



**INDIAN INSTITUTE OF INFORMATION
TECHNOLOGY, GUWAHATI**



ANNUAL REPORT

2023-24



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Director's Message

Year 2023-24 has been the second academic year in post-covid phase. The Institute opened with physical classes as early as in March 2022 and as the JEE exams also started getting regularized from 2023 onwards after previous year's delays due to the Covid-19; Admission to the B.Tech programme was held considerably earlier and the classes could commence from 28 August, 2023. Never the less, we are delighted to be back on track to restore academic normalcy with 75% attendance mandatory for students. Counselling services have been strengthened, and we are actively monitoring the academic progress of students more closely. For the incoming batch, we decided to spread even the induction programme across the semester instead of just having it in the beginning of the semester. The induction thus continues along with the classes - first half of the day spent attending classes while the second half comprises of induction activities.

The Institute completed 10 years last year. It will be a time of stock taking and of planning for the road ahead. As the PPP model is a new scheme for central govt. technical institutes, there is an urgent need to assess the success of this model. At this point I only wish to re-iterate the challenges ahead, most of which are based on funding, or the lack of it. Fortunately, we received a grant of Rs.10 Cr. from the Assam Govt. in March-2023 and we could complete essential infrastructure like a Student Activity Centre, extension of the hostels and a community centre (town hall) in this year. I wish to record our sincere thanks to the Govt. of Assam for the kind support, and we hope we will receive more of its kind in coming years too.

At this point, we need to focus on Institute's overall excellence for a sustainable growth. Looking back at our NIRF ranking statistics, the very first year our institute became eligible, that is in 2021, everyone was surprised, including us, when we got a rank of 67 in the Engineering discipline. The next year the rank was 72, and in 2022 it became 112. This year, the Institute is ranked in the 151-200 block (NIRF is not giving individual ranks after the first 100 this year). So, have we performed so badly in such a short time? When we analysed the marks of 2022 and of 2023 (marks have not been given this year as we are ranked in a band), we found that most of the slippages are fund related. Our student to faculty ratio has slipped as we were unable to hire more faculty, even as we increased student strength to increase our income. We had practically no capital expenditure in previous years, while in 2020 funds from TEQIP helped us. Our sanctioned seats in the M.Tech programme were only half filled, as due to lack of adequate applications from category students. We had to increase the sanctioned strength, as we needed a minimum number of students to make the programmes viable. We were unable to give fees concessions to economically and socially challenged students and this has also affected the ranking negatively. With our sustained efforts we will be able to improve these parameters. However, we will have to get finances, right? With a sufficient number of students, we will be able to generate a surplus every year. In the short term we need to find funds for capital expenditure. We need to build more hostel seats as the student strength has to increase to 1200 at least as per original plans. There is a need to build more space for academic activities, and to set up an incubation centre, so as to be able to increase the student strength. As we move ahead, I am confident that our efforts will be well appreciated by all concerned and the Institute will come up as a centre of excellence in the field of IT for the entire South Asian region.

Board of Governors

The members of the Board of Governors(BOG) during the year and the report are as below:

- Mr. S. Ramadorai, Chairman(Ex-CMD TCS) till 24th August 2023.
- Mr. Satyabrata Dey, Chairman (MD Sreeleathers Ltd.) from 25th August 2023.
- Prof. Rajat Gupta, Member (Director NIT Silchar) till 5th February 2024.
- Prof. Ramesh Chandra Deka, Member (VC Cotton University) till 5th February 2024.
- Prof. Parameswar K. Iyer, Member (Officiating Director, IIT Guwahati) till 5th February 2024.
- Mr. Prasanta Borkakoty, Member (RCE-Oil India Ltd.) till 5th February 2024.
- Mr. Subroto Ghosh, Member(Nominee-SREI) till 5th February 2024.
- Principal Secretary , Member (Dept. of Education, Govt. of Assam) till 5th February 2024.
- Ms. Saumya Gupta, Member (Joint Secretary MOE, Govt. of India) till 5th February 2024.
- Prof. T. Punniyamurthy, Member (Dean Faculty Affairs, IIT Guwahati) till 5th February 2024.
- Prof. K.V. Krishna, Member (Dean Academic Affairs, IIT Guwahati) till 5th February 2024.
- Central Govt. nominee- Bureau Head dealing with IIITs in the Dept. of Higher Education, Ministry of Education from 6th February, 2024.
- Mr. Dhruvajyoti Borah, (State Govt. nominee- Director of Technical Education, Assam) from 6th February, 2024.
- Mr. Pankaj Kumar Goswami, (Director, Operation, M/s. Oil India Ltd.) from 6th February, 2024.
- Dr. Indrajit Bhattacharya, (Principal Scientist- TCS) from 6th February, 2024.
- Prof. Ashis Mukherjee, (Director IASST Guwahati) from 22nd March 2024.
- Ms. Shakuntala Gamlin, IAS (Retd) from 22nd March 2024.
- Prof. P.J. Narayanan, (Ex-Director, IIIT Hyderabad) from 22nd March 2024.
- Prof. Ranjan Bose, (Director, IIIT Delhi) from 22nd March 2024.
- Prof. Devendra Jalihal, (Director, IIT Guwahati) from 22nd March 2024.
- Prof. Ferdous Ahmed Barbhuyia, (Professor CSE, IIIT Guwahati) from 6th February, 2024.
- Dr. Bidisha Dasgupta, (Associate Professor ECE, IIIT Guwahati) from 6th February, 2024.
- Prof. Gautam Barua, (Director, IIIT Guwahati) till 14th April 2024.
- Prof. Sarat Kr. Patra, (Director, IIIT Guwahati) from 15th April 2024.
- Mr. Uttam Chandra Das, Registrar of the Institute is the Secretary of the Board.

The Board of Governors(BOG)meetings were held on 15th June 2023 (39th BOG), 4th October 2023 (40th BOG), 27th December 2023 (41st BOG), 22nd March 2024 (42nd BOG) and 27th June 2024(43rd BOG) in the Academic Year 2023-24.

Building and Works Committee(BWC)

The members of the Building Works Committee (BWC) during the year under report are as follows;

1. Prof. Gautam Barua, Director, IIIT Guwahati – Chiarman
2. Principal Secretary, Department of Higher Education, Govt. of Assam or his nominee-Member
3. Prof. Arvind Singh, Deptt. of Civil Engg., IIT Guwahati, (Nominee of Ministry of Education, GOI) - Member,
4. Prof Anjan Dutta, Professor-Civil Engg. & Former Dean, IIT Guwahati-Member
5. Mr. Kaushik Basu, AGM, TCS-Member
6. Mr. G.C. Das, former SE, PWD(Bldg), Assam-Member
7. Dr. Ferdous A. Barbhuiya, Professor & Dean(Administration), IIIT Guwahati-Member
8. Mr. Nirupam Roy, Addl. SE & HOS (Engineering-Construction) IIT Guwahati, Special Invitee
9. Dr. Pallav Baruah, Estate Officer IIIT Guwahati (Secretary)

Building Works Committee (BWC) meetings were held 3 times during the year under report. (23^d BWC on 25th July-2023, 24th BWC on 7th Dec 2023 and 25th BWC on 14th Feb-2024)

Senate

The members of the Senate during the year under report are as below:

1. Prof. Gautam Barua (Chairman, Director IIIT Guwahati) till 14th April 2024.
2. Prof. Sarat Kr. Patra, (Chairman, Director IIIT Guwahati) from 15th April 2024.
3. Prof. Pranab Jyoti Das (External member, till 29th November 2023)
4. Prof. Dhruba Kr. Bhattacharyya (External member, till 29th November 2023)
5. Prof. Samarendra Dandapat (External member, till 29th November 2023)
6. Prof. Prabin Kr. Bora (External member from 22nd March 2023)
7. Prof. Pradip K. Das (External member from 22nd March 2023)
8. Prof. Ganesh Chandra Wary (External member from 22nd March 2023)
9. All Deans/Associate Deans & HoDs of the Institute.
10. All faculty in the posts of Assistant Professor and above are special invitees to the Senate till the Institute has a reasonable number of Professors.
11. Mr. U. C. Das (Registrar & Non-member Secretary to the Senate)

The Senate meetings were held 3 times during the year under the report. The 27th Senate Meeting was held on 12th June, 2023 and the 28th Senate Meeting was held on 29th November, 2023, and the 29th Senate was held on 30th May 2024.

Finance Committee

The members of the Finance Committee during the year under report are as below:

- Mr. S. Ramadorai, Chairman(Ex-CMD TCS) till 24th August 2023.
- Mr. Satyabrata Dey, Chairman (MD Sreeleathers Ltd.) from 25th August 2023.
- Mr. Subrata Ghosh, Member (SREI)
- Prof. Gautam Barua, (Director IIIT Guwahati) till 14th April 2024.
- Prof. Sarat Kr. Patra, (Director, IIIT Guwahati) from 15th April 2024.
- Mr. Uttam Ch. Das, Registrar and Secretary Finance Committee
- Mr. Mriganka Dutta Saikia, Deputy Registrar, Finance & Accounts, Invitee
- Mr. A. Ray Choudhury (Chartered Accountants), Institute Internal Auditor, Invitee

The Finance Committee meetings were held 4 times during the year under report (13th FC on 15th June 2023, 14th FC on 4th October 2023, 15th FC on 22nd March 2024 and 16th FC on 27th June 2024.

Academics

Fifth Convocation of IIIT Guwahati

The fifth convocation of the Institute was held on 23rd June, 2023 at the Dr. Bhupen Hazarika Auditorium, IIT Guwahati. Degrees were awarded to students who graduated in 2023.

Prof. V Ramgopal Rao, VC (BITS Pilani) & former Director IIT Delhi was the Chief Guest.

Degrees were awarded to the following number of students:

Year	B. Tech	M.Tech	PhD	Total Graduating Students
2023	203	47	6	256

Award of Medals to Graduating Students

The following students were awarded the President's Medal and Chairman's Medal.

	Year	Name	Roll No.	Department	CPI
President's Medal:	2023	Aman Jain	1901018	CSE	9.46
Chairman's Medal:	2023	Aashish	1901001	ECE	9.01

Sixth Convocation of IIIT Guwahati

The sixth convocation of the Institute was held on 28th June, 2024 at the Dr. Bhupen Hazarika Auditorium, IIT Guwahati. Degrees were awarded to students who graduated in 2024.

Hon'ble Governor of Assam Shri Gulab Chand Kataria was the Chief Guest. Prof. Partha Pratim Chakrabarti, former Director of IIT Kharagpur was the Guest of Honour.

Degrees were awarded to the following number of students:

Year	B. Tech	M.Tech	PhD	Total Graduating Students
2024	177	41	9	227

Award of Medals to Graduating Students

The following students were awarded the President's Medal and Chairman's Medal.

	Year	Name	Roll No.	Department	CPI
President's Medal:	2024	Talika Gupta	200119 7	CSE	9.88
Chairman's Medal:	2024	Abhijeet Kumar Singh	200101 0	ECE	9.08

Academic Programmes:

B.Tech Programme-

Students are admitted through the Joint Entrance Examination (JEE) conducted by NTA for Centrally Funded Technical Institutes. Reservations of seats are as per the Central Educational Institutions (Reservation in Admission) Act, 2006. B. Tech programmes in CSE and ECE were started in 2013. The sanctioned strength in 2023 was 254 (CSE: 165, ECE: 89). Twenty percent of these seats were added as super-numeracy seats for girl students and 3% reservations for EWS was incorporated, without reducing the number of general category seats, resulting in an intake of 251. The actual number of students who remained after initial drop-outs was 247 (CSE- 163, ECE- 84).

M.Tech-

Programmes in CSE and ECE which were started in 2018 had an intake of 60 (CSE 35, ECE 25). An online mode was introduced in the M. Tech programme in CSE from 2020. Further, an online mode with the existing Specialization 'Communication and Signal Processing' and a new specialization 'VLSI and Embedded System' were introduced in ECE from 2021.

The actual number of students who joined in the year 2023-24 is 43 [CSE (on-campus) – 10], CSE (online) – 15, ECE-CSP (on-campus) – 4, ECE-CSP (online) – 4, ECE-VLSI - 10].

PhD Programme

The following numbers of students were admitted to the PhD programme in 2023-24.

Department	Full-time	Part-time	Total
CSE	9	4	13
ECE	8	3	11
Science and Mathematics	2	0	2
HSS	4	0	0

Five students – 2 in CSE, 2 in ECE and 1 in S&M, have completed their PhD programmes in 2023-24 and provisional certificates were issued to them.

Student Profile

At the end of June 2024, there were 1112 students in the Institute with the following profile:

	Male	Female	General	OBC	SC	ST	EWS	Total
B.Tech CSE 2020	116	21	69	37	18	13	0	137
B.Tech ECE 2020	41	6	16	20	9	2	0	47
B.Tech CSE 2021	135	26	80	48	22	11	0	161
B.Tech ECE 2021	54	7	25	25	8	3	0	61
B.Tech CSE 2022	141	26	77	51	23	11	5	167
B.Tech ECE 2022	61	7	24	24	12	6	2	68
B.Tech CSE 2023	143	27	74	55	25	11	5	170
B.Tech ECE 2023	63	13	29	28	11	6	2	76
B.Tech Total	754	133	394	288	128	63	14	887
M.Tech CSE 2022 (online)	21	0	17	3	1	0	0	21
M.Tech CSE 2022 (on-campus)	8	3	7	1	1	1	1	11
M.Tech ECE CSP 2022 (online)	7	2	6	0	3	0	0	9
M.Tech ECE CSP 2022 (on-campus)	0	4	2	1	1	0	0	4
M.Tech ECE VLSI 2022	5	2	6	1	0	0	0	7
M.Tech CSE 2023 (online)	13	2	12	3	0	0	0	15
M.Tech CSE 2023 (on-campus)	6	4	7	1	2	0	0	10
M.Tech ECE CSP 2023 (online)	3	1	3	1	0	0	0	4
M.Tech ECE CSP 2023 (on-campus)	2	2	2	1	1	0	0	4



M.Tech ECE VLSI 2023	9	1	6	1	2	1	0	10
M.Tech Total	74	21	68	13	11	2	1	95
PhD CSE (Regular)	17	15	22	6	2	2	0	32
PhD CSE (Part-time)	19	7	20	1	4	1	0	26
PhD ECE (Regular)	18	12	22	5	2	1	0	30
PhD ECE (Part-time)	10	3	11	1	0	1	0	13
PhD HSS (Regular)	4	12	12	2	0	2	0	16
PhD HSS (Part-time)	1	2	3	0	0	0	0	3
PhD Maths (Regular)	4	5	5	3	0	1	0	9
PhD Maths (Part-time)	1	0	1	0	0	0	0	1
PhD (regular)	43	44	61	16	4	6	0	78
PhD (Part-time)	31	12	35	2	4	2	0	44
PhD Total	74	56	96	18	8	8	0	130
Total	902	210	558	319	147	73	15	1112

Faculty and Staff

The faculty profile at the end of June 2024 is as below:

	Male	Female	Gen	OBC	SC	ST	Total
Professor CSE	1	0	1	0	0	0	1
Associate Prof. CSE	2	1	2	0	1	0	3
Asst. Prof CSE	13	3	12	4	0	0	17
Associate Prof ECE	3	2	4	0	1	0	5
Asst. Prof. ECE	10	2	10	1	1	0	12
Associate Prof. Maths	0	0	0	0	0	0	0
Asst. Prof. Maths	3	2	2	3	0	0	5
Associate Prof. HSS	1	1	2	0	0	0	2
Asst. Prof. HSS	3	3	4	1	1	0	6
Total							51

The staff profile at the end of June 2024 is as below:

Item	Male	Female	Gen	OBC	SC	ST	Total
Registrar	1	0	1	0	0	0	1
Deputy Registrar	1	0	1	0	0	0	1
Superintending Engineer	1	0	1	0	0	0	1
Senior Superintendent	4	1	3	1	0	1	5
Senior Accounts Officer	1	0	1	0	0	0	1
Senior Technical Superintendent	6	0	1	3	2	0	6
Library Information Officer	1	1	0	1	0	1	2
Junior Assistant	8	2	6	2	1	1	10
Total	24	4	15	7	3	3	27

Research and Development

Sponsored Research Projects

An important source of funding for research is sponsored research funding. A number of projects were obtained in the last one year. The details are as follows:

New Sponsored Projects received during the year 2023-24 (1st April 2023 to 30th June 2024)

Sl. No.	Project Title	PI Name/ Co-PI	Amount Received(₹)	Funding Agency	Project Start Date
01	Healthcare Empowerment through Real-Time Insurance Assesment	Dr. Sanjay Moulik	13,90,000.00	IIT BHILAI INNOVATION AND TECHNOLOGY FOUNDATION (IBITF)	01.12.2023
02	Development of a formal framework to enhance IoT software security via formal verification and customization	Dr. Angshuman Jana/ Dr. Rakesh Matam (Co-PI)	7,22,800.00	SERB	07.02.2024
03	Financial Empowerment in Meghalaya: AI-Powered Multilingual E-Marketplace for Tribes	Dr. Kaustuv Nag	5,00,000.00	IIT BHILAI INNOVATION AND TECHNOLOGY FOUNDATION (IBITF)	31.01.2024
04	Empowering North-Eastern Artisans and Farmers: A Block chain powered market place.	Dr. Phrangboklang Lyngton Thangkiew Prof. Ferdous Ahmed Barbuiya (Co-PI)	18,16,000.00	IIT BHILAI INNOVATION AND TECHNOLOGY FOUNDATION (IBITF)	01.12.2023
05	Medication Management System	Dr. Shovan Barma	1180000.00	TIH IIT INDORE	07.02.2024
06	AI/ML-based Reconfigurable Intelligent	Dr. Sudip Biswas	1624834.00	SERB	16.09.2023

	Surface Assisted IoT Networks				
07	Design, Development, Testing and Automation of LPG, PNG, and CNG Operated Refractory Burners for Cooking and Industrial Applications	Dr. Sudip Biswas	1555000.00	SERB	8.11.2023
08	Leveraging AI/ML for Customized Credit Assesment of the Boro Tribe in the Boroland Territorial Region	Dr. Sudip Biswas	825000.00	IIT BHILAI INNOVATION AND TECHNOLOGY FOUNDATION (IBITF)	12.01.2024
09	Smart and Secure Spectrum Sharing for 6G Wireless Networks	Dr. Sudip Biswas/ Dr. Kaustuv Nag (Co-PI)	1130866.00	SERB	07.02.2024
10	Scalable, Indigenious and Driver-Friendly Ride-Hailing Application	Dr. Rohit Tripathi	510000.00	IIT BHILAI INNOVATION AND TECHNOLOGY FOUNDATION (IBITF)	09.01.2024
11	Covesto : AI based Social Trading Platform for Retail Traders in The Indian Stock Market	Prof. Ferdous Ahmed Barbhuiya	6000000.00	IIT BHILAI INNOVATION AND TECHNOLOGY FOUNDATION (IBITF)	29.01.2024
12	NE-Finance: Empowering the North-East through P2P Lending	Dr. Sanjay Moulik	280000.00	IIT BHILAI INNOVATION AND TECHNOLOGY FOUNDATION (IBITF)	08.03.2024
13	NagaConnect: Integrated Common Application Platform for Boosting Employment and Business Opportunities in Nagaland	Dr. Rakesh Matam	568960.00	IIT BHILAI INNOVATION AND TECHNOLOGY	29.01.2024



				FOUNDATION (IBITF)	
14	Indigenous Medicines of the North Eastern India: From Traditional Knowledge Transfer(T-KT) to the Sustainable Livelihoods Among Schedule Tribes (ST) Communities of Assam and Meghalaya via Fintech	Dr. Mansoor Khan	894000.00	IIT BHILAI INNOVATION AND TECHNOLOGY FOUNDATION (IBITF)	27.03.2024
15	Sustainable Smart Parking Solution for Aizwal City	Dr. Rakesh Matam	613960.00	IIT BHILAI INNOVATION AND TECHNOLOGY FOUNDATION (IBITF)	29.01.2024
16	LogIT: A Federated Learning and Fog-Computing based framework for IoT Security	Prof. Ferdous Ahmed Barbhuiya/ Dr. Rakesh Matam (Co-PI)	4746000.00	MeiTY	11.09.2023
17	Total amount		2,43,57,420.00		

New Consultancy during the year 2023-24 (1st April 2023 to 30th June 2024)

Sl. No.	Project Title	PI Name/ Co-PI	Amount Received(₹)	Funding Agency
01	Consultancy with Railofy	Dr. Sanjay Moulik	366101.70	Railofy
02	Development of National Proactive Threat Hunting and Response System and Development of Intelligent Honeypot	Dr. Rakesh Matam/ Prof. Ferdous Ahmed Barbhuiya	191740.00	CDAC
03	ERP Consultancy with AEGCL	Prof. Ferdous Ahmed Barbhuiya	2548800.00	AEGCL
04	Consultancy with Agriculture Insurance Company of India Limited by NIA	Prof. Gautam Barua	8,00,000.00	NIA
05	Consultancy with Directorate General of Shipping	Prof. Gautam Barua	720000	Directorate General of Shipping
	Total amount		4626641.70	

New Short Term Course received during the year 2023-24 (1st April 2023 to 30th June 2024)

Sl. No.	Project Title	PI Name/ Co-PI	Amount Received(₹)	Funding Agency
01	(VRITIKA) on the Development of Memristors to Speed up Neuromorphic Computing	Dr. Mourina Ghosh	1,50,000.00	SERB
02	Interpretable Machine Learning towards Precision Medicine	Dr. Aparajita Dutta	1,50,000.00	SERB
03	(VRITIKA) Signal Processing for Reconfigurable Intelligent Surface Aided Beyond 5G Communications	Dr. Sudip Biswas	1,50,000.00	SERB
04	Development and Innovation of Emerging Technologies in Fintech	Dr. Phrangboklang Lyngton Thangkhiew	8,80,000.00	IIT BHILAI INNOVATION AND TECHNOLOGY FOUNDATION (IBITF)
05	Nationwide Deployment of threat Capturing Honeypot System	Prof. Ferdous Ahmed Barbhuiya	196072.00	CDAC
06	(VRITIKA) VLSI and Embedded Systems	Dr. Sanjay Moulik	150000.00	SERB
	Total amount		16,76,072.00	

On-going Projects			
Sl. No.	Project Title	PI Name/ Co-PI	Funding Agency
1	Healthcare Empowerment through Real-Time Insurance Assesment	Dr. Sanjay Moulik	IIT BHILAI INNOVATION AND TECHNOLOGY FOUNDATION (IBITF)
2	Development of a formal framework to enhance IoT software security via formal verification and customization	Dr. Angshuman Jana	SERB
3	NagaConnect: Integrated Common Application Platform for Boosting Employment and Business Opportunities in Nagaland	Dr. Rakesh Matam	IIT BHILAI INNOVATION AND TECHNOLOGY FOUNDATION (IBITF)
4	Empowering North-Eastern Artisans and Farmers: A Block chain powered market place.	Dr. Phrangboklang Lyngton Thangkhiew Prof. Ferdous Ahmed Barbhuiya (Co-PI)	IIT BHILAI INNOVATION AND TECHNOLOGY FOUNDATION (IBITF)
5	Medication Management System	Dr. Shovan Barma	IIT INDORE
6	AI/ML-based Reconfigurable Intelligent Surface Assisted IoT Networks	Dr. Sudip Biswas	SERB
7	Design, Development, Testing and Automation of LPG, PNG, and CNG Operated Refractory Burners for Cooking and Industrial Applications	Dr. Sudip Biswas	SERB
8	Leveraging AI/ML for Customized Credit Assesment of the Boro Tribe in the Boroland Territorial Region	Dr. Sudip Biswas	IIT BHILAI INNOVATION AND TECHNOLOGY FOUNDATION (IBITF)

9	Smart and Secure Spectrum Sharing for 6G Wireless Networks	Dr. Sudip Biswas	SERB
10	Scalable, Indigenous and Driver-Friendly Ride-Hailing Application	Dr. Rohit Tripathi	IIT BHILAI INNOVATION AND TECHNOLOGY FOUNDATION (IBITF)
11	Covesto : AI based Social Trading Platform for Retail Traders in The Indian Stock Market	Prof. Ferdous Ahmed Barbhuiya	IIT BHILAI INNOVATION AND TECHNOLOGY FOUNDATION (IBITF)
12	NE-Finance: Empowering the North-East through P2P Lending	Dr. Sanjay Moulik	IIT BHILAI INNOVATION AND TECHNOLOGY FOUNDATION (IBITF)
13	Financial Empowerment in Meghalaya: AI-Powered Multilingual E-Marketplace for Tribes	Dr. Kaustuv Nag	IIT BHILAI INNOVATION AND TECHNOLOGY FOUNDATION (IBITF)
14	Indigenous Medicines of the North Eastern India: From Traditional Knowledge Transfer(T-KT) to the Sustainable Livelihoods Among Schedule Tribes (ST) Communities of Assam and Meghalaya via Fintech	Dr. Mansoor Khan	IIT BHILAI INNOVATION AND TECHNOLOGY FOUNDATION (IBITF)
15	Sustainable Smart Parking Solution for Aizwal City	Dr. Rakesh Matam	IIT BHILAI INNOVATION AND TECHNOLOGY FOUNDATION (IBITF)
16	LogIT: A Federated Learning and Fog-Computing based framework for IoT Security	Prof. Ferdous Ahmed Barbhuiya, Dr. Rakesh Matam (Co-PI)	MeitY



17	Autonomous Underwater Vehicle for Intelligent real time monitoring and surveillance	Dr. Mourina Ghosh	IIT-TIDF
18	Security and Privacy Preserved Automatic Health Emergency Detection and MSP Selection in IoT Based Smart Healthcare System	Dr. Subhasish Dhal	SERB
19	Signal Processing and Optimization for Configuring Intelligent Reflecting Surfaces for Smart Cities	Dr. Sudip Biswas	SERB
20	Detection and Forecasting of Extreme Weather Events in Egypt and India Using Deep Learning	Dr. Shovan Barma	DST
21	Theoretical Evaluation of Different Strategies (Choice of Kernel, Striding and Pooling) During Implementing Deep Convolution Neural Network (DCNN) Pipeline	Dr. Shovan Barma	SERB
22	Microscopic Image Based Vegetable/Fruit Quality Assessment	Dr. Shovan Barma	IIT INDORE
23	Design of 8 BIT 1 GSPS Flash ADC	Dr. Sounak Roy	ISRO
24	Onperformance of structural damage detection based on: mathematical and machine-learning models in harmony, and domain adaptation with scaled physical model using limited sensors	Dr. Moumita Roy	SERB
25	Control-Theoretic Distributed Optimal Resource Allocation Approaches to Hinder Epidemic Spreading over Networks and its Forecasting for Indian Cities	Dr. Surajit Panja	SERB

26	Development Of An UPI Integrated Mechanism To Increase GST Compliance	Dr. Rakesh Matam, Dr. Hari K Choudhury (Co-PI)	IIT BHILAI INNOVATION AND TECHNOLOGY FOUNDATION (IBITF)
27	Faculty Fellowship	Prof. Gautam Barua	NetApp
28	Establishment of a Design Innovation Centre (DIC) (Spoke) with NEHU (HUB)	Director	MHRD through NEHU
29	Service Caching Architecture for Edge Networks	Dr. Radhika Sukapuram	SERB

Projects that ended in 2023-24 are given below : (1st April 2023 to 30th June 2024)

Sl. No.	Project Title	Name of the PI	Funding Agency	Project ended date
1	Study of group actions on degree-regular maps and surfaces with symmetry	Dr. Dipendu Maity	SERB	Duration ended on 12.12.2023

Consultancy ended during the year 2023-2024 are given below: (1st April 2023 to 30th June 2024)

Sl. No.	Project Title	Name of the PI	Funding Agency	end date
1	Consultancy with Railofy	Dr. Sanjay Moulik	Railofy	31.01.2024

Department of Computer Science and Engineering

Faculty:

1. Dr. Gautam Barua, Professor, Operating Systems, Networks, Database Management Systems.
2. Dr. Ferdous Ahmed Barbhuiya, Professor, Information Security, Intrusion Detection/Prevention System, Secure System Design, Privacy in Cloud, Firewall and Access Control
3. Dr. Moumita Roy, Assoc. Professor, Machine Learning, Soft Computing, Pattern Recognition, Remotely Sensed Image Analysis.
4. Dr. Rakesh Matam, Assoc. Professor, Wireless Networks, Network Security, Privacy in Mobile Networks, Security in IoT.
5. Dr. Subhasish Dhal, Assoc. Professor, Information Security, Cloud Computing, Security in RFID, Key Distribution in Wireless Networks.
6. Dr. Angshuman Jana, Asst. Professor, Formal Methods, Static Program Analysis and Verification, Information Flow Security Analysis, Abstract Interpretation, Model checking.
7. Dr. Arijit Nath, Asst. Professor, Computer Architecture, Emerging Memory Technologies, Memory System Design.
8. Dr. Debashree Devi, Asst. Professor, Machine learning, deep learning, Computer vision.
9. Dr. Kaustuv Nag, Asst. Professor, Evolutionary Computation, Machine Learning, Neural Networks.
10. Dr. Manojit Ghose, Asst. Professor, High-performance computing, resource management in Cloud, edge and fog computing, Computer architecture.
11. Dr. Nilkanta Sahu, Asst. Professor, Image and Video processing.
12. Dr. Krishnandu Hazra, Asst. Professor, Wireless Networks, Integrated Access and Backhaul (IAB), UAV Communications and Networking, Artificial Intelligence and Deep Learning, Natural Language Processing, Information Retrieval.
13. Dr. Nilotpal Chakraborty, Asst. Professor, Scheduling and optimization in smart grid and electric vehicles, AI and Blockchain for Cyber Physical Systems.
14. Dr. Parashjyoti Borah, Asst. Professor, Machine Learning, Pattern Classification.
15. Dr. Pawan K. Mishra, Asst. Professor, Graph Theory, Computational Geometry, Approximation Algorithms, Data Structures.
16. Dr. Radhika Sukapuram, Asst. Professor, Computer Networks, especially Software Defined Networks and Network Functions Virtualisation, Distributed Systems.

17. Dr. Rohit Tripathi, Asst. Professor, Social Network Analysis, Game Theory.
18. Dr. Sanjay Moulik, Asst. Professor, Real-time Scheduling, Energy Aware Fair Scheduling, Optical Character Recognition, Software Engineering.
19. Dr. Shubha Brata Nath, Asst. Professor, Cloud Computing, Fog Computing, Serverless Computing.
20. Dr. Srinibas Swain, Asst. Professor, Algorithms, graph theory, complexity theory, theoretical computer science and discrete mathematics.
21. Dr. Sumit Mishra, Asst. Professor, Algorithms in Evolutionary Computation, Cluster Analysis.
22. Dr. Upasana Talukdar, Asst. Professor, Artificial Intelligence, Machine Learning, Brain-Computer Interface, Knowledge Representation.

Adjunct Faculty:

Dr. Kuntal Dey, Accenture Ltd, Natural Language Processing

Guest Faculty:

Dr. Snehasis Banerjee, TCS Research, Web Reasoning, Machine Learning, Deep Learning, Information Retrieval, Recommendation Systems

Publications by the department:

Journal Publications:

1. Nazatul. H. Sultan, Vijay. Varadharajan, L. Zhou and Ferdous A. Barbhuiya, "A Role-Based Encryption (RBE) Scheme for Securing Outsourced Cloud Data in a Multi-Organization Context," in IEEE Transactions on Services Computing, vol. 16, no. 3, pp. 1647-1661, June 2023
2. Mehbub Alam, Nurzaman. Ahmed, Rakesh Matam, Mithun Mukherjee and Ferdous A. Barbhuiya, "SDN-Based Reconfigurable Edge Network Architecture for Industrial Internet of Things," in IEEE Internet of Things Journal, vol. 10, no. 18, pp. 16494-16503, Sep 2023, IEEE
3. Mehbub Alam, Nurzaman Ahmed, Rakesh Matam, Ferdous Ahmed Barbhuiya, "Analyzing the suitability of IEEE 802.11 ah for next generation Internet of Things: A comparative study" Ad Hoc Networks, Vol 156, Pages 103437, Elsevier, April 2024
4. Ved Prakash, Sumit Mishra, "Hierarchical non-dominated sort: analysis and improvement", Genetic Programming and Evolvable Machines, April 2024.



5. S. Marjit, P.J. Das, U. Talukdar, & S.M. Hazarika, S. M., "A hybrid sequential forward channel selection method for enhancing EEG-Based emotion recognition". *Journal of Experimental & Theoretical Artificial Intelligence*, 1-25, 2024.
6. P. K. Saha, N. Chakraborty, A. Mondal and S. Mondal, "Intelligent Real-Time Utilization of Hybrid Energy Resources for Cost Optimization in Smart Microgrids," in *IEEE Systems Journal*, vol. 18, no. 1, pp. 186-197, March 2024, doi: 10.1109/JSYST.2024.3352617
7. Naosekham, Veronica, and Nilkanta Sahu. "Few-shot learning for word-level scene text script identification." *Computational Intelligence* (2024).
8. Kalyanee Devi, Rohit Tripathi. Influential users identification under the non-progressive LTIRS model. *Knowl Inf Syst* (2024). <https://doi.org/10.1007/s10115-024-02084-9>.
9. Naosekham, Veronica, and Nilkanta Sahu. "A Hybrid Scene Text Script Identification Network for regional Indian Languages." *ACM Transactions on Asian and Low-Resource Language Information Processing* (2024).
10. Mehbub A., Nurzaman A., Rakesh M., Ferdous A. Barbhuiya 2024. Analyzing the suitability of IEEE 802.11ah for next generation Internet of Things: A comparative study, *Ad Hoc Networks*, Volume 156, 2024, 103437, ISSN 1570-8705, <https://doi.org/10.1016/j.adhoc.2024.103437>.
11. M. Alam, N. Ahmed, R. Matam, M. Mukherjee and F. A. Barbhuiya, "SDN-Based Reconfigurable Edge Network Architecture for Industrial Internet of Things," in *IEEE Internet of Things Journal*, vol. 10, no. 18, pp. 16494-16503, 15 Sept.15, 2023, doi: 10.1109/JIOT.2023.3268375.
12. S. Pradhan, S. Tripathy, R. Matam, Towards optimal edge resource utilization: Predictive analytics and reinforcement learning for task offloading, *Internet of Things*, Volume 26, 2024, 101147, ISSN 2542-6605, <https://doi.org/10.1016/j.iot.2024.101147>.
13. Ajay Sherawat, Shubha Brata Nath, and Sourav Kanti Addya. "Optimizing Completion Time of Requests in Serverless Computing." *Journal of Network and Systems Management* 32.2 (2024): 28. <https://link.springer.com/article/10.1007/s10922-024-09800-4>
14. Kethareswaran, V., and Sanjay Moulik. "Electric Vehicles and the Burning Question: Reasons, Risks, Ramifications and Remedies—An Indian Perspective." *Fire Technology* 59.5 (2023): 2189-2201.
15. Chakraborty, Shounak, Yanshul Sharma, and Sanjay Moulik. "TREFET: Temperature-Aware Real-Time Task Scheduling for FinFET based Multicores." *ACM Transactions on Embedded Computing Systems* (2024).
16. A. Choudhury, M. Ghose, A. Islam, Y Thakran, "Machine Learning-Based Computation Offloading in Multi-Access Edge Computing: A Survey," *Journal of Systems Architecture*, Elsevier, 148: 103090, 2024.
17. S. P. Kaur, M. Ghose, A. Pathak, R. Patole, "A survey on mapping and scheduling techniques for 3D Network-on-chip," *Journal of Systems Architecture*, Elsevier, 147: 103064, 2024.



18. I. Kalita, S. Chakraborty, Reddy, T. G. Ganesh, M. Roy. A deep learning-based technique for firm classification and domain adaptation in land cover classification using time-series aerial images. *Earth Science Informatics* **17**, 655–678 (2024).
19. Hazarika, B.B., Gupta, D. and Borah, P., 2023. Fuzzy twin support vector machine based on affinity and class probability for class imbalance learning. *Knowledge and Information Systems*, *65*(12), pp.5259-5288.
20. Hazarika, B.B., Gupta, D. and Borah, P., 2023. Robust support vector quantile regression with truncated pinball loss (RSVQR). *Computational and Applied Mathematics*, *42*(6), p.283.
21. Gupta, D., Hazarika, B.B. and Borah, P., 2024. Fuzzy twin kernel ridge regression classifiers for liver disorder detection. *International Journal of Business Intelligence and Data Mining*, *24*(2), pp.131-145.
22. Anwesha Kashyap and Angshuman Jana, Extending Semantic-based Techniques for Policy-based Slicing of Database Program. *International Journal of Computer Information Systems and Industrial Management Applications*, MIR-Lab, Volume 15: 43-58, USA 2023.
23. Gayen, Avijit, Sukriti Santra, Ayush Dey, and Angshuman Jana. "A Network Model to Study the Underlying Characteristics of Phishing Sites." *IEEE Networking Letters* (2023).
24. Arijit Nath and Hemangee K. Kapoor. 2024. AmLuCEP: Amalgamating LUT-based Compression and Adaptive Encoding Assisted Block Placement To Improve Lifetime of PCM-based Main Memories. *ACM Transactions on Design Automation of Electronic Systems*. (August 2024). <https://doi.org/10.1145/3689334>
25. Shubha Brata Nath, Sourav Kanti Addya, Sandip Chakraborty, and Soumya K Ghosh, "CSMD: Container State Management for Deployment in Cloud Data Centers", in *Future Generation Computer Systems*, Elsevier, 2024. <https://doi.org/10.1016/j.future.2024.107495>
26. Sasmita Rout, Pawan K. Mishra, Gautam K. Das, "Total Roman domination and total domination in unit disk graphs" in *Communication in Combinatorics and Optimization*, 2024. <https://doi.org/10.22049/cco.2024.28647.1650>
27. Veronica Naosekham and Nilkanta Sahu. "Video text rediscovery: Predicting and tracking text across complex scenes." *Computational Intelligence* *40.3* (2024):e12686.
28. M. Alam, N. Ahmed, S. Ghosh, R. Matam and F. A. Barbhuiya, "OptiFog: A Framework for Acquiring State Information and Predicting Resource Availability for Task Offloading in Cooperative Fog-Networks," in *IEEE Transactions on Services Computing*, doi: 10.1109/TSC.2024.3414371.
29. Avishek Paul, Subhasish. Dhal and Neenu. Mary, "Relaying Vehicle Selection Protocol for a Road Intersection," in *IEEE/ACM Transactions on Networking*, *32*(3), pp 2438-2446, June 2024, doi: 10.1109/TNET.2024.3354970.

**Conference Publications:**

1. Mehbub Alam, Rakesh Matam and Ferdous A. Barbhuiya, "OptFog: Optimized Mobility-Aware Task Offloading and Migration Model for Fog Networks," *2023 IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS)*, Jaipur, India, 2023, Pages. 539-544, IEEE
2. Mehbub Alam, Nurzaman Ahmed, Rakesh Matam, Ferdous Ahmed Barbhuiya, "RedgeX: Meta-Learning based Optimal Analytical Model for Programmable Edge Intelligence", *IEEE Wireless Communications and Networking Conference (WCNC)*, Pages 1-6, IEEE, April 2024
3. Laizhong Cui, Sudipta Acharya, Sumit Mishra, Yi Pan, Joshua Zhexue Huang, "MMCo-Clus – An Evolutionary Co-clustering Algorithm for Gene Selection (Extended abstract)", *IEEE International Conference on Data Engineering (ICDE 2023)*, Pages 3875-3876, April, 2023.
4. Ved Prakash, Sumit Mishra, "Basic Concepts of Dominance Relationship in Non-Dominated Sorting", *International Conference on Emerging Techniques in Computational Intelligence (ICETCI 2023)*, Pages 215-220, September, 2023.
5. U. Talukdar, & P. Paul, "OnE: An EEG-based Passive BCI framework for Monitoring Cognitive States During online learning". In *Proceedings of the 2023 6th International Conference on Advances in Robotics*, pp. 1-7, July 2023.
6. G. Anirudh, & U. Talukdar, "Automated Detection of Type 2 Diabetes with Imbalanced and Machine Learning Methods". In *Machine Learning, Image Processing, Network Security and Data Sciences: Select Proceedings of 3rd International Conference (MIND)*, pp. 29-40, 2023.
7. S. Panda, N. Chakraborty, A. Jana, "Secured Peer-To-Peer Energy Trading and Demand Response in Transactive Energy Systems", *21st OITS International Conference on Information Technology*, December 2023, NIT Raipur
8. A. Gayen, S. Chakraborty, N. Chakraborty, and A. Jana, "How can I Grow!?: Analysis of Early Career Stage Researchers Co-Authorship Network", *8th International Conference on Smart Trends in Computing and Communications (SMARTCOM 2024)*, January 2024, Pune, India
9. Naosekham, Veronica, Mushtaq Islam, Amul Chourasia, and Nilkanta Sahu. "EMBiL: An English-Manipuri Bi-lingual Benchmark for Scene Text Detection and Language Identification." In *International Conference on Computer Analysis of Images and Patterns*, pp. 65-75. Cham: Springer Nature Switzerland, 2023.
10. Chourasia, Amul, Veronica Naosekham, and Nilkanta Sahu. "Attention-Fused Shallow Network for Underwater Object Detection." *TENCON 2023-2023 IEEE Region 10 Conference (TENCON)*. IEEE, 2023.
11. M. Alam, N. Ahmed, R. Matam, F.A. Barbhuiya, "RedgeX: Meta-learning based Optimal Analytical Model for Programmable Edge Intelligence", in *2024 IEEE Wireless Communications and Networking Conference (WCNC)*, Dubai, UAE.



12. R. Choudhury, R. Matam, K. Nag, "A Brain-Computer Interface Controlled Assistive Device for Persons with Motor Neuron Disease", in International Workshop on Communication Aspects for Internet of Nano Things, in International Conference on Distributed Computing in Smart Systems and The Internet of Things, 2024, Abu Dhabi, UAE.
13. A. Kumar, R. Matam, S. Swain and M. Mukherjee, "Cluster Based Concurrent Data Collection with Fault Tolerance for Shared IoT Applications," 2024 16th International Conference on COMMunication Systems & NETWORKS (COMSNETS), Bengaluru, India, 2024, pp. 858-863.
14. J. Brahma, R. Matam and N. Choudhury, "Device Identification using Network Traces in a Smart Home IoT Network," 2023 IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS), Jaipur, India, 2023, pp. 1-6.
15. M. Alam, R. Matam and F. A. Barbhuiya, "OptFog: Optimized Mobility-Aware Task Offloading and Migration Model for Fog Networks," 2023 IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS), Jaipur, India, 2023, pp. 539-544.
16. Chakraborty, K., Dutta, A. K., Hussain, M. A., Mohiuddin, S. R., Choudhury, N., Matam, R., & Mukherjee, M. (2023, December). A Novel Technique to Parameterize Congestion Control in 6TiSCH IIoT Networks. In GLOBECOM 2023-2023 IEEE Global Communications Conference (pp. 3027-3032). IEEE.
17. R. Sukapuram and S. Deka, "Edge Service Caching for Service Function Chains," 2023 IEEE 9th International Conference on Network Softwarization (NetSoft), Madrid, Spain, June 2023, pp. 197-201, doi: 10.1109/NetSoft57336.2023.10175476.
18. Radhika Sukapuram, Ranjan Patowary, and Gautam Barua. 2024. Correctness of Flow Migration. In 25th International Conference on Distributed Computing and Networking (ICDCN '24), January 04--07, 2024, Chennai, India. ACM, New York, NY, USA 10 Pages. <https://doi.org/10.1145/3631461.3631541>
19. Ranjan Patowary, Gautam Barua, and Radhika Sukapuram. "Correctness of Flow Migration for Service Function Chains", IEEE/IFIP Network Operations and Management Symposium, Seoul, April 2024
20. Moulik, Sanjay. "Land Cover Classification: A study from an Indian Perspective." 2023 9th International Conference on Smart Computing and Communications (ICSCC).
21. Kethareswaran, V., and Sanjay Moulik. "Relevance of ISO/SAE 21434 in Vehicular Architecture Development." 2023 IEEE International Conference on Systems, Man, and Cybernetics (SMC).
22. Sharma, Yanshul, Swati Gupta, and Sanjay Moulik. "An Interplay of Energy and Temperature Minimization Techniques for Heterogeneous Multiprocessor Systems." IEEE Region 10 Conference (TENCON). IEEE, 2023.



23. S. Maity, M. Goel, M. Ghose, "Data Locality Aware Computation Offloading in Near Memory Processing Architecture for Big Data Applications," in IEEE 30th International Conference on High-Performance Computing, Data, and Analytics (**HiPC**), Dec 2023.
24. Choudhury, KK Nath, M Ghose, Y Thakran, "Memory and CPU utilization-aware Energy-Efficient VM Placement and Consolidation in Cloud Data Centers," in 1st IEEE Guwahati Sub-Section Flagship Conference (**GCON**), June 2023.
25. Ansh Arora, Xuanli He, Maximilian Mozes, Srinibas Swain, Mark Dras, and Qionikai Xu, "Here's a Free Lunch: Sanitizing Backdoored Models with Model Merge", in the ACL Findings, May 2024.
26. A. Pattanayak, B. Baruah and S. Dhal, "Privacy-Preserving Forward and Backward Contact Tracing in Body Area Networks Using Blockchain," *2023 IEEE 2nd International Conference on Data, Decision and Systems (ICDDS)*, Mangaluru, India, 2023, pp. 1-6.
27. M. Dutta, S. Dhal, A. Saxena and M. Sarkar, "Security Preserving Distributive n-Party Computation*," *TENCON 2023 - 2023 IEEE Region 10 Conference (TENCON)*, Chiang Mai, Thailand, 2023, pp. 267-272.
28. A. Pattanayak, B. Baruah and S. Dhal, "Automatic Privacy-Preserved Contact Tracing in Body Area Networks using Blockchain," *2023 IEEE 20th India Council International Conference (INDICON)*, Hyderabad, India, 2023, pp. 415-420.
29. Avijit Gayen, Tamoghna Mukherjea, and Angshuman Jana, "Characterization of 'Early Career Stage'Researchers from their Co-authorship Network". IEEE Guwahati Subsection Conference (GCON) 2023, IIT Guwahati, INDIA June 21-23, 2023.
30. Gayen, Avijit, Tamoghna Mukherjea, Soumik Mukherjee, and Angshuman Jana. "Identification of 'Early Career Stage 'Researchers from large scale Bibliographic dataset." In 2023 14th International Conference on Computing Communication and Networking Technologies (ICCCNT), pp. 1-7. IEEE, 2023.
31. Deka, S., & Sukapuram, R. (2024, June). Edge Service Caching with Delayed Hits and Request Forwarding to Reduce Latency. In *2024 IFIP Networking Conference (IFIP Networking)* (pp. 792-797). IEEE.
32. A. Lohia, A. Pochhi, N. Chakraborty, "Developing Cost Effective and User-Centric Charging Infrastructure for Electric Vehicles in Urban Localities", Proceedings of the 15th ACM International Conference on Future and Sustainable Energy Systems (ACM e-Energy '24), Singapore, June, 2024, (2024), ACM
33. A. Pochhi, A. Lohia, N. Chakraborty, "Optimizing Electric Vehicle Charging Stations and Charging Ports for Highways and Expressways", Proceedings of the 15th ACM International Conference on Future and Sustainable Energy Systems (ACM e-Energy '24), Singapore, June, 2024, (2024), ACM



34. V. Tilwari, D. Sharma, S. Solanki, N. Chakraborty and M. Maduranga, "A Multicriteria Aware Multipath Routing Method to Increase the QoS for Future 6G Networks," 2024 IEEE 13th International Conference on Communication Systems and Network Technologies (CSNT), Jabalpur, India, 2024.
35. S. Baruah, D. Devi, "A comparative analysis of Drug-Target Interaction detection approaches using Ensemble of Machine learning models", Proceedings of the 2024 14th International Conference on Bioscience, Biochemistry and Bioinformatic (ICBBB), pp. 21-29, 2024.
36. M. Sonia, I. Kalita, D. Devi, "A Breast Cancer Prognosis Model using PyRadiomics and Image Segmentation from MRI data", Proceedings of the 2024 7th International Conference on Machine Vision and Applications (ICMVA), pp. 27-34, 2024.
37. R. Choudhury, R. Matam and K. Nag, "A Brain-Computer Interface Controlled Assistive Device for Persons with Motor Neuron Disease," 2024 20th International Conference on Distributed Computing in Smart Systems and the Internet of Things (DCOSS-IoT), Abu Dhabi, United Arab Emirates, 2024, pp. 627-632, doi: 10.1109/DCOSS-IoT61029.2024.00098.
38. Mou Dutta, Subhasish Dhal, "Security and Privacy Preserving GDPR-Compliant Scheme Resisting in Rendering False Data", in Proceedings of 15th International IEEE Conference on Computing, Communication and Networking Technologies (ICCCNT 2024), June 2024.
39. Anupam Pattanayak, Barnana Baruah, and Subhasish Dhal, "Privacy-Preserved Covid and Inter BAN Communication Status Maintenance with Key and Random Value Update in Blockchain", in Proceedings of 3rd International Conference on Network Security and Blockchain Technology, Jalpaiguri, India, June 2024.
40. Ujjwal Kamila, Upama Mukhopadhyay, Ananta Kumar Das, Subhasish Dhal, "Intelligent Bug Management: Hyper-Tuned Supervised Classification for Automatic Bug Report Prioritization", in the Proceedings of the International Conference on Intelligent Electrical Systems & Industrial Automation (IESIA 2024), April 2024.

Book Chapters:

1. Naosekham, Veronica, and Nilkanta Sahu. "Multi-label Indian scene text language identification." *Intelligent Systems and Applications in Computer Vision* (2023).
2. A. Islam, M. Ghose, "ELITE: Energy and Latency-Optimized Task Offloading for DVFS-Enabled Resource-Constrained Devices in MEC," in 20th International Conference on Distributed Computing and Intelligent Technology (ICDCIT), LNCS, 2024.
3. V. Singh, K. Bharali, I. Kalita, M. Roy, N. Debnath, M. Saharia and A. Das, Inception Time Model for Structural Damage Detection Using Vibration Measurements. In: Kumar, S., Balachandran, K., Kim, J.H., Bansal, J.C. (eds) Fourth Congress on Intelligent Systems. CIS 2023. Lecture Notes in Networks and Systems, vol 869. Springer, Singapore.



4. Matam, Rakesh, and Somanath Tripathy. "Task offloading using fog analytics." *Managing Internet of Things Applications Across Edge and Cloud Data Centres* (2024): 1.

Invited Talks:

1. Prof. Gautam Barua delivered a talk "Generative AI: The ChatGPT Phenomenon" at KKH State Open University on 17 May 2023
2. Prof. Gautam Barua delivered a talk "On Governance in Academic Institutions" at Guahati University on 21 December 2023.
3. Prof. Gautam Barua delivered a talk "Institute Building and Ethical Governance" at IIT Guwahati on March 10 2024.
4. Prof. Ferdous A Barbhuiya presented a talk on "Secure data Access Control Mechanism for Cloud and Edge", in the Indo-Taiwan bilateral Workshop held at IIT Jammu during 18-19th May, 2023
5. Prof. Ferdous A Barbhuiya delivered a talk on "Internet of Underwater Things Unsolved Problems" in "Online Short Term Course" conducted by CIT Kokrajhar on 25th May 2023
6. Prof. Ferdous A Barbhuiya delivered a talk on "Digital Hygiene Staying Safe in Cyberspace" in the "Online Workshop on Cyber Security for the Postal Staff of Assam and North East States" organized by Postal Training Centre, Guwahati on 21st Sep.2023
7. Prof. Ferdous A Barbhuiya delivered a talk on "Common attacks on Federated Learning systems & Countermeasures" in the "One-week Short Term Course on privacy and security threats in Federated Learning" held at NIT Patna on 14th Nov 2023
8. Prof. Ferdous A Barbhuiya delivered a talk on "Electronic Security Perimeter, Information Security Division, Protected System" in the "Two days Training Program on Cyber Security/Hygiene" at National Power Training Institute-NER, Guwahati on 27th Feb 2024
9. Dr. Nilotpal Chakraborty and Dr. Angshuman Jana presented a tutorial on Formal Verification of Safety Critical Cyber Physical Systems at the Third International Conference on Emerging Techniques in Computational Intelligence, ICETCI 2023 at Mahindra University, Hyderabad, September 2023.
10. Dr. Nilkanta Sahu delivered an invited talk titled "Deep Learning Models for Computer Vision" as a part of the short course on "Recent Trends in Computer Vision" conducted by Dept. of CSE, NIT Rourkela in December 2023.
11. Dr. Manojit Ghose delivered an invited talk on "Role of AI in Education" at a National Workshop, organized by K C Das Commerce College, Guwahati, on 10th May 2024.



12. Dr. Manojit Ghose delivered an expert talk on “Paradigm Shift in Computing: A perspective from cloud, edge and NDP” at a National Workshop on Next Generation (5G/6G) Communication Networks (NWNGCN 2023), organized by NIT Mizoram, from October 9 to 13, 2023.
13. Dr. Moumita Roy delivered an invited talk on “Application of machine learning for signal analysis “ at ICDDA, a Research Symposium, organized by The Assam Kaziranga University, Jorhat, Assam, India, from 15th March 2024 to 16th March 2024.
14. Dr Srinibas Swain delivered an invited talk on “Recent Developments in Theoretical Computer Science” at Xi’an University of Technology, China on 4th April 2024.
15. Dr Srinibas Swain delivered an invited talk on “Most frequent Connected Induced Subgraph on Special Classes of Graphs” at the school of mathematical sciences, RMIT University, Melbourne, Australia on 14th July 2023.
16. Dr. Parashjyoti Borah delivered an invited talk at the Five-Day Workshop on Artificial Intelligence and Data Science: The Future of Technology, organized by the Department of Computer Science and Engineering, Tezpur University, from March 4-8, 2024.
17. Dr. Rakesh Matam has delivered an invited talk on “Role of IoT in FinTech” in the workshop “Development and Innovation of Emerging Technologies in Fintech” on 8th September 2023.
18. Dr. Rakesh Matam has delivered an invited talk on “ Device Security in IoT” in the workshop on Nation-wide deployment of threat-capturing honeypot sensors on 22nd September, 2023.
19. Dr. Rakesh Matam has delivered an invited talk on “FOG AND EDGE COMPUTING: FUNDAMENTALS, MOTIVATIONS AND CHALLENGES” in the workshop “One Week Entrepreneurship and Skill Development Programme (ESDP) on “Applications of Cloud, Fog and Edge Computing in Business Analytics” on 21st February, 2024.
20. Dr. Rakesh Matam has delivered an invited talk on “Security in Fog and Edge Computing: Challenges and Design Solutions” in the workshop “One Week Entrepreneurship and Skill Development Programme (ESDP) on “Applications of Cloud, Fog and Edge Computing in Business Analytics” on 21st February, 2024.
21. Dr. Rakesh Matam has delivered an invited talk on “Internet of Things” in the Lecture Series on Recent Advancements in Machine Learning, Data Science and IoT at Guwahati University institute of Information Technology on 23rd February 2024.
22. Dr. Subhasish Dhal has delivered an invited talk on “Blockchain Security” in One Week National Level Faculty Development Program (Online Mode) On Emerging Research Trends in Computer Science at Chaitanya Bharathi Institute of Technology, Hyderabad on 25th April 2024.
23. Dr. Subhasish Dhal has delivered an invited talk on “Consensus in Blockchain” in the Lecture Series on Recent Advancements in Machine Learning, Data Science and IoT at Guwahati University institute of Information Technology on 19th February 2024.



24. Dr. Subhasish Dhal has delivered an invited talk on “SQL Injection” in the DRDO Sponsored Online - A Five Day Short Term Training Programme on “Unleashing the Power of Ethical Hacking And Shielding the Cyber Battlefield : Safeguarding Defence Against Cyber Attacks at Kamaraj college of engineering and technology, Virudhunagar, Tamil Nadu on 12th September 2023.
25. Dr. Subhasish Dhal has delivered an invited talk on “Security in Blockchain” in the E & ICT Sponsored Online FDP on Smart Contract Mastery: Pioneering the Future of Blockchain Applications at NIT Warangal, Andhra Pradesh on 11th May 2024.
26. Dr. Subhasish Dhal has delivered an invited talk on “Blockchain Fundamentals” in the DST SERB Sponsored one-week Karyashala on High-end Workshop on Cryptocurrency and Blockchain Technology: Fundamentals, Programming and Case Studies at Punjab Engineering College, Sector-12, Chandigarh-160012. INDIA on 10th July 2023.
27. Dr. Subhasish Dhal has delivered an invited talk on “Consensus Algorithms” in the One Week Workshop on Blockchain and Cryptocurrencies at School of Electronics and Communication Engineering, Sri Mata Vaishno Devi University, Katra, Jammu and Kashmir on 26th May 2023.
28. Dr. Arijit Nath delivered an invited talk on "Latest Trends in CSE and its future prospects", at University of Science and Technology (USTM), Meghalaya on 21st June, 2024.
29. Dr. Kaustuv Nag delivered an invited talk on “Artistic Style Transfer With Generative Adversarial Networks” at the International Conference at Data Driven AI on March 15, 2024.
30. Dr. Kaustuv Nag delivered an invited talk on “Climate Modeling and Generative AI: Predicting and Adapting to Environmental Changes” on January 28, 2024 at NIT Rourkela.
31. Dr. Kaustuv Nag delivered an invited talk on “Bridging Domains with Transfer Learning: Electrical Engineering Applications” at an FDP in the CVR College of Engineering on March 13, 2024.

Any Other:

1. Prof. Ferdous Ahmed Barbhuiya and Dr. Phrangboklang Lyngton Thangkhiew organised a 2-Day Workshop on Development and Innovation of Emerging Technologies in Fintech at Indian Institute of Information Technology Guwahati, supported by: IIT Bhilai Innovation and Technology Foundation for brainstorming and formulating ideas for possible submission to IBITF for funding during 8-9 Sep 2023. The workshop has seen participation of more than 150 participants from various Institutions of North East India and led to submission of more than 25 proposals out of which 20+ got funded.
2. Prof. Ferdous Ahmed Barbhuiya is a member of the Working Group (WG) on “Working Group on Cloud Interoperability and Portability (CIP)” for the realisation of the mission set forth by the Ministry of Electronics and Information Technology (MeitY), Government of India



3. Prof. Ferdous Ahmed Barbhuiya organized a Workshop on “Cyber Threat Intelligence & Threat Capturing Technology” supported by Cert-In and C-DAC, Mohali during 21-22 Sep 2023
4. Moumita Roy acted as a session chair in COMSYS 2023, IIT Mandi on 16th October 2023.
5. Srinibas Swain with Talika Gupta, Aman Jain (alumni of IIITG), and [Sachin Agarwal](#)(alumni of IIITG) secured a world rank 4 in the heuristic track of Pace Challenge 2023 in general category. The same team also secured a world rank 2 in the student category.
6. Dr. Rakesh Matam and Dr. Nikumani Choudhury organized a one day [WORKSHOP ON ENSURING SECURITY, TRUST, AND PRIVACY IN INDUSTRIAL IOT SYSTEMS](#) in IEEE International Conference on Advanced Networks and Telecommunications Systems 17–20 December 2023. MNIT Jaipur, Rajasthan, India.
7. Dr. Subhasish Dhal has organized a SERB, DST, Govt. of India Sponsored one Day Workshop on “Security and Privacy in Healthcare Services”, 9th September 2023 at Indian Institute of Information Technology Guwahati, India.
8. Dr. [Nilotpal Chakraborty](#) elevated to IEEE Senior Member grade.

Department of Electronics & Communication Engineering

Faculty:

1. Dr. Babita Jajodia, Asst. Professor, VLSI and Embedded Systems.
2. Dr. Bidisha Dasgupta, Associate Professor, Antenna Design.
3. Dr. Bijit Kumar Das, Asst. Professor, Signal Processing.
4. Dr. Komal Janghel, Asst. Professor, Wireless communication.
5. Dr. Kukil Khanikar, Asst. Professor, Communication Engineering.
6. Dr. Mohd. Mansoor Khan, Asst. Professor, Electrical Machines and Drives, Control Systems, Advanced Instrumentation and Sensors, Opto-Mechanical Sensors, Fiber Optics and Photonics, Fiber Optic Lasers and All Optical Integrated Devices.
7. Dr. Mourina Ghosh, Associate. Professor, VLSI Design.
8. Dr. Rakesh Biswas, Asst. Professor, VLSI Architecture Design for Biomedical Signal and Image processing.
9. Dr. Rajib Malik, Asst. Professor, Embedded Systems
10. Dr. Ripudaman Singh, Asst. Professor, Communication Networks.
11. Dr. Rusha Patra, Asst. Professor, Image Processing, Optical Imaging, Biomedical Optics, Computer Vision.
12. Dr. Shilpa, Asst. Professor, Wireless Sensor Networks.
13. Dr. Shovan Barma, Associate. Professor, Biomedical Signal Processing and AI.
14. Dr. Sounak Roy, Associate. Professor, Analog and mixed signal circuits.
15. Dr. Sudip Biswas, Associate. Professor, Signal Processing and Machine Learning for Future Wireless Communications, Full-Duplex Radios, Communication-Radar Co-existence.
16. Dr. Surajit Panja, Associate Professor, Control of Network Systems, Multi-agent Systems, Opinion Dynamics, Epidemic Propagation Over Networks.
17. Dr. Sheikh Wasim Hussain, Asst. Professor, Semiconductor Memories
18. Dr. Valmik Tilwari, Asst. Professor, Machine Learning for wireless communication

**Publications:****Patent:**

1. Mourina Ghosh, "Hardware Accelerator for Processing Image Data", Patent No: 525723(2024), Indian Patent (Granted), March, 2024. Inventors: Amal Thomas K., Mourina Ghosh, Soumyajit Poddar.
2. Shovan Barma and Sumona Biswas, "[System and Device for Quality Assessment of Vegetables](#)", Patent No: 513925, (2024), Indian Patent (Granted)

Journals:

1. Tilwari, Valmik, Sangheon Pack, M. W. P. Maduranga, and H. K. I. S. Lakmal. "An Improved Wi-Fi RSSI-based Indoor Localization Approach Using Deep Randomized Neural Network." *IEEE Transactions on Vehicular Technology* (2024). (<https://doi.org/10.1109/TVT.2024.3437640>)
2. MWP Pasan, Valmik Tilwari, R. M. M. R. Rathnayake, and Chamali Sandamini. "AI-Enabled 6G Internet of Things: Opportunities, Key Technologies, Challenges, and Future Directions." In *Telecom*, vol. 5, no. 3, pp. 804-822, 2024. (<https://doi.org/10.3390/telecom5030041>)
3. Anett Antony and Bidisha Dasgupta, "Design and Analysis of a Frequency Selective Surface Loaded Bioinspired Antenna in Frequency and Time Domains," *Progress in Electromagnetics Research M*, Vol. 116, (2023), pages. 39-52. (doi:10.2528/PIERM23010302)
4. Anett Antony, Sayantani Dutta, Bidisha Dasgupta and Anamiya Bhattacharya, "Reconfigurable Frequency Selective Surfaces for X Band Applications", *Progress in Electromagnetics Research C*, Vol. 132, (2023), pages. 79-88. (doi:10.2528/PIERC23030304)
5. Anett Antony and Bidisha Dasgupta, "Isolation and Gain Improvement of Multiple Input Multiple Output Antenna Using Frequency Selective Surfaces", *Progress in Electromagnetics Research Letters*, Vol. 110, (2023), pages. 63-71 (doi:10.2528/PIERL23031504)
6. Valmik Tilwari, Taewon Song, Usha Nandini, V Sivasankaran, Sangheon Pack "A multi-criteria aware integrated decision making routing protocol for IoT communication toward 6G networks." *Wireless Networks* (2024): 1-15. <https://doi.org/10.1007/s11276-024-03739-9>
7. Mohamed Roshdy, Roy, Samshitha, Sayed A Mohamed, Marwa S. Moustafa, Barma, Shovan, "[Cyclone Detection with End-to-End Super Resolution and Faster R-CNN](#)", *Earth Science Informatics*, (2024), Springer doi: 10.1007/s12145-024-01281-y.
8. Sumona Biswas and Shovan Barma, "Feature Fusion GAN Based Virtual Staining on Plant Microscopy Images", *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, (2024), DOI: 10.1109/TCBB.2024.3380634
9. Sumona Biswas, Shovan Barma, "[MicrosMobiNet: A Deep Lightweight Network With Hierarchical Feature Fusion Scheme for Microscopy Image Analysis in Mobile-Edge Computing](#)", *IEEE Internet of Things Journal*, vol. 11 (5), (2023), pages. 8288-8298



10. Basab Bijoy Purkayastha and Shovan Barma, "[Discrimination of Cardiac Abnormalities Based on Multifractal Analysis in Reservoir Computing Framework](#)", IEEE Open Journal of Instrumentation and Measurement, 2, (2023), pages. 2500811.
11. V. Sharma, A. Paul, S. K. Singh, K. Singh and S. Biswas, "Robust Transmission for Energy-Efficient Sub-Connected Active RIS-Assisted Wireless Networks: DRL versus Traditional Optimization," in IEEE Transactions on Green Communications and Networking, doi: 10.1109/TGCN.2024.3370691.
12. P. Saikia, K. Singh, O. Taghizadeh, W. -J. Huang and S. Biswas, "Meta Reinforcement Learning-Based Spectrum Sharing Between RIS-Assisted Cellular Communications and MIMO Radar," in IEEE Transactions on Cognitive Communications and Networking, vol. 10, no. 1, pp. 164-179, Feb. 2024, doi: 10.1109/TCCN.2023.3319543.
13. P. Saikia, K. Singh, S. K. Singh, W. -J. Huang, C. -P. Li and S. Biswas, "Beamforming Design in Vehicular Communication Systems With Multiple Reconfigurable Intelligent Surfaces: A Deep Learning Approach," in IEEE Access, vol. 11, pp. 100832-100844, 2023, doi: 10.1109/ACCESS.2023.3314668.
14. B. Hazarika, K. Singh, S. Biswas, S. Mumtaz and C. -P. Li, "Multi-Agent DRL-Based Task Offloading in Multiple RIS-Aided IoV Networks," in IEEE Transactions on Vehicular Technology, vol. 73, no. 1, pp. 1175-1190, Jan. 2024, doi: 10.1109/TVT.2023.3302010.
15. K. Singh, P. -C. Wang, S. Biswas, S. K. Singh, S. Mumtaz and C. -P. Li, "Joint Active and Passive Beamforming Design for RIS-Aided IBFD IoT Communications: QoS and Power Efficiency Considerations," in IEEE Transactions on Consumer Electronics, vol. 69, no. 2, pp. 170-182, May 2023, doi: 10.1109/TCE.2022.3223441.
16. Sarma, Krishna and Mohd Mansoor Khan. "Design, Optimization, and Analysis of Thulium-Doped Optical Fiber Amplifiers for E-Band Communication." SPIE-Optical Engineering, 63(5), 058102 (2024).
17. Sourav Bhowmick, N Mohan Kumar, and Surajit Panja "Epidemic Propagation with Polarized Opinions Over Signed Network," *International Journal of Control, Automation and Systems*, vol. 21, pp. 3832-3837, Sept. 2023, <https://doi.org/10.1007/s12555-023-0028-0>
18. Khushi Banerjee, Mourina Ghosh, Chittajit Sarkar, Sajal Biring, "Novel simulator designed for grounded negative inductance with lossless characteristics incorporated with single OTRA", *Memories-Materials, Devices, Circuits and Systems*, Vol.6, pp: 100089, Elsevier, 2023, <https://doi.org/10.1016/j.memori.2023.100089>
19. B. Paul and R. Patra, "Photoacoustic image reconstruction with an objective function using TGV and ESTGV as a regularization functional," *J. Opt. Soc. Am. A*, vol. 41, no. 1, pp. 29-38, Dec. 2023. <https://doi.org/10.1364/JOSAA.499443>
20. Lingadharini P., A. Shirsat, P. Gardi, S. Kore, V. Joshi, R. Patra, D. Maji, "A cost-effective and facile technique for realizing fabric based microfluidic channels using beeswax and PVC stencils", *Analytical Methods*, Apr 2024. DOI: <https://doi.org/10.1039/D4AY00389F>



21. S. W. Hussain, T. V. Mahendra, S. Mishra, and A. Dandapat, "Content-addressable memory using selective-charging and adaptive-discharging scheme for low-power hardware search engine," Elsevier Integration the VLSI Journal, vol. 98, pp. 102213, Sept. 2024, (First Published: 27th May 2024), <https://doi.org/10.1016/j.vlsi.2024.102213>
22. Mourina Ghosh, Pulak Mondal, Santosh Kumar, "[Fourth order inverse filter configuration using current differencing buffered amplifier](#)", International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, (2024), Wiley

Conference:

1. Tilwari, Valmik, Debashree Sharma, Sourabh Solanki, Nilotpal Chakraborty, and M. W. P. Maduranga. "A Multicriteria Aware Multipath Routing Method to Increase the QoS for Future 6G Networks." In 2024 IEEE 13th International Conference on Communication Systems and Network Technologies (CSNT), pp. 1-6. IEEE, 2024.
2. Maduranga, M., Lakmal, H.K.I.S. and Tilwari, V., 2023, December. Convolutional Neural Network Architectures for Modulation Scheme Classification in RF Signals within Cognitive Radio Systems. In 2023 9th International Conference on Signal Processing and Communication (ICSC) (pp. 269-273). IEEE, 2023.
3. R. Maharana, M. Das and B. Jajodia, "Design and Evaluation of FPGA-Optimized Asymmetrical and Symmetrical Five-Term Karatsuba Multipliers", in 2024 3rd IEEE International Conference on Advancement in Electrical and Electronic Engineering (ICAEEE), Dhaka University of Engineering & Technology (DUET), Gazipur, Bangladesh, 25-27 April, 2024
4. S. Singh, S. Patel, S. Kumar, M. Das and B. Jajodia, "An Eight-Term Karatsuba Multiplier for Cryptographic Hardware Primitives on FPGAs", in 2024 3rd IEEE International Conference on Advancement in Electrical and Electronic Engineering (ICAEEE), Dhaka University of Engineering & Technology (DUET), Gazipur, Bangladesh, 25-27 April, 2024
5. J. Lalwani, D. Linnet, B. Jajodia, M. B. Pande, A. Patel, K. Dave and B R Nikilesh, "Efficient Earth Observation Satellites Mission Planning with Quantum Algorithm", in 2024 Second IEEE International Conference in Trends in Quantum Computing & Emerging Business Technologies (TQCEBT), Christ (Deemed to be University), Pune Lavasa Campus, Pune, India, 22-23 March, 2024
6. S. Kumar, S. Patel, S. Singh, M. Das and B. Jajodia, "FPGA-Optimized Two-Term Karatsuba Multiplications for Large Integer Multiplications", in 2024 11th IEEE International Conference on Signal Processing and Integrated Networks (SPIN), ASET, Amity University, Sec-125, Noida, Delhi-NCR, India, 21-22 March, 2024
7. S. Kumar, S. Patel, S. Singh, M. Das and B. Jajodia, "Design and Evaluation of FPGA-Optimized Symmetrical Three-Term Karatsuba Multipliers", in 2024 IEEE International Conference on Recent Innovation in Smart and Sustainable Technology (ICRISST), Presidency University, Itgalpura, Rajanukunte, Yelakhana, Bangalore, Karnataka,, India, 15-16 March, 2024



8. S. Singh, S. Patel, S. Kumar, M. Das and B. Jajodia, "FPGA-Optimized Eight-Term Karatsuba Multiplications for Large Integer Multiplications", in 2024 IEEE International Conference on Recent Innovation in Smart and Sustainable Technology (ICRISST), Presidency University, Itgalpura, Rajanukunte, Yelakhana, Bangalore, Karnataka,, India, 15-16 March, 2024
9. Deep M. Baruah; [S. Senchow](#); [Bijit Kumar Das](#), "An Improved Adaptive Multi-microphone Noise Reduction Algorithm Preserving Binaural Cues in Hearing Aids", in 2023 IEEE World Conference on Communication & Computing (WCONF), RAIPUR, India, 14-16 July 2023.
10. Deep M. Baruah; [S. Senchow](#); [Bijit Kumar Das](#), "Impact of Reference Microphone Selection on Binaural Cue Preservation for Directional Sources in Multi-microphone Hearing Aids", in 2023 IEEE Guwahati Subsection Conference (GCON), Guwahati, India, 23-25 June 2023.
11. Maduranga, MWP, HKIS. Lakmal, and Valmik Tilwari. "Convolutional Neural Network Architectures for Modulation Scheme Classification in RF Signals within Cognitive Radio Systems." In 2023 9th International Conference on Signal Processing and Communication (ICSC), pp. 269-273. IEEE, 2023. <https://doi.org/10.1109/ICSC60394.2023.10441073>
12. A Shankar, D Chakraborty, S Dandapat, S Barma, "[Long Short-Term Memory Framework for Classification of Seizure Types Using A Different Format of EEG Signal](#)", 2023 IEEE Signal Processing in Medicine and Biology Symposium (SPMB), (2023), DOI:10.1109/SPMB59478.2023.10372685
13. Anand Shankar, Debaleena Chakraborty, Manob Jyoti Saikia, Samarendra Dandapat, Shovan Barma, "[Seizure Type Detection Using EEG Signals Based on Phase Synchronization and Deep Learning](#)", 2023 IEEE 19th International Conference on Body Sensor Networks (BSN), DOI: 10.1109/BSN58485.2023.10331565,
14. A. Mondal and S. Biswas, "RIS-Assisted Environment Aware Positioning in 6G Wireless Networks," 2023 IEEE Global Communications Conference (Globecom), Kuala Lumpur, Malaysia, 2023, pp. 1892-1897, doi: 10.1109/GCWkshps58843.2023.10464638.
15. A. Mondal, K. Singh and S. Biswas, "A Digital Twin Framework for Dynamic Monitoring of Hardware Impairment in RIS-Aided Networks,"2023 IEEE Global Communications Conference (Globecom), Kuala Lumpur, Malaysia, 2023, pp. 68-73, doi: 10.1109/GLOBECOM54140.2023.10437364.
16. P. Saikia, G. -Y. Wang, K. Singh, S. K. Singh, C. -P. Li and S. Biswas, "Intelligent Online Caching Strategy in 6G-Enhanced Automated Vehicular Communications," 2023 IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS), Jaipur, India, 2023, pp. 533-538, doi: 10.1109/ANTS59832.2023.10468769.
17. A. Mondal, A. Dutta and S. Biswas, "Dueling-DQN Based Spectrum Sharing Between MIMO Radar and Cellular Networks," 2023 Joint European Conference on Networks and Communications & 6G Summit (EuCNC/6G Summit), Gothenburg, Sweden, 2023, pp. 1-6, doi: 10.1109/EuCNC/6GSummit58263.2023.10188273.



18. V. Sharma, P. Saikia, S. K. Singh, K. Singh, W. -J. Huang and S. Biswas, "FEEL-enhanced Edge Computing in Energy Constrained UAV-aided IoT Networks," 2023 IEEE Wireless Communications and Networking Conference (WCNC), Glasgow, United Kingdom, 2023, pp. 1-6, doi: 10.1109/WCNC55385.2023.10118939.
19. K. Singh, H. Albinsaid, S. K. Singh, C. Pan and S. Biswas, "DRL-Based Beamforming Design in RIS-Aided Multi-user Wireless Networks," 2023 IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS), Jaipur, India, 2023, pp. 224-229, doi: 10.1109/ANTS59832.2023.10469394.
20. V. Sharma, A. Paul, S. K. Singh, K. Singh, S. Biswas and M. -L. Ku, "DRL-Based Robust Transmission for Sub-Connected Active RIS-Assisted Communications," 2023 IEEE Global Communications Conference (Globecom), Kuala Lumpur, Malaysia, 2023, pp. 584-589, doi: 10.1109/GCWkshps58843.2023.10464648.
21. Mohd Mansoor Khan, "Machine Learning Assisted Human-Fall Detection and Quantification System with IMU Sensors," Poster presentation during welcome reception at International IEEE Applied Sensing Conference (APSCON 2024), BITS, Pilani K K Birla Goa Campus, 2024.
22. Sharma, Nilesh and Mohd Mansoor Khan, "Micro-Nano Plastic-pollutant's detection and evaluation via Quantum-Metamaterial in water bodies: Analytical and Numerical approaches," International IEEE Applied Sensing Conference (APSCON 2024), BITS, Pilani K K Birla Goa Campus, vol. 2, pp. 1-4, 2024.
23. Manazir, Haris, Mohammad Anas Majid, and Mohd Mansoor Khan, "Intelligent, Portable, and Cost-Effective Eye-Disease early warning system on developed Pupillary Dynamics Dataset with Machine Learning," jobtitle{International IEEE Applied Sensing Conference (APSCON 2024), BITS, Pilani K K Birla Goa Campus, vol. 2, pp. 1-4 2024.
24. Sarma, Krishna and Mohd Mansoor Khan, "Broadband optical amplification via parallel operation of Erbium and Thulium doped fibers in S, C, and near-L Bands," Workshop on Recent Advances in Photonics 2023, Indian Institute of Information Technology Allahabad, Prayagraj-India, 2023.
25. Sarma, Krishna and Mohd Mansoor Khan, "S+C Band Optical Amplification via Cascaded Thulium-Erbium Doped Fiber," Photonics 2023, Indian Institute of Science, Bengalure-India, 2023.
26. Khan, Mohd Mansoor, Priyam Raj, and Sanu Kumar, "Cost-Effective early warning solution for Anisocoria Eye-Disease through Optical Sensing and Machine Learning: A Preliminary Analysis," IEEE International Conference on Recent Advances in Electrical, Electronics & Digital Healthcare Technologies, 2023 (REEDCON 2023), Jamia Millia Islamia, New Delhi, vol. 1, pp. 129-130, India, 2023.
27. A Goswami and S Rao, Artificial Noise-Aided Secure Cognitive Radio Networks: Design and Performance Analysis. COMSNETS 2024 pp 760-764.



28. B. Paul and R. Patra, "Enhancing Photoacoustic Tomographic Imaging using Total Generalized Variation Regularization: A Model-based Approach," 2023 IEEE 20th India Council International Conference (INDICON), Hyderabad, India, 2023, pp. 788-793, doi: 10.1109/INDICON59947.2023.10440797.
29. A. K. Kalita and R. Patra, "PROSODY-VC: Voice style transfer with speech prosody," 2023 IEEE Guwahati Subsection Conference (GCON), Guwahati, India, 2023, pp. 01-05, doi: 10.1109/GCON58516.2023.10183559.
30. P. Pandey and R. Patra, "A Real-time Web-based Application for Automated Plant Disease Classification using Deep Learning," 2023 IEEE International Symposium on Smart Electronic Systems (iSES), Ahmedabad, India, 2023, pp. 230-235, doi: 10.1109/iSES58672.2023.00055.
31. Bonty Halo, Sourav Bhowmick, and Surajit Panja, "Dynamical Analysis of Friedkin-Johnsen Model Over Structurally Balanced Signed Network" presented at the 8th IFAC ACODS 2024
32. Gouranga Mandal, Mourina Ghosh, Pulak Mondal, " Application of MOSFET-Based High Frequency Signal Processing Memristor", 2023 IEEE Devices for Integrated Circuit (DevIC), 07-08 April 2023, Kalyani, India, pp: 476 - 480, DOI: 10.1109/DevIC57758.2023.10134961.
33. Subhasish Banerjee, Mourina Ghosh, Pulak Mondal, "Single OTRA Based Universal Third Order Butterworth Filter and Its Performance Study" 2023 8th International Conference on Frontiers of Signal Processing, 23-25 October 2023, Corfu, Greece, pp: 17-23, DOI: 10.1109/ICFSP59764.2023.10372889.
34. Subhash Mondal, Sanjoy Roy, R Jeevaraj, Mourina Ghosh, Amitava Nag, "Random Forest-based Underwater Temperature Prediction Model for IoT Devices", 2023 IEEE 3rd Mysore Sub Section International Conference (MysuruCon), 01-02 December 2023, HASSAN, India, DOI: 10.1109/MysuruCon59703.2023.10396911.
35. Arpit Singh Yadav, Komal Janghel, "Performance of IRS-Assisted NOMA Communication with Dynamic IRS Allocation", presented at the WCNC 2024, Dubai
36. H. Das, P. Kumar Sahu and K. Khanikar, "AI-based license plate detection of on-road vehicle," 2023 International Conference on Microwave, Optical, and Communication Engineering (ICMOCE), Bhubaneswar, India, 2023, pp. 1-4, doi: 10.1109/ICMOCE57812.2023.10167115.
37. Rajat Amat, Mourina Ghosh, Robin Phatak, "Dynamic Underwater Environment Surveillance Through Real Time Data Acquisition", 4th International Conference on River Corridor and Research Management 2024, 7th-9th March, 2024, Jointly organized by IIT Guwahati and IIT Jammu.
38. Parishmita Goswami, and Rakesh Biswas, "High Speed Fault Tolerant Approximate Adder for low Power Application," in 4th IEEE International Conference on VLSI Systems, Architecture, Technology and Applications (VLSI SATA), May 17-18, 2024, Bengaluru, India.

Book Chapter:

1. K. Amal Thomas, Soumyajit Poddar, Mourina Ghosh, Amitava Nag, "Real-Time Object Detection for Unmanned Underwater Vehicles Using Movidius Neural Compute Stick" Lecturer Notes of Electrical Engineering, LNEE, Volume 1071, October 2023.

Workshop/Talk Organized:

1. Workshop organized on "Reconfigurable Intelligent Surfaces-Empowered 3CLS for 6G and Beyond Communications, at IEEE WCNC, Dubai, 2024 by Dr. Sudip Biswas.
2. A Talk on "Women in Control and Robotics" delivered by Smt. Rima Ghosh, Sci/Eng 'SF', Control Design & Analysis for Special Missions Division, Control Dynamics Design Group, ISRO Bangalore, at IIIT Guwahati, organised by jointly IIIT Guwahati and the IEEE Joint CSS-IMS Kolkata Chapter, Coordinated by Dr. Surajit Panja.
3. A Talk on, "IOT Based Air Pollution Monitoring", delivered by Dr. Mohd Shahrul Mohd Nadzir, University Kebangsaan Malaysia delivered talk IIIT Guwahati, organized by IIIT Guwahati, Coordinate by Dr. Mourina Ghosh, February 2024.

Invited Talk:

1. Shovan Barma delivered a talk on "SEmotion Recognition by Distinguishing High Affective Content in Physiological Signal: A Case Study in EEG" on 11 IEEE International Conference on Orange Technology on 4 - 7 December 2023, Kyungpook National University, Daegu, South Korea
2. S. Biswas delivered a talk on "Smart Healthcare Systems using IoT and AI/ML" in Advanced Entrepreneurship and Skill Development Programme (A-ESDP), organized by NIT Sikkim, Feb. 27-Mar 02, 2024
3. S. Biswas delivered a talk on "NoMA in NTN networks" in One-day workshop on "Development of Indigenous Standards and Implementation of Next-generation Multiple Access in Internet-of-Things Networks", organized by IIT Indore, Jan. 19, 2024

Other Activities:

1. Dr. Sudip Biswas is a TPC member for IEEE GLOBECOM 2024, Cape Town, South Africa in Selected Areas in Communications: Reconfigurable Intelligent Surfaces.
2. Dr. Rajib Malik is a TPC member for the International Conference on Signal Processing and Integrated Networks (SPIN-2024), 21st -22nd March, 2024, India.

Other Achievements/Awards:

1. Mohd Mansoor Khan, Session Chair, IEEE International Conference on Recent Advances in Electrical, Electronics & Digital Healthcare Technologies (REEDCON 2023), Jamia Millia Islamia--New Delhi, India, 2023.



2. Mohd Mansoor Khan, Project Presented, "Economically viable solution of Portable Spectrophotometer for Glucose, Blood Traces, and Urine Tract Infection detection in Human-Urine for early disease diagnosis" International IEEE Applied Sensing Conference (APSCON 2024), BITS Pilani K K Birla Goa Campus, 2024.
3. Mohd Mansoor Khan, Second Prize for Paper presentation in the "Lasers and applications" Track, PHOTONICS 2023 at Indian Institute of Science Bengaluru.
4. Mohd Mansoor Khan, Received the IEEE WISE/YP Big Idea Pitch Innovation Catalyst Award-Winner at International IEEE Applied Sensing Conference (APSCON 2024), BITS Pilani K K Birla Goa Campus, 2024. The award consists of cash prize, citation, and start-up opportunities.
5. Mohd Mansoor Khan, Received the Best Paper Award at IEEE International Conference on Recent Advances in Electrical, Electronics & Digital Healthcare Technologies, 2023 (REEDCON 2023), Jamia Millia Islamia, New Delhi.
6. Mohd Mansoor Khan, Finalist in the Hackathon Design and Packaging / 5G & 6G Technologies under INUP-i2i program during the 8th International Conference on Advanced Nanomaterials and Nanotechnology - ICANN 2023 sponsored by Ministry of Electronics and Information Technology (MeitY), Govt. of India at the Centre for Nanotechnology, Indian Institute of Technology Guwahati. Topic: Design of Nano-Optical-Metamaterials for ubiquitous sensing applications in Health, Environment, and Agricultural Monitoring via Surface Plasmon Resonance: Numerical Approach.

DEPARTMENT OF SCIENCE AND MATHEMATICS

Faculty:

1. Dr. Anuradha Jha, Assistant Professor, Numerical solutions of ordinary and partial differential equations, Singular perturbation problems.
2. Dr. Farha Sultana, Assistant Professor, Lifetime Data Analysis, Reliability Theory, Estimation Theory
3. Dr. Masihuddin, Assistant Professor, Ranking and Selection Problems and Related Estimation Problems, Decision Theory
4. Dr. Mostafizar Khandakar, Assistant Professor, Probability Theory, Subordinated Stochastic Processes, Statistics.
5. Dr. Mohd. Harun, Assistant Professor Analytic Number Theory : Delta methods, Modular forms, and Subconvexity for L-functions.

Publications in Journals:

1. Kundu, Arnab, and Maity, Dipendu. "Archimedean toroidal maps and their edge covers" *Forum Mathematicum*, vol. 36, no. 2, pp. 469-493, 2024. <https://doi.org/10.1515/forum-2023-0168>
2. Maity, D. Quadrangular and pentagonal maps on the torus with a given degree sequence. *Indian J Pure Appl Math*, 2024. <https://doi.org/10.1007/s13226-024-00545-z>
3. Kharkongor, M. M., Bhowmik, D., and Maity, D., Homological Quantum Codes Associated with A Class of Surface Maps. *The Journal of the Indian Mathematical Society*, 91(1-2), 95-110, 2024. <https://doi.org/10.18311/jims/2024/30192>
4. Kharkongor, M. M., Bhowmik, D., and Maity, D., 3-Isogonal Planar Tilings are not 3-Isogonal on the Torus. *The Journal of the Indian Mathematical Society*, 90(3-4), 375-386, 2023. <https://doi.org/10.18311/jims/2023/29802>
5. S. Azharuddin, and Gautam Kalita, A family of algebraic curves and Appell series over finite fields, *The Ramanujan J.*, 2024. <https://doi.org/10.1007/s11139-024-00851-4>.
6. G. Kalita, and S. Azharuddin, Transformations for Appell series over finite fields and traces of Frobenius for elliptic curves, *Finite Fields and Their Applications*, 92, Art. no. 102301, pp. 29 , 2023.
7. F. Sayed, and Gautam Kalita, On a supercharacter analog of nilpotent

groups, *Communications in Algebra*, 52 (1), 443—449, 2024.

10. S. Dutta, F. Sultana, and S. Kayal, “Bayesian and non-Bayesian inference for a general family of distributions based on simple step-stress life test using TRV

model under type II censoring”, *Sequential Analysis*, 42 (4), 349-370, 2023.

12. F. Sultana, Ç Çetinkaya, and D Kundu, “Estimation of the stress-strength parameter under two-sample balanced progressive censoring scheme” *Journal of Statistical Computation and Simulation*, 94 (6), 1269-1299, 2024.

13. F. Sultana, Ç Çetinkaya, and D Kundu, “Step-stress life-testing under tampered random variable modeling for Weibull distribution in presence of competing risk data” *Quality and Reliability Engineering International*, 40 (3), 1382-1402, 2024.

14. Masihuddin and Neeraj Misra. [Shrinkage Estimators Dominating Some Naive Estimators of the Selected Entropy](#). *IEEE Transactions on Information Theory*, Vol. 70(1), 532 – 549, 2024.

Presentation in Conferences: Nil

Visitors from Other Institutes: Nil

Others:

1. Masihuddin: Attended 6 days Teacher’s Enrichment Workshop (TEW) jointly organized by National Institute of Technology Calicut and National Centre for Mathematics (NCM), Mumbai.

Invited Talk/Outreach Program by Faculty:

1. Anuradha Jha delivered a symposia talk titled “Analysis of upwind difference scheme on Shishkin - Bakhvalov mesh for singularly perturbed two parameter parabolic problem with discontinuous coefficients” in the 38th Annual Conference of the Ramanujan Mathematical Society organized by Department of Mathematics, IIT Guwahati during 22 - 24 December 2023.
2. Farha Sultana delivered a talk titled “Tampered random variable modeling for multiple step-stress life test” in the 12th international conference on Mathematical Methods in Reliability organized by University of Murcia, Facultad de Matemáticas, Spain during May 30, 2023 to June 02, 2023.
3. Farha Sultana delivered a talk as a Resource Person in a one-day workshop on “Probability and Distribution Theory” on 1st September, 2023 organized by the Department of Statistics at St. Anthony’s College, Shillong.

4. Farha Sultana delivered a talk titled “Tampered random variable modeling for multiple step-stress life test” parabolic problem with discontinuous coefficients” in the 38th Annual Conference of the Ramanujan Mathematical Society organized by Department of Mathematics, IIT Guwahati during 22 - 24 December 2023.
5. Farha Sultana delivered a talk “ On two exponential populations under a joint adaptive type-II progressive censoring” as an invited speaker at the “International conference on Women in Pure and Applied Mathematics” organized by SRM University AP in Andhra Pradesh during 01-05 January 2024.

Collaboration with International Institutions:

Name of the Faculty	Name of the institution	Country
Farha Sultana	Department of Actuarial Sciences, Kırıkkale University, Yahşihan/Kırıkkale, Turkey	Turkey
	The High Institute for Tourism and computer, Alexandria, Egypt	Egypt
	Faculty of Engineering Technology, Al-Balqa Applied University, Amman 11134, Jordan	Jordan
	The University of Jordan, Amman, Jordan	Jordan
	Institute of Statistics, RWTH Aachen, 52056 Aachen, Germany	Germany
	Department of Mathematics and Information Technology, The Education University of Hong Kong	Hong Kong



Department of Humanities and Social Sciences-

Faculty

1. Dr Suranjana Barua, Associate Professor, Sociolinguistics, Discourse/ Conversation Analysis, English Language Teaching, Translation Studies, Gender Studies, Socio-cultural and political history of Assam
2. Dr Hari Kanta Choudhury, Associate Professor, Health Economics, Experimental Economics (RCT) and Development Economics.
3. Dr Rajarshi Mitra, Assistant Professor, Colonial and Postcolonial Literature, British Empire and Literature, Science Fiction Studies, The Long Nineteenth Century
4. Dr L David Lal, Assistant Professor, Politics of Identity, Violence (Caste and Ethnic Conflicts), Public Policy, Evaluation of Developmental Schemes, Sociopolitical History of Marginalised.
5. Dr Kaveri Deb, Assistant Professor, International Trade and Economic Development, Multilateral trade negotiations, regional trade agreements and global production networks, International Finance, particularly on issues related to Balance of Payment of nations, and the dynamics of exchange rate.
6. Dr Arjab Roy, Assistant Professor, Colonial & Postcolonial Studies, Left Intellectual and Cultural History, Subaltern Studies, Adivasi Studies, Urban Studies, and English Language Teaching in India.
7. Dr Ankita Sarmah, Assistant Professor, Entrepreneurship, Micro Small and Medium Enterprises (MSMEs), Industrial Economics, Small-scale Industries and Agricultural Economics.
8. Dr Rupjyoti Saha, Assistant Professor, Sustainable Development Goals (SDGs) - Environmental, Social and Governance Practices, Green Finance and its Ecological Impact. Corporate Governance- board gender diversity, business group affiliations, family ownership, and board human capital, Knowledge-Based-Economy-Intellectual Capital.

Talks organized by the Department

Resource Person	Mode	Topic	Date
Devasish Dhar Mason Fellow, Harvard Kennedy School	Online Talk 1	Understanding Urban Centers: Older Problems, Modern Solutions	01.09.202 3
Frederik Florenz Dphil candidate, Wolfson College, University of Oxford	Online Talk 2	U.S Responses on Terrorism and Crime in Afghanistan and Iraq	11.09.202 3
Dr. Mrinmoy Pramanick Assistant Professor, Department of CILL, University of Calcutta	Online Talk 3	Distant Neighbour: Pragati Patrika and the Bengalis in Burma	04.01.202 4
Dr. Swati Moitro Assistant Professor, Visiting Fellowship Receiver, Global South, CRASSH	Online Talk 4	Fish Fries and Audio Stories: Methods in Book History	31.01.202 4
Akash Banerjee M.A by Research, IIT Bombay	Online Talk 5	Mysticism and Masculinity: Rerearning the Alphabet(a)s of Manliness from the Baul Philosophy	15.02.202 4
Manaswinee Mahanta Assistant Professor, KKH State Open University	Online Talk 6	Community Documentary: Moving Towards Digital Inclusion	07.03.202 4

Publications (Books):

- Barua, Suranjana (2023). *Revelation of Self in Language: Narrative Identity as Emergent in Conversation*. Tulika Books New Delhi Tulika Books weblink: <https://tulikabooks.in/catalog/product/view/id/22434> Columbia University Press web link: <https://cup.columbia.edu/book/revelation-of-self-in-language/9788195055968>
- Barua, Suranjana (2023) *Girmit: Stories from the Tea Gardens of Assam* (translated into English from Assamese short story collection *Girmit* by Golap Khound, 1969). Notion Press, (India/ Malaysia/ Singapore).

**Publications (Journals):**

- Barua, Suranjana and Dutta, Barshapriya. (2023). Reworking Vulnerabilities: Linguistic Resurrections of Feminine Identity. Proceedings of the World Conference on Women's Studies, 8(1), 1-30. <https://doi.org/10.17501/24246743.2023.8101>
- Bhavana Barman and Hari K. Choudhury (2024). Transitioning Diabetes Prevalence in North-Eastern India: A shift from affluence to adversity. In J. Saud, M.M. Sharma and J. Phukan (eds.), *The Evolving Economics and Commerce Landscape: A Comprehensive Analysis*, Purbayon Publication, Guwahati, pp. 114-126.
- Narzary, D. and Lal, L. David. (2024). "Pursuing Autonomy amidst Political Complexities: The Bodo Political Journey in Northeast India", *Critical Asian Studies*, doi.org/10.52698/PPML8090, (2024), Routledge: Taylor and Francis
- Wani, J. I., & Lal, L. David. (2024). Dearer Caste and Cheaper Lives: The SC and ST (Prevention of Atrocities) Act and the Double Violence of Law in India. *History and Sociology of South Asia*, 18 (2), 198-211. SAGE. <https://doi.org/10.1177/22308075231226364>
- Lal, L. David. (2023). In Search of a Utopian Society: Situating 'Dalit' Conversions in Contemporary India. *CASTE A Global Journal on Social Exclusion*, 4(2), 288-305, Brandeis University. <https://doi.org/10.26812/caste.v4i2.503>
- Arjab Roy & Ambalika Guha, "Information and Communication Technology Tools in Language Learning Classroom: Developing Metacognitive Skills and its Social Ramifications", *Digital Technologies For Smart Business, Economy, and Education*, (eds. Amina Omrane, Gouranga Patra, and Sumona Datta), (https://doi.org/10.1007/978-3-031-24101-7_17), (2023), pages. 303-319, Springer Nature.
- Arjab Roy, "Caste and the Naxalite Movement in India: A Genealogy of Critique of Indian Left Radicalism", *Caste and Naxalite Politics*, (ed. Pradip Basu), (2023), pages. 41-63, Gangchil Books
- Sarmah, A., & Saikia, B. (2023). "Business challenges of the nascent and mature micro small and medium enterprises (MSMEs): a comparative analysis from India". *Journal of Global Entrepreneurship Research* (Springer), Vol.13 No.(20), pp. 1-13. <https://doi.org/10.1007/s40497-023-00364-2>.
- Sarmah, A., & Saikia, B. (2023). "Business challenges of the nascent and mature micro small and medium enterprises (MSMEs): a comparative analysis from India". *Journal of Global Entrepreneurship Research* (Springer), Vol.13 No.(20), pp. 1-13. <https://doi.org/10.1007/s40497-023-00364-2>.
- Sarmah, A., & Saikia, B. (2023). "What Influences the Business Success of Micro Small and Medium Enterprises (MSMEs)? Analysis from Rural and Urban Assam, India". Parikalpana:



KIIT Journal of Management, Vol.19, No.(2), pp. 217-235. DoI:10.23862/kiit-parikalpana/2023/v19/i2/223533.

Invited lectures & Chairs:

- Rajarshi Mitra. Chaired & Moderated a session on “From Profit to Rebuilding” in The British Empire and Colonial Famines: History, Culture, Critique.

Third & Final Conference (Workshop), University of Edinburgh, May 24-25, 2023.

- Rajarshi Mitra. Chaired & Moderated a session on “IPTA, Famine and Art” with Prof Sanjoy Kumar Mallik (Visva-Bharati University) and Dr Janam Mukherjee (U of Toronto) (Jan 06 , 2024).
- Rajarshi Mitra. Chaired & Moderated a session on “The Famine in Scholarly- and Art-work for the Future” with Sumantra Baral and Aryama Bej (Jan 07, 2024).
- L. David Lal was invited to conduct a session on ‘Constitution, Universal Value and its connection with Education’ at the Online Faculty Induction Programme organised by UGC MM-TTC at NIEPA, New Delhi, 19 March 2024.
- L. David Lal was invited to conduct a session on ‘Student Diversity and Civic Learning’ at two-day Collaborative Orientation Programme on *Student Diversity and Inclusion in Higher Education* organised by NIEPA and UGC-MMTTC, Gauhati University, 28 February 2024.
- L. David Lal delivered an invited lecture on the topic “Repressed Caste Guilt and Remorse: Understanding Caste Violence in India” at CSSEIP, JNU on 14th February, 2024
- L. David Lal was invited as an expert member in Consultative Meet for ‘Development and Review of the Guidelines and Action Plan for Curricular Integration and Implementation of ESD and GCED in Schools’ from 12-16 February, 2024 at NCERT, New Delhi
- L. David Lal was invited to conduct a session ‘The Research Process and Educational Research Tools and Techniques’ in two-day training programme on ‘Project Planning, Implementation, Monitoring and Evaluation’ for the DIET faculties from North East India at the North East Regional Institute of Education in Shillong, Meghalaya, 30-31 Jan 2023
- L. David Lal was invited as an expert member in Consultative Meet to prepare the ‘Guidelines and Action Plan for Curricular Integration and Implementation of ESD and GCED in Schools’ organised by NCERT-Delhi, 26th - 29th December, 2023 at the Department of Education, University of Calicut, Kerala.
- L. David Lal delivered an invited lecture on ‘The role of Theories in Social Science Research’ at Tata Institute of Social Sciences Guwahati on 1 December 2023.



- L. David Lal was invited as an expert member for a consultative meeting of the Nodal Officers of the States and Union Territories for a research study on 'Sustainable Development Goals 4.7: Policies and Practices in School Education' organised by Planning and Monitoring Division, National Council of Educational Research and Training (NCERT), Delhi on 11 November, 2023.
- L. David Lal was invited as a panel discussant on 'Implications of Interdisciplinary partnership: New directions in mental health, wellbeing, 'recovery' and resilience' at two-day Consultative Meet on MAKING THE INVISIBLE VISIBLE: Embedding Wellbeing in Everyday Life on organised by Mind India, Guwahati, 8-9 Sep 2023.
- L. David Lal was invited as an expert member for a consultative meeting of the Nodal Officers of the States and Union Territories for a research study on 'Sustainable Development Goals 4.7: Policies and Practices in School Education' organised by Planning and Monitoring Division, National Council of Educational Research and Training (NCERT), Delhi on 9-11 August, 2023.
- L. David Lal was invited as an expert member for a Consultative Meeting to deliberate on 'Tribal Health in North-East India' on April 26 2023 organised by RASTA Population Council of India.
- Deb, Kaveri was invited resource person for a workshop on "Prime Minister Awaas Yojana (PMAY) in Assam: Its Reach and Impact " organised by the Department of Humanities and Social Sciences, IIT Guwahati, on 28th February 2024.
- Roy, Arjab. Interview with Prof Pradip Basu, "Biplabi Baam o Taar Tatparya" (Trans: Revolutionary Left and its Significance), Rastrabiggan Charchakendra, September 2023.
- Ankita Sarmah was invited to deliver a talk at "Skill, Entrepreneurship, Start-up and Innovation in Physical Sciences (SESIPS)" workshop organised by the Department of Physics, Tezpur University (TU) in collaboration with TEC(DST)-TU and IPR-TU on the 9th of November 2023.

Seminars/ conferences:

- Barua, Suranjana (2023). "Resistance, Rebellion and Unification: The Emancipatory Poetics of Bishnu Prasad Rabha", Paper presentation for Panel on 'Radical Poetics in the Literary Cultures of South Asia' at the 27th ECSAS (European Conference for South Asian Studies); 26-29 July 2023, (2023), European Association for South Asian Studies (EASAS)
- Barua, Suranjana and Dutta, Barshapriya (2023). 'Reworking Vulnerabilities: Linguistic Resurrections of Feminine Identity'. Presented online at the 9th World Conference on Women's Studies 2023 "Gender Justice and the Power of Feminisms: Dismantling Patriarchy, Building Equity". 11th – 12th May 2023, Bangkok, Thailand.
- Hari K. Choudhury, Rupak Kumar Borah and, Bhavana Barman presented a research paper entitled, "*Interventions and cervical cancer prevention: Evidence from an experiment*", in the *International Conference on Safety, Health, Analytics-Driven Governance for Sustainable*



Development, held on 29th and 30th January 2024, Organised by the Centre for Excellence in Safety Engineering and Analytics (CoE-SEA), IIT Kharagpur.

- Bhavana Barman, Hari K. Choudhury, Pratap C. Mohanty, Hiranya K. Nath presented a research paper entitled, “ *Exploring the changing face of Diabetes in India: Insights from National Family Health Survey Data using Concentration Index*”, in the *International Conference on Safety, Health, Analytics-Driven Governance for Sustainable Development*, held on 29th and 30th January 2024, Organised by the Centre for Excellence in Safety Engineering and Analytics (CoE-SEA), IIT Kharagpur.
- Lipika Kalita, and Hari K. Choudhury presented a research paper entitled “*Do Occupational Changes Drive Socioeconomic Transformation within Communities? Exploring the Socioeconomic Evolution Arising from Workforce Shifts in Assam's Tea Gardens*” at the *Fulbright-World Bank Workshop: Institutions, Inequality, Climate Change, and Migration*, held on March 26 at Fulbright University, Vietnam.

Fulbright-World Bank Workshop: Institutions, Inequality, Climate Change, and Migration

- Rajarshi Mitra. Presented (May25, 2023) on “Our Famines and their Famines: The Political Economy of Imperial Famines and Early Nationalism in Bengal”, University of Edinburgh, Edinburgh.
- Rajarshi Mitra. (June 21, 2023) “The Maharajah’s Sphere of Influence: Hunting, Statecraft and Political Friendships in Cooch Behar” in the panel on *Celebrations and Commemorations* at the World Congress for Society of Global Nineteenth Century Studies in Singapore Management University.
- Rajarshi Mitra: (June 15, 2024) “The Sporting Orient: Leisure Topography of British Subalterns in early Nineteenth Century Bengal” in the panel on *Indian and Cross Cultural Encounters* in the Annual Conference of the Research Society for Victorian Periodicals in University of Stirling.
- Rajarshi Mitra: (June 22, 2024) “In Pursuit of Oriental Beasts: Sentiment, Intimacy and Blending in Romantic Era Colonial India” in the panel on *Education, Diplomacy and Hunting in British South Asia* in the Annual Conference of Britain and the World in the University of Winchester.
- Lal, L David (2024). Presented research on ‘Education of the Marginalized in Swaraj India’ at the 47th Indian Social Science Congress hosted at the University of Science and Technology Meghalaya, 6-7 February 2024.
- Lal, L David (2023). Presented research paper on ‘Unpaid Labour and Caste Hierarchies: A Study of Ooliam among the Shanar in South Travancore’ at 82nd Session of Indian History Congress at Kakatiya University, Warangal, Telangana on 29 December 2023
- Nair, A. and Lal, L.David. (2023). Presented a research paper on ‘Education of In-migrant Children: Issues and Challenges’ at International Conference on “Changing Dynamics of



Global Education” jointly organised by Asian Business School and Northern University Bangladesh, 11-12 December 2023.

- Lal, L David (2023). Presented research paper on ‘Under-representation of Christian in Indian Politics: An Analysis of 15-17 Lok Sabha Elections’, organised by Association of Academic for Social Justice and Institute for Social and Economic Change Bangalore, 23-25 August 2023.
- Lal, L David (2023). Presented research paper on ‘Repressed Caste Guilt and Caste Violence in India’, organised by European Conference of South Asian Studies, Turin, Italy 26-29 July 2023
- Deb, Kaveri (2023). Presented the paper "Comparative Analysis of the Role of Expectations in Portfolio Balance Model with Emphasis on the Microstructure Theory: The Case of India" at 33rd Annual Conference of the International Trade and Finance Association (ITFA) at Richmond University, USA, 24-26th May 2023.
- Prangan Lahkar and Arjab Roy presented a paper on "Cultures of Reception in the Reading of Graphic Narratives in Undergraduate Classrooms of Assam" during the two day International Conference, "Ekphrasis and 'the Speaking Image': Interrogating Forms of Sequential Art," organized by the School of Film, Media and Creative Arts, RV University, Bengaluru, Karnataka, India on 8th and 9th November, 2023.
- Arjab Roy presented a paper titled "To Liberate or Liberalize? Thoughts on Critical Theory in Post-Revolutionary Societies", at the International Conference on Towards World Critical Theory? Contributions from the Global South, organized by Postcolonial Studies Association of the Global South (PSAGS) in collaboration with the Institute of Language Studies and Research (ILSR) Kolkata and Ambedkar Centre for Social and Cultural Studies (ACSCS) Gour Mahavidyalaya, and held at ILSR Kolkata, West Bengal, India on 4th and 5th December 2023.
- Prangan Lahkar and Arjab Roy presented a paper on "Reception of Graphic Narratives in Undergraduate Classrooms of Assam" at the Annual Pre-Researchers at Work Conference (Pre-Raw. Con) held on 5th March, 2024 at the Centre for Comparative Literature, University of Hyderabad, India.

Academic Visits

- Deb, Kaveri (2023). Academic visit to the Economics Department of Darla Moore School of Business, University of South Carolina, USA, in May-June 2023.

Convenor

- Lal, L David along with Dr. Berg, D.E. and Menon, Shailaja was the Convenor of Panel 39: Citizens at Risk: Caste, Violence and State Institutions in India at European Conference for South Asian Studies, University of Turin, Italy, 28-31 July 2023.

- Lal, L David along with Prof. Rao, CY was the Convenor of Thematic Panel 12 on Peoples (Dalits, Tribes, Women, Peasants etc.) Struggles and Movements for Equitable Democratic Society held in USTM Meghalaya, 5-9 February 2024.
- Lal, L David is the External Member, Board of Studies, School of Social Sciences and Humanities, VIT-AP, (2024-2026)
- Ankita Sarmah organised an online talk/interactive session by Dr. Uttam Kumar Sen (co-founder and Start-up entrepreneur of e-TRNL Energy) on “Entrepreneurship and what it takes to be an entrepreneur” on 9th of February 2024.

Projects

- Mitra, Rajarshi (2022 – 2024). Co-Investigator in [The British Empire, Scotland, and Indian Famines: Writings on Food Crisis in Colonial India](#). A Royal Society of Edinburgh Research Network Project. https://blogs.ed.ac.uk/rseaward_indianfamines/partners/
- Mitra, Rajarshi (2023 – 2024). Co-Investigator in an Arts Research Project supported by the Indian Foundation for Arts titled “Fairground Experience in Cooch Behar”. (PI Dr Manas K Ghosh).

Training and Development

- Suranjana Barua initiated English Language Learning Programme for Adults (ELLPA) under Institute Social Responsibility in 2023 for members of security and housekeeping staff at IIITG. The course aimed to enhance English language proficiency among adult outsourced staff members of IIITG.

The 6 months’ course was divided into two modules of 3 months each: *Basic Course* (February-April 2023) and *Advanced Course* (May-August, 2023) corresponding to the 4 Language Skills of *Listening, Speaking, Reading, Writing* (LSRW). Out of a total of 61 learners who registered, 16 completed ELLPA (Advanced); 30 completed ELLPA (Basic); 8 could not appear or final exams; 5 opted out due to health/ other issues and 2 had retired/ or been reassigned service. Certificates were given by IIITG Director Prof Gautam Barua at the Certificate Distribution Ceremony held on 14.9.2023 in the Institute.

- Suranjana Barua completed *Recurrent Training for Interlocutors, Aviation English Language Experts (Raters) and Aviation English Trainers* organized by Airports Authority of India from 5 October-8 October, 2023.
- Roy, Arjab. Participated in the Five-Day Faculty Development Programme on "Emerging Research Trends: Literature, Culture and Beyond", organized by the Department of English Language and Literature, Adamas University in collaboration with the Department of English, West Bengal State University, from 21 February, 2024 to 26 February, 2024.
- Mitra, Rajarshi. Resource Person: *Faculty Development Programme* in Dhupguri Girls’ College organized by IQAC, Dhupguri Girls’ College and IQAC, Ghoksadanga Birendra Mahavidyalaya on 20th February, 2024.



- Hari K. Choudhury in collaboration with Prof. Hiranya K. Nath, Sam Houston State University, Huntsville, USA organised a 5 – Day Residential Summer Boot Camp in Economics, held from 10th-14th July, 2023, at IIIT Guwahati.

Reviewer

- Suranjana Barua was Scientific Reviewer for The 9th World Conference on Women’s Studies 2023 "Gender Justice and the Power of Feminisms: Dismantling Patriarchy, Building Equity". 11th – 12th May 2023, Bangkok, Thailand.
- Suranjana Barua was an Academic Reviewer for Students’ Conference of Linguistics in India (SCONLI 14) hosted by Department for Humanities and Social Sciences (IIT, Kharagpur) 21-23 February, 2024

Editorial

- Suranjana Barua served as an Editor for journal *Language and Language Teaching* (ISSN 2277-307X) Vol. 12, No 2 Issue 24, July 2023 and Vol 13, No. 1, Issue 25, January 2024

<http://llt.org.in/editorial-committee/>

Library

IIITG Library has been functioning since 2013 with the inception of the institute. The present institute library is attached to the main admin cum academic building in the institute permanent campus and it is in the ground floor. The total area of the library is 3400 square foot(Approx.). IIITG Library serves the students, research scholars, faculty members and staffs of the institute. The library is kept open from 8.00 am to 2.00 am in all days. There is a 165 Nos of seating capacity library reading hall, with 24x7 Electricity, Wi-Fi and central AC facility for the reader.

At present, the library holds around 2805 Nos. of books, and is subscribing to 03 Nos of e-journals/database packages namely a) IEEE ASPP+POP ALL, b) ACM Digital Library and c) IETE Journal of Research & IETE Technical Review (in combo) (print + E Journals), through which the readers get access to 257 Nos of peer reviewed scholarly e-journals and 02 Nos of print journals and also access to other contents in the e-journal and database packages.



Placement Status for 2023-24 Batch (till 30th June, 2024)

IIIT Guwahati conducted the placement session for the current academic year. The companies where our students have been placed are: Amazon, Atlassian, Bajaj, Blackbasil, Cisco, D. E. Shaw, Deloitte, DeltaX, Devtron, Flipkart, GE Digital, Hugosave, Kalvium, MAQ, Microsoft, Mindtickle, Morgan Stanley, Nvidia, Samsung, TA Digital, TCS, Versa Network, Zscaler etc.

[LPA = lakhs per annum]

Placement Status B.Tech 2023-24 Batch:

Details of MOUs signed:

I. The new Memorandum of Understanding (MoU) signed with other institutions/organizations during April 2023- June 2024 are as follows:

- i) Population Council Institute (PC Institute)
- ii) Mckinley Rice
- iii) Assam Electronics Development Corporation Ltd (AMTRON)
- (iv) Airports Authority of India

Placement Status M.Tech 2023-24 Batch:

II. Placement Status for 2024 Graduated Batch

IIIT Guwahati conducted the placement session for the academic year 2023-2024. The companies where our students have been placed are: Amazon, Bajaj, Blackbasil, Cisco, D. E. Shaw, Deloitte, DeltaX, Devtron, Electra EV, Flipkart, GE Digital, Hugosave, Kalvium, MAQ, Microsoft, Mindtickle, Morgan Stanley, Nvidia, Samsung, TA Digital, TCS, Versa Network, Zscaler etc.

[LPA = lakhs per annum]

Placement Status B.Tech 2024 Graduates:

Category	CSE	ECE	Overall
Total number of students attended the placement drives (A)	123	35	158
Total job offered	100	16	116
Average salary	15.8 LPA (approx.)	11.85 LPA (approx.)	15.1 LPA (approx.)



Median salary	13.65 LPA	9.5 LPA	13.65 LPA
Total students selected so far (B)	82	16	98
Highest salary	52 LPA	28 LPA	52 LPA
Percentage placed $\{(B \div A) \times 100\}$	66.67%	45.71%	62.02%
Number of students opted for higher studies	1	0	1

Placement Status M.Tech 2024 Graduates:

Category	CSE	ECE	Overall
Total number of students attended the placement drives (A)	12	11	23
Total job offered	2	3	5
Average salary	7.35 LPA (approx.)	10.08 LPA (approx.)	8.99 LPA (approx.)
Median salary	7.35 LPA (approx.)	12 LPA	9 LPA
Total students selected so far (B)	2	3	5
Highest salary	9 LPA	12.24 LPA	12.24 LPA
Percentage placed $\{(B \div A) \times 100\}$	16.67%	27.27%	21.74%
Number of students opted for higher studies	2	3	5

The universities where our students have went for higher studies are: University of Massachusetts Amherst (MSCS), IIT Guwahati, IIT ISM Dhanbad, IIT Ropar, NIT Meghalaya etc.

III. Others:

A Hands-on Skill Training in IT/ITES Trade was conducted in the Department of Computer Science and Engineering, Indian Institute of Information Technology Guwahati for Class IX and X students of RANI HIGH SCHOOL, Kamrup, Assam on 7th October 2023.

UG students from PA Sangma Centre for Tribal Studies, University of Science & Technology Meghalaya visited IIITG to observe the contributions of IT to social transformation through interactions on 16th May 2023.

Students' Activities

With a view to hone students' talents in extra-curricular activities, IIIT Guwahati facilitates students with a number of clubs under Students' Gymkhana Council. The Clubs are, Programming Club, Robotics Club, Google Developer Student Club and Mavericks- The Machine Learning Society (Under Technical Board); Literary Club, Movie Club, Music Club, Fine Arts Club, Quiz Club, Reading Club, Photography Club, Dance Club and Drama Club (Under Cultural Board); Indoor Sports Club and Outdoor Sports Club (Under Sports Board) and Eco and Outreach Club, Health Club and Girls' Empowerment Group (Under Welfare Board).

Various events conducted by 18 Clubs under different Boards are given below:

Technical Board

Programming Club	
Date	Events
07.09.2023	Introductory Session
28.09.2023	Linux Basics and Dual Boot Session (In collaboration with GDSC)
31.10.2023	GoMillets: The Nutrient Evolution (Online)
03.11.2023- 05.11.2023	Entropy 2023
10.11.2023	HTML Session
25.11.2023	Blind Coding 2.0
28.11.2023	Introduction to Competitive Programming
14.03.2024	Bit Manipulation
20.03.2024	Vikshit Bharat Utsav (Digital Art Competition)
12.01.2024	CSS Session
15.01.2024	DP and Graph Session
06.02.2024	Sieve of Eratosthenes and Sliding Window Problems



Technocrats Club	
09.09.2023	Introduction to Technocrats Club
03.11.2023– 05.11.2023	Entropy 2023
31.10.2023	GoMillets: The Nutrient Evolution (Online)
29.01.2024	Session on Web3 Technologies (Online)
04.02.2024	Arduino Introduction 2.0 – I/O
15.03.2024	Arduino, Motors and Motor Drivers
20.03.2024	Vikshit Bharat Utsav (Digital Art Competition)
27.03.2024- 30.03.2024	Robocon
Mavericks – The Machine Learning Society	
05.09.2023	Dissecting ML: A Hands-on Introduction
03.11.2023- 05.11.2023	Entropy 2023
12.10.2023	Breaking Deep: Deep Drive
31.10.2023	GoMillets: The Nutrient Evolution (Online)
20.03.2024	Vikshit Bharat Utsav (Digital Art Competition)
Google Developer Student Club (GDSC)	
10.09.2023	Linux Basics and Dual Boot Session (In collaboration with Programming Club)
20.01.2024- 22.01.2024	Android Boot Camp (GDSC Solution Challenge)
10.02.2024	Machine Learning Session (GDSC Solution Challenge)

Cultural Board



Literary Club		
Date	Events	Details of Events
10.10.2023	Open Mic Event	Event was successfully conducted with an audience of over 100 and 35 + participants.
14.01.2024	Bolti Patang	Conducted during Bollywood Night. Participants recited famous Bollywood/ Bollywood inspired poems, and poems dedicated to the festival of Makar Sankranti.
26.01.2024	Republic Day	Anchoring and poetry pieces performed.
Weekly	Weekly Wordcraft Challenge	Prompts were given and winners' poems were posted on the Instagram ID of KALRAV.
21.03.2024	Viksit Bharat @ 2047	The debate competition was held under the Viksit Bharat @ 2047 initiative at IIIT Guwahati. The main topic of discussion was the crucial balance between economic development and environmental conservation. The competition provided a platform for the exchange of ideas. It fostered greater awareness and understanding of the complexities of striking a harmonious equilibrium between economic progress and ecological preservation.
Movie Club		
Date	Events	
07.04.2023	Screening of 'Everything Everywhere all at once'	
20.10.2023	Screening of 'The Godfather(1972)'	
28.10.2023	Screening of '(500) days of summer'	
Music Club		
Date	Events	Details of Events
15.04.2023	Music Lessons from Tarang	The event's objective is to increase the awareness on music learning and perusing it as a passion.



12.05.2023	Malhar	The event's objective is to showcase the music talent of the Music Club members among the IIITG community.
15.08.2023	Independence Day	10 patriotic songs were performed by Tarang.
20.10.2023	Malhar Season 2	The event's objective is to showcase the music talent of the Music Club members among the IIITG community.
28.09.2023	Surshringar - II	The event's objective is to increase the awareness on music learning and perusing it as a passion.
27.10.2023	Surshringar - III	The event's objective is to increase the awareness on music learning and perusing it as a passion.
02.12.2023	Malhar Season 3	The event's objective is to showcase the music talent of the Music Club members among the IIITG community.
27.01.2024	Musical Dumb Charades	A team event with rounds of elimination based on ability to guess songs by silent gestures.
27.02.2024	Musical Dumb Charades	The event was organized to celebrate International Mother Language Day.
28.03.2024	Start Music Event	A team event with rounds of elimination based on ability to guess omitted word/sentence of popular songs.

Fine Arts Club

Date	Events	Details of Events
02.10.2023	Online Art Event based on the theme "Learnings from Gandhi"	The event was organized on the occasion of Gandhi Jayanti.
09.10.2023	Best out of Waste	The event helps promote sustainability, encourages resourcefulness, and fosters creativity.
11.11.2023	Rangoli Competition between boys and girls and a Mehendi Event	The event was organized on the occasion of Diwali.



24.03.2024	T-shirt painting competition	It was an event with only team participation allowed.
Quiz Club		
Date	Events	Details of Events
26.11.2023	Freshers' Quiz	<p>The club organised an engaging and competitive Freshers' Quiz, that welcomed new students with enthusiasm and intellectual stimulation. The event served as a platform to showcase general knowledge, critical thinking, and teamwork skills. The questions spanned a diverse range of topics, ensuring a well-rounded test of participants' knowledge. The atmosphere was vibrant, with over 50 participants displaying both excitement and determination. The Freshers' Quiz not only fostered a sense of community among the new students but also highlighted to develop a vibrant intellectual culture within the college.</p> <p>Since it coincided with the prestigious Constitution Day of our country, an additional round was incorporated into the quiz, exclusively based on the Indian Constitution.</p>
Reading Club		
Date	Events	Details of Events
07.10.2023	Introductory and book review session	In the event, the club, its objectives and plan of action were introduced in detail. The review of the book "The Psychology of Money" was given and there was also a Finance Talk by Dr. Hari K. Choudhury.
19.01.2024	Art of Concentration in the Age of Distraction	Seminar by Mr. Chaitanya Dasa. More than 100 students attended the event.
Dance Club		
Date	Events	Details of Events

08.04.2023	Bohagi 2023 (Bihu Celebration)	Bohagi 2023 was conducted on IIITG ground. Various dances were performed. It was organised by Dance Club under Cultural Board of IIITG.
15.08.2023	Dance Performance on Independence Day	Independence Day was celebrated on IIITG ground. Various dances were performed by students on the event. It was organised by Dance Club under Cultural Board of IIITG.
26.01.2024	Dance Performance on Republic Day	Republic Day was celebrated on IIITG ground. Various dances were performed by students on the event. It was organised by Dance Club under Cultural Board of IIITG.

Drama Club

Date	Events	Details of Events
23.09.2023	Introductory Session	Dumb charades, dialogue delivery and other fun activities. More than 50 students participated in the event.
08.10.2023	FRESHCON	It was an event to welcome the First year Btech students .The drama was based on the life of college students showing various stages in college life like - First impression of college, meeting roommate, exam pressure, fests etc.
14.01.2024	Bollywood Night	It was an event to celebrate Makar Sankranti. The drama was based on Bollywood crossover of some iconic movies and tv shows. Those include Hera Pheri, Welcome, 3idiots and C.I.D. Drama was performed by first year students.

Sports Board

Indoor Sports & Outdoor Sports

Date	Events	Details of Events
31.10.2023	Run for Unity	This event was organized under the directive of the Ministry of Education to commemorate "Rashtriya Ekta Diwas" which is being held on account of Birth Anniversary of Sardar Vallabhbhai Patel.

30.09.2023 – 02.10.2023	IIITG Premier League 2023	It was organised by Outdoor Sports Club under Sports Board of IIITG.
02.11.2023 – 05.11.2023	SPIRIT 2023	IIITG under the Sports Board participated in the annual sports event of IIT Guwahati.
09.03.2024 – 12.03.2024	Inter IIIT Sports Meet 2024	A student contingent from IIITG under the Sports Board participated in the Inter IIIT Sports Meet 2024 at IIIT Allahabad.
26.01.2024 – 28.01.2024	Republic Day 2024 Sporting Activities	The Indoor and Outdoor Sports Club conducted a thrilling series of sports events officially named as SPORTS CARNIVAL 2024 IIITG on the occasion of Republic Day.

Welfare Board

Eco and Outreach Club		
Date	Events	Details of Events
27.05.2023, 28.05.2023, 04.06.2023, 05.06.2023	World Environment Day	A series of events including house-to-house awareness campaign, contests, plastic collection drive, seminar/discussion were organized by the Welfare Board to mark World Environment Day.
05.11.2023	Interactive Exhibition of Millet based food items	The Health Club and Eco and Outreach Club under Welfare Board of IIITG jointly conducted organized the event, sharing of information on millet based products with the local as well as participants from other Technical Institutes visiting during Entropy.
25.01.2024	14 th National Voters' Day	The 14 th National Voters' Day (NVD) was celebrated with enthusiasm and fervour by the Welfare Board of IIITG. The event, held in accordance with the guidelines laid out by the Election Commission of India, saw active participation from various stakeholders.
28.02.2024 to 14.03.2024	Mera Pehla Vote Desh ke Liye Campaign	The #MeraPehlaVoteDeshkeLiye Campaign, initiated by the Election Commission of India, aimed to encourage young voters, particularly first-time voters, to actively participate in the Lok Sabha Elections 2024. IIIT Guwahati actively participated in this campaign by setting up a selfie booth at the entrance of its academic building. The booth was equipped with voting information, promotional

		materials, and encouragement messages to engage and educate the student community about their civic responsibilities.
05.06.2024	World Environment Day	A series of events including Plant4Mother campaign, contests, plastic collection drive were organized by the Welfare Board to mark World Environment Day.
Health Club		
Date	Events	Details of Events
21.06.2023	International Day of Yoga	The Health Club under Welfare Board of IIITG conducted Yoga session on the occasion of International Day of Yoga.
08.10.2023	Blood donation campaign	The Health Club under Welfare Board of IIITG conducted the campaign in collaboration with the Guwahati Medical College and Hospital (GMCH) as a follow-up event of the "Blood Donation Day Pledge Taking" event.
05.11.2023	Interactive Exhibition of Millet based food items	The Health Club and Eco and Outreach Club under Welfare Board of IIITG jointly conducted organized the event, sharing of information on millet based products with the local as well as participants from other Technical Institutes visiting during Entropy.
26.01.2024	Nasha Mukta Bharat Abhiyan	On the occasion of 75 th Republic Day, the Health Club, under Welfare Board of the Student Gymkhana Council, IIIT Guwahati, initiated the 'Nasha Mukta Bharat Abhiyan'. This event aimed to raise awareness about the hazards of drug addiction and promote a drug-free lifestyle within the academic community.
21.05.2024 - 21.06.2024	International Day of Yoga	Welfare Board of IIITG conducted month long Yoga program titled "Yoga for Everyday Life" on the occasion of International Day of Yoga.
Girls' Empowerment Group		
Date	Events	Details of Events



06.11.2023	Kick-off Session	Discussion on safety concerns and challenges faced by female college going students in navigating issues like date rape, sexual harassment and molestation.
29.03.2024	Workshop "Enhancing Self-Confidence" in collaboration with YourDost	The workshop aimed to educate and empower students to lead a life free from self-doubt and questioning, particularly encouraging oneself to be confident in oneself by following some healthy habits.

STUDENTS' GYMKHANA COUNCIL ELECTION 2024

Students' Gymkhana Council Election 2024 of IIIT Guwahati was held on 05.04.2024. The election was held for the post of President, Vice President, General Secretary – Technical Board, General Secretary – Cultural Board, General Secretary – Sports Board and General Secretary – Welfare Board. The elected candidates are as follows:

1. President: – Aditya Raj
2. Vice President: – Sai Yashwant Gantasala
3. General Secretary – Technical Board: - Naman Jain
4. General Secretary – Cultural Board: - Arnav Raj
5. General Secretary – Welfare Board: - Manjusha Kausik Duarah

The position of General Secretary – Sports Board was vacant as there was only one candidate submitted his nomination for it. Later, his nomination had been cancelled by the Competent Authority.

INSTITUTE FESTIVALS

Entropy X E-Summit 2023:

Entropy X E-Summit 2023, the second edition of IIIT Guwahati's prestigious annual technical fest Entropy, was held alongside E-Summit from November 03-05, 2023. Meticulously organised, this flagship event attracted eminent personalities from across India. It facilitated exchange of groundbreaking ideas, discourse on latest tech and entrepreneurial trends, and nurtured innovation. Cultural events enhanced attendee enjoyment. The fest garnered overwhelming participation and sponsor support, contributing to its resounding success.

- **CodeThrill 6.0:** Over 1000 registrations for this nationwide coding competition by GeeksForGeeks. It provided a platform to showcase coding, algorithmic thinking, and problem-solving skills. Attractive prizes like Amazon Alexa, Noise Watches, and Boat Earbuds were offered, along with GeeksForGeeks goodies and coupons.

- **Reverse Shark Tank:** 282 IIITG student teams of 1-5 members (569 total) invested in undisclosed products based on business overviews, testing analysis and decision-making skills in this investment simulation.
- **Tech-Sure Hunt 2.0:** 191 IIITG teams of 1-3 members (422 total) navigated coded web trails, decoded clues, and solved puzzles in this on-campus technical treasure hunt, showcasing analytical and problem-solving prowess.
- **IPL Auction:** 91 IIITG teams of 3-5 members (288 total) bid strategically using stats to assemble fantasy IPL teams, testing data analysis, decision-making, strategy, and resource management.
- **BGMI Challenge Cup:** 28 IIITG teams of 4 members (112 total) competed in live-streamed BGMI battle royale matches, fostering mobile gaming/esports culture and showcasing gaming strategy.
- **Tech-Tonic Tussle:** 15 IIITG teams of 3 members (45 total) debated complex business topics, fostering critical thinking and public speaking skills.
- **Tech Quiz 2.0:** 99 IIITG teams of 3 members (297 total) tested general tech knowledge in this engaging quiz format, showcasing depth of understanding across technological domains.
- **Tech-Titan Throwdown:** 76 IIITG teams of 1-5 members (246 total) battled robot cars in arenas and mazes, showcasing robotics, problem-solving abilities, and passion for technology while promoting innovation.
- **Pitching Competition:** 2 IIITG teams of 6 members with at least 1 female (12 total) developed Smart India Hackathon solutions, showcasing technical skills, problem-solving abilities, and entrepreneurial mindset.

Entropy X E-Summit 2023 featured insightful special talks by Vandana Srivastava, David Gogoi, and Partha Pratim Dasgupta, enriching the event with knowledge and interactive learning. It also had a thought-provoking panel discussion on "The Future of Entrepreneurship" with panellists Dasgupta, Amit Priyadarshan, and Kalyanjit Hatibaruah. They engaged in dialogue on emerging trends, tech advancements, and entrepreneurial challenges. These sessions provided valuable insights and facilitated stimulating idea exchange, contributing to an informative and intellectually stimulating atmosphere.

Entropy X E-Summit 2023 witnessed exceptional engagement, attracting 824 participants, including 84 external participants. The innovative and captivating event concepts motivated active participation and experience of unique offerings. The diverse events catered to varied interests and skills, fostering an environment of intellectual curiosity, friendly competition, and personal growth.

Entropy X E-Summit 2023 garnered valuable sponsor and partner support, contributing to its success. Hyderabad Kitchen served as Food Partner, ensuring delightful culinary experiences. State Bank of India was the Banking Partner, enhancing credibility. GeeksForGeeks, the Coding Partner, conducted CodeThrill 6.0 and provided prizes, fostering coding excellence. ASTEC, CordSME, and Gail

were Bronze Sponsors. This collaborative effort across domains underscored the commitment to delivering a comprehensive, enriching experience for attendees.

Complementing the technical aspects, IIITG's Cultural Board curated cultural events on Nov 3, 2023, providing a vibrant platform for showcasing artistic talents and cultural heritage. An electrifying DJ Night by DJ Raven on Nov 4 added festive atmosphere. The festivities culminated in a grand Band Night by Malkaun's Band on Nov 5, leaving an indelible mark with their soulful melodies and captivating presence - a perfect crescendo to the multifaceted Entropy X E-Summit 2023.

Entropy X E-Summit 2023 emerged as a resounding triumph, seamlessly blending technical prowess, entrepreneurial insights, and cultural celebrations. The meticulous organization and unwavering support from sponsors, partners, and IIIT Guwahati community culminated in a fest that left an indelible mark. It provided a platform to showcase skills and talents, fostering learning, networking, and personal growth. As it concluded, it left a legacy of innovation, collaboration, and cultural exchange, setting the stage for grander future celebrations.

YUVAAN 2024:

Yuvaan 2024, the Annual Cultural Fest of IIITG, was a three-day long festive extravaganza, held during 1st-3rd of March 2023 at the IIITG campus in Bongora. One of the significant cultural festivals of Northeast India, the theme of this year's festival was "Enchant Carnival Escapade - Where Fantasy meets Fun" which showcases the magical and entertaining nature in Global Cultural spheres. The festival aims to celebrate cultural diversity of the and the National - Global cultural ethos. Participants from all over India attended the fest and witnessed multiple events and competitions.

The festival included 20+ events and competitions, pro-shows, informal activities, and highly anticipated cultural pronites. The Zephyrtone musical duo of producer Sayan and vocalist Zephyr, who have been making waves through electronic dance and pop music scene since 2016, performed at the festival.

To further the scale of Yuvaan and the delight of its participants, it also had special talks by highly eminent speakers and workshop on dance by Freestyle Dance Academy and music by Mihir Phukan of the Cantabile Music Academy.

Yuvaan is the manifestation of the very spirit that IIITG fosters, i.e., it is the expression of creative excellence and technical prowess. It is also a jubilant celebration of cultural diversity and creative richness. From art to music to dance to writing - Yuvaan has every platform a creative soul could ask for, and even more.

Yuvaan'24 was powered by Indian Oil Corporation in association with State Bank of India, Kuber Techno Craft, Indian Bank, Canara Bank, Royal Enfield, digitally connected by The Assam Tribune and exclusively covered by PRAG NEWS. The festival was partnered with Happy Journey, North East Handicrafts and Handlooms Development Corporation and Bharat Bass Festival. Datamation, Bhagwati Investments, Sree Gautam Constructions, ADD Constructions, Deroi Tea, Rangdhali - Dressing Desires - Bijoy Nagar, Pauls Kitchen - Mirza and NGC Broadband Pvt. Ltd. were the branding sponsors for the fest.

Bohagi 2023:

The Indian Institute of Information Technology Guwahati (IIITG) celebrated the third edition of BOHAGI, its annual Rongali Bihu festival on 8th April 2023 at the IIITG campus near Tech City, Bongora. Students from NEM Care Groups Mirza, GIMT, Cotton College University, and different colleges of Assam participated in the cultural competitions organized by IIITG Cultural Board.

BOHAGI 2023 helped to enrich the knowledge about the Folk Culture and also of Trends and Traditions of Assam, with a special focus on North Eastern Art and Culture. The celebration had the resonance of Dhul, Pepa, Gogona, and Bahi that inspired the young minds to imbibe the values embedded in regional culture and traditions.

The festival hosted Jeng Bihu Competition and Modern Assamese Solo Dance Competition. Birina Buwari Jeng Bihu Dhol Group from Dibrugarh won the first prize, cash reward, and certificates. More than thirty participants participated in the Modern Assamese Solo Dance Competitions. A team of students from Cotton College performed the Folk Orchestra. Kamrupa Flair- a showcase of traditional attires of different ethnic communities of Assam with fashion and tradition was done by the institute students. Pitha Palate event salted with the swad of Pitha and other traditional delicacies of Bihu and Bihu Husori assimilated the flavor of tradition and spirituality. One of the major attractions was the performance by renowned melodious Vocal Artists of Assam, Achurjya Borpatra. He performed at the Musical Night to mesmerize the crowd with his scintillating voice.

BOHAGI'23 was a title sponsored by Rang Pvt Ltd. and Co-Sponsored by Arista by Ambition Guwahati. Gautam Constructions, NIELIT Guwahati, S.P. Singla Construction, and Paul's Kitchen were the associate sponsors of the event. The festival is Connected by G Plus and was exclusively covered by PRAG NEWS.

STUDENTS' ACHIEVEMENTS

IIIT Guwahati students have at National and International level earned a name both in academic as well as extra-curricular activities outside the Institute. Some such achievements are listed below:

Academic achievements

1. Shivam Raj (Roll No. 2301202) got awarded a total of 2 Lakhs INR and a Kit from Reliance Foundation after qualifying among the top 5000 1st year UGs from all over India (Reliance Foundation Undergraduate Scholarship).
2. Ankita Das (Roll No. 2202006) has been awarded the CHANAKYA Post Graduate Fellowship Grant for the research work entitled 'Privacy Aware Automated Radiology Report Generation' under the supervision of Dr. Rusha Patra.
3. Karnikaa Bhattacharyya (Roll No. 2003015) was awarded the 1st Best Paper Award in Finance (Paper title: Comparative Analysis of the Portfolio Balance Models of Exchange Rate Determination) in Management Doctoral and Researcher's Colloquium, held at Indian Institute of Foreign Trade, Kolkata, during 7th-8th December, 2023.

Extra-curricular Achievements

1. Pratik Anand (Roll No. 2101152) participated in the TVS Credit E.P.I.C 5.0 – IT Challenge, securing the First Runner-Up position among 50,000+ participants, with a team cash-prize of INR 75,000.
2. Team Void [Ritesh Kumar Gupta (Roll No. 2101171), Sahaj Gupta (Roll No. 2101177), Yash Agrawal (Roll No. 2101231)] were ranked 70 in the ACM ICPC Chennai Regionals held on 12 January 2024 at IIITDM Kancheepuram.
3. Team Void [Ritesh Kumar Gupta (Roll No. 2101171), Sahaj Gupta (Roll No. 2101177), Yash Agrawal (Roll No. 2101231)] were ranked 136 in the ACM ICPC Amritapuri Regionals held on 28 January 2024, Amrita Vishwa Vidyapeetham.
4. Sayani Adhikary (Roll No. 2301190) secured the 2nd place, in Symphony (solo singing competition) in Yuvaan (annual cultural fest of IIITG).
5. Samadrita Mondal (Roll No. 2301185) and Ankit Sarkar (Roll No. 2301033) were Runners Up in the Graffiti Art Competition in Alcheringa, the IIT Guwahati Annual Fest.
6. Abhinaba Ghoshal (Roll No. 2201003) and Soumya Sankar Mitra (Roll No. 2201199) were Finalists in the India International Science Festival (IISF)-SIF Space Hackathon held during 17th-19th January 2024 at DBT THSTI-RCB Campus, NCR Biotech Science Cluster, Faridabad, Haryana, organized by Vijnana Bharati, Government of India, Government of Haryana, coordinated and implemented by National Innovation Fund – India.
7. Aryan Choudhari (Roll No. 2201034) has been awarded Best Delegate for representing United Kingdom in the UNOC at IIT Guwahati Model United Nations, 2024.
8. Tadikonda Lohith Aditya (Roll No. 2301223) has secured gold medal at 3rd Juniors & Seniors District Level Tournament in Taekwondo in Guntur, Andhra Pradesh.

Details of Scholarship for the Year 2023-24:

Scholarship Schemes	Number of Students benefitted
Central Sector Scholarship for Top Class Education for SC Students	7
Central Sector Scholarship Scheme of National Fellowship and Scholarship for Higher Education for ST Students	10
PM YASASVI Central Sector Scheme of Top Class Education in College for OBC, EBC and DNT students	59



Central Sector Scheme of Scholarships for College and University Students	1
Prime Minister's Scholarship Scheme for Central Armed Police Forces and Assam Rifles	1
Post Matric Scholarship for Students with Disabilities	1
National Scholarship for Post Graduate Studies	8
Mukhyamantri Medhavi Vidyarthi Yojna (MMVY)	9

Amount Range (Per Annum)	Number of Students
Up to ₹1 Lakh	Nil
₹1 Lakh - ₹2 Lakh	Nil
₹2 Lakh & Above	96

Officers and Other Functionaries of the Institute:

<u>Name</u>	<u>Designation</u>
Prof. Gautam Barua	Director
Mr. Uttam Ch. Das	Registrar
Dr. Ferdous Ahmed Barbhuiya	Associate Dean, Administration till 31 st July 2021, Dean Administration from 1 st August 2023.
Dr. Bidisha Dasgupta	Associate Dean, External Relations
Dr. Rakesh Matam	Associate Dean, Student Affairs
Dr. Moumita Roy	Associate Dean, R&D
Dr. Surajit Panja	Associate Dean, Academic Affairs - UG
Dr. Gautam Kalita	Associate Dean, Academic Affairs - PG
Dr. Subhasish Dhal	Head of the Deptt. of CSE
Dr. Shovan Barma	Head of the Deptt. of ECE
Dr. Dipendu Maity	Head of the Deptt. of Sc. & Maths till 20 th December 2023.
Dr. Anuradha Jha	Head of the Deptt. of Sc. & Maths from 21 st December 2023
Dr. Rajarshi Mitra	Head of the Deptt. of HSS
Dr. Sumit Mishra	Warden, Boys' Hostel
Dr. Soumi Chattopadhyay	Warden, Girls' Hostel till 9 th of May 2023
Dr. Rusha Patra	Warden, Girls' Hostel from 10 th of May 2023
Dr. Parashjyoti Borah	Associate Warden, Boys' Hostel
Dr. Shyamal Ghosh	Associate Warden, Boys' Hostel
Dr. Debashree Devi	Associate Warden, Girls' Hostel
Dr. Bijit Kumar Das	Placement in-charge
Dr. Sanjay Moulik	Associate Placement in-charge
Dr. Komal Janghel	Library Coordinator
Dr. Pallav Barua	Superintending Engineer/Estate Officer
Mr. Mriganka Dutta Saikia	Deputy Registrar, Finance & Accounts



Staff of the Institute:

<u>Name</u>	<u>Designation</u>
Mr. Gagan Chandra Talukdar	Library Information Officer
Ms. Richa Bismitter	Library Information Officer
Ms. Sweety Tamuli	Senior Superintendent
Mr. Dinamoni Borah	Senior Superintendent
Mr. Bhaskar Jyoti Borah	Senior Superintendent
Mr. Churchill R Marak	Senior Superintendent
Mr. Nayanjyoti Baishya	Senior Superintendent
Mr. Navajit Kalita	Senior Superintendent till 3 rd October 2023
Mr. Birabrata Seal	Senior Technical Superintendent
Mr. Prasenjit Deka	Senior Technical Superintendent
Mr. Kishore Kumar Das	Senior Technical Superintendent
Mr. Hirak Jyoti Nath	Senior Technical Superintendent
Mr. Ratul Goswami	Senior Accounts Officer
Mr. Arup Borah	Senior Technical Superintendent
Mr. Raushan Kumar	Senior Technical Superintendent
Mr. Nabadeep Gogoi	Junior Assistant
Mr. Injamul Hussain	Junior Assistant
Mr. Amit Kumar Sharma	Junior Assistant
Mr. Madhurjya Das	Junior Assistant
Mr. Dibash Das	Junior Assistant
Mr. Samar Jyoti Nath	Junior Assistant
Ms. Priyanka Mandal	Junior Assistant
Ms. Supriya Dutta	Junior Assistant
Mr. Rupam Sharma	Junior Assistant
Mr. Utpal Boro	Junior Assistant

Budget and Expenditure Summary

The Budget and expenditure summary for the year are as follows:

Item	Recurring/Revenue (₹)	Non-Recurring/Capital (₹)
Balance B/F from 2022-23	84,54,966	4,40,79,985
Grant in Aid 2023-24	Nil	Nil
Internal Revenue Generated 2023-24	28,90,09,810	Nil
Expenditure 2023-24	24,68,56,296	7,45,79,126
Balance C/F to 2024-25	5,06,08,480	Nil

Sources of Funds (including balance brought forward)

Item	Recurring/Revenue (₹)	Non-recurring/Capital (₹)
Govt. of India	Nil	Nil
Govt. of Assam	Nil	4,40,79,985
Industry partners	Nil	Nil
Income from Interest	50,39,275	Nil
Income from fees and Others	28,39,70,535	Nil

Picture Gallery

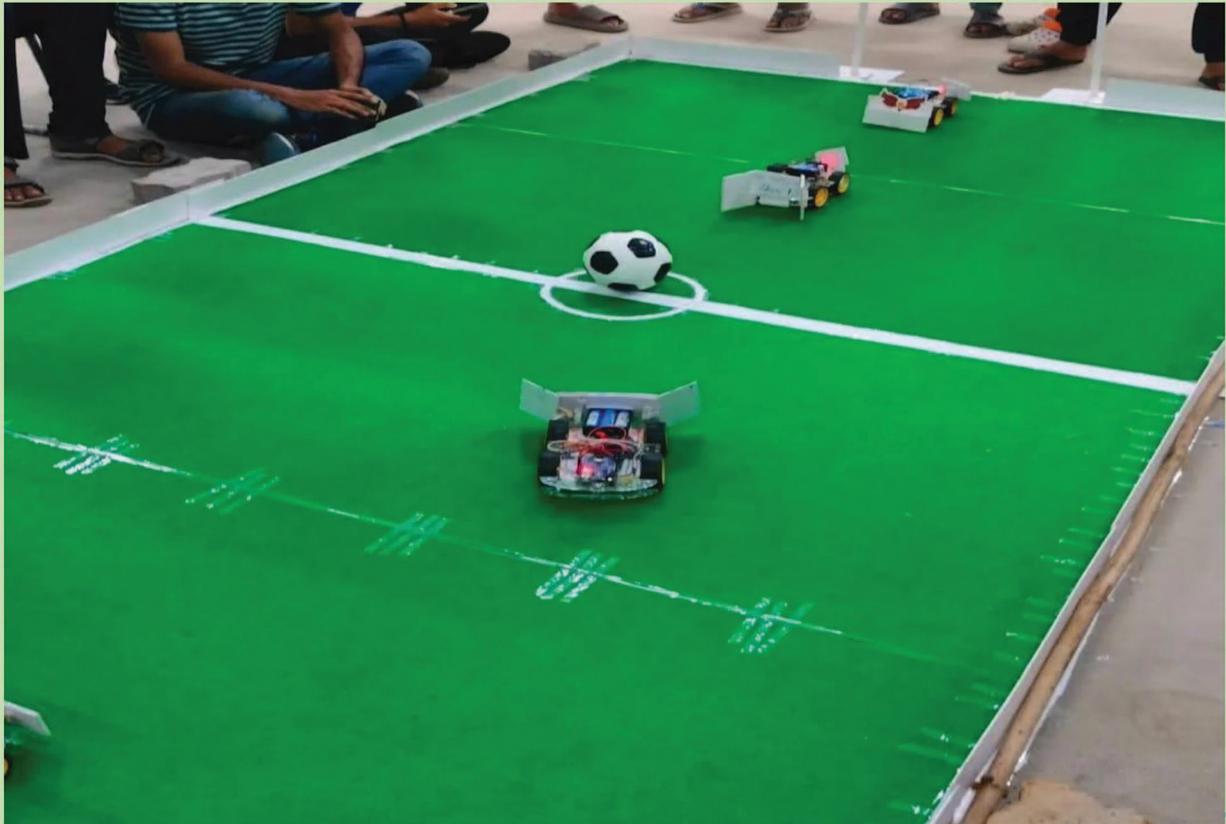
Bohagi 2023



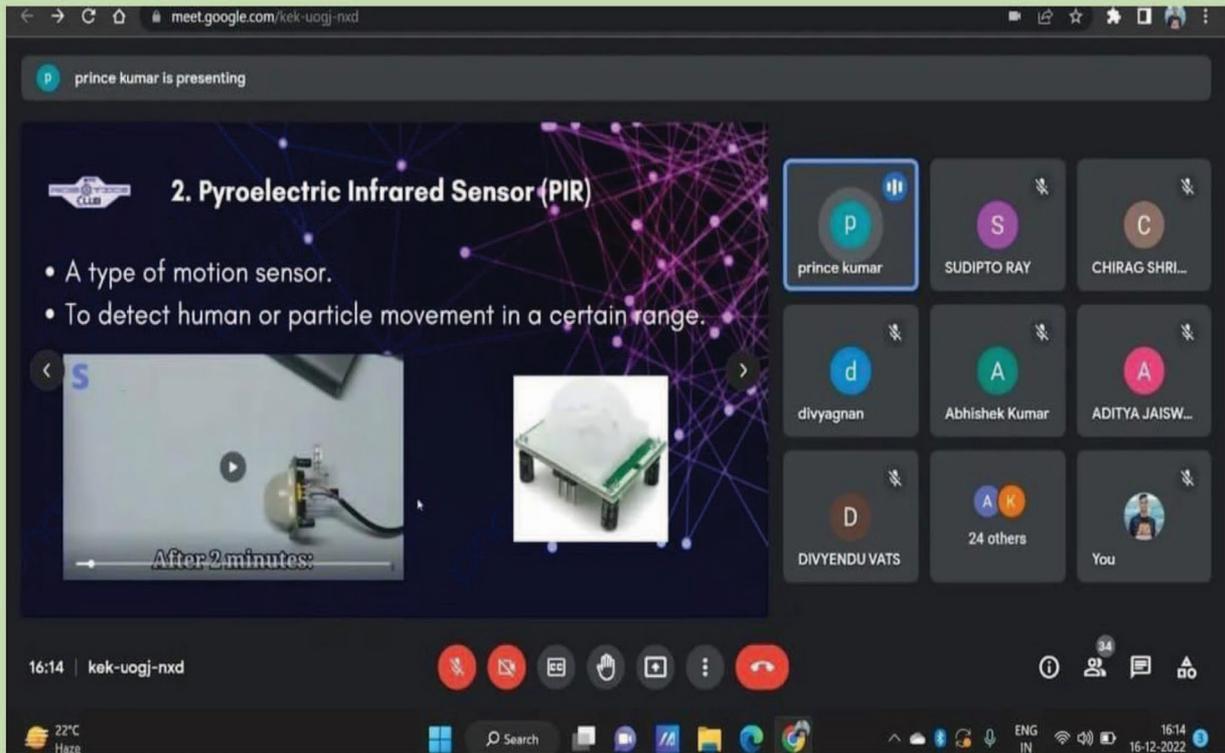
















Bollywood Night





Fresher's Quiz



Girls Empowerment Group Session

