Annual Report
2020-2021

Indian Institute of Information Technology
Guwahati

Director's Message

This year was extra-ordinary for the entire world due to the Covid-19 pandemic. Students left campus in the last week of March 2020 and all students did not return to campus for the whole year. The Institute allowed students to remain in the hostels with one student per room. On an average, about 100 students were on campus at a time (out of a total of more than 800 students). The entire academic activity of the Institute was conducted in online mode. There were some compromises made in laboratory classes, where experiments were carried out in simulated environments. Classes were held in online mode, as were all examinations. Fortunately, there were no major outbreaks of Covid on campus. Due to the postponement of entrance exams, admission to the B.Tech programme got delayed, and classes for the first year started from December 1 2020, whereas they should have started in the beginning of August. Their first semester was from December to March, with the second semester planned from April to July.

This was the first year in which the Institute functioned almost entire on internal generation of funds. Besides a sum of Rs. 33 lakhs received from Ministry of Education towards implementation of reservations for economically weaker sections (EWS) in student admissions, no other funds were received from our stakeholders. There was a cash flow problem at the beginning of the year and the Institute had to work out an arrangement with our Bank for an overdraft facility. Once fees for the Monsoon semester came in, in August 2020, the situation returned to normal. The Institute had to convert a number of single rooms in hostels to double rooms by installing bunker beds, to accommodate the increase in student strength in 2019-20. This was extended to more rooms n 2020-21. More hostel space needed to be built for the next year and so the Institute explored the possibility of obtaining a loan for constructing student hostels. Unfortunately, due to lack of adequate collateral, no loan could be availed. The Covid pandemic eased the hostel space problem temporarily as students have been away from campus since March 2020. Towards the end of the year, the Institute obtained Board approval to build a limited number of extra rooms with the estimated surplus of the coming years.

The Board of Governors

ThefollowingweremembersoftheBoardofGovernorsin 2020-21:

1. Shri. S. Ramadorai (Chairman) – TCS.

2. Prof. Shivaji Bandyopadhyay (Member) – Director NIT Silchar.

3. Prof. Bhabesh Chandra Goswami (Member) – VC Cotton University.

4. Prof. T.G. Sitharam (Member)– Director, IIT Guwahati.

5. Shri. Ranjit Barthakur (Special Invitee) – Govt. of Assam.

6. Mr. Dilip Kumar Das (Member)– Oil India Ltd.

7. Dr. K. Kesavsamy (Member) – TCS.

8. Shri. Preetom Saikia (Member)– Principal Secretary Dept. of Education Govt. Of Assam.

9. Shri. Hemant Kanoria (Member till November 2020) – SREI.

10. Shri. Subrata Ghosh (Member from December 2020) – SREI.

11. Dr. Rakesh Sarwal (Member) – Addl. Secretary, MHRD Govt. Of India.

12. Prof. A. Srinivasan (Member till September 2020) – Dean Faculty Affairs IIT Guwahati.

13. Prof. T. Punniyamurthy (Member from October 2020) – Dean Faculty Affairs IIT Guwahati.

14. Prof. Chitralekha Mahanta (Member)– Dean Academic Affairs, IIT Guwahati

The Board met five times during the year (22nd June 2020, 24thSeptember 2020, 14th December 2020, 8th February 2021, 30th March 2021).

The Building and Works Committee

The Building and Works Committee of the Institute is as follows:

1. Director, Chairman
2. Principal Secretary or his nominee, Education Dept., Govt. of Assam
3. Prof. Arvind Kr. Singh, Professor, Dept. of C.E. IIT Guwahati nominee of MHRD, GoI
4. Sri Kaushik Basu, AGM, IPD TCS, nominee of Industry Partner
5. Prof. Anjan Dutta, Former Dean Institute Works, IIT Guwahati, nominee of Board
6. Sri Gajen Ch. Das, Former S.E (PWD) and Advisor Design Assam Police Housing Corporation -Member
7. Dr. Ferdous Ahmed Barbhuiya, Associate Dean (R&D), IIIT Guwahati - Member
8. Mr. N. Roy, HoS (Maintenance), IIT Guwahati, Special Invitee
9. Mr. R.S. Sharma, Regional In charge, HPL, Invitee
10. Executive Engineer/Estate Officer, IIIT Guwahati, Secretary

Due to the Pandemic, no BWC Meetings were held during the year.

The Senate

The following were the members of the Senate during FY 2020-21:

1. The Director of the Institute (Chairman of the Senate)
2. All Faculty members at the level of Assistant Professors and higher.
3. Prof. Pranab Jyoti Das, Ex-Professor, Department of Chemistry and former Dean, Faculty of Science, Gauhati University.
4. Prof. Dhruba Kr Bhattacharyya, Dean of Academic Affairs and Professor, Department of Computer Science and Engineering, Tezpur University.
5. Prof. Samarendra Dandapat, Department of Electronics and Electrical Engineering, Indian Institute of Technology Guwahati.
6. Registrar, Non Member Secretary

The Senate met five times during the year (9th April 2020, 31st July 2020, 16th October 2020, 4th December 2020 and 19th March 2021).

Academics

Third Convocation of IIIT Guwahati

The Third Convocation of the Institute was held on 16th December 2020 in virtual mode. A total of 81 students were given degree certificates on that day. Mr. N. Chandrasekaran, Chairman, Tata Sons, was the Chief Guest of the Convocation.

Award of Medals to Graduating Students

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

	Name	Roll No.	Department	CPI
President's Medal:	Sourish Gunesh Dhekane	1601020	CSE	9.32
Chairman's Medal:	Avinash Jain	1601011	CSE	8.92

Academic Programmes
B.Tech Programme

Students are admitted through the Joint Entrance Examination (JEE) conducted by CBSE 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. Due to the difficulty in finding accommodation, and due to the high cost of hiring such accommodation, the Institute had to keep its intake at a low level in the initial years. The intake was 60 (30 in CSE and 30 in ECE) in 2013, 2014, 2015, and 2016.

It was increased to 80 (CSE 45, ECE 35) in 2017, 200 (CSE 115, ECE 85) in 2018, 233 (CSE 155, ECE 78) in 2019 and 241 (CSE 157, ECE 84) in 2020. The sanctioned strength in 2020 was 200. Twenty percent of these seats were added as super-numerary seats for girl students, resulting in an intake of 241 (with rounding department-wise). Admissions were delayed due to the Pandemic and classes for the first year started on December 1 2020. The actual number of students who remained after initial drop-outs was 200 (CSE- 144, ECE- 56).

M.Tech Programme

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. The actual number of students who joined were 39 (CSE – 16, CSE (online) -32, ECE – 7).

PhD Programme

The following students were admitted to the PhD programme in 2020-21.

Department	Full-time	Part-time	Total
CSE	4	8	12
ECE	7	11	18
Science and Mathematics	2	0	2
HSS	2	2	4
Total	15	21	36

5 students – 3 in CSE, 1 in ECE and 1 in Mathematics, completed their PhD programmes in 2020-21. 2 of them in CSE were awarded the final degree in the third Convocation held on 16th December 2020 and provisional certificates were issued to the remaining 3 students who completed their programmes after the third Convocation.

Student Profile

At the end of March 2021, there were 822 students in the Institute with the following profile:

	Male	Female	General	OBC	SC	ST	Total
B.Tech CSE 2017	42	5	27	12	5	3	47
B.Tech ECE 2017	25	4	14	8	3	4	29
B.Tech CSE 2018	113	5	69	32	10	7	118
B.Tech ECE 2018	66	2	31	26	9	2	68
B.Tech CSE 2019	127	27	78	44	24	8	154
B.Tech ECE 2019	47	11	31	22	4	1	58
B.Tech CSE 2020	123	21	67	42	22	13	144
B.Tech ECE 2020	49	7	25	20	9	2	56
B.Tech Total	**592**	**82**	**342**	**206**	**86**	**40**	**674**
M.Tech CSE 2019	7	7	10	1	3	0	14
M.Tech ECE 2019	1	7	6	1	1	0	8

M.Tech CSE 2020 (online)	14	2	16	0	0	0	16
M.Tech CSE 2020 (on-campus)	8	8	12	1	1	2	16
M.Tech ECE 2020	1	6	4	3	0	0	7
M.Tech Total	**31**	**30**	**48**	**6**	**5**	**2**	**61**
PhD CSE (Regular)	8	5	10	2	0	1	13
PhD CSE (Part-time)	16	8	19	1	4	0	24
PhD ECE (Regular)	9	7	13	3	0	0	16
PhD ECE (Part-time)	15	5	16	2	1	1	20
PhD HSS (Regular)	1	5	5	0	0	1	6
PhD HSS (Part-time)	3	1	2	2	0	0	4
PhD Maths (Regular)	2	2	3	0	0	1	4
PhD Maths (Part-time)	0	0	0	0	0	0	0
PhD (regular)	20	19	31	5	0	3	39
PhD (Part-time)	34	14	37	5	5	1	48
PhD Total	**54**	**33**	**68**	**10**	**5**	**4**	**87**
Total	**677**	**145**	**458**	**222**	**96**	**46**	**822**

Faculty and Staff

The faculty profile at the end of March 2021 was as follows:

Item	Male	Female	Gen	OBC	SC	ST	Total
Associate Prof CSE	1	0	1	0	0	0	1
Asst. Prof CSE	10	5	10	3	1	0	15
Professor CSE(oncontract)	2	0	2	0	0	0	2
Lecturer ECE	1	0	1	0	0	0	1
Asst. Prof ECE	10	7	14	1	2	0	17
Asst. Prof Maths	3	1	4	0	0	0	4
Asst. Prof HSS	4	2	5	1	0	0	6
Total	**31**	**15**	**38**	**5**	**3**	**0**	**46**

The staff profile was:

Item	Male	Female	Gen	OBC	SC	ST	Total
Registrar	1	0	1	0	0	0	1
Assistant Registrar	1	0	1	0	0	0	1
Superintending Engineer	1	0	1	0	0	0	1
Senior Superintendent	5	1	4	1	0	1	6
Junior Accounts Officer	1	0	1	0	0	0	1
Senior Technical Superintendent	4	0	1	2	1	0	4
Junior Technical Superintendent	2	0	0	1	1	0	2
Senior Library Information Assistant	1	1	0	1	0	1	2
Junior Assistant	7	2	5	3	1	0	9
Total	**23**	**4**	**14**	**8**	**3**	**2**	**27**

Research and Development

Publications

The number of publications by faculty in the past year can be seen from the table below. There is an overall increase in the total number of publications, as well as in the number of journal publications, number of conference publications and book chapters.

Year	Journals	Conferences	Book chapters	Newspaper Articles	Total
2020-21	45	78	8	6	131
2019-20	35	59	3	-	97
2018-19	20	41	3	-	64
2017-18	14	44	3	-	71

Sponsored Research

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 Projects granted in April 2020 to March 2021

Sl. no	Project Title	PI Name	Funding Agency	Project Amount (INR)	Project start date
1	Effects of Nonpharmaceutical Measures on COVID-19 Pandemic in India and Network-based Forecast Beyond Relaxation of Lockdown	Dr. Surajit Panja	DST-SERB	5,50,000	07.07.2020
2	Control-Theoretic Distributed Optimal Resource Allocation	Dr. Surajit Panja	DST-SERB	18,04,000	02.03.2021

	Approaches to Hinder Epidemic Spreading over Networks and its Forecasting for Indian Cities				
3	Detection and Forecasting of Extreme Weather Events in Egypt and India Using Deep Learning	Dr. Shovan Barma	DST (International Bilateral Cooperation Division)	9,10,000	09.02.2021
4	Context Aware Service Provisioning Towards Smart Tourism	Dr. Soumi Chattopadhay	DST-SERB	16,82,200	04.11.2020
5	Security and Privacy Preserved Automatic Health Emergency Detection and MSP Selection in IoT Based Smart Healthcare System	Dr. Subhasish Dhal	DST-SERB	19,60,268	05.12.2020
6	Design of Structure-Preserving Deep Neural Networks for Improved Generalization	Dr. Kaustav Nag	DST-SERB	15,17,200	07.12.2020
7	Signal processing for co-existence between radar and future communication systems	Dr. Sudip Biswas, ECE	DST-SERB	18,19,380	09.12.2020
8	Interventions and women's acceptance of cervical cancer screening test: A Randomnized	Dr. Hari Kanta Choudhury,	ICSSR	4,96,650	Project Sanctioned on 20th August 2019,Fund received on 21/01/2021
9	Design and Development of an Assistive Device for Persons with Motor Neuron disease	Dr. Kaustuv Nag Co PI: Dr. Rakesh Matam	DST-SEED	18,99,544	30.03.2021
	Total			1,26,39,242	

On-going projects from the previous year are given below:

Sl. no.	Project Title	PI Name	Funding Agency	Project Amount (INR)	Project start date
1	Faculty Fellowship	Prof. Gautam Barua	NetApp	4,04,055.00	07-06-2016
2	Establishment of a Design Innovation Centre (DIC) (Spoke) with NEHU (HUB	Director	MHRD through NEHU	59,00,000.00	01-03-2017
3	A Low-Cost, high Resolution Optoacoustic Imaging System for Diagnosing and Monitoring Rheumatoid Arthritis	Dr. Rusha Patra	DST-SERB	31,74,600.00	18-09-2018
4	Energy Efficient 5G Hybrid Optical Wireless Communication System Based on High-Speed FSO/ VLC Interconnections	Dr.Sanya Anees	DST-SERB	24,17,250.00	18-09-2018
5	A Low Cost, Portable and High Quality Device (Prototype) for Food Quality Assessment Based on Microscopic Image and Deep Learning	Dr. Shovan Barma	DST-SERB	17,00,873.00	28-12-2018
6	Reconfigurable 3DIC Hardware Accelerator Platform for Deep Neural Networks	Dr. Soumyajit Poddar	DST-SERB	27,04,000.00	25-02-2019
7	Apery-like numbers, hypergeometric functions, and related supercongruences	Dr. Gautam Kalita	DST-SERB (MATRICS)	6,60,000.00	21-05-2019

8	Classification of EEG Data Using Deep Learning (LSTM+CNN) Technique and Hilbert Vibration Decomposition (HVD) Method and Its Application in Epileptic Seizure Detection	Dr. Shovan Barma	DBT - NECBH Twinning (IIT Guwahati)	9,24,000.00	29-04-2019
9	Transformations and special values of Gaussian hypergeometric series; and their connections to supercongruences	Dr. Gautam Kalita	DST-SERB	5,02,127.00	17-05-2018
10	Hypergeometric Series, and (super)congruences for Apery-like numbers	Dr. Gautam Kalita	National Board of Higher Mathematics (NBHM) Department of Atomic Energy, Govt. of India	3,72,500.00	24-12-2018
	TOTAL			1,87,59,405.00	

Projects that ended in 2020-21 are given below:

Sl. no	Project Title	PI Name	Funding Agency	Project Amount (INR)	Project end date
1	Adaptive Learning Models for Land-cover Classification with application in Remote Sensing based Monitoring of Agriculture and Forestry	Dr. Moumita Roy	DST-SERB	16,28,000.00	Mar-20
2	Makers of Modern Assam: A Case Study of Kalaguru Bishnu Prasad Rabha, Chandrani Saikiani and Lokpriya Gopinath Bordoloi	Dr. Suranjana Barua (PI); Dr. L David Lal (Co-PI)	ICSSR	4,00,000.00	Feb-21

3	A Secure and Scalable Inter-cloud Authorisation framework for resource sharing in Cloud Environment	Dr. Ferdous A Barbhuiya	DST-SERB	18,66,810.00	Oct-20
4	Bridging Network Science and HPC: Accelerating Big Data Centric Network Analytics using HPC Technologies	Dr. Dip Sankar Banerjee	DST-SERB	27,95,130.00	Jan-21
5	Development of MAC associated schemes for large IEEE 802.15.4 based networks	Dr. Rakesh Matam	DST-SERB	16,98,740.00	Jun-20
6	Design and Development of an Adaptive Middleware for Smart Building Monitoring	Dr. Suchetana Chakraborty	DST-SERB	21,84,600.00	Oct-20
	Total			**1,05,73,280.00**	

List of Ongoing Consultancies

Sl. no.	Consultant	Consulting Agency	Consultancy Amount (INR)
1	Prof. Gautam Barua	General Insurance Corporation Ltd.	7,00,000.00
2	Prof. Gautam Barua	North Eastern Electric Power Corporation Ltd.	6,00,000.00
3	Prof. Gautam Barua	GIC Housing Finance Ltd.	10,00,000.00
4	Dr. Ferdous Ahmed Barbhuiya	Special Branch, Assam Police, Govt. of Assam	8,00,000.00

Partnership with the College of Engineering, National Sun Yat-sen University (NSYSU), Taiwan, R.O.C.

IIIT Guwahati has signed an MoU with the College of Engineering, National Sun Yat-sen University (NSYSU), Taiwan, R.O.C. The MoU provides for exchange of students and faculty, collaborative research, internships, and provision forward of joint degrees in future.

Department of Computer Science Engineering

Faculty :

1. Dr. Gautam Barua, Professor, Operating Systems, Networks, Database Management Systems.

2. Dr. Malay Ananda Dutta, Professor, Algorithms and Complexity.

3. Dr. Ferdous Ahmed Barbhuiya, Assoc. Professor, Information Security, Intrusion Detection/Prevention System, Secure System Design, Privacy in Cloud, Firewall and Access Control.

4. Dr. Debashree Devi, Asst. Professor, Artificial Intelligence, Pattern Recognition, Machine Leaning, Soft Computing and Data mining.

5. Dr. Moumita Roy, Asst. Professor, Machine Learning, Soft Computing, Pattern Recognition, Remotely Sensed Image Analysis.

6. Dr. Nilkanta Sahu, Asst. Professor, Image and Video processing.

7. Dr. Rakesh Matam, Asst. Professor, Wireless Networks, Network Security, Privacy in Mobile Networks, Security in IoT.

8. Dr. Rohit Tripathi, Asst. Professor, Computer networks, Network Economics, Game Theory, Algorithm.

9. Dr. Subhasish Dhal, Asst. Professor, Information Security, Cloud Computing, Security in RFID, Key Distribution in Wireless Networks.

10. Dr. Sanjay Moulik, Asst. Professor, Real-time Scheduling, Energy Aware Fair Scheduling, Optical Character Recognition, Software Engineering.

11. Dr. Angshuman Jana, Asst. Professor, Formal Methods, Programming Languages, Static Analysis and Verification, Information Flow Security Analysis, Abstract Interpretation, Model checking.

12. Dr. Kaustuv Nag, Asst. Professor, Evolutionary Computation, Machine Learning, and Neural Networks.

13. Dr. Manojit Ghose, Asst. Professor, Cloud computing, Multiprocessor scheduling, Computer architecture.

14. Dr. Radhika Sukapuram, Asst. Professor, Computer Networks, especially Software Defined Networks and Network Functions Virtualisation Distributed Systems

15. Dr. Soumi Chattopadhyay, Asst. Professor, Services Computing, Formal Methods, Automated logic and reasoning, Context-aware system.

16. Dr. Srinibas Swain, Asst. Professor, Algorithms, graph theory, complexity theory, theoretical computer science and discrete mathematics.

17. Dr. Sumit Mishra, Asst. Professor, Algorithms in Evolutionary Computation, Cluster Analysis.

18. Dr. Upasana Talukdar, Asst. Professor, Artificial Intelligence, Machine Learning, Brain-Computer Interface, Knowledge Representation.

Adjunct Faculty

1. Dr. Kuntal Dey, Accenture Ltd, Natural Language Processing

Publications by the department:

Journal Publications:

1. N. Choudhury, R. Matam, M. Mukherjee, J. Lloret, and E. Kalaimannan, "Nchr: A non-threshold-based cluster-head rotation scheme for IEEE 802.15. 4 cluster-tree networks, "IEEE Internet of Things Journal, vol. 8,no. 1, pp. 168–178, 2020.
2. N. Choudhury, R. Matam, M. Mukherjee, and J. Lloret, "A performance-to-cost analysis of IEEE 802.15. 4 MAC with 802.15. 4e MAC modes," IEEEAccess, vol. 8, pp. 41 936–41 950, 2020.
3. M. Mukherjee, R. Matam, C. X. Mavromoustakis, H. Jiang, G. Mastorakis, and M. Guo, "Intelligent edge computing: Security and privacy challenges," IEEE Communications Magazine, vol. 58, no. 9, pp. 26–31, 2020.
4. Choudhury, N., Matam, R., Mukherjee. M, & Lloret, J. DADC: A Novel Duty-Cycling Scheme for IEEE 802.15.4 Cluster-tree based IoT Applications. ACM Transactions on Internet Technology.
5. R. Roy Chowdhury, S. Chattopadhyay and C. Adak, "CAHPHF: Context-Aware Hierarchical QoS Prediction with Hybrid Filtering", IEEE Transactions on Services Computing, DOI: 10.1109/TSC.2020.3041626, Dec. 2020.
6. S. Chattopadhyay, A. Banerjee, "QoS aware Automatic Web Service Composition with Multiple Objectives", ACM Transactions on Web, vol. 14, no. 3, pp. 12:1–12:38, July 2020.
7. L. Cui, S. Acharya, S. Mishra, Y. Pan and J. Z. Huang, "MMCo-Clus – An Evolutionary Co-clustering Algorithm for Gene Selection", IEEE Transactions on Knowledge and Data Engineering, Early Access, 2020. DOI: 10.1109/TKDE.2020.3035695.
8. S. Mishra and C. A. C. Coello, "A Parallel Naive Approach for Non-dominated Sorting: A Theoretical Study Considering PRAM CREW Model", Soft Computing, vol. 25, no. 1, pp. 73-84, 2021.
9. N. Chakraborty, Y. Chao, J. Li, S. Mishra, C. Luo, Y. He, J. Chen and Y. Pan, "RTT-based Rogue UAV Detection in IoV Networks", IEEE Internet of Things Journal, 2021. DOI: 10.1109/JIOT.2021.3051293.
10. S. Moulik, "RESET: A real-time scheduler for energy and temperature aware heterogeneous multi-core systems.", Integration, Elsevier, 77 (2021): 59-69.
11. S. Moulik, Z. Das, R. Devaraj and S. Chakraborty, "SEAMERS: A Semi-partitioned Energy-Aware scheduler for heterogeneous Multicore Real-time Systems." Journal of Systems Architecture, Elsevier, 114 (2021): 101953.

12. S. Moulik, A. Sarkar, and H.K. Kapoor. "TARTS: A temperature-aware real-time deadline-partitioned fair scheduler." Journal of Systems Architecture, Elsevier, 112 (2021): 101847.

13. S. Chakraborty,and M. Roy, "A multi-level weighted transformation based neuro-fuzzy domain adaptation technique using stacked auto-encoder for land-cover classification" International Journal of Remote Sensing, 41(17): 6831-6857, 2020.

14. I Kalita and M Roy, "Deep Neural Network-based Heterogeneous Domain Adaptation using Ensemble Decision Making in Land Cover Classification", IEEE Transactions on Artificial Intelligence, 1(2): 167 - 180, 2020.

15. B. Baruah, S. Dhal, "A secure road condition monitoring scheme in cloud based VANET", Journal of Computer Communications, 174, pp 131-142, 2021.

16. D. Puthal, S. Swain, S. Mohanty, Towards Next Generation Robust Cryptosystems,IEEE Consumer Electronics Magazine, DOI:10.1109/MCE.2021.3070454.

17. K. Nag and N. R. Pal, "Feature Extraction and Selection for Parsimonious Classifiers With Multiobjective Genetic Programming," IEEE Transactions on Evolutionary Computation, vol. 24, no. 3, pp. 454 - 466, 2020, DOI: 10.1109/TEVC.2019.2927526.

18. M. Ghose, A. Sahu, S. Karmakar, "Urgent Point Aware Energy-Efficient Scheduling of Tasks with Hard Deadline on Virtualized Cloud System", Sustainable Computing: Informatics and Systems, Elsevier, 28(1), 100416, 2020.

19. Richa Sarma, Chandan Kumar, Ferdous Ahmed Barbhuiya, "PAC-FIT: An efficient privacy preserving access control scheme for fog-enabled IoT", Sustainable Computing: Informatics and Systems, Elsevier, vol. 30, pp. 100527, 2021.

Conference Publications:

1. M. Mukherjee, V. Kumar, S. Kumar, R. Matam, C. X. Mavromoustakis, Q. Zhang, M. Shojafar, and G. Mastorakis, "Computation offloading strategyin heterogeneous fog computing with energy and delay constraints," in ICC 2020-2020 IEEE International Conference on Communications (ICC). IEEE, 2020, pp. 1–5.

2. S. Roy, S. Mishra, and R. Matam, "Classification and summarization for informative tweets," in 2020 IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS).IEEE,2020, pp. 1–4.

3. M. Mukherjee, V. Kumar, A. Lat, M. Guo, R. Matam, and Y. Lv, "Distributed deep learning-based task offloading for uav-enabled mobile edge computing," in IEEE INFOCOM 2020-IEEE Conference on Computer Communications Workshops (INFOCOM WORKSHOPS).IEEE, 2020, pp.1208–1212.

4. P. Gogoi, J. Dutta, R. Matam, and M. Mukherjee, "An uav assisted multi-sensor based smart parking system," in IEEE INFOCOM 2020-IEEE Conference on Computer Communications Workshops (INFOCOMWKSHPS). IEEE, 2020, pp. 1225–1230.

5. B. Hazarika, R. Matam, M. Mukherjee, and V. G. Menon, "Dio messages and trickle timer analysis of rpl routing protocol for uav-assisted data collection in iot," in Proceedings of the 2nd ACM MobiCom Workshop on Drone Assisted Wireless Communications for 5G and Beyond, 2020,pp. 86–90.

6. P. S. Talukdar, B. Hazarika, J. Sharma, and R. Matam, "An iot based smart assistive device for the visually impaired," in 2020 IEEE Region10 Symposium (TENSYMP). IEEE, 2020, pp. 291–294.

7. R. Roshan, R. Matam, M. Mukherjee, J. Lloret, and S. Tripathy, "A secure task-offloading framework for cooperative fog computing environment," in GLOBECOM 2020-2020 IEEE Global Communications Conference. IEEE, 2020, pp. 1–6.

8. M. Mukherjee, V. Kumar, D. Maity, R. Matam, C. X. Mavromoustakis, Q. Zhang, and G. Mastorakis, "Delay-sensitive and priority-aware task offloading for edge computing-assisted healthcare services," in GLOBECOM 2020-2020 IEEE Global Communications Conference.IEEE,2020, pp. 1–5.

9. R. Mudam, S. Bhartia, S. Chattopadhyay, and A. Bhattacharya, "Mobility-Aware Service Placement for Vehicular Users in Edge-Cloud Environment", 18th International Conference on Service Oriented Computing (ICSOC), pp. 248–265, Dubai, December 14-17, 2020.

10. S. Chattopadhyay, R. Ghosh, A. Banerjee, A. Gupta, A. Jain, "FINESSE : Fair Incentives for Enterprise Employees", 14th International Conference on Research Challenges in Information Science (RCIS), pp. 191--211, Limassol, Cyprus, September 23-25, 2020.

11. S. Mishra and M. Buzdalov, "If Unsure, Shuffle: Deductive Sort is $\Theta(MN^3)$, but $O(MN^2)$ in Expectation over Input Permutations", Genetic and Evolutionary Computation Conference (GECCO 2020), Cancun, Mexico, pp. 516-523, July 2020.

12. S. Mishra, M. Buzdalov and R. Senwar, "Time Complexity Analysis of the Dominance Degree Approach for Non-Dominated Sorting", Genetic and Evolutionary Computation Conference Companion (GECCO 2020), Cancun, Mexico, pp. 169-170, July 2020.

13. S. Mishra and M. Buzdalov, "Filter Sort is $\Omega(N^3)$ in the Worst Case", International Conference on Parallel Problem Solving from Nature (PPSN 2020), Leiden, Netherlands, pp. 675-685, September, 2020.

14. S. Mishra and R. Senwar, "DDA-ENS: Dominance Degree Approach based Efficient Non-dominated Sort", IEEE International Conference on Systems, Man, and Cybernetics (SMC 2020), Toronto, Canada, pp. 1075-1080, October, 2020.

15. Y. Sharma, Z. Das, A. Das and S. Moulik, TA-HRT: A Temperature-Aware Scheduler for heterogeneous real-time multicore systems." In 2020 IEEE 19th

International Conference on Trust, Security and Privacy in Computing and Communications (TrustCom), Guangzhou, China, pp. 104-111. IEEE, 2020.

16. Y. Sharma, R. Chanda and S. Moulik, "TEARS: A temperature-aware real-time scheduler for heterogeneous multi-core systems." In 2020 IEEE International Conference on Systems, Man, and Cybernetics (SMC), Toronto, Canada, pp. 936-943. IEEE, 2020.

17. S. Moulik, Z. Das, and G. Saikia. "CEAT: A Cluster based Energy Aware Scheduler for Real-Time Heterogeneous Systems." In 2020 IEEE International Conference on Systems, Man, and Cybernetics (SMC), Toronto, Canada, pp. 1815-1821. IEEE, 2020.

18. K. Devi and R. Tripathi, "Social Network Analysis for efficient delivery of Agricultural Extension Services," In 2020 11th International Conference on Computing, Communication and Networking Technologies (ICCCNT), 2020, pp. 1-6.

19. K. Devi and R. Tripathi, "Information Diffusion Within a Limited Budget Using Node Centralities and Community Detection," In 21st Asia-Pacific Network Operations and Management Symposium (APNOMS), 2020, pp. 197-202.

20. S. Chakraborty, N. Aggarwal, and M. Roy, "A deep semi-supervised approach for multi-label land-cover classification under scarcity of labelled images", in 10th International Conference on Soft Computing for Problem Solving (SocProS), Indore, India, December, 2020.

21. Z. Shah and M. Roy, "DCNN Based Dual Assurance Model for Age Estimation by Analyzing Facial Images", In 17th India Council International Conference (INDICON), New Delhi, India, December, 2020.

22. Sameeran Borah, Nilkanta Sahu, "ECASR: Efficient Channel Attention based Super-Resolution", In 5th IAPR International Conference On Computer Vision & Image Processing, Allahabad, India, December 2020.

23. Veronica Naosekpam, Naukesh Kumar, Nilkanta Sahu, "Multi-lingual Indian Text Detector for Mobile Devices" In 5th IAPR International Conference On Computer Vision & Image Processing, Allahabad, India, December 2020.

24. Barnana Baruah, Subhasish Dhal, "An Authenticated Key Agreement Scheme for Secure Communication in Smart Grid", in Proceedings of the IEEE COMSNETS 2021, February 2021.

25. A. K. Das, A. M. Joshi, S. Dhal, "A Machine Learning Based Bike Recommendation System Catering To User's Travel Needs" , in Proceedings of the IEEE INDICON, February 2021.

26. A. M. Joshi, A. K. Das, S. Dhal, "Deep Learning Based Approach For Malaria Detection in Blood Cell Images", in Proceedings of the IEEE Region 10 Conference (IEEE TENCON), December 2020.

27. Barnana Baruah, Subhasish Dhal, "An Efficient Authentication Scheme for Secure Communication between Industrial IoT Devices", in Proceedings of the 11th International Conference on Computing, Communication and Networking Technologies (ICCCNT 2020), October 2020.

28. Anupam Pattanayak, Subhasish Dhal, "A Study on Reversible Rules of Probabilistic Cellular Automata", in Proceedings of the IEEE Calcon 2020, February 2020.

29. Barnana Baruah, Subhasish Dhal, "A Secure and Privacy-Preserved Road Condition Monitoring System", in Proceedings of the IEEE COMSNETS 2020, January 2020.

30. Angshuman Jana, P Bordoloi, Dipendu Maity. "Input-based Analysis Approach to Prevent SQL Injection Attacks", In IEEE Region 10 Symposium (TENSYMP), pp. 1290-1293, 2020.

31. Angshuman Jana, Dipendu Maity. "Code-based Analysis Approach to Detect and Prevent SQL Injection Attacks", In 11th International Conference on Computing, Communication and Networking Technologies (ICCCNT), IEEE, pp. 1-6, 2020.

32. Angshuman Jana, "Data-centric Refinement of Database-Database Dependency Analysis of Database Program", In 15th International Conference on Software Technologies, INSTICC, pp. 234-241, Paris, France, 2020.

33. V. Deka, M. Ghose, S. Nandi, "Energy-aware Application Scheduling on DVFS-enabled Edge Computing with Mobile-Edge-Cloud Cooperation," in The 26th Annual International Conference on Advanced Computing and Communications (ADCOM), Dec 2020.

34. V. Deka, C. Guleria, M. Ghose, "TEAM: Time and Energy Aware Application Partitioning and Resource Allocation Strategy on MEC Platform," in The 13th International IEEE Annual India Conference (INDICON), Dec 2020.

35. Amartya Dutta, Rajat Kanti Bhattacharjee, Ferdous Ahmed Barbhuiya, "Efficient Detection of Lesions during Endoscopy", IEEE ICPR International Workshops and Challenges, Hyderabad, India, Jan 2021.

36. Saurabh Chamotra, Ferdous Ahmed Barbhuiya, "Analysis and modelling of multi-stage attacks", IEEE International Conference on Trust, Security and Privacy in Computing and Communications (TrustCom), Dec 2020.

37. Arup Baruah, Kaushik Das, Ferdous Barbhuiya, Kuntal Dey, "Comparison of BERT and BiLSTM in Detecting Offensive Language", ACL Workshop on Semantic Evaluation (SemEval), Dec 2020.

38. Kaushik Amar Das, Arup Baruah, Ferdous Ahmed Barbhuiya, Kuntal Dey, "Checkpoint Ensemble of Transformers for Hate Speech Classification", ACL Workshop on Semantic Evaluation (SemEval), Dec 2020.

39. Arup Baruah, Kaushik Das, Ferdous Barbhuiya, Kuntal Dey, "Svm for sentiment analysis of english-hindi code-mixed text", ACL Workshop on Semantic Evaluation (SemEval), Dec 2020.

40. Rajat Kanti Bhattacharjee, Meghali Nandi, Amrit Jha, Gunajit Kalita, Ferdous Ahmed Barbhuiya, "Handloom Design Generation Using Generative Networks", IEEE International Conference on Image Processing (ICIP), Oct 2020.

41. Arup Baruah, Kaushik Das, Ferdous Barbhuiya, Kuntal Dey, "A Multimodal Approach to Detect Offensive, Sarcastic and Humorous Memes", ACL Workshop on Semantic Evaluation (SemEval), Dec 2020.

42. Kaushik Amar Das, Arup Baruah, Ferdous Ahmed Barbhuiya, Kuntal Dey, "Extracting Features from Pre-Trained Neural Networks to Classify Internet Memes", ACL Workshop on Semantic Evaluation (SemEval), Dec 2020.

43. Richa Sarma, Chandan Kumar, Ferdous Ahmed Barbhuiya, "ACS-FIT: A Secure and Efficient Access Control Scheme for Fog-enabled IoT", IEEE International Conference on Systems, Man, and Cybernetics (SMC), Oct 2020.

44. Mohit Vashistha, Ferdous Ahmed Barbhuiya, "Document Management System using Blockchain and InterPlanetary File System", ACM International Symposium on Blockchain and Secure Critical Infrastructure (BSCI), Oct 2020.

45. Arup Baruah, Kaushik Das, Ferdous Barbhuiya, Kuntal Dey, "Context-Aware Sarcasm Detection Using BERT", ACL Workshop on Figurative Language Processing (FigLang), Jul 2020.

46. Arup Baruah, Kaushik Das, Ferdous Barbhuiya, Kuntal Dey "Aggression Identification in English, Hindi and Bangla Text using BERT, RoBERTa and SVM", ACL Workshop on Trolling, Aggression and Cyberbullying, May 2020.

47. Kaushik Amar Das, Arup Baruah, Ferdous Ahmed Barbhuiya, Kuntal Dey, "Ensemble of ELECTRA for Profiling Fake News Spreaders", Conference and Labs of the Evaluation Forum (CLEF), Sep 2020.

48. Arup Baruah, Kaushik Das, Ferdous Barbhuiya, Kuntal Dey "Automatic Detection of Fake News Spreaders Using BERT", Conference and Labs of the Evaluation Forum (CLEF), Sep 2020.

49. H. K. Giri, M. Haque and D. S. Banerjee, "HyPR: Hybrid Page Ranking on Evolving Graphs," IEEE 27th International Conference on High Performance Computing, Data, and Analytics (HiPC), 2020, pp. 62-71, doi: 10.1109/HiPC50609.2020.00020.

50. Rajat Bhattacharjya, Vishesh Mishra, Saurabh Singh, Kaustav Goswami, and Dip Sankar Banerjee,"An Approximate Carry Estimating Simultaneous Adder with Rectification, In Proceedings of the 2020 on Great Lakes Symposium on VLSI (GLSVLSI '20). Association for Computing Machinery, New York, NY, USA, 139–144.

Book Chapters:

1. S. Chattopadhyay, A. Banerjee, N. Banerjee, and B. Yu "A Utility-Driven Data Transmission Optimization Strategy in Large-Scale Cyber-Physical Systems", in Hu S., Yu B. (eds) Big Data Analytics for Cyber-Physical Systems. Springer, Cham. DOI: 10.1007/978-3-030-43494-6_2, pp. 13-42, 2020.

2. Y. Sharma, Z. Das and S. Moulik "SPORTS: A Semi-partitioned Real-Time Scheduler for Heterogeneous Multicore Platforms", In: Ning L., Chau V., Lau F. (eds) Parallel Architectures, Algorithms and Programming. PAAP 2020. Communications in Computer and Information Science, vol 1362. Springer, Singapore. https://doi.org/10.1007/978-981-16-0010-4_35

3. A. Pattanayak, S. Dhal, "Cloud Enabled Body Area Network", in Cloud Network Management: An IoT Based Framework, Chapter 5 of 1st Edition, Chapman and Hall/CRC, October 26, 2020, ISBN 9780367256050.

Invited Talks by faculty

1) Rakesh Matam delivered a talk on "Internet of Things and Cloud Computing" inOnline Faculty Development Programme on Internet of Things (OFDPIoT-20) May 7-11, 2020, NIT Jamshedpur.

2) Gautam Barua delivered a Keynote address on "Cloud Computing" in National Conference on Recent Advancements and Emerging Challenges In Science and Technology for Sustainable Development (RESTS 2020)at Dibrugarh University, on July 14, 2020.

3) Gautam Barua delivered a talk on "Cloud Computing" in an Online Faculty Development Programme at Royal Global University, Guwahati, on July 24, 2020.

4) Rakesh Matam delivered a session talk on "Internet of Things Security: State-of-the-art" inInternational Conference on Advances in Computer Engineering and Communication Systems, conducted ONLINE from 13th – 14th August 2020 at VNR VJIET, Hyderabad.

5) Sumit Mishra delivered a webinar organized by the Department of Computer Applications, Pranveer Singh Institute of Technology College of Higher Education, Kanpur on May 20, 2020 on "Design and analysis of Algorithms".

6) Gautam Barua delivered a talk on "Technology enabled education: Exploring the next level of ICT for local- global connectivity" in an Online Seminar of IGNOU on September 9 2020.

7) Sumit Mishra delivered a talk during Faculty Development Programme (Online) On Machine Learning and Deep Learning: A Hands-On Approach held between December 7-19, 2020 organized by the Division of Electronics, School of Engineering, Cochin University of Science and Technology on "Clustering - Formation and Comparison of Clustering Result".

8) Sumit Mishra delivered a talk during AICTE sponsored QIP-Short Term Course on Data Analytics and Its Application to Industries held between December 14-26, 2020 jointly organized by the Department of Computer Science &

Engineering and Electrical Engineering, IIT BHU on "Clustering - Formation and Comparison of Clustering Result".

9) Sumit Mishra delivered a talk during FDP held between December 16-28, 2020 organized by the Department of Computer Science & Engineering, Brainware University on "Clustering - Formation and Comparison of Clustering Result".

10) Nilkanta Sahu delivered a talk on 29th March, 2021, in One Week International Seminar on Electronics and Computing Technology (ISECT-2021), organized by Department of Electronics, SUIIT, Sambalpur University on "Object Detection: an overview".

11) Nilkanta Sahu delivered a talk on 13th September, 2020 in Research Oriented International Webinar Series (ROIWS-2020) in accordance with Government Engineering College, Jagdalpur, Chhattisgarh, India on "Computer Vision applications".

12) Subhasish Dhal delivered a talk in December 2020 in AICTE Sponsored One Week Short Term Training Program on Smart Perspectives of IoT in Green Technologies Organized by Gandhi Institute for Technology, Bhubaneswar, Odisha, India on "Reliability of the Third parties in IoT based Protocols".

13) Subhasish Dhal delivered a talk in December 2020 in Workshop on Wearable Devices (WWD-2020) Organized by National Institute of Technology Jamshedpur, Jharkhand, India on "Security and Privacy issues in Cloud Enabled Body Area Network".

14) Subhasish Dhal delivered a talk in September 2020 in International Webinar on Blockchain and Cryptocurrency organized jointly by IQAC & Dept. of Computer Science, Government General Degree College, Singur, Hooghly-712409, West Bengal, India on "Consensus in Blockchain".

15) Subhasish Dhal delivered a talk in August 2020 in Faculty Development Program on Blockchain Technology and its Applications organized jointly by NIT Karanataka (Surathkal) and JNN College of Engineering, Shivamogga, Karnataka, India on "Consensus Algorithms' '.

16) Subhasish Dhal delivered a talk in February 2020 in the department of Electronics and Communication Engineering in National Institute Technology Durgapur, Durgapur, West Bengal, India on "Security and Privacy in IoT based Applications".

17) Srinibas Swain delivered an invited talk via Zoom "The most frequent connected induced subgraph problem" at Department of Computer Science, Seattle University, USA on 16 April, 2021.

18) Srinibas Swain delivered an invited talk via Zoom "Auditable data structures" at Faculty of Engineering and Information Technology, University of Technology, Sydney on 15 March, 2021.

19) Srinibas Swain delivered an invited talk via Zoom "Graph theoretic encryption" at School of Computing, Newcastle University, UK on 8 February, 2021.

20) Ferdous A Barbhuiya delivered a lecture on "Security Challenges in Cloud Data Storage" in Advances in Software Engineering Research Talk Series, Accenture Labs, Bangalore held on 10th Feb 2021.

21) Ferdous A Barbhuiya delivered a lecture on "Basic Security Guidelines for Digital Transaction" in Govt. Staff training program at NIRD&PR-NERC Guwahati held on 16th Dec 2020.

22) Ferdous A Barbhuiya delivered lectures on "Cloud Computing with AWS EC2" in "ATAL FDP" at KKR & KSR Institute of Technology & Sciences held on 23rd Nov 2020.

23) Ferdous A Barbhuiya delivered lectures on "IoT Protocol Security: Issues and Challenges" at Maulana Abul Kalam Azad University of Technology, West Bengal on 10th Nov 2020.

24) Ferdous A Barbhuiya delivered a lecture on "Machine Learning Technologies for Social Media Analytics" organised by Information Security Education and Awareness (ISEA) under Ministry of Electronics & Information Technology (MeitY), Government of India held on 23rd Aug 2020.

25) Ferdous A Barbhuiya delivered an expert talk on "IoT Security: Issues and Challenges" in "Online FDP on Wireless Communication Technologies for IoT" organised by E&ICT Academy, IIT Guwahati, held on 06th Aug 2020.

26) Ferdous A Barbhuiya delivered an expert talk on "Digital Hygiene Staying Safe in Cyberspace" at Amity University on 8th May 2020.

27) Ferdous A Barbhuiya participated in Webinar titled as "The New Normal: Evolving Workstyle and its Preparedness" as a guest speaker organized by Samsung India on 01st May 2020.

28) Ferdous A Barbhuiya delivered an expert talk on "IoT Security" in online web series sessions on "Cyber Safety and Security in light of COVID -19" organized by CDAC Hyderabad on 26th Apr 2020.

29) Kaustuv Nag delivered an expert talk on "Generative Adversarial Networks" on October 13, 2020, at Rajalakshmi Institute of Technology in a Short Term Training Programme (STTP).

30) Kaustuv Nag delivered an expert talk on "Generative Adversarial Networks" on December 15, 2020, at Cochin University of Science and Technology in an

AICTE sponsored Faculty Development Program.

31) Kaustuv Nag delivered an expert talk on "Introduction to Neural Networks" on February 24 and 25, 2021, at Gauhati University in a Refresher Course.

Participation in National Level Committee

Gautam Barua was a member in the following National Level Committees:

a) JEE Apex Board for Conduct of JEE-Main Examination, National Testing Agency

b) UGC Committee on Implementation Plan NEP-2020: Global Outreach of Higher Education.

Department of Electronics & Communication Engineering

Faculty:

1. Dr. Babita Jajodia, Asst. Professor, VLSI and Embedded Systems.

2. Dr. Bidisha Dasgupta, Asst. Professor, Antenna Design.

3. Dr. Bijit Kumar Das, Asst. Professor, Signal Processing.

4. Dr. G Aruna, Asst. Professor, Wireless Communication.

5. Dr. Komal Janghel, Asst. Professor, Wireless communication.

6. Dr. Kukil Khanikar, Asst. Professor, Communication Engineering.

7. Mohd. Mansoor Khan, 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.

8. Dr. Mourina Ghosh, Asst. Professor, VLSI Design.

9. Dr. Rakesh Biswas, Asst. Professor, VLSI Architecture Design for Biomedical Signal and Image processing.

10. Dr. Ripudaman Singh, Asst. Professor, Communication Networks.

11. Dr. Rusha Patra, Asst. Professor, Image Processing, Optical Imaging, Biomedical Optics, Computer Vision.

12. Dr. Sanya Anees, Asst. Professor, Optical Wireless communication, Cooperative communications, and Multiple-input multiple-output (MIMO) systems.

13. Dr. Shilpa, Asst. Professor, Wireless Sensor Networks.

14. Dr. Shovan Barma, Asst. Professor, Biomedical Signal Processing and AI.

15. Dr. Soumyajit Poddar, Asst. Professor, Digital VLSI, Computer Architecture, AI Hardware.

16. Dr. Sounak Roy, Asst. Professor, Analog and mixed signal circuits.

17. Dr. Sudip Biswas, Asst. Professor, Signal Processing and Machine Learning for Future Wireless Communications, Full-Duplex Radios, Communication-Radar Co-existence.

18. Dr. Surajit Panja, Asst. Professor, Control of Network Systems, Multi-agent Systems, Opinion Dynamics, Epidemic Propagation Over Networks.

Publications

Journal Publications:

1. Abhilash Goswami, Anamiya Bhattacharya, and Bidisha Dasgupta, "Reconfigurable Hexagon Shaped Printed Antenna for Cognitive Radio Application," International Journal of RF-Microwave Computer-Aided Engineering, vol. 31, e22514, Dec. 2020.

2. Anamiya Bhattacharya, Bidisha Dasgupta, and Rajeev Jyoti, "Design and Analysis of Ultra-thin X-Band FSS Structure for Gain Enhancement of Hybrid Antenna," International Journal of RF-Microwave Computer-Aided Engineering, vol. 31, e22505, Dec. 2020.

3. Shekhar Suman Borah, Ankur Singh, Mouruina Ghosh, and Ashish Ranjan, "Electronically Tunable Higher-Order Quadrature Oscillator Employing CDBA," Microelectronics Journal, vol. 108, Feb. 2021.

4. Mourina Ghosh, Shekhar Suman Borah, Ankur Singh, and Ashish Ranjan, "Third order quadrature oscillator and its application using CDBA," Analog Integrated Circuits and Signal Processing, vol. 107, no. 3, pp. 575-595, Mar. 2021.

5. B. Jana, R. Biswas, P. K. Nath, G. Saha, and S. Banerjee, "Smartphone-Based Point-of-Care System Using Continuous-Wave Portable Doppler,"IEEE Transactions on Instrumentation and Measurement, vol. 69, no. 10, pp. 8352-8361, Oct. 2020.

6. Ripudaman Singh and Biplab Sikdar, "A receiver initiated low delay MAC protocol for wakeup radio enabled wireless sensor networks," IEEE Sensors Journal, vol. 20, no. 22, pp. 13796-13807, Nov. 2020.

7. Babita Jajodia, Anil Mahanta, and Shaik Rafi Ahamed, "Energy-efficient DAC switching technique for single-ended SAR ADCs," AEU- Int J Electron Commun, Elsevier, vol. 124, 153334, Sept. 2020.

8. Sourav Bhowmick and Surajit Panja, "Bipartite Tracking of Linear Multi-agent Systems under Actuator Saturation with Relative Output Feedback," IEEE Transactions on Circuits and Systems II: Express Briefs, vol. 68, no. 1, pp. 386-390, Jan. 2021.

9. Sourav Bhowmick and Surajit Panja, "Influence of Opinion Dynamics to Inhibit Epidemic Spreading over Multiplex Network," IEEE Control Systems Letters, vol. 5, no. 4, pp. 1327-1332, Oct 2021.

10. S. Biswas, K. Singh, O. Taghizadeh, and T. Ratnarajah, "Design and Analysis of FD MIMO Cellular Systems in Coexistence with MIMO Radar," IEEE

Transactions on Wireless Communications, vol. 19, no. 7, pp. 4727-4743, Jul. 2020.

11. H. Albinsaid, K. Singh, S. Biswas, C. P. Li, and M. S. Alouini, "Block Deep Neural Network-Based Signal Detector for Generalized Spatial Modulation," IEEE Communications Letters, vol. 24, no. 12, pp. 2775-2779, Dec. 2020.

12. T. Zhang, S. Biswas, and T. Ratnarajah, "An Analysis on Wireless Edge Caching in In-Band Full-Duplex FR2-IAB Networks," IEEE Access, vol. 8, pp. 164987-165002, Sept. 2020.

13. H. He, S. Biswas, P. Aquilina, T. Ratnarajah, and J. Yang, "Performance Analysis of Multi-Cell Full-Duplex Cellular Networks," IEEE Access, vol. 8, pp. 206914-206930, Nov. 2020.

14. U. Singh, S. Biswas, K. Singh, B. K. Kanaujia, and C. -P. Li, "Beamforming Design for In-Band Full-Duplex Multi-Cell Multi-User MIMO LSA Cellular Networks," IEEE Access, vol. 8, pp. 222355-222370, Dec. 2020.

15. T. Zhang, S. Biswas, and T. Ratnarajah, "On the Performance of Cache-Enabled Hybrid Wireless Networks," IEEE Transactions on Communications, vol. 69, no. 3, pp. 1818-1834, Mar. 2021.

16. T. Zhang, S. Biswas, and T. Ratnarajah, "Performance Analysis on Cache-Enabled FR2 IAB Networks," IEEE Access, vol. 9, pp. 63521-63537, Apr. 2021.

17. Sumona Biswas and Shovan Barma, "A large-scale optical microscopy image dataset of potato tuber for deep learning based plant cell assessment," Scientific Data (Nature),vol. 7, no. 371, Oct. 2020.

18. S. Chatterjee and S. Roy, "A Square Wave-Based Digital Foreground Calibration Algorithm of a Pipeline ADC Using Approximate Harmonic Sampling," IEEE Transactions on Circuits and Systems II: Express Briefs, vol. 68, no. 4, pp. 1068-1072, Apr. 2021.

Conference Publications:

1. Anand Shankar, Hnin Kay Khaing, Samarendra Dandapat, and Shovan Barma, "Epileptic Seizure Detection Based on Gramain Angular Field Transformation and Deep Learning," 2nd IEEE Conference on Applied Signal Processing 2020 (ASPCON 2020), Kolkata, India, 7th-9th October, 2020.

2. Anand Shankar, Samarendra Dandapat, and Shovan Barma, "Graph Theory and Machine Learning Based Epileptic Seizure Analysis from EEG," 63rd IEEE International Midwest Symposium on Circuit and Systems (IMSCS), Springfield, MA USA. 9th-12th August, 2020.

3. Jia Wen Li, Shovan Barma, Sio Hang Pun, Mang I Vai, Pan Ke Wang, Xin Liu, Yuan Yu Yu, Jiu Jiang Wang, Shuang Zhang, and Peng Un Mak, "Initial Study of Emotion Recognition Using Brain Rhythm Sequencing Method," 11th Asian Pacific Conference on Medical and Biological Engineering, Okayama, Japan, 25th-27th May, 2020.

4. Abhilash Goswami, Bhushan Ballav Pathak, and Bidisha Dasgupta, "Dielectric Resonator Loaded Printed Antenna for Cognitive Radio Application," IEEE Indian Conference on Antennas and Propagation (InCAP), Ahmedabad, India, 19th-22nd December, 2019.

5. Sukanya Baruah and Bidisha Dasgupta, "Reconfigurable Composite Printed Antenna for Cognitive Radio Application," IEEE National Conference on Emerging Trends on Sustainable Technology and Engineering Applications (NCETSTEA) 2020, West Bengal, India, 7th-8th February, 2020.

6. Sai Pranay Janjarla and Bidisha Dasgupta, "Star Shaped Broadband Printed Antenna with U-Shape Ground Plane,"IEEE National Conference on Emerging Trends on Sustainable Technology and Engineering Applications (NCETSTEA) 2020,West Bengal, India, 7th-8th February, 2020.

7. Shekhar Suman Borah, Ankur Singh, and Mourina Ghosh, "CMOS CDBA Based 6th Order Inverse Filter Realization for Low-Power Applications," 2020 IEEE REGION 10 CONFERENCE (TENCON), Osaka, Japan, 16th-19th November, 2020.

8. Ankur Singh, Shekhar Suman Borah, and Mourina Ghosh, "Single VDTA Based Grounded Memristor Model and its Applications," 2020 IEEE REGION 10 CONFERENCE (TENCON),Osaka, Japan, 16th-19th November, 2020.

9. Ankur Singh, Shekhar Suman Borah, and Mourina Ghosh, "Current Differencing Buffered Amplifier Based Memristive Quadrature Oscillator," 20th IEEE International Conference on Electronics, Information, and Communication (ICEIC 2021), Jeju Shinhwa World, Republic of Korea, 31st January -3rd February, 2021,

10. Ankur Singh, Shekhar Suman Borah, and Mourina Ghosh, "CDBA Based Quadrature Sinusoidal Oscillator with Non-Interactive Control," 9th IEEE International Conference on Communication and Signal Processing (ICCSP-2020),Melmaruvathur, Tamil Nadu, India, 9th-11th April, 2020.

11. Jitumani Sarma, Shatadal Chatterjee, Rakesh Biswas, and Sounak Roy, "A Fast Transient Digitally Assisted Flash-Based Modular LDO for Sensor Nodes in WBAN," 2020 IEEE Computer Society Annual Symposium on VLSI (ISVLSI),Limassol, Cyprus, 6th-8th July, 2020.

12. Jitumani Sarma, Shatadal Chatterjee, Rakesh Biswas, and Sounak Roy, "An Adaptive Digitally Tuned Flash-based LDO with Reduced Hardware for Sensor

Nodes in WBAN," 2020 24th International Symposium on VLSI Design and Test (VDAT),Bhubaneswar, India, 23rd-25th July, 2020.

13. Sucheta Biswas and Rakesh Biswas, "Data encoding for IoHT ECG Application," 2021 International Symposium on Devices, Circuits and Systems (ISDCS), Higashi- Hiroshima, Japan, 3rd-5th March 2021.

14. B. K. Das, "Low SNR Spatially Sparse Channel Estimation in Millimeter Wave Hybrid MIMO Systems based on Adaptive Filtering Framework," 2nd IEEE Conference on Applied Signal Processing 2020 (ASPCON 2020), Kolkata, India, 7th-9th October, 2020.

15. A. Sarkar, R. Bhattacharjya, A. Goswami, and S. Poddar, "SEAMBA: A Semi-Approximate Multiplier using Block-Based Approach and Rounding,"4th International Symposium on Devices, Circuits and Systems (ISDCS),Hiroshima, Japan, 3rd-5th March, 2021.

16. Amal Thomas K., Kaarmukilan S. P, S. Poddar, and H. Rahaman, "FPGA based Structural Radial Basis Function Neural Network with Hybrid Optimization for Neural Activity," IEEE 7th Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON),Uttar Pradesh, India, 27th-29th November, 2020.

17. Sourav Bhowmick and Surajit Panja, "Evolution of Self-confidence in Opinion Dynamics over Signed Network," 21st IFAC World Congress,Berlin, Germany, 12th -17th July, 2020.

18. Sourav Bhowmick and Surajit Panja, "Bipartite Synchronization of Coupled Linear Homogeneous Systems Subjected to Input Saturation," IEEE International Conference on Control, Measurement and Instrumentation (CMI),Kolkata, India, 8th-10th January, 2021.

19. K. Singh, S. Biswas, M. Ku, and M. F. Flanagan, "Transceiver Design for Full-Duplex Ultra-Reliable Low-Latency Communications with Finite Blocklength," IEEE Wireless Communications and Networking Conference (WCNC), Seoul, South Korea, 25th-28th May, 2020.

20. T. Zhang, S. Biswas, and T. Ratnarajah, "Performance Analysis of Cache Aided Hybrid mmWave & sub-6 GHz Massive MIMO Networks," 2020 IEEE 21st International Workshop on Signal Processing Advances in Wireless Communications (SPAWC), 26th-29th May, 2020.

21. R. Deka and S. Anees, "Performance Analysis of DF Based mixed VLC-FSO-VLC System," IEEE International Conference on Signal Processing and Communications (SPCOM),Bangalore, India, 19th-24th July, 2020.

22. P. P. Phookan and S. Anees, "Performance Analysis of Distributed Alamouti based UWOC System," IEEE 3rd International Conference on Advanced

Communication Technologies and Networking (CommNet),Morocco, 4th-6th September, 2020.

23. R. Deka and S. Anees, "Performance Analysis of DF Based Cascaded VLC-FSO-VLC System,"IEEE 3rd International Conference on Advanced Communication Technologies and Networking (CommNet),Morocco, 4th-6th September, 2020.

24. P. Sarma, R. Deka, and S. Anees, "Performance Analysis of DF based Mixed Triple Hop RF-FSO-UWOC Cooperative System," IEEE 92nd Vehicular Technology Conference (VTC2020-Fall), Victoria, Canada, 18th November-16th December, 2020.

25. N. Nath and S. Anees, "Performance Analysis of SIMO-UWOC System," IEEE 13th International Conference on Advanced Networks and Telecommunications Systems (ANTS),Delhi, India, 14th-17th December, 2020.

26. Komal Janghel, Anand Jee, and Shankar Prakriya, "Performance of Underlay Cooperative Hybrid OMA/NOMA Scheme with User Selection," 2020 IEEE 31st Annual International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC),London, UK, 31st August-3rd September, 2020.

Book Chapters:

1. Mourina Ghosh, Subhasish Banerjee, Shekhar Suman Borah, and Pulak Mondal, "Single OTRA-Based Implementation of Second-Order Band Reject Filter (Three Configurations)," *In: Goel N., Hasan S., Kalaichelvi V. (eds) Modelling, Simulation and Intelligent Computing, MoSICom 2020, Dubai, UAE,* Lecture Notes in Electrical Engineering, vol. 659, pp. 319-327, Springer, Singapore, 2020. publication date: 20th July, 2020, Print ISBN: 978-981-15-4774-4, Online ISBN: 978-981-15-4775-1, 2020.

2. Shekhar Suman Borah, Ankur Singh, and Mourina Ghosh, "Two Novel Configurations of Electronically Tunable Quadrature Sine Wave Oscillator using CDBA,"In: Mallick P.K., Meher P., Majumder A., Das S.K. (eds) Electronic Systems and Intelligent Computing. Lecture Notes in Electrical Engineering, vol 686. Springer, Singapore, 2020. Publication date: 23rd September, 2020, Print ISBN: 978-981-15-7030-8, Online ISBN: 978-981-15-7031-5, 2020.

3. Shekhar Suman Borah and Mourina Ghosh, "Interactive and Non-Interactive Control Based Lossless Grounded Negative Inductor Simulator using Current Differencing Buffered Amplifier," In: Sabut, S.K., Ray, A.K., Pati, B., Acharya, U.R., Proceedings of International Conference on Communication, Circuits, and Systems,KIIT University, Bhubaneshwar, Odisha, *Lecture Notes in Electrical Engineering*, vol 728. Springer, Singapore, 2020. ISBN: 978-981-334-866-0, Hardcover ISBN 978-981-334-865-3, Series ISSN 1876-1100, 2021.

4. S. Biswas, A. Cirik, M. Filippou, and T. Ratnarajah, "Spectrum Sharing with Full Duplex" in Spectrum Sharing: The Next Frontier in Wireless Networks (Chapter 10), *John Wiley & Sons, Ltd*, pp. 191-212, Feb. 2020.

Workshops Held:

Name, Date of the Workshop	Co-ordinators	Associated Academia, Industry
"VLSI Based System Design, VLSI-SD, 12th-14th March, 2021"	Dr. Mourina Ghosh	IIIT Guwahati (sponsored by TEQIP III). Faculty from University of California, Santa Cruz, Technion – Israel Institute of Technology, IIT Kanpur, IIT Roorkee, IIT Guwahati, IIT Jodhpur, IIT Mandi, NIT Manipur, NIT Meghalaya, University of Calcutta, Jamia Millia Islamia.
"Disruptive Wireless Communications Paradigms (DWCP): The Road towards 6G held in virtual mode" from 5th -7th February, 2021	Co-ordinator: Dr. Sudip Biswas, Associate Co-ordinator: Dr. Kukil Khanikar and Dr. Komal Janghel	IIIT Guwahati (sponsored by TEQIP III). Faculty from University of Edinburgh, Linköping University, Citi Dublin, University of Huddersfield, Intel London, National Sun Yat-Sen University Taiwan, Chandhar Research Labs, IIT Delhi, IIT Indore, IIT Jammu, VNIT Nagpur, IIT Ropar, Maulana Azad National Institute of Technology

"Technical Session on Xilinx Platform using PYNQ and Vivado Flow", on 23rd October 2020	Dr. Rakesh Biswas	CoreEL Technologies India Pvt. LTd., Bangalore.
"Analog and Digital VLSI Design using CADENCE Tools", 23rd-24th December, 2020	Dr. Babita Jajodia	Entuple Technologies Pvt. Ltd., Bangalore

Invited Talks

Title of the Talk	Name of the invited expert	Organising Faculty (IIITG)
Performance analysis of Massive MIMO systems under CSI impairments, especially channel aging	Dr. Ribhu Chopra IIT Guwahati	Dr. Bijit Kumar Das

Outreach Program/ Expert Talk given

Title of the Talk	Name of the faculty (IIITG)	Details of the program, visiting Institute
MoU (IIITG/NSYSU 20200728) signed between IIIT Guwahati and National Sun Yat-sen University, Taiwan	Dr. Sudip Biswas	Co-ordinator of the MoU (IIITG/NSYSU 20200728) signed between IIIT Guwahati and National Sun Yat-sen University, Taiwan
Epidemic Spreading Dynamics: Modeling, Control Analysis, and Applications	Dr. Surajit Panja	Online Faculty Development Programme (FDP) on "Nonlinear Systems Modelling and Control" under the aegis

		of AICTE Training and Learning (ATAL) Academy, NIT Silchar, Assam, 1st-5th March, 2021.
Dynamics and Control Over Network and its Learning	Dr. Surajit Panja	Online Faculty Development Programme (FDP) on "Emerging Trends On Artificial Intelligence For Smart Sensing, Control And Instrumentation", organised by Haldia Institute of Technology, West Bengal, 22nd–28th September, 2020.
Webinar on "Design of Analog Filters Using OP AMP and different Current Mode Building Blocks"	Dr. Mourina Ghosh	Dept. of ETCE in pailan Technical Campus and Dept. of ECE at Pailan College of Management and Technology, West Bengal on 4th August, 2020.
Introduction to Quantum Computing	Dr. Babita Jajodia	TEQIP-III Sponsored Five-Day Online Faculty Development Programme (FDP) on "Quantum Computing", jointly by Dept. of ECE, GUIST, Gauhati University and Dept. of ETE, Assam Engineering College, Assam, India, 18th–22nd March, 2021
Online Teaching, Assessment and Student Learning: Challenges and Solutions	Dr. Sanya Anees	AICTE, Faculty Development Cell Sponsored Faculty Development Programme FDP on "Online Tools for Effective Teaching,"

		Organized by: Department of IT, National Institute of Technology Srinagar, 26th-30th March, 2021

Best Paper Award:

Best paper award on "Interactive and Non-Interactive Control Based Lossless Grounded Negative Inductor Simulator using Current Differencing Buffered Amplifier," by Shekhar Suman Borah and Mourina Ghosh, Springer International Conference on Communication, Circuits, and Systems (iC3S 2020), KIIT University, Bhubaneshwar, Odisha, India, 16th-18th October, 2020.

Other Activities

1. Conducted NPIU mandated training programme titled: "Future Skill Technology - Internet of Things" for the final and pre-final year students of the Institute during January - March 2021 by Dr. Kukil Khanikar.

2. Special Session (Hardware Accelerators for AI and Machine Learning) Chair of iSES 2020 by Dr. Soumyajit Poddar.

3. Dr. Sudip Biswas as Session Chair in the Session: "Performance Analysis" in IEEE SPAWC 2020.

4. Dr. Sudip Biswas as TPC member for IEEE GLOBECOM 2020 (Selected Areas in Communications: Machine Learning for Communications)

5. Dr. Sudip Biswas as coordinator of the MoU (IIITG/NSYSU 20200728) signed between IIIT Guwahati and National Sun Yat-sen University, Taiwan

6. Dr. Surajit Panja as Technical Program Committee (TPC) Member of IEEE CMI 2021.

7. Dr. Rusha Patra as Technical Program Committee (TPC) Member of IEEE CMI 2021.

8. Dr. Sanya Aneesas Technical Program Committee (TPC) Member of IEEE NCC 2021 and IEEE SPIN 2021.

Department of Science and Mathematics

Faculty:

1. Dr. Gautam Kalita, Assistant Professor.
   Area: Number Theory, Algebra, Cryptography.
2. Dr. Anuradha Jha, Assistant Professor.
   Area: Numerical solutions of ordinary and partial differential equations, Singular perturbation problems.
3. Dr. Dipendu Maity, Assistant Professor.
   Area: Combinatorial Algebraic Topology, Geometry.
4. Dr. Shyamal Ghosh, Assistant Professor.
   Area: Reliability Theory, Distribution Theory.

Guest Faculty:

1. Dr. Archana Kushwaha, Physics
2. Dr. V. S. Gayathri, Physics
3. Dr. Shanta Bhar, Chemistry
4. Dr. Sangita Talukdar, Chemistry
5. Dr Rekha Deka, Biology
6. Dr. Nandana Bhardwaj, Biology

Publications in Journals:

1. Arjun Singh Chetry & Gautam Kalita, *On a general Van Hamme-type supercongruence*, J. Ramanujan Math. Soc., 35 (4), 347--355 (2020).

2. Arijit Jana & Gautam Kalita, *Supercongruences for sums involving fourth power of some rising factorials*, Proceedings: Math. Sci. 130, 59 (2020).

3. Arijit Jana & Gautam Kalita, Proof of some conjectural supercongruences of Guo and Schlosser, Ramanujan J,54, 649–658 (2021).

Presentation in Conferences:

1. Anuradha Jha & M. K. Kadalbajoo, "*Hybrid method for two parameter singularly perturbed elliptic boundary value problems*", International Conference on advances in differential equations and numerical analysis (ADENA-2020), IIT Guwahati, India October 12-15, 2020.

2. M. Mukherjee, V. Kumar, D. Maity, R. Matam, C. X Mavromoustakis, Q. Zhang,

   & G. Mastorakis, *Delay-sensitive and Priority-aware Task Offloading for Edge Computing-assisted Healthcare Services*, IEEE Global Communications Conference, 1 – 4 (2020).

3. A. Jana &D. Maity, *Code-based Analysis Approach to Detect and Prevent SQL Injection Attacks*, IEEE 11th International Conference on Computing, Communication and Networking Technologies (ICCCNT), 1 – 6 (2020).

4. A. Jana, P. Bordoloi, & D. Maity, *Input-based Analysis Approach to Prevent SQL Injection Attacks*, IEEE Region 10 Symposium (TENSYMP), 1 – 4 (2020).

Invited Talk/Outreach Program by Faculty:

1. Gautam Kalita delivered a talk entitled "Number theory in Cryptography" in the International Webinar organized by Assam Kaziranga University in association with Gonit Sora during August 12--14, 2020.

2. Gautam Kalita delivered a National Mathematics Day 2020 talk entitled "pi-series, Ramanujan, and related supercongruences" organized by IIT Patna on December 22, 2020.

3. Gautam Kalita worked as a Mentor in Online Fundamental Course in Mathematics (OFCM) 2020 organized by National Board of Higher Mathematics (NBHM), October 04--24, 2020.

Department of Humanities & Social Sciences

Faculty:

1. Dr. Suranjana Barua, Asst. Professor, Sociolinguistics, Discourse/ Conversation Analysis, English Language Teaching, Translation Studies, Gender Studies.

2. Dr. Hari K. Choudhury, Asst. Professor, Issues related to Development Economics, Health Economics and Experimental Economics.

3. Dr. Rajarshi Mitra, Asst. Professor, Colonial and Postcolonial Studies, Colonial Culture, Anglo-Indian novels, Animal Studies, Urban Studies.

4. Dr. L David Lal, Asst. Professor, Politics of Identity, Caste Conflicts, Socio-Political History of Marginalised, Public Policy.

5. Dr. Kaveri Deb, Asst. Professor, International Trade, Development Economics, Applied Econometrics.

6. Dr. Arjab Roy, Asst. Professor, Colonial & Postcolonial Studies, Literature and Cinema, Left Intellectual and Cultural History, Subaltern Studies, Adivasi Studies and Urban Studies.

Publications
Journal publications

1. Deb, K. and Hauk, W.R (2020). The Impact of Chinese Imports on Indian Wage Inequality. *Indian Journal of Labor Economics (Springer), Vol. 63, pp. 267-290.*.DOI: https://doi.org/10.1007/s41027-020-00218-5

2. Goswami, K. and Choudhury, H.K. (2019). Biofuels versus food: Understanding the trade-offs between climate friendly crop and food security World Development Perspectives (Elsevier), Vol. 13, pp. 10-17.

3. Barua, S. and Lal, L.D. (2020). Identity, Indigeneity and Excluded Region: In the Quest for an Intellectual History of Modern Assam, Rupkatha Journal on Interdisciplinary Studies in Humanities, Vol. 12, No. 5, 2020, pp. 1-11 (doi: 10.21659/rupkatha.v12n5.rioc1s17n3)

4. Lal, L.D. (2020). Anatomy of Caste Violence: The Question of Dignity, Honour and Justice in India. Cambridge Open Engage: Cambridge University Press, London. Doi:10.33774/coe-2020-p9nbb.

5. Choudhury, Dimple and Barua, Suranjana. (2020). Politeness and Collective Identity: A Case Study of Two Endangered Languages of Arunachal Pradesh. *International Linguistics Research*; Vol. 4, No. 1; 2021 pp 43-60 (https://doi.org/10.30560/ilr.v4n1p43)

Book chapters

1. Barua, Suranjana. (2020). Symbolic Acts, Implied Character: Constructing the Peer Identity. In Om Prakash and Rajesh Kumar (Eds) *Linguistic Foundations of Identity Readings in Language, Literature and Contemporary Cultures*. Pp 48-62. Routledge, London and New York. https://doi.org/10.4324/9781003106807

Faculty Talk:

1. Arjab Roy delivered a talk on "Raymond Williams & 'Base-Superstructure' Debate in Marxist Thought", at the Department of English, Vijayanagara Sri Krishnadevaraya University Postgraduate centre, Koppal, Karnataka on 29th April 2020.

2. L. David Lal delivered a talk on *"Rupture of the Normal: Understanding Caste Violence through Legal Lens",* at the School of Law, Governance, and Citizenship, Ambedkar University Delhi on 28th August, 2020.

3. Rajarshi Mitra delivered a talk on "Decadent Monsters and Ghosts: late Victorian Gothic Narratives" in the Department of English, Purash Kanpur Haridas Nandi Mahavidyalaya on July 15, 2020.

4. Rajarshi Mitra delivered a talk on "Biswajuddhe Bangali: Itihas Onusandhan ebong archive (Bengalis in the World War: History and its Archive" in the Department of Comparative Indian Language and Literature, University of Calcutta on July 18, 2020.

5. Rajarshi Mitra delivered a talk on "The Imperial Romance of Shikar: Hunting in India in the Early Nineteenth Century" in the Department of HSS, Indian Institute of Science Education and Research Bhopal on September 30, 2020.

6. Rajarshi Mitra delivered a talk on "Narrative Journalism" in Writing Workshop held in the Department of Comparative Indian Language and Literature, University of Calcutta on March 23, 2021.

Papers presented in Conferences/Seminars

1. Bhattacharya, R., Agrawal, S. and Lal, L.D. (2021). 'Disruptive factors influencing Women's Education during Covid-19' at International Conference on Women Empowerment in Science and Technology organised by National Institute of Technology Warangal on 8-10th March, 2021.

2. Barua, Suranjana. and Lal, L.David. (2020). 'Identity, Indigeneity and Excluded Region: In the Quest for an Intellectual History of Modern Assam' at 1st Rupkatha International Open Conference on "Recent Advances in Interdisciplinary Humanities", held on 20-22 August, 2020.

3. Lal, L.David and Barua, Suranjana. (2020). 'Revisiting Gandhi's Role in India's North-East: Issues of Reform and Integration' at International Conference on "Revisiting Gandhi: Peace, Justice and Development", organized by Association of Asia Scholars, October, 30-31, 2020.

4. Roy, A. (2020). 'Women and Left Radicalism in India: Feminist Critiques from Within', *at a National Conference on* "Role of Women in Nation Development", organised by National Institute of Technology Jamshedpur, 5-6 September, 2020.

5. Roy, A. (2020). 'Feluda in the Digital Era', *at*International Conference on "Electronic Textual Cultures: A Study of Digital Literature and literature in Digital Spaces", organised by the English and Foreign Languages University Hyderabad, 9-12 March, 2021.

6. Mitra, R. (2020). "Studying Colonial Shikar in India: Contiguity, Continuity, and Continence" at Dean Hopper 2020 Conference on, "Restoring Knowledge in Postcolonial India", held at Drew University, New Jersey, USA, 7th November 2020.

Other activities:

Session chaired in a Conference/Seminar

1. Dr. A. Roy has Chaired a Technical Session at the International Conference, "Electronic Textual Cultures: A Study of Digital Literature and literature in Digital Spaces", held at the English and Foreign Languages University Hyderabad, 9-12 March, 2021.

Articles published in newspapers:

1. Wani. J. and Lal, LD (2021). Lessons in Popular Resistance, *Indian Express* dated 26th January, 2021 (https://indianexpress.com/article/opinion/lessons-in-popular-resistance-7162659/)

2. Wani. J. and Lal, LD (2020). UP's anti-conversion laws are a political weapon to further communalism, *Indian Express* dated 7th December, 2020 (https://indianexpress.com/article/opinion/columns/uttar-pradesh-anti-conversion-laws-are-a-political-weapon-to-further-communalism-7095578/)

3. Wani. J. and Lal, LD (2020). The Precarity of Dalit Lives in India, *Indian Express* dated27[th] October, 2020 (https://indianexpress.com/article/opinion/columns/dalit-atrocity-casteism-hathras-thakur-brahmin-rape-6903255/)

4. Wani. J. and Lal, L.D. (2020). A Pandemic of Failures, *Indian Express* dated 25th September, 2020. (https://indianexpress.com/article/opinion/columns/coronavirus-pandemic-failures-covid-19-healthcare-system-6610859/)

5. Wani. J. and Lal, L.D. (2020). Will Jammu and Kashmir Remain Hostage to the Narrative of Regional Conflict? 9Dashline.com dated 21st September, 2020. (https://www.9dashline.com/article/will-jammu-and-kashmir-remain-hostage-to-the-narrative-of-regional-conflict)

6. Wani. J. and Lal, L.D. (2020). A Secularism More Inclusive, *Indian Express* dated 4th September, 2020. (https://indianexpress.com/article/opinion/columns/india-secularism-constitution-ram-temple-6583322/).

Editorial

1. Barua, Suranjana. Member of Editorial Committee for the journal Language and LanguageTeaching. Vol 9: No.2 Issue 18 (Jul, 2020) and Vol 10: No. 1 Issue 19 (Jan, 2021). ISSN: 2277-307X.

Training

1. Suranjana Barua completed *The Recurrent Training for Aviation English Trainer and English Language Experts* organized by Aviation English Language Training Organization (AELTO)/ Testing Service provider (TSP), Airports Authority of India, LGBI Airport, Guwahati under Ministry of Civil Aviation, Govt. of India from 29.10.2020 to 1.11.2020.

Students' Activities

In view of the COVID-19 Pandemic and the lockdown that followed, most of the events of Students were held online. The IIITG Students' Gymkhana Council elections also could not be held as a result Caretaker Students' Gymkhana Council members were appointed on nomination basis till the next elections could be held. The Students' Gymkhana Council currently has 17 active clubs under the various Boards as listed below:

Under Technical Board: 1) Programming Club 2) Robotics Club 3) Mavericks- The Machine Learning Society 4) Google DSC.

Under Cultural Board: 1) Literary Club 2) Movie Club 3) Fine Arts Club 4) Quiz Club 5) Reading Club 6) Photography Club 7) Music Club 8) Dance Club 9) Drama Club

Under Sports Board: 1) Outdoor Sports Club 2) Indoor Sports Club

Under Welfare board: 1) Eco and Outreach Club 2) Girls Empowerment Group.

The Health Club under Welfare Board is currently not functional as most of the students are at home due to the prevailing pandemic.

Formation of Girls' Empowerment Group-

As requested by some Girl Students and after due consultation of the Competent Authority, a 'Girls' Empowerment Group' was formed on 19-02-2021 under Welfare Board for all round development of Girl Students of the Institute.

Below is a calendar of events related to students' activities organized during the Monsoon and Winter Semesters of AY 2020-2021:

STUDENT AFFAIRS ACTIVITY IN THE YEAR 2020-21

TECHNICAL BOARD

Programming Club		
Date	Event	Details of Event
05.09.2020	Code-IIITG 2.0 (Coding Contest)	It was organised by Programing Club under Technical Board of IIITG.
06.09.2020 – 11.09.2020	UI design Competition	It was organised by Programming Club under Technical Board of IIITG.
11.09.2020 – 14.09.2020	CP League #0	It was organised by Programming Club under Technical Board of IIITG.

12.09.2020	GSOC Session	It was organised by Programming Club under Technical Board of IIITG to discuss on Open Source Development and GSOC.
12.10.2020 – 16.10.2020	Girls CP League	It was organised by Programming Club under Technical Board of IIITG.
21.10.2020	Code IIITG 2.0 (Team Event)	It was organised by Programming Club under Technical Board of IIITG.
23.10.2020 – 27.10.2020	CP League #2 (Open for All)	It was organised by Programming Club under Technical Board of IIITG.
06.02.2021 – 08.02.2021	CP League	It was organised by Programming Club under Technical Board of IIITG.
12.02.2021	Mentorship Orientation Session	It was organised by Programming Clun under Technical Board of IIITG.
20.03.2021	Turtle Session	It was organised by Programming Club under Technical Board of IIITG.
21.03.2021	Turtle Art Competition	It was organised by Programming Club under Technical Board of IIITG.
27.03.2021 – 29.03.2021	Hackathon on elimination of single use plastics	It was organised by Programming Club under Technical Board of IIITG.

Robotics Club

Date	Event	Details of Event
30.08.2020	Introduction to Robotics and IoT	It was organised by Robotics Club under Technical Board.
05.09.2020	Basic Components of Mechatronics and RPA, Project	It was organised by Robotics Club under Technical Board.
30.10.2020	CAD, ROS, and Auto Desk	It was organised by Robotics Club under Technical Board.
01.01.2021	Arudino, Motors, IC, Motor Driver,	It was organised by Robotics Club under Technical Board.

	Sensors, Servo Motors	
08.01.2021	Python Language in Google Collab and Robotics	It was organised by Robotics Club under Technical Board.
09.03.2021	Instagram Quiz	It was organised by Robotics Club under Technical Board of IIITG.

Mavericks- The Machine Learning Society Club

Date	Event	Details of Event
18.10.2020	A mini project on Movie recommender systems	It was a warm – up clustering project for beginners and it was organised by Mavericks, The Machine Learning Club under Technical Board of IIITG.
25.10.2020	A mini project on stock price prediction	It was a warm-up regression project for beginners and was organised by Mavericks, The Machine Learning Club under Technical Board.
01.11.2020	A mini project on digit and alphabet recognition.	It was a warm-up classification project for beginners and was organised by Mavericks, The Machine Learning Club under Technical Board.
13.02.2021	Session on "Introduction to Machine Learning".	It was organised by Mavericks – The Machine Learning Society Club under Technical Board of IIITG.
12.03.2021	Session on "Introduction to Regression"	It was organised by Mavericks – The Machine Learning Society Club under Technical Board of IIITG.

CULTURAL BOARD

Literary Club		
Date	Event	Details of Event
4.04.2020	Word – a – thon (short story writing competition)	It was conducted by Literary Club under Cultural Board to give a chance to the members to unleash their creativity.
20.04.2020	Pictionary (Online Game)	It was organised by Literary Club under Cultural Board of IIITG.
3.05.2020	Poster Making Competition (EBSB event)	It was conducted by Literary Club under Cultural Board of IIITG during lockdown to engage club members in creative activity. Posters were digital as well as handmade. Theme of the competition was "Tourism of Rajasthan". This event was recognised by then MHRD, Govt. of India.
27.06.2020	Quiz on heritage and language of Assam and Rajasthan (EBSB event)	It was conducted using online platform "myquiz.org" by Literary Club under Cultural Board of IIITG.
31.12.2020	Open – min (poem recitation)	It was organised by Literary Club under Cultural Board of IIITG for New Year's celebration.
Fine Arts Club		
Date	Event	Details of Event
31.10.2020	Halloween Face and Hand Painting Competition	The event was organised by Fine Arts Club on its Instagram Social Media Platform with open for all mode.
25.01.2021	Doodle 2.0 (Online)	It was organised by Fine Arts Club under Cultural Board of IIITG to remember and rejoice in the victory of freedom fighters on the occasion of Republic Day.
26.01.2021	Doodle 2.0	It was organised by Fine Arts Club under Cultural Board of IIITG to remember and

	(Offline)	rejoice in the victory of freedom fighters on the occasion of Republic Day
11.03.2021	The Chunin Art Exam	The Chunin Art Exam i.e. the anime making competition was conducted on Google Meet by Fine Arts Club under Cultural Board of IIITG.

Quiz Club

Date	Event	Details of Event
29.08.2020	Sports short quiz (Instagram social media handle)	It was organised on the occasion of National Sports Day by Quiz Club under Cultural Board of IIITG.
10.09.2020	Participated in Intra Institute Quiz conducted by IIIT Pune (Qriocity)	The quiz was won by a participant of IIITG.
15.09.2020	General quiz in Covid Times: Preliminary Round	It was conducted by Quiz Club under Cultural Board of IIITG.
11.10.2020	General Quiz on Covid Times: Finals	The quiz organised by Quiz Club was mainly a current affairs covering the events happened during the lockdown. Out of 51 participants, only 10 people qualified for finals and among the 10, 4 students were the winner.
25.10.2020	IPL Sports Quiz	It was conducted by Quiz Club under Cultural Board of IIITG.
26.01.2021	Mela Quiz – Music, Entertainment, Literature and Arts	It was organised by Quiz Club under Cultural Board of IIITG.
14.02.2021	Invitation to Participate in Auspicious Quiz – TATA Crucible Campus	4 students qualified for level 2 prelims and 1 students qualified for Cluster final.

| 17.03.2021 | Football + Sports Quiz | It was organised by Quiz Club under Cultural Board of IIITG. |
| 23.03.2021 | Online Quizzing Festival | It was hosted by Quiz Club under Cultural Board of IIITG along with top IIMs and IITs and also got the advertisement nationwide in their social media handles with prizes worth ₹1,00,000.00 |

Reading Club

Date	Event	Details of Event
31.10.2020	Trick or Read Book Exchange	It was conducted on the occasion of Halloween.

Photography Club

Date	Event	Details of Event
16.10.2020 – 18.10.2020	Photography competition (Captured the uncaptured: Lockdown stories)	It was organised by Photography club under Cultural Board and the competition was limited to the student community of IIITG.
05.03.2021	Fe – Shot	It was organised by Photography Club under Cultural Board of IIITG.
19.03.2021 – 21.03.2021	Holi Video Shoot and Edit	It was organised by Photography Club under Cultural Board of IIITG.

Music Club

Date	Event	Details of Event
15.04.2020 – 29.04.2020	Online Instrumental and Vocal Competition amongst all the members	It was conducted by Music club under Cultural Board of IIITG. Every member of Music Club participated.
5.05.2020 – 12.05.2020	Final Online Instrumental and Vocal Competition amongst all the	It was conducted by Music Club under Cultural Board of IIITG. Selected members who qualified for final round participated.

	members of the club	
28.06.2020 – 4.07.2020	Collaboration with IIIT Kota for EBSB. (EBSB event)	It was conducted by Music Club under Cultural Board of IIITG. All members of music club of IIITG and IIITK participated.
11.10.2020	Music Minded: Online Music quiz for IIITG Students	It was conducted by Music Club under Cultural Board of IIITG.
15.11.2020 – 20.11.2020	Music in a Minute	It was an online music competition open for students from all schools and colleges. It was organised by Music Club under Cultural Board of IIITG.
16.03.2021 – 25.03.2021	Scribbled Harmony	It was organised by Music Club under Cultural Board of IIITG.

Dance Club

Date	Event	Details of Event
13.09.2020	Online Dance Workshop	It was organised by Dance Club and the club invited "Ojasvi Verma", a Dancer/Performer/Choreographer. 123 participants registered and 51 people joined for the workshop.
19.09.2020	Online Dance Workshop	It was organised by Dance Club and the club invited "Vivek Dadhich", a Dancer/Celebrity trainer/Choreographer.
17.10.2020 – 28.10.2020	MOVE IT OR LOSE IT – The woah challenge	It was a dance challenge conducted by Dance club under Cultural Board on official page of Instagram. It was basically a step challenge where participants had to submit a 10-15 seconds video.
26.01.2021	An online and Offline Program for Republic Day	It was organised by Dance Club under Cultural Board of IIITG.
26.01.2021	Visit to SOS Village	Eco& Outreach Club under Welfare Board

Date	Event	Details of Event
		along with Dance Club of Cultural Board visited SOS Village and organised dance show for the school Children
10.02.2021	EBSB Rangilo Rajasthan (EBSB event)	The event was an online dance competition named "Rangilo Rajasthan" wherein the participants were asked to submit a dance video having at least one element from Rajasthani Culture. It was organised by Dance Club under Cultural Board of IIITG.
04.03.2021	Online Meet for EBSB Result Declaration (EBSB event)	It was organised by Dance Club under Cultural Board of IIITG to announce the results of events of EBSB.
05.03.2021	Women's Day Dance Performance	It was organised by Dance Club under Cultural Board of IIITG. Two dances were performed for social workers.
15.03.2021	EBSB Recap Video (EBSB event)	It was organised by Dance Club under Cultural Board of IIITG. The video was uploaded to YouTube and Instagram.
19.03.2021	Fresher's Video	It was organised by Dance Club under Cultural Board of IIITG.
29.03.2021	Holi Dance Video	It was organised by Dance Club under Cultural Board of IIITG and the videos were uploaded to YouTube and Instagram.
Drama Club		
Date	Event	Details of Event
26.01.2021	Afsaane's Intro Video Shoot	An introductory video for Afsaane titled "Hum Afsaane Hain" was shot and uploaded on social media handle of Afsaane. It was done by Drama Club under Cultural Board of IIITG.
14.02.2021	Afsaane's Radio Play "Afsaane ke Afsaane – A Day"	It was organised by Drama Club under Cultural Board of IIITG. It was shot and was uploaded to social media "Instagram".

SPORTS BOARD

Indoor Sports Club		
Date	Event	Details of Event
07.11.2020 – 08.11.2020	Online Chess Tournament for Girls	It was conducted by Indoor Sports Club under Sports Board of IIITG.
07.11.2020 – 16.11.2020	Online Chess Tournament for Boys	It was conducted by Indoor Sports Club under Sports Board of IIITG.
Outdoor Sports Club		
Date	Event	Details of Event
01.12.2020 – 06.12.2020	Fit India Prabhat Pheri event named as "Morning Energies"	It was organised to encourage fitness and help all campus community to get freedom from obesity, laziness, stress, anxiety, diseases, etc. The event was for everyone belonging to the IIIT Guwahati fraternity including the students, faculty members, staff members and their respective family members.
18.12.2020 – 31.12.2020	Fit India Cyclothon event named as "Pedal to Fitness Path"	It was organised to encourage fitness and help all campus community to get freedom from obesity, laziness, stress, anxiety, diseases, etc. The event further aimed in contributing the all over health care index of the country by taking necessary inputs from the Fitness-Club of IIITG (formed under Fit India Movement) concerning to the event.

WELFARE BOARD

Eco and Outreach Club		
Date	Event	Details of Event
5.06.2020	World Environment Day	"Plantation cum Awareness Drive" was conducted by Welfare Board in association with the Real Estate Office. In addition to that an awareness campaign regarding COVID-19 was conducted amongst the outsourced staffs.
07.03.2021	Green Day Campaign	A plastic segregation and collection drive was organised by IIITG Eco & Outreach Club (Prayatn) for a greener plastic free Campus.

Annual Institute Awards 2020-

The Annual Institute Awards for the year 2019- 2020, in the category of 1) Best Performing club, (2) Best Social Initiative & (3) Best Hostel Wing were announced on 14.08.2020. The details of the winners for the different segments are as follows:

1) Exemplary Hostel Wing 2020:

Winner: Ground Floor of IIITG Girls' Hostel.
Winners: Jishu Yadav, Priyanka Kumari, Nikita Gupta, Badagala Sriharsha, Ananya, Shivi Gupta, Anisha Prajapati, Priyanshi, Prasunna Soppa, Solina Basak, Sayantani Dutta, Khushi Garg, Risha Singh, Jasmine Bajaj, Shevya Tripathi, Asna Basotta, Sanjuli Trivedi.

2) Best Performing Club 2020:

Winner : D-Dazzlers (Dance) Club under Cultural Board of IIITG.
Club Coordinators : Diwakar Bharti, Deepak Sidar.

Students' Gymkhana Council Member in-Charge: Kuldeep Ravaliya.

Student members: Shubham Jain, Sayantani Dutta, Abhishek Jain, Soppa Prasunna, Chayan Gurele, Aman Kushwaha, Pawar Ayush Jitendra, Himanshu Kaushik, Kush Jaiswal, Meghavath Bharajwad Rathod, Ranvijay

Patel Amarnath, Anjali Bharti, Badagala Sriharsha, Dinesh Dewasi, Mansi Thakare, Nenavath Paramesh, Suvir Shivaji Katke, Shreedhar Mathialagan, Chikke Srujan, Eka Sree Harsha.

3) Best Social Initiative 2020:

Winner: Eco and Outreach Club under Welfare Board of IIITG, for Social initiative under 'Prayatn' such as 1. Daan Utsav for underprivileged children, 2. Sandesh to Soldiers, 3. Installation of Sanitary Napkin Vending Machine, 4. Plantation Drive and Tree Adoption Campaign.

Club Coordinator: Gurnoor Singh.

Students' Gymkhana Council Member in-Charge: Anirban Das

Student members: Abhinav Sharma, Aman Agarwal, Bhaskar Mishra, Harmanjeet Singh, Mridul Mayank, Rohan Kumar, Sanu Kumar, Settipali Sai Teja, Shantanu Agrawal, Shantanu Raj, Shobhit Belwal, Shubham Jhawar, Ujjwal Goel, Jha Parikirt, Omkar Yeshvant Chute, Ravindra Singh Sisodiya, Yashwanth Manivannan, Ananya Pathak, Jishu Yadav, Mansi Thakare, Meghna Singh, Nikita Gupta, Patole Rutuja Rajaram, Priyanka Kumari, Richa Singh, Samidha Singh, Gurnoor Singh.

Students' Achievements

1. Achal Dixit (2nd Year, B.Tech,CSE) has published a paper journal on "Predicting Severe Outcomes in Covid – 19 related illness using only patient demographics, comorbidities and symptoms".

2. Achal Dixit, (3rd Year, B.Tech, CSE), Ashmit Ayush (3rd Year, B.Tech, CSE) and Kumar Badal (3rd Year, B.Tech, CSE) have presented Oral Abstract on "A Machine Learning Approach to Detect Congestive Heart Failure without Ejection Fraction" at the 10th International Conference on Intelligent Computing and Applications (ICICA 2021).

3. Achal Dixit (2nd Year, B.Tech, CSE) had secured 2nd position and won ₹ 30,000.00 in MHRD Mega Challenge Samadhan held in May, 2020.

4. Achal Dixit (3rd Year, B.Tech, CSE) has won MIT Beat the Pandemic Challenge and also won 150 USD Cash and 200 USD AWS Credits.

5. Achal Dixit (Team Leader, 3rd Year, B.Tech, CSE), Ashish Mishra (3rd Year, B.Tech, CSE), Ashmit Ayush (3rd Year, B.Tech, CSE) and Kumar Badal (3rd Year, B.Tech, CSE) had participated in "Microsoft Imagine Cup – 2021" and reached finale in healthcare category. The team ranked in top 8 all over India among 100+ teams in healthcare track. The team also won ₹ 8,000.00 Myntra Cash for being in top 4 finalists.

6. Rajat Bhattacharjya (4th Year, B.Tech, ECE), Vishesh Mishra (3rd Year, B.Tech, ECE), Saurabh Singh (3rd Year, B.Tech, ECE) and Kaustav Goswami (Passed Out Student) had won "Best Paper Award" (Honorable Mention) for "An Approximate Carry Estimating Simultaneous Adder with Rectification" at 30th ACM Great Lakes Symposium on VLSI (GLSVLSI), Beijing, China (Virtual), 2020.

7. Amartya Dutta (4th Year, B.Tech, CSE) had secured 3rd position in 27th IEEE International Conference on Image Processing (ICIP), Image Popularity Prediction Challenge held in Abu Dhabi, UAE on 26th October, 2020 (Virtually).

8. Mohit Mishra (4th Year, B.Tech, ECE) had published a paper on "Development and evaluation of an AI System for early detection of Covid-19 pneumonia using X – rayat 2020 6th IEEE International Conference on Multimedia Big Data (BigMM) held virtually in Delhi from 24th to 26th, September, 2020.

9. Varun Parashar (4th Year, B.Tech, CSE) had published a paper on detecting COVID – 19 infection in lungs using X-ray scan of patients, titled "Development and evaluation of an AI System for early detection of Covid-19 pneumonia using X-Ray" in the 2020 6th IEEE Sixth International Conference on Multimedia Big Data (BIGMM) held virtually in Delhi from 24th to 26th September, 2020.

Extra-Curricular Achievements

1. Ankit Kumar (3rd Year, B.Tech, ECE) had been recognised as a winner in the IITB-ISRO-AICTE, Mapathon 2020, an initiative of the FOSSEE (Free/Libre and Open Source Software in Education) Project, IIT Bombay in association with ISRO and AICTE. The Mapathon 2020 was held between 7th December to 22nd December, 2020 in online mode.

2. Upaangana Das (1st Year, M.Tech, ECE) has secured 1st position in Girls Chess Tournament, 2021 which was held in online mode.

3. Khushi Garg (2nd Year, B.Tech, CSE) had won an art competition with a cash prize worth ₹ 800.00 conducted by SGTB Khalsa College, Delhi University on 2nd to 3rd September, 2020 in online mode.

4. Deepak Kumar Yadav, (3rd Year, B.Tech, CSE) had become 1st runner up of the "Physics Bowl 2020" organised by DAV College, Malout in collaboration with IISER Mohali on 24th October, 2020 on Google Meet.

5. Ajit Singh (3rd Year, B.Tech, ECE), Ashmik Harinkhede (3rd Year, B.Tech, CSE), Ankit Kumar (3rd Year, B.Tech, ECE) and Samridh Singh had secured 2nd position in SocioThon 2021, a virtual 24 hour hackathon organised by National Social Summit, IIT Roorkee in collaboration with World Health Organisation India, UNESCO and NITI Aayog (ICMR). It was held on 27th to 28th March, 2021.

Details of Scholarships for 2020-21:

Scholarship Schemes	Number of Students
Central Sector Scholarship for Top Class Education for SC Students	5
Central Sector Scholarship Scheme of National Fellowship and Scholarship for Higher Education for ST Students	2
Merit Cum Means Scholarship for Professional and Technical Courses CS	1
Uttar Pradesh State Scholarship	3
Mukhya Mantri Medhavi Vidyarthi Yojna (MMVY)	5
Central Sector Scheme of Scholarship for College and University Students	3
Post Matric Scholarship For SC Students Tripura	1
Total	**20**

Amount Range (Per Annum)	Number of Students
Upto Rs.1 Lakh	8
Rs.1,00,000.00 – Rs.2,00,000.00	Nil
Rs.2,00,000.00 – Rs. 3,00,000.00 12	12

Training And Placement

Placement Status BTech 2020-21 Batch:

IIIT Guwahati has had a successful placement session during 2020-21. Some of the companies where our students got placed are: TCS (Top Innovator Profile), Amazon, Toppr Technologies, Cisco, Nasdaq, Reliance Jio, Vassar Labs, Virtusa, Deloitte, L&T Infotech, Cognizant, Capgemini, Infosysy. Final stages of the selection processes for some companies are still going on.

The students got offers from both on-campus and off-campus selection processes. The statistics so far are:

Category	CSE	ECE	Overall
(1) Total student registered	40	21	61
(2) Total job offered	47	16	63
(3) Average salary (for domestic offers only)	11.59 LPA	6.48 LPA	10.13 LPA
(4) Median salary	10.2 lpa	6.26 lpa	9 lpa
(5) Total students selected	35	14	49
(6) Students going for higher studies *(tentative)*	2	5	7
(7) Students starting their own company	0	0	0
(8) Highest salary	32 LPA	9 LPA	32 LPA
Percentage placed so far	87.5%	66.67%	80.33%

Placement Status MTech 2020-21 Batch:

The students got offers from both on-campus and off-campus selection processes. The statistics so far are:

Category	CSE	ECE	Overall
(1) Total student registered	8	7	15
(2) Total job offered	5	0	5
(3) Average salary (for domestic offers only)	5.4 LPA	------	5.4 LPA
(4) Median salary	4.2 lpa	------	4.2 lpa
(5) Total students selected	5	0	5

(6) Students going for higher studies *(tentative)*	3	5	8
(7) Students starting their own company	0	0	0
(8) Highest salary	8 LPA	---	8 LPA
Percentage placed so far	62.5%	0%	33.33%

Perspective Lecture Series

IIITG Perspective Lecture Series - being an on-campus and interactive Lecture Series since inception - was postponed in the period 1 April 2020-31 March 2021 due to the pandemic

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 2019-20	Nil	Nil
Grant in Aid 2020-21	33,00,000.00	Nil
Internal Revenue Generated 2020-21	14,56,67,336.00	Nil
Expenditure 2020-21	17,20,20,554.00	1,38,12,395.00
Balance C/F to 2021-22	(2,30,53,218.60)	Nil

Sources of Funds (including balance brought forward)

Item	Recurring/Revenue (₹)	Non-recurring/Capital (₹)
Govt. of India	33,00,000.00	Nil
Govt. of Assam	Nil	Nil
Industry partners	Nil	Nil
Income from Interest	4,12,410.00	Nil
Income from fees and Others	14,52,54,926.00	Nil

A summary of the Annual Accounts is given in the Appendix.

APPENDIX
A Summary of the Annual Accounts 2020-21

BALANCE SHEET			
		[Amount in ₹]	
SOURCES OF FUNDS	Schedule	Current Year	Previous Year
CORPUS/CAPITAL FUND	1	1,32,01,78,530.29	1,34,47,79,647.01
DESIGNATED/ EARMARKED / ENDOWMENT FUNDS	2	-	26,54,315.00
CURRENT LIABILITIES & PROVISIONS	3	3,59,06,593.77	2,77,85,729.66
TOTAL		1,35,60,85,124.06	1,37,52,19,691.67
APPLICATION OF FUNDS	Schedule		
FIXED ASSETS	4		
Tangible Assets		1,32,00,16,213.08	1,33,95,69,101.68
Intangible Assets		-	-
Capital Works-In-Progress		-	
INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS	5		
Long Term		-	-
Short Term		-	-
INVESTMENTS - OTHERS	6	-	-
CURRENT ASSETS	7	2,55,22,385.00	2,85,90,920.67
LOANS, ADVANCES & DEPOSITS	8	1,05,46,525.98	70,59,669.32
TOTAL		1,35,60,85,124.06	1,37,52,19,691.67

INCOME AND EXPENDITURE ACCOUNT			
		[Amount in ₹]	
Particulars	Schedule	Current Year	Previous Year
INCOME			
Academic Receipts	9	14,04,65,663.00	12,96,95,741.00
Grants / Subsidies	10	33,00,000.00	
Income from investments	11	4,12,410.00	6,26,020.26
Interest earned	12	-	
Other Income	13	47,16,280.00	79,93,722.81
Prior Period Income	14	72,983.00	5,45,800.00
TOTAL (A)		**14,89,67,336.00**	**13,88,61,284.07**
EXPENDITURE			
Staff Payments & Benefits (Establishment expenses)	15	10,43,60,550.00	9,21,87,013.65
Academic Expenses	16	13,52,772.00	27,04,832.62
Administrative and General Expenses	17	85,53,767.00	1,19,20,441.00
Transportation Expenses	18	96,410.00	4,96,637.00
Repairs & Maintenance	19	2,67,57,394.00	1,74,92,499.00
Finance costs	20	1,50,925.00	42,469.83
Depreciation	4	3,08,78,765.00	3,05,97,343.00
Other Expenses	21	-	
Prior Period Expenses	22	(1,30,028.40)	16,49,315.00
TOTAL (B)		**17,20,20,554.60**	**15,70,90,551.10**
Balance being excess of Income over Expenditure (A-B)		(2,30,53,218.60)	(1,82,29,267.03)
Transfer to / from Designated Fund			
Building fund			
Others (specify)			
Balance Being Surplus / (Deficit) Carried to Capital Fund		**(2,30,53,218.60)**	**(1,82,29,267.03)**

RECEIPTS AND PAYMENTS ACCOUNT

	RECEIPTS	Current Year	Previous Year		PAYMENTS	Amount in Rupees	
						Current Year	Previous Year
I.	Opening Balance			I.	Expenses		
	a) Cash Balances	76,185.00	13,000.00		a) Establishment Expenses	10,43,60,550.00	9,21,87,013.65
	b) Bank Balance				b) Academic Expenses	13,52,772.00	27,04,832.62
	i. In Current accounts	35,99,099.72	10,40,844.88		c) Administrative Expenses	85,53,767.00	1,19,20,441.00
	ii. In Deposit accounts	1,33,00,000.00	1,89,74,326.00		d) Transportation Expenses	96,410.00	4,96,637.00
	iii. Savings accounts	1,16,15,635.95	1,29,52,047.75		e) Repairs & Maintenance	2,67,57,394.00	1,74,92,499.00
II.	Grants Received				f) Prior period expenses	841.00	16,49,315.00
	a) From Government of India	-			g) Finance Cost	1,50,925.00	42,469.83
	b) From State Government	-	6,05,00,000.00	II.	Payments against Earmarked/ Endowment Funds	26,54,315.00	
	c) From Industry Partners	-	1,54,08,000.00	III.	Payments against Sponsored Projects/Schemes	5,30,35,808.00	5,68,97,562.12
				IV.	Payments against Sponsored Fellowships/Scholarships	-	
				V.	Investments and Deposits made		
III.	Academic Receipts	14,04,65,663.00	12,96,95,741.00		a) Out of Earmarked/Endowments funds	-	
IV.	Receipts against Earmarked/ Endowment Funds	-			b) Out of own funds (Investments-Others}	-	
V.	Receipts against Sponsored Projects/Schemes	5,17,06,205.00	5,75,78,601.12	VI.	Term Deposits with Scheduled Banks	-	
VI.	Receipts against sponsored Fellowships and Scholarships	-		VII.	Expenditure on Fixed Assets and Capital Works - in- Progress		
VII.	Income on Investments from				a) Fixed Assets	1,11,95,007.00	1,34,25,53,687.00
	a) Earmarked/Endowment funds	-			b) Capital Works- in-Progress	-	-1,24,90,96,021.00

	a) Earmarked/Endowment funds	-			b) Capital Works- in- Progress	-		-1,24,90,96,021.00
	b) Other investments	-		VIII.	Other Payments including statutory payments	-		
VIII.	Interest received on							
	a) Bank Deposits	2,02,463.00	11,04,439.26	IX.	Refunds of Grants			
	b) Loans and Advances			X.	Deposits and Advances	2,37,71,350.55		2,02,93,041.98
	c) Savings Bank Accounts	-		XI.	Other Payments	-		
IX.	Investments encashed	-		XII.	Closing balances			
X.	Term Deposits with Scheduled Banks encashed	-			a) Cash in hand	63,500.00		76,185.00
XI.	Other income (including Prior Period Income)	47,89,263.00	85,39,522.81		b) Bank balances			
XII.	Deposits and Advances	3,16,97,009.88	1,99,25,876.05		In Current Accounts	20,00,253.00		35,99,099.72
XIII.	Miscellaneous Receipts including Statutory Receipts	-			In Savings Accounts	64,58,632.00		1,16,15,635.95
XIV	Any Other Receipts - Capital Work in Progress refund	-			In Deposit Accounts	1,70,00,000.00		1,33,00,000.00
	TOTAL	**25,74,51,524.55**	**32,57,32,398.87**		**TOTAL**	**25,74,51,524.55**		**32,57,32,398.87**

PICTURE GALLERY

Republic Day 2021 at IIITG

Republic Day 2021 Online Event

Inauguration of "VLSI Based System Design" workshop by Prof. Gautam Barua (Director of IIIT Guwahati) and welcoming ceremony of keynote speaker Prof. Sung - Mo "Steve" Kang (University of California, Santa Cruz) organized by the Dept. of ECE, IIIT Guwahati.

Talk by Dr. Satyam Agarwal of IIT Ropar in a Webinar on 6G Communications organized by the Dept. of ECE, IIIT Guwahati.

Third Convocation of IIIT Guwahati

Third Convocation of IIIT Guwahati

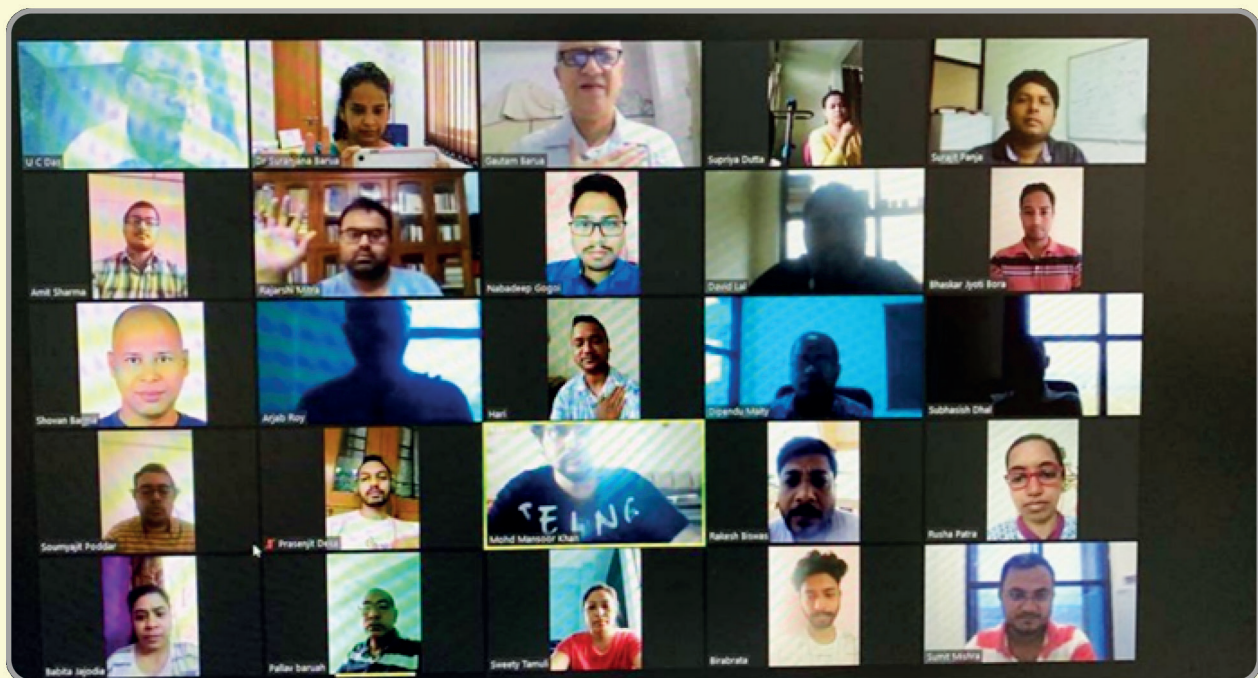Virtual Certificates at Third Convocation of IIIT Guwahati

Chief Guest Mr. N Chandrasekaran addressing the third convocation virtually

Talk by Dr. Emil Bjornson of Linköping University in a Webinar on 6G Communications organized by the Dept. of ECE, IIIT Guwahati.

Virtual Pledge Taking on Rashtriya Ekta Diwas

A GLIMPSE OF
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