ANNUAL REPORT

FACULTY OF TECHNOLOGY
ACADEMIC YEAR: 2024 - 2025

Uttar Banga Krishi Viswavidyalaya
Pundibari, Cooch Behar
West Bengal-736165

FOREWORD

It gives me immense pleasure to publish the Annual Report of the Faculty of Technology for the year 2024-2025. The Faculty of Technology started its glorious journey in 2005 at the main campus of Uttar Banga Krishi Viswavidyalaya, West Bengal. Presently we offer 4 (Four) years Bachelor's Degree programme in Agricultural Engineering with annual intake capacity of 35 (Thirty-five) students in the first year and 6 (Six) students in the second year through lateral entry. From the academic year 2016-17 the faculty has implemented the recommendations of ICAR Fifth Dean's Committee recommendations. Since inception, the Faculty of Technology continues to be approved by All India Council of Technical Education (AICTE). The students of the faculty have been producing excellent performances in both academic and professional careers. A good number of our students have qualified in All-India level entrance examinations like Graduate Aptitude Test in Engineering (GATE), Indian Council of Agricultural Research - Junior Research Fellowship (ICAR-JRF), Common Admission Test (CAT). Our dedicated teachers have been quite instrumental in developing technical skills and imparting technical knowledge to the students. The cooperation and coordination of all the teaching and non-teaching staff of the faculty have fostered an ideal environment for teaching, learning and skill development. The University administration is also extending all sorts of support for the development of the faculty. It gives me utmost pleasure to inform that recently the North Bengal Development Department has committed financial support for the extension of the academic building of Faculty of Technology. I take this opportunity to convey my sincere gratitude and thanks to all those who have extended their support for the development of Faculty of Technology. I extend my best wishes to all my beloved students of the faculty for a glorious and successful career.

(***ASHIS KUMAR DAS, PhD***)
Dean (Actg.)

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1. OVERVIEW

1.0 Background

Agricultural education in North Bengal began in 1979 with the establishment of the North Bengal Campus of Bidhan Chandra Krishi Viswavidyalaya (BCKV), West Bengal. To promote the development of agriculture in the region, Uttar Banga Krishi Viswavidyalaya (UBKV) was founded on 1st February 2001 at Cooch Behar, West Bengal. Since its inception, the university has been dedicated to the advancement of agricultural education, pioneering research, and extension services in the eight northern districts of West Bengal. In 2005, the Faculty of Technology was established as the third faculty of UBKV with the approval of the All-India Council for Technical Education (AICTE), New Delhi, and the Director of Technical Education, Government of West Bengal. The faculty offers a four-year B.Tech. degree programme in Agricultural Engineering, designed to enhance the use of modern technology for improving the productivity of agricultural and horticultural crops. Emphasis is laid on the efficient utilization and conservation of natural resources to ensure sustainable agricultural development. The curriculum of the B.Tech. programme integrates engineering principles with agricultural sciences, addressing the technological needs of modern agriculture. Admissions to the undergraduate programme are based on candidates' performance in the West Bengal Joint Entrance Examination (WBJEE) conducted annually by the West Bengal Joint Entrance Examinations Board.

The syllabus is framed in accordance with the latest advancements in the field and the guidelines of the Indian Council of Agricultural Research (ICAR), and it is duly approved by AICTE. The U.G. course of Agricultural Engineering comprises of various disciplines like Agricultural Science, Basic Science and Humanities, Computer Science and Engineering, Civil Engineering, Mechanical Engineering, Electrical Engineering, Social Sciences, Farm Power and Machinery, Soil and Water Conservation Engineering, and Processing and Food Engineering. The faculty has the provision of five academic departments namely, (i) Department of Basic Science & Humanities, (ii) Department of Basic Engineering, (iii) Department of Farm Machinery and Power, (iv) Department of Process and Food Engineering, and (v) Department of Soil and Water Conservation Engineering.

1.1 Functions

1.1.1 Our vision

i. To contribute to the northern region of West Bengal through excellence in education research and application in the fields of agricultural engineering and technology.
ii. To serve as a valuable resource for technologies involved in agriculture and to become a source of pride through valuable contributions to the people and the society.
iii. To create a strong and intelligent UBKV family with full of enthusiastic technocrats.

1.1.2 Our Mission

i. To mold ourselves into a learning community where we work, listen and respect each other.
ii. To create an environment, where faculties, researchers and students can work synergistically across disciplinary boundaries.
iii. To undertake several collaborative interdisciplinary research projects, which can provide long term benefits in the areas of academics, rural agriculture and several technological aspects of agriculture such as: Agricultural water management, small scale food processing, and Farm mechanization?
iv. To develop a sustainable system with strong interactive connections among the faculty, researchers, students and farmers, by providing need based technological outputs to the agricultural society.
v. The faculty aims to serve as a technological hub for engineering applications in the fields of agriculture through academics, research and extension.

2. COURSE CURRICULUM

2.0 Course details

The course structure including disciplines like Farm Machinery & Power, Soil & Water Conservation Engineering, Food Processing, Civil, Mechanical, Electrical, Computer Science, Agribusiness, etc.—is designed following ICAR guidelines and AICTE approval. Semester-wise syllabus for B. Tech. in Agricultural Engineering for implementation from Academic Year 2024-2025 are presented in Table 2.1.

Table 2.1: Syllabus as per the guidelines of the 5th Dean's Committee

Semester I			
S. No.	**Title of the Course**	**Course No.**	**Credit Hour**
1.	Engineering Mathematics-I	MTH 101	3(2+1)
2.	Engineering Physics	PHY 101	3(2+1)
3.	Engineering Chemistry	CHM 101	3(2+1)
4.	Principles of Soil Science	AG 101	3(2+1)
5.	Surveying and Levelling	CE 101	3(1+2)
6.	Environmental Science and Disaster Management	HOR 101	3(2+1)
7.	Engineering Drawing	ME 101	2(0+2)
8.	Electrical Machines and Power Utilization	EE 101	3(2+1)
		Total Credit Hours	**23(13+10)**

Semester II			
S. No.	**Title of the Course**	**Course No.**	**Credit Hour**
1.	Engineering Mathematics-II	MTH 151	3(2+1)
2.	Fluid Mechanics and Open Channel Hydraulics	CE 151	3(2+1)
3.	Principles of Horticultural Crops and Plant Protection	HOR 151	2(1+1)
4.	Entrepreneurship Development and Business Management	AG 151	3(2+1)
5.	Principles of Agronomy	AG 152	3(2+1)
6.	Engineering Mechanics	CE 152	3(2+1)

7.	Workshop Technology and Practices	ME 151	3(1+2)
8.	Communication Skills and Personality Development	ENG 151	2(1+1)
		Total Credit Hours	**22(13+9)**

Semester III			
S. No.	**Title of the Course**	**Course No.**	**Credit Hour**
1.	Soil and Water Conservation Engineering	SWC 201	2(1+1)
2.	Watershed Hydrology	SWC 202	3(2+1)
3.	Tractor and Automotive Engines	FMP 201	3(2+1)
4.	Fundamentals of Renewable Energy Sources	FMP 202	3(2+1)
5.	Web Designing and Internet Applications	CSE 201	2(1+1)
6.	Engineering Mathematics-III	MTH 201	3(2+1)
7.	Soil Mechanics	CE 201	2(1+1)
8.	Strength of Materials	CE 202	2(1+1)
9.	Machine Design	ME 201	2(2+0)
		Total Credit Hours	**22(14+8)**

Semester IV			
S. No.	**Title of the Course**	**Course No.**	**Credit Hour**
1.	Building Construction and Cost Estimation	CE 251	2(2+0)
2.	Theory of Machines	ME 251	2(2+0)
3.	Heat and Mass Transfer	ME 252	2(2+0)
4.	Agricultural Structures and Environmental Control	PFE 251	3(2+1)
5.	Farm Machinery and Equipment-I	FMP 251	3(2+1)
6.	Renewable Power Sources	FMP 252	3(2+1)
7.	Irrigation Engineering	SWC 251	3(2+1)
8.	Sprinkler and Micro Irrigation Systems	SWC 252	2(1+1)
		Total Credit Hours	**20(15+5)**

Skill Development Training-I Summer break June-July after 4th Semester (Student READY) *

Semester V			
S. No.	**Title of the Course**	**Course No.**	**Credit Hour**
1.	Tractor Systems and Controls	FMP 301	3(2+1)
2.	Farm Machinery and Equipment-II	FMP 302	3(2+1)
3.	Tractor and Farm Machinery Operation and Maintenance	FMP 303	2(0+2)
4.	Engineering Properties of Agricultural Produce	PFE 301	2(1+1)
5.	Post-Harvest Engineering of Cereals, Pulses and Oil Seeds	PFE 302	3(2+1)
6.	Dairy and Food Engineering	PFE 303	3(2+1)
7.	Groundwater, Wells and Pumps	SWC 301	3(2+1)
8.	Watershed Planning and Management	SWC 302	2(1+1)
9.	Auto CAD Applications	ME 301	2(0+2)
10.	*Skill Development Training-I (Student READY) Registration and Evaluation only	TRN 301	5(0+5)
Total Credit Hours			**28(12+16)**

Semester VI			
S. No.	**Title of the Course**	**Course No.**	**Credit Hour**
1.	Design of Structures	CE 351	2(1+1)
2.	Computer Programming and Data Structures	CSE 351	3(1+2)
3.	Thermodynamics, Refrigeration and Air Conditioning	ME 351	3(2+1)
4.	Post-Harvest Engineering of Horticultural Crops	PFE 351	2(1+1)
5.	Drainage Engineering	SWC 351	2(1+1)
6.	Water Harvesting and Soil Conservation Structures	SWC 352	3(2+1)
7.	Bio-energy Systems: Design and Applications	FMP 351	3(2+1)
8.	Applied Electronics and Instrumentation	EE 351	3(2+1)
	Total Credit Hours		**21(12+9)**

Skill Development Training-II in Summer break June-July after 6th Semester (Student READY)

VII Semester

Student READY (Rural and Entrepreneurship Awareness Development Yojana)

	Semester VII		
S. No.	**Title of the Course**	**Course No.**	**Credit Hour**
1.	Artificial Intelligence (Elective course)	CSE 401	3(3+0)
2.	Photovoltaic Technology and Systems (Elective course)	EE 401	3(2+1)
3.	Mechanics of Tillage and Traction	FMP 401	3(2+1)
4.	Skill Development Training-II (Student READY) Registration and Evaluation only	TRN 401	5(0+5)
5.	Project Planning and Report Writing (Student READY)	PRJ 449	10(0+10)
	Total Credit Hours		**24(6+18)**

#**Educational tour during winter/January break**

VIII Semester

Student READY (Rural and Entrepreneurship Awareness Development Yojana)

Semester VIII			
S. No.	**Title of the Course**	**Course No.**	**Credit Hour**
1.	10- weeks Industrial Attachment /Internship (Student READY)	TRN 451	10(0+10)
2.	10- weeks Experiential Learning On campus (Student READY)	TRN 452	10(0+10)
3.	#Educational Tour (Registration only)	EDT 451	2 (0+2)
Total Credit Hours			**22(0+22)**

Grand Total = (23+22+22+20+28+21+24+22) = 182 Credit Hours

3. STUDENT ACTIVITIES AND NEWS

3.0 Students' Achievements

The students of Faculty of Technology have consistently demonstrated excellence in diverse fields, showcasing their talent, determination, and holistic development. Throughout the academic year 2024–2025, our students have made remarkable contributions and achieved significant milestones in academics, cultural activities, and social engagements.

Many students successfully appeared in various competitive examinations, securing commendable ranks and positions. Their achievements highlight the university's strong academic foundation and its commitment to nurturing competent professionals in the field of agricultural sciences and allied disciplines.

3.1 Performance in Graduate Aptitude Test in Engineering (GATE) Examination

The analysis indicates that, year after year, the Faculty of Technology achieves the most promising results in terms of GATE qualifications. Fig. 3.1 illustrates the number of students who qualified in the GATE examination. The Fig. 3.1 is also depicted that the number of students qualified in the last two years are notable.

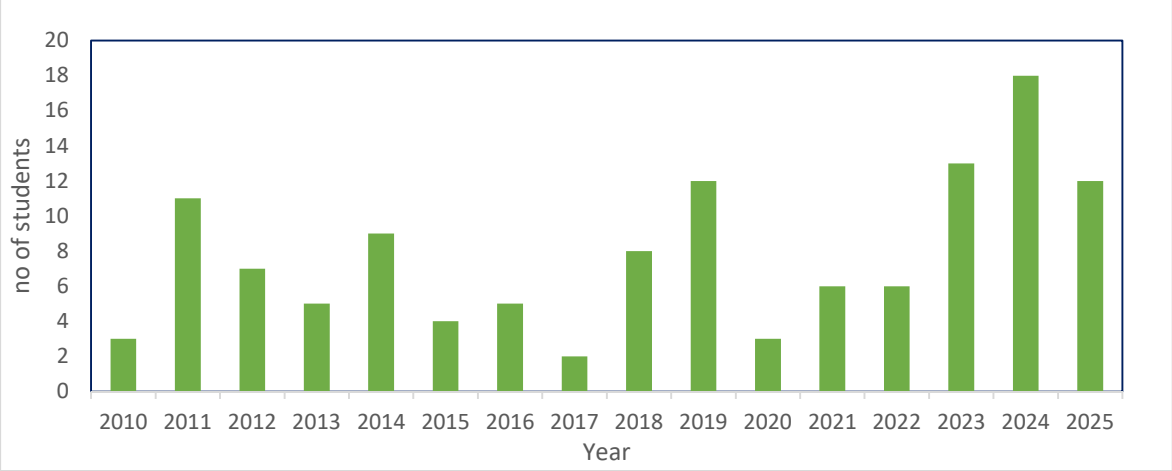

Fig. 3.1 The number students qualified in the GATE-2025 Examination

It is interesting to note that the performance of GATE 2024 students is much better than all other years. The brief details of the GATE examination in year 2025 are given in Table 3.1.

Table 3.1 GATE ranks of the students in 2025

Sl. No.	Name of the Students	Registration no. of UBKV	All India Rank	Position of the student
1.	Satyendranath Kar	AE-2021-20-B	06	final year
2.	Paritosh Giri	AE-2021-18-B	19	final year
3.	Kuntal Pal	AE-2021-14-B	19	final year
4.	Vaskar Kundu	AE-2020-30-B	44	Passed out student in year 2024
5.	Soumyadip Das	AE-2022-24-B	54	Pre-final year
6.	Debapriya Mandal	AE-2021-06-B	69	final year
7.	Souvik De	AE-2021-26-B	79	final year
8.	Falguni Adhikary	AE-2021-10-B	109	final year
9.	Dhrubajyoti Barman	AE-2021-07-B	125	final year
10.	Snigdha Das	AE-2021-22-B	137	final year
11.	Hajikul Islam	AE-2021-11-B	225	final year
12.	Sudip Barman	AE-2021-28-B	263	final year

3.2 Performance in Indian Council of Agricultural Research (ICAR) Junior Research Fellowship (JRF) and Common Admission Test (CAT)

The students of Faculty of Technology have showcased remarkable dedication and commitment towards academic excellence during the academic year 2024–2025. A significant number of students appeared for prestigious competitive examinations such as the Indian Council of Agricultural Research (ICAR) Junior Research Fellowship (JRF) and the Common Admission Test (CAT), demonstrating their aspiration to pursue higher studies and professional growth which is tabulated in Table 3.2 (*The ICAR JRF examination result is yet to be declared*)

Table 3.2 Results of CAT.

Sl. No.	Name of student	Registration no. of UBKV	Name of examination	Rank/Percentile*
1.	Sankhadeep Roy	AE-2020-19-B	CAT-2024	61.30*

3.3 Student Placement

The Placement Cell of Uttar Banga Krishi Viswavidyalaya (UBKV) plays a pivotal role in facilitating job opportunities for the students of the Faculty of Technology through a well-organized and transparent process. The cell acts as a bridge between students and potential employers, ensuring that students are guided and supported at every stage of their career journey. The placement process involves identifying and reaching out to potential companies, maintaining effective communication, and organizing recruitment drives on campus. Students are encouraged to apply to organizations based on their specialization and career interests, while the placement cell manages the entire application and selection process to ensure fairness and transparency.

During the academic year 2024–2025, several reputed organizations participated in the recruitment drives, offering opportunities to final-year students. Table 3.3 furnishes the list of final-year students from the Faculty of Technology who have been successfully selected for job placements. The university remains committed to enhancing the employability skills of students through dedicated training programs, workshops, and industry collaborations, ensuring that they are well-prepared to meet the demands of the professional world.

Table 3.3 List of students selected for job in 2025.

Name of the student	Registration no. of UBKV	Name of the organization
Falguni Adhikary	AE-2021-10-B	Mahindra
Sourav Sahoo	AE-2021-25-B	PRASARI, Rajarhat

3.4 Sport, Games and Co-Curricular activities

Beyond academics, our students have actively participated in cultural, sports, literary, and social programs, both within and outside the campus. Their involvement in inter-college festivals, debates, seminars, workshops, and community outreach initiatives reflects their versatile talents and leadership qualities. These platforms not only enhance their confidence but also foster teamwork, creativity, and social responsibility. The details are given in Table 3.4

Table 3.4 The details of student's participation in various programmes

Sl. No.	Name of the Student (s)	Name of activity/ Program	Level of participation	Details of program	Venue of program
1	Debkumar Mandal (AE-2024-05-B)	Quiz competition	Intra university	Ucchas (freshers), 2025 Participated	Open auditorium, UBKV
		Quiz competition	Intra university	Divyakhriti, 2024 Participated	UBKV
2	Priti Das (AE-2023-15-B)	Poster Competition	Inter -University	3rd Position June, 2024	MJN Medical College and Hospital
		RAWA Preliminary Competition (art)	National	2nd Position August, 2024	Alipurduar
		Dance, Viswakarma Puja	Intra University	Participated 2024, November	UBKV
		Dance, Teacher's Day	Intra University	Participated September, 2024	UBKV
3	Arindam Barman (AE-2024-02-B)	Quiz competition	Intra university	Divyakhriti , 2024 Participated	UBKV
4	Tapas Sen (AE-2023-27-B)	Essay Competition	Intra -University	2nd Position 2024, April	UBKV NSS Cell
5	Roumyadeep Chowdhury (AE-2023-20-B)	Badminton	Intra -University	Participated, September, 2024	Indoor Game, UBKV
		Group Song	Intra -University	Participated, September, 2024	UBKV
6	Srijani Basu (AE-2023-25-B)	Opening Song	Intra -University	Participated, September, 2024	UBKV
		Group Dance	Intra -University	Participated, March, 2025	Social, UBKV

7	Rohan Minj (AE-2023-18-B)	Bollywood Night	Intra -University	1st position March, 2025	Social, UBKV
8	Sarika Prasad (AE-2023-18-B)	Bollywood Night	Intra -University	3rd position March, 2025	Social, UBKV

The university takes immense pride in the accomplishments of its students and remains dedicated to providing continuous support, mentorship, and opportunities to help them excel in every sphere of life.

3.5 Scholarships, stipends and fellowships

Several scholarships, stipends, and fellowships are available at Uttar Banga Krishi Viswavidyalaya to support deserving students. Generally, at least 60% of the total enrolled students in each term are awarded the *University Merit Scholarship* based on their academic performance.

For availing benefits such as the University Free Studentship, West Bengal Full Free-ship, and West Bengal Half Free-ship, students are required to submit a valid annual family income certificate.

A minimum Grade Point Average (GPA) of 6.5 is mandatory to be eligible for any scholarship offered under the Faculty of Technology. The details of the available scholarships, along with their eligibility criteria, are presented in Table 3.5

Table 3.5 Details of Scholarships given to the students for year 2024

Year	Name of the Scholarship	Number of Students Benefitted
2024	University Free Studentship	01
	West Bengal Full Free ship	05
	West Bengal Half Free ship	00
	University Merit Scholarship	06
	University Sr. Merit Scholarship	10
	Oasis	01
	Student Credit Card Scheme	01
	MCM-M	00
	Student Credit Card Scheme-Loan and Oasis	01
	SVMCM-M	14

3.6 Undergraduate projects

As part of the curriculum, project planning and the preparation of a project report are mandatory requirements for the award of the B.Tech. degree. These projects enable students to integrate theoretical knowledge with practical applications, thereby enhancing their technical skills and problem-solving abilities.

The B.Tech. projects in Agricultural Engineering are designed to apply engineering principles to address real-world challenges in agriculture and food production. Project topics typically cover a wide spectrum, including: Design and development of innovative farm machinery and equipment; Optimization of irrigation systems and efficient water management techniques; Advancements in food processing technologies; Implementation of sustainable agricultural practices and many more. These projects often involve hands-on fabrication, experimentation, testing, and research, fostering creativity and innovation among students.

The detailed list of project reports, including their titles, project guides, and names of the students, is presented in Table 3.6.

Table 3.6 Details of projects completed in 2025

Sl. No.	Project Guide	Name of the Student	Project Title
1.	Prof. Rupak Sarkar, PhD	Falguni Adhikary Satyendranath Kar Sudip Barman	Estimation of Reference Crop Evapotranspiration in Sub-Himalayan Terai Region of West Bengal using Limited Climatological Data.
2.	Ashis Kumar Das, PhD	Ummi Moslemina Parvin Dipak Basak Mainak Adhikary	Study of Potato Cold Storage Design and Refrigeration Equipment.
3.	Er. Arindam Mandal	Achinta Mandi Animesh Bagli Bipasha Roy Soumi Biswas	Design and Manufacturing of Sunk Key.
4.	Himadri Shekhar Konar, PhD	Debapriya Mandal Hajikul Islam Kuntal Pal Paitosh Giri	Study on Thin Layer Drying Characteristics of Green Chilli for Tray Drying.
5.	Om Prakash Chaturvedi, PhD	Sayani Biswas Dhurbajyoti Barman Mohima Mondal Sankhadeep Roy	A Study on 100 KW Rice husk Based Downdraft Gasifier.
6.	Er. Kingshuk Roy	Esha Parvin Hrid Dey	Performance Evaluation of Tractor Operated Automatic Potato Planter.

		Mana Roy	
		Sanway Jana	
7.	Bratati Chowdhury, PhD	Dhrubajyoti Dey	Statistical Analysis of Climatic Parameters in Cooch Behar: Trends, Patterns and Extreme Events (1980-2022).
		Snigdha Das	
		Padmabati Kumar	
		Subhankar Barman	A Case study- The effect of delayed sowing on seed yield attributes of Desi Chickpea
8.	Er. Ritam Sarkar	Jahid Hasan	Development of Cross-Platform E-Commerce Mobile App: UBKV-CART (Farm2Fork-Harvested with Care, Delivered with Love).
		Sourav Sahoo	
		Souvik De	
		Utsha Roy	

3.7 In Plant Trainings

The Faculty of Technology organizes two compulsory in-plant training programs of one-month duration each for B.Tech. students. These trainings are conducted at the end of the 4th Semester and 6th Semester, with the objective of providing students practical exposure to modern and advanced agricultural machinery, equipment, and technologies.

For the academic year 2024–2025, as per the B.Tech. (Agricultural Engineering) curriculum:

- In-Plant Training–I was undertaken by the 4th Semester students at the Northern Region Farm Machinery Training and Testing Institute (NRFMTTI), Hisar-125001, Haryana.
- In-Plant Training–II was completed by the 6th Semester students at various reputed institutes and industries, including:

    1. ICAR-Central Institute of Post-Harvest Engineering and Technology (CIPHET), Ludhiana-141004, Punjab
    2. ICAR-Indian Institute of Soil and Water Conservation, Research Centre, Sunabeda-763002, Koraput, Odisha
    3. Devyani Food Industries, JL No.-074, Mouza-Dharma, Vill-Ethora, P.S-Salanpur, Asansol, Paschim Bardhaman, West Bengal-713357
    4. UB United Breweries (Holdings) Limited, Unit Kalyani, Vittal Mallya Road, Plot No. 18, D-Block, 741235 Kalyani, Dist. Nadia, West Bengal
    5. Banglar Dairy Ltd., Dankuni Plant, Dankuni Coal Complex, Hooghly, West Bengal-712310

6. ICAR-Central Institute of Post-Harvest Engineering and Technology (CIPHET), Regional Station, Abohar, Punjab

These training programs were successfully conducted before the commencement of the next academic session (2025–2026) and helped students gain hands-on experience, improve their technical competencies, and enhance their understanding of industry practices.

The detailed lists of successfully trained students are presented in Table 3.7 and Table 3.8, respectively.

Table 3.7 Details of In-Plant Training during the academic year 2024-25 for 4th Semester

Sl. No.	Registration No.	Student's Name	Semester	Training allotted to	Duration
1.	AE-2022-01-B	Adrija Chakraborty	4th	Northern Region Farm Machinery Training and Testing Institute (NRFMTTI), Hisar-125001, Haryana	05.08.2024 to 30.08.2024
2.	AE-2022-02-B	Argha Pal			
3.	AE-2022-03-B	Arka Mandal			
4.	AE-2022-04-B	Arpan Kumar Karjee			
5.	AE-2022-05-B	Debkumar Jana			
6.	AE-2022-06-B	Dinesh Hembram			
7.	AE-2022-07-B	Disha Paul			
8.	AE-2022-08-B	Diya Tamanna Rahaman			
9.	AE-2022-09-B	Isha Parvin			
10.	AE-2022-10-B	Juhita Roy			
11.	AE-2022-11-B	Manas Mallick			
12.	AE-2022-12-B	Moni Mallick			
13.	AE-2022-13-B	Neha Sabnam			
14.	AE-2022-14-B	Nimchen Bhutia			
15.	AE-2022-15-B	Pankaj Barai			
16.	AE-2022-16-B	Payel Mandal			
17.	AE-2022-17-B	Pragya Das			
18.	AE-2022-18-B	Rajib Biswas			
19.	AE-2022-19-B	Rajnandini Kalowar			
20.	AE-2022-21-B	Shreya Ghosh			
21.	AE-2022-22-B	Sneha Saha			
22.	AE-2022-23-B	Soumitra Mallick			
23.	AE-2022-24-B	Soumyadip Das			
24.	AE-2022-25-B	Sourav Layek			
25.	AE-2022-26-B	Subrajyoti Das			
26.	AE-2022-27-B	Susmita Sarkar			
27.	AE-2022-28-B	Udita Das			
28.	AE-2022-29-B	Washim Akram			
29.	AE-2021-24-B	Souptik Mani			

Table 3.8 Details of In-Plant Training during the academic year 2024-25 for 6th semester

Sl. No.	Registration No.	Student's Name	Semester	Training allotted to	Duration
1.	AE-2021-20-B	Satyendranath Kar	6th Sem	ICAR-Central Institute of Post Harvest Engineering and Technology, Ludhiana-141004 (Punjab)	01.08.2024 to 31.08.2024
2.	AE-2021-10-B	Falguni Adhikary			
3.	AE-2021-13-B	Jahid Hasan			
4.	AE-2021-25-B	Sourav Sahoo			
5.	AE-2022-L-31-B	Dipak Basak			
6.	AE-2021-11-B	Hajikul Islam			
7.	AE-2021-09-B	Isha Parvin			
8.	AE-2022-L -32-B	Mainak Adhikary			
9.	AE-2021-03-B	Animesh Bagli		ICAR-Indian Institute of Soil and Water Conservation, Research Centre, Sunabeda-763002, Koraput, Odisha	06.08.2024 to 05.09.2024
10.	AE-2021-04-B	Bipasha Roy			
11.	AE-2021-07-B	Dhrubajyoti Barman			
`12.	AE-2021-12-B	Hemal Hembram			
13.	AE-2021-17-B	Padmabati Kumar			
14.	AE-2021-18-B	Paritosh Giri			
15.	AE-2021-19-B	Sanway Jana			
16.	AE-2021-22-B	Snigdha Das			
17.	AE-2021-27-B	Subhankar Barman			
18.	AE-2021-28-B	Sudip Barman			
19.	AE-2021-30-B	Utsha Roy			
20.	AE-2021-02-B	Achinta Mandi		Devyani Food Industries, JL No.-074, Mouza-Dharma, Vill-Ethora, P.S-Salanpur, Asansol, Paschim Bardhaman, West Bengal-713357	01.08.2024 to 31.08.2024
21.	AE-2021-16-B	Mohima Mondal			
22.	AE-2021-21-B	Sayani Biswas		UB United Breweries (Holdings) Limited, Unit Kalyani Vittal Mallya Road, Plot No. 18, D-Block 741235 Kalyani, Dist. Nadia, West Bengal	01.08.2024 to 31.08.2024
23.	AE-2021-23-B	Soumi Biswas			
24.	AE-2021-06-B	Debapriya Mandal		Banglar Dairy Ltd., Dankuni Plant, Dankuni Coal Complex, Hooghly, W.B-712310	01.08.2024 to 31.08.2024
25.	AE-2021-08-B	Dhrubajyoti Dey			
26.	AE-2021-14-B	Kuntal Pal			
27.	AE-2021-26-B	Souvik Dey			
28.	AE-2020-19-B	Sankhadeep Roy		ICAR-Central Institute of Post Harvest Engineering and Technology (CIPHET), Regional Station, Abohar, Punjab	01.08.2024 to 31.08.2024
29.	AE-2020-11-B	Hrid Dey			
30.	AE-2021-15-B	Mana Roy			
31.	AE-2021-29-B	Ummi Moslemina Parvin			

4. RESEARCH AND EXTENSION ACTIVITY

4.0 Research projects

The Faculty of Technology at Uttar Banga Krishi Viswavidyalaya is actively engaged in a wide range of research projects aimed at promoting innovation, technological advancement, and sustainable agricultural practices. These projects focus on solving real-world problems and contributing to the development of modern solutions in agriculture, food processing, irrigation systems, farm mechanization, and environmental management.

The following section presents a brief overview of several ongoing research projects undertaken by the faculty members and research scholars of the Faculty of Technology. The details of the project titles, funding agencies, principal investigators, co-investigators, and duration are furnished below.

4.1 Project I

Name: Establishment of Farm Mechanization Workshop, Testing and Training Centre. **(Status-Ongoing)**

Nodal Officer for the project: Prof. Ashok Choudhury, PhD.

Name of Co-Investigator (s): Prof. Ashok Choudhury, PhD.

Faculties associated with this project

Om Prakash Chaturvedi, PhD; Er. Kingshuk Roy, **Ashis Kumar das, PhD;** Prof. Biplab Mitra, PhD; Prof. Prateek Madhab Bhattacharjee, PhD; Mrigendra Ghosh, PhD

Total Duration: 5 years (2020-2025)

Budget required (in Rs): 356.76 Lakhs

Objectives

1. To create an appropriate infrastructure for training, demonstration and awareness center on different aspects of farm mechanization.

2. To introduce awareness of modern farm mechanization system and to support in establishment of Farm Mechanization hub and Agri-entrepreneurs
3. To stop hiring external operators of Farm machines and produce resources within the state employing rural youths.
4. To enhance productivity of major crops by timely sowing and harvesting by reducing dependency of availability of labor.
5. Generating awareness in large scale about modern farm mechanization
6. To established a farm machinery testing unit
7. To assist Bureau of Indian Standards in formulation of standards for testing of agricultural machines

Brief Concept

The intended approach was to deliver skilled and trained human resource in large number in different level (operation, use, repair, maintenance, promotion, agri-preneure and Mechanization hub) in multiplier effect reducing the down time of machinery and ultimately giving less risked, cost effective and highly productive agriculture and farm income. This center will also serve to test various farm machineries as per the BIS codes.

4.3 Project II

Name: Empowering Scheduled Caste (SC) community farmers/rural youth of Coochbehar district, West Bengal through adoption of grafting technology in vegetable cultivation for employment generation and livelihood upliftment**. (Status- Ongoing)**

Nodal Officer for the project: Prof. Ashok Choudhury, PhD.

Name of Principal Investigator: Prof. Ranjit Chatterjee, PhD.

Faculties associated with this project

Arindam Das, PhD; **Bratati Chowdhury, PhD;** Nipa Biswas, PhD.; Surojit Khalko, PhD; Prahlad Sarkar, PhD.

Total Duration (months): 36 months or 3 (Three) years (2024-2026)

Budget required (in Rs): Rs. 21.725 lakh

Objectives

- To develop skill of SC community farmers, local youth and women on production of grafted seedling of brinjal and tomato through capacity building programme.
- To promote large cultivation of grafted brinjal and tomato in the district and to minimize the use of harmful pesticides in brinjal and tomato for managing soil borne disease and nematode.
- To uplift overall rural livelihood, entrepreneurship development and women empowerment through remunerative grafted vegetable seedling production and cultivation in rural areas.

5. DETAILS ABOUT FACULTY

5.0 Details of Faculty

The Faculty of Technology at Uttar Banga Krishi Viswavidyalaya comprises a team of highly qualified, experienced, and dedicated teachers who contribute significantly to the academic, research, and extension activities of the university. The faculty members play a vital role in imparting quality education, guiding research, and mentoring students to excel in their respective fields. During the academic year 2024–2025, the faculty members have made notable contributions in various academic and professional domains, including: Publications: Several research papers, review articles, and technical notes have been published in reputed national and international journals, reflecting the faculty's active involvement in cutting-edge research. The faculty has successfully organized various seminars, symposia, conferences, workshops, training programs, and internships, providing a platform for knowledge exchange, skill enhancement, and collaborative learning. Through active participation in research projects, consultancy work, and academic collaborations, the faculty members continuously strive to upgrade their expertise while fostering student growth.

5.1 Faculty(s)

The details of the teachers available in the Faculty of Technology for the academic year 2024–2025 who have conducted classes are provided in Table 5.1**.** This table includes information such as the name of the faculty members, designation, specialization, and other relevant details**.**

Table 5.1 Details of Faculty member with designation and specialization.

Sl. No.	Name	Designation	Specialization	Contact address
1.	Ashis Kumar Das, PhD	Dean (Acting) & Associate Professor	Electrical Engineering	Faculty of Technology, UBKV, P.O. Pundibari, Dist-Cooch Behar, Pin-736165, West Bengal

2.	Rupak Sarkar, PhD	Professor	Soil and Water Conservation Engineering	RRS Terai Zone, UBKV
3.	Subinay Saha Roy, PhD	Associate Professor	Civil Engineering	Faculty of Technology, UBKV, P.O. Pundibari, Dist-Cooch Behar, Pin-736165, West Bengal
4.	Er. Arindam Mandal	Assistant Professor	Mechanical Engineering	-DO-
5.	Himadri Shekhar Konar, PhD	Assistant Professor	Processing and Food Engineering	-DO-
6.	Om Prakash Chaturvedi, PhD	Assistant Professor	Farm Machinery and Power	-DO-
7.	Er. Kingshuk Roy	Assistant Professor	Farm Machinery and Power	-DO-
8.	Bratati Chowdhury, PhD	Assistant Professor	Soil and Water Conservation Engineering	-DO-
9.	Er. Ritam Sarkar	Assistant Professor	Computer Science and Engineering	-DO-
10.	Ashutosh Dutta, PhD	Guest Lecturer	Engineering Chemistry	-DO-
11.	Mr. Subhrajyoti Roy	Guest Lecturer	English	-DO-
13.	Mr. Abhishek Paul	Guest Lecturer	Engineering Physics	-DO-
14.	Miss. Sudipta Dey	Guest Lecturer	Engineering Mathematics	-DO-

5.2 Publications

Key highlights of the faculty's publication achievements include:

- ✓ Research Papers/Articles: Published in peer-reviewed national and international journals of high impact.
- ✓ Book Chapters: Authored chapters in reputed books published by leading national and international publishers, contributing to specialized areas of agricultural research and technology.
- ✓ Conference Proceedings: Presented papers at various seminars, symposia, and conferences, fostering collaboration and knowledge exchange.

A detailed list of publications, including titles, authors, journal names, volumes, and years of publication, is given in Section 5.2.1; 5.2.2; 5.2.3 and 5.2.4

5.2.1 Research articles

Arindam Mandal, Sarkar S, Chakravarty A, Mukhopadhyay A **(2024).** Flame stabilization and formation of flame street in a H2/Air non-premixed micro-combustor with a bluff body. *International Journal of Hydrogen Energy***;** 58: 1149-1159. https://doi.org/10.1016/j.ijhydene.2024.01.333

Bisht DS, **Bratati Chowdhury**; Rawat SS, Pottakkal JG **(2024).** Performance Ranking of Global Precipitation Estimates over Data Scarce Western Himalayan Region of India. *Theoretical and Applied Climatology*, 155 (8), 7515–7537. https://doi.org/10.1007/s00704-024-05069-4

Maity P, Roy D, **Bratati Chowdhury**, Chakraborty B, Anand N, Roy B, Choudhury A, Biswas N., Karmakar K. **(2024),** Biopriming with EPS-producing bacteria of sub-Himalayan-soil origin recovers the cold-induced vigor loss in seedlings. *Indian Journal of Microbiology*, https://doi.org/10.1007/s12088-024-01342-2.

Ritam Sarkar, Saha PK, Mondal S, Mondal A. **(2024).** MAGE: Microgrids with advanced grid efficiency through battery-aware EV management. *Sustainable Cities and Society*, 107, 105399. https://doi.org/10.1016/j.scs.2024.105399

Ashis Kumar Das, Kumar, P. & Halder, S. Investigation of Fatigue and Drowsiness of Welders and Goldsmiths Based on Entropies and Complexity Parameters of EOGs: A Statistical Approach. J. Inst. Eng. India Ser. B 106, 539–556 **(2025).** https://doi.org/10.1007/s40031-024-01107-x

Arindam Mandal, Dhua S, Mondal K, **Om Prakash Chaturvedi**, **Himadri Sekhar Konar** **(2025).** A Preliminary Study for Design and Fabrication of a Mechanized Paneer-Press for Small-Scale Enterprises. Journal of Agriculture and Technology. 12.1:105-111.

Baidya S, Biswas N, **Bratati Chowdhury**, Chakraborty B, Kumar D, Karmakar K. Bacterial inoculation prevents cold-induced electrolyte leakage from tomato seeds and reduces the thermal fluctuations in the rhizosphere. **(2025).** J Sci Food Agric 105:3133–3138. https://doi.org/10.1002/ jsfa.14153

Bagui P, Pal P, Biswas N, **Bratati Chowdhury**, Chakraborty B, Dey P, Karmakar K **(2025).** Priestia and Phytobacter sp. prevent membrane damage and electrolyte leakage from Capsicum annuum L. seeds subjected to sub-optimal temperature stress. FEMS Microbiol Lett 372:fnaf033. https://doi.org/10.1093/femsle/fnaf033

Karmakar, K., Roy, D., Pal, S. **Bratati Chowdhury,** Choudhury A. EPS-Producing Bacteria Promote Aggregation in Soil Preventing the Leaching Loss of Nutrient. *Curr Microbiol,* **82**, 307 **(2025)**. https://doi.org/10.1007/s00284-025-04295-x

Manjesh, GN, Rajkumar AD, Lakshmana VG, Adiga JD, Shamsudheen M, **Bratati Chowdhury**, Manjunathagowda DC, Narayanashetty LA. Elucidation of phenolic metabolites combined with OPLS-DA in pseudocarps and leaves of cashew (Anacardium occidentale L) cultivars using LC-MS/MS. *Journal of Food Composition and Analysis* 148 (**2025**) 108105. DOI: 10.1016/j.jfca.2025.108105

Om Prakash Chaturvedi, Arindam Mandal, Raj S, **Himadri Sekhar Konar, Ashis Kumar Das (2025).** Design and Development of Low-Cost Solar and Hydrogen Energy-Based Insect Killer for Subtropical Climate of North Bengal. Journal of Agriculture and Technology. 12.1:64-70.

Om Prakash Chaturvedi, Dhar T, Chakraborty S, Chowdhury M. Development and Evaluation of a Medium Scale Low-Cost Maize Sheller. Journal of Agriculture and Technology (2025). 12.1:71-78.

5.2.2 Conference paper

Arindam Mandal, Sarkar S, Mukhopadhyay A (2024). Combustion Behaviour Investigation in Co-flow and Cross-flow Hydrogen-Air Microcombustors: A comparative study". 2nd International Conference on Mechanical Engineering, INCOM2024. 05-06 January. Organized by Jadavpur University.

Das A, Chatterjee R, **Bratati Chowdhury** and Biswas N **(2024).** Advancement in grafting: Exploring molecular interactions and epigenetic mechanisms for enhanced crop resilience. 7th International Symposium on Minor Fruits, Medicinal & Aromatic Plants. *organized by* Department of Horticulture & Postharvest Technology Institute of Agriculture (Palli Siksha Bhavana), Visva-Bharati Sriniketan, West Bengal, India on November, 22-23, page no 14.

Biswas N, Chatterjee N, Das A, and **Bratati Chowdhury (2024).** Status, scope and limitations of using Turkey berry (*Solanum torvum*) as rootstock for grafted brinjal (*Solanum melongena* L.) production. 7th International Symposium on Minor Fruits, Medicinal & Aromatic Plants *organized by* Department of Horticulture & Postharvest Technology Institute of

Agriculture (Palli Siksha Bhavana), Visva-Bharati Sriniketan, West Bengal, India on November, 22-23, page no 15.

5.2.3 Book Chapters

Arindam Mandal, Sarkar S, Mukhopadhyay A **(2025).** Investigation of Combustion Behaviour in Co- flow and Cross-flow Hydrogen-Air Microcombustors: A comparative study. Advances in Thermo-Fluid Engineering. Lecture notes in Mechanical Engineering; Springer, Singapore 217-230. (https://doi.org/10.1007/978-981-97-7296-4_15)

Mondal S, Sarkar S, **Bratati Chowdhury**, Sarkar T, Debnath D. **(2025)**. Women Empowerment and their Legal Rights in India Empowerment Rising: A Global Movement for Women, *Published by:* ISBN: 978-93-5899-903-7(First Edition).

5.2.4 Published Monograph / booklet / leaflet / bulletin etc.

Table 5.2 Published Booklet/Leaflet/Bulletin

Sl. No.	Author(s)	Name of the publication	Total page no.	Sponsored by
1.	Chatterjee R, Das A, **Bratati Chowdhury** and Biswas N	Grafted seedling production method of Tomato and Brinjal (টমেটো এবং বেগুনের গ্রাফটিং বা কলমের ছাড়া তৈরির পদ্ধতি)	4	ICAR SC-SP Project
2.	Chatterjee R, Das A, **Bratati Chowdhury** and Biswas N	Improved cultivation methods for grafting or grafting seedlings of brinjal and tomato (বেগুন এবং টমেটোর গ্রাফটিং বা কলমের চারার উন্নত চাষ পদ্ধতি)	4	ICAR SC-SP Project
3.	Chatterjee R, Das A, **Bratati Chowdhury**, Biswas N, Khalko S, and Sarkar P	The overall production, quality of brinjal and tomato increases by using twin-stem seedlings and also prevents bacterial wilt and rootworm attacks (**বেগুন ও টমেটো চাষে জোড়কলমের চারা**(Grafted Seedling) **ব্যবহারের মাধ্যমে ফসলের উৎপাদন, গুণগত মান বৃদ্ধি এবং ব্যাকটেরিয়াজনিত ধসা রোগ ও শেকড়ের কৃমির আক্রমনের প্রতিরোধ**)	25	ICAR SC-SP Project

5.3 Act as Reviewer of Journals

The faculty members actively contribute to the academic and research community by serving as reviewers for reputed national and international journals. Their role as reviewers reflects their expertise, recognition, and credibility in the field of agricultural engineering, food technology, irrigation systems, and allied disciplines.

By critically evaluating manuscripts, providing constructive feedback, and ensuring the quality and integrity of scholarly publications, the faculty members help maintain high academic standards and promote research excellence. Their involvement as reviewers also enhances the visibility and reputation of the university in the global research community.

A detailed list of faculty members who have served as reviewers, along with the names of the journals, are presented in Table 5.3.

Table 5.3: Reviewer of Journals

Name of Faculty	Name of Journal	Name of Publisher
Subinay Saha Roy, PhD	Geotechnical and Geological Engineering	Springer Nature
	Advances in Civil Engineering	Hindawi Limited.
	International Journal of Geomechanics (04 Nos.)	American Society of Civil Engineers (ASCE)
	Indian Geotechnical Journal (Two Nos.)	Springer Nature
Bratati Chowdhury, PhD	International Journal of Climatology	John Wiley & Sons, Ltd.
	Pure and Applied Geophysics	Springer Nature
Ashis Kumar Das, PhD	Scientific Reports (April)	Nature
	Applied Psychophysiology and Biofeedback (February)	Springer Nature
	BMC Public Health (February)	Springer Nature
Himadri Shekhar Konar, PhD	Journal of Agriculture and Technology (JAT), March	Regional Journal, West Bengal

5.4 Organizing Seminar/Symposium/Conference/Workshop/Training/Internship

The Faculty of Technology is committed to providing students and faculty with opportunities for knowledge enhancement, skill development, and professional growth. During the academic year 2024–2025, the faculty members actively organized various seminars, symposia, conferences, workshops, training programs, and internship initiatives aimed at fostering academic excellence and industry exposure.

These events served as platforms for knowledge exchange between researchers, academicians, industry experts, and students. They not only enriched the learning environment but also encouraged innovation, collaboration, and capacity building.

Key highlights include:

- ✓ Seminars & Symposia: Organized interactive sessions on emerging trends and technologies in agricultural engineering and allied fields.
- ✓ Workshops: Conducted hands-on training sessions to enhance practical knowledge and technical skills of students.
- ✓ Training Programs: Designed short-term training modules to bridge the gap between academic learning and industry requirements.
- ✓ Internship Opportunities: Coordinated internship programs with leading research institutes, industries, and organizations to provide students with real-world exposure and industry readiness.

A comprehensive list of the seminars, symposia, workshops, training programs, and internships organized during the academic session is provided in Table 5.4.

Table 5.4: Organized Seminar/Symposium/Conference/Workshop/Training/Internship

Name of Faculty	Name of the event	Organized/ Sponsored by	Venue	Duration & Date	Responsibility
Om Prakash Chaturvedi, PhD	Internship Program on Agricultural Engineering	UBKV	Faculty of Technology, UBKV	One Month 29th September to 26th October, 2024	Act as a Coordinator
	Operation and Maintenance of Combine Harvester	UBKV	Faculty of Technology, UBKV	One Week 17-22nd February, 2025	Act as a Coordinator
Bratati Chowdhury, PhD	Study Tour Program	UBKV	Bhubaneswar, Odisha	Six days 11-16th April, 2024	Act as a Guide
	Farmers' training cum Human Resource Development Program ICAR SC-SP	ICAR	Setai, Coochbehar	Two Days 08-09th September 2024	

	Farmers' training cum Human Resource Development Program ICAR SC-SP	ICAR	Setai, Coochbehar	Two Days 15-16th November, 2024	Act as Co-PI and organizer
	Farmers' training cum Human Resource Development Program ICAR SC-SP	ICAR	UBKV, Pundibari Coochbehar	Two Days 24-28th February, 2025	
	Farmers' training cum Human Resource Development Program ICAR SC-SP	ICAR	Uttaran Ground, UBKV, Pundibari Coochbehar	One Day 12th March, 2025	

5.5 Act as Resource person in Training/Meeting/Workshop/Interaction

The faculty members of the Faculty of Technology, have actively contributed to the wider academic and research community by serving as resource persons in various trainings, workshops, meetings, interactive sessions, and lecture programs organized by reputed external institutes and organizations.

A detailed list of faculty members serving as resource persons, along with the event details, is provided in Table 5.5.

Table 5.5: The list of resource persons along with program details

Name of Faculty	Name of the event and organizer	Title of the Training Program	Venue	Date
Himadri Shekhar Konar, PhD	Faculty of Horticulture, UBKV in collaboration with PRADAN	Optimizing Freshness: Strategies for Processing Perishable Horticultural Crops" Topic: Food Laws and Regulations	UBKV	One Day 20th June 2024
	Department of Agricultural Engineering, Palli Siksha Bhavana, Visva-Bharati	Farmers' Training Programme on "Paddy and Groundnut Machinery"	Department of Agricultural Engineering, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, West Bengal	Two days, 17th-18th December, 2024.

	Department of Agricultural Engineering, Palli Siksha Bhavana, Visva-Bharati	National Seminar cum Farmers' Training Programme on "Role of Traditional Indian Knowledge System (IKS) for Sustainable Mechanization in Rice and Groundnut Crop"	Department of Agricultural Engineering, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, West Bengal	Two days, 20-21st February, 2025.
Er. Kingshuk Roy	Govt. of West Bengal	Handling of farm machinery and its maintenance including micro-irrigation	ATC, Cooch Behar	One Day 24th July, 2024
	Govt. of West Bengal	Maintenance and repairing of different farm machinery	ATC, Cooch Behar	One Day 9th December, 2024
	KVK, Jalpaiguri	Hands-on-training programme for input dealers under DAESI course	FMWTTC	One Day 12th December, 2024
Bratati Chowdhury, PhD	Farmers' Training Program Under ICAR- SC SP Project	Grafting technology of Tomato and Brinjal	Setai, Coochbehar	Two days, 08-09th September 2024
	Farmers' Training Program Under ICAR- SC SP Project	Cultivation of grafted seedling for yield and disease pest tolerance	Setai, Coochbehar	Two days, 15-16th November, 2024
	Student Internship Program and F/Tech, UBKV	Practical and Observation related Micro Irrigation, Hydrology and Soil & Water Conservation Engineering	F/Tech, UBKV	Three Days 29th November & 2-3rd December, 2024
	Winter School: Impact of Climate Change on Agriculture and Allied Sector, organized by UBKV	Trends, Identification, attribution and uncertainty of projected heatwaves in India	Main Campus, UBKV	One Day 24th January, 2025
	Farmers' Training Program Under ICAR- SC SP Project	Evaluation of performance of Grafted tomato and brinjal in Coochbehar district	UBKV, Pundibari Coochbehar	Two Days 24-28th February, 2025
	Farmers' Training Program Under ICAR- SC SP Project	On-field grafting of Tomato and Brinjal and their management	Uttaran Ground, UBKV, Pundibari Coochbehar	One day, 12th March, 2025

5.6 Deliberation of lecture at external Institute /Program

During the academic year 2024–2025, faculty members were invited to deliver expert lectures, conduct technical sessions, and participate in interactive knowledge-sharing programs at both national and regional levels. Their involvement as resource persons reflects their expertise, leadership, and professional recognition in the fields of agricultural engineering. These contributions not only enhance the visibility and reputation of the university but also foster academic collaboration and industry-academia linkages.

A detailed list of faculty member serving as resource persons, along with the event details, host institutions, and lecture topics, is provided in Table 5.6.

Table 5.6: The details of faculty member serving as resource persons

Name of Faculty	Name of the Program	Title of the lecture delivered	Organizer	Date
Bratati Chowdhury, PhD	**Risk Analysis Modelling** for Multi-institutional joint **Master's program** namely MSc. (Agriculture Analytics)	Rainfall-runoff relationships, hydrometric & statistical analysis of hydrologic data	College of Agricultural Engineering and Technology, Anand Agricultural University, Gujarat in collaboration with Dhirubhai Ambani Institute of Information technology (DAIIT) Gandhinagar and Indian Institute of Remote Sensing (IIRS) Dehradun	12th Sept, 2024
		Hydrologic simulation modeling		12th Sept, 2024
		Development of an interface for trend analysis of hydro-meteorological data		13-14th Sept, 2024
		L-Moment based distribution fitting. Extreme events under climate change		19th Sept, 2024

5.7 Training/refreshers course attended by professor

The faculty members of the Faculty of Technology, continuously strive to upgrade their knowledge and skills to keep pace with the latest developments in agricultural engineering, and allied disciplines. During the academic year 2024–2025, several professors and faculty members attended various trainings, refresher courses, orientation programs, and faculty development programs organized by reputed national and international institutes.

These programs focused on:

- ✓ Emerging technologies in agricultural engineering and food processing
- ✓ Sustainable agricultural practices and environmental management
- ✓ Advancements in irrigation, farm mechanization, and renewable energy
- ✓ Pedagogical techniques and innovations in teaching-learning methods
- ✓ Research methodologies and data analytics for agricultural sciences

Participation in these programs enables faculty members to enhance their subject expertise, improve teaching and research competencies, and integrate modern techniques into classroom and field-based learning. The details of the trainings and refresher courses attended by professors, along with the event titles, organizing institutions, and duration, are provided in Table 5.7.

Table 5.7: The details of the trainings/ refresher courses attended by professors

Name of the Professor	Name of the Program	Venue	Duration	Funding Agency (ICAR/ Others)
Ashis Kumar Das, PhD	MOOC on Artificial Intelligence in Agriculture	Online	Twenty-eight days 1st Feb 25 to 28th Feb, 2025	Self-sponsored
Er Arindam Mandal	Winter School on "Impact of climate change on Agriculture and Allied Sector: Adaptation, Mitigation towards sustainability and livelihood Security"	UBKV	Twenty-one days 14th February to 6th March, 2025	Sponsored by ICAR
Himadri Sekhar Konar, PhD	UGC Sponsored short term course on: Application of GIS, Remote Sensing and Nanotechnology in Climate Change & Agriculture	Online (University of North Bengal)	Six days 12th March to March 20, 2025.	University Grants Commission
Om Prakash Chaturvedi, PhD	Winter School on "Impact of climate change on Agriculture and Allied Sector: Adaptation, Mitigation towards sustainability and livelihood Security"	UBKV	Twenty-one days 14th February to 6th March, 2025	Sponsored by ICAR
Er Kingshuk Roy	Guru Dakshta-Faculty Induction Programme	Online (Tezpur University)	One Month 11th Feb 2025 to 12th March2025.	University Grants Commission

Er. Ritam Sarkar	Training Program on My Bharat Portal	Malda College, West Bengal	One day 7th August, 2024	Ministry of Youth Affairs and Sports, GOI.

5.8 Workshop / Seminar / Conference / Symposia / Scientific meet etc. attended by the Professor

The faculty members actively participated in various workshops, seminars, conferences, symposia, and scientific meets during the academic year 2024–2025**.** Their participation reflects a strong commitment to academic excellence**,** continuous professional development**,** and knowledge exchange within the scientific community.

By attending these academic and scientific events, the professors not only enrich their knowledge base but also contribute to strengthening the research and academic ecosystem of the university.

A detailed list of workshops, seminars, conferences, symposia, and scientific meets attended by professors, along with the event titles, dates, and organizing institutions, is presented in Table 5.8**.**

Table 5.8: The detailed list of workshops, seminars, conferences, symposia, and scientific meets attended by professor

Name of Faculty	**Name of Topic**	**Venue**	**Duration**	**National/ International**	**Funding Agency (ICAR/ Others)**
Himadri Shekhar Konar, PhD	National Seminar cum Farmers' Training Programme on "Role of Traditional Indian Knowledge System (IKS) for Sustainable Mechanization in Rice and Groundnut Crop"	Visva Bharati, Santiniketan, West Bengal	Three Days, 20-23 February 2025	National	ICAR

5.9 Act as External Examiner/Paper Setter/Moderator/Evaluation of Answer Script

Faculty members were invited by reputed universities, academic institutions, and examination boards to act as: Paper Setters – for designing question papers for undergraduate and postgraduate examinations of other institutions.

These roles highlight the expertise, academic credibility, and professional recognition of the faculty members at national and regional levels. Such contributions also strengthen academic collaborations and enhance the reputation of the university.

A detailed list of faculty members, along with the nature of responsibilities, institutions served, and examination details, is provided in Table 5.9

Table 5.9: A detailed list of faculty members, along with the nature of responsibilities

Name of Teacher	Name of Course	Type of Work done	Type of External Institute
Ashis Kumar Das, PhD	Electrical Machine and Power Utilization, Applied Electronics and Instrumentation	End Term Paper Setter for **B. Tech**. in Agril. Engg.	A State Agricultural University, India
Bratati Chowdhury, PhD	Entrance Examination	**M. Tech** Entrance Paper	A State Agricultural University, India
	Groundwater, Wells and Pumps	End Term Paper Setter for **Btech** in Agril. Engg.	
	Design of Pumps for Irrigation and Drainage	End term Examination for **Mtech** in Agril. Engg.	

5.10 Member of Academic Societies

The faculty members are actively associated with various national and international academic societies, professional bodies, and research organizations. These memberships enable faculty members to stay updated with the latest developments, innovations, and research trends in their respective fields while also contributing to the growth of the broader academic community.

Through their association with these societies, faculty members:

- ✓ Collaborate with leading scientists, academicians, and professionals at the national and global levels.
- ✓ Access advanced knowledge, publications, and resources to support cutting-edge teaching and research.
- ✓ Participate in scientific discussions, policy frameworks, and knowledge-sharing platforms.

- ✓ Enhance the reputation of the university by representing it at prestigious academic forums.

The details of the faculty members, along with the academic societies they are associated with, are presented in Table 5.10.

Table 5.10 The details of the faculty members, along with the academic societies

Faculty	Association
Ashis Kumar Das, PhD	*Life Member, Institution of Engineers*. 8 Gokhale Road, West Bengal, Kolkata-700020
	Life Member, Indian Society for Technical Education (ISTE), New Delhi, India
	Life Member, Cooch Behar Association for Cultivation of Agricultural Sciences (COBACAS), Coochbehar, West Bengal.
	Life Member, International Association of Engineers (IAENG), Hong Kong, China.
Subinay Saha Roy, PhD	*Life Member*, *Indian Geotechnical Society*; 206, Manisha Building, 75-76, Nehru Place, New Delhi - 110 019, India
	Life Member, Institution of Engineers. 8 Gokhale Road, West Bengal, Kolkata-700020
Himadri Shekhar Konar, PhD	*Life Member, Indian Society of Agricultural Engineers,* G-4, National Societies Block (Ground floor), National Agricultural Science Centre Complex, Dev Prakash Shastri Marg, Pusa Campus, New Delhi -110012
	Life Member, Coochbehar Association for Cultivation of Agricultural Sciences (COBACAS), UBKV, Coochbehar, West Bengal-736101
Om Prakash Chaturvedi, PhD	*Life Member, Indian Society of Agricultural Engineers*, G-4, National Societies Block (Ground floor), National Agricultural Science Centre Complex, Dev Prakash Shastri Marg, Pusa Campus, New Delhi -110012
	Life Member, Coochbehar Association for Cultivation of Agricultural Sciences (COBACAS), UBKV, Coochbehar, West Bengal-736101
Bratati Chowdhury, PhD	*Life Member, Indian Society of Agricultural Engineers*, G-4, National Societies Block (Ground floor), National Agricultural Science Centre Complex, Dev Prakash Shastri Marg, Pusa Campus, New Delhi -110012
Er. Arindam Mandal	*Life Member, Coochbehar Association for Cultivation of Agricultural Sciences (COBACAS)*, UBKV, Coochbehar, West Bengal-736101

5.11 Member of the Advisory Committee (Faculty/Department)

The faculty members actively contribute their expertise and professional insights by serving as members of various advisory committees at national, regional, and university levels. Their

involvement reflects the academic credibility, leadership, and recognition of the faculty in shaping policies, research directions, and institutional strategies.

Through their participation, faculty members:

- ✓ Provide expert guidance in policy formulation, curriculum development, and academic planning.
- ✓ Contribute to research and innovation frameworks at various institutions and organizations.
- ✓ Strengthen collaborative linkages between the university, research institutes, and industry partners.
- ✓ Enhance the visibility and reputation of the university at broader academic and professional platforms.

A detailed list of faculty members, along with the names of the advisory committees and the respective faculty/department, is provided in Table 5.11.

Table 5.11: The detailed list of faculty members, along with the names of the advisory committees

Name of Faculty	Name of the student	Degree program	Department /Faculty	Title of thesis	Chairman / Member of Advisory Committee	Status
Himadri Shekhar Konar, PhD	Akash Biswas	PhD	Agricultural Economics, Faculty of Agriculture, UBKV	An economic study on milk-based value chain system in Terai district of West Bengal	Member	Pursuing
	Miss. Sweta Malakar	PhD	Pomology and Post Harvest Technology, Faculty of Horticulture, UBKV	Standardization of Low Glycemic Index Composite Flour for Preparation of Cookies	Member	Pursuing
	Miss. Sanasam Angousana	PhD	Pomology and Post Harvest Technology, Faculty of Horticulture, UBKV	Standardization of harvesting time and process optimization of post-harvest treatments and different drying conditions for optimization of quality and storability of paprika	Member	Pursuing

				(Capsicum annum L)		
Bratati Chowdhury, PhD	Upasana Nanda (A-2023-050-M)	MSc	Soil Science and Agricultural Chemistry, Faculty of Agriculture, UBKV	Seed vigor recovery by indigenous soil-dwelling bacteria to overcome cold stress in Spermosphere	Member	Completed
	Tumma Jahnavi (A-2023-032-M)	MSc	Seed Science and Technology, Faculty of Agriculture, UBKV	Studies on Seed yield potential and quality attributes of Indian Mustard under differential sowing dates in Tarai region, West Bengal	Member	completed

5.12 Members of different Committees / Additional Assignment / Additional responsibility

The faculty members of the Faculty of Technology have actively contributed to the smooth functioning and overall development of the university by serving as members of various statutory and non-statutory committees and undertaking additional assignments and responsibilities during the academic year 2024–2025.

Their involvement in these roles ensures effective administration, academic planning, quality enhancement, and institutional governance. These additional roles and contributions highlight the dedication, leadership, and commitment of the faculty towards achieving the vision and mission of the university. A detailed list of faculty members, along with the committees served and the nature of additional assignments and responsibilities, is presented in Table 5.12.

Table 5.12: The detailed list of faculty members, along with the committees served

Name of Teacher	Name of Committee / Assignment /Additional Responsibility	Position
Ashis Kumar Das, PhD	Member of different Academic, Administrative and Student-Centric Committees	Dean (Actg.), F/Tech., UBKV
Subinay Saha Roy, PhD	Intellectual Properties and Technology Management (IPTM) Cell (UBKV)	Member
Er. Arindam Mandal	Departmental Purchase Committee, F/Tech	Member
	Committee for preparation of academic calendar, class routine and student induction program	Convener

	Committee regarding internship training of the students of other College/ University/ Institutions.	Member
	Examination Committee, Faculty of Technology	Convener
Himadri Shekhar Konar, PhD	Library advisory committee	Member
	Training and Placement officer of F/ Tech	TPO
	Faculty Management Committee, F/Tech	Member
	Training and Placement Cell committee (UBKV)	Member
	Departmental Purchase Committee, F/Tech	Member
Om Prakash Chaturvedi, PhD	Experiential Learning Program on Engineering Technologies	Managing Director
	Departmental Purchase Committee (F.Tech)	Member
	Training and Placement Cell committee (UBKV)	Member
	Anti-Ragging Committee (UBKV)	Member
	Scrap Disposal Committee (UBKV)	Member
	Faculty Management Committee (F/Tech.)	Member
	Computer and Network Management Committee (UBKV)	Member
Er. Kingshuk Roy	Farm Machinery Testing and Training Centre, UBKV	In-charge
	APCR Hostel	Provost
	Scrap Disposal Committee	Member
	Faculty Management Committee	Member
	Preparation of Self Study Report for Faculty of Technology for accreditation by ICAR committee	Member
	Examination Committee, UBKV	Member
	Preparation and Publication of annual report committee	Member
	Faculty Level Training and Placement Cell committee	Coordinator
	Central Admission Committee (CAC), Uttar Banga Krishi Viswavidyalaya for UG admission for B.Sc. (Hons.) Agriculture, B.Sc. (Hons.) Horticulture and B.Tech. Agril. Engineering Courses	Member
	Distance education unit	Member
Bratati Chowdhury, PhD	National Agricultural Education Day Celebration	Organizing Committee Member
	Training and Placement Cell, Faculty of Technology, UBKV	Member
	Nodal Officer of Scholarship Portal for Faculty of Technology, UBKV	Member
	Departmental Purchase Committee for Faculty of Technology, UBKV	Member
	Distance Education Unit, UBKV	
	Annual report Preparation of the for Faculty of Technology, UBKV	Member
	Accreditation and compilation of Self Study Report for Faculty of Technology, UBKV	Member
	Anti-Ragging Squad, UBKV	Member
	Uttaran, Cultural Committee	Member
Er. Ritam Sarkar	Examination Committee for the Faculty of Technology	Member
	Central Admission Committee for WBJEE	Member
	Central Admission Committee for JELET	Member

	Day to day activity and extension of approval process of AICTE	Member
	National Service Scheme	Program officer for Faculty of Technology

5.13 Research project (Externally funded) handled:

Faculty name	Name of the project	Sponsored by	Year of commencement	Proposed year of completion	Total Amount (Rs.)	Capacity
Bratati Chowdhury, Phd	Studies on impact of long-term conservation agriculture practices on carbon sequestration in acid alluvial soils of West Bengal	Kosher Climate India Pvt. Ltd.	2023	2026 **(ongoing)**	Approx. 22 lakhs	Co-PI
	Empowering Scheduled Caste (SC) community farmers/rural youth of Coochbehar district, West Bengal through adoption of grafting technology in vegetable cultivation for employment generation and livelihood upliftment	ICAR SC-SP	2024	2027 **(ongoing)**	Approx. 21.00 lakhs	Co-PI

5.13 Other information (s)

Er. Ritam Sarkar had conducted the following events as an NSS Programming Officer (Member):

1. *Student Awareness Program:* To ensure that students are well-informed and equipped to navigate the digital world safely, a student Awareness Program on **"Internet/Digital Safety and Cyber Security Awareness"** was conducted on 26th September, 2024. The session aims to:
    - Educate students about safe practices while using the internet and social media.
    - Create awareness about potential cyber threats, data privacy, and responsible digital behavior.
    - Familiarize students with preventive measures against cybercrime and identity theft.
    - Promote ethical and secure use of digital resources.

    All students are encouraged to participate in this program to enhance their knowledge of digital safety and become responsible digital citizens.

2. *"Swachhata Hi Seva" Event*: As part of the nationwide cleanliness drive, our university was organized the **"Swachhata Hi Seva"** campaign from 17th September to 2nd October, 2024**.** This initiative aims to promote awareness about cleanliness, hygiene, and environmental sustainability among students, faculty, and staff. Key objectives are:
    - To encourage active participation in maintaining cleanliness within and around the campus.
    - To spread awareness about waste segregation, plastic-free environments, and eco-friendly practices.
    - To pay tribute to Mahatma Gandhi by reinforcing his vision of a clean and green India.

    All students, faculty members, and staff are invited to actively participate in this campaign and contribute towards a cleaner and healthier environment.
3. *Blood Donation camp*: A Blood Donation Camp is being organized on 18th March, 2025 to promote the spirit of humanity and social responsibility among students, faculty, and staff. This noble initiative provides an opportunity for everyone to contribute towards saving lives and supporting those in need. The objectives of the Camp:

    - To create awareness about the importance of voluntary blood donation.
    - To encourage students and staff to contribute towards the community's well-being.
    - To support blood banks and healthcare facilities in meeting emergency requirements.

    All students, faculty, and staff members are encouraged to participate actively and make this event a success. Your small contribution can make a big difference in someone's life.

6. PERSONNEL

6.0 Personnel

Table: Details of Non-teaching Staffs attached to the Faculty of Technology

Sl. No.	Name	Designation	Contact Address
1.	**Mr. Santanu Dasgupta**	PA	Faculty of Technology, UBKV, P.O. Pundibari, Dist-Cooch Behar, Pin-736165, West Bengal
2.	**Mr. Samik Das**	*Technical Assistant Gr.-I*	-Do -
3.	**Mr. Samar Sutradhar**	*Sr. Storekeeper*	-Do -
4.	**Mr. Jahar Kumar Rahut**	*Mechanic*	-Do -
5.	**Mr. Pradip Barman**	*Sr. Mechanic*	-Do -
6.	**Mr. Swarup Dutta**	*Jr. Fitter*	-Do -
7.	**Mr. Jibes Sarkar**	*Laboratory Attendant Gr.-II*	-Do -
8.	**Mr. Sujoy Tudu**	*Jr. Peon*	-Do -
9.	**Mr. Sunil Barman**	*Agril. Overseer Gr.-ll*	-Do -
10.	**Mr. Mostafa Alam**	*Sr. Power Tiller Cum Pump Operator*	-Do -
11.	**Mr. Sujit Anjoy**	*Tractor Driver Gr.-I*	-Do -
12.	**Md. Samsul Hoque**	*Tractor Driver Gr.-I*	-Do -
13.	**Mr. Jamaluddin Mia**	*Sr. Power Tiller Cum Pump Operator*	-Do -
14.	**Mr. Hannan Ali**	*Jr. Power Tiller Cum Pump Operator*	-Do -
15.	**Mr. Ratan Basunia**	*Jr. Power Tiller Cum Pump Operator*	-Do -

PHOTO GALLERY

In-plant Training Program on Soil and Water Conservation for Watershed Management Conducted at ICAR- Indian Institute of Soil and Water Conservation, Sunabeda, Koraput, Odisha.

Certificate Distribution of In-plant training program held at Northern Region Farm Machinery Training and Testing Institute, Hisar, New Delhi.

Soumyadip Das, a B.Tech. Student in Agricultural Engineering, receiving the award for securing 2nd place in the Essay Competition held on 5th June 2024 at UBKV.

Empowering the Schedule Caste Community of Cooch Behar District, West Bengal, through Adaptation of Grafting Technology in Vegetable Cultivation for Employment Generation and Livelihood Upliftment Under the Scheduled Caste Sub Plan- 2024-25.

Students visited Ghani Khan Chaudhury Institute of Engineering and Technology as part of the Student READY Program.

Production of Mushroom pickle at UBKV Under the Student Ready Program.

Production of bakery products at Dairy and Food Engineering Lab, F/Tech, UBKV

Production of bakery products at Mitra Bakery, Cooch Behar.

Teachers' Day celebration, 2024 at F./Tech. UBKV.

Certificate Distribution of Student Internship Program at F./Tech., UBKV.

Educational tour for the final year students to Tocklai Tea Research Centre, Assam.

Training program on Operation and Maintenance of Combine Harvester at FMWTTC, F./Tech., UBKV.

Testing of sensor-based torque and speed analysis of tractor at FMWTTC, F./Tech., UBKV

Farmers' Training Program under SMAM at FMWTTC, F./Tech., UBKV

The image showcases, from left to right, the Carrom Doubles and Singles winners, Arpan Kumar Karjee and Subrajyoti Das, B.Tech Agricultural Engineering students.

Team named "RESISTANCE" representing B. Tech Agricultural Engineering in the UBKV Premier League.

Team PANTHER, securing the championship title at the TPL 2025 tournament.

Swachhata Hi Seva 2024 was organized by the UBKV NSS Cell from 17th September to 2nd October, 2024.

Awareness session on "Internet/Digital Safety and Cyber Security" for students conducted on 26th September, 2024.