilities are also available at College of Horticulture and Forestry, Pasighat which are also accessed by students of College of Agriculture.

Infrastructure	Area (sq. meter)
Workshop	1000
Dairy Plant	90
Poultry Unit	72
Pond	1105 (At College of Agriculture) 1500 (At College of Horticulture and Forestry)

Regular income is generated through sale of milk and sale of poultry for meat from the Dairy Plant (Fig. 11) and Poultry Unit, respectively. The water from the pond is used for the purpose of drip and sprinkler irrigation, gravity fed irrigation etc (Fig. 12). The workshop which is maintained by the Engineering Unit is well designed with sufficient land area and build infrastructure with required farm machineries such as tractors, power tillers, cultivators, leveller, rotavator, and other farm implements for day to day work related to research purpose (Fig. 13).

Instructional Farm

The students of College of Agriculture are presently utilizing the different instructional farms which are already present at College of Horticulture and Forestry (Fig. 14). Altogether, a total of 16 instructional farms are established under 5 departments of the college, the details of which are listed below:

Department/Section	Area (Sq.mtr.)	Facilities available
Agronomy		
1. Forest Engineering Facility 2. Farm Power & Irrigation Infrastructures	1500	• Run-off Experiment Facility • Rain water Harvesting Based Integrated Horticulture Farming System • WHP=5 Lakh Litre Capacity • 5Hp Solar Pumping System • Naturally Ventilated Greenhouse= 30m×7m • Drip irrigation system operated by Solar Pump • Sprinkler Irrigation System operated by solar pump • Gravity fed drip Irrigation System in 500sq.m area • Basic Power Machineries available
3. Agrometerology	500	• Meteorological observation data for

Observatory		Research and Academic purpose
4. Silviculture Nursery	9100	• Nursery raised bed= 70 Nos. • Shade net house (5x1.5m) = 30 Nos. • Green Net House (9mx16.5mx 5.5m) • Tree Garden/ Collection of 250 species of tree species for research/academic • PG Research plots for germination exp • Plantation Blocks of diff. species • Water Pump with motor, Irrigation & electricity setups
5. Agroforestry Block	2100	• Compost (concrete) pit • PG Research plots under different spacing's of different species & different age
Horticulture		
6. Medicinal & Aromatic plant farm 7. Medicinal plant germplasm block	12000	• Germplasm of Medicinal Plants • Collection of rare & endangered spp. • Nursery beds • Shade houses/roofs • Irrigation & electric facilities
8. Herbal garden	10000	• More than 160 species • Research, conservation & identification purpose
9. Bambusetum block	8000	• 67 spp. of different type of bamboos • Research, conservation & identification purpose
10. Rubber plantation block	20000	• Commercial genotypes of high yielding *Hevea brasiliensis*
11. NTFPs & High value timber block	25000	• Tans & dye yielding plants • Lac, Gums and resins plants • Drugs, spices and insecticides plants • Wild edible fruits trees
Genetics and Plant Breeding		
12. PBG farm	1800	• Nursery raised bed= 20 Nos. • Shade net house (15x15m)

		• Tokko patta shade roofs: 10 nos. • Arboretum 1100 sq. mtr. • Irrigation & electricity setups
Entomology		
13. Entomology (Biocontrol) Farm	4047	• Nursery Beds, Research plots • Water Pump with motor, Irrigation & electricity setups
14. Entomology (IBDC) Farm	2023	• All equipment's of beekeeping • Irrigation facility • Plots for nectar yielding plant
Plant Pathology		
15. Pathology Farm	1083	• Disease Diagnostic Field • Students demonstration plot • Nursery beds • irrigation& electric facilities.
16. Paddy straw boiling unit and mushroom House	1350	• Boiling unit • Facilities for mushroom culture & production • Unit has more than 250 species of edible and poisonous mushroom species

Fig. 11. Dairy Unit at CHF

Fig. 12. Pond at CoA

Fig. 13. Workshop at CHF

Fig. 14. Instructional Farm at CoA

6.5.3.3. Student READY/ In-Plant Training / Internship / Experiential Learning Programmes

The college has already implemented the Student's READY Programme as per the directions and guidelines of Central Agricultural University, Imphal. The Rural Agricultural Work Experience Programme (RAWEP), Agro-industrial Attachment(AIA) and Experiential Learning Programme (ELP) are under the Students READY Programme for B.Sc. (Hons.) Agriculture. Through this programme, students are given hands on experience and practical training in agriculture and allied areas. The programme helps to develop confidence, skills and to acquire knowledge of agricultural systems.

RAWE & AIA programme: RAWEP is organized for every year for the undergraduate students of College of Agriculture in the 4th Year, 1st semester of every academic session the with a credit load of0+10. The objective of the RAWEP is provide opportunities to the students to study the rural agricultural system through direct farm experiences by personally visiting the farms and interacting with the farmers. The students also gain experience and knowledge about the extension activities carried out by the Govt. and private agencies and non-governmental organizations. The students undergoing the programme are expected to learn different components of agriculture and allied activities, conduct method demonstration and training, organize exhibition and prepare reports on their experiences gained. The students are expected to learn day to day farming activities of farmers and general village conditions during their stay at the villages.

The AIA programme (credit load of 0+10) provides hands on training to students about the managerial and commercial aspects of Agri-based business. Interaction with experienced entrepreneurs/businessman helps them to understand the practical aspects of business and motivates students to become entrepreneurs themselves. The students are placed in fertilizer industries, bio-fertilizer production units, vermicomposting units, food processing units etc. The students are expected to undertake the following activities:

- Acquaintance with industry and staff
- Study of structure, functioning, objective and mandates of the industry

- Study of various processing units and hands-on trainings under supervision of industry staff
- Ethics of industry
- Employment generated by the industry
- Contribution of the industry promoting environment
- Learning business network including outlets of the industry
- Skill development in all crucial tasks of the industry
- Documentation of the activities and task performed by the students
- Performance evaluation, appraisal and ranking of students

The details of the programme are as:

Sl. No.	RAWE & AIA		
	Activities	**Weeks**	**Credit hrs**
1.	General orientation & on campus training by different faculties	1	
2.	Village attachment	8	14
3.	Unit attachment in Univ./ College KVK/ Research Station	5	
4.	Plant clinic	2	2
5.	Agro-Industrial Attachment	3	4
6.	Project Report Preparation, Presentation and Evaluation	1	
Total weeks for RAWE & AIA		**20**	**20**

- Agro- Industrial Attachment: The students would be attached with the agro-industries for a period of 3 weeks to get an experience of the industrial environment and working
- Educational tour will be conducted in break between IV & V Semester or VI & VII Semester

RAWE Component-I

Village Attachment Training Programme

Sl. No.	Activity	Duration
1.	Orientation and Survey of Village	1 week
2.	Agronomical Interventions	1 week
3.	Plant Protection Interventions	1 week
4.	Soil Improvement Interventions(Soil sampling and testing)	1 week
5.	Fruit and Vegetable production interventions	1 week
6.	Food Processing and Storage interventions	1 week
7.	Animal Production Interventions	1 week
8.	Extension and Transfer of Technology activities	1 week

RAWE Component –II

Agro Industrial Attachment

- Students shall be placed in Agro-and Cottage industries and Commodities Boards for 3Weeks
- Industries include Seed/Sapling production, Pesticides-insecticides, Post harvest-processingvalue addition, Agri-finance institutions, etc

Activities and Tasks during Agro-Industrial Attachment Programme

- Acquaintance with industry and staff
- Study of structure, functioning, objective and mandates of the industry
- Study of various processing units and hands-on trainings under supervision of industry staff
- Ethics of industry
- Employment generated by the industry
- Contribution of the industry promoting environment
- Learning business network including outlets of the industry
- Skill development in all crucial tasks of the industry
- Documentation of the activities and task performed by the students
- Performance evaluation, appraisal and ranking of students

Modules for Skill Development and Entrepreneurship: A student has to register 20 credits opting for two modules of (0+10) credits each (total 20 credits) from the package of modules in the VIII semester

Sl. No.	Title of the module	Credits
1.	Production Technology for Bioagents and Biofertilizer	0+10
2.	Seed Production and Technology	0+10
3.	Mushroom Cultivation Technology	0+10
4.	Soil, Plant, Water and Seed Testing	0+10
5.	Commercial Beekeeping	0+10
6.	Poultry Production Technology	0+10
7.	Commercial Horticulture	0+10
8.	Floriculture and Landscaping	0+10
9.	Food Processing	0+10
10.	Agriculture Waste Management	0+10
11.	Organic Production Technology	0+10
12.	Commercial Sericulture	0+10

Note: In addition to above ELP modules other important modules may be given to the students by the University

Evaluation of Experiential Learning Programme

Sl. No.	Parameters	Maximum Marks
1.	Project Planning and Writing	10
2.	Presentation	10
3.	Regularity	10
4.	Monthly Assessment	10
5.	Output delivery	10
6.	Technical Skill Development	10
7.	Entrepreneurship Skills	10
8.	Business networking skills	10
9.	Report Writing Skills	10
10.	Final Presentation	10
	Total	**100**

Profit sharing mechanism (AMOUNT) for each ELP unit for last 5 year is mentioned below:

COLLEGE OF AGRICULTURE, CAU, PASIGHAT

Sl. No.	Department	Year	No. of students trained	Total income generated in rupees	Total profit earning	Profit shared per student	Major skills imparted	Additional info (if any)
B.Sc. (Hons.) Agriculture								
1	Crop Production (IVth Dean)	2016-17	-	Nil	Nil	Nil	Marketing skills, project formulation skills & production skills.	
		2017-18	3	Rs. 7500	Rs. 4750	Rs. 1187.5		
		2018-19	5	Rs. 9500	Rs. 6690	Rs. 1003.5		
		2019-20	-	Nil	Nil	Nil		
		2020-21	-	Nil	Nil	Nil		
2	Compost Production (IVth Dean)	2016-17	5	Rs. 8000	Rs. 6000	Rs. 900		
		2017-18	4	Rs. 14000	Rs. 11000	Rs. 1875		
		2018-19	4	Rs. 12000	Rs. 9000	Rs. 1687.5		
		2019-20	-	Nil	Nil	Nil		
		2020-21	-	Nil	Nil	Nil		

3	Mushroom Cultivation (Vth Dean &IVth Dean)	2016-17	4	Rs. 9770	Rs. 7717	Rs.1446.93		
		2017-18	6	Rs. 8040	Rs. 6724	Rs. 840.5		
		2018-19	4	Rs. 9786	Rs. 7460	Rs. 1398.75		
		2019-20	4	Rs. 8000	Rs. 6870	Rs. 1288.12		
		2020-21	-	Nil	Nil	Nil		
4	Commercial Horticulture (Vth Dean)	2016-17		Nil	Nil	Nil		
		2017-18		Nil	Nil	Nil		
		2018-19		Nil	Nil	Nil		
		2019-20	5	Rs. 1500	Rs. 500	Rs. 75		
		2020-21		Nil	Nil	Nil		
5	Food Processing (Vth Dean)	2016-17	-	Nil	Nil	Nil		
		2017-18	-	Nil	Nil	Nil		
		2018-19	-	Nil	Nil	Nil		
		2019-20	9	Rs. 6090	Rs. 3178	Rs. 264.83		
		2020-21	-	Nil	Nil	Nil		
6	Production Technology for Bio agent and Bio fertilizer (Vth Dean)	2016-17		Nil	Nil	Nil		
		2017-18		Nil	Nil	Nil		
		2018-19		Nil	Nil	Nil		
		2019-20	4	Rs. 25000	Rs. 8471	Rs. 1588		
		2020-21	-	Nil	Nil	Nil		
7	Floriculture & Landscaping (Vth Dean)	2016-17		Nil	Nil	Nil		
		2017-18		Nil	Nil	Nil		
		2018-19		Nil	Nil	Nil		
		2019-20	8	Rs. 26600	Rs. 16635	Rs. 1559.53		
		2020-21	-	Nil	Nil	Nil		
8	Organic Production Technology	2016-17		Nil	Nil	Nil		
		2017-		Nil	Nil	Nil		

	(Vth Dean)	18						
		2018-19		Nil	Nil	Nil		
		2019-20	4	Rs. 4300	Rs. 2300	Rs. 431.25		
		2020-21	-	Nil	Nil	Nil		

6.5.3.4. Curricula Delivery Through IT (smart class rooms/interactive board etc.)

3 numbers of smart classrooms have been already constructed at the allotted site for College of Agriculture and 1 smart classroom is under construction. The smart classrooms will be provided with LCD projectors and audio-visual aids for better delivery of lectures. A table, podium, whiteboards/screen, black board with duster will be available in each class room for the use of teachers. A common generator facility will be made available to power all the classrooms to avoid interruption of the class during instance of power failure. At present, the teachers and students are accessing the smart classrooms of College of Horticulture and Forestry for regular classes. The smart classrooms available at College of Horticulture and Forestry are as:

Number of smart classrooms	:	13
Classrooms and halls with Wi-fi	:	13
Classrooms with computers and projectors	:	13
Classrooms with interactive boards	:	13
Practical laboratories	:	13

Measures taken to instruct students on IT facilities

- Students are suggested to refer to web sources like e-papers and e-books to collect information on their course syllabi and assignment related works
- Students are instructed to use online video platforms for gathering additional information related to the course syllabi and assignments

ICT tools for various courses

- Online video lectures and group discussion
- Online training manuals
- Kisan web portal
- E-extension methods
- Exposure to websites related to export and domestic market such as APEDA and Commodity Boards

- Use of statistical software MSTAT and AGRISAT
- Accessibility to OPAC (Online Public Access Catalogue) at www.chfcau.ideal.egranth.ac.in
- Electronic Resource Management package for e-journals through CeRA ICAR (Consortia for e-Resources in Agriculture) at www.cera.jccc.in
- CAB data base access facility (CAB data from 1972 to 2005)
- Access to Krishikosh (e-theses etc. Institutional Repository of ICAR) at Krishikosh.egranth.ac.in

6.5.4. Student Development

Nurturing the intellect and character of students by integrating in-class and extracurricular activities has been the primary objective of the college. To accomplish this objective, the students are exposed to a wide range of educational and social experiences which leads to development of integrity and sincerity among the students.

6.5.4.1. Student Intake and Attrition

The College presently offers only Under Graduate Programme in Agriculture *i.e*. B.Sc. (Hons.) Agriculture which is of 4 years duration.The annual intake of students to the college at UG level has increased since the inception of the university.

Name of the Degree Programme	Actual student admitted in last five years					Attrition (%)				
	Y1 (16-17)	Y2 (17-18)	Y3 (18-19)	Y4 (19-20)	Y5 (20-21)	Y1 (16-17)	Y2 (17-18)	Y3 (18-19)	Y4 (19-20)	Y5 (20-21)
B.Sc (Hons.) Agriculture	19	18	19	18	32	-	5.56	-	-	15.62

Admission of the programme is open to the students of North Eastern states under its jurisdiction and ICAR nominees. Based on the population of each constituent state, intake quota is fixed for the undergraduate programmes (Fig. 15) and admission is given to the candidates sponsored by the respective states based on the common entrance test conducted by CAU, Imphal. The student belonging to states other than North East are also admitted to the college through the All India Entrance Exam conducted by ICAR with 15% of total seats reserved for such candidates.

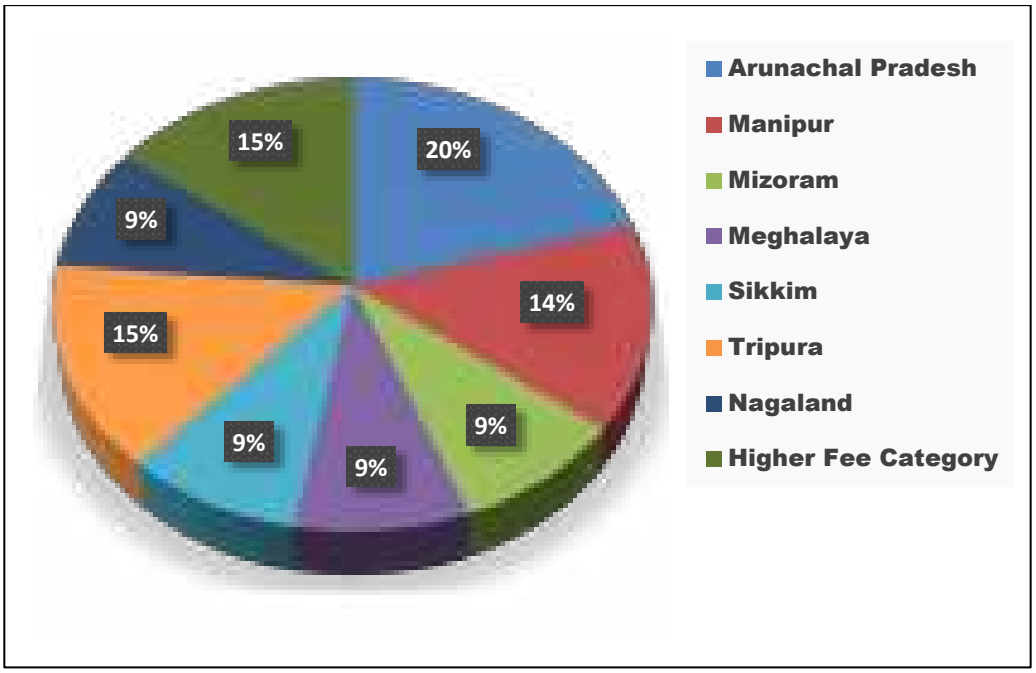


Fig. 15. State wise allotment of seats

In recent years, some signatory states are, however, seeking more allocation of seats to their students which might be because of the impressive performance of the students who have already passed out in last 4 years. Out of a total 112 students passing out, 90 per cent of the students have secured first class position in their final exams which is an impressive achievement for the college and a moral boost for the faculty involved. The post-academic performance of the graduated students at national level also speaks about the credibility of the college.

6.5.4.2. Average Number of Students in Theory and Practical Classes

The batches of students are organised to ensure better delivery of information, encourage students' participation and active monitoring.

S.NO	Year	Name of the Degree Program	Total Intake/year	Batch of students in theory class	Batch of students in practical class
1.	2016-17	B.Sc.(Hons) Agriculture	24	1 batch (19 students)	1 batch (19 students)
2.	2017-18	B.Sc.(Hons) Agriculture	24	1 batch (18 students)	1 batch (18 students)
3.	2018-19	B.Sc.(Hons) Agriculture	24	1 batch (19 students)	1 batch (19 students)
4.	2019-20	B.Sc.(Hons) Agriculture	24	1 batch (18 students)	1 batch (18 students)
5.	2020-21	B.Sc.(Hons) Agriculture	34	1 batch (18 students)	1 batch (18 students)

6.5.4.3. Admission Process

Admission requirement

- The candidates should have passed 10+2 examination with English as one of the subjects of study. The candidates much have attained 17 years of age on 31st December in year of admission. The selection or nomination of candidates is done through National Eligibility cum Entrance Test (NEET) conducted by the National Testing Agency (NTA). Students seeking admission to the above degree programme shall be permanent resident or domicile of any one of the north eastern states of India *i.e*., Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. The number of students to be admitted for each of the north eastern states is notified by CAU from time to time
- The candidates to be sponsored for admission shall be from the merit list based on the entrance test
- 15% of the approved number of seats in the UG programme shall be filled by the candidates selected on the basis of All India Entrance Test conducted by ICAR or as amended from time to time by ICAR.The ICAR nominees shall be governed by the eligibility as prescribed by ICAR

Date of admission

- The date of admission to a bachelor's degree programme shall be as per the announcement made in the prospectus or academic calendar or semester calendar which is duly notified by the Registrar**,** CAU

Registration process

- On admission, a student is provided four copies of registration cards having different colours; one for the student, one for the advisor, one for the Dean and one for the Registrar which is filled up and registered for the prescribed process for the first semester. The registration card shall be signed by the student, his advisor, Assistant Registrar (academic) and countersigned by the Dean of the college.
- On admission and registration, the students are provided with college identity cards with his/her photograph. The identity card is returned to the college by the students when the students leave the college after completion or discontinuation of the course
- Newly admitted studentsare given an admission number by the Dean of the college. This admission number is valid till individual registration number is allotted by the Registrar, CAU to the students
- An orientation programme is organized by the Dean of the college for the benefit of the newly admitted students immediately at the beginning of the first semester

6.5.4.4. Conduct of Practical and Hands on Training

Since the college of Agriculture is under construction, the college is still attached with the College of Horticulture in the same campus. The utilization of faculties and the facilities are very much needful for the functioning of the college and for the welfare of the students.

Practical classes (Fig. 16),field visits and hands on training (Fig. 17) are conducted by most of the departments of College of Agriculture with the existing facilities available at College of Horticulture and Forestry, Pasighat campus.

Fig. 16. Practical classes conducted

Fig. 17. Hands on training for students

Agronomy

Field visits are regularly arranged to farmers' field to understand the cultivation practices and management aspects of different crops cultivated at field level. Besides field visits, exposure visits to other research and educational institutes are arranged so that students may gain information on latest development in the field of agriculture. Students are provided hand on training on rice nursery preparation and transplanting, sowing of field crops, identification of weeds in *rabi*and *khariff* season crops etc.

Plant Biochemistry

Students are given practical classes on preparation of solution, pH & buffers, titration methods for estimation of amino acids/lipids, qualitative tests of carbohydrates and amino acids, paper chromatography/TLC demonstration for separation of amino acids and monosaccharides etc.

Genetics and Plant Breeding

Practical classes are conducted on dissection of floral parts of crops. Students are made to prepare herbarium specimens of crops of different families. Hands on training are provided to students on preparation of different stains, preparation of permanent slides of mitosis and meiosis stages, hybridization followed by selection in various crops, emasculation, crossing and selfing techniques of crops etc.

Plant Biotechnology

The students are provided hands on training on preparation of culturing media, tissue culture, aseptic practices, micropropagation of crops, DNA fingerprinting using RAPD&PCR, callus induction from

various explants. The students are demonstrated on isolation of DNA, gel electrophoresis techniques and DNA finger printing.

Agricultural Economics

The students are assigned topics on budgeting and farm planning, cost of cultivation, marketing operations and develop agri-based business models, techno-economic parameters for preparation of projects, preparation of bankable projects for various agricultural products and its value-added products, seminar on selected topics, preparation and analysis of balance sheet etc. Students are given exposure visits to commercial & cooperative banks and cooperative societies to acquire first-hand knowledge of their management, schemes and procedures.

Agricultural Engineering

Students are given practicals on preparation of contour maps, designing of grassed water ways, contour bunds, graded bunds & bench terracing system, familiarization with different components of tractors, learning of tractor driving, operation of power tiller, familiarization with different types of primary and secondary tillage implements, seed-cum-fertilizer drills, different types of sprayers and dusters, different inter-cultivation equipment, harvesting and threshing machinery.

Statistics, Computer Application & IPR

Practical classes are conducted for students on graphical representation of data, measures of central tendency, correlation &regression analysis, application of t-test, chi-square test, analysis of variance, simple random sampling, study of computer components, use of MS-WORD and MS Power-point for creating, editing and presenting scientific documents, preparation of contingent crop planning etc.

Extension Education

The students are provided with hands on training in identifying and analysing the problems faced by the farmers, conduct awareness programmes to improve the skill, knowledge and attitude of farmers, brainstorm sessions to develop innovative ideas and prepare audio visual aids on specific topics. Students are prepared for listening and note taking, writing skills, oral presentation skills, field diary and lab record, indexing, footnote & bibliographic procedures, reading and comprehension of general and technical articles, precise writing, summarizing, abstracting, individual and group presentations.

Entomology

Hands on training is provided to students on aspects of bee keeping, lac culture, biocontrol agents, identification of different insect pests in field etc. Students are given exposure visits to nearest FCI godowns, research and training institutions devoted to beekeeping, sericulture, lac culture and natural enemies. Students are made to identify natural enemies and mass multiply them.

Horticulture

Hands on training is provided to students on planning, layout and planting of horticultural crops, different methods of propagation, IPM and INM packages for horticultural crops, post-harvest technologies, cultural operations etc.

Plant Pathology

Practical classes are conducted to identify and diagnose different diseases of crops, study of morphological features and identification of plant parasitic nematodes, sampling and extraction of nematodes from soil and plant material, preparation of nematode mounting, study of fungicides and their formulations, methods of pesticide application and their safe use, calculation of fungicide sprays concentrations etc.

Soil Science& Agricultural Chemistry

Hands on training is provided to students on soil profiling and soil sampling. Practical classes are conducted on analysis of physico-chemical properties of soil such as organic carbon, alkaline hydrolysable N, soil extractable P, estimation of exchangeable K, Ca and Mg, soil extractable S, extractable Zn, N, K and S in plants.

6.5.4.5. Examination and Evaluation Process

The college strictly adheres to the examination and evaluation system as recommended by the Vth Deans' Committee. As such, the college follows Uniform Grading system with uniform OGPA requirements for award of degrees at all levels. A uniform conversion formula is followed for declaration of Ist, IInd and IIIrd divisions, distinctions etc.

Examination

The students are evaluated middle of the semester as well end of the semester through mid and end term examinations. Also, the students are evaluated continuously through class exercises and assignments. The examination system is a combination of 50% internal and 50% external components. The weightage to the theory and practical examinations are in the same proportion as the theory and practical credits allotted to different courses. Total marks obtained for a course for practical and theory examination are added and converted into percentage for calculating the cumulative grade point average.

Courses with Theory and Practical

- Mid-term Exam (30%) + Assignment (5%) in practical oriented courses + Practical (15%)

Courses with only Theory

- Mid-term Exam (40%) + Assignment (10%)

Courses with only Practical

- 100% Internal

Keeping this in view, the schedule and weightage to different examination are as follows:

Particulars	**Course credits**									
	2+1		**1+1/2+2**		**1+2**		**1+0/2+0**		**0+1/0+2**	
	T	**P**	**T**	**P**	**T**	**P**	**T**	**P**	**T**	**P**
Mid-term exam	30	-	30	-	30	-	30	-		
Quiz/Continuous evaluation	20	30	20	30	20	30	20	-	-	30
End-term exam	50	70	50	70	50	70	50	-	-	70
Maximum marks	100	100	100	100	100	100	100	100	-	100

* At least 4 number of quizzes are conducted for each course

The question papers are set by externals while HODs of concerned departments ensure the coverage of syllabus. If needed, moderations are done accordingly.

Duration of exams

Mid-term theory exam	:	1½ hours
End-term theory exam	:	2½ hours
End-term practical exam	:	3 hours

Evaluation

Evaluation is done internally by the faculty other than the Course Instructor. Syllabus of the concerned course is sent to an external examiner, who prepares the question papers. For practical, the examination is conducted by the course instructor(s) and one teacher nominated by the HOD. The answer books of end term theory exams are evaluated by external examiners nominated by the Hon'ble Vice Chancellor, CAU.A Ten-point grading system is adopted with minimum Grade Point Average (GPA) of 5.00 for passing a subject and Overall Grade Point Average (OGPA) of 5.50 for obtaining the degree.

Degree	Percentage of Marks Obtained	Conversion into Points
B.Sc. (Hons.) Agriculture	100	10 Points
	90 to <100	9 to <10
	80 to <90	8 to <9
	70 to <80	7 to <8
	60 to <70	6 to <7
	50 to <60	5 to <6
	<50 (Fail)	<5
	Example 80.76	8.076
	43.60	4.360
	72.50 (but shortage in attendance)	Fail (1 point)

The following ranking pattern is adopted to award the degrees:

OGPA	Division
5.000-5.999	Pass
6.000-6.999	II division
7.000-7.999	I division
8.000 and above	I division with distinction

GPA, CGPA and OGPA are calculated as follows:

GPA	=	Total points scored / Total credits (for 1 semester)
CGPA	=	∑ Total points scored / Course credits
OGPA	=	∑ Total points scored (after excluding failure points)/ Course credits
Percentage of Marks	=	OGPA × 100/10

6.5.4.6. NCC/NSS/RVC Units

As the College of Agricultureis a newly established college, the NSS Units for the B.Sc (Hons) Agriculture students is attached to and functions jointly with the students of the College of Horticulture and Forestry, Pasighat.Students of 1st and 2nd year, pursuing B. Sc. (Hons) Agriculture programme, are enrolled as NSS volunteers for 4 semesters along with mandatory participation in a 7-day special NSS camp conducted in an adopted village.The NSS unit regularly organizes orientation sessions for newly inducted student volunteers. Events such as *Swachh Bharat Abhiyan*, Fit India Run, mass tree plantation, donation drive for victims of natural calamities, blood donation camps, felicitation of aged vendors, events for school children, etc are important mandates of the NSS unit.

Activities of NSS units

- Members of the NSS unit participated in Arunachal ATAL Conclave in August, 2018
- Members of the NSS unit participated in the Annual Sports Week of the college in October, 2019
- Members of the NSS unit participated in the 6th CAU Intercollegiate Youth and Sports' Meet in November, 2019
- The NSS unit organized a 7-day Special NSS Camp on the theme "Youth-Warriors Against Intoxicants" at Paglek, East Siang from 6th Januaryto 12th January, 2020. The program was attended by 120 NSS volunteers and more than 200 students and teachers of different schools and other representatives of village councils. Activities at the camp included cleanliness drive, landscaping and plantation, voluntary teaching, special sessions on fruits & vegetables processing, sessions on importance of bees & other beneficial insects, mushroom cultivation & consumptions and blood donation camp at BP General Hospital, Pasighat in collaboration with AYANG, a local NGO

- The NSS unit celebrated the Swami Vivekananda Jayanti on 12th January, 2020 at the college
- The NSS unit celebrated the Republic Day on 26th January, 2020 at the college. Chess and carom tournament were organized among the students as a part of the celebration and winners were awarded with certificates
- Members of the NSS unit participated in Walkathon arranged in Pasighat area as a part of Fit India on (Fig. 18)
- The NSS unit launched a "Voluntary Blood Donors" Club in collaboration with AYANG, an NGO on 7th February, 2020 (Fig. 19)
- Members of the NSS unit participated in the All India Agriculture University Sports Meet held in March, 2020

Fig. 18. Joint participation of NSS units of CHF & CoA in Fit India Run

Fig. 19. Joint participation of NSS units of CHF & CoA in blood donation camps

6.5.4.7. Language Laboratory

The language laboratory is under construction at College of Horticulture and Forestry, Pasighat campus which will be also accessible to the students of College of Agriculture. The laboratory has been approved under Institutional Development Plan-National Agricultural Higher Education Project (IDP-NHEP) under ICAR. The purpose of constructing the laboratory is to teach students to have a good command of the language for effective communication with clarity and accuracy. The laboratory will have conventional, computer assisted language laboratory and multimedia hi-tech language laboratory for language teaching. The students will also be trained in advanced writing skills in terms of assignment and report preparation. The students will have access to study materials related to group discussion, interview skills, brain storming, and simulation and negotiation skills.

The medium of instruction in the college in English. the classes in both theory and practical are offered as per the V Deans' Committee Recommendation during the 1st semester of B.Sc(Hons) Agriculture as Comprehension and Communication skills in English of 2+1 Credit Hr are offered. A well-qualified

English teacher is engaged to conduct the classes. The concerned course in-charge recommended good books online audio-visual and video clipping. However students from non-english medium of instruction are accustomed comfortably by conducting extra classes and personal care by the academic advisors.

In addition to this the Student Welfare Officer and NSS in charge conduct various literally competitions such as Debate, elocution, essay writing competition on various occasion viz., Republic Day, Independence Day, Dr. B.R. Ambedkar Jayanti, Mahatma Gandhi Jayanti, College Foundation Day and other important events to encourages students to develop their language proficiency. Also teachers in their respective courses encourage students to present the seminar on course topics to have command on English and improve public speaking skills.

6.5.4.8. Cultural Center

The college has a Student Activity Center which is exclusively empowered to explore and equip the students for multi-varied cultural activities. The college also has a Cultural Council to promote different talents of the students. The Council works under the guidance of the Student Welfare Officer of the College. Different types of clubs' function under the Cultural Council such as the Music Club, Theatre Club, Literary Club and Fine Arts Club. The Theatre Club organizes cultural events for the students at inter and intra collegiate levels and students are encouraged to participate in intercollege cultural events. An Alumni Association is formed centrally at Central Agricultural University which conducts alumni meets and invite alumina of the college for guest lectures, student interactive meetings and curricula development.

6.5.4.9. Personality Development

Besides the four compulsory courses under the V Dean's Committee syllabus which cater to the overall personality development of the students, the College of Agriculture invites renowned achievers from the different places such as Mr. Litan Bhowmik, motivator from Tripura, Mr. Pangin of M/s Elam Industry, successful entrepreneur and social worker, Mrs. Aini Taloh of AYANG from time to time to inspire and motivate the students. The courses in the present syllabus includescomprehensive and communication skills in english, agricultural heritage, human values and ethics and communication skills and personality Development. These courses are being taught by experienced faculty members. Besides soft skill training programs, JRF coaching, mock test, group discussions are being organized at regular intervals. As a part of NSS activities, faculties arrange for sessions like learning body languages, English proficiency for good communication etc. Students of College of Agriculture participate in different competitions held at different places. For example, Ms. Mumdi Pertin, a student of the college bagged the 1st prize while Ms. Shefa Mahroze won the running trophy at the Annual Inter-College Debate competition on 28th February, 2018 held at J.N. College, Pasighat. Ms. Shefa Mahroze also took part in the ATAL Conclave at Itanagar in August, 2018 which was organized by the Govt. of Arunachal Pradesh wherein student volunteers were selected to participate in the brainstorming session addressed by the Chief Minister, Sri. Pema Khandu.

Table: Details of Personality Development programmes organized in the College.

Sr. No.	Speaker/ organization	Topics/Aspect	Dates	No. of Participants
1	Mr. Ahmad c/o Traffic Police Pasighat Town	Traffic Rules and Regulations for Civilized Citizens	30.01.2016	135
2	Dr. Bikram Singh Asst. Professor, CHF	Paris Climate Conference and Global Concern	27.04.2016	141
3	Dr. N. Lyngdoh Asst. prof., CHF	Climate Change and Role of Youth	27.04.2016	141
4	Dr. Mukul Kumar Assc. Prof., CHF	India's promises to Paris Climate Conference	27.04.2016	141
5	Mr. Mahesh Pathak PC, KVK, East Siang	Role of KVK in Agriculture Development	07.05.2016	141
6	Sri. Ninong Ering Hon'ble MP, Lok Sabha Arunachal East	Youth for Smart Farming	16.06.2016	125
7	Sri. Panging Group Captain (Retd.) Indian Airforcwe, Pasighat	Leadership Skill	15.10.2016	165
8	Mr. Litan Bhowmick LBS Training & Consulting Services Pvt. Ltd. Agartala, Tripura	Emotional intelligence and its application for skill development	11.03.2017	185
9	Dr. (Mrs.) Lung Panging Medical Officer, CHF	Youth and Blood Donation	25.03.2017	47
10	Sri. Rajib Rudra Tariang Asst. Prof., Dept. of Zoology Digboi College, Assam	Snake conservation, identification techniques and first aid measures	06.05.2017	145
11	Sri. Ninong Ering Hon'ble MP Lok Sabha Arunachal East	Youth for Clean Environment	06.06.2017	127
12	Dr. (Mrs.) Ps. Mariam Anal Asst. prof., CHF	Different facets of community services: *Shramdam* as part of students' life	17.02.2018	165
13	Mr. L. Shantikumar Asst. Prof. CHF	Avenues after UG Programs in Agri allied Courses	17.02.2018	165
14	Dr. Bikram Singh Assc. Prof, CHF	How extra is 'extra co-curricular activities for students	24.02.2018	165
15	Mr. Rinchin D. Bhutia PG Scholar, Dept. of Fruit Science, CHF	Possible cghallenges in Agriculture world for us	24.02.2018	165
16	Dr. Shivani Dobhal Asst. prof., CHF	Social Evils and their eradication	24.02.2018	165
17	Dr. N. Surmina Devi	Positive Thinking, Self Confidence, Self Esteem and Goal Setting	24.02.2018	165
18	Dr. Y. Oken Singh	Inter and intra personal	28.07.2018	165

		communication skill for persoanality development		
19	Dr. Rajkumar Singh Librarian, CHF	Relevance of brick and wall library in today's digital world.	12.08.2018	135
20	Dr, Shivani Dobhal Asst. Prof, CHF	Volunteerism: Not me but you and its relevance	11.10.2019	46
21	Mrs. Aini taloh Social Worker & Founder AYANG Foundation, Pasighat	Youth and Responsibilities as Citizens	11.10.2019	46
22	Mr. Rohit Bori Arts of Living, Pasighat	Relevance of Yoga to lead a Smart Life	21.06.2019	65
23	Dr. Kalkame Ch. Momin Asst. Prof., CHF	Forests and Education	23.03.2019	125
24	Dr. Bikram Singh Assc. Prof. CHF	Forests and Life	23.03.2019	125
25	Mr. Umesh J. Panaria DGM (Financial Inclusion & Dev. Dept.), RBI, RO, Guwahati	Financial literacy programme & digital baking for youth	08.02.2019	135
26	Prof. B. N. Hazarika Dean, CHF	Relevance of dr. S. Radhakrishnan's ideology for students	05.09.2019	413
27	Mr. N. Devachandra Asst. Prof & i/c SWO CHF	Optimism in day to day life	11.11.2019	186

6.5.5. Physical facilities

6.5.5.1. Hostels

The boys' hostel and the girls' hostel as well as transit hostel construction have almost completed but the college is under construction which will be functioning after completion of the college.

Therefore**,** at present, the students of College of Agriculture are accommodated in hostels of College of Horticulture and Forestry. However, a separate girl's hostel has been allotted to the girl students of B.Sc. Agriculture programme in the college while the boys are accommodated in the same hostels along with the students of College of Horticulture and Forestry. All hostels are provided with televisions, common rooms, medical facilities, indoor games, good mess (with cooks and menials), drinking water for the students.

The infrastructure of College of Agriculture *viz*., academic block, administrative block, separate hostels for boys (Fig. 20) and girls (Fig. 21), transit hostel (Fig. 22) *etc*. are under construction at the allotted site and major works are nearing completion.

Fig. 20. Boys hostel under construction at CoA

Fig. 21. Girls hostel under construction at CoA

Fig. 22. Transit hostel under construction at CoA

Hostel	No. of rooms	No. of students
Boys		
Sindhu	15	2 students per room
Ganga	20	1 student per room
Brahmaputra	15	2 students per room
New Boys Hostel	23	1 student per room
Girls		
P.G. Hostel	20	1 student per room
Daisy	42 (41 for students and 1 office room)	3 students per room
Daffodil (Exclusively for girls of B.Sc. Agriculture)	24	2 students per room
Silvia	16	3 students per room

Lily	21 (18 for students and 3 for guests)	1 student per room

Basic medical facilities are centrally available at the Medical Unit of the college where basic medical amnesties such as antipyretics, antibiotics, antidiarrheal etc. are available. Also, facilities for I.V. injections and fluids and suture needles and materials are available for minor suturing. First aid kits are issued to all hostels. Time to time health awareness campaigns are organized by the NSS units. Medical experts are invited to deliver special lectures on self-hygiene, tobacco and its toxicity, nutritious foods for healthy living etc.

6.5.5.2. Examination hall

Since the College of Agriculture is under construction, the examination halls of College of Horticulture and Forestry are utilized for conducting exams for the students of College of Agriculture. Separate exam halls are unavailable and hence normal classrooms are rearranged as exam halls during the time of exam, the details of which are:

No. of classrooms	:	13
Capacity	:	Varied capacity ranging from 20-40 sitting capacity
Facilities available	:	Chairs, writing desks, electrical fans and lights
Amenities	:	Washroom, wash basin and running water

6.5.5.3. Sports and Recreation Facilities

The students are facilitated to equip themselves for all types of physical exercises during the classes and in other play hours to keep them physically fit and healthy. In addition, the skill development in any one of the games such as badminton, volleyball, football, cricket, table tennis and athletics is contemplated in the physical education programme. Ground preparation, cleaning and maintenance are regularly done for use by the students. Regularly matches are conducted for the students during the annual sports day and intercollege meets or any other specific days such as the Foundation Day, Republic Day etc. to improve and maintain their skills using ground facilities. Facilities for playing indoor games such as carom, chess, badminton and table tennis are also available.

Student's Participation

Name of sport	**Level of participation**		
	University	**Zonal**	**National**
Foot Ball	Annual College Week	East Zone Football Men Tournament	-
Athletics Events	CAU Inter-collegiate	-	All India Inter Agri

	Sports Meet			University Sports Meet at Assam Agricultural University, Jorhat
Table Tennis	CAU Sports Meet	Inter-collegiate	-	-
Badminton	CAU Sports Meet	Inter-collegiate	-	-

6.5.5.4. Auditorium

Newly established college, so the auditorium is also under construction for the College. The auditorium is constructed at the allotted site with plinth size of 500 sq. mtr. The college is presently utilizing of the auditorium present at College of Horticulture and Forestry. The details of the auditorium at College of Horticulture and Forestry are as follows:

Does the college have auditorium	Yes
Year of construction and sitting capacity	2013; 300 number sitting capacity
How frequently the auditorium is used and purpose for being use	• College Day (Once a year) • Republic Day (Once a year) • Foundation Day (Once a year) • Independence Day (Once a year) • Inauguration programmes (Numerous times a year) • National and International workshops (Numerous times a year) • Invited Lectures (Numerous times a year)

6.5.5.5. Exhibition Hall/Museum

The College of Agriculture is presently utilizing the exhibition halls present at College of Horticulture and Forestry. The College of Horticulture and Forestry organizes exhibition programmes related to agriculture and allied sectors in seminar halls and conference rooms in the form of models, charts, live specimens for benefit of students, farmers and extension personnel. Every year RAWE students exhibit models on modern as well as traditional technologies practiced by the farmers at their place of stay. Numerous school and college going students have visited the exhibitions organized by the college.

Exhibitions organized as part of Events

- Organized a 7-day training programme from 12th-18th March, 2019 on Entrepreneurship Development for Farmers
- Organized a 3-day training programme for farmers on 'Advances in Production Technology of Major Fruit Crops from 19th-21st March, 2019
- Organized a 3-day training programme for farmers on 'Integrated Farming System for Doubling Farm Income' from 25th-27th March, 2019
- Organized a 2-day training programme for farmers on "Vermicomposting" on 29th-30th March, 2019
- Organized a 3-day training programme for farmers on "Advances in production technology of oil seed crops" from 13th-15thFebruary, 2020
- Organized a vocational training programme on **"**Horticulture nursery as production enterprise**"** for three months from 1st February, 2020 to 30th April, 2020

6.5.6. Research Facilities

The College of Agriculture is presently utilizing the laboratories of College of Horticulture and Forestry which are well equipped to conduct research in the field of agriculture and allied subjects. The college receives funds from ICAR, DBT, AICRP, National Bee Board etc.

6.5.6.1. Postgraduate Laboratories and Equipments

The laboratories are well equipped to conduct the practicals/hands on training to the students with instruments, laboratory tables, basins, irrigation facilities, electrical and ventilations, adequate wooden furniture etc. The list of instruments/equipments available in the laboratories are furnished below:

Agronomy

Sl. No.	Name of equipment	Sl. No.	Name of equipment
1.	Autoclave	24.	Increment Borers
2.	Bark Gauge	25.	Incubator
3.	Binocular	26.	Lux Meter
4.	Binocular microscope	27.	Ordinary Balance
5.	Clinometer	28.	pH meter
6.	Digital Camera	29.	Refrigerator
7.	Digital Weighing Balance	30.	Relaskop
8.	Distillation apparatus	31.	Seed drier
9.	Electronic Balance	32.	Seed Germinator
10.	Haga Altimeter	33.	Starter Compass
11.	High Limb Chainsaw	34.	Water Bath

12.	Hot Air Oven	35.	Weighing Balance
13.	Double water distillation machine	36.	Godrej refrigerator
14.	Optical microscope with computer	37.	Hot oven
15.	Essential oil distillation machine	38.	Compound microscope
16.	Binocular microscope	39.	Combine wood working machine
17.	Dissecting microscope	40.	UV Photo spectrometer
18.	Motor chain saw	41.	Universal testing machine
19.	Microtone machine	42.	Hot and cold press machine
20.	Seed germinator	43.	pH cum conductivity met
21.	Weighing balance	44.	Digital weighing balance
22.	BOD incubator	45.	Soxhlet oil extractor
23.	Hot Plate with Magnetic Stirrer		

Entomology

Sl. No.	Name of equipment	Sl. No.	Name of equipment
1.	Autoclave	14.	Laminar airflow
2.	Fermenter	15.	Binocular microscope
3.	Humidity cabinet	16.	Distillation unit
4.	Honey extractor	17.	Multimedia projector
5.	Honey Bottle sealing machine	18.	Bionocular microscope
6.	Automatic Honey bottle Dryer	19.	Weighing balance
7.	Honey bottling machine	20.	Laminar air flow
8.	Honey processing plant	21.	Autoclave Horizontal
9.	Honey comb foundation mill	22.	Nikon Camera d5300
10.	Gel Electrophoresis	23.	Water Bath
11.	Quartz Boiler & Quartz condenser	24.	BOD incubator
12.	Distillation unit	25.	Deep freezer, Water bath (digital)
13.	Serological Water bath	26.	Refrigerated table top centrifuge

Plant Pathology

Sl. No.	Name of equipment	Sl. No.	Name of equipment
1.	Autoclave	11.	Hygrometer
2.	Laminar flow	12.	Haemocytometer
3.	Stage & ocular micrometre	13.	Spawn Bag filler

4.	Camera lucida	14.	Grain Boiler
5.	Refrigerator	15.	Chalk powder mixture
6.	Distillation Unit	16.	Shrink wrap machine
7.	Illuminator	17.	Micro-oven
8.	BOD incubator	18.	Spectrophotometer
9.	Digital balance	19.	Microscope
10.	Student microscope		

Plant Biotechnology

Sl. No.	Name of equipment	Sl. No.	Name of equipment
1.	pH meter	8.	Hot plate
2.	Ice-flaking machine	9.	Microscope
3.	Autoclave	10.	Refrigerator
4.	Centrifuge	11.	Cooling water bath
5.	Laminar flow	12.	Gas Chromatography
6.	Ultraviolet Transilluminator	13.	Weighing machine
7.	PCR Machine	14.	HPLC

Genetics and Plant Breeding

Sl. No.	Name of equipment	Sl. No.	Name of equipment
1.	Digital Magnetic Stirrer	6.	Precision Balance
2.	Electronic Balance	7.	Seed Germinator
3.	Plant press	8.	Refrigerator
4.	Seed drier	9.	Water bath
5.	Microscope	10.	Hot Plate with Magnetic Stirrer

Soil Science & Agricultural Chemistry

Sl. No.	Name of equipment	Sl. No.	Name of equipment
1.	Hot Air Oven	7.	Plastic Jars
2.	Keen Box	8.	Nitrogen Analyser
3.	Analytical Balance	9.	Required Reagents
4.	Glasswares & plasticwares	10.	pH Meter
5.	Hot Plate	11.	Water Bath
6.	Mechanical Shaker		

Horticulture

Sl. No.	Name of equipment	Sl. No.	Name of equipment
1.	Distillation apparatus	20.	Seed germinator
2.	pH meter	21.	Conductivity meter
3.	Microprocessor model ADGR-203	22.	Analytical Balance (Model No. TP214DE)
4.	Hydraulic press machine	23.	Spectrophotometer
5.	Hot air oven (OVFO Model)	24.	Shrink wrapping machine
6.	Deep freezer	25.	B.O.D. Incubator
7.	Seed germinator	26.	Digital planimeter
8.	Tray Dryer	27.	Seed dryer (Model ISD – 600)
9.	Pulper	28.	PCR machine
10.	Water distillation set	29.	Nichipet ex plux variable volume pipette
11.	Bottle filling machine	30.	Citrus juice extractor
12.	Bottle washing machine	31.	Autoclave (ATCV – 223)
13.	Electronic Balance	32.	Horizontal Autoclave
14.	Atomic absorption spectrophotometer	33.	Flame photometer
15.	Ribotex shaker	34.	Cooling centrifuge
16.	Microplate reader	35.	Microwave oven
17.	Hot water bath	36.	Pressurizer
18.	Single & Double water distillation unit	37.	Autoclave
19.	Mini Spray Dryer	38.	Steam Jacketed Kettle

Engineering

Sl. No.	Name of equipment	Sl. No.	Name of equipment
1.	Total Station	6.	Plane table with accessories
2.	Current Meter	7.	Levelling survey accessories
3.	Digital Planimeter	8.	Hand Level
4.	GPS	9.	Abney's Level
5.	Dumpy Level	10.	Chain Surveying & accessories

Farm Power, Machineries and Irrigation Infrastructures

Sl. No.	Name of equipment	Sl. No.	Name of equipment
1.	Tractor 275 DI	12.	Tractor operated Seed Drill
2.	Multi crop Thresher	13.	Tractor Operated Lawn Mower
3.	Cultivator	14.	Rotavator
4.	Tanker	15.	Tractor Bull Excavator
5.	Trolley	16.	Tractor 605 DI
6.	Tractor 575 DI	17.	Ridge Maker
7.	Disc Harrow	18.	Power Tiller
8.	M.B. Plough	19.	Sprinkler Irrigation System
9.	Sprayers	20.	Tractor Operated Sprayer
10.	Hand Tools & Implements	21.	Tractor Operated Potato Planter
11.	Drip Irrigation System	22.	Disc Plough

6.5.6.2. Research Contingency

As the College of Agriculture is presently offering only one under graduate programme in Agriculture, the funds received from CAU and externally funded schemes are used for conducting undergraduate educational activities, especially for practical classes, wherever applicable. Adequate funds are available for meeting the recurring expenses incurred during the education programme. The year wise funds received for various education related activities are as follows:

Year	Particulars	Amount (in Lakhs)
2017-18	Experimental farms	5.00
	Equipment (including machines, tools, livestock etc.)	10.00
2018-19	Equipment (including machines, tools, livestock etc.)	10.00
2019-20	Experimental farms	4.00
	Equipment (including machines, tools, livestock etc.)	10.00

6.5.7. Outcome/Output

The College of Agriculture takes paramount interest in the performance of its students in the field of studies, sports, other extracurricular activities, employment and career growth. Alumni of the University are regularly consulted to get feedbacks on employment, performance in competitive exams, job selection process etc. Regular interactive talks are arranged between alumni and students so that students can get insights on different exams and personal interviews.

6.5.7.1. Student Performance in National Examinations

List of ICAR – JRF Holders, 2018

Sl. No	Name of the student	Admission No.	Discipline
1.	Mr. Ricky Winner Mylliemngap	01A-14	Agriculture
2.	Mr.BijoyDebnath	07A-14	

List of ICAR – JRF Holders, 2019

Sl. No	Name of the student	Admission No.	Discipline
1.	Ms. O. Ricky	09A-14	Agriculture

List of ICAR – JRF Holders, 2020

Sl. No.	Name of the student	Rank	Discipline
1.	Saibal Bishwas	IARI	Agriculture
2.	KojHaniya	IARI	Agriculture

6.5.7.2. Students Placement Profile

Most of the students graduating from College of Agriculture, Pasighat are placed in academics/research institution for pursuing higher education (M.Sc./Ph.D.) in India and abroad. Two students have been successfully placed in Government sector through state level examinations as well as interviews while 1 student is presently serving in the banking sector.

List of student qualified State Level Examination

Sl. No.	Name of the student	State Level Examination
1.	Mr. Babu Taloh	Agricultural Development Officer (AAPSC)
2.	Ms. Tumpi Lollen	Agricultural Development Officer (AAPSC)

Student qualified other examination

Sl. No.	Name of the student	State Level Examination
1.	Mr. Babu Taloh	Agriculture Field Officer (Canara Bank)

Number of students passed out and placed in various sectors from 2016-17 to 2020-21

Sl. No.	Year	Number of students qualified/Number of students placed					Number of students passed out
		JRF	SRF	NET	M. Sc.	Other	

1.	2016-17	02	-	-	04	04	20
2.	2017-18	02	-	-	04	04	18
3.	2018-19	02	-	-	04	04	20
4.	2019-20	01	-	-	-	-	20
5.	2020-21	02	-	-	06	02	19

6.5.7.3. Awards/Recognitions/Certificates (Annexure 6.5.7.3.)

6.5.7.4. Employability

The Placement Cell under the Student Welfare Cell of College of Horticulture and Forestry, Pasighat also look after the students of the College of Agriculture. The students are provided with ample opportunity enabling them to develop their overall personality. The Faculty of Language guides the students regarding preparation and updating resumes and biodata for the students. Interaction sessions organized for the personality development by inviting motivators, social worker, and entrepreneur inspire our students to be more employable. The college is regularly organising sufficient co-curricular and extracurricular activities for the students making them physically fit enough to take up any job challenges.The engagement of students in the READY Program- RAWE, KVK and Village attachment provide ample exposure enabling them to face real life situation on placement. Exposure visit of students to Agro-based industries, tea factories, nurseries, artisans, banks and financial institutions help them understand the expectation of the industries. Interaction sessions with Subject Matter Specialists of KVKs motivated the students with the aspiration towards agri-professionals. An excellent opportunity is given to the students through ELP of the course curricula that enable them to take up their economically viable agri-preneurship such as commercial nurseries, agri-clinic agri-business centre (ACABC) under GoI initiative, primary processing units, agri start-ups etc. The degree program nurtures a student with the knowledge and skills that will help them to manage agri-entrepreneurship, to conduct research, work in agricultural field, conduct field surveys and manage different areas of farming practices. Alumni of the college are invited to guide the students of the college to share various scopes available after the UG and higher studies in their courses. One of the alumni, Mr. Babu Taloh, is presently employed as Agricultural Field Officer at Canara Bank.

6.5.8. SSR of the College must have the SSR of all its Degree Programmes (following section 6.4), then the report of the Colleges shall be considered: Enclosed

6.5.9. Certificate (Applicable when SSR is submitted for Programmes& College)

I, the Dean ..... hereby certify that the information contained in Sections 6.4 and Section 6.5.1 to 6.5.7.4 are furnished as per the records available in the college and degree awarding university.

Signature of the Dean of the college with Date & Seal

ANNEXURE 6.5.2.3

College of Agriculture

Sl. No.	Name and designation	Highest qualification and Department	Year	Related work experience in the field	Award/ recognition/certificate	Experience in other areas
1.	Dr. Gireesh Chand Professor	Ph. D. (Ag) Plant Pathology	2005	Studies on Alternaria leaf spot of Broccoli	• Venus International Faculty Award-2016 • Best Oral Paper Presentation Award-2017 • SAID Fellow Award-2017 Zonal President of IPS-2018	Molecular Plant pathology and Mushroom Production
2.	Dr. Sanjoy K. Bandyopadhyay Professor	Post Doc. (Agronomy)	2017	Farm scale strategies to maximize the value of nitrogen sources in India	• Technical Advisory Member, Krishna Water Dispute Tribunal, Ministry of water Resources, Govt of Andhra Pradesh. 2018-2019 • Expert Reviewer of Prime Minister's Science, Technology and Innovation Advisory Council (PM-STIAC), 2019, Reviewer of National Mission proposals and documents • Visiting Scientist /Fellow (2017) under NEWS India-UK Fellowship 2017-18 at the Institute of Biological & Environmental Sciences, University of Aberdeen, Scotland, United Kingdom.	Climate change

3.	Dr. L. Geetarani Devi Assistant Professor	Ph.D (Economics)	2016	Sustainability of rice farming in Manipur: An Economic Analysis	• Dr. N.A. Mujumdar Award, 2017 • Young Professional Award, 2018 • Young Scientist Award, 2018 • Women Researcher Award, 2020	Teaching, Research and Extension for 3 years Academic-In-Charge PFMS Approver and RTI Officer
4.	Dr. Kh. Lily Devi Assistant Professor	Ph.D. (Floriculture)	2018	Studies on the quality planting material production in-vitro and the effect of bio-control agents and bio-fertilizers in the quality production of Gladiolus (*Gladiolus* sp.) through organic farming and the influence of plant growth regulators in the post-harvest life of cut flowers in the Terai region of West Bengal	• Young Scientist Award (2018) • Best paper presentation (2018 & 2020)	Organic farming, surface covered cultivation, etc.
5.	Dr. Denisha Rajkhowa Assistant Professor	Ph.D. (Agri.) Entomology	2017	Species characterization and behavioural study of bee predatory wasp in Assam	• Md. Shariffulah gold medal • INSPIRE fellowship	Co-research Coordinator of CoA Additional responsibility of assisting the Technical Cell
6.	Dr. Bapsila Loitongbam Assistant professor	Ph.D in Genetics and Plant breeding	2019	QTL mapping for zinc deficiency tolerance in RIL population of rice (*Oryza sativa* L.)	• Best Thesis Award" (2018) • Outstanding oral presentation Award (2018) • Young Scientist Award (2020)	JRF in IRRI-STRASA Project for 2years
7.	Dr. Mahesh Kumar Assistant	Ph.D. (Agricultural and Food	2018	"Perturbations of metabolites and antioxidative	-	-

	Professor	Engineering)		responses in hairy roots and regenerated plantlets of Nicotiana tabacum L. upon expression of a β-cryptogein gene"		

Experience in teaching/research/extension

Teaching

Sl. No.	Name and designation	Institution	Details (UG/PG)	Duration	Total experience
1.	Dr. Gireesh Chand Professor	BAU, Sabour	APP-301, APP-423, PL PATH-501, PL PATH-504, PL PATH-506, PL PATH-520, PL PATH-517, PL PATH-508, PL PATH-601	2012-2019	8 Years
		COA, CAU, Pasighat	PP-124, PP-353	2020-Till date	1 Year
2.	Dr. Sanjoy K. Bandyopadhyay Professor	IARI, New Delhi	Supervised 2 M.Sc. and 1 Ph.D. student as the Chairman of the Advisory Committee; and Non-Advisee Graduate Student Committees: have served on more than 10 graduate student committees in agronomy, Engineering, Environmental Sciences graduate program of the P.G. School, Indian Agricultural Research Institute during 1992 - 2020	1992-2020	28 years
3.	Dr. L. Geetarani Devi Assistant Professor	CoA, CAU, Pasighat	Teaches UG programmes of B.Sc. (Hons) Agriculture, B.Sc. (Hons) Horticulture and B.Sc. Forestry and PG classes. Supervising 2 M.Sc. Agri students and 2 M.Sc. Forestry Students	2017-till date	2years
4.	Dr. Kh. Lily Devi Assistant Professor	College of Agricultural Engg. & Post Harvest Technology, CAU, Ranipool, Sikkim	FT211 & FT224, B. Sc. (Hort.), FLS-111, BSH-113, NRM-112, VSC-121, BSH -123 & FLS-211	2015-2016	1 year
		CoA, CAU, Pasighat	HORT (OC)-242, (ELECT) (2+1), ELP (0+10), Hort-112, FLS – 221,	Dec, 2019-	11 months

			FLS – 322, FLS-211, FLS – 111, NR 3212, M.Sc. (Floriculture), FLA 502, FLA – 504 & FLA – 507	Till date	
5.	Dr. Denisha Rajkhowa Assistant Professor	CoA, CAU, Pasighat,	Taking both CoA and CHF UG courses. ENT-353, ENT-362, PPS-321, PPS-322, PPS-211, RAWEP	Dec, 2019-Till date	11 months
6.	Dr. Bapsila Loitongbam Assistant professor	Ph.D in Genetics and Plant breeding	BSH-123, GPB-223, GPB-112, GPB-243, GPB-123	Dec, 2019-Till date	11 months
7.	Dr. Mahesh Kumar Assistant professor	CoA, CAU, Pasighat,	Crop Physiology, Elementary Plant Biochemistry, Plant Biochemistry	Jan, 2020-Nov 2020	11 months

Research

Sl. No.	Name and designation	Institution	Details of work done	Duration	Remarks
1.	Dr. Gireesh Chand, Professor	BAU, Sabour	1. Sabour Agrim-Cauliflower 2. Suitable substrate for Mushroom production 3. New record of *Meloidogyne* sp. 4. Substrate and supplements for sustainable cultivation of Oyster mushroom in Bihar	2012-2019	• Economically feasible and easily accessibility to the farming community • Economically feasible and easily accessibility to the farming community • First time reported in Bihar on caster • Economically feasible and easily accessibility to the mushroom growers.
		COA, CAU, Pasighat	New report of marbling disease of Pineapple.	2020-Till date	• First time reported in Arunachal Pradesh
2.	Dr. Sanjoy K. Bandyopadhyay, Professor	IARI, New Delhi	Involved in various research activities in the field of Agronomy	1992-2020	• 28 years of experience
3.	Dr. L. Geetarani Devi, Assistant Professor	CoA, CAU, Pasighat	• Policy Imperative for Promoting value chain of Agricultural Commodities in India sponsored by ICAR-	2017-till date	• 3 years of experience

			NIAP-CAU Project • Roadmap for Marketing and Value Chain Development of Ginger and *Khasi* Mandarin Orange sponsored by NABARD, Itanagar		
4.	Dr. Kh. Lily Devi, Assistant Professor	College of Agricultural Engg. & Post Harvest Technology (CAEPHT, CAU), Ranipool, Sikkim	Performance of Asparagus (*Asparagus officinalis*) cultivation within naturally ventilated polyhouse as compared to open field condition. Effect of organic manures and different moisture depletion levels on off season capsicum cultivation under poly house conditions in Sikkim Effect of different types of soil less media on growth parameters and fruits yield of strawberry in eastern Himalayan region Effect of post-harvest treatments and modified atmosphere packaging (MAP) on vase life of Cymbidium orchid of Sikkim Effect of different colour shade and growing media on growth and yield of anthurium (*Anthurium andreanum*)	2015-2019	• 4 years & 8 months of experience
		CoA, CAU, Pasighat	Research focus on flowers and vegetables both in open & protected cultivation	Dec. 24th 2019- Till date	• 10 months
5.	Dr. Denisha Rajkhowa, Assistant	AAU, Jorhat, Assam	Development of gamma induced mutant strain of honey bee resistant to insecticides	2017-19	• 2 years, 5 months
		CoA, CAU, Pasighat	Scientific beekeeping	Dec,2019-till now	10 months
6.	Dr. Bapsila Loitongbam, Assistant	Banaras Hindu	Junior Research Fellow (JRF) in IRRI-STRASA	2016-2018	2 years

	Professor	University	Project for 2years		
7.	Dr. Mahesh Kumar, Assistant Professor	Indian Institute of Technology Mandi, Kamand campus, H.P., India	Research and other related work of the Indo-German project entitled "Cellulosic waste to high value products by integrating microbial bioprocessing and pyrolysis techniques"	2018-2019	Working on Research papers and technology patent

Extension

Sl. No.	Name and designation	Institution	Details of work done	Duration	Remarks
1.	Dr. Gireesh Chand, Professor	BAU, Sabour	• Mushroom Cultivation	5th -7th Oct, 2017	25 trainees
			• Mushroom Production	9th -13th Oct, 2017	40 trainees
			• Vegetable and Mushroom Production	16th-20th Oct, 2017	35 trainees
		CoA, CAU, Pasighat	Technology interventions towards agriculture into sustainable enterprises for *Atmanirbhar Bharat*	11th-30th Oct, 2017	30 participants
2.	Dr. Sanjoy K. Bandyopadhyay, Professor	IARI, New Delhi	Involved in various extension activities in the field of Agronomy	1992-2020	28 years of experience
2.	Dr. L. Geetarani Devi, Assistant Professor	CoA, CAU, Pasighat	• Organized Workshop on Organic Farming Issues and Strategies (10thMarch, 2018) • Organized a training programme on Entrepreneurship Development for farmers(12th to 18thMarch, 2019) • Organized a training on Advances in Production Technology of Major Fruit Crops(19th to 21stMarch, 2019) • Organized a training on Integrated Farming System for Doubling Farm Income(25thto 27thMarch, 2019) • Organized a training on Vermicomposting (29thMarch, 2019) • Organized a Awareness programme on SRI (30thMarch, 2019) • Organized a training on Marketing and value chain analysis of spices in Arunachal Pradesh (5th- 7th September, 2019	2017-2020	3 years of experience

			(sponsored by NIAM, Jaipur) • Organized training on Advances in production technology of oilseed crops (13th -15th Feb, 2020) • Organized a vocational training programme on "Horticulture Nursery as Production Enterprise" (1st Feb-1st April, 2020) • As a Resource person in Training on "Scientific Bee Keeping for Farmers/Beekeepers" for 7 days organized by College of Horticulture and Forestry, CAU, Pasighat • As a Resource person in Training on "Mushroom Production technology" for 40 days organized by the Department of Agriculture, SAMETI, Government of Arunachal Pradesh • As a Resource person in Training on " Production technology of Mushroom" for 9 days organized by College of Horticulture and Forestry, CAU, Pasighat • As a Resource person in Training on "Scientific Mushroom Cultivation" for 3 months organized by College of Horticulture and Forestry, CAU, Pasighat • As a Resource person in Training on "Entrepreneurship Development for farmers" for 7 days organized by College of Agriculture, CAU, Pasighat. • As a Resource person in 26th Annual Conference on "Agriculture and Sustainable Development Goals" for 3 days organized by Agricultural Economics Research Association (AERA) • As a Resource person in Workshop on "Policy Imperative for promoting Value Chains of Agricultural Commodities in India" for 1 day organized by ICAR-NIAP-CAU Collaboration • As a Resource person in Training		

			on Good horticultural practices for enhancing productivity and farmer's income for 3days organized by College of Agriculture, CAU, Pasighat.		
3.	Dr. Kh. Lily Devi, Assistant Professor	College of Agricultural Engg. & Post Harvest Technology, CAU, Ranipool, Sikkim	• Demonstration of low-cost poly-house suitable for round the year cultivation of vegetables and flowers for higher productivity during three days training program on "Integrated Farming System for sustainable Hill Agriculture" at CAEPHT (September 19, 2017) • Organized off-campus 3 days training program on Current Development in plasticulture engineering technologies as Course Director by AICRP-PET, CAEPHT (CAU) Centre (May 28-30, 2018) • Organized 2 days training program on Skill development on greenhouse technology including solar technology and micro-irrigation systems as Course Director by AICRP-PET, CAEPHT (CAU) Centre (July 28-29, 2018) • Organized 90 days Skill Development Training Program on Low-cost Greenhouse Technology in NEH Region sponsored by Power Finance Corporation Ltd., New Delhi at CAEPHT, Ranipool, Sikkim as Course Coordinator (Sept. 17 - Dec. 15, 2018)	2015-2019	4 years & 8 months of experience
		CoA, CAU, Pasighat,	• Organized training on "Avenues in floriculture for livelihood" as Course Co-ordinator by CHF, Pasighat (Feb. 17 – 19, 2020) • Organized training on "Introductory to some commercially exploitable MAPs and their marketing strategies in the region" as Course Co-ordinator by CHF, Pasighat (March 5 – 7, 2020) • Delivered three lectures on "Production technology of bulbous flowers" during 6 months Certified Foundation	Dec.2019-till date	10 months

			Training for HFAs during training organized by District Hort. Office, Pasighat, East Siang, Arunachal Pradesh • Delivered a lecture on "Scope of flower production under protected condition" during training programme on "Protected cultivation of high value vegetable crops" organized by KVK CHF (CAU), Pasighat, Arunachal Pradesh (Feb. 24 – 29, 2020) • Delivered a lecture/ demonstration on "Propagation of ornamental plants" during vocational training programme on "Horticulture nursey as production interprise" organized by COA, Pasighat, Arunachal Pradesh (Feb 1 – April 1, 2020)		
4.	Dr. Denisha Rajkhowa, Assistant Professor	CoA, CAU, Pasighat	• Organized training on Advances in production technology of oilseed crops (13th -15th Feb, 2020) • As resource person, 6 months Certified Foundation Training for HFAs from 6th January,2020 organized by Department of Horticulture, East Siang, Pasighat, Govt. of Arunachal Pradesh (28th Jan and 5th Feb, 2020) • As resource person, 2 days training programme on "Boosting farmer's income through spices cultivation in Arunachal Pradesh" from 5th - 6th February, 2020 organized by CHF, CAU, Pasighat (6th Feb, 2020) • As resource person, 3 days training programme on "Production technology of underutilized vegetables and value addition for income generation" from 19th -21st February, 2020 organized by CHF, CAU, Pasighat (18th Feb, 2020) • As resource person, 3 days training programe on "Capacity building programme for	24th, Dec. 2019-till date	10 months of experience

			extension functionaries on Integrated farming system" from 2nd - 4th March organized by KVK, East Siang, Pasighat (4th March, 2020) • As resource person, 3 months vocational training programme on "Horticulture nursery as production enterprise" from 1st February-1st April, 2020 organized by College of Agriculture, CAU, Pasighat (6th March, 2020) • As resource person in Foundation Training of Horticulture Field Assistants 15th September, 2020 (On going)		
5.	Dr. Bapsila Loitongbam Assistant Professor	CoA, CAU, Pasighat	• Resource person in vocational training programme on Horticulture Nursery as Production Enterprise • Resource person in Advances in Production Technology of Oilseed Crop	Dec, 2019-till now	10 months of experience
6.	Dr. Mahesh Kumar, Assistant Professor	CoA, CAU, Pasighat	• As instructor in - 3 days Farmers' Training on "Advances in Production technology of oilseed crops" February 2020 • 3 months Vocational training programme on "Horticulture nursery as production enterprise"	Feb, 2020-till date	10 months of experience

College of Horticulture and Forestry

Sl. No.	**Name and designation**	**Highest qualification and Department**	**Year**	**Related work experience in the field**	**Award/recognition/certificate (Year)**	**Experience in other areas**
1.	Prof. B.N. Hazarika, Dean	Ph.D. in Horticulture	1999	Acclimatization of aseptically cultured citrus plants for in vivo condition	• Recognized as Member, Joint Inspection Team • ISNS Fellowship- for 2018 & 19 International Society for Noni Science • Creative Scientist Award • Outstanding contribution to Science Award-2019 • Dr H K Jain- CAU Award 2016-17	Enhancing socio-economic status and livelihood security of tribal farmers of North East States through agricultural interventions

2.	Dr. Sunil Kumar, Professor	Ph.D. in Horticulture	2002	15 years	• Best Teacher Award, 2016 • Outstanding Achievement Award, 2017 • Outstanding Achievement Award, 2018 • Best Researcher Award, 2018 • Distinguished Scientist Award, 2018 • Fellow SHRD, 2018 • Fellow SAS, 2019 • Best Academician Award, 2019 • Best Faculty Award, 2019 • Best Research paper award, 2019 • Outstanding Academic Leader Award, 2020	Extension activities of 15 years
3.	Dr. L. Wangchu Associate Professor	Post-Doctorate, Horticulture	2011	Selection of Superior Jackfruit Genotypes and their identification through electrophoretic banding patterns of isozymes"	Nil	• Completed one DBT funded project on Vermicomposting. • Completed one DST project on Anthurium • Experienced on Marker Assisted selection of Horticulture Crops.
3.	Dr. Bikram Singh, Associate Professor	Ph. D. in Silviculture	2007	Evaluation of new clones of *Populus deltoides* Bartr. developed from U.S.A. germplasm	-	Agroforestry
4.	Dr. Pranabjyoti Sarma, Associate Professor	Ph.D. in Horticulture	2010	Biometrical studies in colocasia (*Colocasia esculenta* (*L.*) Schott.) germplasm	-	• Additional duty as Drawing and Disbursing Officer of

						ICAR, AP Centre (from 4.11.2011 to 17.03.2012) • PI of AICRP on Potato • PI of CSS-MIDH
5.	Dr. Chandra Deo, Associate Professor	Ph.D. in Horticulture	2002	Nature of Gene Action for Yield and Yield Traits in Okra	Scientist of the year 2012 awarded by the Academy of Environmental Biology, India	-
6.	Dr. Ps. Mariam Anal Assistant Professor	Ph.D in Horticulture	2013	Influence of chemical fertilizers, organic manures and biofertilizer on yield and quality of okra (*Abelmoschus esculentus*)	Chaudhury Devi Lal Oustanding AICRP Award-2017" for Best AICRP was given to AICRP on Spices, Kozhikode, Kerala including Pasighat Voluntary centre (contributed) by ICAR, N/Delhi during 2018-19	• AICRP on Rapeseed-mustard from 2004 to 2016 • As PI in AICRP on Spices from 2016 to till date. • As PI in Intra Rural Project on vegetable peas from 2017 to till date
7.	Dr. T. Shantibala, Associate Professor	Ph.D (Entomology)	2003	Studies on bio-ecology and management of pod borer, *Lampides boeticus* (Linnaeus) (Lepidoptera: Lycaenidae) in Manipur	• Women Scientist Award, 2019. • Dr. B. Vasantharaj David Foundation, Women Scientist Excellence Awards, 2019	Edible and Medicinal Insect bioresources, Sericigenous, Insect Genetic Characterization and Insect Pest management
8.	Dr. Aatish Kumar Sahu, Associate Professor	Ph.D. (Agricultural Statistics)	2011	Near Neighbour analysis Near Neighbor Balanced BIBD and BIBRC designs	-	Agricultural Economics
9.	Mr.	M. Sc.	200	Synergistic	University Gold Medal	Worked at SBI

	Nongthombam Devachandra, Assistant Professor	Horticulture in Pomology	6	effect of AMF and bioformulations on germination, seedling growth, graftake and drought stress on Jamun *Syzygium cuminii.*	(2006)	as Farm Sector Technical Officer (Horticulture) from 2007-June, 2016.
10.	Dr. Kalkame Ch. Momin, Assistant Professor	Ph.D. in Floriculture and Landscaping	2013	Effect of nutrient management on cutting production, storage and rooting of carnation	• BEST RBPT Poster Award (2017) • COBACAS Young Scientist Award 2018-4th National Conference on Diversified Farming System: Sustainable Livelihood and Doubling Farmer's Income' • Best Oral Presentation Award, 2020 Regional Seminar of Indian Society of Agricultural Economics (AISAE) on 'Perspectives of Horti-Business in Development of North Eastern Region'	-
11.	Dr. Arwankie Shadap, Assistant Professor	Ph.D. (Horticulture) in Spices and Plantation Crops	2016	Bio-organic and micronutrient management along with germplasm evaluation in ginger (*Zingiber officinale* Rosc.)	• B.Sc.: Gold Medal (2008), • M.Sc.: University Gold Medal (2010)	-
12.	Dr. Arunkumar Phurailatpam, Associate Professor	Ph. D Dept. of Floriculture and Landscape Architecture (MAP)	2010	Survey, collection, documentation and Morpho chemical characterisation of Medicinal and Aromatic Plants	-	Breeding and cytogenetics, underutilized plants
13.	Dr.	PhD in		Studies on the	26th April, 2016	GIS and

	Asieleavio John Assistant Professor	Forestry	2016	efficiency of different wood coatings in controlling moisture exchange.		Remote sensing, Carbon Stock Estimation, Computer Application.
14.	Dr. Pushpendra Kumar, Assistant Professor	PhD, Post Harvest Management	2018	Post-harvest Management of Horticultural Crops	-	-
15.	Dr. N. Surmina Devi Assistant Professor	Ph.D (Agriculture) in Plant Pathology	2013	Study of Fungi (mycology) and Plant disease management	1st Position -Research Based Pedagogical tools in three days regional workshop	Detection and diagnosis of plant disease. Isolation of Biological Control Agents
16.	Dr. Thiyam Jefferson Singh, Assistant Professor	Ph. D.	2018	Progeny analysis in Wild Pomegranate (*Punica granatum* L.)	-	Forestry
17.	Dr. Priyanka Irungbam, Assistant Professor	Ph.D (Agri.) in Agronomy	2019	Effect of integrated weed and nutrient management on weed dynamics productivity of rice (direct seeded)-rapeseed (zero tilled) cropping system under rainfed condition	Recipient of Maulana Azad National Fellowship for Minority Students (MANF) from UGC.	-
18.	Dr. Ajaykumara K. M., Assistant Professor	Ph.D. (Entomology)	2018	Title of Ph. D. Thesis: "Management of *Helicoverpa armigera* (Hubner) Using Biorationals and Low-cost traps in Chickpea"	• Received ICAR-JRF (11th rank) during M. Sc. (Agri. Entomology) (2013-2015) • Received ICAR-SRF (5th rank) during Ph.D. (Entomology) (2015-2018) • First position in Poster presentation, 2018 • Best Research Scholar Award-2018 (Agricultural	-

					Entomology) • Best Ph.D. thesis award-2018 (Entomology) • Best Ph.D. Student Award-2018	

Experience in teaching/research/extension

Teaching

Sl. No.	Name and designation	Institution	Details (UG/PG)	Duration	Total experience
1.	Prof. B.N. Hazarika, Dean	CHF, CAU, Pasighat	Took both Ug and PG classes	2002- till date	20 years
2.	Dr. Sunil Kumar, Professor	Department of Horticulture, North Eastern Hill University, Tura Campus	Took both PG classes	2013-2018	5 years and 6 months
		CHF, CAU, Pasighat	Took both Ug and PG classes	2018-till date	
3.	Dr. L. Wangchu, Associate Professor & Head	College of Horticulture and Forestry, CAU, Pasighat	B.Sc. (Horticulture) B.Sc. (Agriculture) B.Sc. (Forestry) M.Sc. (Horticulture) Ph.D. (Horticulture)	2002-till date	18 years
4.	Dr. Bikram Singh, Associate Professor	CHF, CAU, Pasighat	Took both UG And PG courses of Forestry	2008-2020	12.5 years
5.	Dr. Pranabjyoti Sarma, Associate Professor	CHF, CAU, Pasighat	• Took courses of B.Sc. (Hons.) Horticulture and B.Sc. (Agriculture) • Took courses of M.Sc. (Horticulture) and Ph.D. (Horticulture); Guiding PG &Ph.D students	2016-till date	4 years 4 months
6.	Dr. Chandra Deo, Associate Professor	NDUAT, Kumarganj, Faizabad (UP)	Took both UG and PG courses	2008-2016	8.6 Years
		CHF, CAU, Pasighat	Took both UG and PG courses	2016-2020	4.5Years
7.	Dr. T. Shantibala Associate Professor	IBSD, DBT	Guide of 6 students	2008-2018	10 years and 9 months

		CHF, CAU(Imphal)	B. SC, (Agriculture, Horticulture &Forestry) M.Sc.(Forestry)	2018-till date	2 years 2 months
8.	Dr. Aatish Kr Sahu, Associate Professor	SASRD, Nagaland University	Took 2 courses of UG and 5 courses of PG	2011-2020	8 years
		CHF, CAU, Pasighat	Took 4 courses of UG and 2 courses of PG	Jan 2020 till	< 1 year
9.	Dr. Ps. Mariam Anal, Assistant Professor	CHF, CAU, Pasighat	• Took Courses for B. Sc (Hons.) Horticulture and Agriculture including ELP, NSS courses • Took Courses for M. Sc in Vegetable Science and Ph D Horticulture, also Guiding M.Sc. Scholars	2016-till date	4 years
10.	Nongthombam Devachandra, Assistant Professor	CHF, CAU, Pasighat	• Took Courses for B.Sc (Hons.) Horticulture, Forestry and Agriculture including ELP, NSS and Physical Education courses • Took Courses for M.Sc (Hort.) in Fruit Science and Guiding M. Sc. Scholar	2016-till date	4 Years and 5 months. Additional Charge of SWO since December, 2018 to till date.
11.	Dr. Kalkame Ch. Momin, Assistant Professor	CHF, CAU, Pasighat	FLS-111, FLS-221, FLS-211, FLS-322, READY 421, NR-3212, HORT (ELEC)- 2+1 Landscaping, HORT(ELECT) 2+1 Hi-tech Horticulture, FLA 501, FLA 502 (2+1), FLA 504, FLA 503, FLA 505, FLA 506 FLA 507	2016-till date	4 years 4 months
12.	Dr. Arwankie Shadap, Assistant Professor	Centurion University of Technology & Management, Paralekhemundi, Orissa	Took courses of B.Sc. Agri. Hons	17.10.16 -22.12.16	2.5 months
		Lovely Professional University, Phagwara, Punjab	• Took courses of B.Sc. Agri. Hons • Took courses of M.Sc. (Horticulture, Vegetable Science) and Guidance of M.Sc	2017-2018	1 year 9 months

			Students		
		CHF, CAU, Pasighat	• Took courses of B.Sc. Hort. Hons, B.Sc. Agri. Hons including ELP, NSS, Physical Education Courses • Took courses of M.Sc. (Horticulture, Vegetable Science) and Guidance of M.Sc Students	2018-till date	2 years and continuing
13.	Dr. Arunkumar Phurailatpam, Associate Professor	CHF, Pasighat	• Teaching of theory and practical • Student's advisor • Members of various committees for conducting students related functions and programmes • Teaching of theory and practical • Student's advisor • Members of various committees for conducting a • Students related functions and programmes • Co guides of MSc. students	2010-till date	10 years
14.	Asieleavio John Assistant Professor	CHF, CAU Pasighat	4 classes of UG and 3 classes of PG	2016-till date	4yrs
15.	Pushpendra Kumar, Assistant Professor	CHF, CAU, Pasighat	Took both UG and PG courses	Oct, 2018-till date	2 Year
16.	Dr. N. Surmina Devi, Assistant Professor	CHF, CAU, Pasighat	PPS-311, VSC-509, PPS-214, FOR-507, PPS-211, PPATH-523, PPS-121, PPS-243, BSH-114, PP-353, PPS-223, READY- RAWE(PP)-472, RHWE-425, PP-48PP	2016-ill date	4 years
17.	Dr. Thiyam Jefferson Singh, Assistant Professor	CHF, CAU, Pasighat	Took Forestry courses	Dec,2019 -till date	10 Months 18 Days

18.	Dr. Ajaykumara K. M., Assistant Professor	CHF, CAU, Pasighat	Ento-124, NR-1203, PPS-122, PPS-322 (2+1), ELP (0+10), PPS-211, PP(PD)-353, Ento-353 (2+1), RAWE component	Dec 2019-till date	11 months

Research

Sl. No.	Name and designation	Institution	Details of work done	Duration	Remarks
1.	Prof. B.N. Hazarika, Dean	CHF, CAU, Pasighat	Have done various research work in the field of horticulture	2002- till date	20 years of experience
2.	Dr. Sunil Kumar, Professor	Department of Horticulture, North Eastern Hill University, Tura Campus	• Evaluation of Zinnia (*Zinnia elegans* L.) genotypes under West Garo Hills District, Meghalaya • Evaluation of chrysanthemum (*Chrysanthemum morifolium* Ramat) genotypes under West Garo Hills District, Meghalaya • Evaluation of gladiolus (*Gladiolus grandiflorus* L.) genotypes under West Garo Hills District, Meghalaya • Production potential and economics of marigold (*Tagetes erecta* L.) cv. Pusa Narangi Gainda as influenced by organic fertilizers • Effect of Nutrients and Growth Regulator on Growth, Flowering, Quality and Seed Yield in Calendula (*Calendula officinalis* L,) cv. Bon Bon • Integrated Nutrient Management in China aster (*Callistephus chinenesis* L. Nees) cv. Kamini • Response of Farm Yard Manure and Vermicompost on vegetative, flowering and quality parameters in tuberose (*Polianthes*	2013 - 2018	5 years and 6 months of experience

			tuberosa Linn.) cv. Prajwal • Response of Farm Yard Manure and Vermicompost on vegetative, flowering and quality parameters in tuberose (*Polianthes tuberosa* Linn.) cv. Arka Nirantara		
		CHF, CAU, Pasighat	• *In vitro* propagation of dendrobium orchid	2018-till date	2 years of experience
3.	Dr. L. Wangchu, Associate Professor	CHF, CAU, Pasighat	• Post-Harvest Treatments of Khasi Mandarin in East Siang District of Arunachal Pradesh • Effect of stockosorb on water and nutrient management of *Citrus reticulata* • Effect of Hydrogel on Water and Nutrient Management of *Citrus limon.* • Low cost hydroponic seed germination technique for Rangpur lime (*Citrus limonia*) • Standardization of season, shoot etiolation and growth regulators in air-layering of guava (*Psidium guajava* L.) var. L-49 under east Siang district of Arunachal Pradesh. • Forced flowering of pineapple (*Ananas comosus* cv. Kew) in response to cold stress, ethephon, calcium carbide and activated charcoal. • Studies on Genetic Variability of Pummelo(*Citrus grandis* L.) in East Siang District of Arunachal Pradesh, India. • 33 different genotypes of citrus have been collected after surveying in different location in NE region and maintained in the college farm	2002-2020	18 years of experience
4.	Dr. Bikram Singh, Associate Professor	CHF, CAU, Pasighat	Three (03) IRP Projects	2009-2011	7 years of experience
			PG Research guidance	2015-2020	
5.	Dr. Pranabjyoti Sarma, Associate	ICAR-RC-NEH Region, Umiam, Meghalaya	Research works of Central Sector Scheme MM-I	2001-2006	Standardization of agro-techniques of tomato,

	Professor				capsicum, passion fruit, orange, pineapple, ginger, turmeric *etc*.
		CHF, CAU, Pasighat	As a PI/Incharge of AICRP on Potato conducting research trials of the project as per technical programmes	2016-till date	Involved as Associated Scientist in development of the potato variety Kufri Ganga released in 2018 from ICAR-CPRI, Shimla.
6.	Dr. Chandra Deo Associate Professor	NDUAT, Kumarganj, Faizabad, UP	Various research works has been done in Vegetable Crops	2008-2016	8.6 years of experience
		CHF CAU, Pasighat,	Various research works has been done in Vegetable Crops	2016-2020	4.5 years of experience
7.	Dr. T. Shantibala, Associate Professor	CHF, CAU, Pasighat	Systematic inventorization, use profiles and molecular cataloguing for the sustainable management of edible insect's resource for enhancing the livelihood opportunities of local people of Himalayan range of Manipur, North east India''	2018-2021	5 years of experience
			Restoration and conservation of natural silk dyeing technique and ethnic design of silk's cultural heritage of Manipur	2019-2021	
			Chemical Ecology of the North-East Region (NER) of India: A collaborative programme Linking NER and Bangalore Researchers	2015 to till date,	
			Bioresource and Sustainable Livelihood in North East India: Documentation and Sustainable management of insect bioresources of NE India with special reference to edible insects and wild sericigeneous insects.	2018-2021	
			Exploration of wild silk moth biodiversity in Manipur and their genetic characterization	2011-2015	

			using molecular markers		
			Development of composite sericulture in Imphal districts: Sustaining ST & SC women livelihood	2014-2018	
8.	Dr. Aatish Kr. Sahu, Associate Professor	SASRD, Nagaland University	Guided 4 M.Sc (Ag) scholars	2014-2019	
			Two Consultancy service (NABARD and DES, Govt. of Nagaland)	2015-2017	
9.	Dr. Ps. Mariam Anal, Assistant Professor	CHF, CAU, Pasighat	• Conducting trials on turmeric, ginger, and germplasm collection, evaluation and conservation of various spices including under AICRP on Spices have been undertaken.	2016- till date	4 years
				2018-2019	
			• Established Climate Controlled Poly house	2020-till date	
			• Establishing processing unit for turmeric and ginger • Intra mural Research Project on "Collection and evaluation of indigenous vegetable peas (*Pisum sativum* L.) under NEH region"	2017-till date	3 years
10.	Nongthombam Devachandra, Assistant Professor	CHF, CAU, Pasighat	Successfully completed a study on mango seed germination with respect to sowing depth and GA_3 (PGR).	2017-2018	4 years
			Evaluation of three tea cultivars for Foothills of Arunachal Pradesh.	2018-2019	
			• Screening of citrus rootstocks. • Germination in Jamun.	2020-till date	
11.	Dr. Kalkame Ch. Momin, Assistant Professor	North Eastern Hill University, Tura Campus, Meghalaya	Morphological and biochemical characterization of blood fruit (*Haematocarpus validus*) of Garo Hills region of Meghalaya	2016-2017	2 years
		CHF, CAU, Pasighat,	AICRP on Floriculture Project No. 1.5.1: Collection, characterization, evaluation and maintenance of tropical Orchids germplasm	2018-Ongoing	
			Project No. 2.4.1: Testing of genotypes in tuberose	2018-Ongoing	

			Project No. 2.2.1: Testing of genotypes in gladiolus	2018-Ongoing	
			Project No.2.3.1: Crop Improvement- Testing of genotypes in tuberose	2017-2019	2 years
			Standardization of drying and dehydration techniques of native wild ornamentals of Arunachal Pradesh	2019-Ongoing	
			Establishment of Herbal garden and MAP nursery	2019-Ongoing	
12.	Arwankie Shadap, Assistant Professor	CHF, CAU, Pasighat	Research carried out under AICRP on Palms (Oilpalm)	2010-2011	10 months
13.	Dr. Arunkumar Phurailatpam, Associate Professor	CHF, CAU, Pasighat	Biotechnological approaches for conservation and Eco- restoration of *Paris polyphylla* and *Kaempheria parviflora* – A highly traded endangered medicinal plant species in Arunachal Pradesh	2018-2021	
			Establishment of Herbal Garden and MAP Nursery	2019-2022	
			Systematic Identification, documentation and conservation of the medicinal plants used by the traditional medicinal practitioners of Siang district of Arunachal Pradesh	2020-2021	
			Collection, Maintenance, Documentation and Development of Agro Techniques of Some Underutilized Vegetables with Medicinal Properties Consumed by the Tribal People of East Siang District, Arunachal Pradesh	2019-2022	
			Collection, Maintenance, Documentation and Development of Agro Techniques of Some Underutilized Vegetables with Medicinal Properties Consumed by the Tribal People of East Siang District, Arunachal Pradesh	2017-2020	
14.	Dr. N. Surmina Devi, Assistant Professor	CHF, CAU, Pasighat	Collection and evaluation of indigenous vegetable pea (Pisium sativa L.) under NEH region.As Co-PI.	2017- till date	3years

			Integrated Bee Keeping Development Centre (IBDC)/Centre of Excellence (CoE). As Co-PI	Completed	
15.	Dr. Ajaykumara K.M. Assistant Professor	UAHS Shivamogga, Karnataka	Bio efficacy of different animal urine and botanicals-based formulations against insect pests	2018-2019	12 months
		CHF, CAU, Pasighat	Field trials and Laboratory experiments under AICRP on Biological Control of Crop Pests and Diseases	June 2020- Nov 2020	05 months

Extension

Sl. No.	Name and designation	Institution	Details of work done	Duration	Remarks
1.	Prof. B.N. Hazarika, Dean	CHF, CAU, Pasighat	Have done various extension work in the field of horticulture	2002- till date	20 years of experience
2.	Dr. Sunil Kumar, Professor	CHF, CAU, Pasighat	• Awareness about importance of commercial flowers and motivated farmers to start commercial floriculture at Pasighat, Arunachal Pradesh. • Provided adequate knowledge among the progressive & elite farmers about Protected Cultivation of Anthurium • Soilless cultivation of anthurium under low cost polyhouse using arecanut shell, coconut chips, charcoal, rice husk, wood shaves at Farmers' field. • Resource person for Certified Foundation Training for HFAs organized by District Horticulture Office, East Siang, Pasighat, Arunachal Pradesh, January 06, 2020 to February 29, 2020. • Resource person for Training programme on Vermicomposting Technology organized by SMAETI, Pasighat, Arunachal Pradesh, November 14, 2019 to December 23, 2019. • Resource person in CAU Regional Agri Fair-2019 at College of Horticulture & Forestry, Pasighat, November 11-13, 2019.	2018- till date	20 years of experience

			• Resource person for Demonstration cum Training Programme on Floriculture organized by ATMA, Pasighat, August 21, 2019. • Participation in Arunachal Agri Expo-2019 at CHF, CAU, Pasighat, March 25-27, 2019. • Judge for the event flower show in Arunachal Agri Expo-2019 at CHF, CAU, Pasighat, March 25-27, 2019.		
3.	Dr. L. Wangchu, Associate Professor	CHF, CAU, Pasighat	• Organized trainings on different topics with duration varying from 1 day to 90 days to the farmers and state officers. • Nursery management and plant propagation. • Food processing • Citrus orchard Management • Fruit drop control • Loranthus eradication • Vermicomposting • Fruit Nursery a soaring business • Hydroponic seed germination techniques in citrus • Sub-tropical and tropical fruit production, etc. • Conducted study tours of the students to other NE states and apple orchards in the state. • Participated in Rural Horticulture work experience of students every year. • Front line demonstration of different fruit cultivation techniques in different villages. • Conducted trainings of line department officers. • Initiated development of FPO's in two villages. • Developed two model fruit villages. • Adopted three villages under MGMG • Completed one DBT project (3 years) on Training and demonstration of Vermicomposting technology to rural youth, women and farmers. • Conducted entrepreneurship development programmes on	2002-2020	18 years of experience

			Nursery management and plant propagation for rural youth and School dropouts etc.		
4.	Dr. Bikram Singh Associate Professor	CHF, CAU, Pasighat	• As capacity of Course Director and Course Co-Coordinator conducted 05 nos. (five) of Training programme to the personnels of state forest departments • Acted as Resource Person for various training programmes conducted for farmers, personnel of line departments, etc.	2009-2017	8 years of experience
5.	Dr. Pranabjyoti Sarma, Associate Professor	KVK, Cachar, Assam Agricultural University	• Overall management of the institute coordinating various extension programmes	2013-2016	Produced Foundation and Certified seeds of improved paddy varieties and supplied to the farmers of entire Barak valley of Assam; Renovated office building, auditorium, staff quarters and developed one storage godown.
		KVK, West Siang, ICAR, Arunachal Pradesh Centre	Conducting various extension programmes	2006-2013	Involved in popularization of citrus rejuvenation technology, double row planting of pineapple, high density planting in pineapple, popularization of ginger variety Nadia and turmeric variety Megha Turmeric-1 *etc*.

6.	Dr. Chandra Deo, Associate Professor	Central Institute of Horticulture, Medziphema, Dimapur, Nagaland	Training for the trainers and farmers and extension work	2006-2007	09 Month of experience
		ICAR Research Complex for NEH Region. Ranipul, Gangatok, Sikkim	Training and Extension	2007-2008	10 Month of experience
		NDUAT, Kumarganj, Faizabad (UP)	Training	2008-2016	8.6 years of experience
		CHF, CAU, Pasighat, Arunachal Pradesh	Training and Demonstration	2016-2020	4.5 Years of experience
7.	Dr. T. Shantibala Associate Professor	CHF, CAU, Pasighat	3rd SAC and PSC meeting of DBT's Chemical Ecology Network Programme "Chemical Ecology of the North East Region (NER) of India: A Collaborative Programme Linkage NER and Bangalore Researchers", IBSD, Imphal, Manipur.	2017-2019	3 years of experience
			Two days online workshop on Agro-tourism through underutilized ethnic foods" • Significant of underutilized Traditional/ethnic Food resources • Nutritional Health benefit and immune boosting • 3. Economic empowerment by ethnic food tourism		
			Introductory Meet of the composite Seri-Farmer		
			Hands on training program on rearing and post-cocoon technology in composite sericulture		
			Cost effective production of silk yarn		
			Three days hand on training programme on "Reeling and Twisting of Silkyarn and Dyeing Techniques of Phige and Muga phi" at IBSD		
			5 Days Hand-on-training on Venture of Edible silkworm to post cocoon technology in Pasighat, Arunachal Pradesh		
8.	Dr. Ps.	CHF, CAU,	Conducting training programmes on	2017-till	4 years

	Mariam Anal Assistant Professor	Pasighat	• Production technology of Exotic vegetables. • Package of practice of Winter Vegetables. • Organic Farming in Vegetables. • As resource person in various training programmes for Horticulture/Agriculture district officers, Field Assistant of state department and farmers • Active involvement in implementation of RAWE/RHWE for UG students in different Villages. • Organizing Special NSS Camps in Villages for Student Volunteers in adopted villages.	date	
9.	Dr. Kalkame Ch. Momin Assistant Professor	CHF, CAU, Pasighat	As Course Director • Commercial Flower Production • Value Addition of Flowers • Ornamental Gardening and Landscaping • Avenues in Floriculture for livelihood As Course Coordinator • Nutritional and biochemical importance of locally available underutilized crops • Good Horticultural Practices for Enhancing Productivity and Farmers Income • Popularizing Medicinal and Aromatic Crop Cultivation Amongst the Local Farmers of East Siang District • Introduction to Some Commercially Exploitable MAPs and their Marketing Strategies in the region: Cultivation and Marketing As resource person • Exposure Visit to Polyhouse Block of Floriculture Farm • Skill Development Training for Doubling Farmers Income • Commercial Horticulture for Doubling Farmers Income in North Eastern States of India • Preparation of 'Decorative Materials and Soft Toys for Entrepreneurship Development • Ornamental Properties of	2018-till date	Organized 4 trainings as course director, 7 as course-coordinator and 9 as resource person

			Mushroom • Entrepreneurship Development for Farmers • Good Practices in Floriculture for Sustainable Production • Socio-economic development of horticultural farmers through contract farming • Preparation of soap, candle and decorative articles for entrepreneurship development		
10.	Arwankie Shadap, Assistant Professor	CHF, CAU, Pasighat	Crop calendar and cropping systems as intercrop in citrus fruit crop sponsored by ASCI - Skill development training programme on Cirus Fruit Growers	2019-till date	2 Years 1 month experience
			Organic production of ginger and turmeric in 3 days training programme on "Organic farming in Vegetables"		
			Processing of ginger and turmeric in 2 days training programme on "Boosting Farmer's income through ginger and turmeric farming" under CSS-MIDH		
			Vertical farming of vegetable crops in "Model training course on Protected Cultivation of Vegetable Crops- a source of employment in NEH Region		
			Training and pruning of vegetable crops grown under protected cultivation in "Model training course on Protected Cultivation of Vegetable Crops- a source of employment in NEH Region		
			Production technology of leafy vegetables in containers in a training programme 'Container vegetable gardening'		
			Production technology of underutilized solanaceous vegetables, in a farmers training programme on 'Production Technology of underutilized vegetables and value addition for income generation'		
			Production technology of pea, root and other crops in a 'one day training cum seed distribution programme on winter season vegetable crops' for the farmers at siluk village, East Siang, A.P		
11.	Dr. Arunkumar	CHF, CAU, Pasighat	Nutritional and biochemical importance of locally available	2016-till date	4 years of experience

	Phurailatpam, Associate Professor		underutilized crops		
			Scientific Mushroom Cultivation		
			Ornamental gardening and landscaping		
			Commercial production of Flowers, Medicinal & Aromatic Plants		
			Importance of agro techniques of some local underutilized vegetables with medicinal properties		
			Processing and value addition of Horticultural Crops		
			4th International symposium on Minor fruits and MAP		
			Prospects and potential of wild edible vegetables with their medicinal properties		
			Enhancement of Horticulture in the North East Region for Nutritional Security and Prosperity		
			Production Technology of High value Horticultural Crops of North East Region' in the 3 days capacity building programme for extension functionaries of line departments, KVKs, SAUs and ICAR Institutes of NE region		
12.	Pushpendra Kumar, Assistant Professor	CHF, CAU, Pasighat	Post Harvest Management of Horticultural Crops	2018-till date	2 Year
13.	Dr. N. Surmina Devi, Assistant Professor	CHF, CAU, Pasighat	As Course Director: 1.IDM on Vegetable Crops 2.IDM on Vegetable Crops	2017-till date	4 years
			As Co-Course Director: • Cultivation, Spawn Production and Processing of Oyester Mushroom. • Advances in Diseases Diagnostic Technique. • Vocational Training on Scientific Mushroom cultivation • Scientific Beekeeping for the farmers • Scientific Beekeeping for the farmers • Scientific Beekeeping for the farmers • Production Technology of Mushroom • IDM of Vegetable crops • Production Technology of		

			Mushroom • Training for 7 days on 'Scientific Beekeeping for the farmers/beekeepers'		
			As resource person in 36 training		
14.	Dr. Ajaykumara K. M., Assistant Professor	UAHS Shivamogga, Karnataka	Method demonstrations and training to farmers on Zero Budget Natural Farming under southern transition zone (07) of Karnataka	Jan 2018-Dec 2019	12 months
		CHF, CAU, Pasighat	Front line demonstrations under AICRP on Biological Control of Crop Pests and Diseases	June 2020-Nov 2020	05 months

MTTC & VTC

Sl. No.	Name and designation	Highest qualification (Department and year)	Year	Related work experience in the field (M.Sc./PhD research topic)	Award/recognition/certificate (Year)	Experience in other areas
1.	Ms. Tasso Yatung, Assistant Professor	M.Sc. (Hort.) Horticulture	2010 - 2012	Genetic Diversity and Seed Protein Electrophoresis in Chilli (*Capsicum annuum* L.)	University (CAU) scholarship, Batch topper, 2010-12	2 years' experience as Research Assistant cum consultant
						1-year experience as SRF
						5 months experience as Agricultural Demonstrator
						1 year & 10 months as Junior Horticulturist
2.	Dr. Rajib Das, Assistant Professor	Ph.D (Agri) Plant Breeding and Genetics	2017	• Genetic Divergence Studies in Finger Millet (*Eleusine corocana (L.) Gaertn*) Germplasm • Genotyping of *rf* (restoring fertility)	**Award:** • UGC-JRF(RGNF) • UGC-SRF(RGNF) • Qualified ICAR SRF examination **Certificate:** • General course on Intellectual property • Diploma in Intellectual Property Rights'	Delivered a lecture on "Biotechnological tool in maize improvement: A methylome based approach" as an invited speaker in nation seminar on "Promotion of Maize in North-

				loci of rice varieties of kerala using molecular markers'		East India: Opportunities and Strategies"
3.	Dr. Veluru Bhargav, Assistant Proferssor	Ph.D. (Horticultur e)	2018	1 year	• 2nd position in the Poster presentation in National conference on 'Ornamental Horticulture to Uplift the Rural Economy' • CAR-IARI, Merit medal (Gold Medal)	-
4	Mr. Premaradhy a, N Assistant Professor	M.Sc. (Agri.) in Agronomy	2012	Effect of sulfhydryl bio regulator on growth, yield and productivity of lentil (*Lens culinaris*) under restricted irrigation condition	• Received Best Poster Presentation Award in 2016. • Awarded Jawaharlal Nehru Scholarship for pursuing doctoral studies, in the year 2018-19 • Received Best Research Scholar Award -2018 • 4. Received Best Oral presentation award in the year 2018-19	-

Experience in teaching/research/extension/teaching

Teaching

Sl. No.	**Name and designation**	**Institution**	**Details (UG/PG)**	**Duration**	**Total experience**
1.	Ms. Tasso Yatung, Assistant Professor	CHF, CAU, Pasighat	VSC-311, VSC-312, VSC-321, VSC-311, VSC-312, FSC-111, HORT-232	July 2018-Dec. 2019	2 years 11 months
		MTTC & VTC, CHF CAU, Pasighat	VSC-321, VSC-222, VSC-311, VSC-312, HORT (ELECT), BS-1106	Jan. 2020-till date	10 months
2	Dr. Senpon Ngomle, Assistant Professor	KVK, Anjaw and Longding, ICAR RC for NEH Region AP Centre, Basar, Arunachal Pradesh	Coordinator of RAWE programme of BSc. Agriculture, 4th year, Arunachal Universities of Studies, Namsai, Arunachal Pradesh	2015-2020	5 Year 10 Months
		MTTC and VTC, CHF, CAU Pasighat.	READY427, PPS – 331	Jan2020-till date	10 months

3	Dr. Rajib Das, Assistant Professor	CoA, Padankkad, Kerala Agricultural University, Thrissur	PBGN 1201, PBGN 1202, PBGN 2103, PBGN 3104, PBGN 3205, PBGN GP 501, PBGN GP 502, PBGN GP 503	Nov,2017-Oct,2018	1 Year
		MTTC & VTC, CHF, CAU, Pasighat	GPB 123, BSH 123, GPB 243, BSH 115, GPB 233, Bio (def) 112	Dec,2019-till date	11 months
4	Dr. Veluru Bhargav, Assistant Professor	Dr. Y.S.R. Horticultural University	FCLS 2.3.2, FLA 601	Apr, 2018-Aug, 2018	4 months
		MTTC & VTC, CHF, CAU, Pasighat	FLA 504, FLS 322, FLS 111, FLS 211, FLA 507, FLA 504, FLA 502	Jan, 2020-till date	10 months
5	Mr. Premaradhya, N Assistant Professor	MTTC and VTC, CHF, CAU, Pasighat	NRM 123, NR 1101, Agron (PF)- 352, Agron CP-352, Agron (CP)- 232, RAWE & AIA-4720, Agron (W) (Elect)	Dec,2020-till date	10 months

Research

Sl. No.	Name and designation	Institution	Details of work done	Duration	Total experience
1.	Tasso Yatung, Assistant Professor	State Horticulture Research and Development Institute, Department of Horticulture, Govt. of Arunachal Pradesh	Research and consultation	2014-2017	3 years of experience
		AICRP-Potato, College of Horticulture and Forestry	Research and extension	2018-2019	1 year and 10 months of experience
2.	Dr. Senpon Ngomle, Assistant Professor	KVK, Anjaw and Longding, under ICAR RC for NEH Region AP Centre,	• Trial on Integrated disease management in large Cardamom • Trial on control of citrus trunk borer in citrus • Application of *trichogramma* in Rice field for pest management • Trial on integrated disease	2015-2020	5 Year 10 Months of experience

		Basar, Arunachal Pradesh	management in Potato. • Introduction and adaptability studies of CAU R-2 and CAUR-1 in Longding district of Arunachal Pradesh. • NABARD funded project on Mushroom.		
		MTTC and VTC, CHF, Pasighat.	• Coordinated and supervised the data collection under IIMR Project entitled " Development of National database on Millets" in Longding district of Arunachal Pradesh	Jan, 2020-till date	10 months of experience
3.	Dr. Rajib Das, Assistant Professor	DBT-AAU Centre, Assam Agricultural University, Jorhat	• Phenotyping of 400 germplasms for different drought tolerant traits. Leaf samples of these Germplasm was sent for Genotyping through GBS for identification Markers associated with drought tolerant allele. • Phenotyping of F_5 population of drought tolerant and susceptible lines for different drought tolerant traits in field as well as in rain-out shelter. Leaf samples of was sent for sequencing to identify SNP variation. • Introgression of existing major water stress tolerance (drought and submergence) and disease resistance (BLB, Blast) QTL's into the important rice varieties of Assam.	16.11.2018-24.12.2019	1.1 years of experience

Extension

Sl. No.	Name and designation	Institution	Details of work done	Duration	Remarks
1.	Ms. Tasso Yatung, Assistant Professor	CHF, CAU, Pasighat	• Field day & training on Cultivation of Onion in Arunachal Pradesh • Farmers training on Improved Production Technology in Potato resource person • Training on Integrated disease management of vegetables • Training programme on Scientific production technology of Ginger and Turmeric	2019-till date	2 years 8 months of experience

			• Boosting Farmer's Income through Ginger and Turmeric Farming • Training programme on Organic farming in Vegetables • Model Training course on Protected cultivation of Vegetable Crops: A source of Employment in NEH Region		
		MTTC & VTC, CHF, Pasighat	• Training on Post harvest management, value addition and storage of potato • Training on Boosting Farmer's Income through Spices Cultivation in Arunachal Pradesh • Training on Container Vegetable Gardening • Training on Production Technology of underutilized vegetables and value addition for income generation • Training on Protected Cultivation of High Value Vegetable Crops • As a resource person for Foundation Training of Horticulture Field Staff of line department • Webinar on Strategies and technological intervention for sustainable horticulture in North Eastern • Region • Three days webinar on Post-harvest Management and Value addition in Horticultural crops for budding start-ups under • NAHEP for students of CHF, CAU • Two days webinar on Promoting potential minor fruit crops: A sustainable new venture for North Eastern India under NAHEP for students of CHF, CAU • One day webinar on Banana tissue culture production: Opportunities for new entrepreneur' under NAHEP for students of CHF, CAU • Two days webinar on Nursery Production and Management of Horticultural Crops for Young Entrepreneurs' under NAHEP for		

			students of CHF, CAU • Webinar on Quality Organic Spices and its business opportunities in North-East Region under NAHEP for students of CHF, CAU		
2.	Dr. Senpon Ngomle, Assistant Professor	KVK, Anjaw and Longding, ICAR RC for NEH Region AP Centre, Basar, Arunachal Pradesh	<u>Training Programmes:</u> • Mushroom cultivation (10 nos) • IDM and IPM in Large Cardamom (8 nos) • IDM and IPM in Citrus (9 nos) • IDM and IPM in Rice (8 nos) • IDM and IPM in summer vegetables (4 nos) • IDM and IPM in cole crops(4 nos) • IDM and IPM in winter vegetables (4 nos) <u>Front Line Demonstration</u>: • Mushroom cultivation • Sericulture. • Bordeaux mixture preparation. • Low cost spawn production laboratory • Use of biocontrol agents. <u>Extension activities</u> • Field Day (20 nos) • Kisan Sammelan (1 nos) as committee member. • Plant Health camp (15 nos) • Advisories services (500) • Diagnostic visit (20 nos) • Farmer Scientist interaction (12 nos) • Newspaper coverage (18 nos) • Exhibition (8 nos) • Co-editor of KVK Newsletter, Vol 1 -2015 and Vol 11 2016. • Develop E –learning material on Oyster Mushroom cultivation and uploaded in you tube.	2015-2020	5 Year 10 Months of experience
		MTTC and VTC, CHF, CAU, Pasighat	• Acted as resource person under Training on “Disease and its management in container vegetable gardening” organized by College of Horticulture and Forestry, CAU, Pasighat.	Jan, 2020-till date	10 months of experience

			• Acted as resource person under Training on "Awareness in MAP cultivation and its profit in MAP business." organized by College of Horticulture and Forestry, CAU, Pasighat. • Acted as resource person under Training on ".Disease and its management in some selected fruit crops of nursery – in context to Arunachal Pradesh and Plant protection measures against disease infecting nursery of vegetables.." under vocational training horticultural nursery as a production enterprise organized by College of Horticulture and Forestry, CAU, Pasighat. • Co organizing secretary of webinar on "Technological intervention for Horticultural crops in NEH Region". • Co organizing secretary of webinar on "Quality organic spices and its opportunities in North east region.		
3.	Dr. Rajib Das, Assistant Professor	MTTC & VTC, CHF, Pasighat	• Organizing Secretary in an online workshop on "Quality Organic Spices and its Business opportunities in North-East region", organized in Collaboration with IDP-NAHEP • Actively involved in a webinar on "Nursery Production and management of Horticultural Crops for young Entrepreneurs" organized in Collaboration with IDP-NAHEP • Delivered a Lecture on "Maintenance of seed quality/and its positive impact on oil seed crop" in the occasion of training programme for farmer on "Advances in production technology of oil seed" • Delivered a Lecture on "Organic Seed production approaches for Maize and Rice in Arunachal Pradesh" in the occasion of a training programme for farmer on "Organic farming: opportunities and Management" • Delivered lecture on "Production of	Jan, 2020-till date	10 months of experience

			Quality planting materials of fruit crops" in a vocational training for farmer on "Horticultural nursery as a production enterprise. • Co-organizing secretary a webinar on "Strategies and Technological Intervention for Sustainable Horticulture in NE Region"		
4.	Dr. Veluru Bhargav Assistant Professor	MTTC & VTC, CHF, CAU, Pasighat	• Avenues in Floriculture for livelihood (Women farmers) • Foundation Training of Horticulture Field Assistants • Three days webinar on 'Strategies and technological intervention for sustainable horticulture in NE region' • Three days webinar on 'Post-harvest Management and Value Addition in Horticultural Crops for Budding Startups' under NAHEP for students of CHF, CAU • Two days webinar on 'Promoting potential minor fruit crops: A sustainable new venture for North Eastern India' under NAHEP for students of CHF, CAU • One day training programme on 'Banana tissue culture production: Opportunities for new entrepreneur' under NAHEP for students of CHF, CAU • Two days training programme on 'Nursery Production and Management of Horticultural Crops for Young Entrepreneurs' under NAHEP for students of CHF, CAU • Three days training programme on 'Quality organic spices and its business opportunities in North East region' under NAHEP for students of CHF, CAU	Feb 2020-till date	9 months of experience
5.	Mr. Premaradhya N. Assistant Professor	MTTC and VTC, CHF, CAU, Pasighat,	• Acted as resource person under Training on Pipe composting and its benefits in container gardening organized by College of Horticulture and Forestry, CAU, Pasighat • Acted as resource person under Training on Post-harvest	24th Dec,2020-till date	10 months of experience

			management and value addition of major oilseed crops organized by College of Horticulture and Forestry, CAU, Pasighat • Acted as resource person under Training on Nursery raising and cultivation practices of Rice organized by College of Horticulture and Forestry, CAU, Pasighat • Acted as resource person under Training on Crop diversification and its benefits in Hill Ecosystem organized by College of Horticulture and Forestry, CAU, Pasighat • Acted as resource person under Training on Organic Weed Management in Horticultural Nursery Raising organized by College of Horticulture and Forestry, CAU, Pasighat • Acting as resource person under Training for Horticulture Training staff conducting by state Department of Horticulture, Pasighat • Acted as Co organizing secretary of webinar on One Week National Webinar on Resurgence of Agriculture and Allied Sector Industries in North Eastern Region of India in a Post Covid-19 Scenario • Acted as Co organizing secretary of webinar on "Technological intervention for Horticultural crops in NEH Region" • Acted as Co organizing secretary of webinar on "Quality organic spices and its opportunities in North east region		

ANNEXURE 6.5.7.3

Scholarship awarded to students (NTS/ UMS/Others)

Name of the College	Degree programme	No. of students receiving NTS		Name of the students
College of Agriculture	B.Sc. (Hons) Agriculture	08		1. Mr. Rajeev Ranjan
				2. Ms. ShefaMahroze
				3. Ms. ChimiYangzam Lepcha
				4. Ms. Priti Muang
				5. Ms. CentyNgasainao
				6. Mr. Mihin Tassang
				7. Ms. Rohlupuii
				8. Mr. RinchinTsering

COLLEGE OF AGRICULTURE, PASIGHAT

A. Faculties Award

Year	Name of the faculty	Name of the Award/ Recognition	Awarding Organization (Place/country)
2016-2017	Dr. Gireesh Chand,	Venus International Faculty Award	Venus International Foundation
	Dr. Pawan,	Best Poster Award	SSDAT, Meerut, U.P.
2017-18	Dr. Gireesh Chand,	Best Oral Paper Presentation Award	Society for Agriculture Innovation and Development, Ranchi
		SAID Fellow Award	Society for Agriculture Innovation and Development, Ranchi
	Dr. Geetarani,	Dr. N.A. Mujumdar Award	Indian Society of Agricultural Economics (ISAE), Mumbai
	Dr. DenishaRajkhowa,	INSPIRE fellowship	Department of Science and Technology, Govt. of India
		Reviewer of Springer journal	Springer journal

		Editorial Board member of Food and Agriculture Spectrum Journal	Food and Agriculture Spectrum Journal
	Dr. Pawan,	Best Thesis Award	ASTHA Foundation, M.P.
2018-2019	Dr. Gireesh Chand,	Zonal President	Indian Phytopathological Society, IARI, New Delhi
	Dr. Geetarani Devi	Young Professional Award	International Conference by Endling Conference Society
		Young Scientist Award	International Conference by Endling Conference Society
	Dr. Khwairakapam Lily Devi,	Young Scientist Award for outstanding contribution in the field of Extension Education	Society of Extension Education
		Best paper presentation award	9th National Extension Edu. Congress 2018
	Dr. BapsilaLoitongbam,	"Best Thesis Award"	Astha Foundation, Meerut (U.P.).
		Outstanding oral presentation Award	International Conference on Novel Applications of Biotechnology in Agricultural Sectors: Towards Achieving Sustainable Development Goal-2018
	Dr. Pawan, Assistant Professor	Young Scientist	ENDLING Conference
		Young Researcher	IMRF, Vijayawada
		Best Poster Award	ASTHA Foundation, M.P.
2019-20	-	-	-
2020-2021	Dr. Gireesh Chand,	Best paper presentation award	Indian Society of Agricultural Economics (ISAE)
	Dr. L. Geetarani,	Excellence in Reviewing	Journal of Experimental Agriculture International
		Women Researcher Award	VDGOOD Professional Association, Visakhapatnam, India
	Dr. BapsilaLoitongbam, Assistant Professor Dr. Pawan, Assistant Professor	Young Scientist Award	Agriculture & Environment Technology Development Society (AETDS), U.S. Nagar, Uttarakhand, India

COLLEGE OF HORTICULTURE AND FORESTRY, PASIGHAT

A. Faculties Award

Year	Name of the faculty	Name of the Award/ Recognition	Awarding Organization (Place/country)
2016-2017	Prof. B.N. Hazarika, Dean,	Recognized as Member, Joint Inspection Team, Dept. of Agriculture, Cooperation& Farmers Welfare	KrishiBhawan, New Delhi
	Dr. P. Debnath, Associate Professor	1st position for poster presentation	CHF, CAU, Pasighat
	Dr. S.K. Pattanaaik,	Govinda Chandra Sahu Award for the paper "Flood frequency Prediction using Gumbel's and Log-Pearson method for Siang river"	Institution of Engineers (India)
	Dr. S. Romen Singh, Assistant Professor	Best poster presentation on Genetic diversity of rambutan (*Nepheliumlappaceumlinn*.) in East Siang district of Arunachal Pradesh"	CHF, CAU, Pasighat.
	Dr. P. Debnath, Associate Professor	Best Paper Award for conserving and utilizing rainwater for crop production.	26th National Conference on NRMCSSA-2017, 26th National Conference on NRMCSSA-2017, Soil Conservation Society of India, New Delhi and Central Agricultural University, Imphal, Imphal
	Dr. P. Debnath, Associate Professor	Best Paper Award entitled Growth and Development parameters of vegetable cowpea (*Vignaungiculata*(L.) Walp) as influenced by mulching in the	26th National Conference on NRMCSSA-2017, Soil Conservation Society of India, New Delhi and Central Agricultural University, Imphal, Imphal
	Dr. P. Sarma, Associate Professor	Best Paper Award for conserving and utilizing rainwater for crop production.	26th National Conference on NRMCSSA-2017. 26th National Conference on NRMCSSA-2017, Soil Conservation Society of India, New Delhi and Central Agricultural University, Imphal, Imphal
	Dr. S.K. Pattanaaik,	Best Paper Award for conserving and utilizing rainwater for crop production.	26th National Conference on NRMCSSA-2017, 26th National Conference on NRMCSSA-2017, Soil Conservation Society of India, New Delhi and Central Agricultural University, Imphal, Imphal

	Dr. Anil Kumar, Assistant Professor	Awarded 2nd Position in Best Research Paper ward category along with Two Year membership of International Research Group on Wood Protection, Sweden	International Research Group on Wood Protection, Sweden
	Dr. Anil Kumar, Assistant Professor	Received Scientific assistance Programme (SAP) Award for IUFRO Div-5 Forest Product	Conference,Vancuover, Canada
	Dr. Kalkame Ch. Momin, Assistant Professor	Awarded the Best Poster (Group	Regional Training Workshop on Research Based Pedagogical Tools, JNC Pasighat
	Dr. N. Surmina Devi, Assistant Professor	Awarded the Best Poster (Group	Regional Training Workshop on Research Based Pedagogical Tools, JNC Pasighat
	Dr.ShivaniDobhal, Assistant Professor	Awarded the Best Poster (Group	Regional Training Workshop on Research Based Pedagogical Tools, JNC Pasighat
2018-2019	Dr. T.S. Mehra, Associate Professor	AdarshVidyaSaraswatiRashtriyaPuraskar	Global Management Council, Ahmedabad 2018.
	Dr. T.S. Mehra, Associate Professor	Fellowship of International Society of Noni Sciences	Perungudi, Chennai, India
	Dr. S.K. Pattanaaik,	BanabihariMohanty Memorial Award for the paper entitled "Deficit Irrigation under Drip System- A potential option for enhancing water productivity in fruit crop"	Institution of Engineers , India, Odisha State Centre, Bhubaneswar
		Second position in the poster presentation in National Conference on Horticulture in North East Region	CHF, Pasighat
	N. Devachandra, Assistant Professor	Succesfully Completed and Passed the Massive Open Online Course (MOOC) on Dynamic of Teaching-Learning	ICAR-NAARM, Rajendranagar, Hyderabad, Telangana.
	Dr. Helen Soibam, Assistant Professor	Best Scientist National Award in field of Teaching, research and publications	IRDP Group of Journals, Chennai, India
	Prof. B.N. Hazarika, Dean,	ISHRD Fellowship: Indian Society of Horticultural Research and Development	ISHRD, Uttarakhand
		Outstanding contribution to science Award	Chennai, India
		Dr. H.K. Jain- CAU Award (2016-17)	Central Agricultural University, Imphal
	Dr. Sunil Kumar, Professor	Fellow of Society for Horticultural Research and Development	(SHRD), Ghaziabad
		Best Faculty Award	EET CRS 7th Faculty Branding Awards
	Dr.A.S.Mailappa, Associate Professor	Best Agricultural Academician Award (Best KrishiShikshak Award)	Sona College of Arts & Science, Salem, Tamil Nadu.

	Dr.Barun Singh, Assistant Professor	Distinguished Service Award for outstanding contribution in the field of Pomology	Prayagraj, U.P. India
		Fellowship	Chennai, India
	Ms. M. Bishwapati Devi, Assistant Professor	Scientists of the Year Award' for outstanding contribution in the field of Computer Science	Society of Biological Sciences and Rural Development, Prayagraj
	Dr. Kalkame Ch. Momin, Assistant Professor	Young Scientist Award	COBACAS, Uttar BangaViswavidyalaya, Pundibari Cooch Bihar, West Bengal
	Dr. ShivaniDobhal, Assistant Professor	Young Scientist Award	COBACAS, Uttar BangaViswavidyalaya, Pundibari Cooch Bihar, West Bengal
	Dr.Nangsol Dolma Bhutia	Awarded with JagarNathRaina Memorial for All India Best Research Award at Doctorate Level	Himachal Pradesh
		Awarded with DwarikaNath Memorial Award-for best PhD Thesis	Varanasi, Uttar Pradesh
2020-2021	Dr. Sunil Kumar, Professor	Best Research paper award in Current Horticulture	-
		Best Academician Award in Agriculture	Borhawar, Murajhar, Hojai, Assam
		Outstanding Academic Leader Award	Guwahati Assam
	DrP.Raja, Associate Professor	Received scientist award – 2020 for the commendable contribution to the Plant Pathology	Dr. B.Vasantharaj David Foundation. Chennai.
	Dr.A.S.Mailappa, Associate Professor	Award on "Excellence in Teaching achievements and accomplishment in the field of Agriculture & Allied	SamagraVikas Welfare Society, "World Environment Day 2020 celebration"
	Dr.Kalkame Ch. Momin, Assistant Professor	Best paper award on Drying and Dehydration of Native Ornamental Plants of Arunachal Pradesh and its value addition: A livelihood Opportunity'	Regional Seminar on Perspectives of Horti-business in development of North Eastern Region, organized by CHF, CAU Pasighat, NABARD Itanagar& ICAR-ATARI, Guwahati,
	Dr.Nangsol Dolma Bhutia	Awarded Jawaharlal Nehru Award for Outstanding Doctoral Thesis Research in Agricultural and Allied Sciences	ICAR-New Delhi
	Dr. Sunil Kumar, Professor	Outstanding Achievement Award	Agricultural Technology Development Society (ATDS) Ghaziabad, UP
	Dr. L. Wangchu, Associate Professor	3rd Position in Oral Presentation	National Seminar on Citrus, CAU, Imphal
	Dr. S. Romen Singh, Assistant Professor	Young Scientist Award	International Conference on New Paradisgms for Agriculture, Food and

			Sustainability Concerns, Raichur, Karnataka
	N. Devachandra, Assistant Professor	3rd Position in Oral Presentation	National Seminar on Citrus, CAU, Imphal
		Honorary Appreciation from ISTD, Guwahati Chapter & ARHAN	ISTD, Guwahati Chapter & ARHAN

B. Student Awards

Year	Name of the faculty	Name of the Award/ Recognition	Awarding Organization (Place/country)
2016-2017	Ms. Eden A. Sangma, B.Sc. Horticulture	First Prize in Collage Competition	17th All India Inter-Agricultural Universities Youth Festival – AGRI UNIFEST-2017, Rajasthan University of Veterinary & Animal Sciences, Bikaner during 25th-28th February, 2017.
2017-2018	Ms. OyimangTamuk, B.Sc. Forestry	Second prize in "BRAHMAPUTRA AAMANTRAN ABHIYAN 2020", Debate Competition	Inter-Collegiate Debate Competition on the topic "Ecotourism with Rivers" with the theme "Living with the river", College of Horticulture & Forestry and College of Agriculture, CAU, Pasighat in collaboration with the District tourism Department, Pasighat, East Siang
2019-2020	Ms. OyimangTamuk, B.Sc. Forestry	Second prize in "BRAHMAPUTRA AAMANTRAN ABHIYAN 2020", Debate Competition	Inter-Collegiate Debate Competition on the topic "Ecotourism with Rivers" with the theme "Living with the river", College of Horticulture & Forestry and College of Agriculture, CAU, Pasighat in collaboration with the District tourism Department, Pasighat, East Siang

COLLEGE OF AGRICULTURE

CENTRAL AGRICULTURAL UNIVERSITY

PASIGHAT-791102 (ARUNACHAL PRADESH)

SELF STUDY REPORT

(Year:2015-16 to 2020-21)

For

Degree Programme of B.Sc. (Hons.) Agriculture

Submitted to

NATIONAL AGRICULTURAL EDUCATION ACCREDITATION BOARD

INDIAN COUNCIL OF AGRICULTURAL RESEARCH

NEW DELHI-110011

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6.4. Self Study Report for the Degree Programme, College of Agriculture, Pasighat

6.4.1. Brief History of the Degree Programme:

The College of Agriculture, Central Agricultural University, Pasighat was established on 26th November, 2013 as one of the constituent colleges of Central Agricultural University, Imphal, Manipur. The beautiful campus of College of Agriculture comprising of 86 acres of land is located on the picturesque bank of mighty river, Siang at the foothills of Eastern Himalayas, Pasighat. It is situated on the NH-52 between Ruskin and Aalo which is about 6 km from Pasighat town towards North-West direction and about 300 km from the state capital of Arunachal Pradesh, Itanagar.Murkongselek (MZS), DibrugarhTown (DBRT) and Dibrugarh (DBRG) are the nearest railway stations located 40 km, 152 km and 156 km respectively away from the college campus. It is well connected to Kolkata, Mumbai, New Delhi and Chennai by train. Moreover, it is also well connected with Pasighat Airport as well as Dibrugarh Airport. As far as Pasighat weather is concerned, the average annual rainfall is 2500-3500 mm, with average maximum temperature of 37 ºC in the month of May and average minimum temperature in the month of January is10ºC. Here, in winter, afternoons are pleasant and nights are cold. This region comes under at 28º05'N latitude and 94º19'Elongitudes with an elevation of 153 m MSL. The various infrastructures of college *viz*. academic block, administrative block, hostel for girls and boys, transit hostel, *etc.* are under construction and will be completed very soon.

The College of Agriculture, Pasighat, impart education in different branches of Agriculture and its allied sciences. The College of Agriculture started its first flagship academic programme*i.e*., 4 year B.Sc. (Hons) Agriculture programme from academic session 2013-14 with intake capacity of 20 students. The course curriculum and syllabi are based on the model academic regulations and syllabi as proposed by the 5th Dean Committee of Indian Council of Agricultural Research (ICAR), New Delhi. While designing curriculum, outmost care has been taken to consider the global development in Science & Technology to equip graduates to meet new challenges thrown open as a result of economic globalization and climate changes and preparing farmers for emerging opportunities at national and international level.

The college offers only under graduate (UG) programme. The curricula of the said academic programme are those suggested by 5th Dean's Committee's of ICAR.

Now a day's 10+2+4 pattern which comprises one Semester (7th) of Rural Agriculture Work Experience (RAWE) programme and Experiential Learning Programme for 8thsemester from the academic year 2013-2014.

Mandate of the Institution

The College of Agriculture, Pasighat is a unique campus under the Central Agricultural University, Imphal with complete integration of all the three functions *viz.;* teaching, research and extension. The college has the mandate to develop, strengthen and promote the understanding, knowledge and skills to improve profitability and utilization in the field of agriculture, not only in Arunachal Pradesh but also in the entire North-Eastern Region. The college shall also endeavour to establish linkages with other scientific institutions of ICAR, other zonal and national bodies in the field of its domain located in the region and outside the region. But, the major mandates of the college are:

i) Making provision for imparting education in Agriculture.
ii) Advancement of learning and conducting research particularly in Agriculture and other allied sciences / technologies especially for the rural people of the state in general.
iii) Undertaking activities pertaining to major mandates *via*, education, research and extension as directed by the University time to time.

Objectives

i) To undertake teaching for UG in Agriculture.
ii) To carryout research to generate technology and extension of technology to the farmers and professionals.
iii) To undertake the policy programme of state and central government related to agriculture education, research and extension.
iv) To undertake such other activities as it may deem fit from time to time.

Accomplishments

Initially, the enrolment of students in the program was low. During recent past, however, some –signatory states are seeking for more allocation of seats for their students. The main reason might be the impressive performance shown by the students of this college at national level. A total of 20 students from 02 passed out batches for B.Sc. (Agriculture) degree programme. On an average, 90 per cent of students secure first class in their final examination which is a moral boost and an achievement for all.

Students of this college have shown outstanding performance in the national level examinations. In 2018 and 2020, the University/college ranked 2nd in terms of ICAR –JRF holder.

List of Toppers of B.Sc. Agriculture, Since Inception

Sl. No.	Name	Year of Passing

1.	Mr.Arif -Ur-RahmanChowdhury	2017
2.	Mr.BijoyDebnath	2018
3.	Ms. Ng. Pusparani	2019

List of ICAR – JRF Holders, 2018

List

Sl. No.	Name of the student	Admission No.	Discipline
1.	Mr. Ricky Winner Mylliemngap	01A-14	Agriculture
2.	Mr.BijoyDebnath	07A-14	

of ICAR – JRF Holders, 2019

List

Sl. No.	Name of the student	Admission No.	Discipline
1.	Ms. O. Ricky Devi	09A-14	Agriculture

of ICAR – JRF Holders, 2020

Sl. No.	Name of the student	Rank	Discipline
3.	SaibalBishwas	IARI	Agriculture
4.	KojHaniya	IARI	Agriculture

During 2016- 2017 first batch has been passed out. The following students qualified / placed in various sector

Table: 1.Number of students passed and placed various sectors in 2016-17 to 2019-20

Sl. No.	Year	Number of students qualified/Number of students placed					Number of students passed out
		JRF	SRF	NET	M. Sc.	Other	
1.	2016-17	02	-	-	04	04	20
2.	2017-18	02	-	-	04	04	20
3.	2018-19	02	-	-	04	04	20
4.	2019-20	01	-	-	-	-	20

6.4.2. Faculty strength

For the welfare of the students and less sanction faculties of the college, the College of Agriculture, CAU, Pasighat is utilizing the faculties of the College of Horticulture and Forestry as the students and the faculties stay in the same campus with the same facilities of the college of Horticulture and Forestry, CAU, Pasighat.

Table: 2. Faculty strength

Sl. No.	Sanction Faculty	Faculty in Place	Vacant Position	Faculty recommended By ICAR
1.	Professor	02	04	3
2.	Associate Professor	-	-	8
3.	Assistant Professor	11	-	34
	Total	**13**	**04**	**45**
4.	CHF Faculty	35	-	
Total		**48**		

As per faculty recommended by ICAR/~~UGC/VCI/~~Other regulatory bodies the faculty strength are not sufficient. However, the CHF faculties are being assigned to complete the curriculum of the undergraduate degree programme. The teaching pedagogy include a judicious blend of different teachings modules, classroom-based teaching with an equal weightage on practical training and exposure to inculcate pragmatic skills and perk up student's confidence to meet requirement of various client organization as well as higher education in other national and international academic institutions. At present the College of Agriculture is utilizing the existing facilities of College of Horticulture and Forestry, CAU, Pasighat. The existing faculty of College of Agriculture *i.e.,* 1 Assistant Professor (c), College of Horticulture and Forestry including the Dean of the College of Horticulture and Forestry, CAU, Pasighat is handling all the courses till appointment of faculty of the college. Special focus is paid for all round development of student to show their hidden talent in addition to their educational programme. The College organizes co-curricular and extra-curricular activities for overall development of student's personality and carrier. Annual College Week, Blood Donation Camp, Science Day, Awareness Programs, NSS, Physical Education, Sports, Literary activities etc are also organized to give the opportunity to the students. The students also participate regularly inter collegiate event of University and National level competitive events.

6.4.2.2. Faculty Profile (Department wise)

Since the College is newly established college, the regular faculties are very less but the following no of post has been proposed for the college. Out of the proposed faculty strength, only 6 teaching faculties (Assistant Professor) has been sanctioned by DoE and 2 professors are filled in place. Further 05 Assistant Professors of MTTC & VTC are also utilized at College of Agriculture.

Table: 3.College of Agriculture& MTTC/VTC

Sl. No.	Department	Sanctioned Faculty	Filled post	Vacant post	Faculty recommended by the ICAR
9.	Agronomy	Professor	1	-	1
		Associate Professor	-	-	1
		Assistant Professor	2	-	5
10	Genetics & Plant Breeding	Professor	-	1	1
		Associate Professor	-	-	1
		Assistant Professor	2	-	3
11	Plant Pathology	Professor	1	-	0
		Associate Professor	-	-	1
		Assistant Professor	1	-	2
12	Agricultural Economics	Professor	-	1	0
		Associate Professor	-	-	1
		Assistant Professor	1	-	5
13	Agricultural Entomology	Professor	-	1	0
		Associate Professor	-	-	1
		Assistant Professor	1	-	2
14	Agricultural Extension	Professor	-	1	0
		Associate Professor	-	-	1
		Assistant Professor	-	-	3
15	Horticulture	Professor	-	-	1
		Associate Professor	-	-	1
		Assistant Professor	3	-	3
16	Agricultural Biochemistry	Professor	-	-	0
		Associate Professor	-	-	0
		Assistant Professor	1	-	2
		Total	13	04	35

Table: 4.College of Horticulture and Forestry

Sl. No.	Department	Professor	Associate Professor	Assistant Professor
1.	Agronomy	-	-	01
2.	Plant Pathology	-	01	02
3.	Entomology	01	01	01
4.	Agricultural Economics	-	-	01
5.	Horticulture	01	04	11

6.	Agricultural Biochemistry	-	-	01
7.	Soil Science	01	-	01
8.	Extension Education	-	01	02
9.	Agricultural Biotechnology	-	-	01
9.	Agricultural Statistic	-	-	01
10.	Agricultural Engineering	-	01	-
11.	Crop Physiology	-	-	01
Total		**03**	**08**	**23**

* At present the College of Agriculture is utilizing the existing facilities of College of Horticulture and Forestry, MTTC & VTC, CAU, Pasighat and for teaching and other administrative works. The existing faculty of College of Agriculture, College of Horticulture and Forestry, MTTC &VTC including the Dean of the College of Horticulture and Forestry, CAU, Pasighat is handling all the courses till appointment of faculty of the college.

6.4.3. Technical & Supporting Staff

Since the College is newly established college, the regular faculties are very less but the following no of post has been proposed for the college. Out of the proposed faculty strength, only 6 teaching faculty (Assistant Professor) has been sanctioned by DoE and 2 Professors, one Assistant, 1 Account Assistant and 1 FCLA are filled in place. Since the College is under construction, the College is still attached with the College of Horticulture and Forestry in the same campus.

The advertisement for recruitment of the sanctioned regular technical and supporting staff of the College of Agriculture has been initiated. Till then the faculty of the College of Horticulture and Forestry has been utilized as both the colleges are under same campus. The technical staff for the College of Horticulture and Forestry were utilized for the College of Agriculture too and allotted in different departments whenever need arises. The administrative and accounts staff are centralized in the college and are operating under the direct control of the Dean as part of Dean's office. The details of staff involved are listed below:

Table: 6. Information of Technical & Supporting Staff

Sl. No.	Name of the Post	No. of Post	Actual Filled
1.	Dean	01	01
A.	**Establishment**		
2.	Asstt. Admin Officer(Asstt. Regt.)	01	00
3.	Asstt. Academic Officer (AS)	-	*
4.	Assistant Accounts Officer	01	*
5.	Assistants (one for each AAO) (OS)	01	01
6.	Steno/Computer Operators	01	01
7.	Driver	-	*
8.	Farm Manager (Asstt. Prof.)	-	*
9.	Store Keeper/Farm Asstt.	01	01
B.	**Central Instrumentation Laboratory**		
1.	Instrumentation Asstt. Engineer	-	-
2.	Instrumentation Technician/Lab Asstt.	03	*
C.	**Library Staff**		
1.	AssistantLibrarian (Asstt. Prof. Cadre)	01	*
2.	Library Asstt./Clerk	02	*
	Issue Asstt.	01	*
D.	**Students Welfare**		
1.	Physical Education (Asstt. Prof.)	-	-
2.	Attendant	01	*
E.	**Hostel Staff**		
1.	Warden / Rector	*	*
2.	Care taker/ Monitor	*	*
3.	Hostel Asstt.	01	*
F.	**Estate Branch**		
1.	Junior Engineer	-	*
2.	Security Asstt.	01	*
Total		**16**	**04**

* Indicate holding assigned charge by CHF staffs (16 number)

Since the college is a newly established college, only some technical staff (permanent) has been assigned the responsibilities for the multiple activities related to the College of Agriculture with the

support and help from the technical and supporting staff of the College of Horticulture and Forestry, CAU, Pasighat.

No of Post proposed sanction and post filled for the College of Agriculture, CAU, Pasighat

Sl.No.	Name of the Post	Sanction post	Filled post
14.	Assistant Professor	6	6
15.	Assistant Registrar (Acad/Estt)	1	-
16.	Assistant Comptroller	1	-
17.	PA(Sr. Steno)	1	-
18.	Accountant	1	-
19.	Horticulture Assistant	1	-
20.	Assistant	1	1
21.	Account Assistant	1	1
22.	Library Assistant	1	-
23.	Livestock Assistant/Farm Assistant	2	-
24.	Clerk cum Typist/LDC	2	-
25.	Field cum Lab Assistant	3	1
26.	Medical Attendant	1	-

6.4.4. Classrooms and Laboratories:

For the welfare of the students and less sanction faculties of the college, the College of Agriculture, CAU, Pasighat is utilizing the faculties of the College of Horticulture and Forestry as the students and the faculties stay in the same campus with the same facilities of the college of Horticulture and Forestry, CAU, Pasighat.

Since the college is under construction, the College of Horticulture and Forestry, CAU, classroom is giving good facilities to our students. Four well-equipped classrooms are made available with this college (CHF). These are well equipped with audio-visual aids for effective teaching. Different sections of this college also have well-equipped laboratories and separate instrument cell for conducting practical classes of the students. Since the laboratories are equipped with most of the instruments, it also enables staff of this college to carry out research.

Table: 7. Class room available

Class Room	Smart class room/interactive Board
UG Hall-1	Smart class room

UG Hall-2	Smart class room
UG Hall-3	Smart class room
UG Hall-4	Smart class room

Table: 8. Number of laboratories available

Sl. No.	Section	No. of laboratories available for UG
1.	NRM	2 Laboratory / Practical hall
2.	Horticulture	1 Laboratories / Practical hall
3.	Vegetable Science	1 Laboratories / Practical hall
4.	Soil Science &Agril. Chemistry	1 Laboratory / Practical hall
5.	Basic Science	1 Laboratory / Practical hall
6.	Agril. Entomology	1 Laboratory / Practical hall
7.	Plant Pathology	1 Laboratory / Practical hall
8.	Post Harvest Technology	1 Laboratory / Practical hall
9.	Agro Forestry	1 Laboratory / Practical hall
10.	Tissues Culture	1 Laboratory / Practical hall

Table: 9. Average number of students in theory and practical classes

Sl. No.	Name of the degree programme	Batch of student in theory	Batch of student in practical
1.	B.Sc. (Agri.)	1 batch (24no.)	1 batch (24no.)

The class rooms and laboratories are sufficient to meet course curricula requirement of the degree programme.

6.4.4. Details of Classrooms and Laboratories:

a) **Number of class rooms**: (UG 4+PG 8)=12

All class rooms are provided with LCD projectors and audio-visual aids for better delivery of lectures. The faculty use power point presentations to make the concepts/techniques clearly understandable to the students. The important lectures are taught with videos. A table, podium, whiteboards/screen, black board etc. are available in each class room for the use of teachers. A

common generator facility supplies power to all the classrooms to avoid interruption of the class during power failure.

b) **Functional Laboratories (Agriculture& allied):**13 nos.

Table: 10.Department/Section wise Functional Laboratories available

Sl.No.	Department/Section	Area (Sqmtr)	Remarks
1.	***Fruit Science***		
	Two Laboratory	98 and 82	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements *etc*.
	Vegetable Science		
2.	One Laboratory	82	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements etc.
3.	***Floriculture, Landscape and MAP***		
	One Laboratory	82	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements *etc*.
4.	***Post-Harvest Management***		
	One Laboratory	72	Equipped with all necessary instruments & lab infrastructure with basins, water, electricity, sitting arrangements *etc*. Equipment for processing of horticultural produces.
5.	***Basic Sciences & Humanities***		
	UG Basic Science Lab	28	Biochemical, biotechnological & microbiological practical & research needs of students are being fulfilled.
	PG Basic Science Lab	28	
	Tissue CultureLab	47	
	Computer Laboratory	48	The lab is used for conducting Practical classes for PG students equipped with 15 computer & 2 printers for student access. Internet band width/ speed: 32Mbps.
6.	***Plant Protection***		
	Entomology (Biocontrol) Laboratory:	72	Facilities equipped for research work on crop pests management & production of biocontrol agents
	Entomology (IBDC) Lab:	85	
	Pathology Laboratory Mushroom(Sterlization room, Boiling room)	144	Production of Mushroom spawn and other microbial research work carried-out.
	Pathology (Mushroom inoculation)	45	Inoculating mushroom. The laboratory is also equipped with culturing and spawns production
7.	***Natural Resource Management***		
	Soil Science & Agricultural Chemistry Laboratory	100	The laboratory is equipped with various facilities to analyse the soil samples, related to various degree programmes (UG and PG) of Agriculture, Horticulture and Forestry.
8.	***Forest Product Utilization***		

	Medicinal and Aromatic Plants Laboratory	160	Equipped with all the modern equipments for practical, sitting arrangements, Distillation, extraction facilities, etc.
	Wood Products and Utilization Laboratory	90	Facilities for characterization of morphological, anatomical, mechanical & chemical properties of timber. Other work carried out -wood design, fabrication ,etc.
9.	***Tree Improvement & PBG***		
	TIM Laboratory	72	Equipped with instruments for research &practicals. Water basins fitted in the laboratory for proper drainage of water and chemicals.

a) **Lists of major Equipments:**

The laboratories are well equipped to conduct the practicals/hands on training to the students with instruments, laboratory tables, basins, irrigation facilities, electrical and ventilations, adequate wooden furniture etc. The lists of instruments/ equipments available in the laboratories are furnished below.

(i) Department of Horticulture

S.No.	Name of the equipment	S. No.	Name of the equipment
1.	Horizontal Autoclave	13.	Vertical Autoclave
2.	Deep Freezer	14.	Incubator
3.	Binocular	15.	Lux Meter
4.	Hand Refractometer	16.	Ordinary Balance
5.	Binocular microscope	17.	pH meter
6.	Digital Camera	18.	Refrigerator
7.	Digital Weighing Balance	19.	Magnetic Stirrer
8.	Distillation apparatus	20.	Seed drier
9.	Electronic Balance	21.	Seed germinator
10.	Dissecting microscope	22.	Conductivity Meter
11.	Processing Units	23.	Water Bath
12.	Hot Air Oven	24.	Weighing Balance

(i) Department of Vegetable Science

S.No.	Name of the equipment	S. No.	Name of the equipment
1.	Horizontal Autoclave	13.	Vertical Autoclave
2.	Deep Freezer	14.	Incubator
3.	Binocular	15.	Lux Meter
4.	Hand Refractometer	16.	Ordinary Balance
5.	Binocular microscope	17.	pH meter
6.	Digital Camera	18.	Refrigerator
7.	Digital Weighing Balance	19.	Relaskop
8.	Distillation apparatus	20.	Seed drier
9.	Electronic Balance	21.	Seed germinator
10.	Dissecting microscope	22.	Conductivity Meter

11. Processing Units
12. Hot Air Oven
23. Water Bath
24. Weighing Balance

(ii) Department of Silviculture& Agroforestry

S.No.	Name of the equipment	S. No.	Name of the equipment
1.	Autoclave	13.	Increment Borers
2.	Bark Gauge	14.	Incubator
3.	Binocular	15.	Lux Meter
4.	Clinometer	16.	Ordinary Balance
5.	Binocular microscope	17.	pH meter
6.	Digital Camera	18.	Refrigerator
7.	Digital Weighing Balance	19.	Relaskop
8.	Distillation apparatus	20.	Seed drier
9.	Electronic Balance	21.	Seed germinator
10.	Haga Altimeter	22.	Starter Compass
11.	High Limb Chainsaw	23.	Water Bath
12.	Hot Air Oven	24.	Weighing Balance

(ii) Department of Forest Product Utilization

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Double water distillation machine	13.	Godrej refrigerator
2.	Optical microscope with computer	14.	Hot oven
3.	Essential oil distillation machine	15.	Water bath
4.	Autoclave vertical	16.	Compound microscope
5.	Binocular microscope	17.	Dissecting microscope
6.	UV Photo spectrometer	18.	BOD incubator
7.	Soxhlet oil extractor	19.	Hot plate magnetic stirrer
8.	Weighing balance	20.	Digital weighing balance
9.	pH cum conductivity meter	21.	Seed germinator
10.	Hot and cold press machine	22.	Microtone machine
11.	Motor chain saw	23.	Universal testing machine
12.	Combine wood working machine		

(iii) Department of Tree Improvement & Plant Breeding Genetics

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Digital Magnetic Stirrer	6.	Precision Balance
2.	Hot Plate withMagnetic Stirrer	7.	Microscope
3.	Water bath	8.	Seed drier
4.	Refrigerator	9.	Plant press
5.	Seed Germinator	10.	Electronic Balance

(iv) Department of Basic Sciences

UG Basic Science Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	pH meter	5.	Cooling water bath
2.	Centrifuge	6.	Refrigerator
3.	Autoclave	7.	Hot plate
4.	Microscope	8.	Ice-flaking machine

PG Basic Science Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Microwave oven	4.	Weighing balance
2.	Centrifuge	5.	Oven
3.	Refrigerator	6.	Microscope

Tissue Culture Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Laminar flow	2.	HPLC (under repair)
3.	PCR Machine	4.	Weighing machine
5.	Ultraviolet Transilluminator	6.	Gas Chromatography

(v) Department of Plant Protection

Entomology (Biocontrol) Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Autoclave	4.	Fermenter
2.	Binocular microscope (CH20i Olymp)	5.	Humidity cabinet
3.	Distillation unit	6.	Laminar airflow

Entomology (IBDC) Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Honey extractor (10frames)	12.	Autoclave Horizontal
2.	Honey processing plant (Cap. 250Kg)	13.	Laminar air flow (Vert.)
3.	Honey bottling machine	14.	Weighing balance
4.	Automatic Honey bottle Dryer	15.	Bionocular microscope
5.	Honey Bottle sealing machine	16.	Multimedia projector
6.	Honey comb foundation mill	17.	Nikon Camera d5300
7.	Gel Electrophoresis	18.	Water Bath
8.	Refrigerated table top centrifuge	19.	Serological Water bath
9.	Deep freezer, Water bath (digital)	20.	Distillation unit
10.	BOD incubator		
11.	Quartz Boiler & Quartz condenser		

Pathology Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Autoclave	11.	Refrigerator
2.	Chalk powder mixture	12.	Hygrometer
3.	Grain Boiler	13.	Camera lucida
4.	Spawn Bag filler	14.	Stage & ocular micrometer
5.	Laminar flow	15.	Haemocytometer

6. Distillation Unit
7. Shrink wrap machine
8. Microscope (Zeiss)
9. Spectrophotometer
10. Micro-oven
16. Student microscope
17. Digital balance
18. BOD incubator
19. Illuminator

(vi) Department of Natural Resource Management

Soil Science & Agricultural Chemistry Laboratory:

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Hot Air Oven	12.	Plastic Jars
2.	Hot Plate	13.	Mechanical Shaker
3.	Water Bath	14.	pH Meter
4.	Required Glasswares&plasticwares	15.	EC Meter
5.	Required Reagents	16.	Analytical Balance
6.	Keen Box	17.	Nitrogen Analyser
7.	Moisture Box	18.	Colorimeter
8.	Single Distillation Set / Unit	19.	Spectrophotometer
9.	Double Distillation Set / Unit	20.	Flame Photometer
10.	Sieves	21.	Wooden Mallet
11.	Atomic Absorption Spectrophotometer		

Forest Surveying/ Engineering Facility

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Total Station	6.	Plane table with accessories
2.	Dumpy Level	7.	Chain Surveying& accessories
3.	Abney's Level	8.	GPS
4.	Hand Level	9.	Digital Planimeter
5.	Levelling survey accessories	10.	Current Meter

Farm Power, Machineries and Irrigation Infrastructures

S.No.	Name of the equipment	S.No.	Name of the equipment
1.	Tractor 275 DI	12.	Ridge Maker
2.	Tractor 575 DI	13.	Tractor operated Seed Drill
3.	Tractor 605 DI	14.	Trolley
4.	Tractor Bull Excavator	15.	Tanker
5.	Rotavator	16.	Multi crop Thresher
6.	Cultivator	17.	Tractor Operated Lawn Mower
7.	Disc Harrow	18.	Power Tiller
8.	M.B. Plough	19.	Sprinkler Irrigation System
9.	Disc Plough	20.	Drip Irrigation System
10.	Tractor Operated Potato Planter	21.	Hand Tools & Implements
11.	Tractor Operated Sprayer	22.	Sprayers

(d) Farm facilities, workshops and other instructional units: 16 nos.

Table: 11.Farm facilities, workshops and other instructional units

Sl. No.	Department/Section	Area (Sq. mtr.)	Facilities
1.	***Horticulture***		
	(i) Fruit Nursery	9100	• Nursery raised bed= 30 Nos. • Shade net house (5x1.5m) = 15 Nos. • Green Net House (9mx16.5mx 5.5m) • Fruit germplasm collection of 100 species of tree species for research/academic • Water Pump with motor, Irrigation & electricity setups.
	(ii) FruitBlock	2100	• Fruit plantation and garden blocks of different crops. • Water Pump with motor, Irrigation & electricity setups.
2.	***Vegetable Science***		
	(i) Vegetable Nursery	1200	• Nursery raised bed= 30 Nos. • Shade net house (5x1.5m) = 15 Nos. • Green Net House (9mx16.5mx 5.5m) • Water Pump with motor , Irrigation & electricity setups
	(ii) VegetableBlock	9100	• Vegetable and spices seed production blocks of different crops. • Water Pump with motor, Irrigation & electricity setups.
3.	***Floriculture and Landscape Architecture***		
	(i) Flower Nursery	1000	• Nursery beds = 50 Nos. • Greenhouse/ Polyhouse (15 m x 10 m) = 1 No. • Plantation/ Germplasm Blocks of different flowers species. • Water Pump with motor, Irrigation & electricity setups
	(ii) Flower Block	8400	• Shade Net House (20 m x 15 m) = 4 Nos. • Shade Net House (25 m x 20 m) = 9 Nos. • Bougainvillea block = 1000 m^2

			• Tuberose block = 200 m^2 • Gladiolus block = 500 m^2
4.	***Silviculture& Agroforestry***		
	(i) Silviculture Nursery	9100	• Nursery raised bed= 70 Nos. • Shade net house (5x1.5m) = 30 Nos. • Green Net House (9mx16.5mx 5.5m) • Tree Garden/ Collection of 250 species of tree species for research/academic • PG Research plots for germination exp • Plantation Blocks of diff. species • Water Pump with motor , Irrigation & electricity setups
	(ii) Agroforestry Block	2100	• Compost (concrete) pit • PG Research plots under different spacing's of diff. species& diff. age.
5.	***Forest Product Utilization***		
	(iii)Medicinal& Aromatic plant farm (iv)Medicinal plant germplasm block	12000	• Germplasm of Medicinal Plants • Collection of rare & endangered spp. • PG research plots • Nursery beds • Shade houses/roofs • Irrigation & electric facilities
	(v) Herbal garden	10000	• More than 160 species • Research, conservation& identification purpose
	(vi) Bambusetum block	8000	• 67 spp. of different type of bamboos • Research, conservation& identification purpose
	(vii) Rubber plantation block	20000	• Commercial genotypes of high yielding *Heveabrasiliensis*
	(viii) NTFPs & High value timber block	25000	• Tans & dye yielding plants • Lac, Gums and resins plants • Drugs, spices and insecticides plants • Wild edible fruits trees
6.	***Tree Improvement & PBG farm***		
	(ix) TIM& PBG farm	1800	• Nursery raised bed= 20 Nos. • Shade net house (15x15m) • Tokkopatta shade roofs: 10nos. • Arboretum 1100 sq.mtr • Irrigation & electricity setups

7.	***Plant Protection***		
	(x) Entomology (Biocontrol) Farm	4047	• Nursery Beds, Research plots • Water Pump with motor , Irrigation & electricity setups
	(xi) Entomology (IBDC) Farm	2023	• All equipments of beekeeping • Irrigation facility • Plots for nectar yielding plant
	(xii) Pathology Farm	1083	• Disease Diagnostic Field • Students demonstration plot • Nursery beds • Irrigation& electric facilities.
	(xiii) Paddy straw boiling unit and mushroom House	1350	• Boiling unit • Facilities for mushroom culture & production • Unit has more than 250 species of edible and poisonous mushroom species.
8.	***Natural Resource Management***		
	(xiv) Forest Engineering Facility (xv) Farm Power & Irrigation Infrastructures	1500	• Runoff Experiment Facility • Rain water Harvesting Based Integrated Horticulture Farming System • WHP=5 Laks Litters Capacity • 5Hp Solar Pumping System • Naturally Ventilated Greenhouse= 30m ×7m • Drip irrigation system operated by Solar Pump • Sprinkler Irrigation System operated by solar pump • Gravity fed drip Irrigation System in 500sq.m area • Basic Power Machineries available
	(xvi) Agrometerology Observatory	500	• Meterological observation data for Research and Academic purpose

(e) Justification:

The laboratories of all departments are well equipped with all the necessary equipments and facilities to accomplish the proposed research activities. All basic chemicals and instruments are available for doing practical and research work in all the laboratories.The Farm facilities, workshops and other instructional units are well designed with sufficient land area and build infrastructure, irrigation, electricity and required farm machineries supported with tractors, power tillers, cultivators, leveller, rotavator, and other farm implements for day to day work and research purposeto meet the course curricula and research requirements.

(f) Theory and practical batches for the Degree Programme: The number of intake students is manageable due to limited number of seats.

Table: 12. Average number of students in theory & practical classes

Sl. No.	Name of the degree programme	Batch of student in theory	Batch of student in practical
1.	B.Sc. (Agri.)	1 batch (24no.)	1 batch (24no.)

The class rooms and laboratories are sufficient to meet course curricularequirement of the degree programme.

6.4.5. Conduct of Practical and Hands-on-Training:

The undergraduate courses involve conducting practical's as per credits allotted to the specified courses and hands on training and field/lab practical are for courses. Since the college is under construction, the College of Horticulture and Forestry, CAU, is giving good facilities to our students. The practical classes and Hands-on-Training were conducted in different laboratories, field, nursery *etc*, with the support of the faculties of the College of Horticulture and Forestry, CAU, Pasighat

In plant biotechnology the technique of micro propagation in banana, strawberry and vegetables are demonstrated. Propagation methods demonstrated. Production Technology of Vegetables and Flower Crops: Maximization of vegetable yield by *viz*., staking, turning, blanching, earthling up. Vegetable Production: commercial production and marketing of various vegetables & preparation of value added products.

Plant protection measures for technologies of IPM/IDM of different crops are demonstrated to the effective management of crops losses by pest and diseases. Apart from IPM/IDM students also learned mushroom production, biopesticides production and honey bee keeping at commercial level to helpful for entrepreneurship development.

Soil analysis for different micro and macro nutrient demonstrated by practically. The agro-industries visits comprise of fruit processing, cold storage, post harvest and marketing management (sorting, grading, packing), rice mill, poultry (layer, broiler and indigenous breeds), poultry feed, sugar mill, dairy (co-operative and private), milk collection, chilling, processing; processing mill, nursery (government and private), agro-service centre, etc.

6.4.6. Supervision of students in UG/~~PG / Ph. D~~Programmes: (number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.)

This college do not have PG/Ph. D. programme because the College of Agriculture is a newly established College under Central Agricultural University, Imphal, there are no students enrolled in PG/Ph.D programme. However, there is regular monthly counseling meetings are conducted to discuss regarding overall academic progress of undergraduate

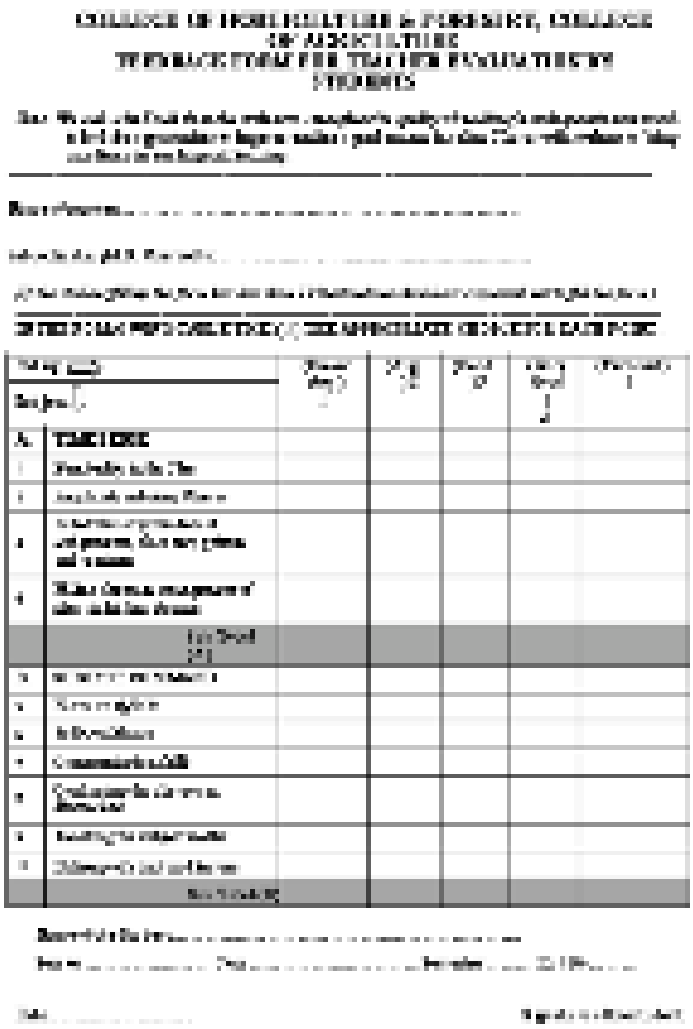
students, behavior, economical and personal development. In emergency/ misbehaviors of students, student health problems are regularly monitored.

6.4.7. Feedback of stakeholders: (Students, Parents, Industries, Employers, Farmers *etc*.)

This college is especially for the 80% tribal students & gives opportunities to the tribal students for the career development in Agriculture sector. This college has kept suggestion and complaints box in college premises. Regular counseling meetings are organized and in emergency parents are also participated for the personality developments of students. This college has provided an excellent platform and infrastructure to establish rapport between students and teachers.

Few feedback form are taken to explain the issues raised by the respondents

1. **Scanned Copy of Feedback form 1**

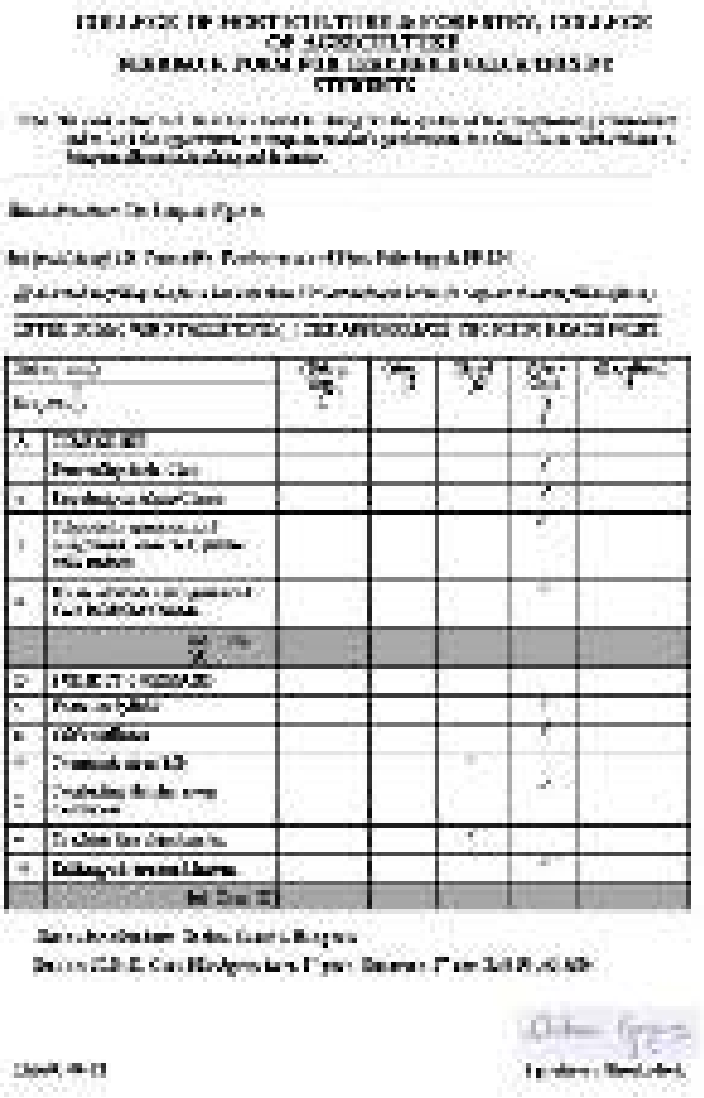


Action taken: Feedback highlighted the requirement of more emphasis on the employability of the students graduating from the college. Smart classroom have been set up and initiated for preparation of JRF and other competitive exams.

2. Scanned copy of feedback form 2

Action taken: Classes along with hands on training also been conducted for better explanation of the concepts and fundamentals of the subject.

3. **Scanned Copy of Feedback form 3**



Action taken: Feedback highlighted the requirement of more relevant practical classes which could be improved through knowledge with various research institutes through short period exposure and learning in their laboratories. The laboratory up gradation is in initial stages and improvement is necessary l in providing advance facilities in the college also.

6.4.8. Student intake and attrition in the programme for the last five years

Table: 13. Student intake and attrition in the programme for the five years

Year	Degree Program	Intake capacity	Actual Student admitted	Attrition (%)
2015-16	B.Sc.(Hons) Agriculture	20	19	-
2016-17	B.Sc.(Hons) Agriculture	24	19	-
2017-18	B.Sc.(Hons) Agriculture	24	18	5.56 (1 student)
2018-19	B.Sc.(Hons) Agriculture	24	19	-
2019-20	B.Sc.(Hons) Agriculture	24	18	-
2020-21	B.Sc.(Hons) Agriculture	34	32	15.62 (5 students)

6.4.9. ICT Application in curricula delivery:

Since the college is under construction, the College of Horticulture and Forestry, CAU, is giving good facilities to our students. It will be initiated after the completion of the construction of the college.

(a) Computer facilities:

The students and the faculties were utilizing the computers laboratory/facilities of the College of Horticulture and Forestry, CAU, Pasighat. The College of Horticulture and Forestry provides unlimited Internet facility to the staffs and students. Wi-Fi Internet hotspot facility has been provided at Academic building, Old College building, VC Camp, Guest House and Daisy Girl's Hostel.The Faculty members and students utilize internet and computer facility for carrying out academic research and extension activities. The lab is also used for conducting Practical classes for the students of B.Sc. (Hons.) Agriculture. They also use the Computer Lab for their research, statistical calculation and other academic activities.

The college has well-equipped air conditioned Computer lab with a plinth area of 80 square meter. The students are being taught about the IT facilities. The computer centre is equipped with Desktops for the use of staff and students of this institute. All these desktops and laptops are connected with internet for browsing. Since October, 2020 the computer centre is connected with 24x7 34 Mbps ,InternetAccess through BSNL . The facilities available in the computer lab are:

- 24 hours x 7 days / week free Internet access (34 Mbps) to students
- Wi-Fi enabled at New Academic Block (since 2015) to use e-communications for students and staffs.
- Students are trained to install open source software.
- Computers with Internet access are available in all departments.

- Academic buildings are linked with Administrative building through Optic Fiber Cable.
- Total number of computers for public access: 15
- Total numbers of printers for public access: 02
- Internet band width/ speed: 34Mbps through BSNL
- The lab is used for conducting Practical classes for UG and PG students.
- Students also use the Computer Lab for their research, statistical calculation and other academic activities.
- The academic, research, extension activities of the college are updated at the college website.

(b) Library Services:

Location of Library:

The Library of College of Horticulture and Forestry, Pasighat was established in 2001.The total built up area of the library is 231 m^2 .College maintains a very spatial library and it also subscribes a good number of national and international journals, magazines and newspapers. The library has four computer terminals and one separate library server. All the computers are connected with internet access. Under the ICAR project, the college library provides access to foreign periodicals through CeRa (Consortium for e-References in Agriculture, India). Through this service, the students and faculty can access on-line Portals and Bouquet of journals from Publishers with full text of an articles such as Springerlink, Annual Reviews, CISRO (Australia) and JCCC (J-Gate Custom Content for Consortia).

- **Present Staff Position (in place):**

S.No.	Staff	Number
1.	Present staff	• 1 Librarian • 3 Library Assistants • 1 Clerk • 3 Multi-tasking Staffs

- **Availability of Wi-Fi:**
  Wi-fi facilities are available in the library with internet band width speed of 2Mbps from BSNL

- Books/ Reading material (in Number):

S.No	Particular	Number
5.	Books	17,925
6.	Newspapers	06
7.	Magazines	04
8.	Bound volumes	278

- **Periodicals/Research Journals(in Number)** : 17
- **Internet facility** :Internet band width speed of 32Mbps rom BSNL
- **No of Computers** : 06 nos
- **Seating Capacity** : 30 nos

- **Latest Technology in the library**:

The library of the college is equipped with internet facilities through which the staff and students can access OPAC (Online Public Access Catalogue) at www.chfcau.ideal.egranth.ac.in.

Necessary steps have been initiated for accessing online journals and study materials at Electronic Resource Management package for e-journals access through CeRA (Consortia for e-Resources in Agriculture)

Two Library Softwares in process: (i) Alice for Window (Softlink Asia pvt.ltd) Offline and (ii) Koha Library management Software

Krishikosh (e-theses etc. Institutional Repository of ICAR) all M.Sc. and Ph.D. Theses are uploaded. It is open repository. URL: Krishikosh.egranth.ac.in

Commonwealth Agricultural Bureau (CAB) data base access facility (database from 1972 to 2005)

- **Stocking arrangements**:

Book stocks arranged as per the subjects

Stock racks are available in 2 sizes, 10 racks with size of 7.3 ft. and 31 racks with size of 6 ft.26 number of book cases are available

- **Collection of volumes on different subject**:

S.No	Particular	Number
19.	Genetics and Plant Breeding	436
20.	Ag. Economics	81
21.	Soil Science& Ag. Chemistry	393
22.	Horticulture	293
23.	Ag. Extension	172
24.	Statistics, Computer Application & IPR	26
25.	Agronomy	365
26.	Crop Physiology	71
27.	Plant Pathology	103
28.	Plant Biotechnology	32
29.	Microbiology	35
30.	Entomology	35
31.	Plant Biochemistry	06
32.	Ecology	02
33.	Agroforestry	09
34.	Ag. Engineering	56
35.	Botany	49
36.	English Language	25

- **Latest publications in the field of relevant subjects:**

S.NO	NAME
18.	Manual on Manures, Fertilizers and Agro-chemicals
19.	Analytical Techniques and Instrumental Methods in Soil and Plant Analysis

20.	Essentials of Soil Science
21.	Nursery Techniques and Management of Forest Tree Species
22.	Wild Edible Fruit Trees of Arunachal Pradesh
23.	Production Technology of Forest Trees Species
24.	Vermicompost Production
25.	Soil Testing and Organic Farming for Sustainable Agriculture Management in North East India
26.	Ginger: Package and Practices for Cultivation in Arunachal Pradesh
27.	Farmer's Friendly Technologies for Doubling Farmer Income
28.	Forest Nursery and Planting Technique Training Manual
29.	Composite Fish Farming Manual
30.	Medicinal Values of Some Under Utilized Vegetables in Adi Society of Arunachal Pradesh
31.	Training Manual Rain Water Harvesting and its Management in Horticultural Crops
32.	Bee Keeping in Arunachal Pradesh
33.	Manual on Manures, Fertilizers and Agro-chemicals
34.	Analytical Techniques and Instrumental Methods in Soil and Plant Analysis

- **Automation & user services through computer:**
  Library automation under process through Koha Library management software.

- **Opening hours:** 9.30 AM to 4.30 PM

- **Subscription of journals of national & international repute national dailies/ magazines (provide list)**:
  Subscription to journals through online portal of CeRA ICAR and CAB.Through these services, the students and faculty can access on-line portals and bouquet of journals from publishers with full text of an articles such as Springer, Annual Reviews, CISRO (Australia) and JCCC (J-Gate Custom Content for Consortia).

S.NO	LIST OF THE JOURNAL
20.	Indian Journal of Agricultural Sciences
21.	Indian Journal of Agricultural Research
22.	Indian Journal of Genetics and Plant Breeding
23.	Journal of Applied Zoological Research
24.	Journal of Agro-Meteorology
25.	Indian Farming
26.	Journal of Non-Timber Forest Products
27.	Indian Forrester
28.	Indian Journal of Forestry
29.	Indian Journal of Horticulture
30.	Indian Horticulture Journal
31.	*Kheti*
32.	Pestology
33.	Potato Journal
34.	*Phalphul*
35.	Professional Journal of Library and Information Technology
36.	Indian Journal of Agricultural Sciences
37.	Indian Journal of Agricultural Research

38.	Indian Journal of Genetics and Plant Breeding

S.NO	LIST OF THE JOURNAL
7.	Times of India,
8.	Telegraph
9.	Arunachal Echo
10.	Arunachal Times
11.	Assam Tribune
12.	Employment News

S.NO	LIST OF THE MAGAZINE
5.	India Today
6.	Competition Review
7.	Competition Success
8.	Sports Star

6.4.10. The information pertaining to 6.4.1 to 6.4.9 has been provided for UG programme *i.e.,* B.Sc. (Hons.) Agriculture of College of Agriculture, CAU, Pasighat, Arunachal Pradesh is correct.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. I, the Dean ..... hereby certify that the information contained in Sections 6.4.1 to 6.4.9 are furnished as per the records available in the college and degree awarding university.

Signature of the Dean of the college with Date & Seal

Annexure-I

Department of Floriculture and Landscape Architecture Laboratory

Department of Fruit Science Laboratory

Annexure-II

Department of Post-Harvest Technology Laboratory

Department of Vegetable Science Laboratory

Annexure-III

Plant Pathology Lab	**Postharvest Technology Lab**
Dairy Unit of CHF	**Farm Machinery Shed of CHF**

College Library	**Computer Lab of CHF**

SELF STUDY REPORT

FOR

COLLEGE OF AGRICULTURE, KYRDEMKULAI

MEGHALAYA

Submitted to

NATIONAL AGRICULTIURAL EDUCATION ACREDITATION BOARD

INDIAN COUNCIL OF AGRICULTURAL RESEARCH

NEW DELHI - 110011

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Self Study Report for the Colleges

6.5.1. College Administration

6.5.1.1. College Dean's Office Establishment

S.No	Name of the position (sanctioned)	Name of the officer (at present)	Date of appointment	Tenure	Appointed/Nominated
1	DEAN	Dr.U.K. BEHERA	18-01-2018	05 YEARS	APPOINTED

Staff and infrastructure/facilities available in the Dean's Secretariat

Name of the College	Name of the office	Technical	Administrative	Supporting	Total	Space
COLLEGE OF AGRICULTURE	Dean office	01	01	01	03	01
	Academic office			MTS (2) Contractual		01

Sl. No.	Name of Section	No. of employees
01.	Establishment Section	04
02.	Account Section	02
03.	Academic Section	03
04.	Store & Purchase	04
05.	Engineering Section	07
06.	Medical Section	04
07.	SWO	01
08.	Farm Section	04
09	I.T. Cell	02
10.	Vehicle Section	03
		34

Functions combinedly with CPGS-AS, Umiam

6.5.1.2. Monitoring Mechanism for Quality Education (on-line):

Students' excelling in academics, research and extracurricular activities.

The College is following ICAR course curriculum for every programmes. Wherever a modification in course curriculum is required within the permissible limit, a due process is followed and the matter is first presented before the Board of Studies and after its recommendation, due approval of CAU academic council is taken. All the course instructors are submitting a comprehensive lesson plan covering entire syllabi for each course and adhered to their plan during the entire semester. As per the need, besides referring the quality books in college library text material is also provided by the teachers. To assess their understanding about the subject, frequent assignments with the time limit of their submission by the students is followed. These assignments are timely evaluated and returned to the students for further improvements. Only the validated and quality materials available online is referred to the students. In addition, a number of national and international quality journal available online over CERA/DELCON are referred to the students in association with CPGS-AS, Umiam campus.

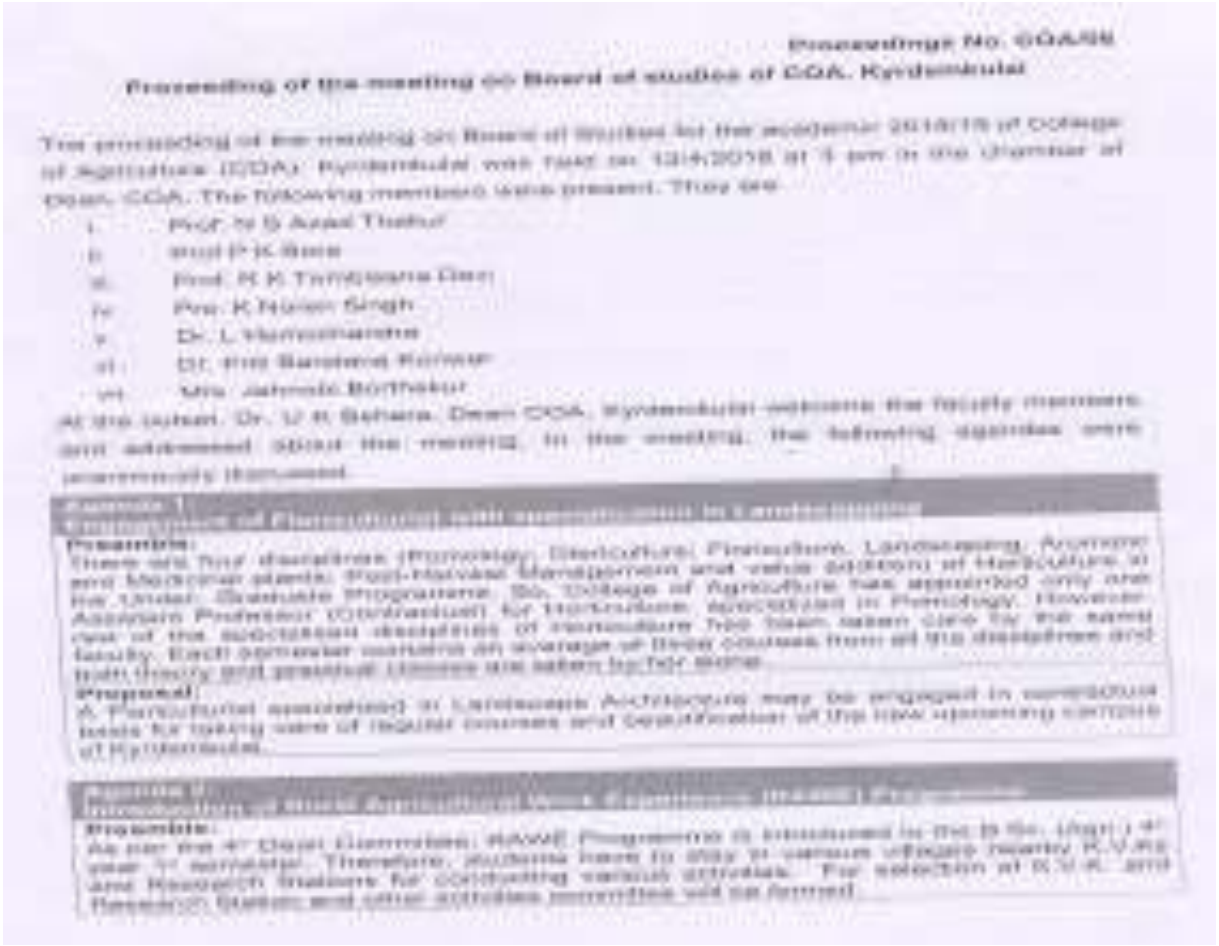
Extracurricular activities for students are organized by the college through the Student Welfare officer and they are encouraged to participate in various college level, university level, regional and national level cultural and sport events.

Academic progress of the students is evaluated by semester long evaluation process. For theory courses, 50% evaluation is done by the concern course teacher/s and for remaining 50%, question paper is set by an external examiner selected from the panel approved by the competent authority of the university. However, end term question paper is evaluated by the teacher other than the course instructor in the discipline. Two quizzes are conducted in each course by the concerned teacher at periodic intervals before the midterm exam. Next two quizzes are conducted after midterm but before end term exam. Midterm and end term examinations are organized as per the academic calendar of the CAU, Imphal. Almost 50% course is completed before midterm and the entire syllabi are completed before the end term exam. If required, teacher may conduct extra classes for timely completion of the course curriculum. Hands on training, practical experience learned during the semester in each course is evaluated at regular interval in each class by regular checking of their practical records and observing the progress made by the students in the laboratory during practical class.

6.5.1.3. CC/Board of Studies:

The Academic council, Central Agricultural University, Imphal, Manipur is the competent authority for decision making processes in academic matters and reserve the rights to approve/or disapprove proposals related to academic matters.

- 1st Board of studies meeting held on 12-04-2018 at chamber of Dean, COA, Kyrdemkulai.



Proceedings No. COA/BS

Proceeding of the meeting of Board of studies of COA, Kyrdemkulai

Proposal:
Budget for the RAWEP may be placed before authority for sanction at the college level well in advance. A multidisciplinary team of faculties may be constituted in advance.

Agenda 3:
Introduction of Experiential Learning Programme (ELP)

Preamble:
As per the 4th Dean Committee, ELP is introduced to the B.Sc (Agri.) 4th year 2nd semester. Therefore, group of students have to be engaged in various activities like Mushroom production, Vermicompost unit establishment, Production of Commercial Horticultural Crops, Nursery management, Biofertilizer production etc. In ELP, students have to do all the activities right from production to marketing of the produce by themselves. The facilities for conducting such type of practices are not yet developed in the new campus of College of Agriculture, Kyrdemkulai. For successful completion of ELP minimum facilities have to be provided.

Proposal:
Budget for the ELP may be sanctioned for the next semester.

Agenda 4: Engagement of English teacher on contractual basis as per CAU rule

Preamble:
In the U.G. Programme there are two English courses in two semesters according to 5th Deans's committee that course has been taken under care of one private teacher from Meghalaya. As per CAU rule the teacher should be from state govt./ central govt./Kendriya Vidyalaya.

Proposal:
Committee suggested to engage one Govt. teacher may be engaged for teaching English course.

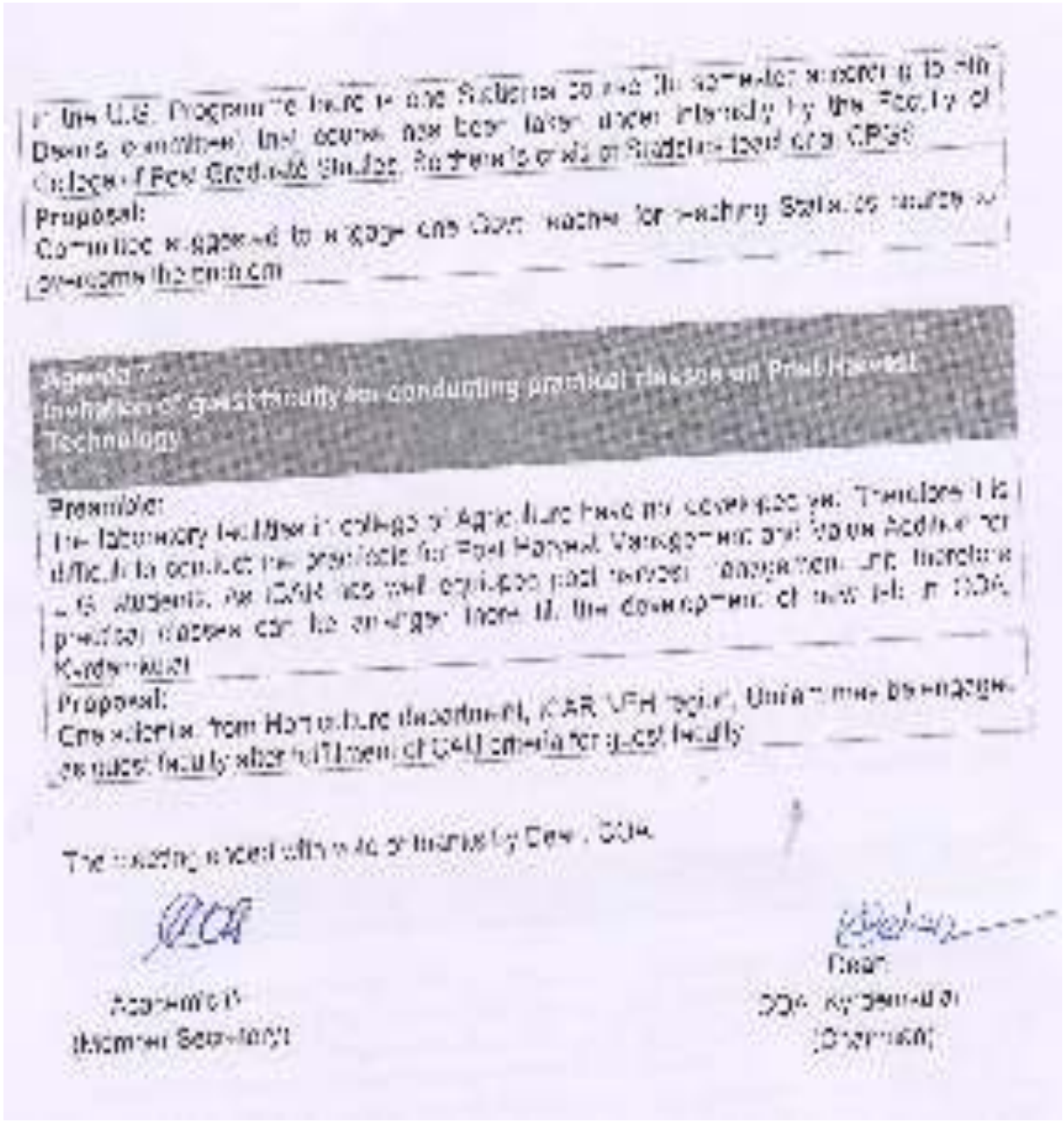
Agenda5: Engagement of Mathematics teacher on contractual basis as per CAU rule

Preamble:
In the U.G. Programme there is one mathematics course (1st year 1st semester according to 5th Dean's committee) that course has been taken by internal arrangement by the Faculty of College of Post Graduate Studies.

Proposal:
Committee suggested to engage one Govt. teacher for teaching Mathematics course.

Agenda 6: Engagement of Statistics teacher on contractual basis as per CAU rule

Preamble:



- 2ndBoard of studies meeting held on 22-05-2019 at COA, Imphal (CAU/CA (Acad)-8/BOS/2012-260. Dt. 15th May, 2019)
- 3rdBoard of studies meeting held on 27-04-2020 through video conferencing and the documentary proof of the same (proceedings) attached below.

PROCEEDINGS OF THE THIRD BOARD OF STUDIES MEETING OF FACULTY OF AGRICULTURE, CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL), IMPHAL, MANIPUR HELD ON 27TH APRIL, 2021 THROUGH VIDEO CONFERENCING.

The third Board of Studies Meeting of Faculty of Agriculture, Central Agricultural University, Imphal, Manipur was started at 11.30 am on 27th April, 2021 @ the Conference Hall of the College under the Chairmanship of Dr. Indira Saranathan, Dean, Faculty of Agriculture, CAU, Imphal, Manipur.

The members present in the meeting were:

i. Dr. V.M. Salokhe, Former Vice-Chancellor, Sardar Krishi Vishwavidyalaya (BCKV), Mohanpur, W.B. [Online]

ii. Dr. C. Singh, Ex-Dean and Professor of Agronomy, Institute of Agricultural Sciences, Banaras Hindu University, U.P. [Online]

iii. Dr. S. Ayanaba Singh, Director (Research), CAU, Imphal, Manipur [Online]

iv. Dr. Gopi Samanta Sena, Director (Extension Education), CAU, Imphal, Manipur [Online]

v. Dr. N. Ramesh, Head, School of Post Graduate Studies (SPGS), Umiam, Barapani, Meghalaya [Online]

vi. Dr. U.C. Lakra, Dean, College of Agriculture, Kyrdemkulai, Meghalaya [Online]

vii. Dr. B.N. Tripathi, Dean, College of Agriculture, Pasighat, Arunachal Pradesh [Online]

viii. Dr. Lalita Sanajaoba Devi, College of Agriculture (CAU), Imphal, Manipur

ix. Dr. Pramod Kumar Choudhary, Prof. & Head, Plant Pathology Department, CAU, Imphal, Manipur

x. Dr. L. Nabachandra Singh, Professor, Agronomy Department, CAU, Imphal, Manipur

xi. Dr. R.K.D. Singh, Prof. & Head, Genetics & Plant Breeding Department, CAU, Imphal, Manipur

xii. Dr. N. Devendra Singh, Academic Officer, Maize Section, ICAR, CAU, Imphal, Manipur

xiii. Ms. Rahana Ch., M.Sc. (Agri.), First Year Student of 2020, CAU, Imphal, Manipur

xiv. Dr. Pravin Rathi, Associate Professor, Agricultural Economics, Department, CAU, Imphal, Manipur (Rapporteur)

COLLEGE OF AGRICULTURE, KYRDEMKULAI, MEGHALAYA

Agenda Item No.9	Shifting of the course "Fundamentals of Plant Biotechnology (PHBTmeckEL)" from 1st year 1st semester to 2nd year 1st semester of B.Sc (Agri.) Hons programme

As per the Directive of Hon'ble Dy. CM, Meghalaya this proposal was circulated to all the concerned colleges of the University.

Dr. [illegible] has opposed the proposal.

Dr. N.D. Singh proposed that if the proposed course could be accommodated with Land Management in completely virtual

Dr. [illegible] suggested to keep it in the 1st year proposed course as per the academic credit

Recommendation: Keeping view of the above facts, the members of the house agreed to approve the proposal and agreed to place as an agenda in the next academic council with proper justification.

Agenda Item No.10	Experiential Learning Programme- Filling decision for completion of ELP programme under present scenario

Dr. S. Jeyaraj stated that the proposed [illegible] in the Academic Council Immediately after the Inter-departmental [illegible] for approval of the University Authority

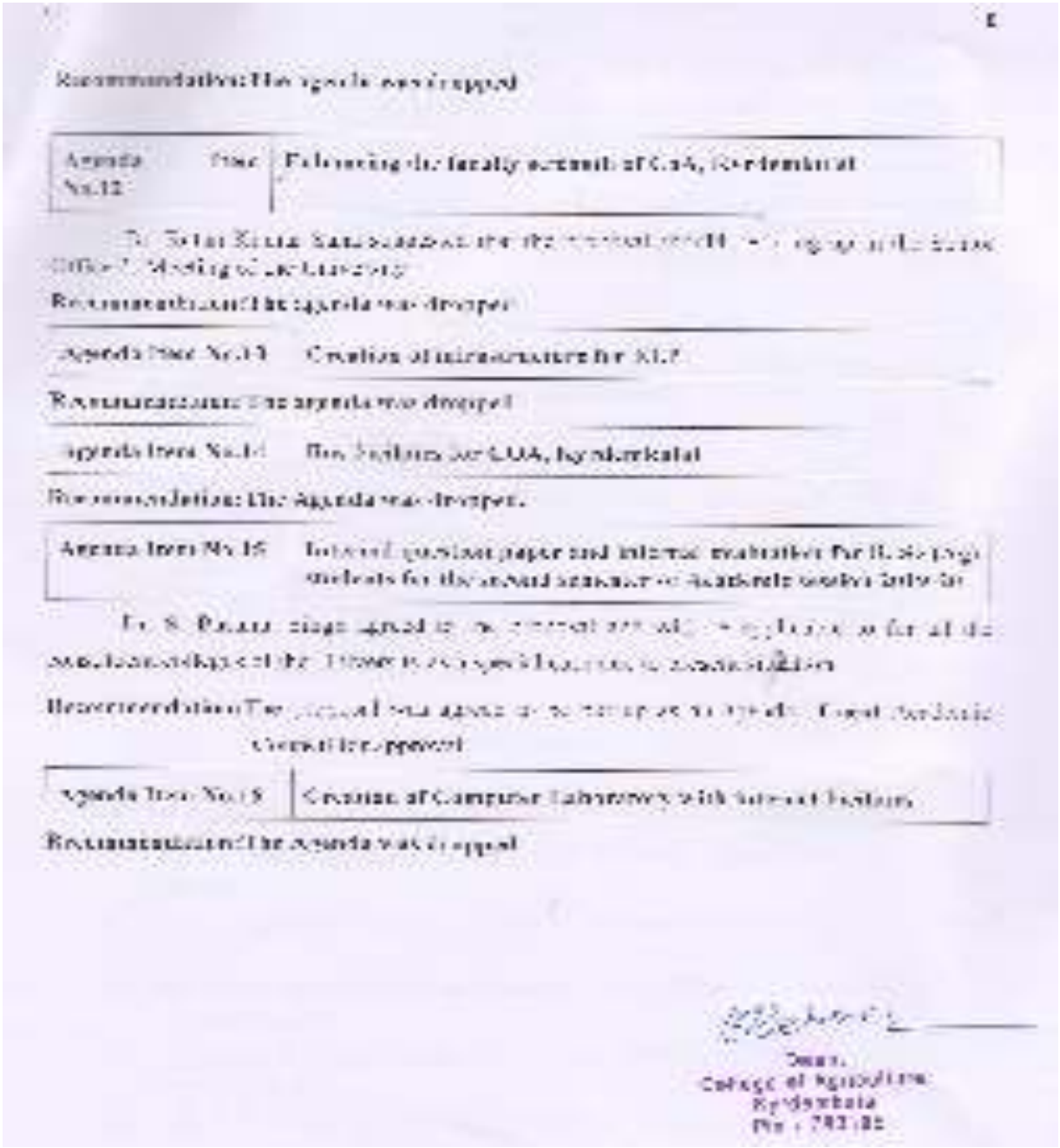
Participating the discussion Dr. K.M. Sahay highlighted that all the constituent colleges are situated in the different [illegible] so it is impossible to [illegible] the University

Recommendation: the proposal was dropped.

Agenda Item No.11	Increase of the student's strength in UG courses for COA, Kyrdemkulai

Dr. [illegible] the proposal [illegible] the [illegible] data [illegible] the number of students in the college with regards to [illegible]

Dr. N.B. Singh [illegible] the [illegible] faculty in [illegible] of students [illegible] proposal could be accepted



- A board of studies for faculty of agriculture constituting four agriculture colleges, in which CoA-K is a constituent member as per reconstitution no. CAU/DI/92(i)/10-11/74 order dated 22-4-2021. The members of board of studies include the dean of four colleges; directors of instruction, research and extension education, CAU; internal members (3 from CoA, Imphal; 3 from CoA, Pasighat; 4 from CoA, Krydemkulai and 4 members from CPGSAS); two external experts nominated by Hon' Vice Chancellor; one representative of academic council (nominated by Hon' Vice Chancellor); one final year PG student with highest OGPA with incharge academic, CoA, Imphal as member secretary.

Member: Dr. A. A. Shahane, Assistant Professor, COA-K
Dr. G. BhuvanaPriya, Assistant Professor, COA-K

6.5.1.4. Anti Ragging Cell:

In pursuance to the "UGC Regulations on Curbing the Menace of Ragging in Higher Educational Institutions, 2009", the Anti-ragging Committee of the College of Agriculture, Kyrdemkuylai, Central Agricultural University, is constituted in every academic year as per UGC Regulations. Apart from that, the college also constituted Anti Ragging Squad with faculty members and non-teaching staff residing in the campus for keeping constant vigil, patrolling and to remain alert in order to curb any instances of ragging in the College campus.

COLLEGE OF AGRICULTURE, KYRDEMKULAI

CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)

COLLEGE OF AGRICULTURE, KYRDEMKULAI
CENTRAL AGRICULTURAL UNIVERSITY (IMPHAL)
KYRDEMKULAI 793 103, DISTRICT, MEGHALAYA – 793 105

Office Order

Date of duties	Anti-Ragging Squad members with their duty days	
09.02.2021	Dr. Jamil Arif Shaheen	Mr. Lalhmingliana
10.02.2021	Dr. G. Bhawana Priya	Mr. Tonghiem Vareo
11.02.2021	Dr. Ng Uma Devi	Ms. Ry Bhattacharjee
12.02.2021	Dr. Sentemtung K. Ao	Ms. Anwesha Bhattacharjee
13.02.2021	Dr. HC Kanchanadevi	Mr. Debajeet Bhowmik
14.02.2021	Dr. Sobiyanthi Mahanta	Ms. Payel Debnath
15.02.2021	Dr. Rajeswari Pukhrem	Mr Norman Debnath
16.02.2021	Dr. M. Prem Devi	Mr. J. Lalremruata
17.02.2021	Dr. L. Santosha Singh	Mr. H Lalremruata
18.02.2021	Dr. P.Chandrakant P. Mahapatra	Mr. Pabitra Ghosh
19.02.2021	Dr. G. Bhawana Priya	Mr. Ankumananda Das
20.02.2021	Dr. Ng Uma Devi	Dr. Rishi D. Sangma
21.02.2021	Dr. Sobiyanthi Mahanta	Mr. Aditi Lyngdoh Marbaniang
22.02.2021	Dr. Jamil Arif Shaheen	Mr. Damanlin Lawsohtun
23.02.2021	Dr. M. Prem Devi	Mr. Bridgman Marbaniang
24.02.2021	Dr. Rajeswari Pukhrem	Mr. Sarma Lakhal
25.02.2021	Dr. HC Kanchanadevi	Mr. H. Lalremruata
26.02.2021	Dr. L. Santosha Singh	Mr. Ankumananda Das
27.02.2021	Dr. P.Chandrakant P. Mahapatra	Mr. Parimal Ghosh
28.02.2021	Dr. Sentemtung K. Ao	Ms. Debasree Bhowmik

(H. K. Behera)
Dean
College of Agriculture, Kyrdemkulai

Copy to:
1. The Academic in-charge, CoA, Kyrdemkulai for information.
2. All the Faculties, CoA, Kyrdemkulai for information.
3. Concerned members, CoA, Kyrdemkulai for information.
4. Office copy.

6.5.1.5. Biological waste disposal facility:
Biological wastes are treated, autoclaved at laboratory level before being disposed.

6.5.1.6. Institutional Ethics Committee for Experiment on Animals:
NA

6.5.1.7. Committee for Prevention of Sexual Harassment of Women at Work Places:

The college constituted Internal Complaint Committee for safety of women employees and students compose of women faculty members, non-teaching staff, external member and students for a period of three (3) years.

Faculty member in the committee: Dr. M. Premi Devi, Asst. Professor &Dr. R.K. Padamini, Asst. Profeesor; Mr.ParimalGhosh, OSD, CoA-K

Committees Constituted	Date of Constitution	Date of meeting
ICC	CAU/COA(K)/IC/2020-21/806 Dated 26-02-2021	23-02-2021

6.5.2. Faculty

6.5.2.1. Faculty Strength:

S.No	Faculty in position	Vacant	Faculty recommended by the ICAR/UGC/VCI/ other regulatory bodies
Professor	0	07	3
Associate Professor	00	00	8
Assistant Professor	10	02	34
Total		09	45
CPGSAS Faculty	17		

*05 Assistant Professors were deputed from College of Community Sciences, Tura, Meghalaya. We are utilizing the faculties of CPGS-AS, Umiam for teaching UG courses (Associate Professor -07 and Assistant Professor – 10).

6.5.2.2. Faculty Profile (department wise):

Sl.No.	Department	Sanctioned Faculty	Filled post	Vacant post	Faculty recommended by the ICAR
1	Agronomy	Professor	1	-	1
		Associate Professor	-	-	1
		Assistant Professor	2	-	5
2	Genetics & Plant Breeding	Professor	-	1	1
		Associate Professor	-	-	1
		Assistant Professor	1	1	3
3	Plant Pathology	Professor	-	1	0
		Associate Professor	-	-	1
		Assistant Professor	2	-	2
4	Agricultural Economics	Professor	-	1	0
		Associate Professor	-	-	1
		Assistant Professor	-	-	5
5	Agricultural Entomology	Professor	-	-	0
		Associate Professor	-	-	1
		Assistant Professor	1	-	2

6	Agricultural Extension & Communication	Professor	-	1	0
		Associate Professor	-	-	1
		Assistant Professor	-	-	3
7	Horticulture	Professor	-	1	1
		Associate Professor	-	-	1
		Assistant Professor	1	1	3
8	SSAC	Professor	-	1	0
		Associate Professor	-	-	1
		Assistant Professor	1	-	5
9	Agricultural Engineering	Professor	-	-	0
		Associate Professor	-	-	0
		Assistant Professor	0	-	2
10	Animal Science	Professor	-	-	0
		Associate Professor	-	-	0
		Assistant Professor	1	-	2
Total			10	08	43

Details of faculty in COA, Kyrdemkullai

S.No	Name of the Faculty	Name of the Department
1	Dr. M. Premi Devi	Horticulture
2	Dr. L. Sanajaoba Singh	Plant Pathology
3	Dr. N. Uma Devi	Entomology
4	Dr. Amit A. Shahane	Agronomy
5	Dr. G. BhuvanaPriya	Animal Science
6	Dr.SabyasachiMajumdar	Soil Science
7	Dr. R.K. Padamini	Plant Pathology
8	Dr.PriyadarshaniMohapatra	Vegetable Science
9	Dr.Samborlang K. Wanniang	Agronomy
10	Dr. H.G. Kencharaddi	Plant Genetics and Breeding

6.5.2.3. Credentials of the Faculty:

Sl. No	Name of Faculty	Post held	Highest qualification	Teaching / Work Experience (In Years)	Honors & Awards	No. of Students Guided (PG / Ph.D separately)	No. of publications in NAAS rated Journals
1	Dr. U.K. Behera	Dean	PhD	Teaching-20 years Work experience-30 years	National award-3 Society Awards-3 NAAS Fellowship Institution award-2	PG-08 PhD-06	100
2	Dr. M. Premi	Assistant Professor	PhD	6 years 6 months	1. Gold Medal in	-	13

	Devi				MSc.(Ag.) Horticulture, awarded by CAU, Imphal (2014) 2. Best 'PhD THESIS AWARD' awarded by AEDS, U.P., India (2019) 3. Best paper presentation awarded by INSHHORT (2015) 4. GCP21-Travel Grant (Funded by Bill and Melinda Gates foundation) in the year 2016 5. DBT Travel grant awarded by DBT, GOI (2015) 6. CICS Travel grant (2015)		
3	Dr. N. Uma Devi	Assistant Professor	PhD	Teaching – 2 years 2 months	(1) Young scientist award in the field of Entomology-GAPS	Nil	06
4	Dr. L. Sanajaoba	Assistant Professor	PhD	SRF-3.5 Years	1 (Young Scientist	Nil	07

	Singh			Teaching- 1 year and 7 month	Award)		
5	Dr.Amit A. Shahane	Assistant Professor	PhD	Teaching- 10 months	Nil	Nil	Nil
6	Dr. G. BhuvanaPriya	Assistant Professor	PhD	SRF- 6 months	1. Dr.&Mrs. V.D. Rathnam's Medal (Gold medal) for Best BVSc& AH student securing highest marks in Preventive Medicine 2.T.T.K. Healthcare Limited Award (Gold medal) for Best BVSc& AH student in Preventive Medicine	Nil	30
7	Dr.Samborlang.K. Wanniang	Assistant Professor	PhD	SRF – 7 months Teaching – 1.5 years	UGC National Fellowship for Higher Education (NFHE) of ST Students for pursuing PhD programme	Nil	04
8	Dr.RajkumariPadamini	Assistant Professor	PhD	Teaching=1 year Research=3 yrs (as Women scientist DST)	1.MSc Gold Medal, 2.INSPIRE Fellowship, 3.Dr. B.M Gupta Memorial Award of	Nil	09

					RCA Alumni Association Rajasthan College of Agriculture, Udaipur (Rajasthan), 4.Young Plant Pathologist Award-2020 by Agro-Environmental Developmental Society, U,P		
9	Dr.SabyasachiMajumdar	Assistant Professor	PhD	SRF-0.3+ years Teaching-1.7+years	1.Certificate of appreciation by Honorable VC, UAS, Bangalore (2019); ISSS Best Doctoral Research Presentation Award with Gold Medal (2019); ISSS-South Zone Best Doctoral Research Presentation Award (2019); 2.Second-best oral presentation Award for Doctoral Research programme under the	Nil	

					theme "Crop Production" in Post Graduate Science Week (2017) by UAS, Bangalore; 3.International Travel Grant Award by IRD, Aix en Provence, France (2016) 4.INSPIRE Fellowship Award by DST, New Delhi, Government of India (2015); 5.76th Indian Society of Soil Sciences (ISSS) Convention Commemoration Gold Medal for securing first rank during Master's degree (2015); 6.University of Agricultural Sciences Gold Medal for securing first rank during Master's degree (2015) 7.University		

					of Agricultural Sciences Merit Scholarship (2012)		
10	Dr. H.G. Kencharaddi	Assistant Professor	PhD	From December 2020 (1 Year 6 Months)	1.2nd prize for best exhibition stall award in 1st International Agro Biodiversity Congress" held at New Delhi 2. Best poster presentation award for paper presentation in national seminar on "Genetics and Cyto Genetics" organizedby UAS, Dharwad during 2015. 3. Awarded Indo-American hybrid seeds Research fellowships for Ph. D degree program from University of Agricultural Sciences, Dharwad , Karnataka, India.	Nil	16

					4. Best poster presentation award for paper presentation in national seminar" Contemporary approaches to crop improvement " organized by Indian society of genetics and plant breeding during 2011		
11	Dr.PriyadarshaniMohapatra	Assistant Professor	PhD	Teaching – 3 years	Young scientist award -1 Best poster and oral presentation - 3	Nil	20

6.5.2.4. Technical and Supporting Staff:

Sl. No.	Sanctioned	In position	Vacant
1	17	01	16

* The vacant positions are filled up by contractual workers and technical and administrative staffs from CPGSAS, Umiam

Sl. No.	Name of Section	No. of employees
01.	Establishment Section	04
02.	Account Section	02
03.	Academic Section	03
04.	Store & Purchase	04
05.	Engineering Section	07
06.	Medical Section	04
07.	SWO	01
08.	Farm Section	04
09	I.T. Cell	02
10.	Vehicle Section	03
		34

6.5.3. Learning resources:

6.5.3.1 College Library (digital):

Location of the library:	The College library is housed on the top floor of a 230 sq meter (approx) Library cum Mess Block building (2 floor building)
Present staff Position:	Sr. Library Asst. =1, Library Asst. = 1, MTS = 1
Availability of Wi Fi:	Yes. The Library is Wi Fi enabled.
Books / Reading Material (in Number)	5479 (course and reference books)
Periodicals / Research Journals (in Number)	**55** Periodicals/ Research journals subscribed and **2794** e-journals, databases such as Agristat, KrishiPrabha and KrishiKosh Repository and ebooks through a consortium approach
Internet Facility:	Yes. LAN and Wi-Fi.
No of computers:	11 (8 user access and 3 staff access)
Seating Capacity:	45 seating capacity in the Reading Hall.
Latest technology in the library:	The Library is using Koha Integrated Library Management Software.
Stocking Arrangement:	The Library is following the Dewey Decimal Classification 23rd edition.
Collection of volumes on different subject:	Yes. The library has been building the collection in all subjects being offered in the College. Books are being procured on the recommendation of the course faculty.
Latest publications in the field of relevant subject:	Relevant new editions and up-to-date titles are being procured as per requirement.
Opening Hours:	9.30 AM - 4.30 PM on all working days of the College.
Subscription of journals of national & International repute national dailies / magazines (provide List)	The library subscribes to a total of 71 numbers of Indian published journals, 12 International journals, newspapers, magazines,etc (List enclosed below).The subscription of International journals which are available through CeRA consortium has been discontinued.

Details of subscription of journals, national dailies, magazines, etc subscribed by library

No	TITLE	TYPE
1	Indian Journal of Agricultural Economics	JL
2	Journal of Indian Society of Soil Science	JL
3	PHAL-PHOOL(ICAR)	JL
4	Indian Journal of Agricultural Sciences(ICAR)	JL
5	INDIAN FARMING(ICAR)	JL
6	INDIAN HORTICULTURE(ICAR)	JL
7	KHETI(ICAR)	JL
8	Resonance(IAS)	JL
9	Sadhana(IAS)	JL

10	Journal of Genetics(IAS)	JL
11	Journal of Biosciences(IAS)	JL
12	Current Science(IAS)	JL
13	Indian Journal of Biotechnology(NISCAIR)	JL
14	Indian journal of experimental biology (NISCAIR)	JL
15	Journal of Mycology and Plant Pathology	JL
16	Indian Journal of Plant Genetic Resources	JL
17	Journal of Global Communication	JL
18	Agricultural Situation in India	JL
19	Agricultural Economics Research Review	JL
20	Indian Journal of Entomology	JL
21	Indian Phytopathology	JL
22	Indian Journal of Agricultural Marketing	JL
23	Agricultural research	JL
24	Mysore journal of agricultural Science	JL
25	Economic and political weekly	Magazine
26	Kurukshetra	JL
27	Yojana	Magazine
28	Indian Journal of Horticulture	JL
29	Indian Journal of Agronomy	JL
30	KrishiChaynika(Not renewed)	JL
31	Indian journal of weed science	JL
32	Agriculture and Industry Survey	Magazine
33	Indian Jl of Dryland Agricultural Research and Development	JL
34	AbhinavImroz (Hindi)	Magazine
35	International Journal of Extension Education(INSEE)	JL
36	International Journal of Basic and Applied Agricultural Research(Formerly Pantnagar Journal of Research)	JL
37	Journal of progressive agriculture	JL
38	Indian journal of extension education	JL
39	Agriculture Extension Review	JL
40	Indian journal of Genetics and Plant Breeding	JL
41	Agriculture Today	Magazine
42	Journal of Insect Science	JL
43	Asian Agri-History	Magazine
44	Keanean Journal of Science	JL
45	Indian Journal of Plant Protection	JL
46	Plant Disease Research	JL
47	Annals of Agricultural Research	JL
48	Journal of Indian Water Resources Society	JL
49	Journal of Rural Development	JL
50	Mushroom Research	JL
51	MASU Journal	JL
52	Pestology	JL

53	Pest Management in Horticultural Ecosystem	JL
54	Pesticide Research	JL
55	Journal of Soil and Water Conservation	JL
56	Shillong Times	Newspaper
57	Meghalaya Guardian	Newspaper
58	Sentinel	Newspaper
59	Hindu	Newspaper
60	Times of India	Newspaper
61	Economic Times	Newspaper
62	Employment News	Newspaper
63	PurvanchalPrahiri (Hindi)	Newspaper
64	DainikPurvaday (Hindi)	Newspaper
65	India Today	Magazine
66	Outlook	Magazine
67	Sportsstar	Magazine
68	Competition Success	Magazine
69	News and Events	Magazine
70	Down to Earth	Magazine
71	Outlook (Hindi)	Magazine

6.5.3.2. Laboratories, Instructional farm, Workshops, Dairy Plant, Veterinary Clinic, Hatchery, Ponds etc.:

Sl. No	Name of the facility	Quantity	Space
1	Instructional Farm (IFS)	01	0.6 ha
2	Nursery unit	01	100 m^2
3	Apiary	01	In boxes (3 boxes)
4	Dairy Unit	01	100 m^2
5	Pond	02	200 m^2 each
6	Vermicompost unit	02	60 m^2
7	Poultry unit	01	60 m^2
8	Mushroom Production Unit	01	60 m^2
9	Orchid production cum training centre	01	104 m^2
10	Medicinal and aromatic cafeteria	01	216 m^2
11	Biofertilizer and Biopesticide unit	01	80 m^2
12	Crop Cafeteria	01	300 m^2

Laboratory facilities (Laboratory facilities are availed from CPGS-AS, Umiam)

Sl. No.	Name of laboratories
1	Laboratory of Genetics and Plant Breeding
2	Molecular Biology and Biotechnology Laboratory
3	Analytical Laboratory
4	Biogeochemistry Laboratory
5	Microbial Ecology Laboratory

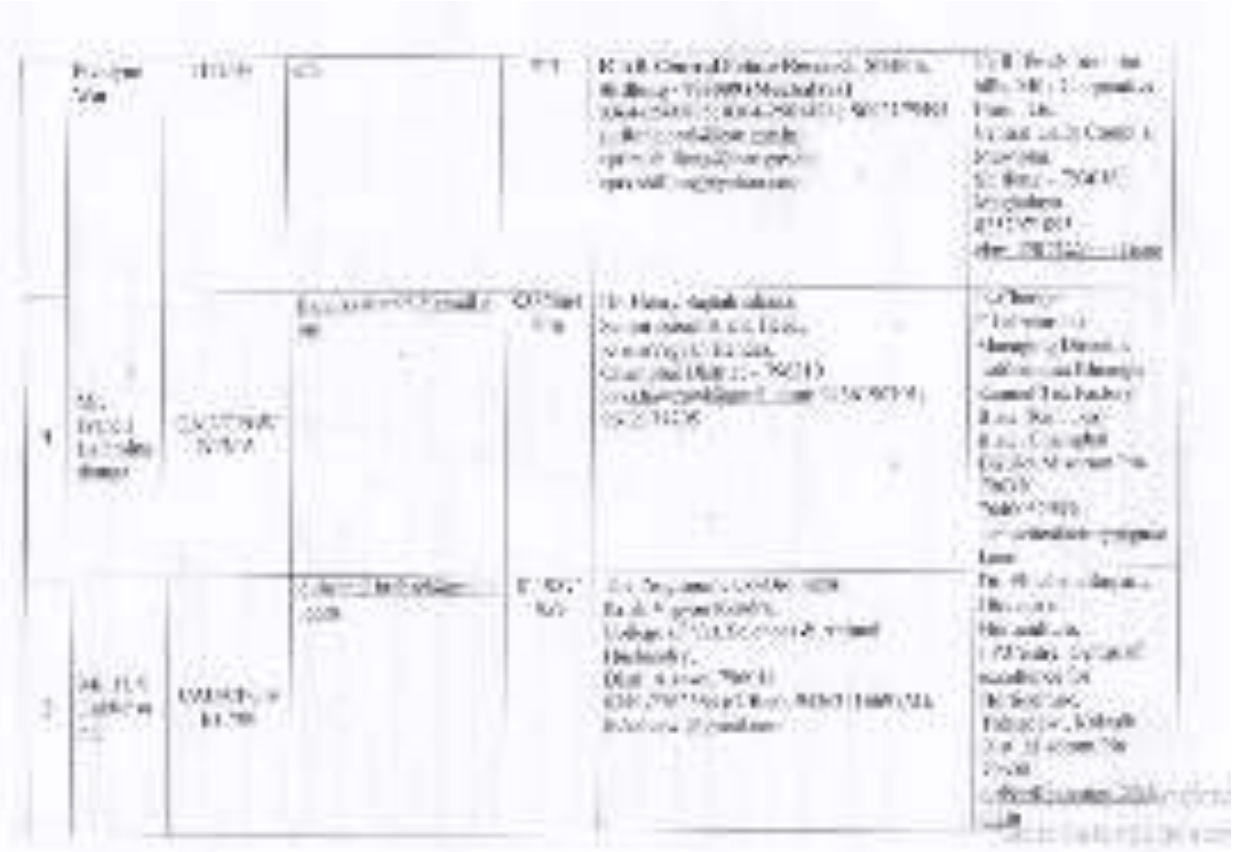
6	Plant Pathology Laboratory
7	Entomology Laboratory
8	Nematology Laboratory
9	Laboratory of Biochemistry
10	Laboratory of Soil Science
11	Laboratory of Agronomy
12	Computer Laboratory
13	Multimedia Laboratory
14	GIS and Remote Sensing Lab
15	Laboratory of Horticulture.
16	Biofertilizer Production Unit

6.5.3.3. Student READY/ In-Plant Training / Internship / Experiential Learning Programmes:
Clearly mention about the implementation of Student READY/ In-plant training/ Internship/Experiential Learning programmes and learning outcomes as per the guidelines of ICAR. Profit sharing mechanism (amount) shall be mentioned for each ELP unit sanctioned by the ICAR for the college.

Implementation of Student READY programme (as per fifth Dean's committee):

		No. of weeks	
1	General orientation & On campus training by different faculties	1	14
2	Village attachment	8	
	Unit attachment in Univ./ College. KVK/ Research Station Attachment	5	
3	Plant clinic	2	02
	Agro-Industrial Attachment	3	04
4	Project Report Preparation, Presentation and Evaluation	1	
	Total		**20**

RAWE Component (Village attachment&Agro- Industrial Attachment): for the academic year 2020-21 (01-10-2020 to 28-02-2021)
For AIA, the students would be attached with the agro-industries for a period of 3 weeks to get an experience of the industrial environment and working.



Modules of ELP implemented in COA, Kyremkulai:

- For academic year 2018-19: Mushroom production (PP-48PP), Crop production (Agron-48A) and Integrated farming system (Agron-48B)
- For academic year 2019-20: High value crops (Module-1), Vermi-composting (Module-2), Mushroom (Module-3) and Planting material (Module-4)
- From academic year 2020-21: Production technology of bioagent and biofertilizers (SSAS-4810A), Mushroom Cultivation Technology (PP-4810B), Poultry Production Technology (AH-4810C), Agricultural Waste Management (SSAC-4810D), Organic Production Technology (Agron-4810E) and High tech Horticulture and planting material (Hort-4810F)

S.No	Name of the module	Amount during (Year) in Rs.				
		2016	2017	2018	2019	2020
1	Mushroom Production				20,000	10,000
2	IFS				30,000	40,000
3	Vermicompost				10,000	10,000

Learning outcomes:

- Implementation of Student Ready/ELP programme for B.Sc., Agriculture, facilitates the students in understanding actual situation at village/farmers level by undergoing interventions in differents aspects of agriculture like agronomy, plant protection interventions, soil testing, fruit and vegetable production interventions, animal production interventions, food processing and storage interventions and extension and technology transfer activities. Attachment of students to agro-industries, enables them to understand the structure, function, objective and mandate of the industry to which they are attached. Students study various methods of processing, processing units established at the industries and hands-on training with the assistance of industry staff. This creates an opportunity to the students about the actual industrial aspect of entrepreunership through skill development, learning business network etc.,
- Experiential Learning Programme (ELP) necessiates the students to involve themselves in a particular module and gaining the hands-on experience right from the beginning of the establishment of a particular module to a final output of that module. Doing this activity, helps the students to know the practical aspect of any module to which they are enrolled, and generate income out of it, which eventually be an employment opportunity for them in future.

6.5.3.4. Curricula Delivery Through IT (smart class rooms/interactive board etc.):

All the class rooms in the college have one good quality white board. One conference room having internet connectivity and equipped with LCD projectors. Smart class rooms facility availed from CPGS-AS, Umiam. All the class rooms in the college above have one big size, good quality white board, internet connectivity and equipped with LCD projectors. In addition, one classroom in the School of Social Science is also equipped with interactive white board. The students can also avail the internet connectivity for retrieval of scientific information from the college library as wellas from their hostel room. All the faculties are also equipped with a computer connected with the internet and a printer for helping them to conduct online classes, retrieve the scientific information for converting their teaching into a learning process for the students.

6.5.4. Student Development:

6.5.4.1. Student Intake and Attrition:

Name of the degree programme	**Actual student intake in last five years**					**Attrition (%)**				
B.Sc., Agri (Hons)	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**
	12	18	18	18	22	0	0	0	0	4.55

6.5.4.2. Average Number of Students in Theory and Practical Classes:

S.No	**Name of the degree programme**	**Batch of students in theory class**	**Batch of students in practical class**
1	B.Sc., Agri. (Hons.)	01	01

6.5.4.3. Admission Process:

Our College is one of constituting college of Central Agricultural University, Imphal and hence the students' admission procedure is conducted by university. Our college of has getting the nominees from different north eastern states as well as from ICAR every year to fill all seats from the university headquarters. The college do not have payment seat. The fee payment structure is as per the CAU, Imphal published in prospects and we are accepting fee of registration in online mode in account section of

college. The academic schedule and date of onset and end of semester is as per the University schedule which was released every year.

6.5.4.4. Conduct of Practical and Hands on Training:

At the end of every semester the end-term exam of the offered course being conducted as per scheduled of the CAU. Exam of theory as well as practical record consisting of practical exercises is being evaluated by the course leader along with Viva-voce of practical learning and assignments. Accordingly, students are being judged and evaluated by assigning out of at least 20 marks. All the practical records prepared by the respective students in respective course are being maintained and deposited to the course leader.

6.5.4.5. Examination and Evaluation Process:

Degree Programme	**Mid Term Examination**	**Quiz (#4 in number)**	**End Term (Theory)**		**End term (Practicals)**
			Setting of QP	**Answer sheet Evaluation**	100 marks Internal setting of question paper and evaluation
B.Sc., Degree Programme	Internal (30 marks)	Internal (20 marks each)	External Theory – 50 marks	Internal	

Academic progress of the students for various courses registered by them during a degree programme is evaluated by semester long evaluation process. For theory courses, 50% evaluation is done by the concern course teacher/s and for remaining 50%, question paper is set by an external examiner selected from the panel approved by the competent authority of the university. However, end term question paper is evaluated by the teacher other than the course instructor in the discipline. Two quizzes are conducted in each course by the concerned course teacher at periodic intervals before the midterm exam. Next two quizzes are conducted after midterm but before end term exam. Midterm end endterm exams are of one and half hours and two and half hours, respectively, are organized as per the academic calendar of the CAU, Imphal. Almost 50% course is completed before midterm and entire syllabi are completed before the end term exam. If required, teacher may conduct extra classes for timely completion of the course curriculum. Hands on training, practical experience learned during the semester in each course is evaluated at regular interval in each class by regular checking of their practical records and observing the progress made by the students in the laboratory during practical class. Endterm practical exam is evaluated by the course teacher itself. Marks secured in a course in theory and practical are multiplied by number of theory credit(s) and practical credit(s) of the course respectively and added together. This is divided by the total credits (theory +practical) of the said course to get the percentage of marks, which will be divided by the 10 to obtain the grade Point (GP).

6.5.4.6. NCC/NSS/RVC Units:

Extracurricular activities and other activities related to NSS are carried out by the enrolled students at College of Agriculture, Kyrdemkulai annually under the course instructor assigned.

6.5.4.7. Language Laboratory:

– NO -

6.5.4.8. Cultural Centre:

Cultural program are organized during Annual College Week.

6.5.4.9. Personality Development:

Eminent speakers, faculty, Scientist invited to deliver lecture on personality development, how to face competitive exams and interviews. The college has provided provisions for inclusion of functional grammar in standard English, speaking skills, reasoning, group discussions interview skills, personal interviews, quantitative ability, verbal ability, mock tests and some special sessions to promote the personality development in the students as part of the related courses offered.

6.5.5. Physical facilities:

6.5.5.1. Hostels:

There are one Girl's Hostel and one Boy's hostel inside the college campus with separate mess facilities and a student canteen which is run by the college authority (CPGS-AS, Umiam). The college has one girls' hostels with capacity of approx.., 50 students and one boys' hostel with capacity of approx.., 50 students. Boys' and Girls' hostels have separate mess facilities serving regional and Indian cuisines. The student's messes are run by the students supported by college by providing manpower for cooking and cleaning.

Indoor games facility – Yes (Badminton court)
Emergency medical unit – Yes
Cleaning of hostel premises – Yes, Done timely

6.5.5.2. Examination hall:

The two seminar rooms and 4 class rooms of CPGSAS are utilized for conducting examination.

6.5.5.3. Sports and Recreation Facilities:

Utilization of facility available at CPGS-AS, Umiam campus. One indoor/Badminton court, Basketball court, volleyball ground. Time schedule is maintained for students during morning and evening time. Time to time match conducted for students

6.5.5.4. Auditorium:

Does the college has auditorium? Mention its year of construction, sitting capacity and how frequently being used for the College functions. – NO-

6.5.5.5. Exhibition Hall/Museum:

Does the college have the Exhibition Hall/Museum? Mention about its use and special events being conducted in these units. – NO-

6.5.6. Research Facilities

6.5.6.1. Postgraduate Laboratories and Equipments:

- NA-

6.5.6.2. Research Contingency:

–NA-

6.5.7. Outcome/Output

6.5.7.1. Student Performance in National Examinations:

Provide detailed information in tabular form about student performance in JRF/SRF/NET/ARS/and other national examinations for last five years. Only those students receiving fellowships should be mentioned here.

Sl. No.	Name of student	Selected institute	Fellowship/ Scholarship
	2019-20 pass out batch		
1	Ms.Laltharmawii	IARI, New Delhi	IARI Fellowship
2	Mr. Arup De	Dr.Rajendra Prasad, CAU, Pusa, Samastipur	University scholarship
3	Mr.TagiNabum	UAS Bangalore	Nil
4	Ms.KhumbartiDebbarma	UAS Bangalore	JRF
5	Ms.Laishram Nikita Devi	CAU, Imphal	Nil
6	Mr.RohitHemam	CAU, Imphal	Nil
7	Mr.BaliaMajhi	OUAT, Bhubaneswar	Nil
	2020-21 pass out batch		
1	Ms.Lalchuanawmi	Tamil Nadu Agricultural University, Coimbatore	Nil
2	Ms.LalhruaitluangiSailo	Jawaharlal Nehru KrishiVishwavidyalaya, Jabalpur, Madhya Pradesh	Nil
3	SumitaMog	Dr.PAnjabraoDeshmukhKrishiVidyapeeth, Akola	Nil
4	OnchoilaMaring	Dr.Rajendra Prasad Central Agricultural University, Bihar	Nil
5	ZiljiaMoirangthem	CPGSAS, Barapani, MEghalaya (CAU, Imphal)	Nil

6.5.7.2. Students Placement Profile:

Provide detailed information in tabular form about student performance in ARS/and other national examinations/State level examinations or equivalent. Year wise placement profile shall be provided.

Sl. No.	Name of College	Name of Student	Year of passing from college	Organizations joined	Position/ joined as
1.	College of Agriculture, Kyrdemkulai	Mr. Raja Garam	2019	Agricultural Technology Management Agency (ATMA)	Assistant Technical Manager (ATM)

6.5.7.3. Awards/Recognitions/Certificates:

Awards for faculty

Sl. No	Name of Faculty	Honors & Awards
1	Dr. U.K. Behera	National award-3 Society Awards-3 NAAS Fellowship Institution award-2
2	Dr. M. Premi Devi	7. Gold Medal in MSc.(Ag.) Horticulture, awarded by CAU,

		Imphal (2014) 8. Best 'PhD THESIS AWARD' awarded by AEDS, U.P., India (2019) 9. Best paper presentation awarded by INSHHORT (2015) 10. GCP21- Travel Grant (Funded by Bill and Melinda Gates foundation) in the year 2016 11. DBT Travel grant awarded by DBT, GOI (2015) 12. CICS Travel grant (2015)
3	Dr. N. Uma Devi	(1) Young scientist award in the field of Entomology- GAPS
4	Dr. L. SanajaobaSingh	1 (Young Scientist Award)
5	Dr.Amit A. Shahane	Nil
6	Dr. G. BhuvanaPriya	1. Dr.& Mrs. V.D. Rathnam's Medal (Gold medal) for Best BVSc& AH student securing highest marks in Preventive Medicine 2.T.T.K. Healthcare Limited Award (Gold medal) for Best BVSc& AH student in Preventive Medicine
7	Dr.Samborlang .K. Wanniang	UGC National Fellowship for Higher Education (NFHE) of ST Students for pursuing PhD programme
8	Dr.Rajkumari Padamini	1.MSc Gold Medal, 2.INSPIRE Fellowship, 3.Dr. B.M Gupta Memorial Award of RCA Alumni Association Rajasthan College of Agriculture, Udaipur (Rajasthan), 4.Young Plant Pathologist Award-2020 by Agro-Environmental Developmental Society, U,P
9	Dr.Sabyasachi Majumdar	1.Certificate of appreciation by Honorable VC, UAS, Bangalore (2019); ISSS Best Doctoral Research Presentation Award with Gold Medal (2019); ISSS-South Zone Best Doctoral Research Presentation Award (2019); 2.Second-best oral presentation Award for Doctoral Research programme under the theme "Crop Production" in Post Graduate Science Week (2017) by UAS, Bangalore; 3.International Travel Grant Award by IRD, Aix en Provence, France (2016) 4.INSPIRE Fellowship Award by DST, New Delhi, Government of India (2015); 5.76th Indian Society of Soil Sciences (ISSS) Convention Commemoration Gold Medal for securing first rank during Master's degree (2015); 6.University of Agricultural Sciences Gold Medal for securing first rank during Master's degree (2015) 7.University of Agricultural Sciences Merit Scholarship (2012)
10	Dr. H.G.	1.2nd prize for best exhibition stall award in 1st International

	Kencharaddi	Agro Biodiversity Congress" held at New Delhi 2. Best poster presentation award for paper presentation in national seminar on "Genetics and Cyto Genetics" organized by UAS, Dharwad during 2015. 3. Awarded Indo-American hybrid seeds Research fellowships for Ph. D degree program from University of Agricultural Sciences, Dharwad , Karnataka, India. 4. Best poster presentation award for paper presentation in national seminar" Contemporary approaches to crop improvement" organized by Indian society of genetics and plant breeding during 2011
11	Dr. Priyadarshani Mohapatra	Young scientist award -1 Best poster and oral presentation - 3

6.5.7.4. Employability:

College of Agriculture, Kyrdemkulai through implementation of Student Ready Programme and ELP is providing knowledge, skills and management practices and creating employment opportunity vision to the students for their successful carrier. Exposure of students to Agro-industries, animal husbandry farms motivates them to become entrepreneurs and understand the scientific knowledge behind this which benefits their own family, community and economically.

6.5.8. SSR of the College must have the SSR of all its Degree Programmes

(following section 6.4), then the report of the Colleges shall be considered.

6.5.9. Certificate (Applicable when SSR is submitted for Programmes & College)

I, the Dean .Dr. U.K Behera hereby certify that the information contained in
Sections 6.4 and Section 6.5.1 to 6.5.7.4 are furnished as per the records available in the college and degree awarding university.

(U. K. Behera)

SELF STUDY REPORT

FOR

B.Sc. (Hons.) Agriculture

Submitted by

College of Agriculture, Kyrdemkulai, Meghalaya

CAU, Imphal

Submitted to

National Agricultural Accreditation Board

Indian Council of Agricultural Research

College of Agriculture, Kyrdemkulai

6.4.1. Brief History of the Degree Programme

The college was established in 200 acres of area located in Kyrdemkulai tribal village. The campus of college is completely organic and free from use of any agro-chemicals and geo- crops. The college is holding 3 externally funded projects from different agencies. The college developed temporary infrastructure at Kyrdemkulai in which class rooms and academic block as well as students' hostel (boys and girls) were included. The college is building the research capacities such as production of quality planting material, mushroom production, vermicomposting unit, medicinal and aromatic plant cafeteria, crop cafeteria. The major thrust area include development of farming system model for marginal and small farmers from North East Region. The college is focussing on organic farming and hosting the Advanced Centre for Organic Farming.

The degree programme B.Sc., Agri (Hons.) was started on academic year 2015-16with 13 number of students. The institute impart B.Sc., Agriculture for students' holistic development to make effective contribution to the society in a dynamic environment. The college has intake capacity of 30 students from different North Eastern states of India. As per the guidelines of 5th Dean's committee, College of Agriculture is developing in respect to teaching facilities, laboratories, research field and other activities.

The objective of the degree programme is to impart education in Bachelor of Science in Agriculture as it deem fit.

Accomplishments:

S.No	Academic Accomplishments
1	The college has pass out two batches of students in academic year 2018-19 and 2019-20 with total 27 students.
2	The college has increased student strength from 22 to 30 from academic year 2020-21 and currently 76 students are enrolled in college.
3	One student (Ms.Laltharmawii) from 2018-19 pass out batch got admitted in ICAR-Indian Agricultural Research Institutes, New Delhi for masters degree.
4	Another student (Ms.Khumbarti Debbarma) from 2018-19 pass out batch secured JRF and got admission in UAS Bangalore.
5	One student Mr.Mr. Raja Garam (2018-19 pass out batch) joined as Assistant Technical Manager (ATM) in Agricultural Technology Management Agency (ATMA) in Arunachal Pradesh.
6	College has established pre-fabricated structure for classroom and hostels.

6.4.2 Faculty Strength:

S.No	Faculty in position	Vacant	Faculty recommended by by the ICAR/UGC/VCI/ other regulatory bodies
Professor	0	07	3
Associate Professor	00	00	8
Assistant Professor	10	02	34
Total		09	45
CPGSAS Faculty	18		

*05 Assistant Professors were deputed from College of Community Sciences, Tura, Meghalaya

6.4.3. Technical and Supporting staff:

Sl.No.	Sanctioned	In position	Vacant
1	17	01	16

***** The vacant positions are filled up by contractual workers and technical and administrative staffs from CPGSAS, Umiam

Sl. No.	Name of Section	No. of employees
01.	Establishment Section	04
02.	Account Section	02
03.	Academic Section	03
04.	Store & Purchase	04
05.	Engineering Section	07
06.	Medical Section	04
07.	SWO	01
08.	Farm Section	04
09	I.T. Cell	02
10.	Vehicle Section	03
	TOTAL	**34**

Functions combinedly with CPGS-AS, Umiam

6.4.4. Classrooms and Laboratories:

Name of the degree programme	No. of class rooms	No. of laboratories
B.Sc., Agri (Hons.)	04	12

The available classrooms and laboratories at makeshift campus and CPGSAS, Umiam are sufficient for running BSc Agriculture degree

Major equipment

S.No	List of Equipments	Quantity
1	Weighing balance	03
2	Vortex shaker	1
3	Microcentrifuge machine	1
4	Micropipette set	1
5	Autoclave 35 litre capacity	1
6	Hot air oven	03
7	Binocular microscope	1
8	Bacteriological incubator	1
9	Insect box	15
10	Deep Freezer	01
11	Refrigerator	03
12	Power tiller	02
13	Tractor	01
14	Machine operated weeder	01

Note: Apart from these equipment at COA-K campus, some of the equipment are at CPGSAS, Umiam

List of laboratories

S.No	Name of the laboratory
01	Agronomy Lab
02	Soil science laboratory
03	Microbiology and Molecular laboratory
04	Biofertilizer production unit
05	Analytical Lab
06	Biogeochemistry Lab
07	Molecular Biology and Biotechnology Lab
08	Genetics and plant breeding lab
09	Plant Pathology Lab
10	Entomology Lab
11	Insectry
12	Horticulture Lab

Farm facilities:

Workshops and other instructional units:

Following are the instructional units at College of Agriculture, Kyrdemkulai in which the college also organizes workshops and training to the students and farmers

1. Orchid Production Unit and training facility centre
2. Integrated Farming System Model
3. Agrometrological observatory
4. Mushroom production unit
5. Poultry unit

6. Biomass recycling Unit
7. Biofertilizer and Biopesticide unit
8. Dairy unit

Theory and Practical batches for the Degree Programme: 01 batches for both theory and practical as the total student strength in every year is 18-22 nos.

6.4.5. Conduct of Practical and Hands-on-Training:

As per the ICAR course curriculum. Practical and hands-on training are conducted as per the list included in the syllabi and records for all the courses are maintained and evaluated by the respective course in charge by giving marks weightages. Sometime courses which are appealing for visiting farmer fields, accordingly provisions are there to visit farmer's fields.

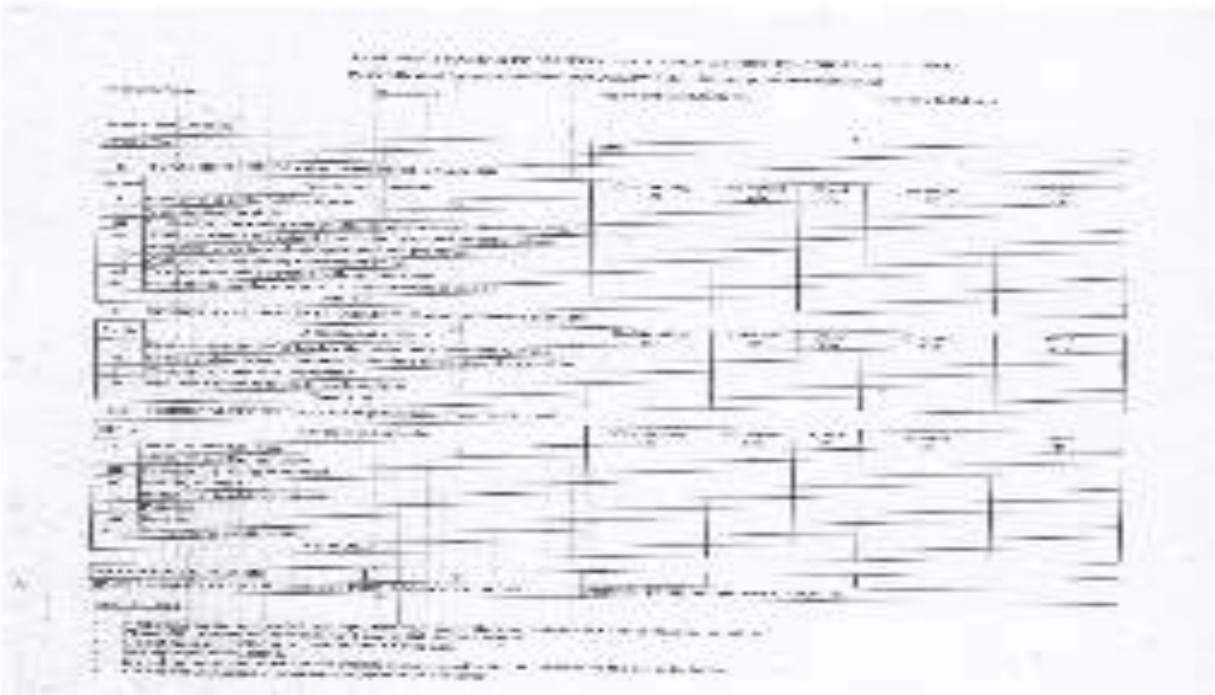
- Hands-on training on 'Improved Production practices of organic rice'
- Hands on training on 'Mushroom cultivation'
- Hands on training on 'Orchid Production'
- On Field practical for four courses are going on (Practical crop Production I & II, Crop production Technology I & II)
- On field ELP practical

6.4.6. Supervision of students in PG/PhD programmes:

- NA -

6.4.7. Feedback of stakeholders (Students, parents, industries, employers, farmers etc.):

Yes, we take feedback from students every year. At the end of the each semester and before the end term exam, a comprehensive feedback for each course is taken from students. The feedback includes competency of the teacher in the subject, updating the current status of the subject by the teacher, timely covering of syllabi, student teacher interactions, creating interest among the students about the course, attitude towards weak students, punctuality of the teacher etc (feedback proforma enclosed for ready reference).for the last five years



6.4.8. Student intake and attrition in the programme for last five years:

Name of the degree programme	Actual student intake in last five years					Attrition (%)				
B.Sc., Agri (Hons	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**
	12	18	18	18	22	0	0	0	0	4.55

6.4.9. ICT Application in Curricula Delivery:

Use of various online/virtual platforms like Zoom, Google meet etc., is being utilized for online teaching. LED Projectors, Computer (PCs) are used for curricula delivery. The computer laboratory at the School of Social Science is utilized for different online classes and conductance of computer courses. The laboratory is well equipped with 20 computers and different software.

6.4.10.

The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise.

6.4.11.

Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean, Dr. U.K. Behera hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

(U. K. Behera)

Self-Study Report

College of Horticulture,
Central Agricultural University,
Bermiok, Sikkim

Submitted to:

National Agricultural Education Accreditation Board

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6.5. Self-Study Report for the Colleges

College of Horticulture, Bermiok, Sikkim was established on 21st May 2015 which falls under the beautiful landscape of Namchi Block of South Sikkim. The state itself falls under one of the biodiversity hotspots, the eastern Himalayas which are bestowed with beautiful landscape with rich diversity of variant species of flora and fauna. It is situated in the Southern mountain ranges of the Eastern Himalayas between Northern Latitudes 27 º 4′45″ to 28 º 7′ 45N latitudes ″ and 88 º 45″ to 88 º 35′ 15″ E longitudes. The state enjoyed varied agro-climatic zones ranging from sub-tropical in the lower valley to alpine in the upper ranges. It is the home of many orchid species.

The site of the college is situated at Tokal, Bermiok, at an elevation of 867 meters with a longitude and latitude of 88º 46.8' 92.7" and 27º 23.2' 36.3". It comes under the sub-tropical hill zone having a maximum temperature of 30 and minimum of 12 º C with an average rainfall of 1600 mm. It is congenial to grow many horticultural crops like French bean, garden pea, sweet potato, potato, cardamom, tea, ginger, solanaceous vegetables, turmeric, kiwi, apricot, peach, pear, many species of chilli, persimmon, plum, walnut, nectarin, aonla, ber, passion fruit, mango, guava, citrus, low chilling varieties of apple, orchids, anthurium, gladiolus, gerbera, rose, marigold and carnation. At present, the college is camped at College of Agricultural Engineering and Post-Harvest
Technology, Ranipool.

Mandate:

(i) Development of appropriate human resource for carrying out various horticultural activities inthe state of Sikkim
(ii) Development of relevant technologies suitable for horticultural sector aiming to welfare offarming community of Sikkim
(iii) Dissemination of horticultural technologies for the development of sustainable, scientific and profitable horticultural sector among the various stake holders.

Objectives

The College has been established with following broad objectives

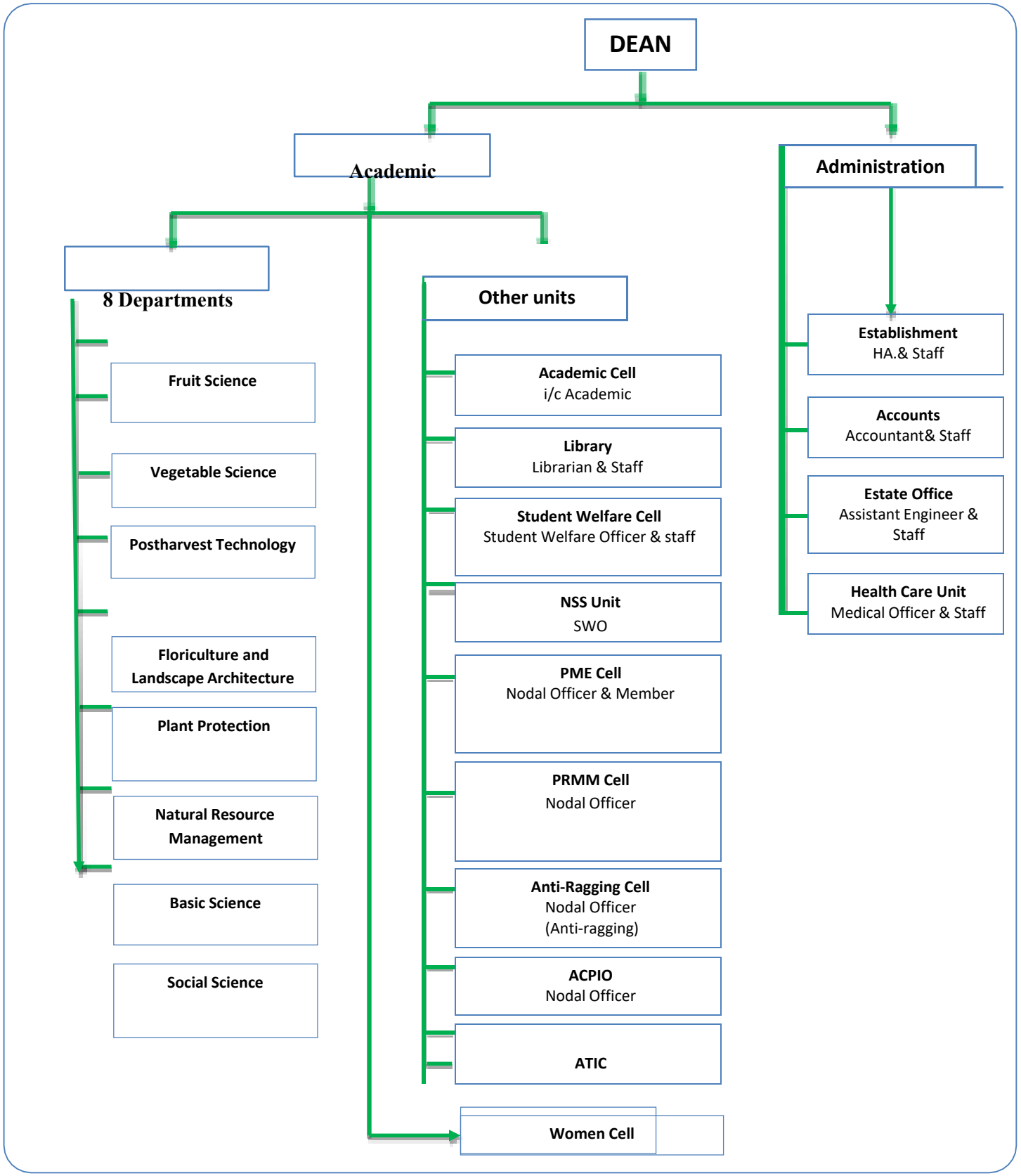
- To impart education in different branches of horticulture and allied sciences
- To further the advancement of learning by undertaking research in horticulture and alliedsciences
- To undertake the programmes of extension education in the state of Sikkim and others in the jurisdiction of CAU, Imphal and
- To undertake such other activities as it may deem fit from time-to-time.

6.5.1. College Administration

The overall administration of the academic, research, extension and other activities of the college including infrastructure development is monitored by the Dean, College of Agricultural Engineering and Post-Harvest technology who is also looking after the College of Horticulture, CAU, Ranipool. The Academic and Administrative building of College of Horticulture, Ranipool is near completion at the selected site **(Fig. 1)**. The Dean is assisted by various teaching, non- teaching and non-technical members of the institution.

Fig. 1 Administration and Academic Building

Organizational Chart



6.5.1.1 College Dean's Office Establishment:

Sl. No.	Particulars	Response
1.	Whether Dean's post has been sanctioned by the appropriate authority as per ICAR ModelAct/UGC guidelines	Yes
2.	Date of selection/joining of present Dean	01.04.2019
3.	Mode of selection	Nominated
4.	Tenure	Till appointment of regular Dean
5.	Total number of staff in Dean's office	One Account Assistant and One Assisted is appointed. However, the staff appointed under CAEPHT are performing the official works
6.	Infrastructure facilities (Details on infra andnetworking facilities available)	• Computers with printers are available at the Dean's office with internet and UPS connectivity • Copier facility is available with Wi-fi connectivity

6.5.1.2. Monitoring Mechanism for Quality Education (on-line):

Teaching

The online classes are conducted by the respective teachers according to the scheduled time Table. Online quiz exams are conducted on e-Google form platform with strict vigilance by respective teachers.

Internal quality assurance system	Dean and Assistant Registrar (I/c Academic) holds the responsibility for the quality assurance of online classes.
Effectiveness of monitoring quality assurance and quality enhancement activity:	The teachers submit the weekly class report and attendance to the Assistant Registrar. The monitoring system is effectively conducted with reports from the class teachers from time to time.
Impact of monitoring on the outcome of the College with reference to students excelling in academics, research.	With the current monitoring systems the online classes are running effectively. Mid semester, practical and final theory examination are conducted to assess the students. Assignments are regularly given to students in each of the courses related to the curriculum. External system of evaluation followed for both theory and practical for each course related to the curriculum.

	Academic counselling is done every week by assigned students advisors. Monthly quiz programmes and group discussions are arranged for the students to ascertain their proficiencies and knowledge. Online-JRF mock tests are conducted for the aspiring students for ICAR-JRF Exams.

Faculty Research

- The faculty are involved in research activities related to crop production, crop protectionand plant improvement.
- The PME cell appraises the research proposals at college levels.
- The progress of the research is regularly monitored by the PME cell.
- Review of progress of research work are evaluated by the Dean, Director of Research andthe Vice Chancellor, CAU during Research Review Committee meetings
- Submission of annual report for ongoing projects.

Presently, the faculty of College of Horticulture are conducting research activities on

- Collection, evaluation and characterization of chayote, dale chilli.
- Exploration and documentation of underutilized and wild edible vegetables of Sikkim
- Cultivation of gerbera under protected cultivation
- Studies on insect pest of citrus and other important horticultural crops; bee keeping
- Production of quality planting material of Kiwi fruit by cutting using low cost propagation structure

Extension

- Regular monitoring to assess occurrence of insects and disease in the region
- Participations in exhibitions organized by the Government, private and NGO
- Field visit by team of scientists on need to diagnose problems and provide solutions and recommendations
- Organize entrepreneurship development training programmes for farmers
- Awareness and training programmes are organized for farmers and unemployed youths
- Distribution of agricultural, horticultural accessories and planting materials to local farmers
- Adoption of village as model villages

The faculty of College of Horticulture in association with College of Agricultural Engineeringand Post Harvest Technology, have organized the following programmes (Fig. 2, 3, 4, 5, 6 & 7):

- A three days Health awareness programme was held on 7th April 2017 in association with the Healthy Life and Healthy Food Committee, medical unit and NSS Team
- Organization of Swachhata Pakhwada from 1st to 15th August 2017
- Organization of "Swachhata hi Sewa" campaign on 18th August 2017

- Technology and machineries Demostration Mela on 20th February 2018
- Organized IX National Extension Congress 2018 in association with Society of Extension Education and CAEPHT
- Exhibition/ Krishi Unnati Mela from 18th November 2019 to 21st November 2019
- Every year the collage celebrate Soil Health Day by distributing Soil Health Cards to farmers
- Organized a one day training cum awareness programme on Fruit Fly infesting Horticultural Crops on 8th October 2018 for Farmers
- Organized a one day training programme on Soil fertility management in organic farmingon 5th November 2019 for Farmers
- Organized a one day training programme on Training and pruning practices of fruit cropson 7th November 2019 for Farmers
- Organized a one day training programme on Beekeeping on 12th December 2019 forFarmers
- Organized a one day training programme on Production technology of Gerbera andCarnation on 1st February 2020 for Farmers
- Organized a one day training programme on Management of important diseases of Horticultural crops on 2nd February 2020 for Farmers
- Organized a one day training programme on Important insect pest of horticultural crops andtheir management on 28th February 2020 for Farmers
- Organized a one day training programme on Practice of crop regulation in Guava (*Psidium guajava*) on 29th February 2020 for Farmers
- Organized a one day training programme on Intellectual property rights in plant breeding on5th March 2020 for Progressive farmers and Rural youths
- Swachhata Abhiyan at CAEPHT Campus on 5th June 2020
- Celebration of International Yoga Day on 21st June 2020
- Two days on line skill Development Workshop on "Motivational Talk: Employability and Entrepreneurship Skills" for UG students of CAEPHT and COH Bermiok under NAHEP- IDP was organized from June 19-20, 2020.
- Organized a one day training cum awareness programme on Infestation of Thrips and leaf minor infestation in Onion on 7th December 2020 for farmers
- Organized a one day training cum awareness programme on Identification and management of Red Ants on 9th December 2020 for farmers
- Organized a Three day National Webinar on Sustaining Organic Farming During and Post COVID-19 during 03rd - 05th August 2020
- Organized a one day webinar on "Awareness programme against Drug Problems on 28th November 2020 for youths

Fig. 2. Inauguration of Technology and Machinery Demonstration Mela , 2018

Fig. 3. One day training cum Awareness Program on Red Ants

Fig. 4. 1-day training cum field demonstration on Fruit Fly

Fig. 5. 2-days Yoga Fest

Fig. 6. Students after performing Swachta Pakhwada along with SWO

Fig. 7. Dean and faculty along with Ex DG of ICAR Dr. Mangala Rai during CAU Agri Fair

Measures taken to improve the quality of education, research and extension

Education

- Industrial and institute related exposure visits related to the courses offered to the students
- Recognition and awards are given to best students at university level
- Educational talk are arrange inviting experts from different fields
- Assignments and exams are conducted on regular basis

Research

- Encouraging students to actively participate in workshops, webinars and conferences
- Experimental learning programme of six different module is conducted for six months

Extension

- Rural Horticultural Work Experience Programme (RHWEP) for students to understand the problems and prospects of the farming community
- Organizing group discussion programmes
- Conducting brain storming sessions for group approach

Impact of monitoring with reference to students' excelling in academics, research andextracurricular activities

Academics

- Higher academic performance of students with improved OGPA
- Improved enrolment of students each year
- Participation and selection for higher education in reputed National institutes

Research

- Publication of research results in peer reviewed journals by faculty members

Extracurricular

- Participation in NSS programmes at national participate
- Participation in sports and cultural events at state and national levels

Additional information on monitoring mechanism for quality education

- Monthly meetings: The Dean conducts monthly meetings with the faculties to evaluate the progress in the field of teaching, research and extension.
- Annual reports: Annual reports are prepared for the college based on teaching, research and extension education activities performed during the year in consideration. The reports are used for measuring the performances of the college during the particular year and serve as guidelines for future action plan

- Student evaluation: Students advisory meeting is conducted every week by respective advisors and every month Students Advisory meeting is held along with the Dean of the college. He receives the feedback from the students and gives direction to the faculties. The students are providing the feedback of course teachers who handle the classes during a particular semester in a prescribed proforma. The feedback of the students is analysed and the inadequacies are properly addressed

6.5.1.3. CC/Board of Studies:

Boards of Studies meeting are being conducted where various academic issues are discussedand academic progress monitored (Documentary support in Annexure 6.5.1.3).

Composition of the BOS	**Date of conduct of meetings for last five years**	**Major recommendations made by the BOS**
• 01 Chairperson • 01 Co-chairperson • Dean's representative • BOS members from different constituent colleges of CAU • Member Secretary and invitee.	8th BOS meeting held on 04.12.2017 at College of Horticulture & Forestry, Pasighat	-
	9th BOS meeting held on 20.04.2018 at College of Horticulture & Forestry, Pasighat	Formation of Departments for College of Horticulture, Bermiok as follows: • Department of Fruit Science • Department of Vegetable Science • Department of Post- Harvest Technology • Department of Floriculture & Landscape Architecture • Department of Plant Protection • Department of Natural Resource Management • Department of Basic Science • Department of Social Science
	10th BOS meeting on15.05. 2019 at College of Horticulture & Forestry, Pasighat	• No any Agenda for College of Horticulture, Bermiok
	On 24-04-2020, College attended "11th Board of Studies" meeting through video conferencing on line using Google Meet.	-

6.5.1.4. Anti-Ragging Cell: Yes

The Vigilance Committee comprising of Dean, Warden's (Boy's Hostel & Girl's Hostel), Female Faculty members and Student Welfare Officer (SWO) of both colleges CAEPHT, Ranipool and COH, Bermiok is formed every year to inspect and to visit Hostels (both for Girl's & Boy's) at any time after the entry time. Each student is allotted with one adviser to discuss their problems and counselling is being done on weekly basis for all the students by their respective advisers. Meetings & Group discussion is being conducted regarding related Anti Ragging topic on quarterly basis (Documentary support in Annexure 6.5.1.4).

Members of Anti Ragging squad	**Date**
Dr. B.K. Singh, Dr. P. Bhumita , M. Sanju Singh	15-07-2019 to 31-8-2019
Dr. A.B. Sherpa, Dr. Dipika Sarmah, Dr. Sudip Das	
Dr. M.S. Saveda, Dr. Sujata Jena, Dr. D. Jhajaria	
Dr. S.N. Yadav, Dr. N.S. Chauhan, Mrs. L. Chanu	
Er. Rajiv Pradhan, Er. Nandita Sen, Dr. Rakesh Kr. R.	
Er. Satpathy, Er. S.K. Chauhan, Dr. Anuradha Devi	
Dr. Dhananjoy Roy, Er. S.S. Das, Dr. Diana S	
Dr. J. Panda, Dr. B.C. Khusre, Dr. P. Bhumita	
Er. S.M. Kamaruzzaman, Dr. CH. Birendrajit, Dr. Sushma Gurumayum	
Dr. S.R. Yadav, Dr. Y. Ghanasyam Singh, Ms. Esther L.	
Dr. G.T. Patle, , , Dr. A.K. Vashisht, Dr. M. Chanchan	
Dr. Said P.P., Dr. Srikant Kr. Mehr, Er. N. Devrani	

Members of Anti Ragging squad	**Date**
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Dr. N.S. Chauhan, Dr. Dipika Sarmah, Dr. D. Jhajaria	
Dr. M.S. Saveda, Dr. Sujata Jena, Dr. Sudip Das	
Dr. A.B. Sherpa , Dr. S.N. Yadav, Mrs. L. Chanu	
Dr. J. Panda, Er. Nandita Sen, Er. S.M. Kamaruzzaman	
Er. Satpathy, Er. S.K. Chauhan, Dr. Anuradha Devi	
Dr. Dhananjoy Roy, Er. S.S. Das, Dr. Diana S	
Dr. A.K. Vashisht, Dr. B.C. Khusre, Dr. Dinganggana Talukdar	
Dr. Rakesh Kr. R., Dr. CH. Birendrajit, Dr. Sushma Gurumayum	

Dr. S.R. Yadav, Dr. Srikant Kr. Mehr , Dr. Dinganggana Talukdar	
Dr. G.T. Patle, Er. Rajiv Pradhan, Dr. M. Chanchan	
Dr. B.K. Singh, Er. N. Devrani, Dr. Y. Ghanasyam Singh	

6.5.1.5. Biological waste disposal facility: Yes

Collection, cleaning and burning of waste products. The college is committed to ecological sustainability and thrives to establish a clean and green campus (Fig. 8). As mention earlier regular cleaning and planting of tress and other plants is done regularly. Such steps have also improved the floral biodiversity in the campus.

Fig.8. Students cleaning the campus

6.5.1.6. Institutional Ethics Committee for Experiment on Animals:

The college is not undertaking experiments on Animals. However, if such experiments are undertaken in future, then the college will strictly adhere to CPCSEA guidelines and will constitute an Institutional Animal Ethics Committee (IAEC).

6.5.1.7. Committee for Prevention of Sexual Harassment of Women at Work Places:

The women cell for prevention of sexual harassment of women has been formed to address all grievances pertaining to sexual harassment of women (students, teaching and non-teaching staff and labours) at the college. Dr. P. Bhumita I/c Women Cell looks after the problems. There was no complaint on sexual harassment in the college during last five years. However, details on sexual

harassment of women at work place Act, 2013 and a preamble of the Act and seeking remedy under this Act are clearly explained to the staff and farm workers (Documentary support in Annexure 6.5.1.7).

6.5.2. Faculty

The College of Horticulture has 6 faculties in various disciplines to undertake the education, research and extension activities. However, the College of Horticulture is presently utilizing the facilities of College of Agricultural Engineering and Post-Harvest Technology, Ranipool campus. 29 teaching faculties of CAEPHT and Multi Technology Testing Centre and Vocational Training Centre (MTTC & VTC) are also taking the classes for College of Horticulture. All faculties have necessary qualifications and have enriched themselves over the years by undergoing training programmes in teaching, research and education, participation in conference and seminars and handling research projects. Various approaches are followed by the teachers so that students are able to learn and get hand on experience on various aspects of agriculture.

6.5.2.1. Faculty Strength:

Mention the Faculty position (both in sanctioned and in-position) at the College.

Faculty Position	
Sanctioned	**In-position**
19	11

6.5.2.2. Faculty Profile (department wise):

Department wise faculty strength of CoH, Bermiok

Sl.No.	Department	Sanctioned Faculty	Filled post	Faculty recommended by ICAR
1.	Fruit Science	Professor	-	1
		Associate Professor	-	2
		Assistant Professor	1	3
2.	Vegetable Science	Professor	-	1
		Associate Professor	-	1
		Assistant Professor	-	4
3.	Floriculture & Landscape architecture	Professor	-	1
		Associate Professor	-	1
		Assistant Professor	1	2
4.	Post harvest	Professor	-	1

	Technology	Associate Professor	-	1
		Assistant Professor	-	2
5.	NRM	Professor	-	1
		Associate Professor	-	1
		Assistant Professor	-	6
6.	Social Science	Professor	-	1
		Associate Professor	-	1
		Assistant Professor	-	5
7.	Basic Sciences	Professor	-	1
		Associate Professor	-	2
		Assistant Professor	2	6
8.	Plant Protection	Professor	-	1
		Associate Professor	-	2
		Assistant Professor	2	3
		Total	**6**	

The existing faculty strengths of College of Horticulture, College of Agricultural Engineering and Post-Harvest Technology is sufficient for academic requirement of the college. The numbers of faculties who are involved in teaching activities are given below.

Faculty member utilized from College of Agricultural Engineering & Post Harvest Technology, Ranipool, Sikkim				
Department in COH Bermiok	Department in CAEPHET, Ranipool	**Prof.**	**Assoc. Prof.**	**Assistant Prof.**
	Basic Engineering Applied Sciences	-	-	8
	Irrigation and Drainage Engineering	1	-	1
	Farm Power & Machinery	1	1	1
	Soil Water Conservation	1	-	-
PHT	Process and	2	-	2

	Engineering			
	Total	5	1	12

6.5.2.3. Credentials of the Faculty:

All faculty members of the college are PhD holders. The college has adequate proportion of experienced and young faculty members. Many faculty members in the college have received awards for their excellence in teaching and research activities. The details of qualification, experience and professional licensure and certification and demonstrated competencies are detailed in Annexure **6.5.2.3.**

6.5.2.4. Technical and Supporting Staff:

The technical staff and other supporting staff of College of Agricultural Engineering and Post-Harvest Technology are being attached with the Dean's office for administrative, convenience and being allotted to other departments whenever need arise. Other than these staffs some Skilled and Unskilled labours are hired on contractual basis by the College of Horticulture. The administrative and accounts staff are centralized in the college and are operating under the direct control of the Dean as part of Dean's office.

6.5.3. Learning resources:

Learning resources like books, photos, life specimen and audio-visual aids like power-point presentation, videos are used to assist the students to meet the expectation for learning defined by ICAR recommended curriculum.

Faculties are provided with computers to access the online open coursework and online portal to use it for the curriculum delivery. Faculty members access various resources for use in teaching, research and extension activities. Students are also encouraged to access various softwareapplications in agriculture.

6.5.3.1 College Library (digital):

The College of Horticulture is presently utilizing the facilities of the library of College of Agricultural Engineering & Post-Harvest Technology, Ranipool.

Fig.9. The Library at College of Agricultural Engineering & Post-Harvest Technology		
1.	Present staff	• 1 Senior Library Assistants • 1 Library Assistants • 3 Multi-tasking Staffs
2.	Availability of Wi-fi	• Wi-fi facilities are available in the library with a band width speed of 1GBps from NIC-NKNnetwork.
3.	Books	• For College of Horticulture: **2058 books** • For College of Agricultural Engineering and Post-Harvest • Technology: **7831 books**
4	Other reading materials	• National and local newspaper such as Dainik Jagran (Hindi), The Telegraph, The Times of India,Sikkim Express (English), Hamro Prajashakti (Nepali) etc. • Magazines like India Today, Down To Earth, Pratiyogita Darpan, Civil Services Chronicle, Kurukshetra, Yojana, Agriculture Today, • Economics and Political weekly.
5	Research Journals	• Students and faculty can access journals • through online portal of CeRA, ICAR.
6	Internet with computers	• Two
7	Sitting capacity	• 28 numbers
8	Latest technology in library	• KOHA LMS is being used for Library Automation in CAEPHT Library. Necessary steps have been initiated for accessing online journals and study materials at Electronic Resource Management package for e-journals access through CeRA (Consortia for e-Resources in Agriculture)
9	Stocking arrangement	• Book stocks arranged as per the DDC21
10	Operating hours	• 10.00 AM to 05.00 PM
11	Books available in COH	• Horticulture, Crop Physiology, Plant Biotechnology Genetics and Plant Breeding, Entomology, Microbiology, Agronomy, Plant Pathology, Crop Physiology, Soil Science & Ag. Chemistry, Agroforestry, Ecology, Text book of Advanced Pomology, Plant Biotechnology, Plant Biochemistry, Ag. Economics, Ag. Extension, Statistics, Computer Application & IPR, Botany, Floriculture, Pest management in vegetables, • Handbook of Beekeeping.

6.5.3.2. Laboratories, Instructional farm, Workshops, Dairy Plant, Veterinary Clinic,Hatchery, Ponds etc.:

The College of Horticulture is presently utilizing the laboratory facilities of CAEPHT campus and farms of the College of Horticulture, Bermiok. The laboratories of CAEPHT, Ranipool campus of all departments are well equipped and COH, Bermiok students are available for utilization when needed. All basic chemicals and instruments are available for doing practical and research work in all the laboratories. The farm facilities, workshops and other instructional units are well designed to meet the course curricula and research requirements (Fig. 9, 10, 11,12,13, 14). Total area of 6 hectare land available for garden and farms in Bermiok.

Fig.9. High Tech Poly House in Bermiok campus

Fig.10. Students preparing land in Bermiok Farm

Fig. 11. Students during Practical class in Basic Science Laboratory at CAEPHT, Ranipool

Fig.12. Students during Plant Biochemistry Practical class at CAEPHT, Ranipool

Fig. 13. Mandarine in Reasearch Farm in Bermiok	Fig.14. Sweet Orange in Farm in Bermiok

Farm Facilities

- Availability of Farm equipment viz. Brush cutter
- All the essential garden tools viz. Hedge shear, Pruning Secateurs, Digging trowel, water cane, Pruning and budding knife, Khurpi, spade, garden rake, measuring tape and Hand sprayers etc. are available for maintaining the farm
- The Low-cost poly-houses and Hi-Tech Greenhouse has been established in the farm for growing various seasonal and annual vegetables
- Availability of water supply to the farm
- Development of demonstration farm cum research block for vegetable, spice crops and flower where the practical work can be done smoothly.
- Development of Orchard for demonstration of practical classes for fruit crops.

6.5.3.3. Student READY/ In-Plant Training / Internship / Experiential Learning Programmes: Yes

Student READY Experiential Learning (Professional Package) will be for the duration of 20 weeks and Student READY Programme will be taken up during semesters VII and VIII.

All the guidelines given by ICAR for Student READY Experiential Learning is strictly followed by the college (Fig. 15, 16, 17,18)

Student READY was first implemented in the year 2018-19. The Rural Horticulture Work Experience Programme (RHWEP), Industrial Attachment (IA) and Experiential Learning Programme (ELP) are under the Students READY Programme for B.Sc. (Hons.) Horticulture. Through this programme, students are given hands on experience and practical training in horticulture and allied areas. The programme helps to develop confidence, skills and to acquire knowledge of horticultural systems. RHWEP is organized for every year for the undergraduate students of College of Horticulture in the 4th Year, 1st semester of every academic session the with a credit load of 0+10. It provide opportunities to the students to study the rural agricultural system through direct farm experiences by personally visiting the farms and interacting with the farmers. The students also gain experience and knowledge about the extension activities carried out by the Govt. and private agencies and non-governmental organizations. The students undergoing the programme are expected to learn different components of agriculture and allied activities, conduct method demonstration and training, organize exhibition and prepare reports on their experiences gained. The students are expected to learn day to day farming activities of farmers and general village conditions during their stay at the villages.

Fig.15. Students during 2019 RHWE Program

Fig.16. Students during 2020 RHWE Program

Fig.17. Students during IA Program

Fig.18. Students during ELP Program

The IA programme (credit load of 0+10) provides hands on training to students about the managerial and commercial aspects of Horticultural products. The students are placed in Agro food industries, food processing unit, fertilizer industries, bio-fertilizer production units, vermicomposting units, etc. These help the students in gaining practical knowledge and experiencefirst-hand in industry.

ELP profit sharing Mechanism:

50% of the profit will be distributed among the final year students. Faculty share will be 10% of the profit, faculty includes teaching and non-teaching staff responsible for conducting of hands-on training programme. CAU, Imphal will get 20% of the profit and which will be included in the central training fund of the university. Associate staff including ministerial staff and ClassIV will share the 10% of the profit. Remaining 10% of the profit will be utilized for the development of facilities by head of the institution.

Table: ELP Profit sharing Year-wise.

Profit sharing for the year 2019-20.	
Particulars	**Amount (Rs.)**
Total Earning	27291.00
Share to College of Horticulture, Bermiok account	13505.00
Share to CAEPHT, Ranipool account	13789.00
Profit sharing for the year 2020-21.	
Total Earning	12535.00
Cost of production	5520.00
Net profit	7015.00
Students share 50% of 7015.00	3507.50
Per student share	3507.5/5= 701.5
University's share 20% of 7015.00	1403.00
Faculty's share 10% of 7015.00	701.50
Associate staff's share 10% of 7015.00	701.50
College 10% of 7015.00	701.50
Amount to be deposited in the college [20% (Univ) +10% (Asso)]	1403.00+701.50+ 701.50 =2806.00

DETAIL WORK OUT PLAN FOR STUDENT READY

Semester-VII

S.N.	Course Title	Credit Hours
1	STUDENT READY- Placement in Industries	0+10
2	STUDENT READY- Horticultural Work Experience	0+10
	Total	**20(0+20)**

S.N.	Student READY Programme Schedule	Duration
1.	Orientation programme	2 weeks
2.	Industrial placement	4 weeks
3.	Village stay-Horticultural work experience	12 weeks
4.	Report writing & Final Examination	3 weeks
5.	All India Study Tour	3 weeks
		24 weeks

- Study tour will be conducted during semester break

Semester-VIII

S.N.	Course Title	Credit Hours
1	Experimental Learning programme	**20(0+20)**

Experimental Learning programme: A student has to register 20 credits opting for two modulesof (0+10) credits each (total 20 credits) from the package of modules in the VIII semester

Sl. No.	Title of the module	Credits
1.	Commercial horticulture	0+10
2.	Protected cultivation of high value Horticulture crops	0+10
3.	Processing of fruits and vegetables for value addition	0+10
4.	Floriculture and landscape architecture	0+10
5.	Bio-inputs: Bio-fertilizers and bio-pesticides	0+10
6.	Mass multiplication of plant and molecules through tissue culture	0+10
7.	Mushroom culture	0+10
8.	Bee keeping	0+10

6.5.3.4. Curricula Delivery through IT (smart class rooms/interactive board etc.):

At present, the teachers and students are accessing the smart classrooms of College of Agricultural Engineering and Post-Harvest Technology. There is a provision of construction of Smart class in College of Horticulture, Bermiok Campus and it will be avail to the students after shifting to the Bermiok Campus.

6.5.4. Student Development:

6.5.4.1. Student Intake and Attrition:

The College presently offers only Under Graduate Programme in Horticulture *i.e.* B.Sc. (Hons.) Horticulture which is of 4 years duration. The annual intake of students to the college at UG level has increased since the inception of the university.

Year	Intake capacity	Actual students admitted	Attrition
2015-16	20	15	-
2016-17	20	20	-
2017-18	20	19	-
2018-19	22	16	-
2019-20	22	19	-

6.5.4.2. Average Number of Students in Theory and Practical Classes: Mention the Degree

Year	B.Sc. (Hons) Agriculture	
	Batch of students in theory class	Batch of students in practical class
2015-16	15	15
2016-17	20	20
2017-18	19	19
2018-19	16	16
2019-20	19	19

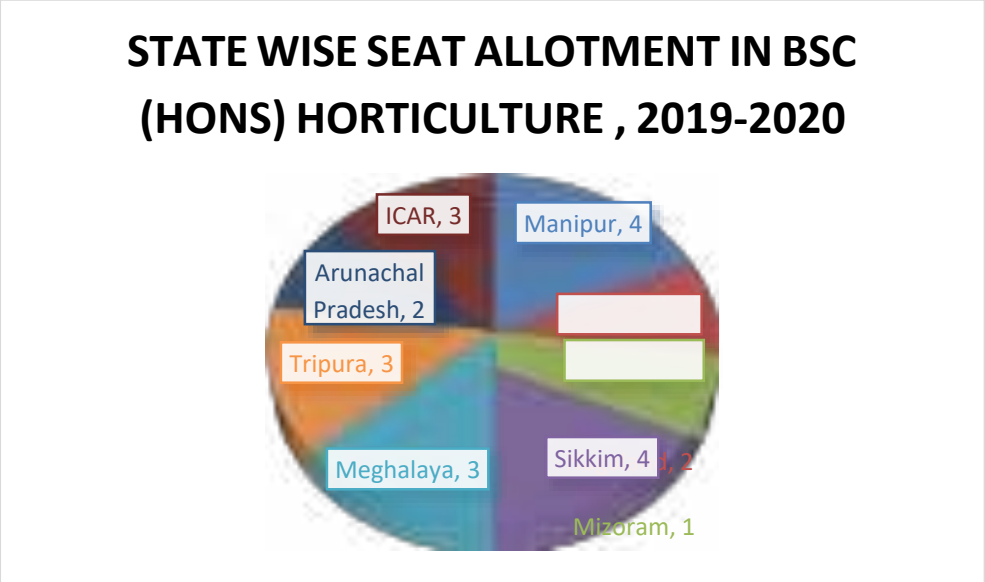
6.5.4.3. Admission Process:

Admission requirement

- The candidates should have passed 10+2 examination with English as one of the subjects of study. The candidates much have attained 17 years of age on 31st December in year of admission. The selection or nomination of candidates is done through National Eligibility cum Entrance Test (NEET) conducted by the National Testing Agency (NTA) or through state common entrance exam. Students seeking admission to the above degree programme shall be permanent resident or domicile of any one of the north eastern states of India *i.e.*, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. The number of students to be admitted for

each of the north eastern states is notified by CAU from time to time

- The candidates to be sponsored for admission shall be from the merit list based on the entrance test
- 15% of the approved number of seats in the UG programme shall be filled by the candidates selected on the basis of All India Entrance Test conducted by ICAR or as amended from time to time by ICAR. The ICAR nominees shall be governed by the eligibility as prescribedby ICAR



Date of admission

- The date of admission to a bachelor's degree programme shall be as per the announcement made in the prospectus or academic calendar or semester calendar which is duly notified by the Registrar**,** CAU

Registration process

- On admission, a student is provided four copies of registration cards having different colours; one for the student, one for the advisor, one for the Dean and one for the Registrar which is filled up and registered for the prescribed process for the first semester. The registration card shall be signed by the student, his advisor, Assistant Registrar (academic) and countersigned by the Dean of the college.
- On admission and registration, the students are provided with college identity cards with his/her photograph. The identity card is returned to the college by the students when the students leave the college after completion or discontinuation of the course.
- Newly admitted students are given an admission number by the Dean of the college. This admission number is valid till individual registration number is allotted by the Registrar, CAU to the students
- An orientation programme is organized by the Dean of the college for the benefit of the newly admitted students immediately at the beginning of the first semester

6.5.4.4. Conduct of Practical and Hands on Training: Yes

The practical classes is being conducted every day for minimum of two hours for each subjects

Fig. 19. Students during practical classes

Presently, the college is camped at College of Agricultural engineering and Post-harvest Technology, Ranipool of the constituent college of Central Agricultural University, Imphal. Therefore, it is utilising the facilities available at the camped college for conducting the practical for all the courses needed at the Basic sciences laboratory. Field/ orchard visit for identification and practical of horticultural crops were done at the orchard, vegetable and floriculture block. As needed the students are taken to nearby institutes like ICAR-National Research Centre-orchids, Pakyong, Sikkim, Model Floriculture, Govt. Of Sikkim, Temi Tea Garden and ICAR-NOFRI, Tadong, Sikkim for acquiring the requisite practical knowledge.

6.5.4.5. Examination and Evaluation Process:

The college strictly adheres to the examination and evaluation system as recommended by the Vth Deans' Committee. As such, the college follows Uniform Grading system with uniform OGPA requirements for award of degrees at all levels. A uniform conversion formula is followed for declaration of Ist, IInd and IIIrd divisions, distinctions etc.

Examination

Semester system is being followed for UG programmes and evaluation is given weightage as50% internal and 50% external.

Courses with Theory and Practical

- Mid-term Exam (30%) + Assignment (5%) in practical oriented courses + Practical (15%)

Courses with only Theory

- Mid-term Exam (40%) + Assignment (10%)

Courses with only Practical

- 100% Internal

Keeping this in view, the schedule and weightage to different examination are as follows:

Particulars	Course credits									
	2+1		1+1/2+2		1+2		1+0/2+0		0+1/0+2	
	T	P	T	P	T	P	T	P	T	P
Mid-term exam	30	-	30	-	30	-	30	-		
Quiz/Continuous evaluation	20	30	20	30	20	30	20	-	-	30
End-term exam	50	70	50	70	50	70	50	-	-	70
Maximum marks	100	100	100	100	100	100	100	100	-	100

* At least 4 number of quizzes are conducted for each course

Duration of exams

Mid-term theory exam	:	1½ hours
End-term theory exam	:	2½ hours
End-term practical exam	:	3 hours

Evaluation

- The evaluation of students' performance is achieved by conducting Quizzes of 20 marks (Internal), Mid-Term Examination of 30 marks (Internal) and End-Term Examination (External) of 50 marks. The practical examination consist of 100 marks.
- The questions and answer scripts for quiz and Mid-term examinations are set and evaluated by concerned course teacher.
- The questions and answer scripts for End-term examinations are set and evaluated by external examiners selected duly from a list of panel members by the competent authority.

Degree	Percentage of Marks Obtained	Conversion into Points
B.Sc. (Hons.) Agriculture	100	10 Points
	90 to <100	9 to <10
	80 to <90	8 to <9
	70 to <80	7 to <8
	60 to <70	6 to <7
	50 to <60	5 to <6
	<50 (Fail)	<5
	Example 80.76	8.076
	43.60	4.360
	72.50 (but shortage in attendance)	Fail (1 point)

The following ranking pattern is adopted to award the degrees:

OGPA	Division
5.000-5.999	Pass
6.000-6.999	II division
7.000-7.999	I division
8.000 and above	I division with distinction

GPA, CGPA and OGPA are calculated as follows:

GPA	=	Total points scored / Total credits (for 1 semester)
CGPA	=	∑ Total points scored / Course credits
OGPA	=	∑ Total points scored (after excluding failure points)/ Course credits
Percentage of Marks	=	OGPA × 100/10

6.5.4.6. NCC/NSS/RVC Units:

NSS unit in the college is operational since 2015 under the guidance of Student Welfare officer. The unit is doing various activities like cleaning and sanitation of the college laboratories, campus and classroom from time to time. Planting of trees, hedges and other ornamental crops is also undertaken as part of the programme. Demonstration from the fire safety regulators and giving first aids in case of any calamities are being held for the students.

Fig.20. Students during NSS Classes

6.5.4.7. Language Laboratory:

A language laboratory is constructed at CAEPHT, Campus under NAHEP-IDP Project which is accessible to the students of College of Horticulture, Bermiok.

6.5.4.8. Cultural Centre:

The college has a Student Activity Centre which is exclusively empowered to explore and equip the students for multi-varied cultural activities. The Cultural Committee is formed comprising of faculties, staff and students along with the Student Welfare Officer of the College. Different types of clubs' function under the Committee such as the Music, Theatre, Literary and Fine Arts.

Fig. 21. Students Performing Mime in College

6.5.4.9. Personality Development:

Besides the four compulsory courses under the Dean's Committee syllabus which cater to the overall personality development of the students, the College of Horticulture invites renowned achievers from the different places to interact with students for motivational talk and experience sharing.

Under NAHEP-IDP project of CAEPHT, Ranipool several online personality development and entrepreneurship is being conducted and students of COH, Bermiok is also participated in the same.

6.5.5. Physical facilities:

6.5.5.1. Hostels:

The infrastructure of College of Horticulture *viz*., academic block, administrative block, separate hostels for boys and girls (transit hostel) *etc*. are under construction at the allotted site and major works are nearing completion (Fig. 21, 22, 23, 24, 25, 27, 28)

Particulars	Plinth Area (Sq. m)	Number of rooms	Remarks
Boys Hostel	1988	21	Under construction at College Horticulture, Bermiok, South Sikkim
Girls Hostel	2146	21	Under construction at College Horticulture, Bermiok, South Sikkim

- At present Girls & Boys Hostel is temporary camped at CAEPHT, Ranipool with full strength of 42 (Girls) & 22 (Boys)

Fig. 21. Academic Building

Fig. 22. Administrative Building

Fig. 23. Girls Hostel

Fig. 24. Boys Hostel

Fig. 25. Transit Hostel

Fig. 26. Prefabricated Girls Hostel

Fig. 27. Prefabricated Boys Hostel

Fig. 28. Prefab Admin/Acad. Building

Basic medical facilities are centrally available at the Medical Unit of the college where basic medical amnesties such as antipyretics, antibiotics, antidiarrheal etc. are available. Also, facilities for I.V. injections and fluids and suture needles and materials are available for minor suturing. First aid kits are issued to all hostels. Time to time health awareness campaigns are organized by the NSS units. Medical experts are invited to deliver special lectures on self-hygiene, tobacco and its toxicity,nutritious foods for healthy living etc.

6.5.5.2. Examination hall:

Since the College of Horticulture is under construction, the examination halls of CAEPHT, Ranipool are utilized for conducting exams for the students of College of Horticulture. Separate exam halls are unavailable and hence normal classrooms are rearranged as exam halls during the time of exam, the details of which are:

No. of classrooms	:	4
Capacity	:	Varied capacity ranging from 20-40 sitting capacity
Facilities available	:	Chairs, writing desks, electrical fans and lights
Amenities	:	Washroom, wash basin and running water

6.5.5.3. Sports and Recreation Facilities:

The students are provided with all types of physical exercises during the classes and in physical experience class to keep them physically fit and healthy. In addition, the skill development in any one of the games such as badminton, volleyball, football, cricket, table tennis and athletics is contemplated in the physical education programme. Maintenance and cleaning of the ground are regularly done for use by the students. Matches are conducted for the students during the annual sports day and intercollege meets or any other specific days such as the Foundation Day, Republic Day etc. to improve and maintain their skills using ground facilities. Indoor games such as carom, chess, badminton and table tennis are also available.

Fig. 29. Best Cultural Parade Team and 1st Runner's Up in Youth Festival 2018

Fig. 30. 2nd in Cultural Parade During Youth Festival 2019

6.5.5.4. Auditorium:

Fig. 31. Auditorium of CAEPHT

The auditorium under College of Horticulture is under construction at the allotted site. The college is presently utilizing of the auditorium present at College of Agricultural Engineering and Post-Harvest Technology. The details of the auditorium at CAEPHT are as follows:

Does the college have auditorium	Yes
Year of construction and sitting capacity	2013; 300 number sitting capacity
How frequently the auditorium is used andpurpose for being use	• College Day (Once a year) • Republic Day (Once a year) • Foundation Day (Once a year) • Independence Day (Once a year) • Inauguration programmes (Numerous times a year) • National and International workshops (Numerous times a year) • Invited Lectures (Numerous times a year) • Teachers Day • Fresher's Day

6.5.5.5. Exhibition Hall/Museum:

Agricultural Technology Information Centre (ATIC) is functional at the site of the college. The centre is accessible to all the visiting officers, farmers and students. Sixteen leaflets and nine flexes were put on displayed containing information regarding the organic practices of various

horticultural crops viz., Sikkim mandarin, large cardamom, anthurium, tomato etc. Models of protected cultivation, different garden types prepared by the students were also displayed. Specimens of insects were also collected and displayed.

The college is also utilizing the ATIC of CAEPHT. Different farmers training, lectures and seminars are organised in the conference hall of the ATIC. Different leaflets and different tools and implement are available in the museum.

6.5.6. Research Facilities

6.5.6.1. Postgraduate Laboratories and Equipment's:

Currently college is offering only Under Graduate Programme.List of equipment available in college are as follows:

Sl. No.	NAME	QUANTITY
1.	Analytical Weighing Balance	02
2.	Weighing balance	01
3.	Electrical Conductivity meter	02
4.	Rotary Shaker	01
5.	Water Bath	01
6.	Automatic Nitrogen Digestion & Distillation System	01
7.	Compound Microscope	04
8.	Trinocular Microscope	01
9.	Flame Photometer	01
10.	Leaf Area Meter	01
11.	Horizontal Laminar Air Flow	01
12.	pH Meter	02
13.	Magnetic Stirrer	02
14.	Centrifuge	01
15.	Double Distillation Unit	01
16.	BOD Incubator	01
17.	UV-VIS Spectrophotometer	01
18.	Magnus Monocular Microscope	04
19.	Dissecting Microscope	01
20.	Olympus Trinocular Microscope	01
21.	Hot Plate	01
22.	Soil-Tensiometer (Irrometer)	07

23.	GPS	01
24.	Digital refractometer	01
25.	Laminar Air Flow	01
26.	Gel doc	01

Apart from these instruments food processing technology laboratories, farm power machineries, soil and water conservation laboratories, etc are utilised by College of Horticulture.

6.5.6.2. Research Contingency:

As the College of Horticulture is presently offering only one under graduate programme in Horticulture, the funds received from CAU are used for conducting undergraduate educational activities, especially for practical classes, wherever applicable. Adequate funds are available for meeting the recurring expenses incurred during the education programme. The year wise funds received for various education related activities are as follows:

Year	Particulars	Amount (in Lakhs)
2016-17	Experimental farms	5 lakh
2017-18	Experimental farms	30 lakh
2018-19	Experimental farms	28.4 lakh
2019-20	Experimental farms	30 lakh

6.5.7. Outcome/Output

The College of Horticulture takes paramount interest in the performance of its students in the field of studies, sports, other extracurricular activities, employment and career growth. Alumni of the University are regularly consulted to get feedbacks on employment, performance in competitive exams, job selection process etc.

6.5.7.1. Student Performance in National Examinations: List of ICAR – JRF Holders, 2019

Sl. No.	Name of the student	Discipline	ICAR- JRF RANK	Seat Allotted
1.	Ms. L. Mashine	Horticulture	UPS-9, ST-24	MPKV, Rahuri Horticulture

List of ICAR – JRF Holders, 2020

Sl. No.	Name of the student	Discipline	ICAR- JRF RANK	Seat Allotted
1.	Mr. Brendon Lalchawimia	Physical Science	ST-5	IARI, New Delhi Agricultural Chemicals

2.	Ms. Rajshree Chand	Plant Biotechnology	AIR-53	PAU, Ludhiana Plant Biotechnology
3.	Ms. Tingku Soram	Plant Science	UPS-6	Dr. RPCAU, Pusa Plant Breeding & Genetics
4.	Ms. Daffylabeth L. Chyne	Horticulture	UPS – 8, ST-18	PAU, Ludhiana Olericulture
5.	Ms. Losa Lajeo	Horticulture	ST-27, UPS-14	VNMKV, Prabhani Olericulture

6.5.7.2 Students Placement Profile:

Most of the students graduating from College of Horticulture are placed in academics/research institution for pursuing higher education in India and abroad.

Name of the student	Exam qualified	Alloted seat
Mr. Amiya Das	CAT	IRMA, Anand, Gujarat

6.5.7.3. Awards/Recognitions/Certificates: Annexure **6.5.7.3**

6.5.7.4. Employability:

The students are acquainted with hands on practical for processing and value addition of horticultural crops. Interactive sessions with entrepreneurs of the region are being held time to time. This allows the students to start up an enterprise at their own level.

The students are also furnished with knowledge both in theory and practical in production technology and various practices of horticultural crops.

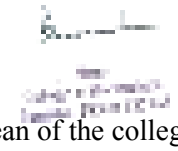
One alumni of the college Mr. Jesonkere Sutnga of Meghalaya have started broom grass farm since 2019, he have got a good return and continuing the business. Besides these he got admission for M.Sc. Agril. Entomology in SASARD, Nagaland University from this academic session 2020-2021.

Fig.32. Harvesting of Broom Grass and curing done by Mr. Jesonkere Sutnga in Jaintia Hills, Meghalaya

6.5.8. SSR of the College must have the SSR of all its Degree Programmes (following section 6.4),then the report of the Colleges shall be considered.

6.5.9. Certificate (Applicable when SSR is submitted for Programmes & College).

I, the Dean Prof. P.P.Dabral hereby certify that the information contained in Sections 6.4 and Section 6.5.1 to 6.5.7.4 are furnished as per the records available in the college and degree awardinguniversity.



Signature of the Dean of the college with Date & Seal

ANNEXURE 6.5.2.3

College of Horticulture, Bermiok, Sikkim

Sl. No.	Name and designation	Highest qualification and Department	Year	Related work experience in the field	Award/ recognition/certificate	Experience in other areas
1	Dr. Diggangana Talukdar Assistant Professor	Ph.D (Agri) Plant Pathology	2015	Pathogenic variability and epidemiology of Alternaria blight of Rapeseed and Mustard	• Merit award on poster presentation – 2013 • Second prize in oral presentation – 2014 • Best poster award- 2016 • Nominated for Prof. M.J. NarasimhanMerit Academic Award- 2016 • Young Scientist award ICFA – 2018 • Young Scientist Awardn NEE congress - 2018	• Mycology, Molecular plant pathology, epidiomology • SRF in DBT (extramural project) for 1 year1 month
2	Dr. Dipika Sarmah Assistant Professor	Ph.D (Hort) Floriculture & Landscaping	2016	*In-vitro* cloning of *Phalenopsis*	• Assam Agricultural University under-graduate merit scholarship (2006-2010) • Assam Agricultural University Post–graduate merit scholarship (2010-2012) • Second prize poster presentation - 2013	Production technology of flowers, Plant tissue culture

3	Dr. Pukhram Bhumita Assistant Professor	Ph.D (Agri)Entomology	2016	Bio-ecology of Erythrina gall wasp (EGW), *Quadrastichus erythrinae* Kim. (Hymenoptera: Eulophidae), a new aggressive and invasive gall inducing pest in India".	• Central Agricultural University merit Scholarship (2008 -10) • BCKV, University Research Fellowship (2011-2014) • Second prize in shashya suraksha yuva pratibha award- 2016 • Eminent scientist award-2018 • Young entomologist award-2020 • Third Prize in Oral presentation- 2020	Economic entomology, Taxonomy,
4	Dr. Yamuna Pandey Assistant Professor	Ph.D (Hort) Fruit Science	2019	Nutraceuticals Potential of Underutilized Fruits ofSikkim	-	• Production technology and Breeding • RA in National Horticulture Mission Project for 11 months • JRF in BARC project on Irradiation Technology for 6 months • Technical Officer in ICAR- GKMS

						Project for 3 months
5	Dr. Sapam Rajeshkumar Singh Assistant Professor	Ph.D (Agri) Plant Breeding and genetics	2018	Evaluation of Lentil (Lens culinaris L) germplasm under low input acidic soil conditions of North east India	• ICAR-NTS scholarship-2006 • Jawaharlal Nehru Memorial Fund scholarship for Doctoral studies-2016	Biotechnology, Agricultural statistics, plant tissue culture, plant physiology
6	Dr. Haobijam Sanjita Devi Assistant Professor	Ph. D. (Biochemistry)	2019	Chronobiological study	• CSIR-UGC-JRF Fellowship • CSIR-JRF Fellowship	Circadian rhythm and melatonin, Molecular biology, Project Assistant at IISc Bangalore for 9 months

Experience in teaching/research/extension
Teaching

Sl. No.	Name and designation	Institution	Details (UG/PG)	Duration	Total experience
1	Dr. Diggangana Talukdar Assistant Professor	College of Horticulture (CAU-I), Bermiok, Sikkim	Taking all the UG courses of plant pathology and environmental science course of COH, Bermiok and general microbiology, food microbiology, industrial microbiology and food safety courses of CAEPHT, Ranipool	18.08.2016 to till date	4 years 4 months
2	Dr. Dipika Sarmah Assistant Professor	School of Agriculture, Centurion University of Technology and	Took UG courses of both the subject of Floriculture and Fruit science	28.12.2015-31.8. 2017	1 year 8 months

		Mangaement, Odisha			
		College of Horticulture (CAU-I), Bermiok, Sikkim	Taking all the UG courses of Floriculture and Landscaping department	04.09.2017 to till date	3 years 3 months
3	Dr. Pukhram Bhumita Assistant Professor	College of Horticulture (CAU-I), Bermiok, Sikkim	Taking all the UG courses of Entomology, environmental science, organic farming of COH, Bermiok Horticulture and plant protection of Agri-Engineering course and environmental science of Food technology course	11.08.2016 to till date	4 years 4 months
4	Dr. Yamuna Pandey Assistant Professor	Sikkim University Department of Horticulture	Took UG courses of agronomy and soil science	03.08.2015-16.12.2015	5 months
		College of Horticulture (CAU-I), Thenzawl, Mizoram	Took all UG courses of fruit science and spice and condiment course	18.09.2017-20.12.2019	2 years 3 months
		College of Horticulture (CAU-I), Bermiok, Sikkim	Taking all UG courses of fruit science	23.12.2019 to till date	1 year
5	Dr. Sapam Rajeshkumar Singh Assistant Professor	College of Horticulture (CAU-I), Thenzawl, Mizoram	BSH-115, BSH-123, BSH-211, FSC-222, VSC-311, VSC-321 & FLS-322	30.08.2016-22.12.2019	3 years 4 months

		College of Horticulture (CAU-I), Bermiok, Sikkim	Taking all UG courses of breeding and genetics	23.12. 2019 to till date	1 year
6	Dr. Haobijam Sanjita Devi Assistant Professor	College of Horticulture (CAU-I), Bermiok, Sikkim	Taking all the UG courses of biochemistry andphysiology	30.12.2019 to till date	1 year

Research

Sl. No.	Name and designation	Institution	Details of work done	Duration	Remarks
1	Dr. Diggangana Talukdar Assistant Professor	ICAR, NEH, Umiam, Borapani	• *Phytopthora*, *Fusariam* and *Ralstonia* diseases of Horticultural and field crops" in Plant Pathology Division. • Evaluation of antagonistic potential fluorescent pseudomonas species against bacterial wilt pathogen	05.06.2015 – 01.07.2016	1 year 1 month
		College of Horticulture (CAU-I), Bermiok	Research focus on organic management of fruit and spice crops and IDM	18.08.2016 to till date	4 years 4 months

2	Dr. Dipika Sarmah Assistant Professor	College of Horticulture (CAU-I), Bermiok	Research focus on - • Standardization organic cultivation practices of flowers under protected condition. • Collection, evaluation and characterization of gladiolus varieties suitable for Sikkim • Standardization of post harvest management of flowers	04.09.2017 to till date	3 years 3 months
3	Dr. Pukhram Bhumita Assistant Professor	College of Horticulture (CAU-I), Bermiok, Sikkim	Research focus on beekeeping and IPM	11.08.2016 to till date	4 years 4 months
4	Dr. Yamuna Pandey Assistant Professor	ICAR Research complex for NEH Region, Sikkim Centre.	• CCS technology mission for integrated development of horticulture in NEH region • Year round vegetables production under low cost plastic rain shelters • Biochemical analysis of fruits and vegetables • Nursery management of horticultural crops • Reproduction technology of strawberry, kiwifruit and Sikkim mandarin	02.09.2013-31.07.2014	11 months
		Sikkim University	• Extension of shelf life of indigenous fruits of Sikkim by irradiation technology for	01.09.2016-28.02.2017	6 months

			livelihood security under DAE funded project		
		College of Horticulture (CAU-I), Bermiok	Research focus on quality planting material production and value addition of fruit crops	23.12.2019 to till date	1 year
5	Dr. Sapam Rajeshkumar Singh Assistant Professor	College of Horticulture (CAU-I), Thenzawl, Mizoram	Enhancing Socio- economic status and livelihood security of tribal Farmers of Northeast Hill state through Agriculture Intervention (Tribal sub Plan Implementation in Mizoram)	30.08.2016-22.12.2019	3 years 4 months
		College of Horticulture (CAU-I), Bermiok	Research focus on - • Collection, characterization and evaluation of chayote of NE region • Collection, characterization and evaluation of dalle • Collection, characterization and evaluation of chilli with special reference to dale • Exploration, collection, documentation ofunderutilized and wild vegetables of Sikkim • Collection, characterization and evaluation of large cardamom available in Sikkim of Himalayan region	23.12.2019 to till date	1 year

6	Dr. Dr.Haobijam Sanjita Devi Assistant Professor	Indian Institute of Science, Bangalore	Actin protein isoform switching during developmental stage in Zebrafish	01.10.2010-30.06. 2011	9 months
		College of Horticulture (CAU-I), Bermiok	Involved in research activities in the field of Horticulture	30.12.2019 to till date	Identified bioactive compounds from a wild edible plant extracts found in Manipur

Extension

Sl. No.	Name and designation	Institution	Details of work done	Duration	Remarks
1	Dr. Diggangana Talukdar Assistant Professor	College of Horticulture (CAU-I), Bermiok	• As a resource person in 5 days capacity building programme on (integrated farming system for sustainable agriculture) for Agricultural/Extension Officers, Directorate of Agriculture and Food Production, Govt. Of Odisha, Bhubaneswar during September, 2016 • As a resource person in 1day off campus training programme on use of plastics on protected organic cultivation in Sikkim, CAEPHT (CAU. Imphal), Ranipool, Sikkim held on Tashiding Vilage, Arithang, West Sikkim, 2017 • As a resource person in three days programme i.e., Quality Production of Mushroom, during 19- 21 January, 2017 at ATIC, CAEPHT, Ranipool, Gantok (Sikkim)	18.08.2016 to till date	4 years 4 months

			• Organized awareness programme on "Management of important diseases of Horticultural crops at Assam linzey, Sikkim – 2020 • As a resource person in training program onOrganic Farming under Agricultural Skill Council of India (ASCI) Organic insect-pest management of oilseed and pulses "ICAR, NOFRI, Sikkim – 2020 • Published three leaflets *viz*, Important diseases of Large Cardamom (*Amomum sublatum*) in Sikkim and its Management, • Important diseases of Turmeric (Cucuma longa L) in Sikkim and its management, • Important diseases of Mandarin (*Citrus reticulate*) in Sikkim and its management. • Training leaflet on management of important diseases of horticultural crops.		
2	Dr. Dipika Sarmah Assistant Professor	College of Horticulture (CAU-I), Bermiok	• Organized one day hands on training programme on production technology of Gerbera and carnation flower at Assam Linzey, Sikkim – 2020 • As a resource person in three days off campus training programme on disease Management for Tomato & Capsicum in Green House under organic management" organized by All India Coordinated Research Project on Plastic Engineering in Agriculture Structure &	04.09.2017 to till date	3 years 3 months

			Environmental Management (CAEPHT,CAU), Gangtok centre at Assam Lingzey, East Sikkim 2020 • Published leaflets *viz*. Package and Practices of growing of anthurium (*Anthurium andreanum*) • Package and Practices of growing of Cymbidium Orchid (*Cymbidium* sp.) • Package and Practices of growing of marigold(*Tagets* sp.) • Taining leflet on production technology ofGerbera • Taining leflet on production technology of Carnation		
3	Dr. Pukhram Bhumita Assistant Professor	College of Horticulture (CAU-I), Bermiok	• Organized one day training cum Field Demonstration on "Fruit fly Infesting Horticultural Crops" at Marchak, West Sikkim 2018 • Organized one day training programme cum Demonstration on "Bee Keeping" at Assam Lingzey, Sikkim- 2019 • Organized one day training cum Field Demonstration on "Important insect pest of horticultural crops & their management" at Assam Lingzey, Sikkim- 2020 • Published leaflets *viz*, Integrated Management of Insect Pest of Large Cardamom (*Amomum subulatum* Roxb.)	11.08.2016 to till date	4 years 4 months

			• Major insect pests of citrus: A Field DiagnosticAid • Major insect pests of tomato (*Lycopersicon esculentum*) and their management • Training leaflet on Bee Keeping and their Importance • Training leaflet on Fruit fly in Horticulture Crops • Training leaflet on Important pest of Horticultural crops and their Management		
4	Dr. Yamuna Pandey Assistant Professor	ICAR Research complex for NEH Region, Sikkim Centre	• Extension folder on offseason Vegetable Production under Low Cost Plastic Rain Shelters. ICAR Research Complex for NEH Region Sikkim Centre, Tadong, Gangtok- 2014	02.09.2013- 31.07.2014	11 months
		College of Horticulture (CAU-I), Thenzwal, Mizoram	• As a resource person in 3 days training programme titled "Post-Harvest Management of • Horticultural Crops" 46rganized by College of Horticulture, Thenzawl, Mizoram -2018. • As a resource person in the training programme on "Organic Farming Technology" under 'Unnat Bharat Abhiyan' Mizoram – 2018.	18.09.2017- 20.12.2019	2 years 3 months
5	Dr. Sapam Rajeshkumar Singh Assistant Professor	College of Horticulture (CAU-I), Thenzwal, Mizoram	• As a resource person on 5 days Training program on "Cow based Economy, organized by Unnat Bharat Abhiyan, Pandeet Deen Dayal Upadhyay, Mizoram-2017	30.08.2016- 22.12.2019	3 years 4 months

			• As a resource person on 5 days Training program on "Irrigation water Management: Installation and maintenance of Micro irrigation system by SAMETI, Mizoram, Aizawl- 2018 • As a resource person Training program on "Organic Farming Technology" by Unnat Bharat Abhiyan, Pandeet deen dayal Upadhyay, Mizoram- 2018 • As a resource person on 3 days Training program on "Post-Harvest management of Horticulture Crops" COH, Thenzawl- 2018		
		College of Horticulture (CAU-I), Bermiok	• Organized one day Awareness Programme on "Intellectual Property Rights in Plant Breeding"on 5th March 2020	23.12.2019 to till date	1 year
6	Dr. Dr.Haobijam Sanjita Devi Assistant Professor	College of Horticulture (CAU-I), Bermiok	Training focus on nutritive value of horticulture crops.	30.12.2019 to till date	1 year

MTTC & VTC, College of Agricultural Engineering and Post harvest Technology

Sl. No.	Name and designation	Highest qualification	Year	Related work experiencein the field (M.Sc./PhD research topic)	Award/recognition/certificate (Year)	Experience in other areas
1	Dr. Diana Sagolsem Assistant Professor	Ph.D (Agri) Plant breeding and genetics	2017	Identification of High yielding, early maturity small seeded lentil genotypes and their genetic	• Assam Agricultural University under- graduate merit scholarship (2005-2009)	Conventional breeding, molecular breeding, population structure

				analysis using molecular markers	• Departmental topper post-graduate Meri scholarship of Central agricultural university (2009-2011)	
2	Dr. Yumlembam Rupert Anand Assistant Professor	Ph.D (Agri) Plant Pathology	2015	Exploration of plant extracts against some plant pathogenic bacteria and diseases caused by them	• Bidhan Chandra Krishi Viswavidyalaya Resarch Scholarship during PhD- 2012-2015	Research experience on isolation characterization and culturing of beneficiary microbes formsoil. Have in-vivo and in-vitro research experience for the assessment of bio efficacy of anti-microbial activity on economic important crops against plantpathogenic bacteria. Have research experience on different laboratory and molecular techniques in the area of Plant Pathology, Molecular Biology & Biotechnology and Bio informatic tools.
3	Dr. Sunil Kumar Chongtham Assistant Professor	Ph.D (Agronomy)	2013	Effect of crop established methods and weed management practices on weed dynamics and yield of direct seeded rice.	-	• Co-PI of Response of potato to 10:26:26 fertilizer grade (Fortified with Humic acid)- 2014- 2016

4	Dr. S. Vinodh Assistant Professor	Ph.D & PDF (Horticulture)	2019	Studies on optimisation of fertigation schedule for improved growth, yield and quality of asiatic and ot hybrid lilies (*liliumspp.)* Development of novel varieties in crossandra through breeding	• Vallalar Endowment Award - 2007 • The Srilochani Varadarajulu Gold Medal Award for Masters Degree -2008 • ICAR–SRF(PGS) 2010 for full Time Ph. D students • INSPIRE Fellowship – 2010 (2009 -12) • Best Poster Award -2013 • Best Young Scientist Award-2016 • Post-Doctoral Fellowship - 2015-2019	• Production technology of flowers, medicinal and aromatic crops, • Post harvest management of horticultural crops
5	Ms. Mayanglambam Victoria Devi Assistant Professor	M.Sc (Agri. Extension)	2017	Social simulation on assimilation of climate smart agricultural practices in North Eastern hill regionof India	Best paper presentation- Indian Society of Agricultural Economics2017 Best paper presentation, Indian Society of Extension Education- 2017 Best oral presentation, Indian Council of Agricultural Research North Eastern Hill Region, Umiam- 2019 Best Research project in East zone Inter University students Research Convention, 2019-20.	

Experience in teaching/research/extension

Teaching

Sl. No.	Name and designation	Institution	Details (UG/PG)	Duration	Total experience
1	Dr. Diana Sagolsem Assistant Professor	College of Horticulture (CAU-I), Bermiok	Took all UG courses of breeding and genetics courses, biotechnology, crop-physiology, growth development of horticultural crops courses	27.08.2016-23.12.2019	3 years 4 months
		MTTC & VTC, CAEPHT, CAU, Ranipool, Sikkim	Taking UG course of breeding of vegetables and tuber crops	23.12.2019 to till date	1 year
2	Dr. Yumlembam Rupert Anand Assistant Professor	MTTC & VTC, CAEPHT, CAU, Ranipool, Sikkim	Taking UG course of microbiology and nematology	30.12.2019	1 year
3	Dr. Sunil Kumar Chongtham Assistant Professor	MTTC & VTC, CAEPHT, CAU, Ranipool, Sikkim	Taking all UG courses of agronomy	30.12.2019 to till date	1 year
4	Dr. S. Vinodh Assistant Professor	TNU, Coimbatore	Took UG courses of HOR 212, EXP 402, FLG 201FLS 321, PHM 321, PHM 311. PG courses of FLR 603, FLR 604, FLA 504 and Ph.D courses of FLR 803, FLR 813	9.12.2015 to 31.12.2019	4 years
		MTTC & VTC, CAEPHT, CAU, Ranipool, Sikkim	Taking UG courses of Post harvest and medicinaland aromatic	09.01.2020 to till date	11 months
5	Ms. Mayanglambam Victoria Devi Assistant Professor	MTTC & VTC, CAEPHT, CAU, Ranipool, Sikkim	Taking UG course of environmental science	06.06. 2020 to till date	6 months

Research

Sl. No.	Name and designation	Institution	Details of work done	Duration	Remarks
1	Dr. Diana Sagolsem Assistant Professor	ICARDA funded project at BCKV	Collection of germplasm and molecular morphological characterization	01.04.2013 to 01.02,.2016	2 years 10 months
		College of Horticulture (CAU-I), Bermiok	Collection, evaluation and characterization of chayote	27.08.2016 to 22.12.2019	3 years 4 months
		MTTC & VTC, CAEPHT, CAU, Ranipool, Sikkim	Collection, evaluation and characterization of dale	23.12.2019 to till date	1 year

2	Dr. Yumlembam Rupert Anand Assistant Professor	**Bidhan Chandra KrishiViswavidyalaya, Mohanpur, Nadia, West Bengal**	• Involved in planning the field layouts, planting and management of trials. • Handled the field operations, recorded the observations viz. disease incidence, intensity, insect population count, plant height, plant vigour etc. • Observe the occurrence of different diseases, study its causes, symptoms, morphological characters,loses. • Recorded the observations, analyzed data, prepared report and presentations. • Responsible for maintaining the technical correspondence. Deal the account procedures, purchase of necessary entities	**23.07.2014 – 31.07.2015**	1 year

		MahatmaPhule KrishiVidyapeeth, Rahuri, Ahmednagar, Maharashtra	• Data analysed based on ETL of the disease and pest and sending of advisory twice a weekly to the talukas of eight districts under University Jurisdiction. • Observe the occurrence of different diseases, study its causes, symptoms, morphologicalcharacters, loses. • Responsible for maintaining the technical correspondence. Deal the account procedures, purchase of necessary entities. • Conduct Meetings / workshops to educate the pest scouts, pest monitors and the farmers. • Conduct survey / farm visits to Pomegranate growing pockets of Pune, Solapur, Satara, Sangli, Nashik, Dhule, Aurangabad and Ahmednagar for disease and insect pest surveillance, to study the crop status.	24 .08.2015– 31.01.20 17	1 year 5 months
		ICAR RC-NEH Region	• Analysis of the genetic diversity of Musa species/subspecies from North East India and integrated endogenous Badna virus sequences. • Study of co-evolution Characterization, genetic heterogeneity of episomal	21.02.2017 – 29.12.2019	1 year 10 months

			badnaviruses infecting diverse banana genotypes and their quasispecies evolution in North East India.		
		MTTC & VTC, CAEPHT, CAU, Ranipool, Sikkim	Research focus on Mushroom cultivation, viral diseases of large cardamom	30.12.2019 to till date	1 year
3	Dr. Sunil Kumar Chongtham Assistant Professor	SDAU, Dantiwada	-	14.03.2014 - 21.08. 2018	4 years 5 months
		AICRP (Potato), CPRI, Shimla	• Nutrient requirement of newly released potato cultivars • Performance of different potato cultivars under drip irrigation • Develop site specific NPK requirements • Weed management in potato • Role of boron in reducing tuber cracking in processing variety Kufri Chipsona-3 • Optimizing phosphorus requirements of potato under current scenario of P use by the farmers • Development of micronutrient formulation for potato • Potassium requirement of potato under different irrigation methods	2011-2017	6 years

		AICRP (Sorghum), IIMR, Hyderabad	• Fertilizer X Genotype interactionin a rainfed environment (FS single cut) • Optimization of production factor under resource constraints (FS Single cut) • Evaluation of suitable varieties of groundnut with nutrient levels for potato-groundnut system (Rabi-Summer 2016-17	2015-2017	2 years
4	Dr. S. Vinodh Assistant Professor	TNU, Coimbatore	• Fertigation schedule for Asiatic (8:4:10 g NPK/m^2 + micro nutrient mixtures @ 4 g/m^2) and OT hybrid (16:8:20 g NPK/m^2 + micro nutrient mixtures @ 4 g/m^2) Lilium has been standardized for getting better quality of flower stems by growers. • Enhanced preservation of fruits in South Asia Using Nano Film" and assisted in finding the hexanal spray concentration to extend the shelf life of mango fruits after harvesting.	2015-2020	5 years
		MTTC & VTC CAEPHT, CAU, Ranipool, Sikkim	Research focus on organic cultivation of horticultural crop under open and protected condition	9.01.2020 to till date	11 months

5	Ms. Mayanglambam Victoria Devi Assistant Professor	MTTC & VTC CAEPHT, CAU, Ranipool, Sikkim	Research focus on – • Climate Change and Environment studies • Women Empowerment • Information and Communication Technology and its application in Agriculture & rural development • Entrepreneurship and start-ups • Youth and Rural Development	06.06.2010 to till date	6 months

Extension

Sl. No.	Name and designation	Institution	Details of work done	Duration	Remarks
1	Dr. Diana Sagolsem Assistant Professor	College of Horticulture (CAU-I), Bermiok	• Organized One Day Awareness Programme on "Intellectual Property Rights in Plant Breeding" on 5th March 2020. • Published leaflet *viz*. • Package and practices of chayote cultivation in Sikkim • Package and practices of tomato (*Solanum lycopersicum* L) cultivation in Sikkim • Package and practices of Chilli (*Capsicum annuum*) cultivation in Sikkim	2016- 2019	3 years
		MTTC & VTC CAEPHT, CAU, Ranipool, Sikkim	• As a resource person in two Days Off-Campus Training Programme on "Integrated Crop Management Approaches Under Organic Production Systems" from 8th December to 9thDecmebr 2020	23.12.2019 to till date	1 year

			• Organized three Days National Webinar on "Sustaining Organic Farming During and Post- COVID-19" from 3rd August to 5th August 2020 • As a resource person two days Farmers training programme on "Nursery management of cole crops under protected cultivation" from 18th December to 19th December 2020		
2	Dr. Yumlembam Rupert Anand Assistant Professor	MTTC & VTC CAEPHT, CAU, Ranipool, Sikkim	• As a resource person in 1 day Annual workshop on flowers & vegetable cultivation technique under protected condition organized by NHB, Gangtok, Sikkim and CAEPHT, Ranipool, Sikkim- 2020 • As a resource person in three days off-campus training at Assam Lingzey (East Sikkim), by All Indai Cordinated research project on Plasticulture Engineering and technologies, CAEPH (CAU), Gangtok Centre- 2020 • Organized three Days National Webinar on "Sustaining Organic Farming During and Post-COVID-19" from 3rd August to 5th August 2020 • Organized one day webinar on awareness programme against drug problem at CAEPHT, Ranipool - 2020	30.12.2020 to till date	1 year
3	Dr. Sunil Kumar Chongtham Assistant Professor	MTTC & VTC CAEPHT, CAU, Ranipool, Sikkim	• As a resource person in two days Off-Campus Training on "Integrated Crop Management Approaches under Organic Farming Systems" • Organized Three Days National Webinar on "Organic Farming"	30.12.2019 to till date	1 year

			• One Day Farmer Awareness Programme under AMFU & DAMU, ICAR-RC-NEH, Manipur Centre		
4	Dr. S. Vinodh Assistant Professor	TNU, Coimbatore	• Organized two days training programme on "Micro irrigation and precision farming" under GOI sponsored scheme 'Precision farming development centre' operating under AEC & RI, TNAU, Coimbatore in different Districts *viz.*, Coimbatore, Namakkal, Dharmapuri and Trichy, Tamil Nadu • As a Post Doctoral Fellow, I assisted in organizing the EDI sponsored 21 days training programme on "Landscaping and Floriculture" held at the Department of Floriculture and Landscaping, HC & RI, TNAU, Coimbatore • As a Post Doctoral Fellow, I assisted in organizing the 30 days training programme on "Skilling of Gardeners" held at the Department of Floriculture and Landscaping, HC & RI, TNAU, Coimbatore. • Actively involved in Cataloguing and digital documentation of Coffee table book "Flora ofRaj Bhavan, Chennai and Ooty" which was	2015-2020	5 years

			published by the Honourable Governor of Tamil Nadu Sates.		
		MTTC & VTC CAEPHT, CAU, Ranipool, Sikkim	• Organized two days training programme on "Integrated crop management approaches under organic production systems" at Assam Lingzy, East Sikkim, 2020 • Organized two days training programme on "Nursery management of cole crops under protected cultivation" under AICRP on PET operating under CAEPHT, Sikkim, 2020 • Organized three Days National Webinar on "Sustaining Organic Farming During and Post-COVID-19" from 3rd August to 5th August 2020	09.01.2020 to till date	11 months
5	Ms. Mayanglambam Victoria Devi Assistant Professor	MTTC & VTC CAEPHT, CAU, Ranipool, Sikkim	• Organized three Days National Webinar on "Sustaining Organic Farming During and Post-COVID-19" from 3rd August to 5th August 2020	06.06.2020 to till date	6 months

			• As a resource person in two days off-campus training programme on 'Integrated crop management approaches under organic production systems, 2020 • As a resource person in two days online skill development training on gender analysis skills for agriculture and allied sectors		

Annexure 6.5.1.3

CENTRAL AGRICULTURAL UNIVERSITY
IMPHAL, MANIPUR

Dated, the 20th March, 2018

The DCoF
College of Horticulture
Keretok, Thoubal District
Manipur

Sub: Nomination of Faculty member/Teaching Associate for Board of Studies reg.

Sir,

In reference to your letter no. [illegible] dated, 2nd February, 2018 on the above subject, I am directed to convey the approval of the following candidate for Board of Studies representing your college for the Faculty of Horticulture & Forestry which was notified vide Revised Order No. CAU/Estt/2013-14/1005, dated 9/1/18, for taking further necessary action. Please.

Sl. No.	Name & address with Designation	Position
1	Dr. [illegible] Assistant Professor (Soil Science), ICAR Deptt. CAHNRT & Ex-Asst. Engineer (Agril.), College of Horticulture, Keretok, Thoubal	Member
2	Dr. [illegible] Teaching Associate (Horticulture) College of Horticulture, Keretok, Thoubal	Member

Yours faithfully,

(Y. Ranjana Devi)
Deputy Director of Instruction
Imphal, the 20th March, 2018

No. CAU/Estt/[illegible]

Copy to:

1. The Director of Instruction, CAU, Imphal for kind information vide letter no. 394
2. Dean, College of Horticulture & Forestry, Pasighat
3. The Registrar, CAU, Imphal

(Y. Ranjana Devi)
Deputy Director of Instruction

बागवानी महाविद्यालय
COLLEGE OF HORTICULTURE
(Central Agricultural University)
(केंद्रीय कृषि विश्वविद्यालय)
बर्निक, सिंग्ल-737135 सिक्किम
Bermiok, Camp Ranipool – 737135 (Sikkim)

P.P Dalendi
Dean

Ph. 03592-231501, 281258
Fax. 03592-231300
Email: deancollhort@cau.in

No. COH/KM/Misc-18/17/614 Dated: 21.06.20

To

The Director of Instruction
Central Agricultural University,
Lamphel-795004,
Imphal, Manipur

Sub.: Up gradation of designation of Faculty member for Board of studies- reg.

Sir,

Kindly refer to your Order No. CAU/DI/G-1(BS)/336(i) dated 20/3/18, on the above cited subject, the following faculties were approved as members Board of Studies for College of Horticulture, Sikkim. And there is some changes in the designation of one faculty member.

So, I request you to kindly consider the up gradation of designation and approval please.

Sl. No	Name of member	Old Designation	New Designation	Position
1	Dr. Ch. Bhembeyo	Assistant Professor (Soil Science), BEAS Deptt. CAEPHT & In Acc. Registrar (Acad.) College of Horticulture, Bermiok, Sikkim	No Changes	Member
2	Dr. Rakhara Bhandari	Teaching Associate (Entomology), College of Horticulture, Bermiok, Sikkim	Assistant Professor (Entomology), College of Horticulture, Bermiok, Sikkim	Member

With kind regards.

(P.P. Dalendi)
Dean

Annexure 6.5.1.4:

College of Agricultural Engineering & Post Harvest Technology
(Central Agricultural University, Imphal)
Ranipool, Gangtok – 737 135 (Sikkim)

Date: 07.03.2021

NOTIFICATION

Hostel Visiting Committee Members

Date	Hostel Visiting Committee Members
10.03.2021	Dr. [illegible] & Dr. [illegible]
11.03.2021	Dr. [illegible] & Dr. [illegible]
12.03.2021	Dr. [illegible] & Dr. [illegible]
13.03.2021	Dr. [illegible] & Dr. [illegible]
14.03.2021	Dr. [illegible] & Dr. [illegible]
15.03.2021	Dr. [illegible] & Dr. [illegible]
16.03.2021	Dr. [illegible] & Dr. [illegible]
17.03.2021	Dr. [illegible] & Dr. [illegible]
18.03.2021	Dr. [illegible] & Dr. [illegible]
19.03.2021	Dr. [illegible] & Dr. [illegible]
20.03.2021	Dr. [illegible] & Dr. [illegible]
21.03.2021	Dr. [illegible] & Dr. [illegible]
22.03.2021	Dr. [illegible] & Dr. [illegible]
23.03.2021	Dr. [illegible] & Dr. [illegible]
24.03.2021	Dr. [illegible] & Dr. [illegible]
25.03.2021	Dr. [illegible] & Dr. [illegible]
26.03.2021	Dr. [illegible] & Dr. [illegible]
27.03.2021	Dr. [illegible] & Dr. [illegible]
28.03.2021	Dr. [illegible] & Dr. [illegible]
29.03.2021	Dr. [illegible] & Dr. [illegible]
30.03.2021	Dr. [illegible] & Dr. [illegible]
31.03.2021	Dr. [illegible] & Dr. [illegible]
01.04.2021	Dr. [illegible] & Dr. [illegible]
02.04.2021	Dr. [illegible] & Dr. [illegible]
03.04.2021	Dr. [illegible] & Dr. [illegible]
04.04.2021	Dr. [illegible] & Dr. [illegible]
05.04.2021	Dr. [illegible] & Dr. [illegible]
06.04.2021	Dr. [illegible] & Dr. [illegible]
07.04.2021	Dr. [illegible] & Dr. [illegible]
08.04.2021	Dr. [illegible] & Dr. [illegible]
09.04.2021	Dr. [illegible] & Dr. [illegible]
10.04.2021	Dr. [illegible] & Dr. [illegible]
11.04.2021	Dr. [illegible] & Dr. [illegible]
12.04.2021	Dr. [illegible] & Dr. [illegible]
13.04.2021	Dr. [illegible] & Dr. [illegible]
14.04.2021	Dr. [illegible] & Dr. [illegible]

The hostel visiting committee members will take rounds in the hostel mess/ hostel during morning / night hours daily to check and counsel the students for their discipline and other issues in the hostel as well as the adjacent dwelling areas to the campus premises as well as other identifiable places. The committee will take the attendance of the mandatory presence of students in the hostel and ensure proper safety of students against ragging and any other issues.

Dean

Copy to:

1. All [illegible] for information & [illegible]
2. All [illegible] for information and [illegible] (Through E-mail)
3. PC Vehicle, CoEPHT, Ranipool, [illegible] to [illegible] for the purpose of [illegible]
4. Office copy

Dean

Annexure 6.5.1.7:

महाविद्यालय
COLLEGE OF HORTICULTURE
(Central Agricultural University)

P.P. Dabral
Dean

No. COH/SC/Cir-777/ Dated: 25.02.2021

OFFICE ORDER

Internal Complaint Committee

In compliance with the letter No. CAU/Reg/191(3)/2021/Estt.(Vig)/6292/2020 dated 22nd February 2021 and No. CAU/Reg/191(3)/2021/Estt.(Vig)/6292/2020 dated 23rd February 2021, received from Registrar, CAU, Imphal on "Internal Complaint Committee" has been constituted by the undersigned with the following members for College of Horticulture as per the guidelines on Sexual Harassment of Women at Workplace.

1.	Dr. Dilip Kumar	Assistant Professor	Presiding Officer
2.	Dr. Pabitra Kumar	Assistant Professor	Member
3.	Dr. Digvijaya Tripathi	Assistant Professor	Member
4.	Dr. N. Priyobarta Singh	Assistant Professor	Member
5.	Dr. M. Sanjita Devi	Assistant Professor	Member
6.	Dr. Yumnam Faiza	Assistant Professor	Member
7.	Miss. Elizabeth K. George	Assistant Librarian	Member
8.	Smt. Monalisa Pan	Technical Staff, SAG group, Antifungal Biologicals	Member

All the members will act according to the guidelines regarding prevention of Sexual harassment of working women in work place issued by GoI.

Yours faithfully,

(Prof. P. P. Dabral)

No. COH/SC/Cir-777/ Dated: 26.02.2021

Copy to:

1. All (E) to VC for kind information of Hon'ble Vice Chancellor, CAU, Imphal
2. Director of Extension Education, CAU
3. Director of Research, CAU, Imphal
4. The Comptroller, CAU, Imphal
5. The Liaison Officer, CAU, Imphal
6. All the members of the committee for information

(Prof. P. P. Dabral)

COLLEGE OF HORTICULTURE
CENTRAL AGRICULTURAL UNIVERSITY
BERMIOK-737134 (SIKKIM)

SELF STUDY REPORT

(Year: 2015-16 to 2019-20)

For

Degree Programme of B.Sc. (Hons.) Horticulture

Submitted to

NATIONAL AGRICULTURAL EDUCATION ACCREDITATION BOARD

INDIAN COUNCIL OF AGRICULTURAL RESEARCH
NEW DELHI-110011

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6.4. Self Study Report for the Degree Programme, College of Horticulture, Bermiok.

For the college offering degree programme as per recommendations of 5th Dean's Committeesof ICAR/VCI/BSMA

6.4.1. Brief History of the Degree Programme:

College of Horticulture, Bermiok, Sikkim was established on 21st May 2015 on the beautiful landscape of Tokal, South Sikkim. The state is bestowed with varied agro-climatic zones ranging from alpine region to sub-tropical hill areas. This favours cultivation of diverse agricultural and horticultural crops. The region is also one of the diversity hotspots i.e., Eastern Himalayas of the world allowing many diverse species of flora and fauna.

The land is the home of horticultural crops like large cardamom and many species of orchid. The region has huge scope of horticultural crops like off-season vegetables, ginger, turmeric, anthurium roses, Sikkim mandarin, tomato, cole crops. The activities relating to promotion of non- traditional practices like bee keeping and mushroom cultivation, plantation of bamboo and medicinal plants have added diversification to horticultural activities. The significance of horticulture in improving land use, promoting crop diversification, generating employment and providing nutritional security to people has been recognized by and large by common people, policy farmers and programme implementers. Hence, horticulture features as an important area in the overall policy frame work for development in the state.

At present, the college is camped at College of Agricultural Engineering and Post-Harvest Technology, Ranipool.

Mandate:

(i) Development of appropriate human resource for carrying out various horticultural activities in the state of Sikkim
(ii) Development of relevant technologies suitable for horticultural sector aiming to welfare of farming community of Sikkim
(iii) Dissemination of horticultural technologies for the development of sustainable, scientific and profitable horticultural sector among the various stake holders.

Objectives

The College has been established with following broad objectives

- To impart education in different branches of horticulture and allied sciences
- To further the advancement of learning by undertaking research in horticulture and allied sciences
- To undertake the programmes of extension education in the state of Sikkim and others inthe jurisdiction of CAU, Imphal and
- To undertake such other activities as it may deem fit from time-to-time.

Achievements of the College:

- Various equipments for laboratory and furniture (Enclosure B) were purchased for smooth functioning of the college.
- Renovation of the Hi-tech polyhouses, low cost polyhouse and horticultural crops like capsicum, rai sak, tomato, palak, gerbera were grown.
- Sixteen leaflets and twenty-five flexes were published containing the information of various organic practices for horticultural crops viz., large cardamom, Sikkim mandarin, Guava,

Kiwifruit, Papaya, chayote, anthurium, Dalle khorsani (Chilli), etc. for disseminating to the farmers and students.

- Establishment of the demonstration cum Research block of Temperate fruits were initiated in the year 2018 and 60 plants of temperate fruits crops consisting of apple var. Anna, apple var. HRMN-99, Pear var. Babugosha, Peach var. Red Heaven, Kiwi var. Allison, Apricot var. New Castle, Nectarine var. Silver King, Plum var. Santa Rosa, Persimmon var. Hachiya, Walnut var. Local. These plants were planted from 12.01.2018 to 16.01.2018. All the crops are well established and acclimatised. Flowering and fruiting was observed during February-March 2019 of apple, nectarine persimmon and kiwi.
- Establishment of the demonstration cum research block of Tropical and subtropical fruit crops were also taken up during the year 2018-19. Various tropical and subtropical fruit crops like litchi, Gulab Jamun, Wood apple, Bael, Aonla, Jackfruit, Lemon, Jamun, Hogplum, sapota and avocado were planted on 26.09.18 and 01.12.18. The materials were procured from UBKV, Cooch Behar and IIHR, Bengaluru.
- Demonstration cum research block of floriculture was established. Gerbera, poinsettia, tuberose, croton, bougainvillea, gardenia plants and heliconia were planted. The materials were collected from Model Floriculture Unit, Govt. of Sikkim, Horticulture Research Station, Guwahati, Assam and Horticulture farm of CAEPHT, Ranipool, Sikkim.
- Demonstration cum research block of vegetables and spice crops was established. Annual vegetables like cowpea, okra, amaranthus, french bean were grown as intercrop with temperate fruit crops. Curcubits viz., cucumber, brinjal and dalle were grown as sole crops. Beet root was grown as an intercrop with temperate fruit crops 13kg was harvested and sold @₹60/kg. Capsicum var. California Wonder was sown on 06.02.2019. In total 580 plants were grown under hi tech polyhouse.
- Adoption of model village for plantation of fruit crops such as Pear, Peach and Guava was done in uncultivated areas of Passi, Pabong and Chalamthang villages, respectively under south Sikkim in the year of 2020.
- Adoption of model village for cultivation of vegetable crops such as cauliflower, Broccoli and Cabbage was done in the village of Passi, Pabong and Chalamthang villages, respectively under south Sikkim in the year of 2020.
- During the 4th Inter-collegiate Youth Festival of CAU 2017-18, College of Horticulture, Bermiok, Sikkim bagged 2 gold medals, 4 silver medals, 1 bronze medal and 1 consolation prize leading to overall runner's trophy among the 13 constituent colleges of Central Agricultural University, Imphal. The college also won the best cultural procession.
- During the 5th Inter-Collegiate Youth Festival of CAU 2018, College of Hortculture, Bermiok, Sikkim bagged the best cultural procession. Mr Alokesh Gangopadhyay, 2nd Year, 14/Hort/17, got 1st position in light vocal and ex-tempore and 2nd position in clay modelling. He also received the best male participant.

  Students of this college have shown outstanding performance in the AIEE (All India Entrance Examination for ICAR- JRF).

List of ICAR – JRF Holders, 2019

Sl. No.	Name of the student	Discipline	ICAR- JRF RANK	Seat Allotted
1.	Ms. L. Mashine	Horticulture	UPS-9, ST-24	MPKV, Rahuri Horticulture

List of ICAR – JRF Holders, 2020

Sl. No.	Name of the student	Discipline	ICAR- JRF RANK	Seat Allotted
1.	Brendon Lalchawimia	Physical Science	ST-5	IARI, New Delhi Agricultural Chemicals
2.	Rajshree Chand	Plant Biotechnology	AIR-53	PAU, Ludhiana Plant Biotechnology
3.	Ms. Tingku Soram	Plant Science	UPS-6	Dr. RPCAU, Pusa Plant Breeding & Genetics
4.	Ms. Daffylabeth L. VChyne	Horticulture	UPS – 8, ST- 18	PAU, Ludhiana Olericulture
5.	Ms. Losa Lajeo	Horticulture	ST-27, UPS-14	VNMKV, Prabhani Olericulture

List of Toppers of B.Sc. (Hons.) Horticulture, Since Inception

Sl. No.	Name	Year of Passing
1.	Ms. L Mashine	2019
2.	Mr. Afad Akbar	2020

6.4.2. Faculty Strength:

Sl. No.	Sanctioned Faculty	Faculty Place	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	Nil	8
2.	Associate Professor	Nil	11
3.	Assistant Professor	06	31
Total		06	50

As per faculty recommended by ICAR regulatory bodies the faculty strength are not sufficient. However, the CAEPHT and MTTC & VTC faculties are being assigned to complete the curriculum of the undergraduate degree programme. At present the College of Horticulture is utilizing the existing facilities of College of Agricultural Engineering and Post-Harvest Technology, Ranipool. Special focus is paid for all round development of student to show their hidden talent in addition to their educational programme. The College organizes co-curricular and extra-curricular activities for overall development of student's personality and carrier. Annual College Week, Blood Donation Camp, Science Day, Awareness Programs, NSS, Physical Education, Sports, Literary activities etc. are also organized to give the opportunity to the students. The students also participate regularly inter collegiate event of University and National level competitive events.

6.4.2.1. Faculty Profile (department wise):

Department wise faculty strength of CoH, Bermiok

Sl.No.	Department	Sanctioned Faculty	Filled post	Faculty recommended by ICAR
9.	Fruit Science	Professor	-	1
		Associate Professor	-	2
		Assistant Professor	1	3
10.	Vegetable Science	Professor	-	1
		Associate Professor	-	1
		Assistant Professor	-	4
11.	Floriculture & Landscape architecture	Professor	-	1
		Associate Professor	-	1
		Assistant Professor	1	2
12.	Post harvest Technology	Professor	-	1
		Associate Professor	-	1
		Assistant Professor	-	2
13.	NRM	Professor	-	1
		Associate Professor	-	1
		Assistant Professor	-	6
14.	Social Science	Professor	-	1
		Associate Professor	-	1

		Assistant Professor	-	5
15.	BSH	Professor	-	1
		Associate Professor	-	2
		Assistant Professor	2	6
16.	Plant Protection	Professor	-	1
		Associate Professor	-	2
		Assistant Professor	2	3
		Total	06	

The existing faculty strengths of College of Horticulture, College of Agricultural Engineering and Post-Harvest Technology is sufficient for academic requirement of the college. The numbers of faculties who are involved in teaching activities are given below.

Faculty member utilized from College of Agricultural Engineering & Post Harvest Technology, Ranipool, Sikkim				
Department in COH Bermiok	Department in CAEPHET, Ranipool	Prof.	Assoc. Prof.	Assistant Prof.
	Basic Engineering& Applied Sciences	-	-	8
	Irrigation and Drainage Engineering	1	-	1
	Farm Power & Machinery	1	1	1
	Soil Water Conservation	1	-	-
PHT	Process and Food Engineering	2	-	2
	Total	5	1	12

6.4.3. Technical and Supporting staff

Name of the College	**Technical and supporting staff (Farm/Field workers)**		
	Sanctioned	**Filled**	**Vacant**
College of Horticulture, Central Agricultural University, Bermiok, Sikkim-737134	14	2 (Permanent) 16 (Contractual)	12

Apart from these, the technical and supporting staff of CAEPHT are utilised by the college.

6.4.4. Classrooms and Laboratories:

Sl. No.	No. of class rooms/Unit	Theory & Practical batches	List of Laboratories	Functional Laboratories	Justify
1.	4	1st Year, 2nd Year, 3rd Year and 4th Year of B. Sc. (Hons.) Horticulture	Utilizing all the lab facilities of CAEPHT, Ranipool		The classroom facilities are well equipped and sufficient for the needs of the students and teachers.

LIST OF LAB EQUIPMENTS OF COH, BERMIOK

Sl. No.	NAME	QUANTITY	Justify
1.	Analytical Weighing Balance	0 2	The Laboratory equipments of COH, Bermiok are available in BEAS laboratory of CAEPHT, Campus. Students use the equipments available in various laboratory of CAEPHT, Campus in addition to the equipments of COH, Bermiok.
2.	Weighing balance	01	
3.	Electrical Conductivity meter	02	
4.	Rotary Shaker	01	
5.	Water Bath	01	
6.	Automatic Nitrogen Digestion & Distillation System	01	
7.	Compound Microscope	04	
8.	Trinocular Microscope	01	
9.	Flame Photometer	01	
10.	Leaf Area Meter	01	
11.	Horizontal Laminar Air Flow	01	
12.	pH Meter	02	
13.	Magnetic Stirrer	02	
14.	Centrifuge	01	

15.	Double Distillation Unit	01	
16.	BOD Incubator	01	
17.	UV-VIS Spectrophotometer	01	
18.	Magnus Monocular Microscope	04	
19.	Dissecting Microscope	01	
20.	Olympus Trinocular Microscope	01	
21.	Hot Plate	01	
22.	Soil-Tensiometer (Irrometer)	07	
23.	GPS	01	
24.	Digital refractometer	01	
25.	Laminar Air Flow	01	
26.	Gel doc	01	

Farm Facilities
• Availability of Farm equipment viz. Brush cutter • All the essential garden tools viz. Hedge shear, Pruning Secateurs, Digging trowel, water cane, Pruning and budding knife, Khurpi, spade, garden rake, measuring tape and Hand sprayers etc. are available for maintaining the farm • The Low-cost polyhouses and Hi-Tech Greenhouse has been established in the farm for growing various seasonal and annual vegetables. • Availability of water supply to the farm • Development of demonstration farm cum research block for vegetable, spice crops andflower where the practical work can be done smoothly. • Development of Orchard for demonstration of practical classes for fruit crops. • Development of High Density Orchard of Guava is done for Research and Educationalpurpose. • Establishment of Temperate fruit Block (Orchard) has been done in college campus. • Establishment of Tropical and Sub-tropical fruit block is done.

6.4.5. Conduct of Practical and Hands-on-Training:

Presently, the college is camped at College of Agricultural engineering and Post harvest Technology, Ranipool one of the constituent college of Central Agricultural University, Imphal. Therefore, it is utilising the facilities available at the camped college for conducting the practicals for all the courses needed at the Basic Engineering and Applied Sciences laboratory. Field/ orchard visit for identification and practical of horticultural crops. As needed the students are taken to nearby institutes like ICAR-National Research Centre-orchids, Pakong, Sikkim, Model Floriculture, Govt. Of Sikkim, Temi Tea Garden and ICAR-NOFRI, Tadong, Sikkim for acquiring the requisite practical knowledge.

6.4.6. Supervision of students in PG/PhD programmes: NA

6.4.7. Feedback of stakeholders (Students, parents, industries, employers, farmers etc.): This college is especially for the 80% tribal students & gives opportunities to the tribal students for the career development in Agriculture sector. This college has kept suggestion and complaints box in college premises. Regular counselling meetings are organized and in emergency parents are also participated for the personality developments of students. This college has provided an excellent platform and infrastructure to establish rapport between students and teachers. During extension activities the farmer's feedback and problems are dully recorded to solve the problems**. The detail of the feedback forms are attached as Annexure 6.4.7**

6.4.8. Student intake and attrition in the programme for last five years:

The College presently offers only Under Graduate Programme in Horticulture *i.e.* B.Sc. (Hons.) Horticulture which is of 4 years duration. The annual intake of students to the college at UG level has increased since the inception of the university.

Name of the Degree Programme	**Actual student admitted in last five years Attrition (%)**					**Attrition (%)**				
B.Sc. (Hons.) Horticulture	Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5
	15	20	19	16	19	6.66	10	5.26	0	0

6.4.9. ICT Application in Curricula Delivery: Yes

Since the college is under construction, the College of Horticulture and Forestry, CAU, is giving good facilities to our students. Student are fully equipped with computer with internet facilities during their computer classed and other time whenever they required. A smart classroom with one LCD projector and audio-visual aids for better delivery of lectures. All the four class room have LCD projector, a table, podium, whiteboards/screen, black board with duster will be available in each class room for the use of teachers.

Wi-Fi facilities ar available in the library with a band width speed of 1GBps from NIC- NKN network. KOHA LMS is being used for Library Automation in CAEPHT Library. Necessary steps have been initiated for accessing online journals and study materials at Electronic Resource Management package for e-journals access through CeRA (Consortia fore-Resources in Agriculture).

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PGand Ph. D Degree Programmes, separately, and to be presented College-wise: **Yes**

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICARand also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Prof. P. P. Dabral hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

Annexure I

Library of CAEPHT

Different Microscope Available in College

Annexure: 6.4.7.

COLLEGE OF HORTICULTURE,
CENTRAL AGRICULTURAL UNIVERSITY, IMPHAL
SENSRICK, ITANAGAR

Feedback form for teacher evaluation by students

Name of the teacher: Dr. Rajeshwari Singh

Subject taught & Course No.: Breeding of fruit and plantation crops (HOC 214)

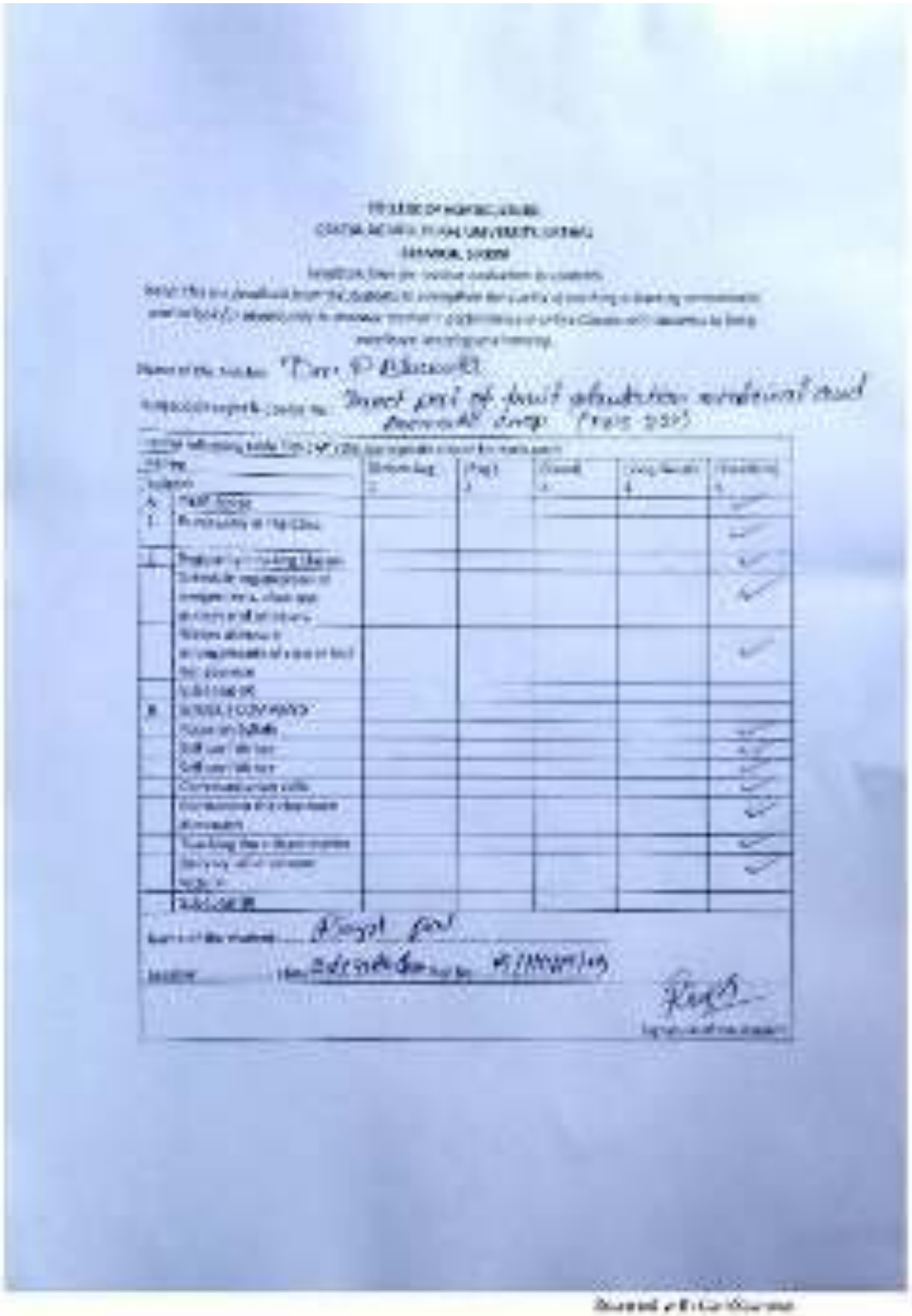
In the following table Tick (✓) the appropriate choice for each point.

Rating / Subject	[illegible] 1	[illegible] 2	[illegible] 3	[illegible] 4	Excellent 5
1.	[illegible]				✓
2.	[illegible]				✓
3.	[illegible]				✓
	[illegible]				✓
	[illegible]				✓
	[illegible]				
4.	[illegible]				
	[illegible]				✓
	[illegible]				✓
	[illegible]				✓
	[illegible]				✓
	[illegible]				✓
	[illegible]				✓
	[illegible]				

Name of the student: Ringol Gon

Session: [illegible] Class: [illegible] Subject: [illegible]

Signature of the student



COLLEGE OF HORTICULTURE,
CENTRAL AGRICULTURAL UNIVERSITY, IMPHAL
BERMIOK, SIKKIM

Feedback form for on-line evaluation by students

Note: This is a feedback from the students to strengthen the quality of teaching & learning process and to look for opportunity to improve teacher's performance in order to meet with students' growing expectation in quality education & learning

Name of the Teacher: Dr Dipika Sarmah

Subject(s) taught & Course No: Ornamental Horticulture, FLS-221

In the following table Tick (✓) the appropriate choice for each point.

Rating / Subject		(Below Avg.) 1	(Avg.) 2	(Good) 3	(Very Good) 4	(Excellent) 5
A.	TIME SENSE					
1.	Punctuality in the Class				✓	
2.	Regularity in taking Classes				✓	
	Schedule organization of assignments, class test quizzes and seminars				✓	
	Makes alternate arrangements of class in his/ her absence				✓	
	Sub total (A)					
B.	SUBJECT CONTRACT					
	Focus on Syllabi					✓
	Self confidence				✓	
	Self-confidence				✓	
	Communication skills			✓		
	Conducive the classroom discussion			✓		
	Teaching the subject matter				✓	
	Delivery of structured lecture					✓
	Sub total (B)					

Name of the student: Kishen Tamang

Session: 3rd Year Class: 5th Sem Roll No: 11/HORT/19

Signature of the student

COLLEGE OF HORTICULTURE,
CENTRAL AGRICULTURAL UNIVERSITY, IMPHAL
REMEDIAL TERM

Feedback form for teacher evaluation by students

Note: This is a feedback from the students to strengthen the quality of teaching-learning environment and not to look for aspects to evaluate teacher's performance in order to cope with students to enjoy excellence in teaching and learning

Name of the teacher: Dr Yamuna Devi

Subject(s) taught & Course No.: Plantation Crops, PSC-251

In the following table Tick (✓) the appropriate choice for each point

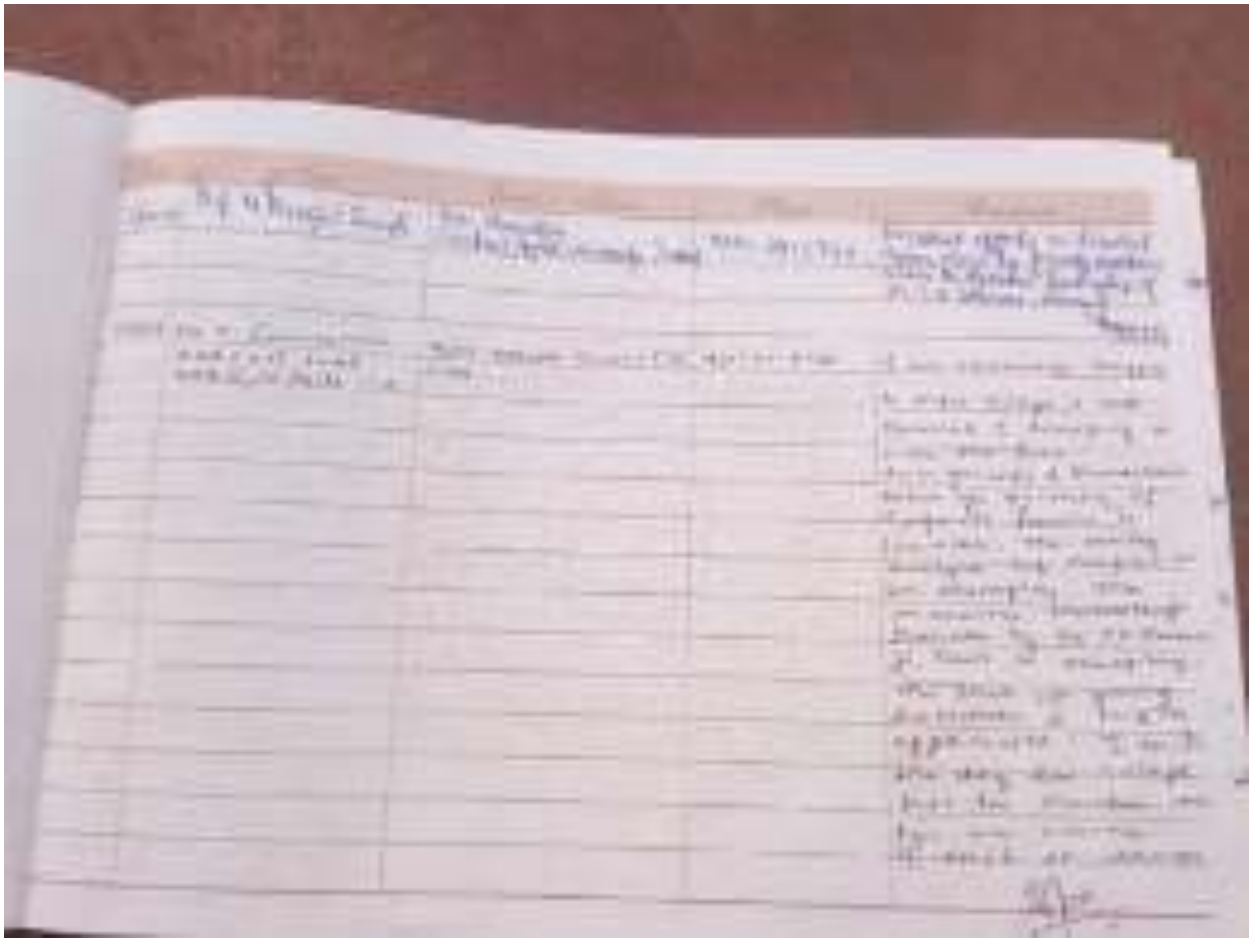
Rating / Subject		(Below Avg.) 1	(Avg.) 2	(Good) 3	(Very Good) 4	(Excellent) 5
a.	Tone of voice					
b.	Punctuality in the Class		✓			
c.	Regularity in taking Classes	✓				
	Schedule organization of assignments, class test, quizzes and seminars		✓			
	Maintaining orderly arrangement of class in his/her absence	✓				
	Sub total (A)					
a.	SUBJECT COMMAND					
	Focal on Syllabi			✓		
	Self-confidence			✓		
	Self confidence			✓		
	Communication skill			✓		
	Conducts the classroom discussion				✓	
	Teaching the subject matter				✓	
	Delivery of structured lecture			✓		
	Sub total (B)					

Name of the student: Sabina Richmond

Session: 2nd Year Class 4th Sem Roll no: 19UMS119

Signature of the student

Visitors Book
College of Horticulture
Pasighat, Arunachal Pradesh
Central Agricultural University



SELF STUDY REPORT

FOR

COLLEGE OF FOOD TECHNOLOGY

CENTRAL AGRICULTURAL UNIVERSITY, LAMPHELPAT, IMPHAL

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SELF-STUDY REPORT (SSR) FOR THE COLLEGE OF FOOD TECHNOLOGY, CAU, LAMPHELPAT, IMPHAL, MANIPUR

6.5. Self-Study Report for the College

The College of Food Technology was established during May, 2015 as one of the constituent Colleges of Central Agricultural University, Imphal, Manipur. It is situated at Lamphelpat, Imphal West District of Manipur at 24º82'N latitude and 93º90'E longitudes at an approximate altitude of 790 metres above MSL. The campus of College spreads over an area of 3 acres on the foothills of Langol Reserved Forest area. On the eastern boundary of the campus, Mary-Kom Road approaching from the Office of Deputy Commissioner (DC), Imphal West passes through towards the Asian Games Village adjoining the Langol Hill on the northern side of the campus. On the southern and western fronts, the College is surrounded by the Central Farm of the Central Agricultural University, Imphal. The alluring hillside view and serenity of the campus provides for an excellent peaceful learning centre and an ideal atmosphere for academic and research activities.

The College of Food Technology, Imphal imparts education in the form of Bachelor of Technology (B. Tech.) in Food Technology. The College started its first academic programme *i.e.,* 4 year B. Tech. (Food Technology) programme from academic session 2015-2016 with intake capacity of 20 students.

The course curriculum and syllabi of the degree programme are based on the model academic regulations and syllabi as proposed by the 5th Dean Committee of Indian Council of Agricultural Research (ICAR), New Delhi. While designing curriculum, utmost care has been taken to consider the global development in Science & Technology to equip graduates to meet new challenges thrown open as a result of economic globalization and climate changes and preparing farmers and entrepreneurs for emerging opportunities of food technology and food processing at national and international level.

At present 10+2+4 pattern which comprises Student READY Experiential Learning Programme (ELP) I and II and Students READY Research Project and report writing for 3 weeks each in semester VII and also Students READY Seminar for personality development in the same semester are offered to the students. The whole of VIII semester is offered in the form of In-plant training of the students for 10 weeks in different industries and research institutes at national level. So far, students have been exposed to different skills and hands on training in different places including CSIR-Central Food Technological Research Institute (CFTRI), Mysuru, Amul, Anand, Gujarat, Patson Foods, Ahemadabad, Nilon's, Guwahati, etc. Moreover, the ELP have been conducted in food producing units of the state of Manipur which includes Thangjam Agro, Imphal, Meira Foods, Imphal, Modern Foods, Takyel Industrial Estate, etc. in different skill categories.

Fig. 1: Satellite Image (Google Maps) of the campus of College of Food Technology, Lamphelpat, Imphal

The College of Food Technology, Imphal is an unique campus under the Central Agricultural University, Imphal with complete integration of all the three functions *viz.;* teaching, research and extension. The college has the mandate to develop, strengthen and promote the understanding, knowledge and skills to improve profitability and utilization in the field of food processing, packaging, storage and distribution of food product not only in Manipur but also in the entire North-Eastern Region of India. The college shall also endeavour to establish linkages with other scientific institutions of ICAR, other zonal and national bodies in the field of its domain located in the region and outside the region. The major mandates of the College are:

i) Making provision for imparting education in food science and engineering.

ii) Advancement of learning and conducting research particularly in Food Technology and other allied sciences / technologies especially for the rural people of the state in general.

iii) Undertaking activities pertaining to major mandates *via*, education, research and extension as directed by the University from time to time.

Mission

To train technical manpower, pursue high quality and high impact research, design and development of sustainable technologies/equipment related to food technology and disseminate the developed technology to the farmers' field/ entrepreneurs of NEH region of India.

Objectives:

1) To establish and develop excellent academic facilities for offering undergraduate and

postgraduate education in the discipline of food technology, appropriate to various states of NEH region in particular and the country in general.

2) To impart quality education so as to produce globally competitive graduates and post graduates in areas of food technology including inter disciplinary areas so that confident and capable human resource, suitable for working as scientists, academics, managers, entrepreneurs etc., could be developed.
3) To establish specialized research laboratories fitted with state of art machineries equipment and instruments for taking up basic and applied research by the scientists/teachers and post-graduate students and experiential learning facilities including pilot plants for 'hands - on training' of undergraduates students.
4) To carryout research to generate technology and extension of technology to the micro food processing unit and professional body.
5) To develop and demonstrate modern and advanced food processing system appropriate to NEH states which may help the farmers to improves their productivity and profitability while preserving and improving the environment.
6) To develop need based improved agro-technologies and equipment for NEH region for household and on farm operations, post-harvest management and utilization of renewable sources of energy.

6.5.1 College Administration

The overall administration of the academic, research, extension and other activities of the college including infrastructure development is monitored by the Dean, College of Food Technology, Imphal. The Academic and Administrative building of College is depicted in Fig. 3. The Dean is assisted by various teaching, non- teaching and non-technical members of the institution.

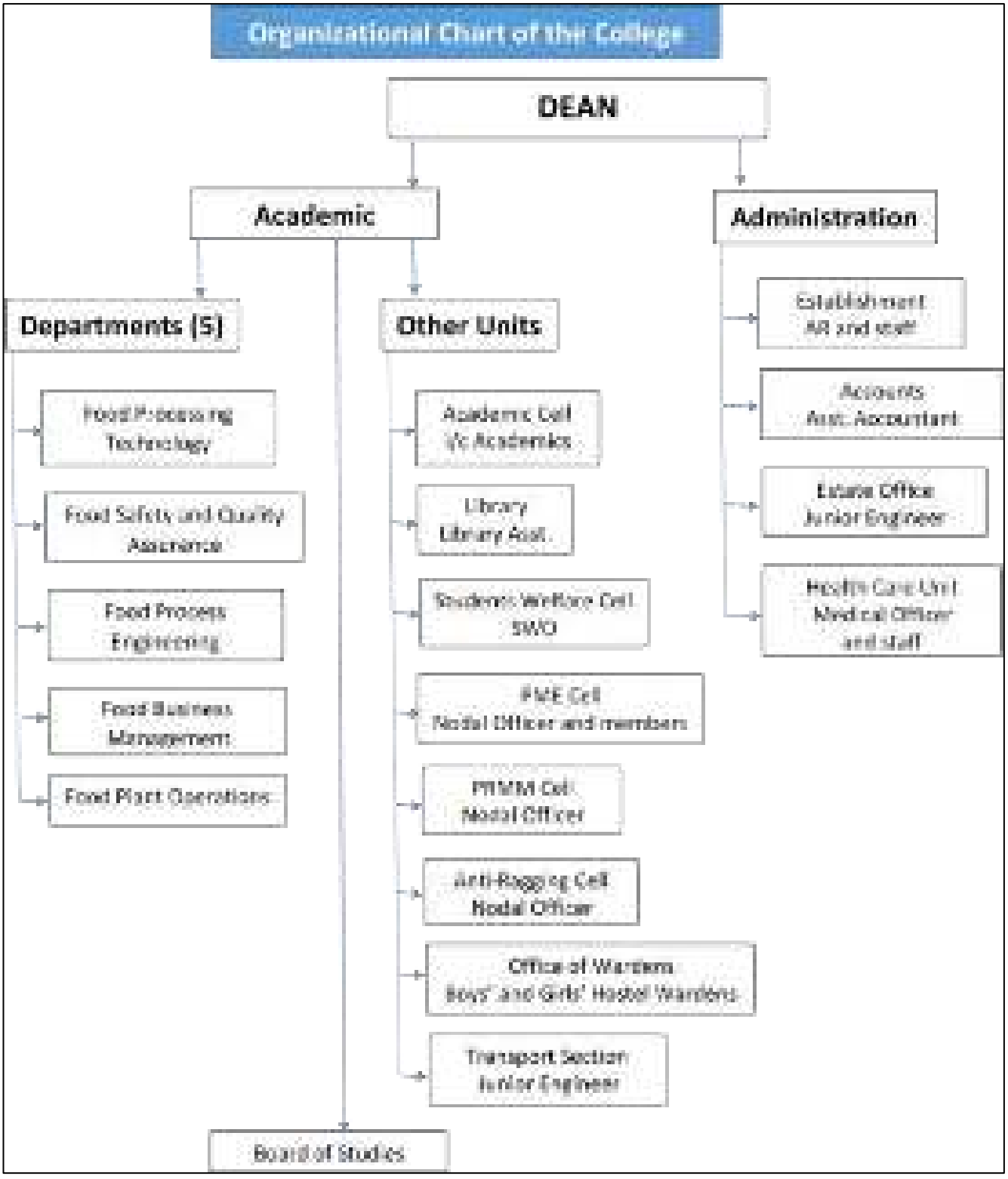


Fig. 2: Organizational structure of the College of Food Technology

Fig 3: Administrative and Academic Building of the College

6.5.1.1. College Dean's Office Establishment:

The Dean's post of the College of Food Technology is sanctioned by the appropriate authority as per the ICAR Model Act for a tenure of five years. The present Dean Dr. Ng. Joykumar Singh was appointed as Dean In-charge of the College on 28th October 2020 vide order number VC/CAU/54/95-(A) VoL-VI/2236, dated Imphal, the 28th October, 2020.

Sl. No.	Particulars	Response
1.	Whether Dean's post has been sanctioned by the appropriate authority as per ICAR Model Act/UGC guidelines	: Yes
2.	Date of selection/joining of present Dean	: 28th Oct., 2020
3.	Mode of selection	: Nomination; and serve as I/C Dean until regular Dean is appointed
4.	Tenure of the regular Dean	: 5 years
5.	Total number of staff in Dean's office	: One PA (Y. Ricky Singh)
6.	Infrastructure facilities (Details on infrastructure and networking facilities available)	• Computers with printers are available at the Dean's office with internet and UPS connectivity • Copier facility is available with Wi-Fi connectivity

Staff availability in the Dean's Secretariat:

Academic:

Sl. No.	Name of the staff	Designation
1.	M. Biren Singh	MTS

Library:

Sl. No.	Name of the staff	Designation
1.	L. Nepolean Singh	Library Asstt.

Establishment:

Sl. No.	Name of the staff	Designation
1.	S. Tomba Singh	Assistant Registrar
2.	N. Norendro Singh	Assistant
3.	Th. Chanu Inaobi	LDC
4.	H. Ibochouba Singh	MTS

Accounts:

Sl. No.	Name of the staff	Designation
1.	N. Anilkumar Singh	Asst. Comptroller
2.	Ch. Bikramjit Singh	Accountant
3.	L. Mangi Singh	Account Assistant
4.	L. Ashananda Singh	LDC

Engineering cell:

Sl. No.	Name of the staff	Designation
1.	Ph. Roshan Singh	JE

Sections:

Name of Section	In-charge (phone)	Staff	MTS
Academic	9612902293	-	1
Accounts	9862159618	Asstt. Comptroller-1, Accountant-1, Acct. Asstt-1, LDC – 1	-
Store & Purchase	7640998818	-	1
Engg. Section	9366807997	JE-1	-
Establishment Section	9856456661	Asstt. Registrar (Estt.)-1, PA-1, Asstt.-1, LDC-1	1
Receipt Section			
Dean's Chamber			

Infrastructure/ facilities available in the Dean's Secretariat:

Sl. No.	Infrastructure available/ facilities	Quantity
1	Xerox (Photocopy)	1
2	Computer system	2

3	Printer	1

Infrastructure/ facilities available in different sections:

	Computers /peripherals	Printer	Printer with scanner	Xerox	Fax
Accounts	1	-	1	-	-
Store & Purchase	-	-	-	-	-
Establishment	2	1	-	-	-
Engg. Section	2	1	1	-	-
Academic Section	2	1	-	1	-
Library	1	1	-	-	-

6.5.1.2. Monitoring Mechanism for Quality Education (on-line):

The college, under the direct supervision of the Dean, implements online monitoring mechanism for quality education of the students. Presently, the Dean monitors a WhatsApp group comprised of all the teachers conducting classes of the undergraduate students of the college. Every teacher reports the status of class taken indicating time of class, duration of class, name (s) of topic covered and attendance of students in the WhatsApp group immediately after the completion of the class. If any student (s) was found absent from the class, then the teacher is instructed to ascertain the reason for the absence and remedial measures are taken up so that the student (s) does not lag behind in the syllabus covered. Apart from that, regular online assessment in the form of quiz and assignments are conducted by the concerned teacher and is also reported in the group.

In addition to the above (specifically during this pandemic period) the college is fulfilling an internal quality assurance system in the areas of teaching, research and extension of the college.

Teaching

At the beginning of every semester course registration is done immediately after getting admission. The conduct of theory and practical classes are reviewed by the Academic In-charge and the Dean, College of Food Technology, Imphal. Academic Management System (AMS) is being implemented at college level, College of Food Technology, CAU, Imphal as part of student portal, an initiative of Agricultural Education Division of ICAR. The data generated by the system is used for generating reports of the university.

Fig. 4 Online class monitoring of the college

Undergraduate degree programme (B. Tech. Food Technology)

The College presently offers undergraduate degree programme as B. Tech. (Food Technology) only and there are no post-graduate and Ph. D. degree programmes. The examination system of the undergraduate degree programme is a combination of internal and external i.e. (1) Internal assessment (2) External (Annual Composite examination). Examination and Evaluation of Annual Comosite examination are done by external examiner from learned faculty members outside the University as per VCI, Minimum standard Veterinary Education, 2008 &2016.Students are asked to submit assignment in each subject. Academic progress of each student is monitored and supervised by a faculty as Advisor.

The present mechanism of teaching can be summarized as follows.

- Mid semester, practical and final theory examination are conducted to assess the students. Assignments are regularly given to students in each of the courses related to the curriculum
- External system of evaluation followed for both theory and practical for each course related to the curriculum
- Academic counseling is done every week by assigned student advisors
- Monthly quiz programmes and group discussions are arranged for the students to ascertain their proficiencies and knowledge
- Students who are academically weak are given special guidance and extra lectures are conducted for their improvement.

Faculty Research

a) Externally funded projects

1. "Development and Evaluation of Drying Systems for Important Spices of North Eastern States" funded by DST Govt. of India. Project cost= Rs.27.00 lakhs[P.I.]
2. "Establishment of CAU-BDT rural cluster project of processing and value addition to pineapple in chandel district of Manipur" funded by DBT, Govt. of India, Project cost = 41.45 lakhs. 2018 [P.I.]

3. Tribal Sub Plan Project as "Enhancing Socio-economic status and livelihood security of Tribal farmers of North East Hill States through Agricultural Interventions" [Project Member].
4. PFDC sponsored by NCPAH, New Delhi.
5. Farmers first Project [Project Member]

Intramural projects:

- "Design and Fabrication of Low Cost Solar Cabinet Dryer" sponsored by CAU, Imphal [P.I.] Project cost= Rs.30,000/-(completed)
- "Development and Performance Evaluation of Low Cost Drying Technology for Some Important Spices of Manipur" sponsored by CAU, Imphal [P.I.] Project Cost=Rs.1.25 Lakh (completed)
- "Development and performance Evaluation of manually operated pineapple harvester" sponsored by CAU, Imphal [P.I.], Project cost = Rs.85,000/- (completed Project)
- Solar Assisted poultry incubator sponsored by CAU, Imphal [P.I.], Project cost = Rs.1, 55,000/- (On-going Project)

Students' research guided by Teachers

Sl. No.	Year	Title of report	Name of the students	Place of work
1	2018	Development and formulation of Chak-hao (Black rice) based GulabJamun	Ngangom Sweety Chanu and Arvind Kumar Yadav	College of Food Technology, Central Agricultural University, Lamphelpat, Imphal, Manipur
2	2018	Development and formulation of Chak-hao (Black rice) based noodle	Bharat Singh Irom and Monika Konsam	College of Food Technology, Central Agricultural University, Lamphelpat, Imphal, Manipur
3	2018	Development and sensory evaluation of deep fried chayote chips	Manojkumar Pheiroijam and Wahengbam Athoi	College of Food Technology, Central Agricultural University, Lamphelpat, Imphal, Manipur
4	2018	Development of supplementary food from Chak-hao	Niamcha Lowang and Laishram Bhaktaraj Singh	College of Food Technology, Central Agricultural University, Lamphelpat, Imphal, Manipur
5	2019	Development and Formulation of Sugar Free GulabJamun by Using Bulk Sweetener (Maltitol Syrup)	Ngangom Sweety Chanu	CSIR-Central Food Technological Research Institute (CFTRI), Mysuru
6	2019	Studies on Development of Omega-3 Fatty Acids Enriched Halwa, A Traditional Indian Confection	Bharat Singh Irom	CSIR-Central Food Technological Research Institute (CFTRI), Mysuru
7	2019	Development and nutritional evaluation of ready to eat products from sweet potato	Monika Konsam	CSIR-Central Food Technological Research Institute (CFTRI), Mysuru

8	2019	Development and Quality Evaluation of Ready to Eat (Rte) Gel Like Intermediate Moisture Product From Juice Blend of Pineapple (*AnanasComosus*) and Watermelon (*CitrullusLanatus*)	Pheiroijam Manojkuar Singh	CSIR-Central Food Technological Research Institute (CFTRI), Mysuru
9	2019	Studies on the Development of Value Added Products using Culantro (*EryngiumFoetidum*) and others Spices	Laishram Bhaktaraj Singh	CSIR-Central Food Technological Research Institute (CFTRI), Mysuru
10	2019	Development of Black Rice (Chak-hao) cake	Lalhruaichhungi and Sorokhaibam Romita Devi	College of Food Technology, Central Agricultural University, Lamphelpat, Imphal, Manipur
11	2019	Development and Sensory Evaluation of aromatic black rice Idli	Bhavesh Datla and Rebika Salam	College of Food Technology, Central Agricultural University, Lamphelpat, Imphal, Manipur
12	2019	Development of Instant Soup Powder using Heikak (Water caltrop) as Base Material	Alok Das, DaniNado and U. Priyambada	College of Food Technology, Central Agricultural University, Lamphelpat, Imphal, Manipur
13	2019	Thermal analysis on boiling of egg	Evenstar Kharbani, Rohan Singh, and Banteilang Kharbani	College of Food Technology, Central Agricultural University, Lamphelpat, Imphal, Manipur

Extension

The faculty of College of Food Technology has organized a number of extension activities. These activities are monitored by the Dean and University Officers regularly and annually by obtaining reports.

Table 1: Extension activities of the college

Activity	**2017-18**	**2018-19**	**2019-20**
Participation in CAU Regional Agri Fair	01	Nil	01
COVID Awareness Programme	Nil	Nil	01
Skill imparting training programme on Bakery	Nil	02 nos. (06 days each)	01 (06 days)

Measures taken to improve the quality of education, research and extension

Education

- Industrial and institute related exposure visits related to the courses offered to the students
- Recognition and awards are given to best students at university level
- Educational talk are arranged inviting experts from different fields
- Assignments and exams are conducted on regular basis

Research

- Encouraging students to actively participate in workshops, webinars and conferences
- Experimental learning programme of two different modules is conducted for 12 weeks each and 10 weeks in plant training for skill generation at different industries and research institutes in India
- Students undergo Research project as part of the syllabus during VII semester under the guidance and supervision of the faculty. As part of the work, project reports are prepared and submitted to the college by the students.

Impact of monitoring with reference to students' excelling in academics, research and extracurricular activities

Academics

Since its inception, the College of Food Technology, Central Agricultural University, Imphal has produced 18 (eighteen) B. Tech. Graduates in Food Technology. The passed out students are constituted mainly from the North-eastern states of India. There were students from other parts of the country including Uttar Pradesh, Bihar and Rajasthan who admitted through ICAR nomination. Although small in number, the college has been able to contribute towards the development of quality human resources in the form of graduate and subsequently higher studies and other competitive examinations. Of the 18 students graduated from the college, 12 are currently undergoing M. Tech. degree course in Food Technology in reputed national institutions like Anand Agricultural University, Anand, Indian Institute of Technology Kharagpur, Indian Institute of Technology Varanasi, Central Agricultural University, Imphal and Tezpur University, Assam. One student is preparing for the Union Public Services Examination (UPSC) while the other three students are pursuing for employment opportunities in appropriate places. So far, two (2) of the students graduated received ICAR JRF during their M. Tech. studies while five (5) students are enjoying GATE fellowship and another 6 (six) students received respective state government fellowships during their M. Tech. studies. Faculties are also encouraging the passed out and current students to appear for various competitive examinations including ICAR-JRF, ARS, UPSC, GATE, GRE, TOEFL, etc. Besides, placement cell of the college is facilitating career guidance and personality development programmes that aimed at higher employability of the students in their future.

Table 2: Academic achievements of students graduated from the College

Year	No. of students	Students in higher studies (M. Tech.)	Employment status
2019	08 (B. Tech.)	07	-
2020	10 (B. Tech.)	05	-

Research

Research activities of this college is starting to make significant contributions in the development of innovative and high impact food production technologies. The research activities carried out mainly during the Student READY Experiential Learning Programme, Student READY research programme and Student READY In-plant Training Programme as part of the recommended syllabus of the ongoing degree programme are benefitting the students to gain practical knowledge and skills in a major way. Different value addition technologies and innovative methods of food processing are developed during the above mentioned research programmes. The technologies developed during these programmes have been a regular content in the CAU Research Bulletin and other referenced national journals for the last few years.

Table 3: Technologies designed and developed in the college during the last five years (2015-2020)

Sl. No.	Title of the Technology
1	Standardized blended RTS beverage using pineapple and ginger
2	Standardized lemon RTS with local medicinal herbs
3	Standardized chak-hao (black scented rice) noodle
4	Standardized chak-hao (black scented rice) gulabjamun
5	Formulation and Standardization of chak-hao (black scented rice) super kabok (puffed rice) with chia seeds and flax
6	Standardized chak-hao (black scented rice) cookies
7	Formulation and Standardization of chak-hao (black scented rice) instant baby food
8	Standardized dehydrated ready to cook mixed vegetable
9	Ginger, garlic and U-morok (King chilli) pickle
10	Formulation and standardization of water chestnut (caltrop) soup with local medicinal herbs
11	Standardized Heimang (Rhuschinensis) balls
12	Standardized squash chips
13	Standardized chak-hao (black scented rice) cakes and cookies
14	Pineapple powder production
15	Formulation and standardization of Chak-hao (black scented rice) instant kheer mix

One of the most significant achievements of the technologies developed by the college is formulation and standardization of Chak-hao (black scented rice) instant kheer mix. This technology has become a commercial success after the memorandum of understanding signed between the CAU and RIMA Foods, Imphal in the month of January 2021. Moreover, the pineapple powder produced in the college is expected to be one of the major innovations considering the preferred quality of the fruit and marketing constraints due to difficult access to the pineapple growing areas in the hilly regions of the state.

Accomplishments

At B. Tech. level, students are admitted from all the State of NEH. Few seats are filled on all India basis through ICAR quota. The quota of various States for admission to the college is fixed. The State Governments recommend students (on the basis of competitive examinations within their state) for admission. Similarly ICAR nominate (on the basis of all India competitive examination) students for their quota. The intake capacity, number of students admitted, number of students graduated number of fellowship received by the students in various academic years are given in following two tables.

Student enrollment in the College has been getting increased gradually for each academic year. During recent past, however, some –signatory states are seeking for more allocation of seats for their students. The main reason might be the impressive performance shown by the students of this college at national level. Altogether, 18 students from two batches have already achieved their B. Tech. degree from the College. On an average, 100 per cent of passed out students secured first class in their final examination which is a morale booster and an achievement in itself. Students of this college have shown outstanding performance in the national level examinations. The following table highlights some of the major achievements of the passed out students in terms of ICAR-JRF and GATE examinations en route to their M. Tech. study in different IITs and other universities all over India.

Table 4: Performance of the students during the academic year 2015 to 2020

Sl.	Year	Intake	No. of students	No. of students	No. of students receiving

No.		capacity	admitted	graduated	scholarships
1	2015-16	20	08	08	01 merit scholarship, 07 state scholarship
2	2016-17	20	10	10	01 merit scholarship, 09 merit scholarship
3	2017-18	20	08	-	01 merit scholarship, 07 state scholarship
4	2018-19	27	07	-	01 merit scholarship, 06 state scholarship
5	2019-20	27	11	-	07 state scholarship, 03 NEC scholarship
6	2020-21	27	16	-	-

Table 5: Total number of students available during various academic years

Year	1st	2nd	3rd	4th	Total no. of students	Total scholarship
2015-16	08	-	-	-	08	08
2016-17	10	08	-	-	18	18
2017-18	08	10	08	-	26	26
2018-19	07	08	10	08	35	35
2019-20	11	07	08	10	36	35
2020-21	16	11	07	08	42	25

Table 6: Milestones achieved by the students of the College since its inception in 2015

S. No.	Name of Student	Year of passing out	ICAR-JRF	GATE	Major Subject	M. Tech.
1	Niamcha Lowang	2018	2019-20 ST – 1st UPS – 2nd Overall – 144th	-	Food Technology	Anand Agricultural University, Anand, Gujarat
2	SweetyNgangom	2018	-	2019	Food Technology	Tezpur University, Assam
3	Monika Konsam	2018	2020-21 UPS – 1st OBC – 33rd Overall – 91st	2020	Food Technology	Jadavpur University, West Bengal
4	BhaveshDatla	2019	-	2020 Overall – 19th in Engineering Sciences;	Food Technology	Indian Institute of Technology, Kharagpur

				Overal l – 1st in Food Techn ology		
5	Alok Das	2019	-	2020	Food Technology	Indian Institute of Technology, Varanasi
6	Rebika Salam	2019	2020-21 UPS – 2nd	-	Food Technology	Tezpur University, Assam
7	W. Athoi	2018	-	2020	Food Technology	Tezpur University, Assam

Table: 7.Number of students passed and secured M. Tech. in 2018-19 to 2019-20

Sl. No.	Year	Number of students qualified/Number of students placed					Number of students passed out
		JRF	SRF	GATE	M. Tech.	Other	
1.	2018	01	-	03	06	-	08
2.	2019	02	-	02	05	-	10

Extracurricular activities:

As part of the academic activities of the college, the students have participated actively in every extra-curricular activities during various events organized in and outside the University. Some of the remarkable achievements of the students in extra-curricular activities have been listed below.

Table 8: Extra-curricular activities participated by the students of the college

Sl. No.	Events (sports/literary/cultural meets)	State/regional /national level	Year	Position
1	Inter-collegiate Youth Festival of Central Agricultural University at College of Veterinary Sciences, Thenzawl, Mizoram	Regional	2018	Folk dance (group) – 2nd On-the-spot painting – 2nd (Ksh. Amitkumar Singh) Elocution – 2nd (RohanSingha) Mime (group) – 4th
2	Inter-collegiate Youth Festival of CAU at College of Agriculture, Iroisemba, Imphal	Regional	2019	Cultural procession (group) – 2nd Folk dance (group) – 3rd Quiz – 3rd (L. Bikramjit Singh and BhaveshDatla)
3	Inter-collegiate Sports Meet of CAU at College of Agriculture, Iroisemba, Imphal	Regional	2019	100 m race – 2nd (ArrowalSyngkon) 200 m race – 1st

				(ArrowalSyngkon) Discus throw – 3rd (L. Bikramjit)
4	OUGRI Night of National Institute of Technology, Manipur	Regional	2019	Debating competition – 3rd (RohanSingha)
5	National AgriUnifest at Raipur, Chhatisgarh	National	2020	Represented and participated in elocution, debating competition and ex-tempore speech (RohanSingha)

(5)

(6)

(7)

(8)

Fig 5 to 8: Students of the college participating in various cultural activities

Additional information on monitoring mechanism for quality education

- Monthly meetings: The Dean College of Food Technology conducts monthly meetings with the faculties to evaluate the progress in the field of teaching, research and extension.
- Annual reports: Annual reports are prepared for the college based on teaching, research and extension education activities performed during the year in consideration. The reports are used for measuring the performances of the college during the particular year and serve as guidelines for future action plan

Student evaluation:

Students' advisory meeting is conducted every week by respective advisors and every month students advisory meeting is held along with the Dean of the college. He receives the feedback from the students and gives direction to the faculties. The students are providing the feedback of course teachers who handle the classes during a particular semester in a prescribed proforma. The feedback of the students is analyzed and the inadequacies are properly addressed.

Special focus is paid for all round development of student to show their hidden talents in addition to their academic programme. The College organizes co-curricular and extra-curricular activities for overall development of student's personality and career. Annual College Week, Blood Donation Camp, Agricultural Education Day, Mahatma Gandhi's Anniversary programme, NSS, Physical Education, Sports, Literary activities etc. are also organized to give the opportunity to the students. The students also participate regularly inter collegiate event of University and National level competitive events.

6.5.1.3. CC/Board of Studies

The College of Food Technology, Imphal is a constituent college of Central Agricultural University, Imphal and is governed by decisions of the statutory bodies viz., Board of Studies (BOS) and Academic Council. The college has duly constituted and functional Board of studies since its inception in 2015. Composition of Board of Studies and major recommendations made by BOS for the last five years are laid down in **Annexure 6.5.1.3.**

6.5.1.4. Anti-Ragging Committee

In pursuance to the Judgment of the Hon'ble Supreme Court of India dated 08.05.2009 in Civil Appeal No. 887/2009, the University Grants Commission has framed "UGC Regulations on curbing the menace of ragging in higher educational institutions, 2009" which have been notified on 4th July, 2009 in the Gazette of India. Accordingly, College has been following this regulation and subsequent guidelines are issued in every year. Every student compulsorily registered to the Anti-ragging cell of UGC and submits Affidavit signed by student and parents in this regard. Anti-ragging committees were formed in the last five years (2016-2021) for prohibiting the ragging offenses in the college campus as per the U.G.C. "Regulations on curbing the menace of ragging in Higher Educational Institutions, 2009". The following anti-ragging committees were formed in the last five years (2016-2021) for prohibiting the ragging offenses in the college campus as per the U.G.C. "Regulations on curbing the menace of ragging in Higher Educational Institutions, 2009".Details of the notification issued to prevent the menace of ragging are **annexed in 6.5.1.4.**

6.5.1.5. Biological Waste Disposal Facility:

Since the college has been shifted to its present temporary campus in the month of January 2020, a biological waste disposal facility of the college is yet to be established. However, for the different kinds of perishable waste generated from the various works undertaken during food processing experiments, a pilot biogas plant is in the pipelines to be developed at the earliest. Apart from that, a fully functional biological waste disposal facility for various chemical, biological and recyclable wastes generated through a variety of research activities, clinical service, maintenance and cleaning operation at the college level is required in the near future. Currently, food wastes generated from both the hostels are disposed in compost pits in the backyard of the hostels. The laboratory chemical wastes are disposed by burying deep into the soil. Waste bins and dust bins are maintained at regular distances in the administrative cum academic building, boys' hostel and girls' hostel. Regular cleaning and burying activities of the wastes accumulated is monitored by outsourced staff of the college.

6.5.1.6. Institutional Ethics Committee for Experiments on Animals

The college does not undertake experiments on animals. However, if such experiments are undertaken in future, then the college will strictly adhere to CPCSEA guidelines and will constitute an Institutional Animal Ethics Committee (IAEC).

6.5.1.7. Committee for Prevention of Sexual Harassment of Women at Work Place

A Committee for prevention of Sexual Harassment of Women at Workplace was established vide order No.COFT/CAU/139/ICC/2021/ on 26th February, 2021 – **Annexure 6.5.1.7**

Details of measures taken up by the committee on 'Prevention of Sexual Harassment of Women at Workplace'

Proceedings of a meeting held on 03-03-2021

1. Duty of security guards for 24 hours in girls' hostels
2. Hostel Gate Closure Time is 6.00 pm in summer and 5.30 pm in winter in girls' hostels. No girls are permitted to go outside the hostel after gate closure without permission from the warden.
3. Security guards to be posted at the exit of the campus for 24 hours and night patrolling in the campus.
4. One lady MTS is to be posted in girl's hostel to look after the welfare of the borders in addition to her normal duty as a cook.
5. Regular counseling of girl students by student advisors.
6. One Complaint Register is to be maintained at Dean's office for lodging complaints of sexual harassment.
7. CCTV to be installed at the hostel entrance

Action taken report on 7th March 2021

1. Duty of security guards for 24 hours in girls' hostels
2. Hostel Gate Closure Time is 6.00 pm in summer and 5.30 pm in winter in girls' hostels. No girls are permitted to go outside the hostel after gate closure without permission from the warden.
3. Security guards are posted at the exit of the campus for 24 hours and night patrolling in the campus.
4. Regular counseling of girl students by student advisors has been in practice.

5. Committee also resolved certain measures for the safety of girls and women in the campus

Activities being performed/practiced to prevent Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal)

1. Duty of security guards for 24 hours in girls' hostels
2. Hostel Gate Closure Time is 6.00 pm in summer and 5.30 pm in winter in girls' hostels. No girls are permitted to go outside the hostel after gate closure without permission from the warden.
3. Security guards are posted at the exit of the campus for 24 hours and night patrolling in the campus.
4. One lady MTS is to be posted in girl's hostel to look after the welfare of the borders in addition to her normal duty as a cook.
5. Regular counseling of girl students by student advisors.

The women cell for prevention of sexual harassment of women has been formed to address all grievances pertaining to sexual harassment of women (students, teaching and non-teaching staff and labours) at the college. Dr. L. Sophia I/c Women Cell looks after the problems. There is no complaint on sexual harassment in the college during last five years. However, details on sexual harassment of women at work place Act, 2013 and a preamble of the Act and seeking remedy under this Act are clearly explained to the staff and farm workers.

6.5.2 Faculty

As per faculty recommended by ICAR/UGC/VCI/Other regulatory bodies the faculty strength is yet to be filled to its full strength. Special focus is paid for all round development of student to show their hidden talent in addition to their educational programme. The College organizes co-curricular and extra-curricular activities for overall development of student's personality and career. Annual College Week, Blood Donation Camp, important international and national Days, Awareness Programs, NSS, Physical Education, Sports, Literary activities etc. are also organized to give the opportunity to the students. The students also participate regularly in inter collegiate events of the University and represent the college in National level competitive events.

6.5.2.1. Faculty Strength sanctioned, vacant and recommended by ICAR

As per the Fifth Dean Committee, **Five (05) Professors, Ten Associate Professors (10) and Thirty (30) Assistant Professors** are needed to teach and guide the students of B. Tech. Food Technology, M. Tech Food Technology and Ph. D. Food Technology. We are offering only **B. Tech. (Food Technology)** at present. At this College the following Faculty members were involved in teaching and guiding the students of B. Tech. Food Technology during 2015-2020. As per the recommendations by ICAR/UGC/VCI/Other regulatory bodies, the present faculty strength of the college is yet to be filled up to its full strength.

Table 9: Present status of faculty strength of the College

Sl. No.	Faculty	Faculty in place	Sanctioned post	Vacant Position	Faculty recommended By ICAR/UGC/VCI/Other regulatory bodies
1.	Professor	05 (Guest lecturers, CoA)	04	*04	05

2.	Associate Professor	06 (Guest lecturers, CoA)	00	00	10
3.	Assistant Professor	07(contract) 24 (Guest Lecturers)	06	**06	30
Total		**42**	**10**	**10**	**45**

*& **The above statement regarding the vacancy of Professor and Assistant Professor is as per the advertisement published by the University Authority and **the selection process is in progress**.

List of Guest Lecturers (2020-21):

Sl. No.	Name	Department and Institute	Courses Covered
1.	Dr. Thokchom Subhaschandra Singh	Assistant Professor Dept. of Mechanical Engineering NIT Manipur	Food Thermodynamics (Theory and practical)
2.	Er. Laishram Birjit Singh	Technical Assistant Dept. of Mechanical Engineering NIT Manipur	Food Thermodynamics and Heat and Mass Transfer (Practical classes)
3.	Dr. Thiyam Tamphasana Devi	Assistant Professor Dept. of Civil Engineering NIT Manipur	Fluid Mechanics (Practical classes)
4.	Dr. Shuma Adhikari	Assistant Professor Dept. of Electrical Engineering NIT Manipur	Basic Electrical (Practical classes)
5.	Er. Asem Nabadavis	Assistant Professor Dept. of Mechanical Engineering MTU Manipur	Food Thermodynamics (Theory)
6.	Er. Jimmy Laishram	Assistant Professor Dept. of Computer Engineering MTU Manipur	Computer Programming (Theory and practical)

As per faculty recommended by ICAR/~~UGC/VCI/~~ Other regulatory bodies the faculty strength are not sufficient. However, faculties from other constituent colleges including College of Agriculture, Iroisemba, Dhanamanjuri College of Arts, Dhanamanjuri College of Science, Churachandpur College, scientists from AICRP and ICAR are being assigned to complete the curriculum of the undergraduate degree programme of this college. The teaching pedagogy include a judicious blend of different teachings modules, classroom-based teaching with an equal weightage on practical training and exposure to inculcate pragmatic skills and perk up student's confidence to meet requirement of various client organization as well as higher education in other national and international academic institutions. At present the College of Food Technology is running with two regular teachers (One Associate Professor, one Assistant Professor

(Sl. Grade) and seven (07) Assistant Professors (contract).

6.5.2.2. Faculty Profile (Department wise)

The names of various faculties (permanent, on contract, from sister organization, guest etc.) their qualification and various courses taught by them is given below. As mentioned, these faculties are assigned the responsibility for the B. Tech. programme only.

Sl.No.	Department	Sanctioned Faculty	Filled post*	Vacant post	Faculty recommended by the ICAR
1	Food Process Technology	Professor	0	1	1
		Associate Professor	0	0	2
		Assistant Professor	0	1	4
2	Food Process Engineering	Professor	0	1	1
		Associate Professor	0	0	2
		Assistant Professor	0	4	9
3	Food Safety and Quality Assurance	Professor	0	1	1
		Associate Professor	0	0	2
		Assistant Professor	0	1	7
4	Food Business Management	Professor	0	1	1
		Associate Professor	0	0	2
		Assistant Professor	0	0	7
5	Food plant operation	Professor	0	0	1
		Associate Professor	0	0	2
		Assistant Professor	0	0	4
Total			**0**	**10**	**46**

*7 contractual Assistant Professors were recruited. The faculties of COA, Imphal also impart classes in relevant subjects viz., English, Biochemistry, Animal Sciences etc. In addition to that 35 Guest faculties from NIT Manipur, MTU Manipur and DM University also offers different courses regularly.

Table 10: Information regarding faculties, their qualification and courses taken for the B. Tech. (Food Technology)

Area	Since 2015 to 2020		
	Subject	Taught by	Highest qualification
Food Process Technology	Fundamentals of Food Processing	Dr.AngamRaleng (Assistant Professor) Mr. H. Dayanidhi Singh (Assistant Professor)	Ph. D. M. Sc.
	Processing Technology of Cereals	Dr.A.K. Mishra, (Deputy Director Research) Dr. Ng. Joykumar Singh (Dean)	Ph. D.
	Processing Technology of Legumes and Oilseeds	Dr.AngamRaleng (Assistant Professor) Dr.A.K. Mishra, (Deputy Director Research) Dr. N Renuka (Associate Professor)	Ph. D.
	Processing	Dr. L. Sophia Devi, (Junior Scientist)	Ph. D.

	Technology of Fruits and Vegetables	Dr. Mariam Anal (Assistant Professor)	
	Processing Technology of Liquid Milk	Dr.M. Norjit Singh, (Assistant Professor) Dr.Angam Raleng (Assistant Professor)	Ph. D.
	Processing Technology of Dairy Products	Dr.M.Norjit Singh, (Assistant Professor) Dr.Angam Raleng (Assistant Professor)	Ph. D.
	Processing Technology of Beverages	Dr.A.K. Mishra, (Associate Professor) Dr. L. Pilloo (Associate Professor)	Ph. D.
	Processing of Spices and Plantation Crops	Dr. L. Sophia Devi, (Junior Scientist) Dr. Mariam Anal (Assistant Professor)	Ph. D.
	Processing of Meat and Poultry Products	Dr. M. Norjit Singh, (Assistant Professor) Dr.AngamRaleng (Assistant Professor)	Ph. D.
	Processing of Fish and Marine Products	Dr.Wanglar Chimwar, (Junior Scientist) Dr.Bashuda Devi (Senior Scientist)	Ph. D.
	Bakery, Confectionery and Snack Products	Mr.H.Dayanidhi Singh (Assistant Professor) Dr. L. Pilloo (Associate Professor)	M. Sc.
	Food Packaging Technology and Equipment	Dr.Angam Raleng (Assistant Professor) Dr.A.K. Mishra, (Deputy Director Research)	Ph. D.
	Sensory Evaluation of Food Products	Dr.Angam Raleng (Assistant Professor) Mr.H.Dayanidhi Singh (Assistant Professor)	Ph. D.
	Fundamental of food Technology	Dr.Angam Raleng (Assistant Professor) (Dr. Ng. Joykumar Singh (Dean)	Ph. D.
Food Safety and Quality Assurance	General Microbiology	Dr.Punyakishore M. (Assistant Professor) Dr.Lokesh Mishra (Associate Professor)	Ph. D.
	Food Microbiology	Dr.Punyakishore M. (Assistant Professor) Dr.P.K. Sarangi, (Scientist)	Ph. D.
	Industrial Microbiology	Dr.P.K. Sarangi, (Scientist) Dr.Punyakishore M. (Assistant Professor)	Ph. D.
	Food Chemistry of Macronutrients	Mr.H.Dayanidhi Singh (Assistant Professor) Dr.Angam Raleng (Assistant Professor)	M. Sc.
	Food Chemistry of Micronutrients	Mr. H. Dayanidhi Singh (Assistant Professor) Dr.A.K. Mishra, (Deputy Director	M. Sc.

		Research)	
	Food Biochemistry and Nutrition	Dr.Punyakishore M. (Assistant Professor) Dr. Th. Anand Singh (Scientist)	Ph. D.
	Biochemistry	Dr.Punyakishore M. (Assistant Professor)	Ph. D.
	Food Biotechnology	Dr.Punyakishore M. (Assistant Professor)	Ph. D.
	Food Additives and Preservatives	Mr. H. Dayanidhi Singh (Assistant Professor) Dr.A.K. Mishra, (Deputy Director Research)	M. Sc.
	Instrumental Techniques in Food Analysis	Dr. Th. Anand Singh (Scientist) Mr. H. Dayanidhi Singh (Assistant Professor)	Ph. D.
	Food Plant Sanitation	Dr.Th.Gopeshwor Singh(Assistant Professor) Dr.AngamRaleng (Assistant Professor)	Ph. D.
	Food Quality, Safety Standards and Certification	Mr. H. Dayanidhi Singh(Assistant Professor) Dr. L. Pilloo (Associate Professor)	M. Sc.
Food Process Engineering	Food Thermodynamics	Dr. S. Sunderlal Singh (Assistant Professor) Dr. Th. Subhaschandra Singh (Assistant Professor, **NIT, Manipur**)	Ph. D.
	Fluid Mechanics	Dr. S. Sunderlal Singh (Assistant Professor) Dr.Thiyam Tamphasana Devi, (Assistant Professor, **NIT, Manipur**)	Ph. D.
	Post-Harvest Engineering	Dr. Ng. Joykumar Singh (Dean) Dr.A.K. Mishra, Guest	Ph. D.
	Heat and Mass Transfer in Food Processing	Dr. L. Sophia(Assistant Professor) Dr. S. Sunderlal Singh (Assistant Professor)	Ph. D. Ph. D.
	Unit Operations of Food Processing - I	Dr. Ng. Joykumar Singh (Dean) Dr.Angam Raleng (Assistant Professor)	Ph. D.
	Unit Operations of Food Processing - II	Dr. Ng. Joykumar Singh (Dean) Dr.A.K. Mishra, (Deputy Director Research)	Ph. D.
	Food Refrigeration and Cold Chain	Dr. L. Sophia(Assistant Professor) Dr. S. Sunderlal Singh(Assistant Professor)	Ph. D. Ph. D.
	Food Storage Engineering	Dr.Angam Raleng(Assistant Professor) Mr. H. Dayanidhi Singh (Assistant Professor)	Ph. D.

	Food Process Equipment Design	Dr. S. Sunderlal Singh(Assistant Professor) Mr. H. Dayanidhi Singh (Assistant Professor)	Ph. D.
	Instrumentation and Process Control in Food Industry	Dr. S. Sunderlal Singh(Assistant Professor) Dr.A.K. Mishra, (Deputy Director Research)	Ph. D.
Food Business Management	Business Management and Economics	Dr. S. Bhogin Singh, (Associate Professor) Prof. Y. Chakrabarty (Professor)	Ph. D.
	ICT Applications in Food Industry	Dr.Shuma Adhikari, Assistant Professor **Dept. of Electrical Engineering NIT Manipur** Er. Saroj Kumar Behera (Assistant Professor)	Ph. D. M. Tech.
	Marketing Management and International Trade	Dr.Angad Prasad, (Professor) Prof. L. Nabachandra Singh (Professor)	Ph. D.
	Project Preparation and Management	Dr. S. Bhogin Singh, (Associate Professor) Dr. Y. Chakrabarty (Professor-Economics)	Ph. D.
	Communication and Soft Skills Development	Dr.Dayaram, (Assistant Professor) Prof. AngadPrasad (Extension – professor)	Ph. D.
	Entrepreneurship Development	Dr.Dayaram, (Assistant Professor) Prof. N. Okendro Singh (Professor – Stats)	Ph. D.
Food Plant Operations	Student READY-Experiential Learning Programme - I	Dr. Ng. Joykumar Singh (Dean) Dr.Feroze Saikh (Associate Professor)	Ph. D.
	Student READY-Experiential Learning Programme - II	Dr. Ng. Joykumar Singh (Dean) H. Dayanidhi Singh (Assistant Professor)	Ph. D.
	Student READY – Research Project	Dr. Ng. Joykumar Singh Dr. Th. Gopeshwor Singh (Assistant Professor)	Ph. D. Ph. D.
	Student READY - Seminar	Dr. Th. Gopeshwor Singh(Assistant Professor) Dr. L. Sophia(Assistant Professor) Dr.Punyakishore M. (Assistant Professor)	Ph. D. Ph. D. Ph. D.

Basic Engineering	Engineering Drawing and Graphics	Dr. L. Sophia(Assistant Professor) Er. Asem Nabadavis, Assistant Professor **Dept. of Mechanical Engineering** **MTU Manipur**	Ph. D.
	Basic Electrical Engineering	Er. Saroj Kumar Behera(Assistant Professor) Dr.ShumaAdhikari, Assistant Professor **Dept. of Electrical Engineering** **NIT Manipur**	M. Tech.
	Workshop Technology	Dr. L. Sophia(Assistant Professor) Dr. Ng. Joykumar Singh	Ph. D. Ph. D.
	Computer Programming and Data Structure	Er. Saroj Kumar Behera(Assistant Professor) Er. Jimmy Laishram, Assistant Professor **Dept. of Computer Engineering** **MTU Manipur**	M. Tech.
	Basic Electronics Engineering	Er. Saroj Kumar Behera(Assistant Professor) Er. Jimmy Laishram, Assistant Professor **Dept. of Computer Engineering** **MTU Manipur**	M. Tech.
Basic Sciences and Humanities	English Language	Dr. K. Maheshwari Devi, (Assistant Professor), Guest	Ph. D.
	Crop Production Technology	Dr.R.K. Dilip Singh, Guest Dr.A.K. Bijaya Devi, Guest Dr. Edwin Luikham, Guest Dr.JamkhoginLhungdim, Guest	Ph. D. Ph. D. Ph. D. Ph. D.
	Engineering Mathematics -I	Er. Saroj Kumar Behera(Assistant Professor) Prof. GangmeiSobha (Prof.-Maths)	M. Tech.
	Engineering Mathematics -II	Er. Saroj Kumar Behera (Assistant Professor) Prof. GangmeiSobha (Prof.-Maths)	M. Tech.
	Environmental Sciences and Disaster Management	Dr. Th. Gopeshwor Singh (Assistant Professor)	Ph. D.
	Statistical Methods and Numerical Analysis	Shri N. Gopimohon Singh, (Associate Professor), Guest Dr. N. Okendro Singh, (Professor), Guest	M. Sc. Ph. D.

6.5.2.3. Credentials of the Faculty:

All faculty members of the college are qualified and recognized persons of their fields. The college has adequate proportion of experienced and young faculty members. Many faculty members in the college have received awards for their excellence in teaching and research activities. The details of qualification, experience and professional experience and demonstrated competencies are listed in **Annexure 6.5.2.3.**

6.5.2.4. Technical and Supporting Staff

The technical staff and other supporting staff of College of Food Technology are attached with the Dean's office for administrative, convenience and being allotted to other departments as per requirements and skills imparted. Other than these staffs some Skilled and Unskilled labours are hired on contractual basis. The administrative and accounts staff are centralized in the college and are operating under the direct control of the Dean as part of Dean's office.

Table: 11. Information of Technical and Supporting Staff of College of Food Technology

	In position	Vacant
COFT, Imphal	14	2

Some staffs are commonly shared from COA, Imphal at present.

Since the college is newly established, only some technical staff (permanent) has been assigned the responsibilities for the multiple activities related to the College. Apart from that 20 outsourced contractual staff is engaged based on the skills required.

6.5.3. Learning Resources

Learning resources like books, photos, life specimen and audio-visual aids like power-point presentation, videos are used to assist the students to meet the expectation for learning defined by IC3.AR recommended curriculum.

Faculties are provided with computers to access the online open coursework and online portal to use it for the curriculum delivery. Faculty members access various resources for use in teaching, research and extension activities. Students are also encouraged to access various software applications in food technology.

6.5.3.1. College Library (Digital)

The Library provides circulation and reference services. The Library also has access to online e-journals through ICAR web portal. Photocopying and printing facility is also available in the Library. Details of library are as given below:

Table12: Details of the College library

Sl. No.	Particulars	Details
1	Area	48.5 sq. m.
2	Present staff	Library assistant – 01, MTS -01
3	Availability of Wi-Fi	Wi-fi facilities area available in the library with a band width speed of 50 Mbps from BSNL network.
4	Books	For College of Food Technology: **1477 books**
5	Other reading materials	National and local newspaper such as The Sangai Express, The Telegraph, The Times of India, etc. Magazines like India Today, Down To Earth, PratiyogitaDarpan, Civil Services Chronicle, Kurukshetra, Yojana, Agriculture Today, etc.
6	Research journals	Students and faculty can access journals through online portal of ICAR
7	Internet with computers	Two
8	Sitting capacity	10
9	Stocking arrangement	The College library adopted Open Access System for

		accessing library collection and classified according to Dewey Decimal Classification (DDC) scheme (22 Ed.) and arranged in APUPA pattern, stacked in different parts like, Subject books Literature books, General books, Reference books, Competitive Exam books, Thesis, Back volumes, Seminar scripts, etc.
10	Operating hours	9:30 am to 4:30 pm
11	Books available in the library	Food Science, Food Engineering, Processing of Vegetables, Processing of Fruits, Processing of Dairy products, Microbiology, Biotechnology, Food Chemistry, Nutrition, Environmental Science and Disaster Management, Civil Engineering, Mechanical Engineering, Electrical Engineering, Biochemistry, Chemistry of Micronutrients, Food Process Engineering, Business Management, Entrepreneurship Development, Project Preparation, etc.

Fig 9 Library facilities at the College

6.5.3.2. Classrooms, Laboratories, Dean's room, Instructional Farm, Practical, Training halls, Workshops, Ponds, etc.

The regular teachings are conducted in the pre-fabricated college classrooms and laboratory. The College of Food Technology has a functional laboratory to conduct basic practical experiments. It is presently equipped with necessary equipment and facilities to accomplish the academic activities. All basic chemicals and instruments are available for doing practical and research work in all the laboratory.

Details of Classrooms and Laboratories:

a) **Number of class rooms**: (UG = 4)

Fig. 10 UG Classroom of the College

All class rooms are provided with LCD projectors and audio-visual aids for better delivery of lectures. The faculty use power point presentations to make the concepts/techniques clearly understandable to the students. The important lectures are taught with videos. A table, podium, whiteboards/screen, black board etc. are available in each class room for the use of teachers.

b) **Functional Laboratory:**

At present, there is a common laboratory for the practical experiments of the students. Apart from that, major experiments are conducted in other nearby institutes including NIT, Manipur, Manipur Technical University, Imphal, S.K. Womens' College, Nambol and CAEPHT, CAU, Sikkim.

Fig 11: Functional Laboratory and Equipments of the college

Fig. 12 Mini-Commercial oil expelling machine

Fig. 13 Shrink Packaging and Vacuum packaging Machine

Fig. 14 Fruit Extraction machine and Tray/Cup packaging Machine

Fig. 15 Rotary Evaporimeter and Autoclave Machine

Fig. 16 Laminar Flow and Incubator Machine

Fig. 17 Tray Dryer and Crown Capping Machine

Fig. 18 Pulveriser Machine and Weighing and Microwave Oven

Fig. 19Soxlet Plus Apparatus and Weighing and Microwave Oven

Fig. 20 Processing Lab. and Chemicals

Fig. 21 Pineapple Powder Processing Pilot Plant

Fig. 22 Pineapple Primary Processing Mobile Van

Fig. 23 Pineapple Juice Extraction Mobile Van with washing Unit

Fig. 24 Computer Room

Fig. 25 Photograph of Dean's room

Farm Facility

The College has a nutritional farm for students' research and demonstration purposes. It is located on the western boundary of the college. The farm has been in operation since the month of January, 2021.

Table 13: Details of the Nutri-Garden of the College

Particular	Farm Area (ha)	Irrigated/Non Irrigated (ha)	Crops grown
Nutritional Garden of the College of Food Technology, Imphal	3.0 acres	Irrigated with sprinkler and drip irrigation systems	Banana, papaya, potato, cabbage, cauliflower, tomato, coriander, methi, pumpkin, corn, beans, peas, Capsicum, King Chilli, mustard, etc.

Table 14: Facilities available at the Nutri-Garden of the College

Sl. No.	Facility available	Remarks
1	4.5 hp water pumping set (2 nos.)	For supply and water pumping to the crops
2	Drip irrigation system	For irrigation of crops grown
3	Sprinkler irrigation system	For irrigation of crops grown
4	Water reservoirs (under raised and sunken system of farming)	Water storage and supply

Fig 26: Nutri-Garden of the College

Fig. 27 Papaya orchard (Red Lady variety) at the college farm

The college also maintains a pond with an approximate area of (400 sq. m.) just behind the administrative building. Presently, the bank of the pond is planted with pineapple and the pond itself is maintained as aquaculture of common carp varieties. Both the farm and pond are regularly monitored by one farm manager and MTS staff of the college under the direct supervision of Dean.

Fig. 28Practical / Training Hall of the College

6.5.3.3. Student READY/ In-Plant Training / Internship/Experiential Learning Programmes: Yes

The practical of courses for B. Tech (Food Technology) is carried out in the laboratories equipped with desired instrumentation and facilities. Since the number of students admitted is small in number, practical classes are conducted in a single batch generally as per academic schedule. Students are allowed to perform practical after proper demonstration and skill presentation with precautionary measures. The available facilities for practical and hands-on training are equipped with adequate number of instruments allowing each individual studentto perform practical.

The students of B. Tech. (Food Technology) undergo Two five weeks Experiential Learning Programme during VII Semester. The requisite facilities for conduction of experiential learning programme are provided to students to practically fulfill programme requirements and achieve desired skills. During VIII Semester, students of the college compulsorily undergo a 12 weeks In-plant Industrial Training Programme in reputed industries and research institutes across the country. Students have undergone the hands on training for the skill development during the training programme to make them fit for demonstrating the responsibilities effectively in the professional career. During the training students developed the skill in the field of food processing and value addition, post-harvest management, etc.

The project activities conducted by the students under the different modules of Student READY and In-plant Training programmes are approached under an accepted profit sharing mechanism approved by the competent authority of the university vide order no. CAU/FT (Acad)-5(ST)/2017/dt. the 4th Nov.2020 **[Annexure : 6.5.3.3]**

Annexure 6.5.3.3

COLLEGE OF FOOD TECHNOLOGY
CENTRAL AGRICULTURAL UNIVERSITY
LAMPHELPAT - 795004

(R) Gram: AGRIVARSITY
Phone No. :9612168301
E-mail : dean.coftimf@gmail.com

CIRCULAR

Imphal, the 4th November, 2020

No.CAU/FT(Acad)-5(ST)/2017/ : It is for information of all the ELP supervisors that the students undergoing Student READY-Experiential Learning Programme (ELP) of the 4th year B.Tech. (Food Tech.) in the 7th sem. are needed to submit the cost-profit statement/report of the programme at the end of the semester.

Further, it is to mention that the profit arising out of the ELP is to be distributed as per the sharing pattern shown below:

1.	Students	: 75%
2.	Department	: 10%
3.	Faculty & other staff Involved in the execution of the programme	: 15% of profit

Yours faithfully,

(Dr.Ng. Joykumar Singh)
i./c. Dean

Memo No.CAU/FT(Acad)-5(ST)/2017/ Imphal, the 4th November, 2020

Copy to:

1. All the ELP Supervision, COFT, CAU, Imphal for information.
2. The Academic In-charge, COFT, CAU, Imphal for information.
3. The Assistant Registrar (E), COFT, CAU, Imphalfor information.
4. The Assistant Comptroller, COFT, CAU, Imphal for information.

(Dr. Ng. Joykumar Singh)
i./c. Dean

Table 14: Titles of Experiential Learning Modules for B. Tech (Food Technology) implemented during 2015-16 to 2020-21

Sl. No.	Title of EL	Year of Sanction	EL Location	Discipline
1.	Vegetable Processing	2017-18	College of Food Technology	B.Tech(Food Tech)
2.	Fruit Processing	2017-18	Meira Foods	B.Tech. (Food Tech)
3.	Chak-hao (Black rice) Processing	2018-19	College of Food Technology	B.Tech. (Food Tech)
4.	Spice processing	2018-19	Korouhanba Spices	B.Tech. (Food Tech)
5.	Indigenous fruits	2019-20	College of Food Technology	B.Tech. (Food Tech)
6.	Bakery products	2019-20	Likla foods	B.Tech. (Food Tech)

Table 15: Places of Training for Skill Development Summer Training of 12 weeks duration (during VIII semester)

Year	List of Training Institutes B. Tech. (Food Technology)
2017-18	Central Food Technological Research Institute, Mysore
2018-19	Nilon's, Guwahati, Patson Foods, Guwahati and Amul, Ahmedabad
2019-20	Central Food Technological Research Institute, Mysore

Table 16: Major skills imparted through Experiential Learning Module for B. Tech. (Food Technology) during 2017-2020

Sl. No.	Year	No. of students trained	Major skills imparted
1	2017-18	08	a. Formulation and manufacture of value added products b. Operation and maintenance of processing equipment's c. Development of managerial skills under protected environment d. Skill to develop detailed project proposal to start entrepreneurship e. Registration and licensing enterprise to run business
2	2018-19	10	a. Formulation and manufacture of value added products b. Operation and maintenance of processing equipment's c. Development of managerial skills under protected environment d. Skill to develop detailed project proposal to start entrepreneurship e. Registration and licensing enterprise to run business
3	2019-20	10	a. Formulation and manufacture of value added products b. Operation and maintenance of processing equipments c. Development of managerial skills under protected environment d. Skill to develop detailed project proposal to start entrepreneurship e. Registration and licensing enterprise to run business

Fig 29: Industrial visit of the students during In-plant Training

Fig 30: Industrial exposure during In-plant Training of the students

6.5.3.4. Curricula Delivery through IT (Smart class rooms/interactive board, etc.)

The College has yet to install a fully functional, well-equipped smart classrooms with other associated IT components to deliver curricula. This is in addition to the presently available LCD projector for content presentation in the form of MS Powerpoint, Excel, etc. as well as sound system for interactive classes.

Facilities	Number
Number of class rooms with computers, LCD projectors, Internet connectivity	04
Smart class room	-

6.5.4. Student Development:

6.5.4.1. Student Intake and Attrition:

The College of Food Technology presently offers Under Graduate Degree Programme in Food Technology i.e., B. Tech. (Food Technology) which is of 4 years duration. The admission to the college is given preference to students of NEH region. The quota for various states of NEH and ICAR are fixed for each academic year. State governments and ICAR take competitive examination and also nominate selected candidates for admission in CAU. If the desirous student fulfills the eligibility criteria, then they can be admitted to the college.

Table: 17. Student intake and attrition in the programme for the last five years

Name of the Degree Programme	Actual students admitted in last five years					Attrition (%)				
B. Tech. (Food Technology)	2015-16	2016-17	2017-18	2018-19	2019-20	2015-16	2016-17	2017-18	2018-19	2019-20
	10	08	10	07	16	0	0	0	0	0

6.5.4.2. Average number of students in Theory and Practical Classes

The number of intake students is manageable due to limited number of seats. Presently, the classrooms and laboratory are sufficient to meet the prescribed course curricula requirement of the degree programme.

Table: 18Number of students in theory and practical classes

Sl. No.	Name of the programme	Total intake per year	Batch of student in *Theory* class	Batch of student in *Practical* class
1.	B. Tech. (Food Technology)	12	1	1

6.5.4.3. Admission Process:

Admission requirements

Candidates seeking admission to various UG degree programmes of the University must have secured not less than 50% marks in aggregate in the relevant subjects as shown below at Higher Secondary/10 + 2/Intermediate examination for General/OBC/UPS category and 40% marks in aggregates for SC/ST including physically challenged/in-service candidates.

The relevant subjects for various UG programmes of B.Tech.(Food Technology): *PCM/PCMB*

B = Biology C= Chemistry M = Mathematics P = Physics

Candidates should have passed 10 + 2 examination with English as one of the subject of study. The candidates must have attained 16 years of age on 31stAugust of the admission year. The selection/nomination of candidates should be made through Common Entrance Test conducted by the concerned State. Students seeking admission to any of the above degree programmesshall be permanent resident or domicile of any one of the seven North East States of India, *viz.,* Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. The number of students to be admitted from each of

the seven North East States mentioned to different degree programmes shall be as notified by the University from time to time.

Selection of candidates for admission

The candidate to be sponsored for admission to different degree programmes shall be from the merit list based on the Common Entrance Test conducted by the concerned states.

Students seeking admission to the above degree course shall be a permanent resident or domicile of any one of the seven North Eastern States of India. The number of students to be admitted from each of the seven states mentioned to the degree programme shall be as notified by the University from time to time.

Selection of candidates for admission

The candidate to be sponsored for admission to the degree programme shall be from the merit list based on the Common Entrance Test conducted by the concerned states. Fifteen percent of the approved number of seats in all U.G. programmes except B.V.Sc. & A.H. shall be filled up by the candidates selected on the basis of All India Entrance Test (AIET) conducted by the ICAR or as amended from time to time by ICAR. The ICAR/VCI nominees shall be governed by the eligibility as prescribed by the ICAR/VCI.

Date of admission

The date of admission to a Bachelor's degree programme shall be as per the announcement made in the Prospectus/Academic Calendar/Semester Calendar and notified by the Registrar.

Documents required at the time of admission

Each student seeking admission in the University shall submit an application in the prescribed form with the following certificates and documents in original before the Admission Committee constituted for the purpose.

(i) Pass Certificate for 10+2 Examination
(ii) Marks sheet of 10+2 Examination
(iii) Certificate of High School pass Examination in support of date of birth
(iv) Migration/Transfer certificate from the Board/Council/University where the candidate studied last
(v) College/School leaving certificate from the authority of the college/school where the candidate studied last
(vi) Conduct certificate from the Principal of the College/School where the candidate studied last
(vii) Permanent residency/domicile certificate of concerned state
(viii) Certificate from competent authority, incase admission is sought under reserved category
(ix) Medical certificate from a Medical Officer not below the rank of Asst. Surgeon in support of physical fitness of the candidate
(x) Any other documents (as per prospectus/notification) that may be required at the time of admission

Registration

The first day of the commencement of the semester shall be the date of registration by the students.

Registration of newly admitted students

i) On admission, a student shall be provided four copies of Registration Cards having different colours, one for the student, one for the advisor, one for the Dean and one for the Registrar, which he shall fill up and register for the prescribed courses for the first semester. The Registration Cards shall be signed by the student, his advisor, the Assistant Registrar (Acad.) and countersigned by the Dean of the College.

ii) On admission and registration, the student shall be provided with an Identity Card with his photograph. The Identity Card shall be returned to the College, when the student leaves the college after completion/discontinuation of the course.

iii) Each newly admitted student shall be given an Admission Number by the Dean of the concerned college and this Admission Number shall continue till allotment of Registration Number by the Registrar.

Note: An orientation programme shall be organized by the Dean of the college for the benefit of the newly admitted students immediately after the commencement of the semester.

Registration of continuing students

On successful completion of a semester, the continuing students shall register for subsequent semester on the date specified in the Academic/Semester Calendar or specifically notified. The following procedures shall be adopted while registering for the second and subsequentsemesters of the degree programme:

(i) Students shall register the requisite course in person. In absentia registration will not be permitted under any circumstances.

(ii) Submission of no due certificates from all the departments and units of the college

(iii) Payment of prescribed fees

(iv) Submission of the prescribed Registration Cards duly filled in and signed by all concerned.

6.5.4.4. Conduct of Practical and Hands-on-Training: **Yes**

Theory and Practical batches for the Degree Programme

There are manageable number of students (Maximum 16) who are kept in one batch during Theory & Practical classes to ensure better delivery of information, encourage students' participation and active monitoring.

The undergraduate courses involve conducting practical experiments as per credits allotted to the specified courses and hands on training and field/lab practical are for courses.

Table 17 Number of students in theory and practical classes of the college

Year	B. Tech. (Food Technology)	
	Batch of students in theory class	**Batch of students in practical class**
2015-16	08	08
2016-17	09	09
2017-18	10	10
2018-19	07	07
2019-20	11	11
2020-21	16	16

Short duration training/visit

During the course of study students also visited the following industries for short duration training. These industries include Thangjam Agro (Likla Foods), Imphal, Meira Foods, Imphal, Korouhanba Spices, Imphal, Modern Foods, Imphal, etc.

In order to conduct the practical classes of the students of the College, the students along with the concerned faculty undergo regular visit to other established colleges and institutes for conducting practical classes, namely NIT Manipur, CAEPHT Sikkim and S. K. Womens' College Nambol, Manipur with due approval of the University authority.

Study Tour

Under student ready program in VII Semester students were deputed for Study Tour (two - three weeks). Earlier all the students during course of their study used to undertake study tour twice (two to three

weeks duration each time), one to NEH region and one at places outside North-east (All India Tour). The tour to NEH region was stopped after implementation of 5th Dean's committee. Now students are going only on All India Study Tour. However, due to covid-19 the tour couldn't be undertaken during 2020-21. The details of various tours undertaken by the students are given below.

Table 18: Details of study tour of the students during 2016-20

Year	Places Visited
2016-17	• NEHU, Shillong • ICAR Research Complex for NE Region, Umiam, Barapani • CPGS, Barapani (CAU) • IIT, Guwahati • Tezpur University, Assam • NERIST, Arunachal Pradesh
2017-18	• NEHU, Shillong • Tezpur University, Assam • Yak Centre, Birang, Arunachal Pradesh • KVK, Tawang, Arunachal Pradesh • Kiwi Winery, Bomdilla, Arunachal Pradesh • ICAR Research Complex, Medziphema, Nagaland
All India Study Tour	
2017-18	• Parle Industries, Bhuj, Gujarat • Amul, Anand, Gujarat • Anand Agricultural University, Anand, Gujarat • ICAR-Central Institute of Fisheries Technology, Mumbai • KVK and Agricultural Fair, Goa
2018-19	• Sri Jagannath Flour Mill, Orissa • University of Agricultural Sciences, Bangalore • Pelagic Foods, Bangalore • National Institute of Agricultural Extension Management (MANAGE), Hydearabad
2019-20	• CSIR-Central Food Technology Research Institute (CFTRI), Mysuru • Bakery Heaven, Mysuru • University of Agricultural Science, Bangalore • ICAR-Central Institute of Fisheries Technology, Cochin, Andhra Pradesh

Conduct of the hands on training

(a) Hand on training within the college

Under student ready program in VII semester students of B. Tech (Food Technology) are being provided hands on trainingunder Skill Development Experiential Learning Programme I and II (Skill Development/In-plant training) in the following pilot plants.

Table 19 Details of the Experiential Learning programme of B. Tech. (Food Technology)

Year	Name of the students	Title of Experiential Learning
2018	SweetyNgangom, Bharat Singh Irom, Konsam Monika, NiamchaLowang, W. Athoi, Arvind Kumar Yadav, L. Bhaktaraj, Ph. Manojkumar Singh	Chak-hao (Black scented rice) processing leading to development of different products including Chak-hao noodle, Chak-hao cookies, Chak-haoGulabJamun,

		Chak-hao based instant baby food, squash chips, fish processing, Pineapple powder production, bakery products including cup cakes, cookies, water chestnut soup mixture
2019	S. Romita, BhaveshDatla, Rebika Salam, U. Priyambada, Alok Das, EvenstarKharbani, DaniNado, BanteilangKharbani, RohanSingha, Lalhruaichhungi	Processing of ginger to produce ginger candy, dried ginger, amla candy, guava rolls, pomelo juice, lemon RTS, U-morok (King Chilli) pickle, bakery products including cup cakes, cookies
2020	SuchitraKeisham, M. Hareena Devi, Nillachandra Y., Y. Nikhil, L. Bikramjit Singh, L. Paikhomba Singh, Sober Soibam, Ksh. Amitkumar, ArrowalSynkon, TyngshainmiKharsoh	Bakery products including cookies, cakes, buns; processing of ginger to produce ginger candy and dried ginger pickle, amla+ginger pickle, chak-haokabok (puffed rice), heimang (*Rhuschinensis*) balls, dehydrated ready to cook vegetable mix, indigenous fruits and vegetable processing

Fig 31: ELP conducted by the students of the College

Fig 32: ELP conducted by the students of the college

a) Hands on training outside the college

The students of Food Technology discipline undergo Two five weeks Skill Development Trainings under Hands-on-training after IV and VI semester. The industrial attachment training for 10 weeks and Experiential Learning on campus programme of 12 weeks is carried out in VII semester. The requisite facilities for conduction of experiential learning programme are provided to students to practically fulfill programme requirements and achieve desired skills. Within VIII semester students perform 12 Weeks Project planning and report writing as per ICAR guidelines. The facilities for project are provided to the students as per requirement.

Students have undergone the hands on training for the skill development during the training programme to make them fit for demonstrating the responsibilities effectively in the professional career. During the training students developed the skill in the field of testing, food processing & value addition etc.

All the students of B.Tech. (Food Technology) are given project work for one semester. During this project work they are allotted a guide/supervisor and a topic for research work. After completion of the research work they analyze the data and submit the report. They make a presentation also on the work carried out by them. The titles of the thesis/report submitted by student are given below.

Table 20: Reports submitted by the students under Student-READY Research Programme

Sl. No.	Year	Title of report	Name of the students
1	2018	Development and formulation of Chak-hao (Black rice) based Gulab Jamun	Ngangom Sweety Chanu and Arvind Kumar Yadav
2	2018	Development and formulation of Chak-hao (Black rice) based noodle	Bharat Singh Irom and Monika Konsam
3	2018	Development and sensory evaluation of deep fried chayote chips	Manojkumar Pheiroijam and Wahengbam Athoi
4	2018	Development of supplementary food from Chak-hao	Niamcha Lowang and Laishram Bhaktaraj Singh
5	2019	Development of Black Rice (Chak-hao) cake	Lalhruaichhungi and Sorokhaibam Romita Devi
6	2019	Development and Sensory Evaluation of aromatic black rice Idli	BhaveshDatla and Rebika Salam
7	2019	Development of Instant Soup Powder using Heikak (Water caltrop) as Base Material	Alok Das, Dani Nado and U. Priyambada

6.5.4.5. Examination and Evaluation Process:

The college strictly adheres to the examination and evaluation system as recommended by the V Deans' Committee. As such, the college follows Uniform Grading system with uniform OGPA requirements for award of degrees at all levels. A uniform conversion formula is followed for declaration of I, II and III divisions, distinction etc.

Examination

Semester system is being followed for UG programmes and evaluation is given weightage as 50% internal and 50% external.

6.5.4.5.1. Courses with Theory and Practical

Mid-term Exam (30%) + Assignment (5%) in practical oriented courses + Practical (15%).

6.5.4.5.2. **Courses with Theory only**

Mid-Term Examination (40%) + Assignment (10%).

6.5.4.5.3. **Courses with Practical only**

100% Internal.

Keeping this in view, the schedule and weightage to different examination are as follows:

Table 21: Weightage of marks allotted to different credits

Particulars	Course credits									
	2+1		1+1/2+2		1+2		1+0/2+0		0+1/0+2	
	T	P	T	P	T	P	T	P	T	P
Mid-term exam	30	-	30	-	30	-	30	-	-	-
Quiz/Continuous evaluation*	20	30	20	30	20	30	20	-	-	30
End-term exam	50	70	50	70	50	70	50	-	-	70
Maximum marks	100	100	100	100	100	100	100	100	-	100

* At least 4 number of quizzes are conducted for each course

Duration of exams

Mid-term theory exam : One and half hours
End-term theory exam : Two hours
End-term practical exam : Three hours

Evaluation

- The evaluation of students' performance is achieved by conducting Quizzes of 20 marks (Internal), Mid-Term Examination of 30 marks (Internal) and End-Term Examination (External) of 50 marks. The practical examination consists of 100 marks.
- The questions and answer scripts for quiz and Mid-term examinations are set and evaluated by concerned course teacher.
- The questions and answer scripts for End-term examinations are set and evaluated by external examiners selected duly from a list of panel members by the competent authority.

Table 22: Marks conversion pattern of the examinations

Degree	Percentage of marks obtained	Conversion into points
B. Tech. (Food Technology)	100	10 points
	90 to <100	9 to <10
	80 to <90	8 to <9
	70 to <80	7 to <8
	60 to <70	6 to <7
	50 to <60	5 to <6
	<50 (fail)	<5

The following ranking pattern is adopted to award the degrees:

OGPA	**Division**
5.000-5.999	Pass
6.000-6.999	II division
7.000-7.999	I division
8.000 and above	I division with distinction

GPA, CGPA and OGPA are calculated as follows:

GPA = Total points scored / Total credits (for 1 semester)

CGPA = X Total points scored / Course credits

OGPA = X Total points scored (after excluding failure points)/ Course credits

Percentage of Marks = OGPA x 100/10

6.5.4.6. NCC/NSS/RVC Units

NCC/NSS/RVC units in the college carried social service activities in Imphal Bazar road side cleaning show on 1st October, 2020. The Student welfare office (Dr. M. Punyakashore Singh, Assistant Professor) was given additional charge of NSS units of the College since September, 2020. Several activities of tree plantation and world environment cleaning drive were organized involving active participation of the college students.

6.5.4.7. Language Laboratory

The College has a language laboratory well equipped with 04 computers, amplifier system and LCD projectors for the conduct of language classes. Each computer is pre-installed with language learning software. All the computers have internet connectivity through WiFi (50Mbps of minimum internet speed).The language lab will offer an exclusive result oriented and efficient English language learning process. The language lab is developed on the methodology of LSRW (Listening, Speaking, Reading and Writing) skills. It will also help in developing skills in presentation, interviews, group discussions, public speaking and soft communication skills. The contents include activities, exercises and home assignments with audio-visual modules. There is a special module on preparation for online competitive exams such as GRE, TOEFL, and IELTS etc.

6.5.4.8. Cultural Centre

The students of the college have been actively participating in multi-varied cultural activities, both within the university and at state and national levels. A cultural committee is formed comprising of faculties, staff and students along with the Student Welfare Officer of the College. Under the committee, different categories of cultural activities are functioned. They include music, dance, literary, theatre and fine arts.

6.5.4.9. Personality Development

The personality development programme of the students is taken care of in the college. The language classes conducted by the language instructor covers various topics of English Grammar, Speaking skills, Phonetics and Writing skills. Besides the compulsory four courses offered under the Dean's Committee syllabus which cater to the overall personality development of the students, the College also invites

renowned achievers from different fields and places to interact with our students for motivational talk and experience sharing. Various lecture series have been organized under NAHEP-IDP project for students. Yoga sessions were also conducted regularly to help the students develop mentally in their academic endeavour at the college. Our students also took part in the 15th National Youth Parliament Competition organized on 17th October, 2018 at the College of Veterinary Sciences and Animal Husbandry, Aizawl which helped them gained valuable knowledge on parliamentary activities.

6.5.5. Physical Facilities

The infrastructure of College of Food Technology has various facilities like academic block, administrative block, conference hall and separate hostels for boys and girls. Basic medical facilities are centrally available at the Medical Unit of the college where basic medical amenities such as antipyretics, antibiotics, anti-diarrheal etc. are available. Also, facilities for I.V.injections and fluids and suture needles and materials are available for minor suturing. First aid kits are issued to all hostels. Medical experts are invited to deliver special lectures on self-hygiene, tobacco and its toxicity, nutritious foods for healthy living, etc.

6.5.5.1. Hostels

The College has one separate hostel each for boys and girls in the campus. Each hostel has an area of 1400 sq. m. with student capacity of 28 students.

Fig 31: Girls' Hostel building of the college

Fig 32: Boys' Hostel building of the college

S. No.	Name of the Hostel	Area (Sq. m.)	Type of Hostel	Capacity	Students per room accommodated
1	Boys' Hostel	1400 Sq.m	Boys'	28	02
2	Girls' Hostel	1400 sq. m.	Girls'	28	02

6.5.5.2. Examination Hall

Separate examination halls are unavailable and hence normal classrooms are rearranged as examination halls during the time of examination.

Table 23: Facilities available in the classrooms of the college

No. of classrooms	04
Capacity	Varied capacity ranging from 12 to 30 sitting capacity
Facilities available	Chairs, writing desks, electrical fans and lights

6.5.5.3. Sports and Recreation Facilities

Presently, a sports ground is under construction in the college. The students are regularly engaged in different types of physical exercises and sports during the classes and in physical experience class to keep them physically fit and healthy. In addition, the skill development in any one of the games such as badminton, volleyball, football, cricket, table tennis and athletics is contemplated in the physical education programme. Maintenance and cleaning of the ground are regularly done by the students. Matches are conducted for the students during the annual sports day and intercollegiate meets or any other specific days such as the Foundation Day, Republic Day etc. to improve and maintain their skills using ground facilities. Indoor games such as carom, chess, badminton and table tennis are also available.

6.5.5.4. Auditorium

The college does not have auditorium at present. However, the conference hall of the college is being used for various gatherings and activities from time to time.The College has a conference hall with an area of 107.5 sq. m. and sitting capacity of 50 people. The hall is equipped with multimedia LCD projector and sound system for multiple uses in different events.

Table 28: Utilization of Conference Hall of the college

How frequently the conference hall is used and purpose for being use	Republic day (once a year) College foundation day (once a year) Independence Day (once a year) Inauguration programmes (numerous times a year) Workshops and trainings (numerous times a year) Teachers' Day (once a year) Students' fresher's day (once a year)

Fig 33: Conference Hall of the College

6.5.5.5. Exhibition Hall/Museum

The college does not have an exhibition hall or museum at present.

6.5.6. Research Facilities

6.5.6.1. Post-graduate Laboratories and Equipment

For the time being, the College of Food Technology does not offer post-graduate courses. Hence, the laboratory set up in the college is used for under graduate course only.

The laboratory is equipped with some of the basic and advanced equipment needed for the experiments as recommended in the academic regulation of the 5th Deans' Committee. So far, the necessary laboratory furnishings have yet to be installed permanently as the College is under construction.

Equipment available in the laboratory are enlisted below.

S.No.	Name of the equipment
1.	Tray dryer (12 trays)
2.	Autoclave (40 Litres)
3.	Double distillation unit (2.5 L)
4.	Bench top pH meter
5.	Analytical balance
6.	Hot air oven
7.	Digital Weighing Balance
8.	Wet grinding machine
9.	Vegetable cutting machine
10.	Dough kneading machine
11.	Microwave oven
12.	Oscilloscope
13.	Frequency counter
14.	Logic gate analyser
15.	Pulveriser/Gravy machine (2HP)
16.	Tray dryer (24 trays)
17.	Solar cabinet dryer
18.	Vacuum sealing machine
19.	Form Fill packaging machine
20.	Nitrogen estimation unit
21.	Dietary fibre estimation unit
22.	Fat estimation unit
23.	Double deck bread making oven
24.	Incubator
25.	Digital moisture meter
26.	Colour lab hunter machine

6.5.6.2. Research Contingency

There is no specific head of Research contingency or no fund is provided as such for research contingency. The research activities of students under B. Tech. are funded from Recurring Contingency of College Fund. Adequate funds are available for meeting the recurring expenses incurred during the education programme.

6.5.7. Outcome/Output

6.5.7.1. Students' Performance in National Examinations

Performance of the students during the year 2015 to 2020 is given below.

Table 29: Particulars of students who qualified JRF/NET/GATE (2015-2020)

Particulars	2015	2016	2017	2018	2019	2020
NET	-	-	-	-	-	-
GATE	-	-	-	-	01	03
ICAR-JRF Qualified	-	-	-	-	01	-
ICAR-JRF Received	-	-	-	-	01	-

The following students of B. Tech. (Food Technology) have received fellowship/scholarship for higher education (M. Tech.) in different institutes.

Table 30: Particulars of students who received fellowship during their M. Tech.

Name of Degree Programme	B. Tech. (Food Technology)					
	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Actual student admitted	08	10	10	07	11	16
No. of student passed out	08	10	-	-	-	-
Student received fellowship for M. Tech.	06	05	-	-	-	-

6.5.7.2. Student Placement Profile

Since its inception, the College have produced two batches (18 nos.) of B. Tech. (Food Technology) Degree students. Among the 18 passed out students, 11 (eleven) students are pursuing M. Tech. Degree courses in different institutes in India. These institutes include Indian Institute of Technology, Kharagpur, Indian Institute of Technology, Varanasi, Anand Agricultural University, Anand, Gujarat, Tezpur University, Assam, Jadavpur University, West Bengal and Central Agricultural University, Imphal (CAEPHT, Ranipool). One of the passed out students is preparing for Union Public Service Commission's Civil Services Competitive Examination while the remaining passed out students are in pursuit of appropriate employment opportunities.

6.5.7.3. Awards/Recognitions/Certificates:

Sl. No.	Name of Faculty	Name of the award/ recognition	Awarding organisation (place/country)	Year	National/international/ professional society
1.	Dr. Ng. Joykumar Singh, Dean, i/c	Best paper presentation award, , in National Seminar organized by ICAR, Lamphelpat, Imphal	ICAR, NEH Region, Manipur Centre, Imphal	2017	National
		Best paper presentation award in National Seminar organized by Indian Association of Hill farming and ICAR, Barapani	Indian Association of Hill farming and ICAR for NEH Region, Barapani	2018	National
		Best Centre Award of AICRP-PHET at TNAU, Coimbatore sponsored by ICAR, New Delhi.	ICAR, New Delhi.	2019	National
		Best Centre Award of AICRP-PHET at JNKV, Jabalpur, sponsored by ICAR, New Delhi.	ICAR, New Delhi.	2020	National
		Distinguished Service Award (Agril. Engg.)	Bioved Research Institute of Agriculture Technology & Sciences Prayagraj-211002	2020	Professional society
2	Dr.Punyakishore Maibam, Assistant Professor (Contract)	Laboratory Quality System Management and Internal Audit as per ISO/IEC-17025:2017	National Institute of Plant Health Management, Hyderabad	2021	National
3	Dr.ThangjamGopeshwor Singh, Assistant Professor (Contract) of Environmental Science and Disaster Management	Nil	Nil	Nil	
4	Dr. L. Sophia, Assistant Professor (Contract)	Nil	Nil	Nil	

5	Mr. H. Dayanidhi Singh Assistant Professor (Contract)	Nil	Nil	Nil	
6	Mr.SarojBehera Assistant Professor (Contract)	Nil	Nil	Nil	
7	Dr.AngamRaleng Assistant Professor (Contract)	Nil	Nil	Nil	
8	Dr. S. Sunderlal Singh Assistant Professor (Contract)	Nil	Nil	Nil	

6.5.7.4. Employability

The students are acquainted with hands on practical related with processing and value addition of various food products.Interactivesessionswithentrepreneursoftheregionarebeingheld from timetotime regularly. This allows the students to start up an enterprise at their own level. The students are also furnished with knowledge both in theory and practical of food technology. This will enhance the employability opportunity of the passed out students in any organizations they wish to join.

6.5.8. SSR for College along with Degree Programme attached herewith.

SSR of the College must have the SSR of all its Degree Programmes (following section 6.4), then the report of the College shall be considered.

6.5.9. Certificate (Applicable when SSR is submitted for Programmes and College)

I, **NgangkhamJoykumar Singh**, the Dean**, College of Food Technology, Lamphelpat, Imphal, Manipur**hereby certify that the information contained in Sections 6.4 and Sections 6.51 to 6.5.7.4 are furnished as per the record available in the college and degree awarding university.

28th May, 2021

(Dr. Ng. Joykumar Singh)
Dean,
College of Food Technology, CAU, Imhal

6.5.10.
All SSR with respect to Programme as mentioned in 6.5.8 are submitted along herewith.

Annexure 6.5.1.3

Composition of Board of Studies of the College of Food Technology, CAU, Imphal for the last five years

Year 2015

1. Dean, College of Agricultural Engineering and Post-Harvest Technology, Sikkim
2. Dean, College of Food Technology, Imphal
3. Director of Instruction, CAU, Imphal
4. Director of Extension, CAu, Imphal
5. Director of Research, CAU, Imphal
6. Academic In-charge of CAEPHT, Sikkim
7. Academic In-charge, COFT, Imphal
8. One representative of Academic Council nominated by Vice Chancellor, CAU, Imphal
9. Two eminent scientist from agricultural education system not belonging to CAU, Imphal
10. All HODs of CAEPHT, Sikkim

Year 2016

1. Dean, College of Agricultural Engineering and Post-Harvest Technology, Sikkim
2. Dean, College of Food Technology, Imphal
3. Director of Instruction, CAU, Imphal
4. Director of Extension, CAu, Imphal
5. Director of Research, CAU, Imphal
6. Academic In-charge of CAEPHT, Sikkim
7. Academic In-charge, COFT, Imphal
8. One representative of Academic Council nominated by Vice Chancellor, CAU, Imphal
9. Two eminent scientist from agricultural education system not belonging to CAU, Imphal
10. All HODs of CAEPHT, Sikkim

Year 2017

1. Dean, College of Agricultural Engineering and Post-Harvest Technology, Sikkim
2. Dean, College of Food Technology, Imphal
3. Director of Instruction, CAU, Imphal
4. Director of Extension, CAu, Imphal
5. Director of Research, CAU, Imphal
6. Academic In-charge of CAEPHT, Sikkim
7. Academic In-charge, COFT, Imphal
8. One representative of Academic Council nominated by Vice Chancellor, CAU, Imphal
9. Two eminent scientist from agricultural education system not belonging to CAU, Imphal
10. All HODs of CAEPHT, Sikkim

Year 2018

1. Dean, College of Agricultural Engineering and Post-Harvest Technology, Sikkim
2. Dean, College of Food Technology, Imphal
3. Director of Instruction, CAU, Imphal
4. Director of Extension, CAu, Imphal
5. Director of Research, CAU, Imphal

6. Academic In-charge of CAEPHT, Sikkim
7. Academic In-charge, COFT, Imphal
8. One representative of Academic Council nominated by Vice Chancellor, CAU, Imphal
9. Two eminent scientist from agricultural education system not belonging to CAU, Imphal
10. All HODs of CAEPHT, Sikkim

Year 2019

1. Dean, College of Agricultural Engineering and Post-Harvest Technology, Sikkim
2. Dean, College of Food Technology, Imphal
3. Director of Instruction, CAU, Imphal
4. Director of Extension, CAu, Imphal
5. Director of Research, CAU, Imphal
6. Academic In-charge of CAEPHT, Sikkim
7. Academic In-charge, COFT, Imphal
8. One representative of Academic Council nominated by Vice Chancellor, CAU, Imphal
9. Two eminent scientist from agricultural education system not belonging to CAU, Imphal
10. All HODs of CAEPHT, Sikkim

Year 2020

1. Dean, College of Agricultural Engineering and Post-Harvest Technology, Sikkim
2. Dean, College of Food Technology, Imphal
3. Director of Instruction, CAU, Imphal
4. Director of Extension, CAu, Imphal
5. Director of Research, CAU, Imphal
6. Academic In-charge of CAEPHT, Sikkim
7. Academic In-charge, COFT, Imphal
8. One representative of Academic Council nominated by Vice Chancellor, CAU, Imphal
9. Two eminent scientist from agricultural education system not belonging to CAU, Imphal
10. All HODs of CAEPHT, Sikkim

Sl. No.	Particulars
1. 3rd BOS Meeting February 13, 2015	
	Recommendations
	Staring PhD programme in Farm Machinery and Power Engineering.
2. 4th BOS Meeting 20th July, 2016	
	Starting of Ph.D. programme in Soil and water conservation Engineering and Processing and Food engineering disciplines. Change of Name of Department from Farm Power and Machinery Department to Farm machinery and Power Engineering Proposal of exchange of two courses of B. Tech Agril. Engg. From 1st sem to 2nd sem
3. 5th BOS Meeting 23rd May, 2017	
	• Approval for PG programme M. Tech in Renewable Energy and Irrigation Drainage Engineering with Intake capacity of 3 (2 CAU+ 1 ICAR). • Correction in title of Course • Communication Skills and Personality Development of B. Tech food technology as per V Dean Committee. • Modification of 3 subjects Theory of machines, machine Design and

	Tractor systems & Control offered to B. tech (Agril. Engg.) • Tutorial Class for BEAS 1207 and BEAS 2107. • Proposal to start day scholar arrangement for interested students. • Fixing of date of renamed Degrees due to change in Nomenclature
4. 6th BOS Meeting 26th April, 2018	
5. 7th BOS Meeting 13th May, 2019	
	• Shifting of course entitled "Web designing and internet applications" from even semester to odd. • Modification of syllabus four courses of B. Tech food Technology. • Approval of course structures of M.Tech Renewable Energy engineering and Irrigation Drainage engineering. Interchanging the semester of the B. Tech course Ground water wells and Pump and Drainage Engineering from semester VI to semester V. • Common course nomenclature for courses of Food technology of CAEPHT, Ranipool and COFT, Imphal
6. 8th BOS Meeting 29th April, 2020 through video conferencing online using Google Meet	
	Approval for internal setting of question paper and evaluation for 2nd semester of Academic session 2019-2020. Combining Mid-term and end term amination for 2nd session of 2019-20 Conducting comprehensive viva-voce examination for PhD and PG students online during 2nd semester academic session 2019-20.

Annexure 6.5.1.4

COLLEGE OF FOOD TECHNOLOGY
CENTRAL AGRICULTURAL UNIVERSITY
LAMPHELPAT - 795004

(R) Gram: AGRIVARSITY
Phone No. :9612168301
E-mail : dean.coftimf@gmail.com

O R D E R

Imphal, the 5th November, 2020

No. COFT/CAU/155/Ragging/2020/ : The following Anti Ragging Committee is hereby constituted for this College with immediate effect until further order to ensure compliance with the provision of UGC regulation on curbing the menace of ragging in higher education institute 2009 as well as the provision of any law for the time being in force concerning ragging and also to monitor and oversee the performance of the Anti-Ragging squad in prevention of ragging in the College.

1.	Dr. Ng. Joykumar Singh, i/c, Dean	Chairman
2.	Dr.PunyakishoreMaibam, Asstt.Prof.	Member
3.	Dr. Th. Gopeshwor Singh, Asstt.Prof.	Member
4.	Dr. L. Sophia, Asstt.Prof.	Member
5.	Shri S.K. Behera, Asstt.Prof.	Member
6.	Shri S.Tomba Singh, Asstt. Registrar (Estt.)	Member
7.	Mr. NilachandraYendrenbam, 4th Year Student	Member
8.	Ms. Suchitra Keisham, 4th Years Student	Member
9.	Shri R.K.Nurbahan Singh, Academic i/c	Member Secy.

(Dr. Ng. Joykumar Singh)
i/c.Dean

Memo No.COFT/CAU/155/Ragging/2020/ : Imphal, the 5thNovember, 2020

Copy to:

1. The AR(E) to VC for kind information of Hon'ble Vice-Chancellor, CAU, Imphal.
2. The Director of Instruction, CAU, Imphal for kind information.
3. The Registrar, CAU, Imphal for kind information.
4. The In-charge Academic, COFT, CAU, Imphal.
5. All Faculty Members, COFT, CAU, Imphal for necessary action.
6. All members concerned, COFT, CAU, Imphal.

(Dr. Ng. Joykumar Singh)
i/c., Dean

Annexure 6.5.1.7

COLLEGE OF FOOD TECHNOLOGY
CENTRAL AGRICULTURAL UNIVERSITY
LAMPHELPAT - 795004

(R) Gram: AGRIVARSITY
Phone No. :9612168301
E-mail : dean.coftimf@gmail.com

O R D E R

Imphal, the 26th February, 2021

No.COFT/CAU/139/ICC/2021/ : In pursuance of letter No.CAU/Reg/1913/PF/2016(pt)/535 dated 22.02.2021 of University Hqts., the following committee is hereby constituted for the Internal Complaint Committee of the sexual harassment of women at workplace (prevention, prohibition and redressal) Act, 2013 for smooth functioning of the College of Food Technology, CAU, Lamphelpat with immediate effect until further order.

Sl. No.	Name and Designation	Position
1.	Dr. L. Sophia, Assistant Professor	Chairperson
2.	Dr. Binota Meinam, Chairperson, Manipur State Commission for Woman, DC Office Complex, North Block, Post office Lamphelpat, Imphal, Manipur – 795001, Phone No. 0385-2411880 Email ID – mscwimphal2k17@gmail.com	Member
3.	Shri R.K. Nurbahan Singh, Academic In-charge	Member
4.	Shri S. Tomba Singh, Assistant Registrar (Estt.)	Member
5.	Smt. Th. Inaobi Chanu, LDC	Member

(Dr. Ng. Joykumar Singh)
i/c., Dean

Memo No.COFT/CAU/139/ICC/2021/ : Imphal, the 26thFebruary, 2021 Copy to:

1. The AR(E) to VC for kind information of Hon'ble Vice Chancellor, CAU, Imphal.
2. The Director of Instruction, CAU, Imphal for kind information.
3. The Registrar, CAU, Imphal for kind information.
4. Persons concerned.
5. Guard file.

(Dr. Ng. Joykumar Singh)
i/c., Dean

Annexure 6.5.2.3

Faculty Data and Credentials

The Dean, College of Food Technology, Lamphelpat, Imphal, Manipur

Sl. No.	Name and Designation	Year of joining Central Agricultural University	Year of joining College	Highest Qualification and Department	Year of achieving highest qualification (In service/Not)	Related work experience in the field	Experience in other areas
1	Dr.Ngangkham Joykumar Singh Dean	Sept., 2001	Oct., 2020	Ph. D.	2009	Food processing and engineering	Green house technology and micro-irrigation

Existing Faculties of the College

Sl. No.	Name and Designation	Year of joining Central Agricultural University	Year of joining College	Highest Qualification and Department	Year of achieving highest qualification (In service/Not)	Related work experience in the field	Experience in other areas
1	Dr.PunyakishoreMaibam Assistant Professor (Contract)	29-06-2016	29-06-2016	Ph. D. Biotechnology	2016	4 years 11 months	4 years 11 months
2	Dr.ThangjamGopeshwor Singh Assistant Professor (Contract)	14-09-2016	14-09-2016	Ph. D. Environmental Science	2016	4 years 8 months	4 years 8 months
3	Dr. L. Sophia Assistant Professor (Contract)	22-09-2016	22-09-2016	Ph. D. Civil Engineering	2019 (In service)	4 years 8 months	4 years 8 months
4	Mr. H. Dayanidhi Singh	16-09-2016	14-09-2016	M. Sc.	2004	4 years 8 months	4 years 8 months

	Assistant Professor (Contract)			Food Technology			
5	Mr.SarojBehera Assistant Professor (Contract)	22. 09.2016	22. 09.2016	M. Tech. Electrical Engineering	2015	4 years 8 months	4 years 8 months
6	Dr.AngamRaleng Assistant Professor (Contract)	20-09-2017	20-09-2017	Ph. D. Food Process Engineering	2016	3 years 8 months	3 years 8 months
7	Dr. S. Sunderlal Singh Assistant Professor (Contract)	02-08-2018	02-08-2018	Ph. D. Mechanical Engineering	2019 (In service)	2years 10 months	2years 10 months

Annexure 6.5.2.3

TEACHING

Sl. No.	**Name and Designation**	**Institution**	**Details (UG/PG/Ph. D. Courses)**	**No. of students guided (UG)**	**Duration**	**Total experience**
1	Dr.PunyakishoreMaibam Biotechnology	College of Food Technology (CAU, Imphal)	Teaching courses for both College of Food Technology, Imphal and College of Agriculture, Imphal Details of courses taught: UG Odd semester: i. General Microbiology(FT-112) ii. Fundamentals of Biotechnology (GPB-112) iii. Micro propagation techniques GPB (Elective)-359 Even Semester:	UG student project (06)	29th June, 2016	4 years 11 months

			i. Food Biotechnology (FT-225) ii. NSS (FT-129) iii. Biotechnology and Crop improvement (GPB-509)			
2	Dr.Thangjam Gopeshwor Singh Assistant Professor (Contract) Environmental Science and Disaster Management	College of Food Technology (CAU, Imphal)	Teaching courses for both College of Food Technology, Imphal and College of Agriculture, Imphal Details of courses taught: UG Odd Semester: Environmental Science and Disaster Management (FT-118) Environmental Science and Disaster Management (BPME (ES) 233) PG/Ph. D. Disaster Management (PGS – 506) Even Semester: Food Plant Sanitation (FT – 322)	UG student project (06)	14th September, 2016	4 years 8 months
3	Dr. L. Sophia Assistant Professor (Contract) Civil Engineering	College of Food Technology (CAU, Imphal)	Details of courses being taught: UG Odd Semester: I. Engineering Drawing and Graphics (FT-114) II. Workshop Technology (FT-116) Even Semester: I. Fluid Mechanics (FT-125) II. Computer Programming (FT-124)	UG student project guided (07)	22nd September, 2016	4 years 8 months

4	Mr. H. Dayanidhi Singh Assistant Professor (Contract) Food Chemistry	College of Food Technology (CAU, Imphal)	UG Even Semester Food Chemistry of Macronutrients (FT–121) Food Quality, Safety Standards and Certification (FT – 327) Food Additives and Preservatives (FT – 326) Odd Semester Food Chemistry of Micronutrients (FT-215) Fundamentals of Food Processing (FT – 211) Bakeries and Confectioneries (FT – 317)			
5	Mr.SarojBehera Assistant Professor (Contract) Electrical Engineering	College of Food Technology (CAU, Imphal)	**Even semester:** 1. Computer programming and Data Structure 2. Basic Electronics Engineering 3. Engineering Mathematics -II 4. Instrumentation and Process Control in Food Industries **Odd semester:** 1. Basic Electrical Engineering 2. ICT Application Food Industries 3. Engineering Mathematics –I 4. Mathematic (def) (for College of Agriculture)	UG student project (06)	22.09.2021	4 Year and 8 months
6	Dr.Angam Raleng Assistant Professor (Contract) Food Process Engineering	College of Food Technology (CAU,	Teaching courses for both College of Food Technology, Imphal and College of Community Science, Tura, Meghalaya Details of courses taught:	UG student project (06)	20th September, 2017	3 years 8 months

		Imphal)	UG **Odd Semester:** Food Storage Engineering (FT316) Fundamentals of Food Processing (FT211) **Even Semester:** 1. Technology of Legumes & Oilseeds Processing (FT-222) 2. Food Packaging Technology & Equipment (FT-323) 3. Sensory evaluation of Food Products (FT-325) 4. Food Preservation & Storage (FSN-125)			
7	Dr. S. Sunderlal Singh Assistant Professor (Contract) Mechanical Engineering	College of Food Technology (CAU, Imphal)	Details of courses being taught: UG Even Semester: I. Food thermodynamics (FT-123) II. Food Refrigeration and Cold Chain (FT-226) Odd Semester: I. Heat and Mass Transfer and Processing (FT-216) II. Food Processing Equipment Design (FT-315)	UG student project guided (05)	2nd August, 2018	2 years 10 months

Annexure 6.5.2.3

Extension

Sl. No.	Name and Designation	Institution	Details of work done	Duration	Remarks

1	Dr.Punyakishore Maibam	College of Food Technology (CAU, Imphal)	Participated in all the Regional Agricultural Fair of CAU	Since June, 2016	
2	Dr.Thangjam Gopeshwor Singh Assistant Professor (Contract) of Environmental Science and Disaster Management	College of Food Technology (CAU, Imphal)	Participated in all the Regional Agricultural Fair of CAU	Since September, 2016	
3	Dr. L. Sophia Assistant Professor (Contract)	College of Food Technology (CAU, Imphal)	Development and Fabrication of aerosol box	8th June 2020	Donated to JNIMS and RIMS
4	Mr. H. Dayanidhi Singh Assistant Professor (Contract)				
5	Mr.Saroj Behera Assistant Professor (Contract)	College of Food Technology (CAU, Imphal)	Participated in all the Regional Agricultural Fair of CAU	Since September, 2016	
6	Dr.Angam Raleng Assistant Professor (Contract)	College of Food Technology (CAU, Imphal)	1. Participated in all the Regional Agricultural Fair of CAU 2. Compile and edited a Scientific Booklet "Processing Technology Packages for important crops of Manipur" under College of Food Technology, CAU, Imphal. 3. Compile and edited a Booklet "Food Atlas of Manipur- The famous 108 dishes" under College of Food Technology, CAU, Imphal, Manipur. 4. Qualified Master Trainer of the PMFME Scheme under Ministry of Food Processing	Since September, 2017	

			Industries, Government of India.		
7	Dr. S. Sunderlal Singh Assistant Professor (Contract)	College of Food Technology (CAU, Imphal)	I. Development and Fabrication of aerosol box II. Design, development and fabrication of Pedal Operated Hand Washing Unit	8th June 2020 8th June 2020	Donated to JNIMS and RIMS

Annexure 6.5.2.3

Research

Sl. No.	Name and Designation	Institution	Details of work done	Duration	Remarks
1	Dr.Punyakishore Maibam	College of Food Technology (CAU, Imphal)	Nil	Nil	Nil
2	Dr.Thangjam Gopeshwor Singh Assistant Professor (Contract) of Environmental Science and Disaster Management	College of Food Technology (CAU, Imphal)	Nil	Nil	Nil
3	Dr. L. Sophia Assistant Professor (Contract)	College of Food Technology (CAU, Imphal)	Nil	Nil	Nil
4	Mr. H. Dayanidhi Singh Assistant Professor (Contract)				
5	Mr.Saroj Behera Assistant Professor (Contract)	College of Food Technology (CAU, Imphal)	Nil	Nil	Nil

6	Dr.Angam Raleng Assistant Professor (Contract)	College of Food Technology (CAU, Imphal)	Nil	Nil	Nil
7	Dr. S. Sunderlal Singh Assistant Professor (Contract)	College of Food Technology (CAU, Imphal)	Nil	Nil	Nil

ELP Module for B. Tech. (Food Technology) from 2015-2020

2017-18

A. Processing and value addition of fish and fish products

During the academic year 2017-18, eight students (first batch) participated in ELP (skill module). In this module, students have successfully learned and achieved skills to process local indigenous fishes which are popular among the people of Manipur. Various products of processed fish were made during the module. These included fish pickles, dehydrated fish cubes, dried fish, ready to serve fish curry, etc. In addition, they have been imparted skills of operation and maintenance of processing equipment, development of art and science of production and managerial skills under protected environment. Students also learned and acquired skills of analysis of these products as per FSSAI standards.

B. Processing and value addition of Chak-hao (black scented rice)

Chak-hao (black scented rice) is an indigenous rice variety of Manipur. It is highly nutritious rice with high contents of antioxidants, mainly anthocyanin and other valuable minerals. It is also recommended as a therapeutic food. During this ELP module, eight (08) students participated to produce a number of value added products of Chak-hao. These include Chak-hao noodle, Chak-hao cookies, Chak-haogulabjamun, Chak-haoidli andChak-haoinstant baby food mix. Recognizing the beneficial values of Chak-hao, the products have high promises in the market. In addition, they have been imparted skills of operation and maintenance of processing equipment, development of art and science of production and managerial skills under protected environment. Students also learned and acquired skills of analysis of these products as per FSSAI standards. They also acquire knowledge to register and get license from FSSAI to start food business.

2018-19

A. Processing and value addition of indigenous fruits of Manipur

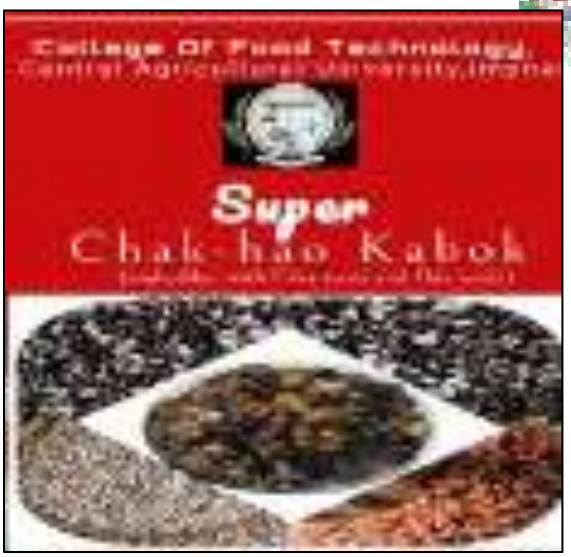
During the academic year 2018-19, ten (10) students participated in the ELP (skill module). As part of the module, students learned processing and value addition of selected indigenous fruits found in Manipur. Some of the products of the module included ready to serve RTS of lemon with the addition of local medicinal herbs, value added pomelo juice, amla candy, guava roll, amla and ginger candy, pineapple RTS, star fruit pickle, etc. In addition, they have been imparted skills of operation and maintenance of processing equipment, development of art and science of production and managerial skills under protected environment. Students also learned and acquired skills of analysis of these products as per FSSAI standards. They also acquire knowledge to register and get license from FSSAI to start food business.

B. Processing and value addition of horticultural crops

Ten (10) students participated in this ELP (skill module). During the module, students learned processing and value addition of selected horticultural crops including king chili, cassava, ginger, jackfruit, etc. The major products of this module included king chilly pickle with ginger and garlic, cassava flour, ginger candy, dried ginger pickle, jackfruit candy, etc. . In addition, they have been imparted skills of operation and maintenance of processing equipment, development of art and science of production and managerial skills under protected environment. Students also learned and acquired skills of analysis of these products as per FSSAI standards. They also acquire knowledge to register and get license from FSSAI to start food business.

C. Production of bakery products

Ten (10) students were participated in ELP (Skill module). In this module studentshavesuccessfully learned and achieved skills to develop various bakery products using various preparation methods. They did proximate composition analysis of the products by usingdifferentequipments available in the lab. They also performed cost analysis of the product. In addition they have imparted skills of operation and maintenance of processing equipment, development of art and science of production and managerial skills under protected environment, skill to develop detailed project proposal to start entrepreneurship. Student also learned and acquired skills of analysis of these products as per FSSAIstandards. They also acquired knowledge to register and get license from FSSAI to start food business.



2019-20

A. Processing and value addition of Chak-hao

Ten (10) students participated in this ELP (skill module). During the module, students successfully learned and achieved skills to develop Chak-hao based value added products. The products include Chak-hao super kabok (puffed rice) with the addition of flax and chia seeds, Chak-hao noodles and Chak-hao cakes. Chak-hao super kabok is a very promising value added product combining all the goodness of Chak-hao with those of flax and chia seeds. Students successfully formulated and standardized the product so that the beneficial components of the product can be retained with longer shelf life. In addition they have imparted skills of operation and maintenance of processingequipments, development of art and science of production and managerial skills under protected environment, skill to develop detailed project proposal to start entrepreneurship. Student also learned and acquired skills of analysis of these products as per FSSAIstandards. They also acquired knowledge to register and get license from FSSAI to start food business.

B. Processing and value addition of indigenous fruits

Ten (10) students participated in this ELP (skill module). During the module, students successfully learned and achieved skills to process and produce value added products of indigenous fruits. Indigenous fruits processed during this module include heimang (*Rhuschinensis*), a fruit having high medicinal properties. Heimang balls were formulated and standardized retaining its aroma and quality. The product was displayed and sold in the recently concluded CAU Regional Agricultural Fair, 2020-21 as one of the highly demanded items of the stall of the college. Apart from that, some other indigenous fruits processed and value added included chorphon, boroi and thambou (lotus root). In addition they have imparted skills of operation and maintenance of processingequipments, development of art and science of production and managerial skills under protected environment, skill to develop detailed project proposal to start entrepreneurship. Student also learned and acquired skills of analysis of these products as per FSSAIstandards. They also acquired knowledge to register and get license from FSSAI to start food business.

Annexure 6.5.3.3

Sports and other Miscellaneous Items

Sl. No.	Name of the items	Inventory
1	Badminton racquet	02 nos.
2	Table tennis bat	04 nos.
3	Football	04 nos.

4	Football net	01 no.
5	Volleyball	02 nos.
6	Football shoes (boot)	06 nos.
7	Whistle	01 no.
8	Measuring tap (30 m)	01 no.
9	Badminton net	02 nos.
10	Volleyball net	02 nos.
11	Carom set	04 nos.
12	Chess set	04 nos.
13	Table tennis board with net	02 nos.
14	Table tennis ball	04 boxes of six balls

SELF STUDY REPORT

FOR

B.TECH. DEGREE PROGRAMME IN

FOOD TECHNOLOGY

COLLEGE OF FOOD TECHNOLOGY

CENTRAL AGRICULTURAL UNIVERSITY,

LAMPHELPAT, IMPHAL

PREFACE

India faced the challenge of providing food security to millions of its people soon after independence. The Research and Development initiatives taken by the Government of India resulted in the 'Green revolution' in the late 60s and early 70s. As a result of 'Green revolution' and various other efforts, India has made significant achievement through production of food grains, fruits and vegetables, milk, livestock production, fish production etc. and gained self-sufficiency in most of the areas of Indian Agriculture. However, contribution of engineering inputs (irrigation, soil and water conservation, farm mechanization, processing, reduction of harvest and post harvest losses, processing of milk, meat and fish and development of their products, farm structures, housing / shelter for livestock, fish ponds, utilization of renewable energy sources, utilization of agricultural, livestock fish waste and by-product, environment and agricultural interaction etc.) in these efforts were not optimum. But considering the nutritional security, livelihood security, economic sustainability and high generation of employment, a need was felt to develop and provide these engineering inputs.

Keeping in view the high potential of applications of food technology and value addition interventions in improving the agricultural scenario of NEH region and to address to the issues of shortage of trained human resource in this discipline, the **College of Food Technology (COFT)** was established in May 2015 by Central Agricultural University (CAU), Imphal at College of Agriculture, Imphal, Iroisemba as a twin College. Initially, B.Tech. Food Technology, Programme, was started during 2015 at College of Agriculture campus and later on shifted to CAU Central Farm, Lamphelpat during May, 2019.

At B.Tech level, students are admitted only from all the State of NEH. Few seats are filled on all India bases through ICAR quota. The quota of various States is fixed. The State Governments recommend students (on the basis of competitive examinations within their state) for admission. Similarly ICAR nominate (on the basis of all India competitive examination) students for their quota

Students of this college have excelled not only in curriculum but also in extracurricular activities and national level competitive examinations and the college is making continuous efforts to improve the quality of education offered here. The ICAR has introduced the procedure of accreditation, which help in assessing facilities available to impart the quality education offered by the college.

Since the college is due for accreditation since its inception, the present report provides all the necessary information about the college activities performed during last five years.

The University Level Task Force and the college level Task Force have done a great job in compiling information and bringing out this report to be submitted to Accreditation Board of ICAR. I convey my heartfelt thanks to all those, who are involved in preparation of this report.

(Ng. Joykumar Singh)
Dean i/c

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6.4. SELF STUDY REPORT for the Degree Programme

SELF-STUDY REPORT FOR THE B. TECH. DEGREE PROGRAMME, COLLEGE OF FOOD TECHNOLOGY, CAU, LAMPHELPAT, IMPHAL (MANIPUR)

For the College offering degree Programme, as per recommendation of the 5Th Dean's Committees of ICAR/VCI/BSMA

6.4.1 Brief History of the Degree Programme

The College of Food Technology was established in the year 2015 as one of the constituent Colleges of Central Agricultural University, Imphal, Manipur. It is situated at Lamphelpat, Imphal West District of Manipur at 24º82'N latitude and 93º90'E longitudes with an approximate altitude of 790 metres above MSL. The campus of college spread over an area of 3 acres on the foothills of Langol Reserved Forest area. On the eastern boundary of the campus, Mary Kom road approaching from the Office of Deputy Commissioner, Imphal West passes through towards the Asian Games Village adjoining the Langol Hill on the northern side of the campus. On the southern and western fronts, the college is surrounded by the Central Farm of the Central Agricultural University, Imphal. The alluring hillside view and serenity of the campus provides for an excellent peaceful learning centre and an ideal atmosphere for academic and research activities.

The College of Food Technology, Imphal imparts education in the form of Bachelor of Technology (B. Tech.) in Food Technology. The College started its first academic programme *i.e.,* 4 year B. Tech. (Food Technology) programme from academic session 2015-2016 with intake capacity of 20 students. The course curriculum and syllabi of the degree programme are based on the model academic regulations and syllabi as proposed by the **5th Dean Committee of Indian Council of Agricultural Research (ICAR), New Delhi.** While designing curriculum, utmost care has been taken to consider the global development in Science & Technology to equip graduates to meet new challenges thrown open as a result of economic globalization and climate changes and preparing farmers and entrepreneurs for emerging opportunities of food technology and food processing at national and international level.

At present 10+2+4 pattern which comprises Student READY Experiential Learning Programme (ELP) I and II and Students READY Research Project and report writing for 3 weeks each in semester VII and also Students READY Seminar for personality development in the same semester are offered to the students. The whole of VIII semester is offered in the form of In-plant training of the students for 10 weeks in different industries and research institutes at national level. So far, students have been exposed to different skills and hands on training in different places including CSIR-Central Food Technological Research Institute (CFTRI), Mysuru, Amul, Anand, Gujarat, Patson Foods, Ahemadabad, Nilon's, Guwahati, etc. Moreover, the ELP have been conducted in food producing units of the state of Manipur which includes Thangjam Agro, Imphal, Meira Foods, Imphal, Modern Foods, Takyel Industrial Estate, etc. in different skill categories.

Fig. 1: Satellite Image of the Campus of College of Food Technology, Lamphelpat, Imphal

The College of Food Technology, Imphal is an unique campus under the Central Agricultural University, Imphal with complete integration of all the three functions *viz.;* teaching, research and extension. The college has the mandate to develop, strengthen and promote the understanding, knowledge and skills to improve profitability and utilization in the field of food processing, packaging, storage and distribution of food product not only in Manipur but also in the entire North-Eastern Region of India. The college shall also endeavour to establish linkages with other scientific institutions of ICAR, other zonal and national bodies in the field of its domain located in the region and outside the region. The major mandates of the college are:

iv) Making provision for imparting education in food science and engineering.

v) Advancement of learning and conducting research particularly in Food Technology and other allied sciences / technologies especially for the rural people of the state in general.

vi) Undertaking activities pertaining to major mandates *via*, education, research and extension as directed by the University from time to time.

Mission

- To train technical manpower, pursue high quality and high impact research, design and development of sustainable technologies/equipment related to food technology and disseminate the developed technology to the farmers' field/ entrepreneurs of NEH region of India.

Vision

- In accordance with the vision of CAU, Imphal the vision of College of Food Technology is to produce world class professionals who are equipped to meet the demands of global outfits, have analytical abilities and entrepreneurship for making career of self employment and as contributors, to be livelihood and food/nutritional security.

Objectives:

- To establish and develop excellent academic facilities for offering undergraduate and postgraduate education in the discipline of food technology, appropriate to various states of NEH region in particular and the country in general.
- To impart quality education so as to produce globally competitive graduates and post graduates in areas of food technology including inter disciplinary areas so that confident and capable human resource, suitable for working as scientists, academics, managers, entrepreneurs etc., could be developed.
- To establish specialized research laboratories fitted with state of art machineries equipment and instruments for taking up basic and applied research by the scientists/teachers and post-graduate students and experiential learning facilities including pilot plants for 'hands - on training' of undergraduates students.
- To carryout research to generate technology and extension of technology to the micro food processing unit and professional body.
- To develop and demonstrate modern and advanced food processing system appropriate to NEH states which may help the farmers to improves their productivity and profitability while preserving and improving the environment.
- To develop need based improved agro-technologies and equipment for NEH region for household and on farm operations, post-harvest management and utilization of renewable sources of energy.

Fig.2 Inauguration of College of Food Technology, Lamphelpat on 2nd Feb., 2019

Fig.3 Inauguration of College of Food Technology, Lamphelpat on 2nd Feb., 2019 by DG, ICAR (Dr. Mahapatra) & Dr. R.S. Paroda, Chairperson, TAAS & Ex-Secretary, DARE.

Accomplishments

At B.Tech. level, students are admitted only from all the State of NEH. Few seats are filled on all India bases through ICAR quota. The quota of various States is fixed. The State Governments recommend students (on the basis of competitive examinations within their state) for admission. Similarly ICAR nominate (on the basis of all India competitive examination) students for their quota. The intake capacity, number of students admitted, number of students graduated number of fellowship received by the students in various academic years are given in following two tables.

Student enrollment in the College has been getting increased gradually for each academic year. During recent past, however, some –signatory states are seeking for more allocation of seats for their students. The main reason might be the impressive performance shown by the students of this college at national level. Altogether, 18 students from two batches have already achieved their B. Tech. degree from the College. On an average, 100 per cent of passed out students secured first class in their final examination which is a morale booster and an achievement in itself. Students of this college have shown outstanding performance in the national level examinations. The following table highlights some of the major achievements of the passed out students in terms of ICAR-JRF and GATE examinations en route to their M. Tech. study in different IITs and other universities all over India.

Table 1: Performance of the students during the academic year 2015 to 2020

Sl. No.	Year	Intake capacity	No. of students admitted	No. of students graduated	No. of students receiving scholarships
1	2015-16	20	08	08	01 merit scholarship, 07 state scholarship
2	2016-17	20	10	10	01 merit scholarship, 09 merit scholarship
3	2017-18	20	08	-	01 merit scholarship, 07 state scholarship
4	2018-19	27	07	-	01 merit scholarship, 06

					state scholarship
5	2019-20	27	11	-	07 state scholarship, 03 NEC scholarship
6	2020-21	27	16	-	-

Table 2: Total number of students available during various academic years

Year	1st	2nd	3rd	4th	Total no. of students	Total scholarship
2015-16	08	-	-	-	08	08
2016-17	10	08	-	-	18	18
2017-18	08	10	08	-	26	26
2018-19	07	08	10	08	35	35
2019-20	11	07	08	10	36	35
2020-21	16	11	07	08	42	25

Table 3: Milestones achieved by the students of the College since its inception in 2015

S. No.	Name of Student	Year of passing out	ICAR-JRF	GATE	Major Subject	M. Tech.
1	Niamcha Lowang	2018	2019-20 ST – 1st UPS – 2nd Overall – 144th	-	Food Technology	Anand Agricultural University, Anand, Gujarat
2	SweetyNgangom	2018	-	2019	Food Technology	Tezpur University, Assam
3	Monika Konsam	2018	2020-21 UPS – 1st OBC – 33rd Overall – 91st	2020	Food Technology	Jadavpur University, West Bengal
4	Bhavesh Datla	2019	-	2020 Overall – 19th in Engineering Sciences; Overall – 1st in Food Technology	Food Technology	Indian Institute of Technology, Kharagpur
5	Alok Das	2019	-	2020	Food Technology	Indian Institute of Technology,

						Varanasi
6	Rebika Salam	2019	2020-21 UPS – 2nd	-	Food Technology	Tezpur University, Assam
7	W. Athoi	2018	-	2020	Food Technology	Tezpur University, Assam

Table: 4.Number of students passed and secured M. Tech. in 2018-19 to 2019-20

Sl. No.	Year	Number of students qualified/Number of students placed					Number of students passed out
		JRF	SRF	GATE	M. Tech.	Other	
1.	2018	01	-	03	06	-	08
2.	2019	02	-	02	10	-	10

Extracurricular activities:

As part of the academic activities of the college, the students have participated actively in every extra-curricular activities during various events organized in and outside the University. Some of the remarkable achievements of the students in extra-curricular activities have been listed below.

Table 5: Extra-curricular activities participated by the students of the college

Sl. No.	Events (sports/literary/cultural meets)	State/regional /national level	Year	Position
1	Inter-collegiate Youth Festival of Central Agricultural University at College of Veterinary Sciences, Thenzawl, Mizoram	Regional	2018	Folk dance (group) – 2nd On-the-spot painting – 2nd (Ksh. Amitkumar Singh) Elocution – 2nd (Rohan Singha) Mime (group) – 4th
2	Inter-collegiate Youth Festival of CAU at College of Agriculture, Iroisemba, Imphal	Regional	2019	Cultural procession (group) – 2nd Folk dance (group) – 3rd Quiz – 3rd (L. Bikramjit Singh and Bhavesh Datla)
3	Inter-collegiate Sports Meet of CAU at College of Agriculture, Iroisemba, Imphal	Regional	2019	100 m race – 2nd (ArrowalSyngkon) 200 m race – 1st (ArrowalSyngkon) Discus throw – 3rd (L. Bikramjit)
4	OUGRI Night of National Institute of Technology, Manipur	Regional	2019	Debating competition – 3rd (Rohan Singha)
5	National AgriUnifest at Raipur, Chhatisgarh	National	2020	Represented and participated in elocution,

				debating competition and ex-tempore speech (Rohan Singha)

Additional information on monitoring mechanism for quality education

- Monthly meetings: The Dean College of Food Technology conducts monthly meetings with the faculties to evaluate the progress in the field of teaching, research and extension.
- Annual reports: Annual reports are prepared for the college based on teaching, research and extension education activities performed during the year in consideration. The reports are used for measuring the performances of the college during the particular year and serve as guidelines for future action plan

Student evaluation:

Students' advisory meeting is conducted every week by respective advisors and every month Students Advisory meeting is held along with the Dean of the college. He receives thefeedback from the students and gives direction to the faculties. The students are providing the feedback of course teachers who handle the classes during a particular semester in a prescribed proforma. The feedback of the students is analyzed and the inadequacies are properly addressed.

Special focus is paid for all round development of student to show their hidden talents in addition to their academic programme. The College organizes co-curricular and extra-curricular activities for overall development of student's personality and career. Annual College Week, Blood Donation Camp, Agricultural Education Day, Mahatma Gandhi's Anniversary programme, NSS, Physical Education, Sports, Literary activities etc. are also organized to give the opportunity to the students. The students also participate regularly inter collegiate event of University and National level competitive events.

College Administration

The overall administration of the academic, research, extension and other activities of the college including infrastructure development is monitored by the Dean, College of Food Technology, Imphal. The Academic and Administrative building of College is depicted in **Fig. 2**. The Dean is assisted by various teaching, non- teaching and non-technical members of the institution.

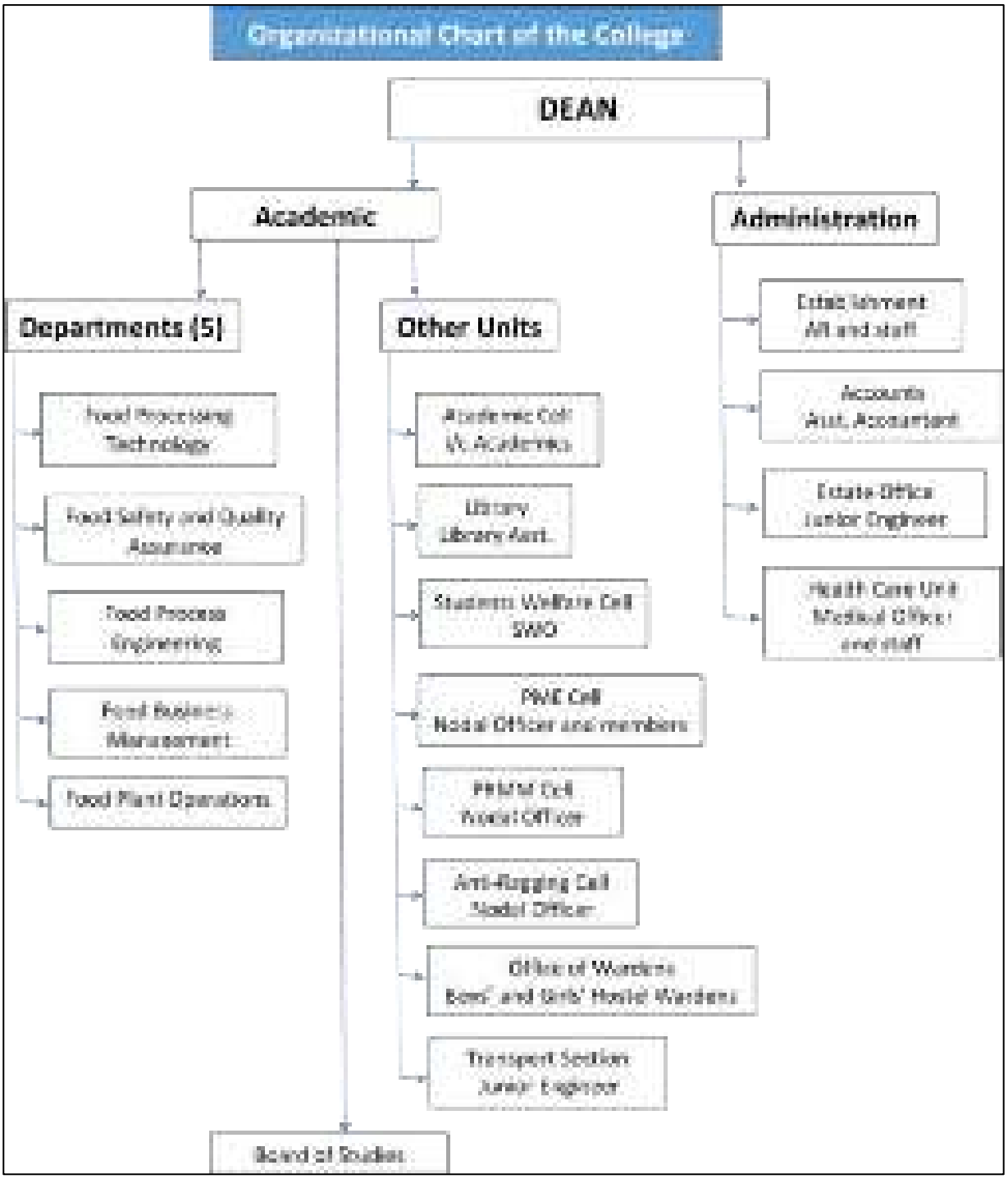


Fig. 4: Organizational structure of the College of Food Technology

Fig 5: Administrative and Academic Building of the College

College Dean's Office Establishment:

Sl. No.	Particulars	Response
1.	Whether Dean's post has been sanctioned by the appropriate authority as per ICAR Model Act/UGC guidelines	: Yes
2.	Date of selection/joining of present Dean	: 28th October, 2020
3.	Mode of selection	: Nomination
4.	Tenure	: (In-charge)
5.	Total number of staff in Dean's office	: One PA (Y. Ricky Singh)
6.	Infrastructure facilities (Details on infrastructure and networking facilities available)	• Computers with printers are available at the Dean's office with internet and UPS connectivity • Copier facility is available with WiFi connectivity

6.4.2 Faculty

College of Food Technology initially was started as twin College with College of Agriculture, CAU, Iroisemba and hence some related departments, faculty and laboratories as required under fifth dean's committee recommendations are being utilized for smooth running of B.Tech in Food Technology programme.

As per the Fifth Dean Committee, Five Professors, Ten Associate Professors and Thirty One Assistant Professors are needed to teach and guide the students of B. Tech. Food Technology, M. Tech Food Technology and Ph. D. Food Technology. We are offering only B. Tech. (Food Technology) at present. At this College the following Faculty members were involved in teaching and guiding the students of B. Tech. Food Technology during 2015-2020. As per the recommendations by ICAR/UGC/VCI/Other regulatory bodies, the present faculty strength of the college is yet to be filled

up to its full strength. As per faculty recommended by ICAR/~~UGC/VCI/~~Other regulatory bodies the faculty strength are sufficient. However, faculties from other constituent colleges including College of Agriculture, Iroisemba, Dhanamanjuri College of Arts, Dhanamanjuri College of Science, Churachandpur College, scientists from AICRP and ICAR are being assigned to complete the curriculum of the undergraduate degree programme of this college. The teaching pedagogy include a judicious blend of different teachings modules, classroom-based teaching with an equal weightage on practical training and exposure to inculcate pragmatic skills and perk up student's confidence to meet requirement of various client organization as well as higher education in other national and international academic institutions..

The names of various faculties (permanent, on contract, from sister organization, guest etc.) their qualification and various courses taught by them is given below. As mentioned, these faculties are assigned the responsibility for the B. Tech. programme only.

Table 6: Present status of faculty strength of the College

Sl. No.	Faculty Associated with Food Technology programme	Faculty in place	Vacant Position	Faculty recommended By ICAR/UGC/VCI/Other regulatory bodies
1.	Professor	05 (Guest lecturers, CoA)	*04	05
2.	Associate Professor	00(Sanctioned Post) 06 (Guest lecturers, CoA)	00	10
3.	Assistant Professor	07(contract) 24 (Guest Lecturers)	*06	30
Total		**42**	**10**	**45**

*The above statement regarding the vacancy of Professor and Assistant Professor is as per the advertisement published by the University Authority.

Table 6(b): List of Guest Lecturers (2020-21):

Sl. No.	Name	Department and Institute	Courses Covered
7.	Dr. Thokchom Subhaschandra Singh	Assistant Professor Dept. of Mechanical Engineering NIT Manipur	Food Thermodynamics (Theory and practical)
8.	Er. Laishram Birjit Singh	Technical Assistant Dept. of Mechanical Engineering NIT Manipur	Food Thermodynamics and Heat and Mass Transfer (Practical classes)
9.	Dr. Thiyam Tamphasana Devi	Assistant Professor Dept. of Civil Engineering NIT Manipur	Fluid Mechanics (Practical classes)
10.	Dr. Shuma Adhikari	Assistant Professor	Basic Electrical

		Dept. of Electrical Engineering NIT Manipur	(Practical classes)
11.	Er. Asem Nabadavis	Assistant Professor Dept. of Mechanical Engineering MTU Manipur	Food Thermodynamics (Theory)
12.	Er. Jimmy Laishram	Assistant Professor Dept. of Computer Engineering MTU Manipur	Computer Programming (Theory and practical)

Table 7: Information regarding faculties, their qualification and courses taken for the B. Tech. (Food Technology)

Area	Since 2015 to 2020		
	Subject	**Taught by**	**Highest qualification**
Food Process Technology	Fundamentals of Food Processing	Dr.AngamRaleng (Assistant Professor) Mr. H. Dayanidhi Singh (Assistant Professor)	Ph. D. M. Sc.
	Processing Technology of Cereals	Dr.A.K. Mishra, (Associate Professor) Dr. Ng. Joykumar Singh (Dean)	Ph. D.
	Processing Technology of Legumes and Oilseeds	Dr.AngamRaleng (Assistant Professor) Dr.A.K. Mishra, (Associate Professor) Dr. N Renuka (Associate Professor)	Ph. D.
	Processing Technology of Fruits and Vegetables	Dr. L. Sophia Devi, (Junior Scientist) Dr. Mariam Anal (Assistant Professor)	Ph. D.
	Processing Technology of Liquid Milk	Dr.M. Norjit Singh, (Assistant Professor) Dr.AngamRaleng (Assistant Professor)	Ph. D.
	Processing Technology of Dairy Products	Dr. M.Norjit Singh, (Assistant Professor) Dr.AngamRaleng (Assistant Professor)	Ph. D.
	Processing Technology of Beverages	Dr.A.K. Mishra, (Associate Professor) Dr. L. Pilloo (Associate Professor)	Ph. D.
	Processing of Spices and Plantation Crops	Dr. L. Sophia Devi, (Junior Scientist) Dr. Mariam Anal (Assistant Professor)	Ph. D.
	Processing of Meat and Poultry Products	Dr. M. Norjit Singh, (Assistant Professor) Dr.AngamRaleng (Assistant Professor)	Ph. D.

	Processing of Fish and Marine Products	Dr.WanglarChimwar, (Junior Scientist) Dr. Bashudev Devi (Senior Scientist)	Ph. D.
	Bakery, Confectionery and Snack Products	Mr.H.Dayanidhi Singh (Assistant Professor) Dr. L. Pilloo (Associate Professor)	M. Sc.
	Food Packaging Technology and Equipment	Dr.AngamRaleng (Assistant Professor) Dr.A.K. Mishra, (Associate Professor)	Ph. D.
	Sensory Evaluation of Food Products	Dr.AngamRaleng (Assistant Professor) Mr.H.Dayanidhi Singh (Assistant Professor)	Ph. D.
	Fundamental of food Technology	Dr.AngamRaleng (Assistant Professor) (Dr. Ng. Joykumar Singh (Dean)	Ph. D.
Food Safety and Quality Assurance	General Microbiology	Dr.Punyakishore M. (Assistant Professor) Dr. Lokesh Mishra (Associate Professor)	Ph. D.
	Food Microbiology	Dr.Punyakishore M. (Assistant Professor) Dr.P.K. Sarangi, (Scientist)	Ph. D.
	Industrial Microbiology	Dr.P.K. Sarangi, (Scientist) Dr.Punyakishore M. (Assistant Professor)	Ph. D.
	Food Chemistry of Macronutrients	Mr.H.Dayanidhi Singh (Assistant Professor) Dr.AngamRaleng (Assistant Professor)	M. Sc.
	Food Chemistry of Micronutrients	Mr. H. Dayanidhi Singh (Assistant Professor) Dr. L. Mishra (Associate Professor)	M. Sc.
	Food Biochemistry and Nutrition	Dr.Punyakishore M. (Assistant Professor) Dr. Th. Anand Singh (Scientist)	Ph. D.
	Biochemistry	Dr.Punyakishore M. (Assistant Professor)	Ph. D.
	Food Biotechnology	Dr.Punyakishore M. (Assistant Professor)	Ph. D.
	Food Additives and Preservatives	Mr. H. Dayanidhi Singh (Assistant Professor) Dr. L. Mishra (Associate Professor)	M. Sc.
	Instrumental Techniques in Food Analysis	Dr. Th. Anand Singh (Scientist) Mr. H. Dayanidhi Singh (Assistant Professor)	Ph. D.
	Food Plant Sanitation	Dr. Th.Gopeshwor Singh(Assistant Professor) Dr.AngamRaleng (Assistant Professor)	Ph. D.
	Food Quality, Safety Standards and Certification	Mr. H. Dayanidhi Singh(Assistant Professor) Dr. L. Pilloo (Associate Professor)	M. Sc.
Food Process Engineering	Food Thermodynamics	Dr. S. Sunderlal Singh (Assistant Professor) Dr. Th. Subhaschandra Singh (Assistant Professor, **NIIT, Manipur**)	Ph. D.
	Fluid Mechanics	Dr. S. Sunderlal Singh(Assistant Professor) Dr. Thiyam Tamphasana Devi, (Assistant Professor, **NIIT, Manipur**)	Ph. D.

	Post-Harvest Engineering	Dr. Ng. Joykumar Singh (Dean) Dr.A.K. Mishra, Guest	Ph. D.
	Heat and Mass Transfer in Food Processing	Dr. L. Sophia(Assistant Professor) Dr. S. Sunderlal Singh (Assistant Professor)	Ph. D. Ph. D.
	Unit Operations of Food Processing - I	Dr. Ng. Joykumar Singh (Dean) Dr.AngamRaleng (Assistant Professor)	Ph. D.
	Unit Operations of Food Processing - II	Dr. Ng. Joykumar Singh (Dean) Dr.A.K. Mishra, (Associate Professor)	Ph. D.
	Food Refrigeration and Cold Chain	Dr. L. Sophia(Assistant Professor) Dr. S. Sunderlal Singh(Assistant Professor)	Ph. D. Ph. D.
	Food Storage Engineering	Dr.AngamRaleng(Assistant Professor) Mr. H. Dayanidhi Singh (Assistant Professor)	Ph. D.
	Food Process Equipment Design	Dr. S. Sunderlal Singh(Assistant Professor) Mr. H. Dayanidhi Singh (Assistant Professor)	Ph. D.
	Instrumentation and Process Control in Food Industry	Dr. S. Sunderlal Singh(Assistant Professor) Dr.A.K. Mishra, (Associate Professor)	Ph. D.
Food Business Management	Business Management and Economics	Dr. S. Bhogin Singh, (Associate Professor) Prof. Y. Chakravarty (Professor)	Ph. D.
	ICT Applications in Food Industry	Dr. Shuma Adhikari, Assistant Professor **Dept. of Electrical Engineering** **NIT Manipur** Er. Saroj Kumar Behera (Assistant Professor)	Ph. D. M. Tech.
	Marketing Management and International Trade	Dr.Angad Prasad, (Professor) Prof. L. Nabachandra Singh (Professor)	Ph. D.
	Project Preparation and Management	Dr. S. Bhogin Singh, (Associate Professor) Dr. Y. Chakraverthy (Professor- Economics)	Ph. D.
	Communication and Soft Skills Development	Dr.Dayaram, (Assistant Professor) Prof. Angad Prashad (Extension –professor)	Ph. D.
	Entrepreneurship Development	Dr.Dayaram, (Assistant Professor) Prof. N. Okendro Singh (Professor –Stats)	Ph. D.
Food Plant Operations	Student READY-Experiential Learning Programme - I	Dr. Ng. Joykumar Singh (Dean) Dr. Feroze Hussian (Associate Professor)	Ph. D.
	Student READY-Experiential Learning Programme - II	Dr. Ng. Joykumar Singh (Dean) H. Dayanidhi Singh (Associate Professor)	Ph. D.

	Student READY – Research Project	Dr. Ng. Joykumar Singh Dr. Th. Gopeshwor Singh (Assistant Professor)	Ph. D. Ph. D.
	Student READY - Seminar	Dr. Th. Gopeshwor Singh(Assistant Professor) Dr. L. Sophia(Assistant Professor) Dr.Punyakishore M. (Assistant Professor)	Ph. D. Ph. D. Ph. D.
Basic Engineering	Engineering Drawing and Graphics	Dr. L. Sophia(Assistant Professor) Er. Asem Nabadavis, Assistant Professor **Dept. of Mechanical Engineering** **MTU Manipur**	Ph. D.
	Basic Electrical Engineering	Er. Saroj Kumar Behera(Assistant Professor) Dr. Shuma Adhikari, Assistant Professor **Dept. of Electrical Engineering** **NIT Manipur**	M. Tech.
	Workshop Technology	Dr. L. Sophia(Assistant Professor) Dr. Ng. Joykumar Singh	Ph. D. Ph. D.
	Computer Programming and Data Structure	Er. Saroj Kumar Behera(Assistant Professor) Er. Jimmy Laishram, Assistant Professor **Dept. of Computer Engineering** **MTU Manipur**	M. Tech.
	Basic Electronics Engineering	Er. Saroj Kumar Behera(Assistant Professor) Er. Jimmy Laishram, Assistant Professor **Dept. of Computer Engineering** **MTU Manipur**	M. Tech.
Basic Sciences and Humanities	English Language	Dr. K. Maheshwari Devi, (Assistant Professor)	Ph. D.
	Crop Production Technology	Dr.R.K. Dilip Singh, Guest Dr.A.K. Bijaya Devi, Guest Dr. Edwin Luikham, Guest Dr.JamkhoginLhungdim, Guest	Ph. D. Ph. D. Ph. D. Ph. D.
	Engineering Mathematics -I	Er. Saroj Kumar Behera(Assistant Professor) Prof. Gangmei Sobha (Prof.-Maths)	M. Tech.
	Engineering Mathematics -II	Er. Saroj Kumar Behera(Assistant Professor) Prof. Gangmei Sobha (Prof.-Maths)	M. Tech.
	Environmental Sciences and Disaster Management	Dr. Th. Gopeshwor Singh(Assistant Professor)	Ph. D.
	Statistical Methods and Numerical Analysis	Shri N. Gopimohon Singh, (Associate Professor) Dr. N. Okendro Singh, (Professor)	M. Sc. Ph. D.

Credentials of the Faculty:

All faculty members of the college are qualified and recognized persons of their fields. The college has adequate proportion of experienced and young faculty members. Many faculty members in the college have received awards for their excellence in teaching and research activities.

6.4.3 Technical and Supporting Staff

The technical staff and other supporting staff of College of Food Technology are attached with

the Dean's office for administrative, convenience and being allotted to other departments as per requirements and skills imparted. Other than these staffs some Skilled and Unskilled labours are hired on contractual basis. The administrative and accounts staff are centralized in the college and are operating under the direct control of the Dean as part of Dean's office.

Table: 8. Information of Technical and Supporting Staff of College of Food Technology

	In position	Vacant
COFT, Imphal	14*	2

* These staffs are commonly shared from COA, Imphal at present.

Since the college is newly established, only some technical staff (permanent) has been assigned the responsibilities for the multiple activities related to the College. Apart from that 20 outsourced contractual staff is engaged based on the skills required.

6.4.4. Classrooms, Laboratories, Dean's Room:

The regular teachings have being conducted in the four numbers pre-fabricated classroom and two laboratories in the college. Since a permanent structure is yet to be erected, the required practical classes are conducted at different laboratories in nearby campuses or under CAU constituent colleges namely NIT Manipur campus, CAEPHT Sikkim etc.

1. UG Class room : Four (04) well furnished with projector facility and desktop
2. UG Practical Room : Two (02) with laboratory equipments

Training Hall: One (01) with well furnished chairs and tables

Fig. 6.Dean's Room

Details of Classrooms and Laboratories:

c) **Number of class rooms**: (UG = 4)

Fig 7: Classroom of the College

Fig 8: Practical / Training Hall of the College

All class rooms are provided with LCD projectors and audio-visual aids for better delivery of lectures. The faculty use power point presentations to make the concepts/techniques clearly understandable to the students. The important lectures are taught with videos. A table, podium, whiteboards/screen, black board etc. are available in each class room for the use of teachers.

a) **Functional Laboratory: 2** no.

Fig 9: Functional Laboratory of the college

Lab.10 : Food Engineering Equipments / Laboratory

Fig. 11 Mini-Commercial oil expelling machine

Fig. 12 Shrink Packaging and Vacuum packaging Machine

Fig. 13 Fruit Extraction machine and Tray/Cup packaging Machine

Lab.02 : FOOD ANALYSIS EQUIPMENTS / LABORATORY

Fig. 14 Shrink Packaging and Vacuum packaging Machine

Fig. 15 Rotary Evaporimeter and Autoclave Machine

Fig. 16 Laminar Flow and Incubator Machine

Fig. 17 Tray Dryer and Crown Capping Machine

Fig. 18 Pulveriser Machine and Weighing and Microwave Oven

Fig. 19 Soxlet Plus Apparatus and Weighing and Microwave Oven

Fig. 20Processing Lab. and Chemicals

Fig. 21 Pineapple Powder Processing Pilot Plant

Fig. 22 Pineapple Primary Processing Mobile Van

Fig. 23Pineapple Juice Extraction Mobile Van with washing Unit

Fig. 24 Computer Room

List of major Equipment:

The laboratory is equipped with some of the basic and advanced equipments needed for the experiments as recommended in the academic regulation of the 5th Deans' Committee. So far, the necessary laboratory furnishings have yet to be installed permanently as the College is under construction.

The available equipments are enlisted below.

Table 9: Major Equipment in Processing & Food Engineering Department

▪ Dietary fibre extraction unit	▪ Coconut tree climber
▪ Colour lab hunter	▪ Coconut dehusker
▪ Refrigerated centrifuge CPR 24	▪ Foot Sealer
▪ Steam Jacketed cooking kettle	▪ Fermenter
▪ Fruit and Vegetable Juice and paste Processing Plant	▪ Hand sealer
▪ Electronics Grain Moisture Meter	▪ Angle of Repose apparatus
▪ Vacuum Packaging Machine	▪ Vacuum oven
▪ Shrink Packaging Machine Model-CP-2030	▪ Micro Pulverizer (hammer mill)
▪ Steam Distillation set u	▪ Fruit pulper
▪ Angle of Repose apparatus	▪ Digital Humidity Sensor and Indicator
▪ Electronic weighing balance ZSP-350 (300g	▪ Automatic Foam Fill Seal packaging Machine
▪ Micrometer Precise Thickness	▪ Rubber Roll Sheller
▪ Aspirator/ Cyclone Separator	▪ Shrink Wrapping Machine
▪ Automatic Fibre Extraction system	▪ Digestion Unit
▪ BOD Incubator with shaker	▪ Electronic Balance
▪ Digital Precision	▪ Digital balance model –(A-224) make Contech Capacity-220gm
▪ Digital Refractrometer PAL	▪ Vibratory Screen Grader
▪ Tray dryer (12 trays)	▪ Pulverizer/Gravy machine (2HP)
▪ Autoclave (40 Litres)	▪ Logic gate analyzer
▪ Double distillation unit (2.5 L)	▪ Frequency counter
▪ Digital Weighing Balance	▪ Oscilloscope
▪ Infra-red Moisture Meter	▪ Microwave oven
▪ Hot air oven	▪ Dough kneading machine
▪ Analytical balance	▪ Vegetable cutting machine
▪ Bench top pH meter	▪ Wet grinding machine
▪ pH meter	▪ Water Bath
▪ Pilot plant Spray Dryer	▪ OTG Oven
▪ Complete Unit of Biscuits Making Machine	▪ Ginger Paste and Powder Making Machine
▪ Complete unit of Potato Chips Machine	▪ Complete Unit of Noodle Making Machine
▪ Mini Dal Mill	▪ Vegetable Washing Machine
▪ Seed processing plant	▪ Potato Slicer
▪ Turmeric Grinder	▪ Ginger Processing machine (Complete Unit)
▪ Cottage scale soya paneer plant	▪ Multi stage evaporator with aroma recovery system
▪ Laminar Flow	▪ Ginger /Turmeric peeler cum

	▪ polisher
▪ Plate count	▪ Corking machine
▪ Digital refractometer	▪ Induction sealing machine

Theory and practical batches for the Degree Programme:

The number of intake students is manageable due to limited number of seats.

Table: 10. Average number of students in theory and practical classes

Sl. No.	Particulars of curricula	Batch of student in *Theory* class	Batch of student in *Practical* class
1	B. Tech. (Food Technology)	16	16

The class rooms and laboratories are sufficient to meet course curricula requirement of the degree programme

6.4.5 Conduct of Practical and Hands-on-Training:

Theory and Practical batches for the Degree Programme

There are manageable number of students (Maximum 16) who are kept in one batch during Theory & Practical classes to ensure better delivery of information, encourage students' participation and active monitoring.

The undergraduate courses involve conducting practical experiments as per credits allotted tothe specified courses and hands on training and field/lab practical are for courses.

Table 11: Number of students in theory and practical classes of the college

Year	B. Tech. (Food Technology)	
	Batch of students in theory class	Batch of students in practical class
2015-16	08	08
2016-17	09	09
2017-18	10	10
2018-19	07	07
2019-20	11	11
2020-21	16	16

Short duration training/visit

During the course of study students also visited the following industries for short duration training. These industries include Thangjam Agro (Likla Foods), Imphal, Meira Foods, Imphal, Korouhanba Spices, Imphal, Modern Foods, Imphal, etc.

In order to conduct the practical classes of the students of the College, the students along with the concerned faculty undergo regular visit to other established colleges and institutes for conducting

practical classes, namely NIT Manipur, CAEPHT Sikkim and S. K. Womens' College Nambol, Manipur with due approval of the University authority.

Study Tour

Under student ready program in VII Semester students were deputed for Study Tour (two - three weeks). Earlier all the students during course of their study used to undertake study tour twice (two to three weeks duration each time), one to NEH region and one at places outside North-east (All India Tour). The tour to NEH region was stopped after implementation of 5th Dean's committee. Now students are going only on All India Study Tour. However, due to covid-19 the tour couldn't be undertaken during 2020-21. The details of various tours undertaken by the students are given below.

Table 12: Details of study tour of the students during 2016-20

Year	Places Visited
2016-17	• NEHU, Shillong • ICAR Research Complex for NE Region, Umiam, Barapani • CPGS, Barapani (CAU) • IIT, Guwahati • Tezpur University, Assam • NERIST, Arunachal Pradesh
2017-18	• NEHU, Shillong • Tezpur University, Assam • Yak Centre, Birang, Arunachal Pradesh • KVK, Tawang, Arunachal Pradesh • Kiwi Winery, Bomdilla, Arunachal Pradesh • ICAR Research Complex, Medziphema, Nagaland
All India Study Tour	
2017-18	• Parle Industries, Bhuj, Gujarat • Amul, Anand, Gujarat • Anand Agricultural University, Anand, Gujarat • ICAR-Central Institute of Fisheries Technology, Mumbai • KVK and Agricultural Fair, Goa • NIRJAFT (National Institute of Research on Jute and Fibre Technology, Kolkata) • CIRCOT (Central Institute for Research on Cotton Technology), Mumbai
2018-19	• Sri Jagannath Flour Mill, Orissa • University of Agricultural Sciences, Bangalore • Pelagic Foods, Bangalore • National Institute of Agricultural Extension Management (MANAGE), Hydearabad • M/s. Sagar Feeds and food processing industry, Cuncolim, Goa • ICAR- Central Coastal Agricultural Research Institute, Goa
2019-20	• CSIR-Central Food Technology Research Institute (CFTRI), Mysuru • Bakery Heaven, Mysuru • University of Agricultural Science, Bangalore • ICAR-Central Institute of Fisheries Technology, Cochin, Andhra Pradesh • CIFE (Central Institute for Fisheries Education), Versova, Mumbai

Conduct of the hands on training

a) Hand on training within the College

Under student ready program in VII semester students of B. Tech (Food Technology) are being provided hands on training under Skill Development Experiential Learning Programme I and II (Skill Development/In-plant training) in the following pilot plants.

Table 13: Details of the Experiential Learning programme of B. Tech. (Food Technology)

Year	Name of the students	Title of Experiential Learning
2018	▪ SweetyNgangom, ▪ Bharat Singh ▪ Irom, Konsam Monika, ▪ NiamchaLowang, ▪ W. Athoi, ▪ Arvind Kumar Yadav, ▪ L. Bhaktaraj, ▪ Ph. Manojkumar Singh	▪ Chak-hao (Black scented rice) processing leading to development of different products including Chak-hao noodle, Chak-hao cookies, Chak-hao GulabJamun, Chak-hao based instant baby food, ▪ Squash chips, fish processing, ▪ Pineapple powder production, ▪ Bakery products including cup cakes, cookies, water chestnut soup mixture
2019	▪ S. Romita, ▪ BhaveshDatla, ▪ Rebika Salam, ▪ U. Priyambada, ▪ Alok Das, ▪ EvenstarKharbani, ▪ DaniNado, ▪ BanteilangKharbani, ▪ Rohan Singha, ▪ Lalhruaichhungi	▪ Processing of ginger to produce ginger candy, dried ginger, ▪ Amla candy, ▪ Guava rolls, ▪ Pomelo juice, lemon RTS, ▪ U-morok (King Chilli) pickle, ▪ Bakery products including cup cakes, cookies
2020	▪ SuchitraKeisham, ▪ M. Hareena Devi, ▪ Nillachandra Y., ▪ Y. Nikhil, L. ▪ Bikramjit Singh, ▪ L. Paikhomba Singh, ▪ Sober Soibam, ▪ Ksh. Amitkumar, ▪ ArrowalSynkon, ▪ TyngshainmiKharsoh	▪ Bakery products including cookies, cakes, buns; ▪ Processing of ginger to produce ginger candy and dried ginger pickle, amla+ginger pickle, ▪ Chak-haokabok (puffed rice), ▪ Heimang (*Rhuschinensis*) balls, ▪ Dehydrated ready to cook vegetable mix, ▪ Indigenous fruits and vegetable processing

Fig 25: ELP conducted by the students of the College (Pineapple Ring)

Fig 26: ELP conducted by the students of the College (Pomello Juice)

Fig 27: ELP conducted by the students of the College (Amla Candy)

Fig. 28 : ELP conducted by the students of the College (Honey processing)

Fig. 29: ELP conducted by the students of the College (Honey packing)

Fig. 30: ELP conducted by the students of the College (Guava ladder)

Fig. 31: Different products by students during ELP of the College

Fig. 32: Selling of products by students to University VIPs during ELP of the College

Fig.33 : Launching of pineapple RTS products by Hon'ble MPS and Vice Chancellor, CAU during ELP of the College Hands on training outside the college

The students of Food Technology discipline undergo Two five weeks Skill Development Trainings under Hands-on-training after IV and VI semester. The industrial attachment training for 10 weeks and Experiential Learning on campus programme of 12 weeks is carried out in VII semester. The requisite facilities for conduction of experiential learning programme are provided to students to practically fulfill programme requirements and achieve desired skills. Within VIII semester students perform 12 Weeks Project planning and report writing as per ICAR guidelines. The facilities for project are provided to the students as per requirement.

Students have undergone the hands on training for the skill development during the training programme to make them fit for demonstrating the responsibilities effectively in the professional career. During the training students developed the skill in the field of testing, food processing & value addition etc.

Fig. 34 Institute visit at Indian Institute of Technology, Guwahati June 2017

Fig. 35 Industrial visit at Central Institute of Fisheries Technology (CIFT), Cochin Jan 2020

Fig. 36 Institute visit at Central Food Technological Research Institute (CFTRI), Mysore Dec 2019

Table 14: Titles of Experiential Learning Modules for B. Tech (Food Technology) implemented during 2015-16 to 2020-21

Sl. No.	Title of EL	Year of Sanction	EL Location	Discipline
7.	Vegetable Processing	2017-18	College of Food Technology	B.Tech(Food Tech)
8.	Fruit Processing	2017-18	Meira Foods	B.Tech(Food Tech)
9.	Chak-hao (Black rice) Processing	2018-19	College of Food Technology	B.Tech(Food Tech)
10	Spice processing	2018-19	Korouhanba Spices	B.Tech(Food Tech)
11	Indigenous fruits	2019-20	College of Food Technology	B.Tech(Food Tech)
12	Bakery products	2019-20	Likla foods	B.Tech(Food Tech)

Apart from the above training programmes, the students are engaged in skill development summer training of 10 weeks duration during their VIII semester. They undergo trainings in different institutes and industries of higher repute outside the state of Manipur.

Table 15: Places of Training for Skill Development Summer Training of 10 weeks duration (during VIII semester)

Year	List of Training Institutes B. Tech(Food Technology)
2017-18	CFTRI, Mysore
2018-19	Nilon's, Guwahati, Patson Foods, Guwahati and Amul, Ahmedabad
2017-18	CFTRI, Mysore

Fig.37: Industrial visit of the students during In-plant Training

Fig.38: Industrial exposure during In-plant Training of the students

6.4.6. Supervision of students in UG/~~PG / Ph. D~~ Programmes: (number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.)

There is no PG or Ph. D. programme in Food Technology. All the students of B.Tech (Food Technology) are given project work for one semester. During this project work they are allotted a guide/supervisor and a topic for research work. After completion of the research work they analyze the data and submit the report. They make a presentation also on the work carried out by them. The titles of the thesis/report submitted by student are given below.

Under student ready program in VIII Semester students were deputed to CSIR-Central Food Technological Research Institute, Mysore (Internship/In-plant/Skill Development II for 13 weeks in Semester VIII)for working in their various research projects. Few students undertook training at College of Agriculture Imphal, Manipur. The list of the report submitted by students on the basis of work undertaken at CFTRI during 2019 is given below.

Table 16: Title of Thesis/ Reports submitted by the students under Student-READY Research Programme

Sl. No.	Year	Title of report	Name of the students
1	2019	Studies on the development of value added products using cilantro (Eryngium Foetidum) and Other spices	Laishram Bhaktaraj Singh
2	2019	Studies on Development of Omega-3 Fatty Acids Enriched Halwa, A traditional Indian Confection	Bharat Singh Irom
3	2019	EMR based Drying of Vegetable for Improved Quality	Arvind Kumar Yadav

4	2019	Value added products from Bamboo leaves	Wahengbam Athoi
5	2019	Preparation of enzyme modified hen egg white powder	Niamcha Lowang
6	2019	Development and nutritional evaluation of ready to eat products from sweet potato	Monika Konsam
7	2019	Development and formation of sugar free gulab jamun by using bulk sweeteners (Malleitol syrup)	Ngangom Sweety Chanu
8	2019	Development and quality evaluation of ready to eat (RTE) gel like intermediate moisture product from juice blend of pineapple (ananas comosa) and water melon (citrullusblantus)	Ph. Manojkumar Singh

Table 17: Reports submitted by the students under Student-READY Research Programme

Sl. No.	Year	Title of report	Name of the students
1	2018	Development and formulation of Chak-hao (Black rice) based GulabJamun	NgangomSweetyChanu and Arvind Kumar Yadav
2	2018	Development and formulation of Chak-hao (Black rice) based noodle	Bharat Singh Irom and Monika Konsam
3	2018	Development and sensory evaluation of deep fried chayote chips	ManojkumarPheiroijam and WahengbamAthoi
4	2018	Development of supplementary food from Chak-hao	NiamchaLowang and LaishramBhaktaraj Singh
5	2019	Development of Black Rice (Chak-hao) cake	Lalhruaichhungi and SorokhaibamRomita Devi
6	2019	Development and Sensory Evaluation of aromatic black rice Idli	BhaveshDatla and Rebika Salam
7	2019	Development of Instant Soup Powder using Heikak (Water caltrop) as Base Material	Alok Das, DaniNado and U. Priyambada

12.5.3. Feedback of stakeholders :(Students, Parents, Industries, Employers, Farmers *etc*.)

In our college, the faculty members are made Student Advisors for the students admitted. There has to be at least one meeting (mostly on Saturday) of the students with their Advisors. Students raised their various problems (academic, personal etc.) with the Advisor. The Advisors helped the students to solve their problem. In case, help of some particular faculty member/ staff/ Dean were needed, Advisors took their help and solved the problem.

There is a register with the Student Welfare Officer of the College, in which any student can raise their problems (related to academic, hostels etc.). The Student Welfare Officer brought the problem to the notice of the Dean of the College. Dean discussed the issue with the Student/ Group of Students/faculties/officials and took remedial measures.

About 18 complaints were registered in the complaint register by the students with regard to repairing of electrical items and civil work in Hostels during the 2015-2020 such as sufficient water heater (Geysers) and fitting of extra lighting system in the girls' hostel premises which was attended and provided in 2-3 days' time. New dedicated internet Wi-Fi as well as LAN connection was provided with two nos. each in Boys' and Girls' hostel apart from college class rooms as requested by students. Digitalization of library books and journals as suggested by the fourth years were initiated and process is in progress. During first semester of academic year 2016 complaints was received regarding purchase of chemicals and sufficient glass wares conducting practical classes which were attended within a week. Few complaints on procuring of laboratory equipments for practical classes and experiential learning were received and later on were tackled by procuring the necessary equipments with approval of competent authority in 2020. On 10/09/2020 a complaint on providing water cooler and refrigerator was received from the Boy's and Girl's Hostel which was attended and rectified in due course of time. On 24/12/20 a complaint was received

regarding repairing of chairs and beds in New boys' and Girl's Hostel which was immediately attended by JE and his team.

During Farewell of the final year students they sometimes raised the problem faced by them during their stay of four years in the college. After knowing their problems Dean and Faculty tried to implement their suggestions.

In every Semester a meeting of Dean with representative of Students is conducted to discuss their problems related to teaching, hostels, etc. Generally Students raised their issue which used to be discussed in the meeting. The issues which can be solved at the College level were settled in the College itself. The issues which needed the attention of the Vice-Chancellor were sent to him for satisfactory solution.

CAU organized Agricultural Fair every year in various states of NEH. Many parents and guardians of the students visited these fairs. Moreover, parents also visited the college or talked to various officials over phone. During these visits and discussions they appreciate the facilities and academic atmosphere of the college. Sometimes they also made various suggestions. Many times college implemented these suggestions.

Extension council meeting of the college and University were regularly held every year. During these meeting, progressive farmers, members of FPO, members of SHG, state government officials, entrepreneurs etc. participated and gave their feedbacks and suggestions.

During hands on training students interacted with various industries. During discussion of owners/ officials of these industries with various faculty members they appreciated the theoretical, practical knowledge and hard work of the students. During their hands on training students interacted/ worked with entrepreneurs, farmers, FPO, SHG etc. During discussion with the faculty members these people appreciated the help, knowledge and hard work of the students.

Fig. 39 Visit of Hon'ble Union Minister of state and other VIPS to Exhibition stall

Fig. 40 Visit of Hon'ble Union Minister of state, Agriculture Shri Mohanbhai Kundariya

6.4.8 Student Intake and Attrition:

The College of Food Technology presently offers Under Graduate Degree Programme in Food Technology i.e., B. Tech. (Food Technology) which is of 4 years duration. The admission to the college is given preference to students of NEH region. The quota for various states of NEH and ICAR are fixed for each academic year. State governments and ICAR take competitive examination and also nominate selected candidates for admission in CAU. If the desirous student fulfills the eligibility criteria, then they can be admitted to the college.

Table 18: State Wise Quota for B.Tech (Food Technology)

State	**Arunachal Pradesh**	**Manipur**	**Meghalaya**	**Mizoram**	**Nagaland**	**Tripura**	**Sikkim**	**ICAR**	**Total**
No. of Students	**02**	**04**	**02**	**02**	**02**	**04**	**03**	**03**	**22**

Table: 19. Student intake and attrition in the programme for the five years

Name of the Degree Programme	Actual students admitted in last five years					Attrition (%)				
B. Tech. (Food Technology)	2015-16	2016-17	2017-18	2018-19	2019-20	2015-16	2016-17	2017-18	2018-19	2019-20
	10	08	10	07	16	0	0	0	0	0

6.4.9. ICT Application in curricula delivery:

The college strives to implement maximum incorporation of Information and Communication Technology (ICT) in its curricula delivery for effective academic activities of the students. At this juncture of the pandemic, the applications have become more suitable. For the purpose, the college has purchased three paid Zoom platforms which allows more convenient and effective monitoring of the online course delivery. Apart from that, there are audio-visual aids including LCD projectors, sound amplifier system and wireless internet connectivity in all the existing classrooms. For some particular courses, paid versions of softwares like MATLAB, Auto-CAD and COMSOL have been purchased for the use of teachers and students of the college.

Computer facilities:

A fully functional computer laboratory for the students is currently unavailable in the college. However, unlimited internet facility to the staff and students is provided. Wi-Fi Internet hotspot connectivity is installed and running at the Dean's Office, Academic building, administrative building and both the hostels since January, 2021. Internet connectivity procured through broadband connection of BSNL provides 50 Mbps WiFi internet connectivity in the College round the clock.

Fig. 41 Students' Computer Lab

Learning resources like books, photos, life specimen and audio-visual aids like power-point presentation, videos are used to assist the students to meet the expectation for learning defined by ICAR recommended curriculum.

Faculties are provided with computers to access the online open coursework and online portal to use it for the curriculum delivery. Faculty members access various resources for use in teaching, research and extension activities. Students are also encouraged to access various software applications in agriculture.

College Library

The Library provides circulation and reference services. The Library also has access to online e-journals through ICAR web portal. Photocopying and printing facility is also available in the Library. Details of library are as given below: Area of Library: 48.5 sq. m.

Table 20: Details of the College library

Sl. No.	Particulars	Details
1	Present staff	Library assistant – 01
2	Availability of Wi-Fi	Wi-fi facilities area available in the library with a band width speed of 50 MBps from BSNL network.
3	Books	For College of Food Technology: **1477 books**
4	Other reading materials	National and local newspaper such as The Sangai Express, The Telegraph, The Times of India, etc. Magazines like India Today, Down To Earth, PratiyogitaDarpan, Civil Services Chronicle, Kurukshetra, Yojana, Agriculture Today, etc.
5	Research journals	Students and faculty can access journals through online portal of ICAR
6	Internet with computers	Two
7	Sitting capacity	10
8	Stocking arrangement	The College library adopted Open Access System for accessing library collection and classified according to Dewey Decimal Classification (DDC) scheme (22 Ed.) and arranged in APUPA pattern, stacked in different parts like, Subject books Literature books, General books, Reference books, Competitive Exam books, Thesis, Back volumes, Seminar scripts, etc.
9	Operating hours	9:30 am to 4:30 pm
10	Books available in the library	Food Science, Food Engineering, Processing of Vegetables, Processing of Fruits, Processing of Dairy products, Microbiology, Biotechnology, Food Chemistry, Nutrition, Environmental Science and Disaster Management, Civil Engineering, Mechanical Engineering, Electrical Engineering, Biochemistry, Chemistry of Micronutrients, Food Process Engineering, Business Management, Entrepreneurship Development, Project Preparation, etc.

Fig 42: Library facilities at the college

Hostels:

The College has one separate hostel each for boys and girls in the campus. Each hostel has an area of 1400 sq. m. with student capacity of 28 students.

Fig. 43 Administrative Building

Fig 44: Girls' Hostel building of the college

Fig.45: Boys' Hostel building of the college

Sports and Recreation Facility:

The students are provided with different indoor and outdoor games for their physical activity and recreation to keep them physically fit and healthy. At present, a sports ground is under the process of construction at the earliest.

Fig.46: Students having recreation

Conference Hall:

The College has a conference hall with an area of 107.5 sq. m. and sitting capacity of 50 people. The hall is equipped with LCD projector and sound system for multiple uses in different events.

Fig. 49 College Seminar/Conference Hall

Table 21: Utilization of Conference Hall of the college

How frequently the conference hall is used and purpose for being use	Republic day (once a year) College foundation day (once a year) Independence Day (once a year) Inauguration programmes (numerous times a year) Workshops and trainings (numerous times a year) Teachers' Day (once a year) Students' fresher's day (once a year)

6.4.10. The information pertaining to 6.4.1 to 6.4.9 has been provided for UG programme *i.e.,* B. Tech. (Food Technology) of College of Food Technology, CAU, Imphal correctly.

6.4.11.Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate

I, the **Dean, College of Food Technology,CAU, Lamphelpat** hereby certify that the information contained in Sections 6.4.1 to 6.4.9 are furnished as per the record available in the college and degree awarding university.

28th May, 2021

(Dr. Ng. Joykumar Singh)
Dean (i/c),
College of Food Technology, CAU, Imphal

Annexure 6.4.7

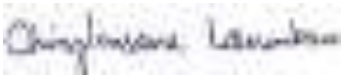
STUDENTS FEEDBACK FORM

1. Name of the Student :Chinglensana Lourembam
2. Admission no:6FT-18
3. Academic Year :2018
4. Name of the program studied :B.Tech (Food Technology)
5. Designation: Student
6. Mobile No: 8787379506
7. Email.Id:lorembam.yai@gmail.com
8. Feedback:

Sl.No	Parameters	Ratting
1	Curriculum &Syllabi of the courses provide sufficient knowledge in the area of study,has good balance between theory and application and fulfilling your expectation	2
2	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education	3
3	Teaching quality,fairness in the assessment processes (internal evaluation ,quiz, assignments, etc) and freedom to adopt new technique /education tools	1
4	Opportunities in the college for research activities and relevance with practical/lab work	2
5	Curriculum has prospects for supporting higher education, career orientated /employability	2
6	Overall learning experience	2

*select your ranking on the scale of 1 to5 for each of the following parameter (1-Excellent,2-Very good,3-Good, 4-Fair, 5-Poor)

Recommendation if any for course improvement:-



Signature of the student

STUDENTS FEEDBACK FORM

9. Name of the Student :Naocha Tongbram
10. Admission no:9FT-18
11. Academic Year :2018
12. Name of the program studied :B.Tech (Food Technology)
13. Designation: Student
14. Mobile No: 8787597391
15. Email.Id:naochatongbram007@gmail.com
16. Feedback:

Sl.No	Parameters	Ratting
1	Curriculum &Syllabi of the courses provide sufficient knowledge in the area of study,has good balance between theory and application and fulfilling your expectation	1
2	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education	2
3	Teaching quality,fairness in the assessment processes (internal evaluation ,quiz, assignments, etc) and freedom to adopt new technique /education tools	2
4	Opportunities in the college for research activities and relevance with practical/lab work	2
5	Curriculum has prospects for supporting higher education, career orientated /employability	2
6	Overall learning experience	2

*select your ranking on the scale of 1 to5 for each of the following parameter (1-Excellent,2-Very good,3-Good, 4-Fair, 5-Poor)

Recommendation if any for course improvement:

1. To give importance to employability of the student after graduation of higher studies.

Signature of the student

Action taken: Feedback highlighted the requirement of more emphasis on the employability of the student graduating from the college. Smart classroom has been set up and initiated for preparation of JRF, GATE and other competitive exams.

STUDENTS FEEDBACK FORM

17. Name of the Student :NillachandraYendrenbam
18. Admission no:3FT-17
19. Academic Year :2017
20. Name of the program studied : B.Tech (Food Technology)
21. Designation: Student
22. Mobile No:7005778757
23. Email.Id:enqoyen@gmail.com
24. Feedback:

Sl.No	Parameters	Ratting
1	Curriculum &Syllabi of the courses provide sufficient knowledge in the area of study,has good balance between theory and application and fulfilling your expectation	2
2	Usage of teaching aids and ICT in the class by faculty to facilitate teaching and give quality education	2
3	Teaching quality,fairness in the assessment processes (internal evaluation,quiz, assignments, etc) and freedom to adopt new technique /education tools	1
4	Opportunities in the college for research activities and relevance with practical/lab work	2
5	Curriculum has prospects for supporting higher education, career orientated /employability	2
6	Overall learning experience	2

*select your ranking on the scale of 1 to5 for each of the following parameter (1-Excellent,2-Very good,3-Good, 4-Fair, 5-Poor)

Recommendation if any for course improvement:

2. The institute needs to balance and focus on the employability of the student after graduation of higher studies.
3. Funding and support from VC is very necessary.

Signature of the student

Action taken: Feedback highlighted the requirement of more emphasis on the employability of the student graduating from the college. Smart classroom has been set up and initiated for preparation of JRF, GATE and other competitive exams.

Self-Study Report

College of Horticulture,
Central AgriculturalUniversity,
Thenzawl, Mizoram

Submitted to:

National Agricultural Education Accreditation Board

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6.5. Self-Study Report for the Colleges

College of Horticulture, Thenzawl was established on 18th June 2016. Thenzawl is a growing town situated at the heart of Mizoram in Serchhip district. The road to Thenzawl has one of the most spectacular views with rolling green hills covered in clouds that float beneath the ridges like a misty sea with rich diversity of variant species of flora and fauna.

The site of the college is situated at Vengthar, Thenzawl, at an elevation of 8783 meters with a longitude and latitude of 92.7741ºE and 23.2808ºN. It comes under the sub-tropical hill zone having a maximum temperature of 33ºC and minimum of 8ºC. The rainy period of the year lasts for 9 months from February to November with a sliding 31 days rainfall of at least 0.5 inches. The most rain falls during the 31 days centered around July with an average total accumulation of 8.4 inches with an average rainfall of 1600 mm. It is congenial to grow many horticultural crops like Frenchbean, gardenpea, sweetpotato, solanaceous vegetables, bird eye chilli, mango, pineapple, orange, dragon fruit, marigold and bougainvillea.

Mandate:

(i) Development of appropriate human resource for carrying out various horticultural activities in the state of Mizoram.

(ii) Development of relevant technologies suitable for horticultural sector aiming to welfare of farming community of Mizoram.

(iii) Dissemination of horticultural technologies for the development of sustainable, scientific and profitable horticultural sector among the various stakeholders.

Objectives

The College has been established with following broad objectives

- To impart education in different branches of horticulture and allied sciences
- To further the advancement of learning by undertaking research in horticulture and allied sciences
- To undertake the programmes of extension education in the state of Mizoram and others in the jurisdiction of CAU, Imphal and
- To undertake such other activities as it may deem fit from time-to-time.

6.5.1. College Administration

The overall administration of the academic, research, extension and other activities of the college including infrastructure development is monitored by the Dean, College of Horticulture, Thenzawl. Currently, the college has been functioning at pre-fabricated building (Fig.1) and the permanent structure of Academic cum Administrative building of College of Horticulture, Thenzawl is near to its completion (Fig. 2). The Dean is assisted by various teaching, non-teaching and non-technical members of the institution.

Fig. 1 Pre-fabricated Administration and Academic Building

Fig. 2 Permanent Administration and Academic Building

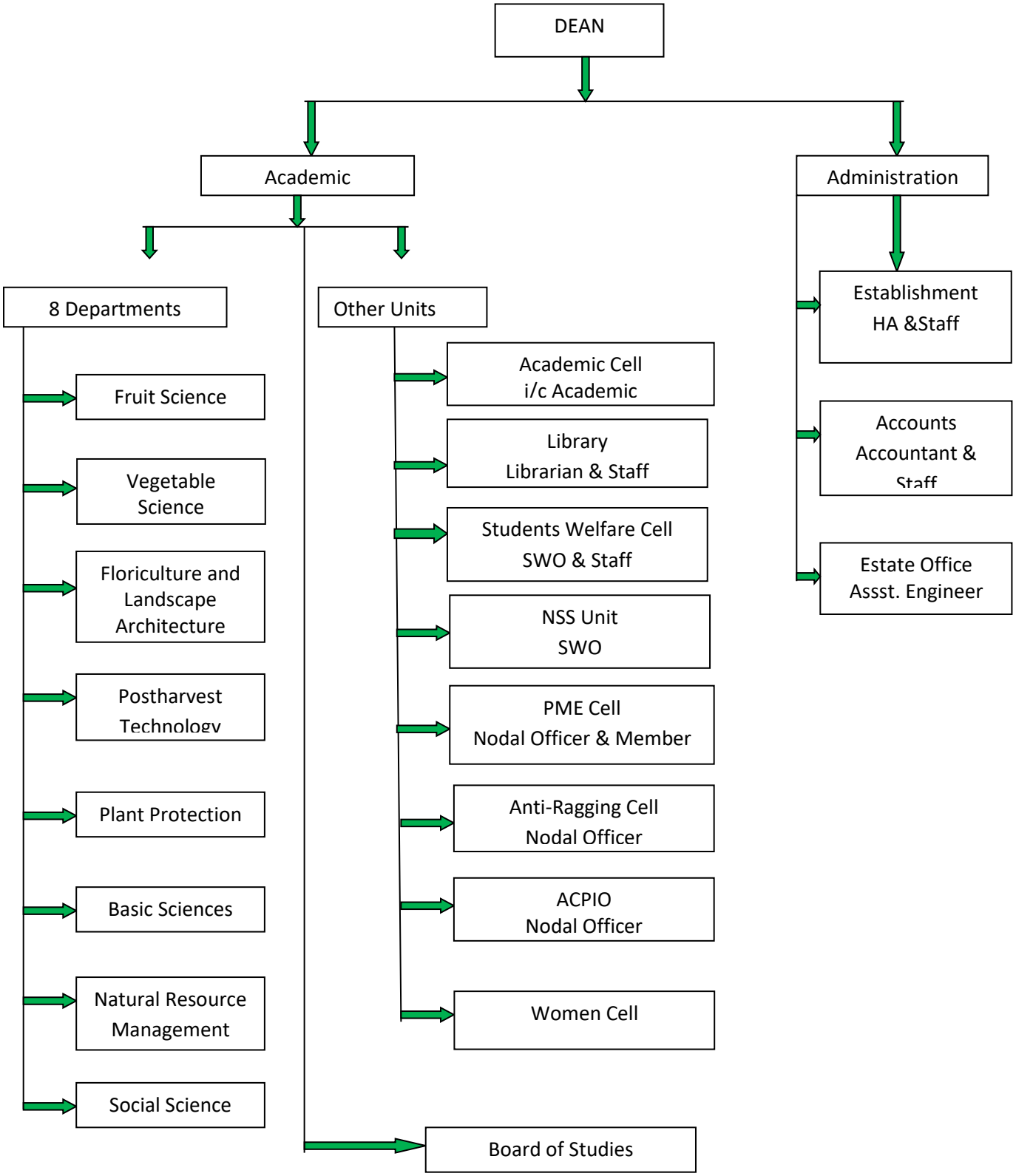
Prof. M. Premjit Singh, Ex-VC, CAU(I) visiting CoH, Thenzawl Campus

Hon'ble Chancellor, Dr. S. Ayyapan visiting college campus

6.5.1.1. College Dean's Office Establishment

Sl. No.	Particulars	Response
1.	Whether Dean's post has been sanctioned by the appropriate authority as per ICAR Model Act/UGC guidelines	Yes
2.	Date of selection/joining of present Dean	No Regular Dean yet. The present Dean i/c has joined the post on 17.07.2020
3.	Mode of selection	Nominated
4.	Tenure	Till appointment of regular Dean
5.	Total number of staff in Dean's office	One Account Assistant and two contractual non-technical staffs for the official works.
6.	Infrastructure facilities (Details on infra and networking facilities available)	Computers with printers are available at the Dean's office with internet and UPS connectivity

Organizational Chart



6.5.1.2. Monitoring Mechanism for Quality Education(on-line):
Teaching

Academic Management System is being implemented at college level as part of Student Portal, an initiative of Agricultural Education Division of ICAR. The data generated by the system is used for generating reports of the university. The registration of the students for B.Sc (Hons.) Horticulture programme is done at the beginning of the year. Bringing quality education is one of the mandate of the College. In order to achieve this, efforts are continuously made to impart the latest, up-to-date scientific information/technology to the students as well as steps are taken up for enhancing scientific temperament of the faculty members of the college through refresher courses, training and encouraged for attending workshops and seminars. The institute has taken up the following as monitoring mechanism for bringing quality education of the undergoing **UG degree programme.**

- Syllabus is strictly based on the Vth Deans' Committee Report for UG programme.
- For the different offered courses concerned faculty members have prepared lesson plan.
- A committee comprising of HODs and Academic i/c screened the prepared lesson plan for approval.
- HODs monitored time to time the progress of the classes and how it is conducting.
- Considering the present Covid Pandemic, classes are taken through Google Meet/Zoom.
- Quiz/Mid-terms are taken internally. Assignment are also given as an alternative to quiz exam.
- Based on the performance of the Quiz /Mid Term exam, mid-term corrections are made through counselling and extra classes as and when needed.
- Dean made surprise visit of the departments and laboratories and discussed for improvement, if any.
- Practical manuals are also prepared and made available to the students before starting the practical classes.
- Exposure visits and study tours are also arranged for the students to aware of the recent advances.
- End term exam is conducted through external mode (question setting as well as evaluation).

- Mock tests are also arranged for the final year students for better success in ICAR JRF Examination.
- For experiential learning, different firms/NGOs are connected for better success.

Faculty Research

- The faculty are involved in research activities related to crop production, crop protection and plant improvement
- The PME cell appraises the research proposals at college levels
- The progress of the research is regularly monitored by the PME cell

Presently, the faculties of College of Horticulture are conducting research activities on

- Production of quality planting material of dragon fruit.
- Collection, evaluation and characterization of citrus.
- Exploration and documentation of underutilized and wild edible vegetables of Mizoram.
- Cultivation of mulberry for rearing of silk worm.
- Development of Integrated Farming System model.
- Studies on apiculture including meliponiculture .

Extension

- Regular monitoring to assess occurrence of insects and disease in the region
- Field visit by team of scientists on need to diagnose problems and provide solutions and recommendations
- Organize entrepreneurship development training programmes for farmers
- Awareness and training programmes are organized for farmers and unemployed youths
- Distribution of agricultural, horticultural accessories and planting materials to local farmers
- Adoption of village as model villages

The faculties of College of Horticulture, Thenzawl have organized the following programmes (Fig. 3, 4, 5, 6, 7&8):

- Organization of Training programme on Post Harvest Management of Horticultural

Crops on 5th – 8th Nov., 2018

- Organization of three days Training Programme on "Soil Fertility and Nutrient Management For Horticultural Crops" on 4, 5 & 6 February 2020 at College of Horticulture, Conference Hall, Thenzawl.
- Organization of Training Programme on "Horticultural Crops Suitable for Thenzawl Climatic Condition" on 11, 12 & 13 March 2020.
- Organization of one day workshop Programme on "Fuel Conservation on 11 March 2020.
- Organization of capacity building training programme on “Scientific Method of BeeKeeping” on 27-29 January, 2021
- Organization of capacity building training programme on “Scientific Cultivation and Management of Economically Potential Underutilized Horticultural Crops of Mizoram” on 15-17 February, 2021
- Organization of capacity building training programme on “Recent Trends on Integrated Pest Management of Major Fruits and Spice Crops with Emphasis on Biological Control” on 1-3 March, 2021
- Organization of capacity building training programme on “Integrated Pest Management” on 8-10 March, 2021
- Organization of capacity building training programme on “Important Pest and Nutrient Management of Summer Vegetable Crops” on 15-17 March, 2021
- Organization of capacity building training programme on “Biological Control of Major Pest of Solanaceous Vegetables” on 15-17 March, 2021
- Organization of capacity building training programme on “Biological Control of Major Pest of Cruciferous Vegetables” on 18-20 March, 2021

Fig. 3 Farmer and Staff group photo after the training session on "Horticultural Crops Suitable For Thenzawl Climatic Condition"

Fig. 4 Distribution of seeds to farmers

Fig. 5 Training programme on "Soil Fertility And Nutrient Management For Horticultural Crops"

Fig. 6 Training programme on “Recent Trends on Integrated Pest Management of Major Fruits and Spice Crops with Emphasis on Biological Control”

Fig. 7 Training programme on Post Harvest Management of Horticultural Crops

Fig. 8 Training programme on “Scientific Cultivation and Management of Economically Potential Underutilized Horticultural Crops of Mizoram”

Measures taken to improve the quality of education, research and extension

Education

- Industrial and institute related exposure visits related to the courses offered to the students
- Recognition and awards are given to best students at university level
- Educational talk are arrange inviting experts from different fields
- Assignments and exams are conducted on regular basis

Research

- Encouraging students to actively participate in workshops, webinars and conferences
- Experimental learning programme of six different module is conducted for six months

Extension

- Rural Horticultural Work Experience Programme (RHWEP) for students to understand the problems and prospects of the farming community
- Organizing group discussion programmes
- Conducting brain storming sessions for group approach

Impact of monitoring with reference to students' excelling in academics, research and extracurricular activities

Academics

- Higher academic performance of students with improved OGPA
- Improved enrolment of students each year
- Participation and selection for higher education in reputed National institutes

Research

- Publication of research results in peer reviewed journals by faculty members

Extracurricular

- Participation in NSS programmes.
- Participation in sports and cultural events.

Additional information on monitoring mechanism for quality education

- Monthly meetings: The Dean conducts monthly meetings with the faculties to evaluate the progress in the field of teaching, research and extension.
- Annual reports: Annual reports are prepared for the college based on teaching, research and extension education activities performed during the year in consideration. The reports are used for measuring the performances of the college during the particular year and serve as guidelines for future action plan.

- Student evaluation: Students advisory meeting is conducted every week by respective advisors and every month Students Advisory meeting is held along with the Dean of the college. He receives the feedback from the students and gives direction to the faculties. The students are providing the feedback of course teachers who handle the classes during a particular semester in a prescribed proforma. The feedback of the students is analysed and the inadequacies are properly addressed.

6.5.1.3. CC/Board of Studies:

The college has duly constituted Board of Studies. The Board of Studies has been functional since 2018-19. Composition of Board of Studies and major recommendation made by BOS for last three years are present below in detail:

Composition of Board of Studies

Year 2018

1. Dean, College of Horticulture & Forestry, Pasighat
2. Dean, College of Horticulture, Thenzawl
3. Dean, College of Horticulture, Bermiok
4. Director of Instruction, CAU, Imphal
5. Director of Research, CAU, Imphal
6. Director of Extension Education, CAU, Imphal
7. Dean, College of Post Graduate Studies, Barapani
8. Dr. A.N. Maurya, Ex. Director and Professor, Banaras Hindu University, Varanasi
9. Dr. K.K. Jindal, Ex- Director Research (CAU & UHF), Solan
10. All the head of the departments
11. Ms. Bidyarani Senjam, M.Sc 2nd Year, College of Horticulture & Forestry, Pasighat
12. Academic In-charges of College of Horticulture & Forestry, Pasighat, College of Horticulture, Thenzawl and College of Horticulture, Bermiok

Year 2019

1. Dean, College of Horticulture & Forestry, Pasighat
2. Dean, College of Horticulture, Thenzawl
3. Dean, College of Horticulture, Bermiok
4. Director of Instruction, CAU, Imphal
5. Director of Research, CAU, Imphal
6. Director of Extension Education, CAU, Imphal
7. Dean, College of Post Graduate Studies, Barapani
8. Dr. A.N. Maurya, Ex. Director and Professor, Banaras Hindu University, Varanasi
9. Dr. K.K. Jindal, Ex- Director Research (CAU & UHF), Solan
10. All the head of the departments

11. Ms. Sudeshna Kharga, Student, College of Horticulture & Forestry, Pasighat
12. Academic In-charges of College of Horticulture & Forestry, Pasighat, College of Horticulture, Thenzawl and College of Horticulture, Bermiok

Year 2020

1. Dean, College of Horticulture & Forestry, Pasighat
2. Dean, College of Horticulture, Thenzawl
3. Dean, College of Horticulture, Bermiok
4. Director of Instruction, CAU, Imphal
5. Director of Research, CAU, Imphal
6. Director of Extension Education, CAU, Imphal
7. Dean, College of Post Graduate Studies, Barapani
8. Dr. A.N. Maurya, Ex. Director and Professor, Banaras Hindu University, Varanasi
9. Dr. K.K. Jindal, Ex- Director Research (CAU & UHF), Solan
10. All the head of the departments
11. Mr. Kripa Shankar, 2nd Year M.Sc Student, College of Horticulture & Forestry, Pasighat
12. Academic In-charges of College of Horticulture & Forestry, Pasighat, College of Horticulture, Thenzawl and College of Horticulture, Bermiok

Sl.No	**Particulars of the Meetings**	
1.	Date of Board of Studies Meeting: 20th April, 2018	
	Agenda	**Resolution/ Recommendation**
	Confirmation of proceedings of 8th Board of Studies held on 4th December, 2017 at the College of Horticulture and Forestry, Pasighat.	The Hon'ble members of the Board confirmed the proceedings of 8th Board of Studies held on 4th December, 2017 at the College of Horticulture and Forestry, Pasighat.
	Review of the actions taken on the decision of the 8th Board of Studies held 4th December, 2017 at the College of Horticulture and Forestry, Pasighat	The action taken on various resolutions of the 8th Board of Studies held 4th December, 2017 at the College of Horticulture and Forestry, Pasighat was presented and Board of Studies took note of it.
	Appointment of teachers in the subjects of the forthcoming semesters.	The Hon'ble members of the Board suggested the Dean, CoH Mizoram to put up the matter to Registrar, CAU Imphal.
	Appointment of teachers in the subjects of 1st and 2ndyears B.Sc. Hort. (Hons.)	The Hon'ble members of the Board suggested the Dean, CoH Mizoram to put up the matter to Registrar, CAU Imphal.
2.	Date of Board of Studies Meeting: 15th May, 2019	
	Confirmation of proceedings of 9th Board of Studies held on 20th April 2018 at the College of Horticulture and Forestry, Pasighat	The Hon'ble members of the Board confirmed the proceedings of 9th Board of Studies held on 20th April 2018at the College of Horticulture and Forestry, Pasighat.
	Review of the actions taken on the	The action taken on various resolutions of

	decision of the 9th Board of Studies held 20th April 2018 at the College of Horticulture and Forestry, Pasighat	the 9th Board of Studies held 20th April 2018 at the College of Horticulture and Forestry, Pasighat was presented and Board of Studies took note of it.
	Detailed course content and syllabus approved by Academic Council of CAU.	The Chairperson of the Board of Studies for Horticulture shall prepare the detailed course content and syllabus and distribute accordingly
	The external question papers for the University for B.Sc.(Hons.)Horticulture to be set by some identified teachers of the University.	The Director of Instruction, CAU Imphal has informed the house that moderation of question paper shall start from the coming semester
	Lecture Schedule to be prepared based on the Credit Hours of the courses.	The Hon'ble members of the Board suggested for having a committee which can design lecture schedules for courses and recommends it to the Academic Council, CAU, Imphal for final approval
3.	Date of Board of Studies Meeting: 24th April, 2020	
	Confirmation of proceedings of 10th Board of Studies held on 15th May 2019 at the College of Horticulture and Forestry, Pasighat.	The Hon'ble members of the Board confirmed the proceedings of 10th Board of Studies held on 15th May 2019 at the College of Horticulture and Forestry, Pasighat.
	Review of the actions taken on the decision of the 10th Board of Studies held 15th May 2019 at the College of Horticulture and Forestry, Pasighat	The action taken on various resolutions of the 10th Board of Studies held 15th May 2019 at the College of Horticulture and Forestry, Pasighat was presented and Board of Studies took note of it.
	Appointment of teachers for the subjects: of Agricultural Statistics, Agricultural Engineering, Agricultural Biochemistry, Agricultural Extension Education, Plant Pathology, Crop Physiology and Floriculture	The Hon'ble members of the Board have suggested the Dean to contact the Registrar, CAU for engaging guest faculty or deputing teachers from other constituent colleges of CAU. Further they have recommended the proposal be proposed at Senior Officer meeting.
	The external question papers for the University for B.Sc Horti. (Hons.) to be set by some identified teachers of the University.	The Agenda was dropped
	Provision of separate fund for Student's READY Programme	The Hon'ble members of the Board have suggested the Dean to include the proposal in the college budget.
	Recruitment of non-teaching staff	The Hon'ble members of the Board have been informed that the recruitment process is underway. Therefore the agenda has been dropped

6.5.1.4. Anti-Ragging Cell:

The Vigilance Committee comprising of Dean, Warden's (Boy's Hostel & Girl's Hostel), Female Faculty members and Student Welfare Officer (SWO) is formed every year to inspect and to visit Hostels (both for Girl's & Boy's) at any time after the entry time. Each student is allotted withoneadvisertodiscusstheirproblemsandcounselingisbeingdoneonweeklybasisforallthe students by their respective advisers. Meetings & Group discussion is being conducted regarding related Anti Ragging topic on quarterly basis.

Members of Anti Ragging squad	**Date**
Dr. D.Kathiresan	15-07-2016 to 31-8-2018
Dr. H.Prasad	
Dr.Santosh Kumar	
Dr.JyotishNongthombam	
Dr.T.Subhalakhsmi	
Miss Lalremruati	
Miss Lalrinsangpuii	
Mrs.JayashreeBhagawati	
Mr.S.Rajesh Kumar	
Members of Anti Ragging squad	**Date**
Dr. H.Prasad	15-07-2018 to 31-8-2021
Dr.Lalrinsangpuii	
Dr.T.Subhalakhsmi	
Mr.S.Rajesh Kumar	
Miss Lalremruati	
Miss R.lalrinfeli	
Dr.YamunaPandey	
Dr.ChingthamChanbisana	
Miss Esther Lalruatsangi	
Dr. RojeetThangjam	
Dr. Lalhmingsanga	
Miss B.Vanlalneihi	

6.5.1.5. Biological waste disposal facility:

Collection, cleaning and burning of waste products. The college is committed to ecological sustainability and thrives to establish a clean and green campus. As mentioned earlier regular cleaning and planting of trees and other plants is done regularly. Such steps have also improved the floral biodiversity in the campus.

One composting unit is also established for decomposing the biological waste products in the campus.

6.5.1.6. Institutional Ethics Committee for Experiment on Animals:

The college is not undertaking experiments on Animals. However, if such experiments are undertaken in future, then the college will strictly adhere to CPCSEA guidelines and will constitute an Institutional Animal Ethics Committee (IAEC).

6.5.1.7. Committee for Prevention of Sexual Harassment of Women at Work Places:

The women cell for prevention of sexual harassment of women has been formed to address all grievances pertaining to sexual harassment of women (students, teaching and non-teaching staff and labours) at the college. Dr. Chingtham Chanbisana i/c Women Cell looks after the problems. There was no complaint on sexual harassment in the college during last five years. However, details on sexual harassment of women at work place Act, 2013 and a preamble of the Act and seeking remedy under this Act are clearly explained to the staff and farm workers.

6.5.2. Faculty

The College of Horticulture has 7 faculties (4 regular and 3 contractual) in various disciplines to undertake the education, research and extension activities. Besides, 5 attached Assistant Professors of Multi Technology Testing Centre and Vocational Training Centre (MTTC & VTC), 3 faculties from CVSc & AH, Selesih and 2 SMS of KVK, Selesih are also deputed to take the classes for College of Horticulture. All faculties have necessary qualifications and have enriched themselves over the years by undergoing training programmes in teaching, research and education, participation in conference and seminars and handling research projects. Various approaches are followed by the teachers so that students are able to learn and get hand on experience on various aspects of agriculture.

6.5.2.1. Faculty Strength:

Table: 1. Faculty Strength

Sl. No.	Sanction Faculty	Sanctioned	Faculty in Place
1.	Professor	8	-
2.	Associate Professor		-
3.	Assistant Professor	**11**	04
	Total	**19**	**04**
4.	Assistant Professor (Contractual)	-	03*
5.	Professor, CVSc& AH, Selesih	-	01
6.	Assistant Professor, CVSc& AH, Selesih	-	02
Total			**10**

***** indicates contractual faculty

6.5.2.2. Faculty Profile (department wise):

The existing faculty strengths of College of Horticulture and MTTC & VTC are sufficient for academic requirement of the college.

Department wise faculty strength

Table: 2. College of Horticulture

Sl.No.	Department	Sanctioned Faculty	Filled post	Vacant post	Faculty recommended by ICAR
1.	Fruit Science	Professor	-	1	1
		Associate Professor	-	-	2
		Assistant Professor	1	-	3
2.	Vegetable Science	Professor	-	1	1
		Associate Professor	-	-	1
		Assistant Professor	2	-	4
3.	Floriculture & Landscape architecture	Professor	-	1	1
		Associate Professor	-	-	1
		Assistant Professor	-	1	2
4.	Post harvest Technology	Professor	-	1	1
		Associate Professor	-	-	1
		Assistant Professor	1*	-	2
5.	NRM	Professor	-	1	1
		Associate Professor	-	-	1
		Assistant Professor	2	1	6
6.	Social Science	Professor	-	1	1

		Associate Professor	-	-	1
		Assistant Professor	1+1*	-	5
7.	BSH	Professor	-	1	1
		Associate Professor	-	-	2
		Assistant Professor	1	-	6
8.	Plant Protection	Professor	-	1	1
		Associate Professor	-	-	2
		Assistant Professor	2+1*	-	3
		Total	12	10	50

*** indicates contractual faculty**

Table: 3. College of Veterinary Sciences and Animal Husbandry, Selesih

Sl. No.	Department	Professor	Associate Professor	Assistant Professor
1.	Basic Sciences	01	-	01
2.	Social Science	-	-	01

Table: 4. KVK, Selesih, Aizawl

Sl. No.	Department	SMS
1.	Vegetable Sciences	01
2.	NRM	01

The services of the faculties of College of Veterinary Sciences & Animal Husbandry, Selesih and SMS of KVK, Selesih have been utilized by the College of Horticulture, Thenzawl for teaching and other administrative works.

6.5.2.3. Credentials of the Faculty:

The college has adequate proportion of experienced and young faculty members. Many faculty members in the college have received awards for their excellence in teaching and research activities. The details of qualification, experience and professional licensure and certification and demonstrated competencies are detailed in Annexure 6.5.2.3.

6.5.2.4. Technical and Supporting Staff:

The technical staff and other supporting staff of College of Horticulture are being attached with the Dean's office for administrative, convenience and being allotted to other departments whenever need arise. Other than these staffs some Skilled and Unskilled labours are hired on contractual basis by the College of Horticulture. The administrative and accounts staffs are centralized in the college and are operating under the direct control of the Dean as part of Dean's office.The details of staff involved are listed below:

Table: 5. Technical and Supporting Staff

Sl. No.	Name of the Post	Sanctioned	In place
A.	**Establishment**	13	
1.	Account Assistant		01*
2.	Driver		02
3.	Store Keeper/Farm Asstt. (Asstt. Prof.)		01
B.	**Central Instrumentation Laboratory**		
1.	Instrumentation Technician (Asstt. Prof.)		01
C.	**Library Staff**		
1.	Library Assistant (Asstt. Prof.)		01
2.	Multi-tasking staff		02
D.	**Students Welfare**		
1.	Student Welfare Officer (Asstt. Prof.)		01
2.	Attendant		01
E.	**Hostel Staff**		
1.	Warden / Rector		02
2.	Care taker		02
3.	Cook		04
F.	**Estate Branch**		
1.	Junior Engineer		01
2.	Security officer (Asstt. Prof.)		01
Total		**13**	**20**

* indicates permanent staff; others are contractual staff

6.5.3. Learning resources:

Learning resources like books, photos, life specimen and audio-visual aids like power-point presentation, videos are used to assist the students to meet the expectation for learning defined by ICAR recommended curriculum.

Faculties are provided with computers to access the online open coursework and online portal to use it for the curriculum delivery. Faculty members access various resources for use in teaching, research and extension activities. Students are also encouraged to access various software applications in agriculture.

6.5.3.1 College Library:

The College of Horticulture, Thenzawl has well equipped library with sufficient number of books, journals and periodicals.

Fig.9 College Library

Location of Library:

College of Horticulture, Thenzawl do not have a separate library building yet. However, the college library is located at Administrative cum Academic Block of the college. The college has well equipped library with sufficient number of books, journals and periodicals.

- **Present Staff Position (in place):**

S.No.	Staff	Number
1.	Present staff	• 1 Library Assistant • 2 Multi-tasking Staffs

- **Availability of Wi-Fi:**

Wi-fi facilities are available in the library with internet band width speed of 100Mbps from BSNL

- Books/ Reading material (in Number): 736 Books
- **Periodicals/Research Journals(in Number)** :
- **Internet facility** :Internet band width speed of 100Mbps from BSNL
- **No. of Computers** : 03 nos.
- **Seating Capacity** : 10 nos.
- **Latest Technology in the library**:

The library of the college is equipped with internet facilities through which the staff and students can access different kinds of reading materials.

- **Stocking arrangements**:

Book stocks arranged as per the subjects.

20 numbers of racks are available in the college library. There are 10 numbers of book cases, 5 numbers of double sided racks, 4 numbers of display racks and 1 number of periodical display racks.

- **Opening hours:** 10.00 AM to 5.00 PM
- **Subscription of journals of national & international repute national dailies/ magazines (provide list**):

Sl.NO	LIST OF THE MAGAZINE
1.	India Today
2.	Pratiyogita Darpan
3.	Civil Services Chronicle
4.	Agriculture Today

6.5.3.2. Laboratories, Instructional farm, Workshops, Dairy Plant, Veterinary Clinic, Hatchery, Ponds, etc.:

The college also has different laboratory equipments for conducting practical classes of the students.All basic chemicals and instruments are available for doing practical and research work in all the laboratories. The farm facilities, workshops and other instructional units are well designed to meet the course curricula and research requirements (Fig. 10, 11, 12, 13). Total area of 5 hectare land available for garden and farms in Thenzawl.

Fig.10 Students during practical class

Fig.11 Soil science practical class

Fig. 12 Students writing exam

Fig.13 Preparation of land during practical class

Fig.14 Hot air oven

Fig. 15 Incubator

Fig. 16 Laminar air flow

Fig. 17 Stereo binocular microscope

Table: 6. List of Laboratory Equipments available at COH, Thenzawl

Sl. No.	NAME	QUANTITY
1.	Analytical weighing balance	01
2.	Weighing balance	02
3.	Electrical conductivity meter	01
4.	Ph Meter	02
5.	Laminar air flow	01
6.	Stereo binocular microscope	02
7.	Compound Microscope	05
8.	Autoclave	01
9.	Refractometer	02
10.	Digital Vernier caliper	01
11.	Vernier caliper hand held	01
12.	Thermometer	01
13.	Vacuum packing machine	01
14.	Ordinary sealing machine	01
15.	Hot air oven	01
16.	Microwave oven	01
17.	Incubator	01
18.	Distillation Unit	01
19.	Refrigerator	01
20.	Spectrophotometer	01
21.	Tray drier	01

Farm Facilities

- Availability of Farm equipment viz. grass cutter
- All the essential garden tools such as secateurs, digging trowel, hedge shear, Rose can, pruning and budding knife, garden rake, khurpi, measuring tape, sprayers and watering pump etc. are available for maintaining the farm.
- Low-cost polyhouse has been established in the farm for growing various seasonal and annual vegetables.
- Availability of water supply to the farm.
- Development of demonstration farm cum research block for vegetable, spice crops and medicinal plants.
- Development of Dragon fruit orchard for demonstration.
- Establishment of temperate, tropical and sub-tropical fruits has been done in the campus.
- Establishment of vermicomposting unit for training and demonstration for students and the farmers.
- Development of mulberry farm for rearing of silkworm.
- Integrated Farming System for demonstration purpose available in the campus.
- Breeding nursery of local vegetable germplasm also available in the campus.
- Establishment of apiculture including meliponiculture has been done.
- Mushroom house also constructed in the campus.

6.5.3.3. Student READY/ In-Plant Training/ Internship /Experiential Learning Programmes:

Student READY Experiential Learning (Professional Package) will be for the duration of 20 weeks and Student READY Programme will be taken up during semesters VII and VIII.

All the guidelines given by ICAR for Student READY Experiential Learning is strictly followed by the college (Fig. 19, 20, 21)

Student READY was first implemented in the year 2019-20 for the first batch of students (2016-17 Batch). The Rural Horticulture Work Experience Programme (RHWEP), Industrial Attachment (IA) and Experiential Learning Programme (ELP) are under the Students READY Programme for B.Sc. (Hons.) Horticulture. Through this programme, students are given hands on experience and practical training in horticulture and allied areas. The programme helps to develop confidence, skills and to acquire knowledge of horticultural systems.

RHWEP is organized for every year for the undergraduate students of College of Horticulture in the 4th Year, 1st semester of every academic session the with a credit load of

0+10. It provides opportunities to the students to study the rural agricultural system through direct farm experiences by personally visiting the farms and interacting with the farmers. The students also gain experience and knowledge about the extension activities carried out by the Govt. and private agencies and non-governmental organizations. The students undergoing the programme are expected to learn different components of agriculture and allied activities, conduct method demonstration and training, organize exhibition and prepare reports on their experiences gained. The students are expected to learn day to day farming activities of farmers and general village conditions during their stay at the villages.

Fig. 19 Students during Rural Horticulture Work Experience Programme

Fig. 20 Students during Industrial Attachment Programme

Fig. 21 Students during Experiential Learning Programme

The IA programme (credit load of 0+10) provides hands on training to students about the managerial and commercial aspects of Horticultural products. The students were placed in Thangjam Agro -Industries Pvt. Ltd., and Vedam Agro-Enterprises Pvt. Ltd. These help the students in gaining practical knowledge and experience first-hand in industry.

DETAIL WORK OUT PLAN FOR STUDENT READY

Semester-VII

S.N.	Course Title	Credit Hours
1	STUDENT READY- Placement in Industries	0+10
2	STUDENT READY- Rural Horticultural Work Experience	0+10
	Total	**20(0+20)**

S.N.	Student READY Programme Schedule	Duration
1.	Orientation programme	2 weeks

2.	Industrial placement	4 weeks
3.	Village stay-Horticultural work experience	12 weeks
4.	Report writing & Final Examination	3 weeks
5.	All India Study Tour	3 weeks
		24 weeks

- Study tour will be conducted during semester break

Semester-VIII

S.N.	Course Title	Credit Hours
1	Experimental Learning programme	**20(0+20)**

Experimental Learning programme: A student has to register 20 credits opting for two modules of (0+10) credits each (total 20 credits) from the package of modules in the VIII semester

Sl. No.	Title of the module	Credits
1.	Commercial horticulture	0+10
2.	Protected cultivation of high value Horticulture crops	0+10
3.	Processing of fruits and vegetables for value addition	0+10
4.	Floriculture and landscape architecture	0+10
5.	Bio-inputs: Bio-fertilizers and bio-pesticides	0+10
6.	Mass multiplication of plant and molecules through tissue culture	0+10
7.	Mushroom culture	0+10
8.	Bee keeping	0+10

Evaluation of Experiential Learning Programme

Sl. No.	Parameters	Maximum Marks
1.	Project Planning and Writing	10
2.	Presentation	10
3.	Regularity	10
4.	Monthly Assessment	10
5.	Output delivery	10
6.	Technical Skill Development	10
7.	Entrepreneurship Skills	10

8.	Business networking skills	10
9.	Report Writing Skills	10
10.	Final Presentation	10
	Total	**100**

Profit sharing mechanism (AMOUNT) for each ELP unit for last 5 year is given below:

Sl. No.	Department	Year	No. of students trained	Total income generated in rupees	Total profit earning	Profit shared per student	Major skills imparted	Additional info (if any)
B.Sc. (Hons.) Horticulture								
1.	Commercial Horticulture (Vth Dean)	2019-20	9	2140	-	-	Production skills, marketing skills and project formulation skills	
2.	Processing of fruits and vegetables for value addition	2019-20	8	400	-	-		
3.	Mushroom culture	2019-20	17	2170	-	-		

6.5.3.4 Curricula Delivery through IT (smart class rooms/interactive board etc.):

The classrooms are provided with LCD projectors for better delivery of lectures. A table, podium, whiteboards/screen, black boards with duster are available in each class room at the disposal of teachers. A common generator facility is available to power all the classrooms to avoid interruption of the class during instance of power failure.

6.5.4 Student Development:

6.5.4.1. Student Intake and Attrition:

The College presently offers only Under Graduate Programme in Horticulture *i.e.* B.Sc. (Hons.) Horticulture which is of 4 years duration. The annual intake of students to the college at UG level has increased since the inception of the university.

Name of the Degree Programme	**Actual student admitted in last four years Attrition**					**Attrition (%)**				
B.Sc. (Hons.) Horticulture	2016-17	2017-18	2018-19	2019-20	2020-21	2016-17	2017-18	2018-19	2019-20	2020-21
	20	17	20	19	24	15	0	30	31.58	12.50

Admission of the programme is open to the students of North Eastern states under its jurisdiction and ICAR nominees. Based on the population of each constituent state, intake quota is fixed for the undergraduate programmes (Fig. 21) and admission is given to the candidates sponsored by the respective states based on the common entrance test. The student belonging to states other than North East are also admitted to the college through the All India Entrance Exam conducted by ICAR with 14% of total seats reserved for such candidates.

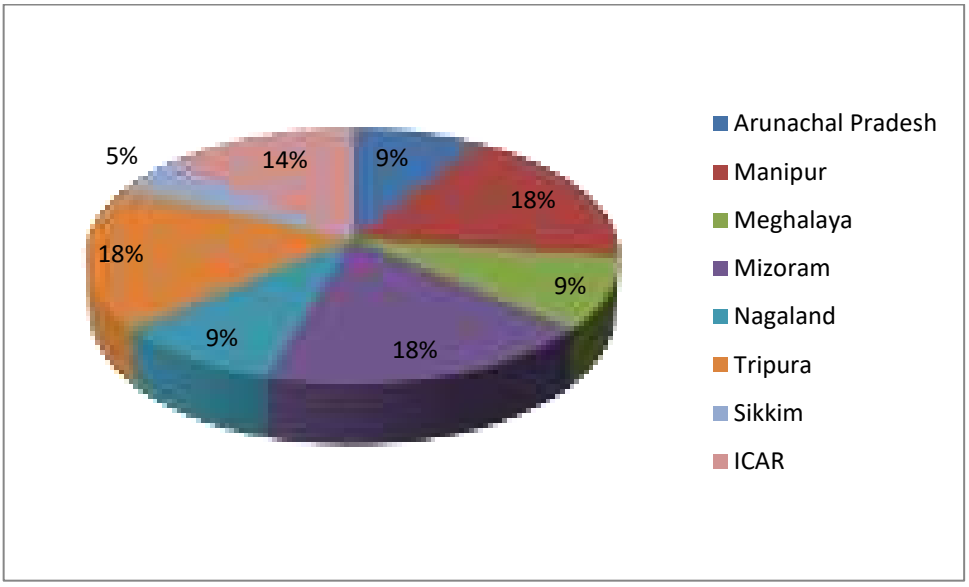


Fig.21 State Wise Seat Allotment of seat

6.5.4.2. Average Number of Students in Theory and Practical Classes

The batches of students are organised to ensure better delivery of information, encourage students' participation and active monitoring.

Year	B.Sc. (Hons) Horticulture	
	Batch of students in theory class	Batch of students in practical class
2016-17	17(1batch)	17(1batch)
2017-18	17(1batch)	17(1batch)
2018-19	14(1batch)	14(1batch)
2019-20	13(1batch)	13(1batch)
2020-21	21(1batch)	21(1batch)

6.5.4.3. Admission Process

Admission requirement

- The candidates should have passed 10+2 examination with English as one of the subjects of study. The candidates much have attained 17 years of age on 31st December in year of admission. The selection or nomination of candidates is done through National Eligibility cum Entrance Test (NEET) conducted by the National Testing Agency (NTA). Students seeking admission to the above degree programme shall be permanent resident or domicile of any one of the north eastern states of India *i.e.*, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and

Tripura. The number of students to be admitted for each of the north eastern states is notified by CAU from time to time.

- The candidates to be sponsored for admission shall be from the merit list based on the entrance test.
- 14% of the approved number of seats in the UG programme shall be filled by the candidates selected on the basis of All India Entrance Test conducted by ICAR or as amended from time to time by ICAR. The ICAR nominees shall be governed by the eligibility as prescribed by ICAR.

Date of admission

- The date of admission to a bachelor's degree programme shall be as per the announcement made in the prospectus or academic calendar or semester calendar which is duly notified by the Registrar, CAU

Registration process

- On admission, a student is provided four copies of registration cards having different colours; one for the student, one for the advisor, one for the Dean and one for the Registrar which is filled up and registered for the prescribed process for the first semester. The registration card shall be signed by the student, his advisor, Assistant Registrar (academic) and countersigned by the Dean of the college.
- On admission and registration, the students are provided with college identity cards with his/her photograph. The identity card is returned to the college by the students when the students leave the college after completion or discontinuation of the course.
- Newly admitted students are given an admission number by the Dean of the college. This admission number is valid till individual registration number is allotted by the Registrar, CAU to the students
- An orientation programme is organized by the Dean of the college for the benefit of the newly admitted students immediately at the beginning of the first semester.

6.5.4.4. Conduct of Practical and Hands on Training:

The practical classes are being conducted every day for minimum of two hours for each subject.

Field/ orchard visit for identification and practical of horticultural crops were done at the orchard, vegetable and floriculture block. As needed students are taken to nearby institutes like Centre of Excellence for fruits –Saichhoh, Zopar- Reiek, State Horticulture Farm, Chite,

Horticulture Centre Thiak, ICAR-Kolasib, Mizoram for acquiring the requisite practical knowledge.

6.5.4.5. Examination and Evaluation Process:

The college strictly adheres to the examination and evaluation system as recommended by the Vth Deans' Committee. As such, the college follows Uniform Grading system with uniform OGPA requirements for award of degrees at all levels. A uniform conversion formula is followed for declaration of Ist, IInd and IIIrd divisions, distinctions etc.

Examination

Semester system is being followed for UG programmes and evaluation is given weightage as 50% internal and 50% external.

Courses with Theory and Practical

Mid-term Exam (30%) + Assignment (5%) in practical oriented courses + Practical (15%)

Courses with only Theory

Mid-term Exam (40%) + Assignment (10%)

Courses with only Practical

100% Internal

Keeping this in view, the schedule and weightage to different examination are as follows:

Particulars	**Course credits**									
	2+1		**1+1/2+2**		**1+2**		**1+0/2+0**		**0+1/0+2**	
	T	**P**	**T**	**P**	**T**	**P**	**T**	**P**	**T**	**P**
Mid-term exam	30	-	30	-	30	-	30	-		
Quiz/Continuous evaluation	20	30	20	30	20	30	20	-	-	30
End-term exam	50	70	50	70	50	70	50	-	-	70
Maximum marks	100	100	100	100	100	100	100	100	-	100

* At least 4 number of quizzes are conducted for each course

Duration of exams

Mid-term theory exam	:	1½ hours
End-term theory exam	:	2½ hours
End-term practical exam	:	3 hours

Evaluation

- The evaluation of students' performance is achieved by conducting Quizzes of 20 marks

(Internal), Mid-Term Examination of 30marks (Internal) and End-Term Examination (External) of 50 marks. The practical examination consists of 100marks.

- The questions and answer scripts for quiz and Mid-term examinations are set and evaluated by concerned course teacher.
- The questions and answer scripts for End-term examinations are set and evaluated by external examiners selected duly from a list of panel members by the competent authority.

Degree	Percentage of Marks Obtained	Conversion into Points
B.Sc. (Hons.) Agriculture	100	10 Points
	90 to <100	9 to <10
	80 to <90	8 to <9
	70 to <80	7 to <8
	60 to <70	6 to <7
	50 to <60	5 to <6
	<50 (Fail)	<5
	Example 80.76	8.076
	43.60	4.360
	72.50 (but shortage in attendance)	Fail (1 point)

The following ranking pattern is adopted to award the degrees:

OGPA	Division
5.000-5.999	Pass
6.000-6.999	II division
7.000-7.999	I division
8.000 and above	I division with distinction

GPA, CGPA and OGPA are calculated as follows:

GPA	=	Total points scored / Total credits (for 1 semester)
CGPA	=	∑ Total points scored / Course credits
OGPA	=	∑ Total points scored (after excluding failure points)/ Course credits
Percentage of Marks	=	OGPA × 100/10

6.5.4.6. NCC/NSS/RVC Units:

NSS unit in the college is operational since 2016 under the guidance of Student Welfare officer. The unit is doing various activities like cleaning and sanitation of the college laboratories, campus and classroom from time to time. Planting of trees, hedges and other ornamental crops is also undertaken as part of the programme. Demonstration from the fire safety regulators and giving first aids in case of any calamities are being held for the students.

Fig.22 NSS activities of the college

6.5.4.7. Language Laboratory:

The language laboratory has started developing under IDP-NAHEP programme in order to impart good command of English and other major languages to the students for effective communication. The Laboratory has to set up with computer assisted language support system with multimedia high tech language. Full functioning of the language laboratory is yet to be awaited for another 2/3 months, so, the students are dependent of the College of Veterinary Sciences and Animal Husbandry, Selesih for the said programme.

6.5.4.8. Cultural Centre:

The college has a Student Activity Centre which is exclusively empowered to explore and equip the students for multi-varied cultural activities. The Cultural Committee is formed comprising of faculties, staff and students along with the Student Welfare Officer of the College. Different types of clubs' function under the Committee such as the Music, Theatre, Literary and Fine Arts.

Fig. 23 Students Performing painting competition in College

6.5.4.9. **Personality Development**:

The personality development programme of the students is taken care in the college. The language classes conducted by the language instructor cover the topics of English Grammar, Speaking skills, Phonetics and Writing skills. Besides the compulsory courses under the Dean's Committee syllabus which cater to the overall personality development of the students, the College of Horticulture invites renowned achievers from the different places to interact with students for motivational talk and experience sharing.

6.5.5 Physical facilities:

6.5.5.1. Hostels:

The College of Horticulture has four hostels, pre-fabricated and permanent hostels for boys and girls.

Particulars	Plinth Area (Sq. m)	Number of rooms
Permanent Boys Hostel	1500	32
Permanent Girls Hostel	1500	32
Pre-fabricated Boys Hostel	500	12
Pre-fabricated Girls Hostel	500	12

All hostels are having spacious kitchen, dining hall, reading room, common room etc. with all facilities like table tennis, carom, chess, TV etc. Each Hostel is having a mess run by the students under the supervision of respective Wardens. The College authority has provided sufficient menials to cook quality and hygienic food in the mess. Each and every Hostel has been provided with Water Filtration system and other kind of water filters for clean and safe drinking water. Facilities for indoor games are also available in the hostels e.g. carom, chess, T.T., dumbbell etc. Gym equipments

like treadmill and cycling and elliptical are also available in the hostels. All the hostel premises are regularly cleaned by engaged sweepers in the each Hostel. Transport facility is also extended as and when required for all the boarders residing in the Hostel. Medical doctor visits each hostel thrice in a week and each Hostel is provided with some general medicine in the hands of Sick monitors.

Fig. 25 Pre-fabricated Boys Hostel

Fig. 26 Pre-fabricated Girls Hostel

Fig. 27 Girls Hostel

Fig. 28 Boys Hostel

6.5.5.2 Examination hall:

As there are no separate examination hall in the College of Horticulture, normal classrooms are rearranged as exam halls during the time of exam, the details of which are:

No. of classrooms	:	4
Capacity	:	30-40
Facilities available	:	Chairs, writing desks, electrical fans and lights
Amenities	:	Washroom, wash basin and running water

6.5.5.3 Sports and Recreation Facilities:

The students are provided with all types of physical exercises during the classes and in physical experience class to keep them physically fit and healthy. In addition, the skill development in any one of the games such as badminton, volleyball, football, cricket, table tennis

and athletics is contemplated in the physical education programme. Maintenance and cleaning of the ground are regularly done for use by the students. Matches are conducted for the students during the annual sports day and intercollege meets or any other specific days such as the Foundation Day, Republic Day etc. to improve and maintain their skills using ground facilities. Indoor games such as carom, chess, badminton and table tennis are also available.

Fig. 30 Students participated in Youth Festival

6.5.6. Research Facilities

6.5.6.1. Postgraduate Laboratories and Equipment's:

Currently college is offering only Under Graduate Programme. The list of equipments available in the college is as follows

Sl. No.	NAME	QUANTITY
1.	Analytical weighing balance	01
2.	Weighing balance	02
3.	Electrical conductivity meter	01
4.	Ph Meter	02
5.	Laminar air flow	01

6.	Stereo binocular microscope	02
7.	Compound Microscope	05
8.	Autoclave	01
9.	Refractometer	02
10.	Digital Vernier caliper	01
11.	Vernier caliper hand held	01
12.	Thermometer	01
13.	Vacuum packing machine	01
14.	Ordinary sealing machine	01
15.	Hot air oven	01
16.	Microwave oven	01
17.	Incubator	01
18.	Distillation Unit	01
19.	Refrigerator	01
20.	Spectrophotometer	01
21.	Tray drier	01

6.5.6.2. Research Contingency:

As the College of Horticulture is presently offering only one under graduate programme in Horticulture, the funds received from CAU are used for conducting undergraduate educational activities, especially for practical classes, wherever applicable. Adequate funds are available for meeting the recurring expenses incurred during the education programme.

6.5.7. Outcome/Output

The College of Horticulture takes paramount interest in the performance of its students in the field of studies, sports, other extracurricular activities, employment and career growth. Alumni of the University are regularly consulted to get feedbacks on employment, performance in competitive exams, job selection process etc.

6.5.7.1. Student Performance in National Examinations:

List of ICAR – JRF (Rank Holders) 2020

Sl. No.	Name of the student	Rank	Discipline
1.	Ms.Haobam Alice Devi	1st UPS	Horticulture
2.	Ms.NgarikGamlin	7th ST	Horticulture

Result of JRF upto 1st Counseling

Sl. No.	Name of the student	Overall Rank	Discipline
1.	Ms.Haobam Alice Devi	207	Horticulture
2.	Mr.MalsawmtluangaHnialum	389	Entomology
3.	Mr.Pritam Das	1034	Horticulture
4R	Ms.NongmaithemAnjana Devi	1034	Plant Science

6.5.7.2. Students Placement Profile:

Most of the students graduating from College of Horticulture, Thenzawl are placed in academics/research institution for pursuing higher education in India.

6.5.7.3. Awards/Recognitions/Certificates:

A. Faculties Award

Year	Name of the faculty	Name of the Award/ Recognition	Awarding Organization (Place/country)
2016-17	Dr.Amarjeet Kumar	Young scientist Associate Award	Biological Research and Innovation Centre Pvt. Ltd. (BRICPL), INDIA atKathmandu(Nepal)
	Dr.Sawant Chandrakant Gyanoba	Awarded Certificate of Merit	Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani (MS), India
		Awarded Late Gopal Kishan Kale Prize	
2017-18	Ms. Esther Lalruatsangi	University Gold Medal in Horticulture	College of Horticulture & Forestry, Pasighat
		National Fellowship for ST	National Fellowship for ST Ministry of Tribal Affairs
	Dr.Amarjeet Kumar	Outstanding M. Sc. Thesis Award	Society for Agriculture Innovation and Development (SAID), Ranchi, Jharkhand
	Mr. Rahul Sadhukhan	B.H.U Medal in 2017 for 1st position in M.Sc (Agronomy)	Banaras Hindu University, Varanasi, Uttar Pradesh-221005
		Dr.Mahatim Singh Gold	

		Medal in 2017 for 1st position in M.Sc (Agronomy)	
2018-19	Ms. B. Vanlalneihi	Young professional Award	Science and tech society for integrated rural improvement, Telangana, India
	Dr.Amarjeet Kumar	Excellence in Research Award	Society for Agriculture Innovation and Development (SAID), Ranchi, Jharkhand
	Dr.SawantChandrakantGyanoba	Awarded Best Doctoral Thesis	Society of Science and Technology for Integrated Rural Improvement, Thorrur, Warangal, (Telengana), India.
		Awarded Best Research Scholar	Agriculture Technology Development Society (ATDS), Ghaziabad, (UP), India.
	Mr. Rahul Sadhukhan	Award of INSPIRE Fellowship	Department of Science and Technology Technology Bhawan, New Mehrauli Road New Delhi-110016
2019-20	Dr. Lalrinsangpuii	Best Paper	Indian Society of Agricultural Economics
	Dr. Rojeet Thangjam	Best Oral Presentation	Directorate of Extension Education, CAU, Imphal
		Young Achiever Award 2020	Jointly Organized by the Agricultural & Environmental Technology Development Society (AETDS), U.S. Nagar, Uttarakhand, India; Bangladesh Agricultural Research Institute (BARI), Gazipur, Bangladesh; Shobhit Institute of Engineering & Technology (A NAAC Accredited, Deemed to be University), Meerut, India; Soils, Water and Environmental Res. Inst, (SWERI), Agriculture Research Center, (ARC) Giza, Egypt, Rajiv Gandhi Central University, Itanagar, and Corteva agri science
	B.Vanlalneihi	Young Women Scientist Award	Agricultural & Environmental Technology Development Society (AETDS), Uttarakhand, India
	Dr.ChingthamChanbisana	Best article Award with 3rd position, 2020	Agriculture Letters, Raichur, Karnataka
		Third position in Essay Competition	Agriculture Letters, Raichur, Karnataka
	R. Lalrinfeli	Best Master Thesis	Agricultural & Environmental Technology Development Society (AETDS) U.S. Nagar, Uttarakhand, India
		Best Entomologist Award 2020	Agricultural Technology Development Society (ATDS), Ghaziabad, UP, India

	Dr.Lalhmingsanga	Young Horticulturist Award-2020	Agricultural & Environmental Technology Development Society(AETDS), U.S. Nagar, Uttarakhand, India
		Best Horticulturist Award-2020	Agricultural Technology Development Society (ATDS), Ghaziabad, U.P, India
	Dr.Amarjeet Kumar	Best oral Presentation	DISHA-2019, BAU, Ranchi, Jharkhand
	Dr.SawantChandrakantGyanoba	Awarded Certificate Of Excellence	International Center for Culture and Education to educate, Inspire & Act against Climate Change.
		Certified As Member Of Green Army	Forest Department, Government of Maharashtra (INDIA).
2020-21	Dr.Lalrinsangpuii	Young Professional Award	Agriculture Letters, Raichur, Karnataka
	Dr.RojeetThangjam	Best Poster Presentation	Directorate of Extension Education, CAU (Imphal)
	Esther Lalruatsangi	Young Scientist Award-2020	Agricultural Technology Development Society (ATDS), Ghaziabad, Uttar Pradesh
		2nd Best Oral Presenter Award	Directorate of Research, CAU, Imphal
	Dr.Chingtham Chanbisana	Young Achiever Award-2021	Agriculture Letters, Raichur, Karnataka
		Young Women Scientist Award-2020	Agriculture Technology Development Society(ATDS) Ghaziabad, UP
	L. Devarishi Sharma	Best oral Presentation	Directorate of Research, CAU (Imphal), Manipur
	Dr.Sawant Chandrakant Gyanoba	Awarded Best Poster Presentation	Directorate of Extension Education, Central Agricultural University, Imphal, Manipur

6.5.7.4. Employability:

The students are acquainted with hands on practical for processing and value addition of horticultural crops. Interactive sessions with entrepreneurs of the region are being held time to time. This allows the students to start up an enterprise at their own level.

The students are also furnished with knowledge both in theory and practical in production technology and various practices of horticultural crops.

6.5.8. SSR of the College must have the SSR of all its Degree Programmes (following section 6.4), then the report of the Colleges shall be considered

6.5.9. Certificate (Applicable when SSR is submitted for Programmes & College).

I, the Dean…… hereby certify that the information contained in Sections 6.4 and Section 6.5.1 to 6.5.7.4 are furnished as per the records available in the college and degree awarding university.

Signature of the Dean of the college with Date & Seal

Annexure 6.5.2.3. Credentials of the faculty

Sl. No.	Name of the faculty	Post held	Highest qualification	Teaching/work experience (in years)	Honors & Awards	No. of Students Guided (PG / Ph.D separately)	No. of publications in NAAS rated Journals
1.	Dr.Lalrinsangpuii	Assistant Professor	Ph.D (Agril. Economics)	5	2	-	14
2.	Dr.RojeetThangjam	Assistant Professor	Ph.D (Entomology)	4	3	PG-3	22
3.	Ms. Esther Lalruatsangi	Assistant Professor	M.Sc (Fruit Science)	3	4	-	10
4.	Ms. B. Vanlalneihi	Assistant Professor	M.Sc (Vegetable Science)	2	2	-	7
5.	Dr.ChingthamChanbisana	Assistant Professor	Ph.D (Postharvest Management)	5	4	-	8
6.	Ms. R. Lalrinfeli	Assistant professor	M.Sc (Entomology)	3	2	-	5
7.	Ms.Lalremruati	Assistant professor	M.A (Linguistics)	5	-	-	4
8.	Dr.Lalhmingsanga	Assistant Professor	Ph.D (Vegetable Science)	2	2	-	7
9.	Dr. L. Devarishi Sharma	Assistant Professor	Ph.D (Soil Science &Agril. Chemistry)	2	1	-	22
10.	Dr.Amarjeet Kumar	Assistant Professor	Ph.D (Genetics & Plant Breeding)	3	4	-	20
11.	Dr.SawantChandrakant Gyanoba	Assistant Professor	Ph.D (Entomology)	3	8	-	23
12.	Mr. Rahul Sadhukhan	Assistant Professor	M.Sc (Agronomy)	2	3	-	9
13.	Dr. M. Ayub Ali	Professor (CVSc& AH)	Ph.D	23	4	PG-42 PhD-9	51
14.	Dr.Jitendra Kumar Chaudhary	Assistant Professor (CVSc& AH)	Ph.D	6	3	1	39
15.	Dr.LalhumlianaTochhong	Assistant Professor (CVSc& AH)	Ph.D (Livestock Extension)	3		PG-3	4
16.	Dr. Santosh Kumar	SMS, KVK, Selesih	Ph.D (Vegetable Science)	10	2	-	15
17.	Dr. Jotish Nongthombam	SMS, KVK, Selesih	Ph.D (Agril. Engineering)	6	2	-	5

COLLEGE OF HORTICULTURE

CENTRAL AGRICULTURAL UNIVERSITY

THENZAWL-796186 (MIZORAM)

SELF STUDY REPORT

(Year:2016-17 to 2019-20)

For
Degree Programme of B.Sc. (Hons.)Horticulture

Submitted to

NATIONALAGRICULTURALEDUCATIONACCREDITATIONBOARD

INDIANCOUNCILOFAGRICULTURALRESEARCH

NEW DELHI-110011

6.4. Self-Study Report for the Degree Programme, College of Horticulture, Thenzawl

6.4.1. Brief History of the Degree Programme:

College of Horticulture (Thenzawl) is a Constituent College of Central Agricultural University, Imphal. The College was founded at College of Veterinary Sciences & Animal Husbandry Campus, Selesih on 18th June, 2016 by the then Hon'ble Union Agriculture & Farmers Welfare Minister Shri. Radha Mohan Singh. The College caters Undergraduate degree course in Horticulture. The college was housed in the KVK building (ATIC) of CVSc & AH Campus, Selesih for three years and it was shifted to its permanent campus at Thenzawl on 1st July, 2019. The total area of the campus is 120.08 ha. Thenzawl town is located in Serchhip district of Mizoram and is 90 km (56 miles) from Aizawl, the capital of the state. The various infrastructures available in the college are administrative cum academic block, hostel for girls and boys, type-II quarter and transit hostel.

The College of Horticulture, Thenzawl, impart education in different branches of Horticulture and its allied sciences. The College of Horticulture started its first flagship academic programme *i.e.*, 4 year B.Sc. (Hons.) Horticulture programme from academic session 2016-17 with intake capacity of 22 students. The course curriculum and syllabi are based on the model academic regulations and syllabi as proposed by the 5th Dean Committee of Indian Council of Agricultural Research (ICAR), New Delhi. While designing curriculum, outmost care has been taken to consider the global development in Science & Technology to equip graduates to meet new challenges thrown open as a result of economic globalization and climate changes and preparing farmers for emerging opportunities at national and international level.

The college offers only under graduate (UG) programme. The curricula of the said academic programme are those suggested by 5th Dean's Committee of ICAR.

Now a day's 10+2+4 pattern which comprises one Semester (7^{th}) of Placement in Industries and Placement in Villages and Experimental Learning Programme for 8^{th}semester from the academic year 2016-2017.

Mandate of the Institution

The College of Horticulture, Thenzawl has integrated programmes of teaching, research and extension education. The college has the mandate to develop, strengthen and promote the understanding, knowledge and skills to improve profitability and utilization in the field of horticulture, not only in Mizoram but also in the entire North-Eastern Region. The college shall also endeavour to establish linkages with other scientific institutions of ICAR, other zonal and national bodies in the field of its domain located in the region and outside the region. But, the major mandates of the college are:

i) Making provision for imparting education in Horticulture.

ii) Advancement of learning and conducting research particularly in Horticultural sciences / technologies especially for the rural people of the state in general.

iii) Undertaking activities pertaining to major mandates *via*, education, research and extension as directed by the University time to time.

Objectives

i) To undertake teaching for UG in Horticulture.

ii) To carryout research to generate technology and extension of technology to the farmers and professionals.

iii) To undertake the policy programme of state and central government related to horticultural education, research and extension.

iv) To undertake such other activities as it may deem fit from time to time.

Accomplishments

The first batch (2016-17) students have successfully completed their B.Sc. (Hons) Horticulture programme in the year 2019-2020 with approximately 90 per cent of students secure first class in their final examination.

List of Topper of B.Sc. Horticulture, Since Inception

Sl. No.	Name	Year of Passing
1.	Ms. Haobam Alice Devi	2020

List of ICAR – JRF (Rank Holders) 2020

Sl. No.	Name of the student	Rank	Discipline
3.	Ms. Haobam Alice Devi	1st UPS	Horticulture
4.	Ms. NgarikGamlin	7th ST	Horticulture

Result of JRF upto 1st Counseling

. No.	Name of the student	Rank	Discipline
5.	Ms.Haobam Alice Devi	207	Horticulture
6.	Mr.MalsawmtluangaHnialum	389	Entomology
7.	Mr.Pritam Das	1034	Horticulture
8.	Ms.NongmaithemAnjana Devi	1034	Plant Science

Number of students passed and placed various sectors in 2019-20

Sl. No.	Year	Number of students qualified/Number of students placed					Number of students passed out
		JRF	SRF	NET	M. Sc.	Other	
1.	2019-20				08	-	17

6.4.2. Faculty strength

Sl. No.	Sanction Faculty	Sanctioned	Faculty in Place
1.	Professor	8	-
2.	Associate Professor		-
3.	Assistant Professor	**11**	04
	Total	**19**	**04**
4.	Assistant Professor (Contractual)	-	03*
5.	Professor, CVSc& AH, Selesih	-	01
6.	Assistant Professor, CVSc& AH, Selesih	-	02
Total			**10**

* indicates contractual faculty

As per faculty recommended by 5th Deans Committee, the faculty strength is not sufficient. However, the MTTC & VTC, CVSc & AH faculties are being assigned to complete the curriculum of the undergraduate degree programme. The teaching pedagogy include a judicious blend of different teachings modules, classroom-based teaching with an equal weightage on practical training and exposure to inculcate pragmatic skills and perk up student's confidence to meet requirement of various client organization as well as higher education in other national and international academic institutions. At present the College of Horticulture is also utilizing the existing facilities of College of Veterinary Sciences and Animal Husbandry, Selesih and SMS of KVK, Selesih. Special focus is paid for all round development of student to show their hidden talent in addition to their educational programme. The College organizes co-curricular and extra-curricular activities for overall development of student's personality and carrier. Annual College Week, Awareness Programs, NSS, Physical Education, Sports, Literary activities etc. are also organized to give the opportunity to the students.

Faculty Profile (Department wise)

The existing faculty strengths of College of Horticulture and MTTC & VTC are sufficient for academic requirement of the college.

Department wise faculty strength of College of Horticulture

Sl.No.	Department	Sanctioned Faculty	Filled post	Vacant post	Faculty recommended by ICAR
9.	Fruit Science	Professor	-	1	1
		Associate Professor	-	-	2
		Assistant Professor	1	-	3
10.	Vegetable Science	Professor	-	1	1
		Associate Professor	-	-	1
		Assistant Professor	2	-	4
11.	Floriculture & Landscape architecture	Professor	-	1	1
		Associate Professor	-	-	1
		Assistant Professor	-	1	2
12.	Post harvest Technology	Professor	-	1	1
		Associate Professor	-	-	1
		Assistant Professor	1*	-	2
13.	NRM	Professor	-	1	1
		Associate Professor	-	-	1
		Assistant Professor	2	1	6
14.	Social	Professor	-	1	1

	Science	Associate Professor	-	-	1
		Assistant Professor	1+1*	-	5
15.	BSH	Professor	-	1	1
		Associate Professor	-	-	2
		Assistant Professor	1	-	6
16.	Plant Protection	Professor	-	1	1
		Associate Professor	-	-	2
		Assistant Professor	2+1*	-	3
		Total	12	10	50

*** indicates contractual faculty**

For senior faculties, no senior faculties applied/joined. However, university is again advertising to fill up the vacant positions.

Faculty from College of Veterinary Sciences and Animal Husbandry, Selesih

Sl. No.	Department	Professor	Associate Professor	Assistant Professor
1.	Basic Sciences	01	-	01
2.	Social Science	-	-	01

Faculty from KVK, Selesih, Aizawl

Sl.No.	Department	SMS
1.	Vegetable Sciences	01
2.	NRM	01

The services of the faculties of College of Veterinary Sciences & Animal Husbandry, Selesih and SMS of KVK, Selesih have been utilized by the College of Horticulture, Thenzawl for teaching and other administrative works.

6.4.3. Technical & Supporting Staff

Information of Technical & Supporting Staff

Sl. No.	Name of the Post	Sanctioned	In place
A.	**Establishment**		
1.	Account Assistant		01*
2.	Driver		02
3.	Store Keeper/Farm Asstt. (Asstt. Prof.)		01
B.	**Central Instrumentation Laboratory**		
1.	Instrumentation Technician (Asstt. Prof.)		01

C.	**Library Staff**		
1.	Library Assistant (Asstt. Prof.)		01
2.	Multi-tasking staff		02
D.	**Students Welfare**		
1.	Student Welfare Officer (Asstt. Prof.)		01
2.	Attendant		01
E.	**Hostel Staff**		
1.	Warden / Rector		02
2.	Care taker		02
3.	Cook		04
F.	**Estate Branch**		
1.	Junior Engineer		01
2.	Security officer (Asstt. Prof.)		01
Total		**13**	**20**

* indicates permanent staff; others are contractual staff

Since the college is a newly established college, it has one permanent account assistant and some faculties have been assigned the responsibilities for the multiple activities and contractual staffs of the college are assisting them in the activities.

6.4.4 Classrooms and Laboratories:

Since the college is under construction, all the academic activities have been going on at the pre-fabricated building of the college. It has four well-equipped classrooms with LCD Projector in each for effective teaching. The college also has different laboratory equipments for conducting practical classes of the students. The instruments and equipments are also available for faculties for research purpose.

Table:7. Information of Classrooms and Laboratories

Class Room	Smart class room/interactive Board
UG Hall-1	Board and LCD Projector
UG Hall-2	Board and LCD Projector
UG Hall-3	Board and LCD Projector
UG Hall-4	Board and LCD Projector

Table: 8. List of Laboratory Equipments available at COH, Thenzawl

Sl. No.	NAME	QUANTITY
22.	Analytical weighing balance	01
23.	Weighing balance	02
24.	Electrical conductivity meter	01
25.	Ph Meter	02
26.	Laminar air flow	01
27.	Stereo binocular microscope	02
28.	Compound Microscope	05
29.	Autoclave	01
30.	Refractometer	02
31.	Digital Vernier caliper	01
32.	Vernier caliper hand held	01
33.	Thermometer	01
34.	Vacuum packing machine	01
35.	Ordinary sealing machine	01
36.	Hot air oven	01
37.	Microwave oven	01
38.	Incubator	01
39.	Distillation Unit	01
40.	Refrigerator	01
41.	Spectrophotometer	01
42.	Tray drier	01

Farm Facilities

- Availability of Farm equipment viz. grass cutter
- All the essential garden tools such as secateurs, digging trowel, hedge shear, Rose can, pruning and budding knife, garden rake, khurpi, measuring tape, sprayers and watering pump etc. are available for maintaining the farm.
- Low-cost polyhouse has been established in the farm for growing various seasonal and annual vegetables.
- Availability of water supply to the farm.

- Development of demonstration farm cum research block for vegetable, spice crops and medicinal plants.
- Development of Dragon fruit orchard for demonstration.
- Establishment of temperate, tropical and sub-tropical fruits has been done in the campus.
- Establishment of vermicomposting unit for training and demonstration for students and the farmers.
- Development of mulberry farm for rearing of silkworm.
- Integrated Farming System for demonstration purpose available in the campus.
- Breeding nursery of local vegetable germplasm also available in the campus.
- Establishment of apiculture including meliponiculture has been done.
- Mushroom house also constructed in the campus.

6.4.5 Conduct of Practical and Hands-on-Training:

The undergraduate courses involve conducting practical classes as per credits allotted to the specified courses and hands on training and field/lab practical.

Since the college is under developing stage, apart from the practical classes and hands-on-training conducted at the campus, it has also been conducted at different laboratories, field, nursery *etc*, like ICAR-Kolasib, Mizoram, Centre of Excellence for fruits –Saichhoh, Zopar-Reiek, State Horticulture Farm, Chite, Horticulture Centre Thiak for acquiring the requisite practical knowledge.

Production Technology of Fruits, Vegetables and Flower Crops: Maximization of yield by *viz*., staking, turning, blanching, earthling up. Commercial production and marketing of various fruits and vegetables and preparation of value added products.

Plant protection measures for technologies of IPM/IDM of different crops are demonstrated to the effective management of crops losses by pest and diseases. Apart from IPM/IDM students also learned mushroom production, biopesticides production and honey bee keeping at commercial level to helpful for entrepreneurship development.

Soil analysis for different micro and macro nutrient demonstrated by practically.

6.4.6. Supervision of students in UG/~~PG/Ph.D~~programmes:

College of Horticulture, Thenzawl do not have PG/Ph. D. programme because this is a newly established College under Central Agricultural University, Imphal, there are no students enrolled in PG/Ph.D. programme. However, there is regular monthly counseling meetings are conducted to discuss regarding overall academic progress of undergraduate students, behavior, economical and personal development. In emergency/ misbehaviors of students, student health problems are regularly monitored.

6.4.7. Feedback of stakeholders (Students, parents, industries, employers, farmers etc.):

This college is especially for the 80% tribal students & gives opportunities to the tribal students for the career development in Agriculture sector. This college has kept suggestion and complaints box in college premises. Regular counselling meetings are organized and in emergency parents are also participated for the personality developments of students. This college has provided an excellent platform and infrastructure to establish rapport between students and teachers. During extension activities the farmer's feedback and problems are duly recorded to solve the problems.

Few feedback form are taken to explain the issues raised by the respondents as follows:

1. **Scanned Copy of Feedback form 1**

Action taken: Feedback highlighted the requirement of more emphasis on the employability of the students graduating from the college.

2. Scanned copy of feedback form 2

Action taken: Feedback highlighted the requirement of more emphasis on the employability of the students graduating from the college.

3. **Scanned Copy of Feedback form 3**

Action taken: Feedback highlighted the requirement of more emphasis on the employability of the students graduating from the college.

6.4.8. Student intake and attrition in the programme for last five years:

The College presently offers only Under Graduate Programme in Horticulture i.e. B.Sc. (Hons.) Horticulture which is of 4 years duration. The annual intake of students to the college at UG level has increased since the inception of the university.

Name of the Degree Programme	**Actual student admitted in last four years Attrition**					**Attrition (%)**				
B.Sc. (Hons.) Horticulture	2016-17	2017-18	2018-19	2019-20	2020-21	2016-17	2017-18	2018-19	2019-20	2020-21
	20	17	20	19	24	15	0	30	31.58	12.50

6.4.9. ICT Application in Curricula Delivery:

Since the college is under developing stage, the College of Veterinary Sciences & Animal Husbandry, Selesih is giving facilities and services which are not available to the college.

(a) Computer facilities:

The College of Horticulture, Thenzawl has unlimited Internet facility with 24x7 100 Mbps,Internet Access through BSNL to its staffs and students. Wi-Fi Internet facility has been provided at Academic building and boys and girls hostels. The Faculty members and students utilize internet and computer facility for carrying out academic research and extension activities. The students can also have an access to the computer with internet facility for their research, statistical calculation and other academic activities.

(b) Library Services:

The College of Horticulture,Thenzawlhas 736 number of library books. The library has three number of internet connected computers. Through this service, the students and faculty can access on-line Portals and Bouquet of journals from Publishers with full text of an articles.

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for UG Degree Programme*i.e.,*B.Sc (Hons.) Horticulture, College of Horticulture, CAU (Imphal), Thenzawl, Mizoram is given correctly.

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean……..hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Signature of Dean of the College with Date & Seal

Annexure I

Classroom

Library

Hot air oven	**Incubator**

Laminar Air Flow	**Stereo binocular microscope**

Laboratory Equipments

डा. एस. अय्यप्पन
सचिव एवं महानिदेशक
Dr. S. AYYAPPAN
SECRETARY & DIRECTOR GENERAL

GOVERNMENT OF INDIA
DEPARTMENT OF AGRICULTURAL RESEARCH & EDUCATION
AND
INDIAN COUNCIL OF AGRICULTURAL RESEARCH

D.O. No. Edn.23(13)/2009-EQR
Dated the 21st July, 2015

Dear Dr. Singh,

Kindly refer to your Note No. PS/VC/CAU/173/2013 dated 8th April, 2013 regarding establishment of College of Horticulture under CAU, Imphal in the State of Mizoram. In this context, it is to inform that the Competent Authority has approved the site identified at Thenzawl for establishment of College of Horticulture. You are also requested to initiate necessary action to take over the proposed 120 ha of land from Mizoram Government to the CAU, Imphal under intimation to the undersigned at the earliest.

With regards.

Yours sincerely,

(S. Ayyappan)

Dr. Pramjit Singh
Vice Chancellor,
Central Agricultural University,
Iroisemba,
Imphal – 795004
Manipur

Registrar
For needful
5/8/2015