ANNUAL REPORT 2020-2

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राष्ट्रीय प्रौद्योगिकी संस्थान सिलचर

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

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NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

राष्ट्रीय प्रौद्योगिकी संस्थान, सिलचर
तेजस्विनावधीतमस्तु
NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR

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From the Director's Desk...

It is extremely delightful for me to present the Annual Report of National Institute of Technology Silchar, Assam for the year 2020-2021. Since 1977, the Institute is progressing gracefully in the field of engineering education along with science and management studies.

The Institute has a current strength of 4490 students including UG, PG and Research scholars including a good number of foreign students. It gives me immense pleasure to mention that in the National Institute Ranking Framework (NIRF) - 2021, NIT Silchar has been ranked 48th among all the Engineering Institutes and 93rd among all universities. The Institute is ranked 12th among 31 NITs in the country and 2nd in the North Eastern Region after IIT Guwahati. We secured rank under 'excellent band' in ATAL Ranking of Institutions on Innovation Achievements (ARIIA) – 2021 in the category 'Institute of National Importance, Central Universities and CFTIs'. We received a total of 07 funded R&D projects. A total number of 54 R&D projects are currently running with a financial support of Rs. 23.92 crores. A total of 23 consultancy services are currently going on with a financial outlay of Rs. 32.33 lakhs. 5 UG programs out of 6 and 13 PG programs out of 15 are either accredited or under the process of accreditation by National Board of Accreditation (NBA). We hope that the remaining programs will be accredited soon in near future. We have two NABL accredited laboratories, one in Mechanical Engineering and the other in Civil Engineering. This was possible because of the unconditional support, cooperation and contribution of all stake holders specially faculty members, staff, students and alumni of NIT Silchar.

The Annual Report is prepared based on the various activities of the Institute during the reporting year of 2020-2021. I express my sincere gratitude to the Ministry of Education (MoE) (erstwhile MHRD) and the State Government of Assam for their whole hearted support and co-operation. I am specifically thankful to all the members of BOG, FC, BWC, Senate, faculty, staff, students and alumni of NIT Silchar for their commitment and contribution towards the growth of the institute and I firmly believe that our efforts in various dimensions; from revising curriculum to quality research, from accreditation to research collaboration, from governance to alumni interactions are towards achieving our vision to be known as one of the most preferred institute in the country.

Prof. Sivaji Bandyopadhyay
Director, NIT Silchar

Mission

The mission of NIT Silchar is to train and transform young men and women into responsible engineers, technologists and scientists to motivate them to attain professional excellence and to inspire them to proactively engage themselves for the betterment of the society.

Vision

The vision of NIT Silchar is to establish a unique identity by developing quality human and knowledge resources in diverse areas of technology to meet local, national and global economic and social needs as well as the needs of human society at large in self-sustained manner.

Objectives

- *To impart the best technical education at both the Undergraduate/ postgraduate level so as to train the students to be able to boldly face a world that is being transformed by scientific and technological advances.*
- *To engage in research work beneficial to Industry as well as society and disseminate the research findings.*
- *To provide knowledge based technological services to satisfy the needs of the industry as well as society*
- *To help in buiding national capabilities in developing technologies, opening up new vistas in education and research.*
- *To promote Institute-Industry interaction through sponsored research by sponsoring faculty to work in Industry for short terms and by inviting people from Industry to deliver lecture etc.*
- *To promote national integration and impart value based education.*

NIT SILCHAR AT A GLANCE

RANK

***NIRF* Rank 2021**	48th (In Engineering)
	12th (Among NITS)
	93th (Overall)
Atal Ranking of Institutions on Innovation Achievements (*ARIIA*) 2021 Category 'Institute of National Importance, Central Universities and CFTIs'	Excellent Band
***Dataquest* Top T-Schools in India 2021**	11th (Overall)
	2nd (In East Zone)
	8th (Top T-Schools (Government))
***India Today* Best College Ranking 2021**	24th (Among Govt. Engineering Colleges)
***THE WEEK* Top Technical University in India 2021**	25th
UI GreenMetric Ranking 2021	275th in Overall world University Ranking
	6th among Indian Universities
US News Ranking 2021	750th
THE Ranking 2021	801-1000 in the World University Ranking; 19th in India
	601-800 in Engineering World University Ranking
	601-800 in Physical Science World University Ranking
	251-300 in Emerging Economics University Ranking
	201-250 in Asia University Ranking

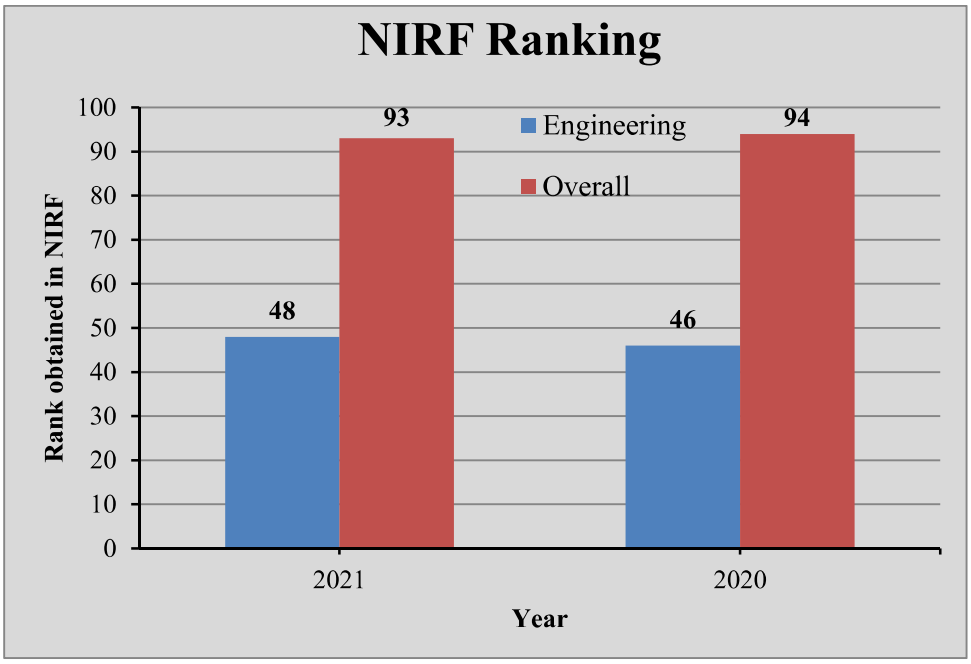

Fig: 1 National Institutional Ranking Framework (NIRF-Engineering) of NIT Silchar

DEPARTMENTS

B.Tech ■	M.Tech ●	M.Sc ●	MBA ●	Ph.D ▲
Engineering				
Civil Engineering	■	●		▲
Mechanical Engineering	■	●		▲
Electrical Engineering	■	●		▲
Electronics & Communication Engineering	■	●		▲
Computer Science & Engineering	■	●		▲
Electronics & Instrumentation Engineering	■	●		▲
Science				
Physics			●	▲
Chemistry			●	▲
Mathematics			●	▲
Humanities and Management				
Humanities				▲
Management Studies			●	▲

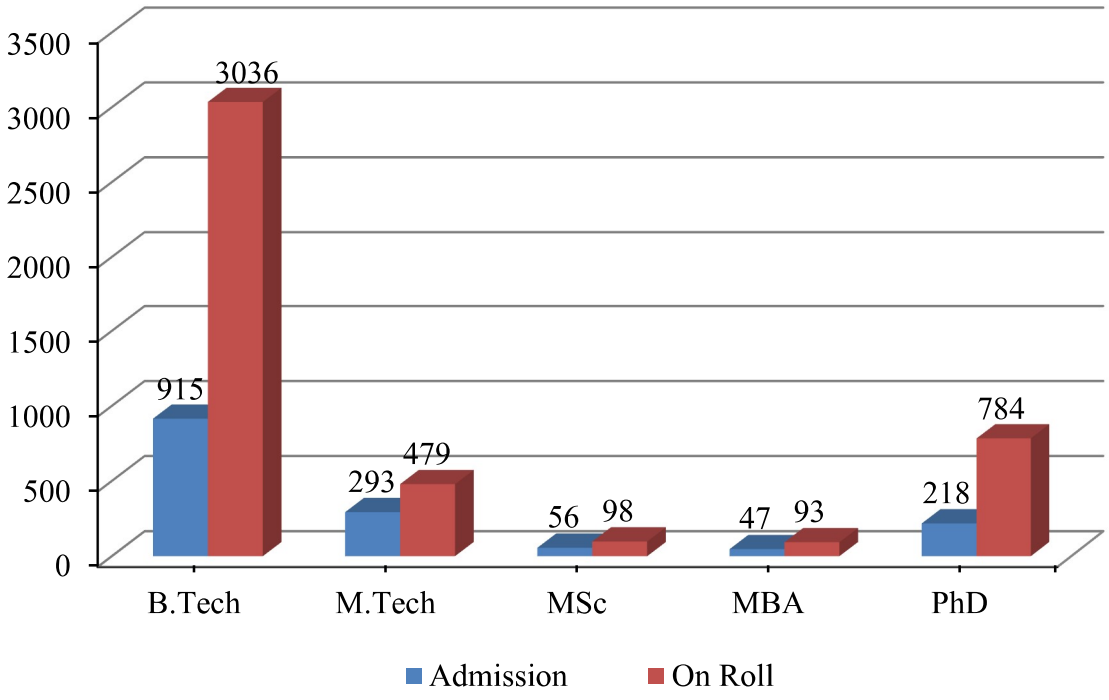

Fig: 2 Student-admissions and On-Roll during 2020-21.

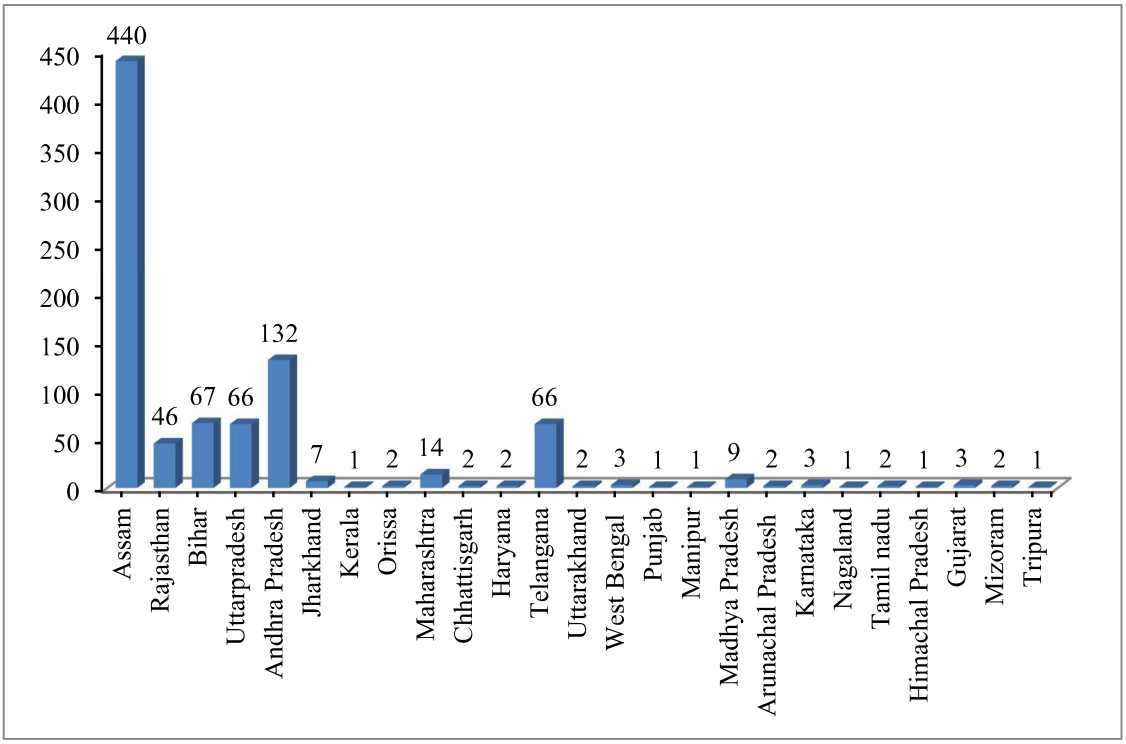

Fig: 3 State-wise distributions of Indian students admitted in B.Tech course in 2020-21

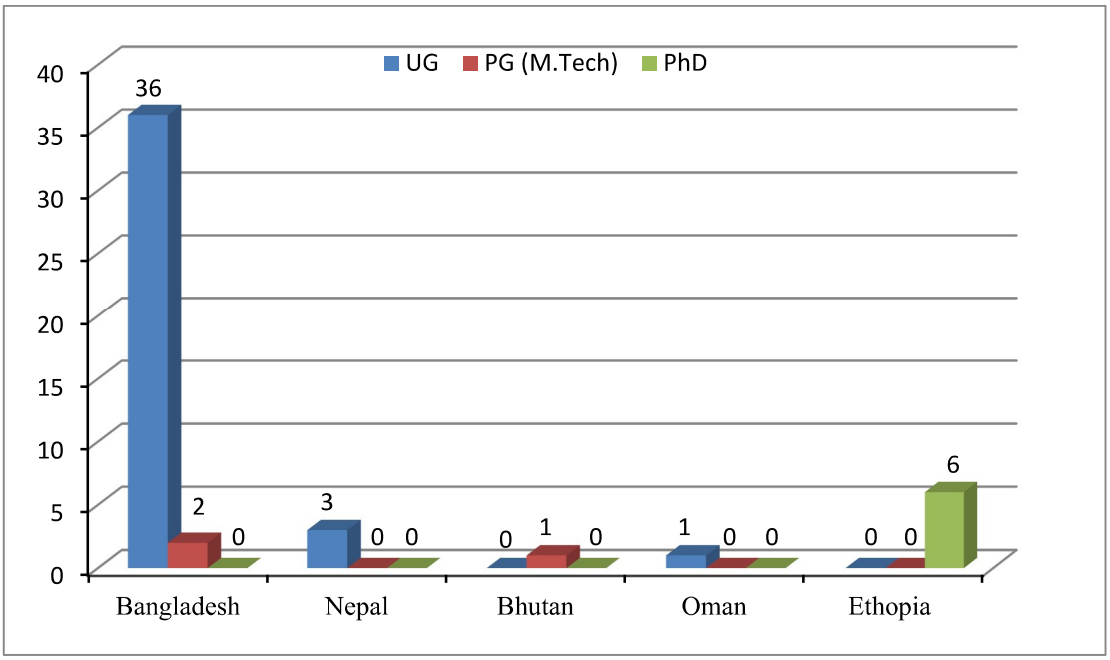

Fig: 4 Foreign students admitted in 2020-21

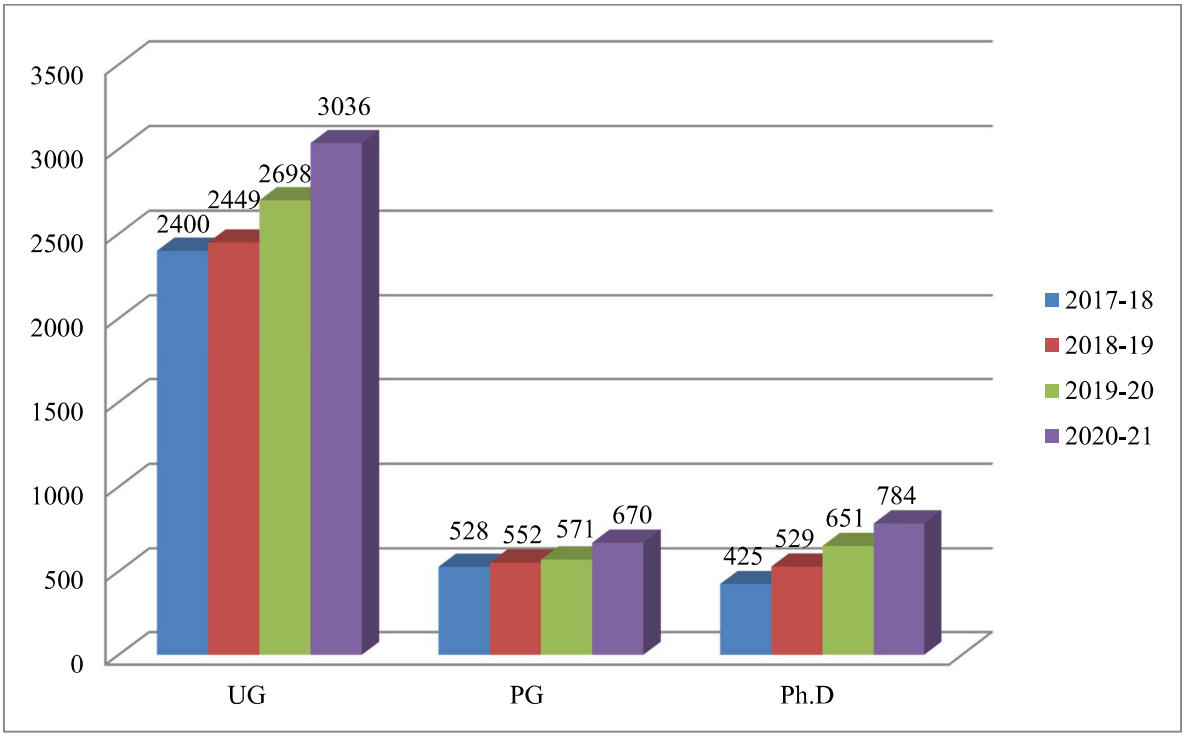

Fig: 5 Growth in the enrolment of students (UG/PG/Ph.D) during the last four years i.e from 2017-2021.

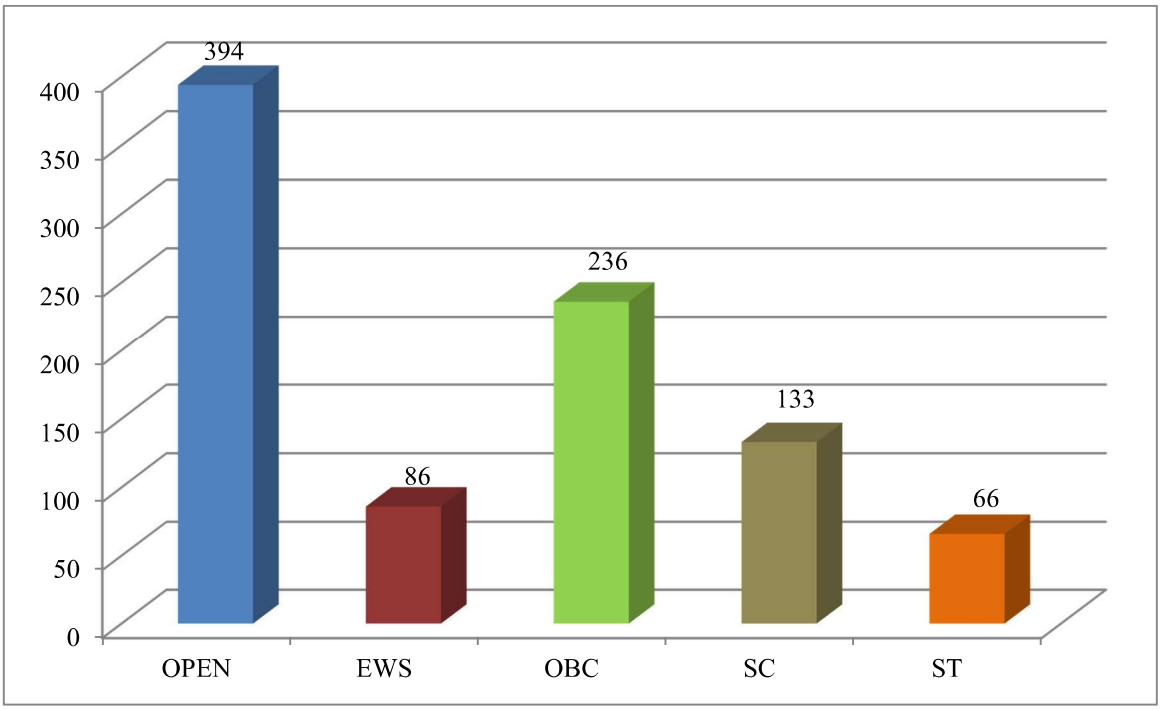

Fig: 6 Category wise admission counts of UG students in 2020-21.

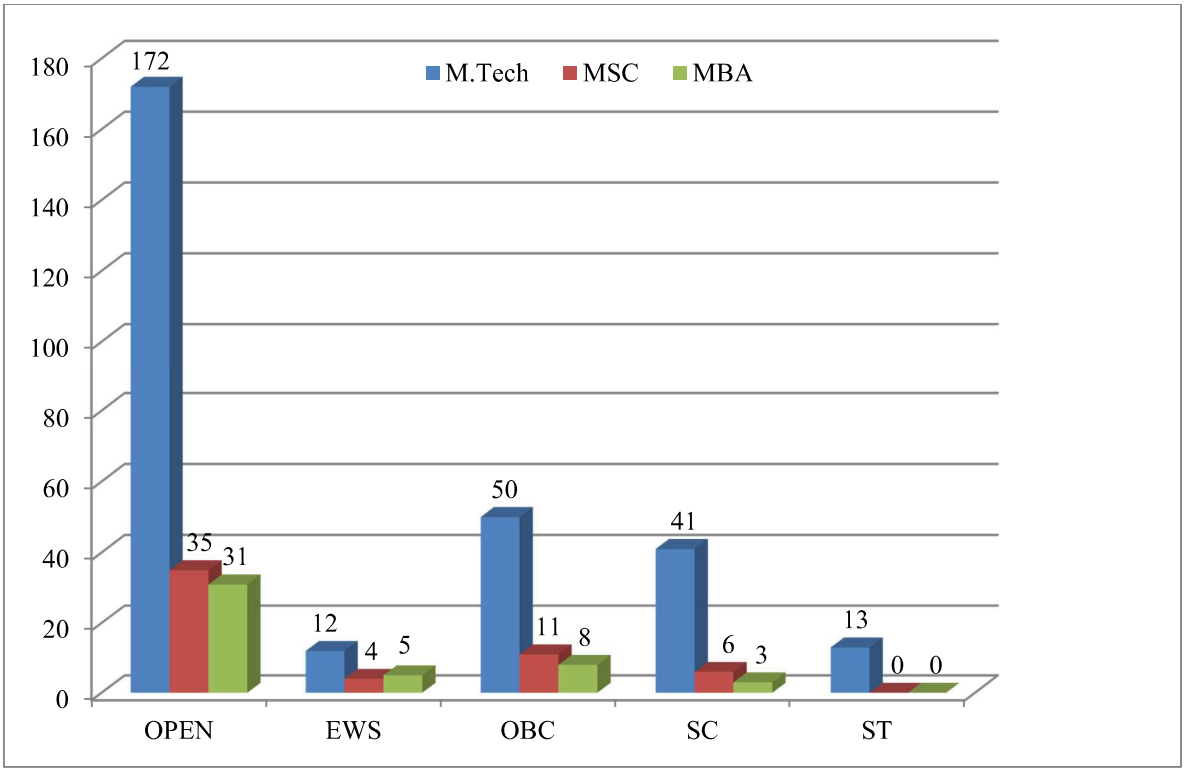

Fig: 7 Categorywise admission count of PG students in 2020-21

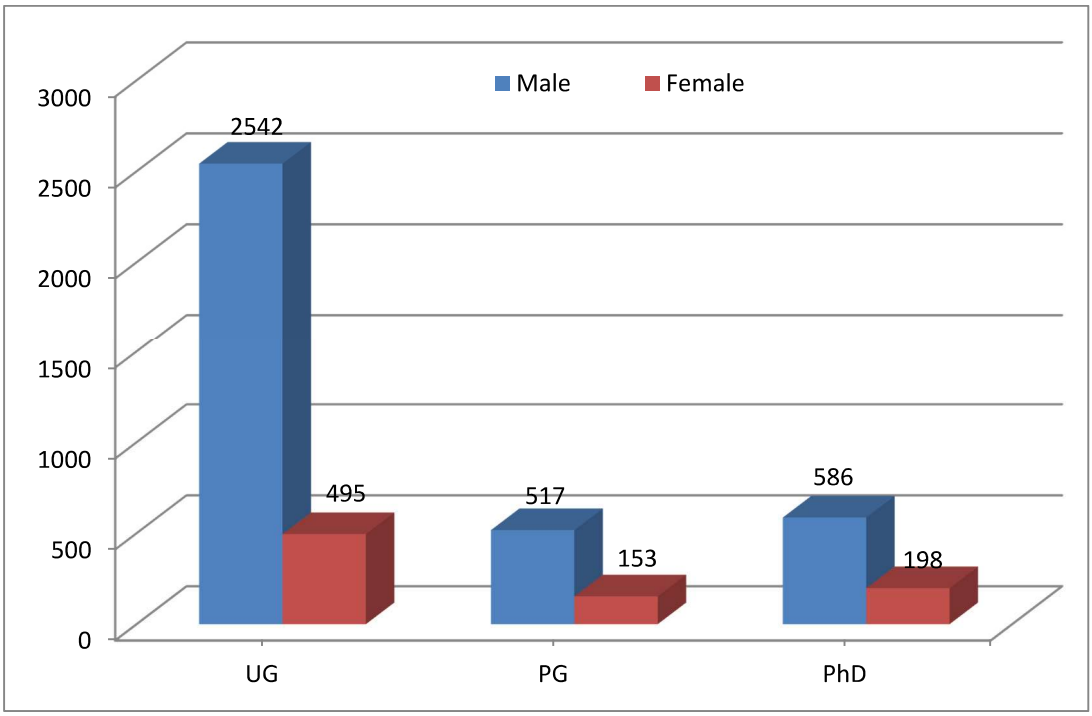

Fig: 8 Gender distributions across diferent programme

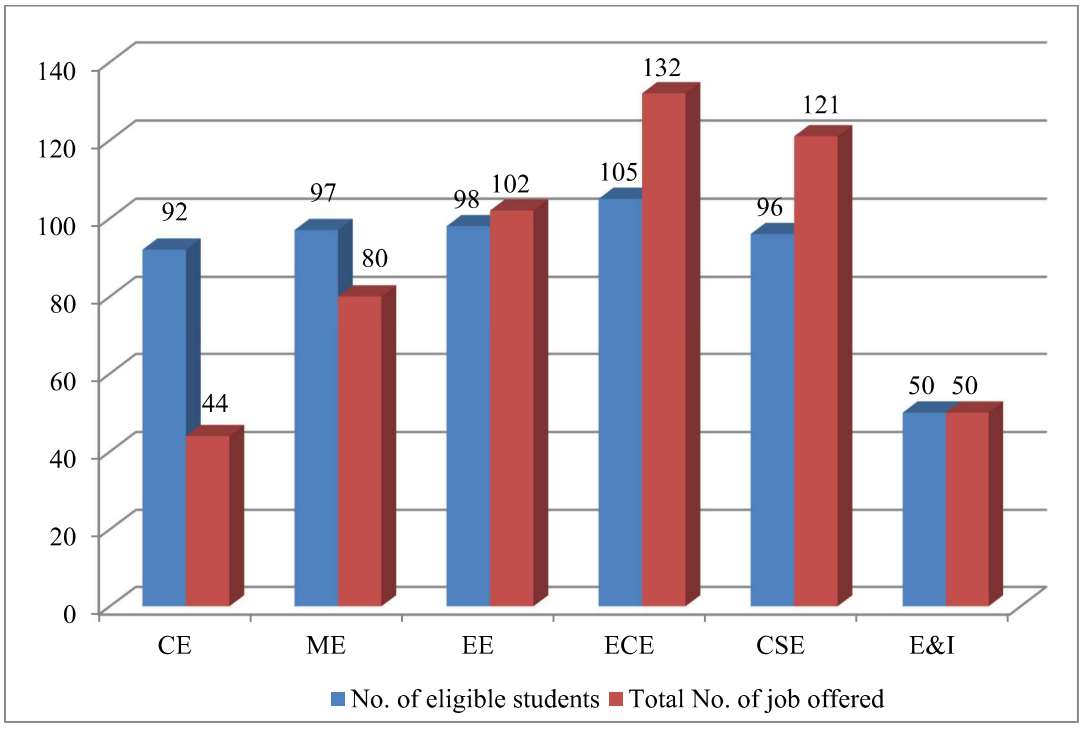

Fig:9 Placement statistics of B.Tech students in 2020-21

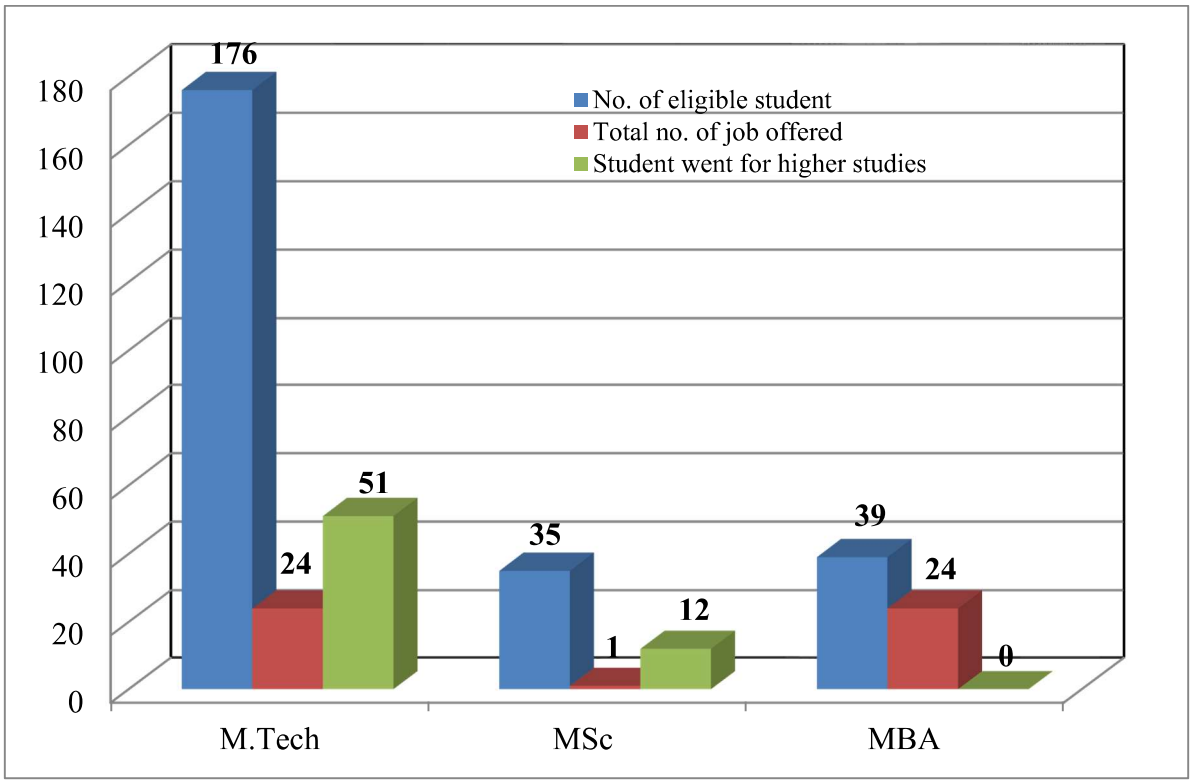

Fig: 10 Placement statistics of PG students in 2020-21

PUBLICATIONS

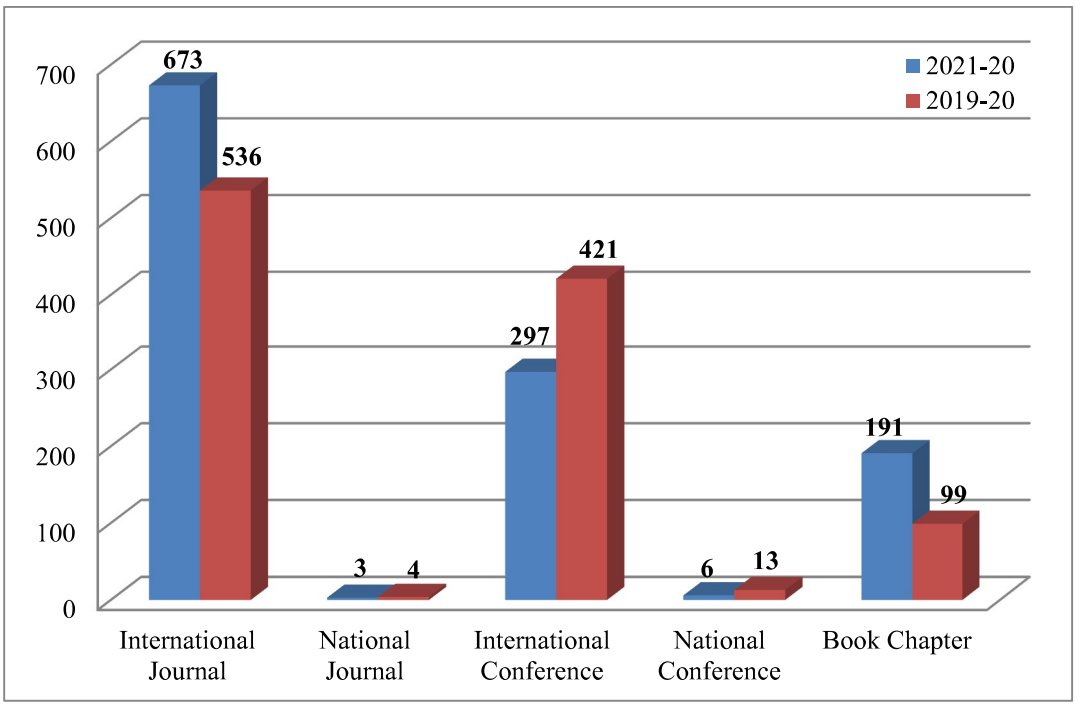

Fig: 11 Publication details of NIT Silchar during 2021-20 and 2019-20.

LIBRARY

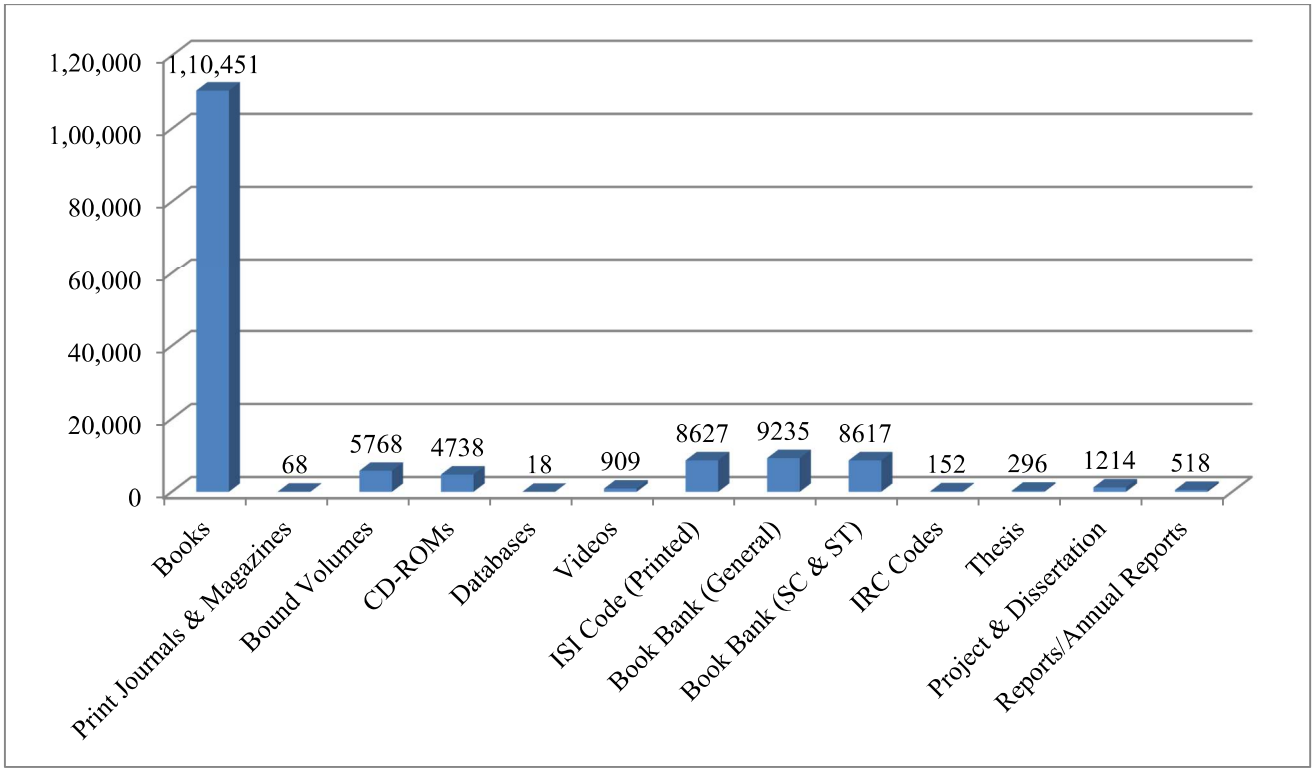

Fig: 12 Library resource statistics during 2020-2021

FACULTY/STAFFS

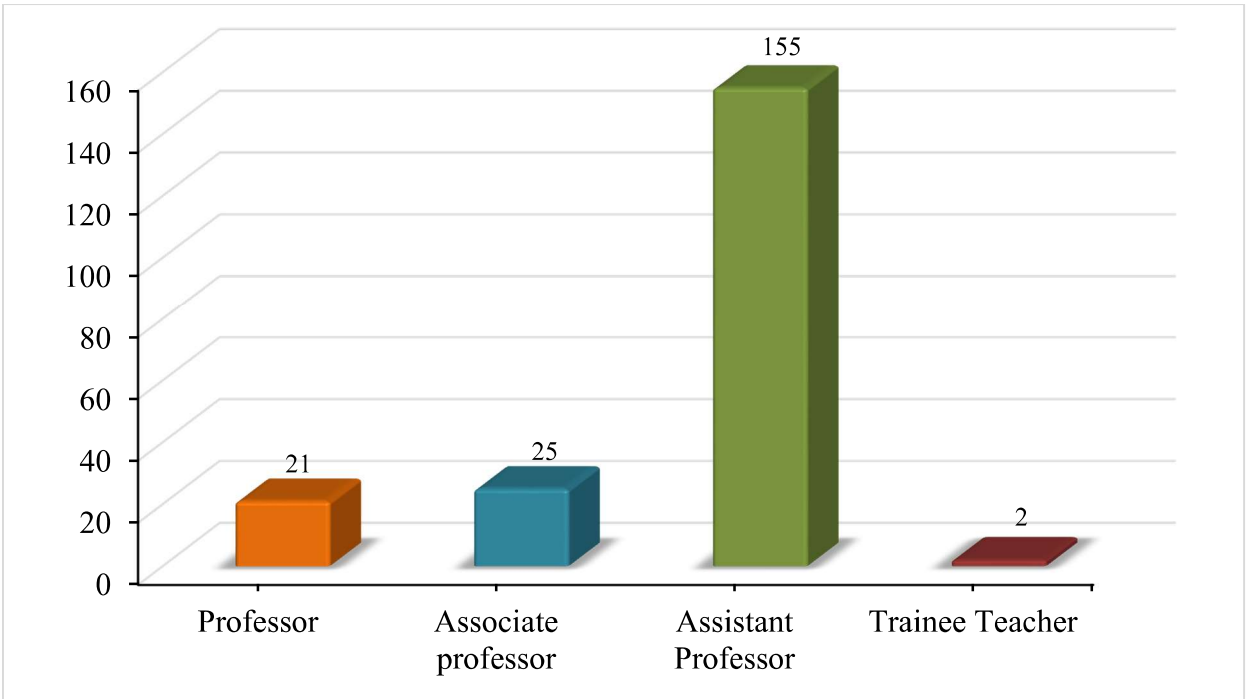

Fig: 13 Faculty in position during 2020-21

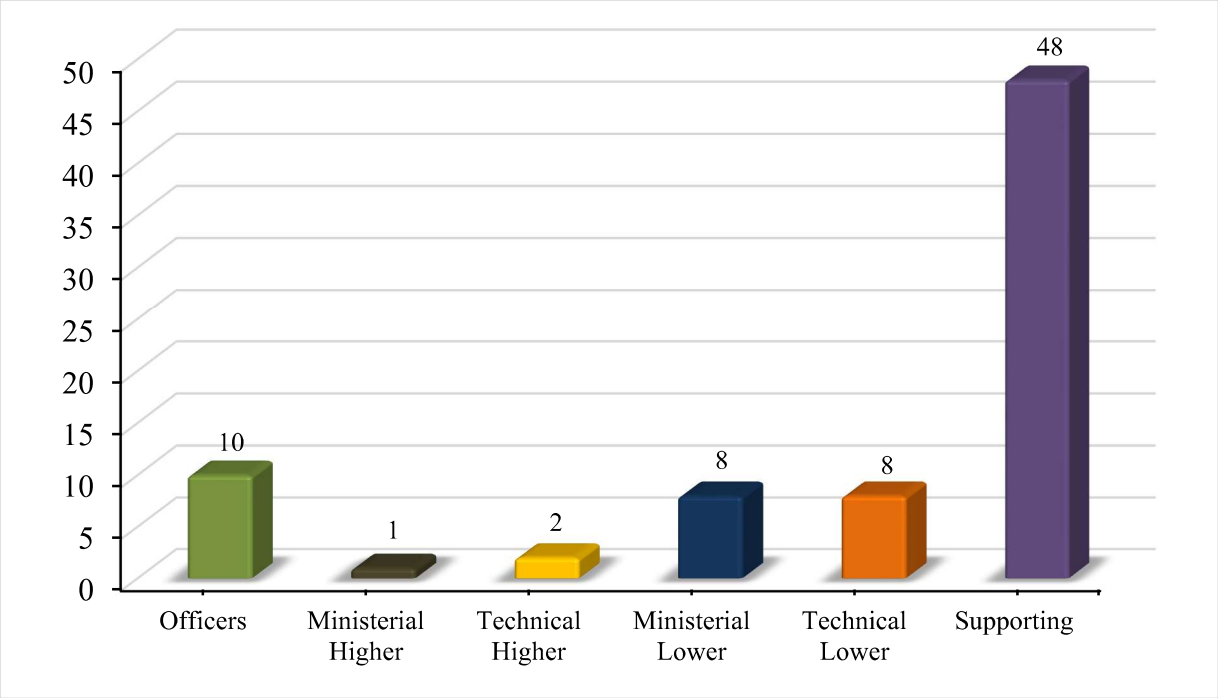

Fig: 14 Non-teaching staff in position during 2020-21

FINANCE

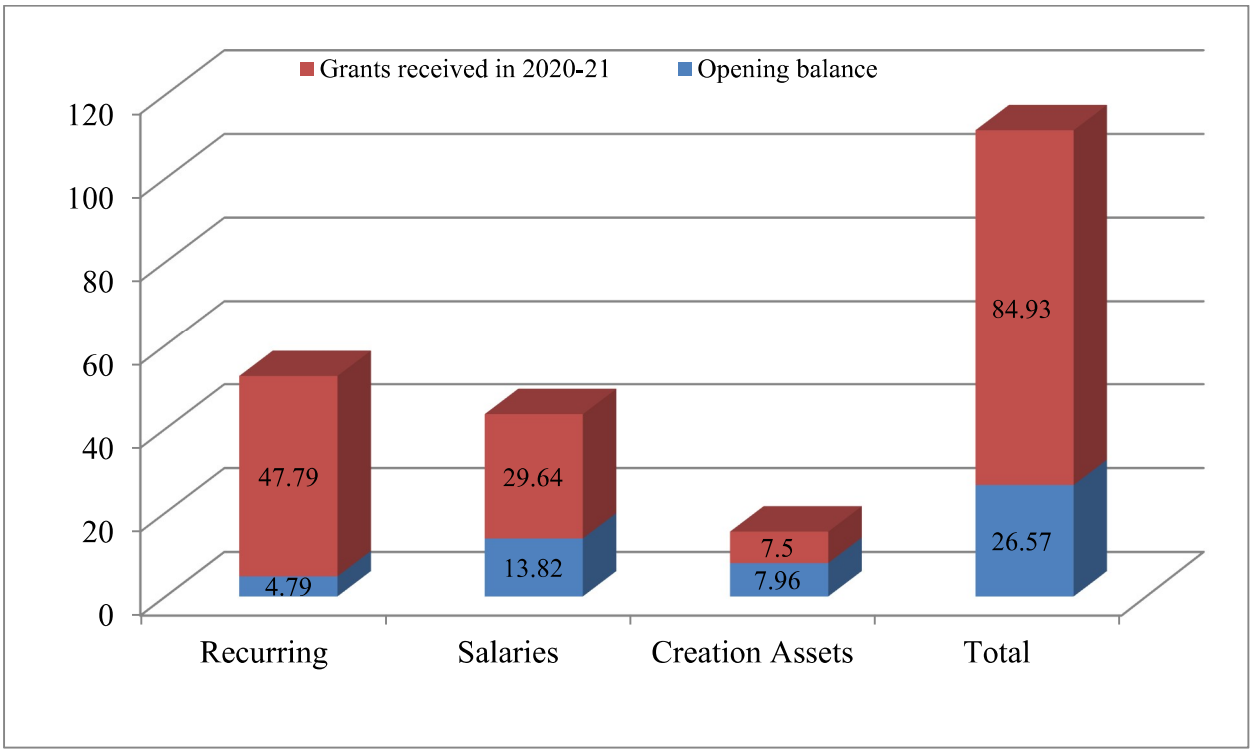

Fig: 15 Total availability of fund during the year 2020-2021 (In Crores)

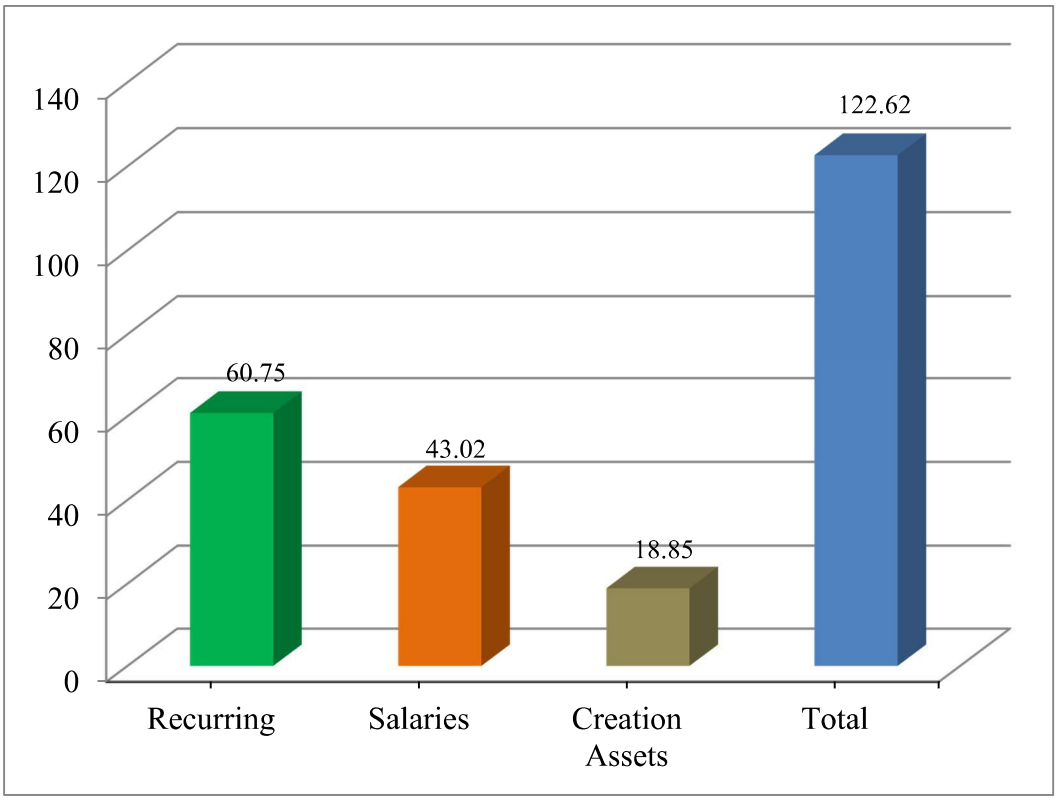

Fig: 16 Total funds utilized during the year 2020-2021 (In Crores)

Introduction

Historical Background

In the fifties, the Government of India decided to establish Regional Engineering Colleges (RECs) under the Quality Technical Education Policy – one each in every major state – with the prime objective of imparting quality technical education throughout the country and to foster national integration. These Regional Engineering Colleges were established as joint ventures of the Government of India and the respective State Governments. Assam is considered as the flag bearer of Northeast India and so in the year 1967, the 15th REC was officially established in Silchar. However, it took almost a decade for REC Silchar to start its academic programmes due to various constraints.

The first batch of students was admitted in 1977 in the BE program in 3 branches of Engineering namely, Civil Engineering, Mechanical Engineering, and Electrical Engineering. The total intake in the first batch was 60 students. The adequate infrastructure facilities consisted of only a part of a hostel, two Assam type buildings (for classes and administration), a workshop building, seven faculty quarters, and a few staff quarters when the College started its academic programs in November 1977. Initially, under the guidance of the then Principal Dr. H. R. Chablani, the classes started with only four full-time faculty members. The College started its academic program with affiliation from Gauhati University. The first batch of BE students was awarded degrees in the year 1982-83. Subsequently, two more branches, namely, Electronics and Communication Engineering and Computer Science and Engineering started functioning from the year 1983 and 1987 respectively. The affiliation was later shifted to Assam University in 1994.

On the basis of the report of the High Powered Joint Expert Committee of AICTE and UGC under the chairmanship of Prof. S. K. Joshi, Director General of Council for Scientific and Industrial Research (CSIR), Regional Engineering College Silchar has been transformed and upgraded to National Institute of Technology, Silchar with the status of Deemed University on 28th June 2002. The Institute has been taken over by the Government of India and subsequently made into a fully funded Central Government Autonomous Institution. This ensures a better financial status for NIT Silchar and will accelerate its growth ensuring that it becomes one of the premier technological institutes of not just the North East but the entire nation. The Institute has remodeled its curriculum and academic activities in line with that of the IITs. With its Deemed University status, the institute started awarding degrees from the year 2002 and the first convocation of the Institute was held on 16th February 2004. The Government of India declared the Institute as an Institute of National Importance by enacting the National Institutes of Technology Act 2007.

Location

The Institute is situated at Silchar (latitude 24.50N, longitude 92.510E, at a height of 114.68m above MSL), at a distance of about eight kilometers to the south from the heart of the town on the Silchar–Hailakandi road in Cachar District of Assam. Silchar is well connected to the rest of the country via airways, railways, and roadways. The Institute boasts of state-of-the-art academia and research infrastructure, lecture theatres, laboratories, resource-centers, sports grounds, open-air theatre, hospital, food-courts and many more being embraced by the greenery, expansive tea gardens, and lakes.

Campus

The campus of the Institute is spread over an area of 540 acres, set amidst a sprawling landscape of natural quietness, bordered by expansive tea gardens. It presents a spectacle of harmony in the form of modern architecture, natural beauty, and picturesque surroundings.

The campus area has been organized into three functional sectors:

- Hostel, amenities, and activity centers for students
- Academic blocks and administrative block
- Residential sectors for the staff

The instructional buildings are strategically located between the hostels and staff quarters to provide easy access.

THE COUNCIL, BOG AND OTHER COMMITTEE

The Council and its composition

Sl. No	Members	Position
1	The Minister in charge of the Ministry or Department of the Central Government having administrative control of the technical education	Chairman (ex-officio)
2	The Secretary to the Govt. of India in charge of the Ministry or Department of the Central Government having administrative control of the technical education	Vice-Chairman (ex-officio)
3	The Chairperson of every Board	Member (ex-officio)
4	The Director of every Institute	Member (ex-officio)
5	The Chairman, University Grant Commission	Member (ex-officio)
6	The Director-General, Council for Scientific & Industrial Research	Member (ex-officio)
7	Secretary, Department of Bio-Technology, Govt. of India	Member (ex-officio)
8	Secretary, Department of Atomic Energy, Govt. of India	Member (ex-officio)
9	Secretary, Department of Information Technology, Govt. of India	Member (ex-officio)
10	Secretary, Department of Space, Govt. of India	Member (ex-officio)
11	The Chairman, All India Council for Technical Education	Member (ex-officio)
12	Not less than three, but not more than five persons to be nominated by the Visitor, at least one of whom shall be a woman, having special knowledge or practical experience in respect of education, industry, science or technology	Member
13	Three Members of Parliament, of whom two shall be chosen by the House of People and one by the Council of States	Member
14	Two Secretaries to the State Govt. from amongst the Ministries or departments of that government dealing with technical education where the Institutes are located	Member (ex-officio)
15	The Financial Advisor, dealing with the Human Resource Development Ministry or Department of the Central Government	Member (ex-officio)
16	One officer not below the rank of Joint Secretary to the Govt. of India in the Ministry or Department of Central Government having administrative control of the technical education	Member-Secretary (ex-officio)

Board of Governors

Name and Address	Position
Prof. Sivaji Bandyopadhyay, Director NIT Silchar Chairperson (Officiating) up to 24.08.2020 Sri Gautam N Mehra, Chairman and Managing Director, Savita Oil Technologies, Chairperson from 25.08.2020	Chairperson
Shri Madan Mohan, ADG(HE), Dept. of Higher Education, MHRD, GOI, Shastri Bhawan, New Delhi-110 001	Member
Ms. Darshana M Dabral, JS & FA, Integrated Finance Division, Dept. of Higher Education, MHRD, GoI	Member
Prof. S. K. Kakoty, Professor, IIT Guwahati- 781039	Member
Shri Basant Kumar Khetan, Pro-Chancellor, Kaziranga University	Member
Shri Abhijit Barooah, Managing Director, Premier Cryogenics Ltd., Mairam Dewan Path, Chandmari, Guwahati – 781 003	Member
Prof. P. S. Choudhury, Professor, Department of Civil Engineering Engineering, NIT Silchar	Member
Dr. Ripon Patgiri, Assistant Professor, Department of Computer Science & Engineering, NIT Silchar	Member
Prof. Asim Roy, Registrar (i/c), NIT Silchar (up to 31.12.2020) Prof. Nalin Behari Dev Choudhury, Registrar (i/c), NIT Silchar (from 01.01.2021)	Secretary

Finance Committee

Name and Address	Position
Prof. Sivaji Bandyopadhyay, Director NIT Silchar, Chairman (Officiating) up to 24.08.2020 Sri Gautam N Mehra, Chairman and Managing Director, Savita Oil Technologies, Chairman from 25.08.2020	Chairman
Shri Madan Mohan, ADG(HE), Dept. of Higher Education, MHRD, GOI, Shastri Bhawan, New Delhi-110 001	Member
Ms. Darshana M Dabral, JS & FA, Integrated Finance Division, Dept. of Higher Education, MHRD, GOI, Shastri Bhawan, New Delhi-110001.	Member
Prof. S. K. Kakoty, Dean of Infrastructure, Planning and Management, IIT Guwahati-781039	Member
Prof. P. S. Choudhury, Professor, Department of Civil Engineering Engineering, NIT Silchar	Member
Prof. Asim Roy, Registrar (i/c), NIT Silchar (up to 31.12.2020) Prof. Nalin Behari Dev Choudhury, Registrar (i/c), NIT Silchar (from 01.01.2021)	Member Secretary

Building and Works Committee

Name and Address	Position
Prof. Sivaji Bandyopadhyay, Director NIT Silchar	Chairman
Director (NITs), Dept. of Higher Education, MHRD, GOI, Shastri Bhawan, New Delhi-110001.	Member
Shri D. K. Singh, Dy. Secretary (IFD), Dept. of Higher Education, MHRD, C-Wing, Shastri Bhawan, New Delhi-110 001.	Member
Dr. Parthajit Roy, Board Nominee, Civil Engineering Department, NIT Silchar	Member
Prof. A. I. Laskar, Dean (P&D), Civil Engineering Department, NIT Silchar up to January, 2021 Prof. M. A. Ahmed, Dean (P&D), Civil Engineering Department, NIT Silchar from January, 2021	Member
Superintendent Engineer, PWD, Silchar Building Circle, Silchar 1	Member
Executive Engineer (Electrical), Office of Chief Engineer, PWD (Bldng), Assam	Member
Prof. Asim Roy, Registrar (i/c), NIT Silchar (up to 31.12.2020) Prof. Nalin Behari Dev Choudhury, Registrar (i/c), NIT Silchar (from 01.01.2021)	Member Secretary

The Senate

Name and Address	Position
Prof. Sivaji Bandyopadhyay, Director and Chairman, Senate	Chairman
Prof. Fazal A. Talukdar, Professor of ECE Deptt., NIT Silchar	Member
Prof. K. M. Pandey, Professor of Mechanical Engineering Deptt., NIT Silchar	Member
Prof. Nidul Sinha, Professor of Electrical Engg. Deptt., NIT Silchar	Member
Prof. S. Baishya, Professor of ECE Deptt., NIT Silchar	Member
Prof. Gurudas Das, Professor of HSS Deptt., NIT Silchar	Member
Prof. A. K. Dey, Professor of Civil Engineering Deptt., NIT Silchar	Member
Prof. P. S. Choudhury, Professor of Civil Engineering Deptt., NIT Silchar	Member
Prof. S. Choudhury, Professor of Civil Engineering Deptt., NIT Silchar	Member
Prof. R. D. Misra, Professor of Mechanical Engineering Deptt, NIT Silchar	Member
Prof. A. I. Laskar, Professor of Civil Engineering Deptt., NIT Silchar	Member
Prof. D. Chakraborty, Professor of Civil Engineering Deptt., NIT Silchar	Member
Prof. M. A. Ahmed, Professor of Civil Engineering Deptt., NIT Silchar	Member

Prof. B. K. Roy, Professor of Electrical Engineering Deptt., NIT Silchar	Member
Prof. P. K. Patowari, Professor of Mechanical Engineering Deptt., NIT Silchar	Member
Prof. U. Kumar, Professor of Civil Engineering Deptt., NIT Silchar	Member
Prof. Saurabh Choudhury, Professor of Electrical Engineering Deptt., NIT Silchar	Member
Prof. N. B. Dev Choudhury, Professor of Electrical Engineering Deptt., NIT Silchar	Member
Prof. Asim Roy, Professor of Physics Deptt., NIT Silchar	Member
Prof. A. K. Barbhuiya, Professor of Civil Engineering Deptt., NIT Silchar	Member
Prof. K. K. Sharma, Professor of Mechanical Engineering Deptt., NIT Silchar	Member
Prof. Sudeshna Banerjea, Professor, Mathematics Deptt., Jadavpur University	Member
Prof. Sathans, Professor, EE Deptt., NIT Kurukshetra	Member
Prof. Jyotirmaya Tripathy, Professor, HSS Deptt., IIT Madras	Member
Prof. Asim Roy, Registrar (i/c), NIT Silchar (up to 31.12.2020) Prof. Nalin Behari Dev Choudhury, Registrar (i/c), NIT Silchar (from 01.01.2021)	Member

Internal Complaint Committee

Name	Department	Designation	Role in ICC
Dr. (Mrs.) Ujjwala Baruah	Computer Science and Engineering	Assistant Professor	Presiding Officer
Dr. Munmun Khanra	Electronics and Instrumentation Engineering	Assistant Professor	Member Secretary
Dr. (Mrs) Banani Basu	Electronics and Communication Engineering	Assistant Professor	Member
Dr. (Mrs) Nirmali Borthakur	Civil Engineering Department	Assistant Professor	Member
Prof. R. D. Mishra	Mechanical Engineering	Professor	Member
Smt Sanchita Acherjee	NGO		Member
Smt Krishnamati Sinha	Assistant Librarian		Member

Deans

Sl No.	Name	Department	Designation	Dean
1	Prof. Mokaddes Ali Ahmed	Civil Engineering	Professor	R & C
2	Prof. Rahul Dev Mishra	Mechanical Engineering	Professor	S W
3	Prof. Srimanta Baishya	Electronics and Communication Engineering	Professor	Academic
4	Dr. K. L. Baishnab	Electrical Engineering	Professor	Alumni
5	Prof. Aminul Islam Laskar (up to 14-01-2021) Prof. Mokaddes Ali Ahmed (from 15-01-2021)	Civil Engineering	Professor	P & D
6	Prof. P. K. Patowari	Mechanical Engineering	Professor	FW

Associate Deans

Sl No.	Name	Department	Designation	Assoc. Dean
1	Dr. Arup Kumar Goswami	Electrical Engineering	Associate Professor	Academic
2	Mr. Darpahari Das	Mechanical Engineering	Associate Professor	Academic
3	Dr. Sujit Nath	Mechanical Engineering	Assistant Professor	Exam
4	Dr. Prashanth J	Civil Engineering	Assistant Professor	P&D
5	Dr. Vara Laxmi M Prasad	Electrical Engineering	Assistant Professor	P&D
6	Dr. Dulal Chandra Das	Electrical Engineering	Assistant Professor	P&D
7	Dr. Kaushik Guha	Electronics and Communication Engineering	Assistant Professor	S.W
8	Dr. Wasim Arif	Electronics and Communication Engineering	Assistant Professor	S.W
9	Dr. Pranjit Barman	Chemistry	Associate Professor	S.W
10	Dr. Ranjit Nair	Physics	Assistant Professor	R&C

11	a) Mrs. Madhumita Paul (upto 08-01-2021) b) Dr. Brinda Bhowmik (Shome) (from 11-01-2021)	Electronics and Communication Engineering	Associate Professor	F.W
12	Dr. Agnimitra Biswas	Mechanical Engineering	Assistant Professor	Alumni

Head of the Departments

Sl No.	Name	Department	Designation
1	Prof. Asim Roy (up to 31-08-2020) Dr. Avijit Chowdhury (from 03-09-2020)	Physics	Professor Assistant Professor
2	Dr. Sidhartha Shankar Dhar	Chemistry	Associate Professor
3	Dr. Agnimitra Biwas (up to 30-09-2020) Dr. Sumit Bhowmik (from 01-10-2020)	Mechanical Engineering	Assistant Professor
4	Dr. Mausumi Sen	Mathematics	Associate Professor
5	Dr. Reena Senasam	Humanities and Social Sciences	Associate Professor
6	Dr. Parthajit Roy	Civil Engineering	Associate Professor
7	Prof. Nalin Behari Dev Choudhury (up to 18-08-2020) Dr. Jyoti Prakash Mishra (from 19-08-2020)	Electrical Engineering	Professor Associate Professor
8	Dr. K.L. Baishnab	Electronics and Communication Engineering	Associate Professor
9	Dr. Samir Kumar Borgohain	Computer Science and Engineering	Assistant Professor
10	Dr. S H Laskar (up to 15.01.21) Dr. Manas Kumar Bera (from 16-01-2021)	Electronics and Instrumentation Engineering	Associate Professor
11	Dr. Ashim Kumar Das	Management Studies	Assistant Professor

EDUCATION SYSTEM

Undergraduate (B.Tech)

Admission Procedure

Admissions to the first semester of all Undergraduate courses are made on the basis of seats allocated by the Joint Seat Allocation Authority (JoSAA)/Central Seat Allocation Board (CSAB) from the list of candidates selected by all India JEE (Main). Besides, a specified number of foreign nationals/NRIs selected under the policy laid down by Govt. of India, are admitted directly to the 1st year of the courses.

Academic Calendar

The academic session is divided into two semesters each of approximately 17 weeks duration, an Odd Semester (July-December), and an Even Semester (January-June). The JEE (Main) selected candidates take admission in the first semester and on successful completion of the semester register for the subsequent semester on the dates specified in the Academic Calendar. The Senate approves the Academic Calendar consisting of schedules of activities for a session inclusive of dates for registration, mid-semester, and end-semester examinations, inter-semester breaks, etc. well in advance of a session. The Academic Calendar usually provides a total of about 90 working days in each semester.

Programme Structure

The duration of the programme leading to a B.Tech. Degree is four years. The curricula for the different degree programmes as proposed by the respective departments and recommended by the Departmental Undergraduate Programme Committee (DUPC) shall have the approval of the Senate. The departments would also prepare the syllabus of each subject containing the scope of studies and detailed instructions to be imparted which must have the approval of the Senate. All the subjects would have a lecture-tutorial-practical (laboratory/sessional) component (L-T-P) to indicate the contact hours. The tutorial (T) or practical/ Sessional (P) component may be absent in certain courses. Separate laboratory subjects (0-0-P) may exist in certain cases as decided by the Senate on the recommendation of the DUPC. All the subjects will have a credit count ‘C’.Teaching of subjects will be reckoned in terms of credits. One hour lecture or tutorial class is designated as 2 credits while a one-hour practical class is designated as one credit. In each of the first year/ second year, there shall be non-credit compulsory Extra Academic Activity (EAA). The Extra Academic Activity may be N.S.S., N.C.C., or any other physical education. The curriculum for B.Tech The programme includes compulsory Industrial training of 6-8 weeks duration after the 6^{th} semester in any reputed industry, research organization, IIT’s, and other reputed institutions which are assessed in the 7^{th} Semester. The Project work will carry a total of 15-20 credits.

Registration and Assessment

Students are registered in every semester irrespective of the number of credits they have earned at the end of every year. However, if a student fails to complete his/her courses in the stipulated first four years (8 semesters), the student is required to vacate the hostel and complete the remaining part of credits from outside.

a) If a student fails in a course, he/she will have to repeat the course in the appropriate semester when the course is on offer. He/she may prefer to register that course and attend all classes and offer him/her for normal evaluation or the student may prefer to appear the mid-semester and end-semester examination and his/her internal evaluation would be carried forward from the semester where he/she was regularly registered.

b) A student may change an elective course within the time-frame mentioned in the academic calendar. If a student fails in an elective course, he/she may change the elective when he/she re-registers for the elective in the appropriate semester.

c) The duration of the UG programme is normally four years. However, academically weak students are permitted to complete the programme in six years from the date of first registration.

Postgraduate (M.Tech / M.Sc / MBA)

The M.Tech regulations provide the necessary guidelines for the two years of regular Postgraduate programme and three years part-time programme in Engg. Disciplines. Similarly, the M.Sc./MBA regulations provide guidelines for 2 years (4 semesters) M.Sc./MBA course.

Admission Procedure

M.Tech

The courses leading to M.Tech degree are open to candidates who have obtained the requisite qualification with 60% marks or 6.5 CGPA in aggregate in the qualifying examination. Statutory relaxation in the eligibility criterion is provided to candidates belonging to SC/ST communities. Admission for the GATE qualified candidates is made through Common Admission Process called Central Counselling for M.Tech /M.Plan/M.Arch (CCMT). When GATE qualified candidates are not available, admission is done on the basis of merit as decided by the Institute.

M.Sc (Chemistry, Mathematics, Physics)

Admission to M.Sc. courses in Chemistry, Mathematics, and Physics is based on career marking, written test, and interview. Applicants must have secured at least 55% marks or a CPI of 6.0 in aggregate at B.Sc. level and preference is given to students having honours in the applied discipline. Statutory relaxation in the minimum eligibility criterion is provided to candidates belonging to SC/ST communities.

MBA

The minimum eligibility criterion for admission to MBA is a Bachelor degree in any branch of Engg. /Science/ Humanities etc. with 55% marks or 6.0 CGPA and valid CAT/MAT/ CMAT scores. Final selection is made on the basis of Group Discussion and Personal Interview conducted at the Institute.

Programme Structure

Teaching for the courses is reckoned in credits. Due credit is given to lecture, tutorial (theory), and practical components for a given subject. Normally for M.Tech, the first two semesters have a theory and practical (laboratory) subjects while for M.Sc/ MBA, theory courses are taught in all the semesters.

The 3rd and 4th semester mostly constitute the project work for M.Tech While for M.Sc/MBA, the project work spans over the fourth semester only. MBA students undergo a compulsory summer internship after the second semester. Project work and Seminars are an essential part of the curricula. Class tests, assignments, tutorials, viva-voce, laboratory assignments, etc., are the constituent components of the continuous assessment process and a student must fulfill all these requirements as prescribed by the teacher/coordinator of the subject.

Registration

Students in Postgraduate programmes register for the course at the beginning of each semester. These programmes do not have summer/re-examinations. Students securing 'F' grade in any course appear the exam in the following session. Attendance in all classes is compulsory and assessment and evaluation patterns are similar to an undergraduate course.

Research Programme (Ph.D)

Students for admission to Ph.D Programme in Engg. Departments must satisfy one of the following criteria:

1. Master Degree in Engg. /Technology or equivalent in an appropriate area with a minimum CPI of 6.5 or equivalent (60% of marks).

2. Bachelor Degree in Engg. /Technology with an excellent academic record and with a CPI of at least 8 or equivalent (70% of marks).

3. Students for admission to the Ph.D Programme in Science Departments must have a Master degree in relevant discipline with a first-class or a minimum of 60% of marks or equivalent. Students for admission to the Ph.D Programme in Humanities and Social sciences (HSS) Departments must have a Master degree with a minimum of 55% marks or equivalent. The selection of candidates is made on the basis of an interview conducted by the department concerned.

Academic Programmes

Courses Offered

(i) A four-year B.Tech Programme in the following branches of Engineering and Technology, is offered during the period.

- ❖ Civil Engineering
- ❖ Mechanical Engineering
- ❖ Electrical Engineering
- ❖ Electronics & Communication Engineering
- ❖ Computer Science & Engineering
- ❖ Electronics & Instrumentation Engineering

(ii) A two- year M.Tech M.Sc & MBA programmes in the following branches of Engineering and Technology/Science/ Management is offered during the period.

M.Tech (Under Civil Engg. Department)

- ❖ Water Resources Engineering
- ❖ Geotechnical Engineering

- Transportation Engineering
- Structural Dynamics & Earthquake Engineering
- Structural Engineering

M.Tech (Under Electrical Engg. Department)

- Power and Energy Systems Engineering
- Control & Industrial Automation

M.Tech (Under Mechanical Engg. Department)

- Thermal Engineering
- Design & Manufacturing
- CAD-CAM & Automation
- Materials & Manufacturing Technology

M.Tech (Under Electronics & Communication Engg. Department)

- Microelectronics & VLSI Design
- Communication & Signal Processing Engg

M.Tech in Computer Science & Engg. (Under Computer Science & Engg. Department)

M.Tech in Instrumentation Engg. (Under Electronics & Instrumentation Engg. Dept.)

M.Sc in Applied Chemistry (Chemistry Department)

M.Sc in Applied Physics (Under Physics Department)

M.Sc in Mathematics (Under Mathematics Department)

MBA (Under Management Studies Department)

B. TECH ENROLLMENT

The following table shows the semester-wise, course wise enrolment with sex and caste breakup for the Year 2020-21.

Sem	Branch	Open (Breakup)		Open EWS (Breakup)		OBC (Break up)		SC (Break up)		ST (Breakup)		PH		Total Enrolment
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Total
1ST&2ND	Civil	50	13	12	2	33	8	17	6	9	3	2 (OPPH); 1(OBPH) 1 (SCPH)	--	**157**
	Mech	54	12	12	3	33	7	19	5	10	3	1(OPPH); 1 (EWS) 1 (OBPH)	--	**161**
	Elect.	52	14	13	3	35	8	19	5	10	2	2(OPPH); 1(OBPH)	1(OPPH)	**165**
	ECE	57	15	12	3	34	8	20	5	9	3	2(OPPH); 1(EWS), 1(OBPH)	1(OPPH)	**171**
	CSE	64	12	12	4	34	8	17	6	10	2	1OPPH; 2(OBPH); 1(SCPH)	2(OPPH)	**175**
	EIE	30	8	6	2	18	4	9	3	3	2	1(OPPH)	--	**86**
	TOTAL	**307**	**74**	**67**	**17**	**187**	**43**	**101**	**30**	**51**	**15**	**19**	**4**	**915**
3RD &4TH	Civil	32	7	17	1	36	8	17	4	8	2	1 OPPH; 1 STPH	--	**134**
	Mech	43	9	19	2	38	7	18	4	10	2	1 OPPH	--	**153**
	Elect.	32	10	17	4	35	7	20	4	7	3	1 OPPH; 1 OBPH	--	**141**
	ECE	45	10	34	3	36	7	19	5	10	2	2 OBPH; 1 (OPPH)	--	**174**
	CSE	52	16	22	3	41	7	19	4	8	3	3 OPPH; 1 OBPH	--	**179**
	EIE	17	5	8	1	19	4	9	2	4	1	1 OBPH	--	**71**
	TOTAL	**221**	**57**	**117**	**14**	**205**	**40**	**102**	**23**	**47**	**13**	**13**		**852**
5TH & 6TH	Civil	38	10	NA		33	5	14	4	6	3	1 OPH ; 2 OBPH 1 SCPH	1 OBPH	**118**
	Mech	52	9	NA		33	6	15	3	8	2	--	--	**128**
	Elect.	38	7	NA		30	4	17	3	6	2	2 OPH; 1 OBPH	--	**110**
	ECE	54	9	NA		30	5	16	2	7	2	2 OPH	--	**127**
	CSE	56	13	NA		31	5	12	3	8	2	1 OBPH	--	**131**
	EIE	22	3	NA		15	2	7	3	3	2	--	--	**57**
	Total	**260**	**51**	**NA**		**172**	**27**	**81**	**18**	**38**	**13**	**10**	**01**	**671**
7TH & 8TH	Civil	46	2	NA		29	1	13	4	8	1	1OPPH; 2OBPH		**107**
	Mech	50	2	NA		36	1	16	--	6	-	2OPPH; 1OBPH	--	**114**
	Elect.	41	8	NA		29	4	14	1	7	-		1OPPH	**105**
	ECE	52	7	NA		34	2	14	2	7	1	--	--	**119**
	CSE	44	8	NA		27	2	13	--	3	3	1OPPH	--	**101**
	EIE	23	2	NA		12	01	07	2	4	1	--	--	**52**
	Total	**256**	**29**	**NA**		**167**	**11**	**77**	**9**	**35**	**6**	**7**	**1**	**598**
Grand Total		**1044**	**211**	**184**	**31**	**731**	**121**	**361**	**80**	**171**	**47**	**49**	**06**	**3036**

CE= Civil Engineering, ME=Mechanical Engineering, EE= Electrical Engineering, ECE=Electronics & Communication Engineering, CSE= Computer Science & Engineering, E&I= Electronics & Instrumentation Engineering.

The following is a summary table of the number, B.Tech Students on the roll of NIT Silchar during 2020-21

Year	CE	ME	EE	ECE	CSE	EIE	TOTAL
1st	157	161	165	171	175	86	**915**
2nd	134	153	141	174	179	71	**852**
3rd	118	128	110	127	131	57	**671**
4th	107	114	105	119	101	52	**598**
TOTAL	**516**	**556**	**521**	**591**	**586**	**266**	**3036**

PG ENROLLMENT

Sem	Branch	Open (Break up)		EWS (Break up)		SC (Break up)		ST (Break up)		OBC (Break up)		PH (Break up)		Foreign student		Sponsored		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
1ST	CE	49	13	5	0	15	3	6	1	23	1	0	0	0	0	0	0	98	18	116
	ME	39	0	1	0	6	0	0	0	2	0	0	0	0	0	0	0	48	0	48
	EE	19	2	4	0	6	2	1	1	11	1	0	0	0	2	0	0	41	8	49
	ECE	16	10	2	0	5	1	2	0	7	2	0	0	0	0	0	0	32	13	45
	CSE	16	1	0	0	1	1	2	0	3	0	0	0	0	1	1	0	23	3	26
	E&I	6	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	8	1	9
	Total	**145**	**27**	**12**	**0**	**34**	**7**	**11**	**2**	**46**	**4**	**0**	**0**	**0**	**3**	**2**	**0**	**250**	**43**	**293**
3RD	CE	42	6	0	1	8	2	5	2	5	0	0	0	1	0	1	1	62	12	74
	ME	24	2	0	0	1	0	0	0	2	0	0	0	1	0	0	0	28	2	30
	EE	18	4	0	0	1	0	1	1	2	1	0	0	0	0	0	0	22	6	28
	ECE	11	5	1	0	2	2	1	1	5	0	0	0	0	0	1	0	21	8	29
	CSE	11	1	0	0	2	1	1	0	1	0	0	0	1	0	0	0	16	2	18
	E&I	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3	7
Grand Total		**255**	**48**	**13**	**1**	**48**	**12**	**19**	**6**	**61**	**5**	**0**	**0**	**3**	**3**	**4**	**1**	**403**	**76**	**479**
1ST	PHY	11	3	1	2	1	0	0	0	0	0	0	0	0	0	0	0	13	5	18
	CHEM	7	4	1	0	0	1	0	0	6	1	0	0	0	0	0	0	14	6	20
	MATHS	6	4	0	0	3	1	0	0	3	1	0	0	0	0	0	0	12	6	18
	Total	**24**	**11**	**2**	**2**	**4**	**2**	**0**	**0**	**9**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**39**	**17**	**56**
3RD	PHY	5	1	1	0	1	1	0	0	1	1	0	0	0	0	0	0	8	3	11
	CHEM	3	5	0	0	2	0	0	0	3	1	0	0	0	0	0	0	8	6	14
	MATHS	7	3	1	0	1	2	0	1	1	1	0	0	0	0	0	0	10	7	17
Grand Total		**39**	**20**	**4**	**2**	**8**	**5**	**0**	**1**	**14**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**65**	**33**	**98**
1ST	MBA	20	11	3	2	1	2	0	0	4	4	0	0	**0**	0	0	0	28	19	47
3RD	MBA	9	21	**0**	**0**	3	1	2	1	7	2	**0**	**0**	**0**	**0**	**0**	**0**	21	25	46
	Total	**29**	**32**	**3**	**2**	**4**	**3**	**2**	**1**	**11**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**49**	**44**	**93**
Grand Total		**323**	**100**	**20**	**5**	**60**	**20**	**21**	**8**	**86**	**16**	**0**	**0**	**3**	**3**	**4**	**1**	**517**	**153**	**670**

Admission Statistics B.Tech

(a) Indian students admitted

The following table shows the state-wise and course-wise admission statistics with category break up for the year 2020-21

Name of state	Category	CE	CSE	EE	ECE	E&I	ME	Total
Assam	OP	31	30	31	32	16	32	**172**
	OBC	21	22	22	21	11	22	**119**
	SC	12	12	12	13	6	12	**67**
	ST	6	6	6	6	2	6	**32**
	OPPH	1	2	1	1	--	1	**6**
	EWS	7	8	9	7	5	8	**44**
Rajasthan	OP	4	4	8	1	1	5	**23**
	OBC	5	1	1	--	--	2	**9**
	SC	1	1	2	--	1	2	**7**
	ST	1	1	3	_	--	--	**5**
	EWS	--	--	--	--	1	1	**2**
Bihar	OP	10	1	6	4	2	5	**28**
	OBC	5	6	3	2	2	4	**22**
	ST	2	1	--	--	--	--	**3**
	SC	--	3	--	--	--	2	**5**
	OPPH	--	--	1	--	--		**1**
	OBPH	--	--	--	1	--	1	**2**
	EWS	2	--	--	1	1	2	**6**
UP	OP	5	2	8	2	4	5	**26**
	OBC	2	4	4	2	4	3	**19**
	SC	3	2	4	1	--	4	**14**
	OBPH	1	2	--	--	--	--	**3**
	EWS	3	--	--	1	--	--	**4**
Andhra Pradesh	OP	5	16	7	12	3	8	**51**
	OBC	4	6	9	11	5	9	**44**
	SC	1	2	--	5	3	2	**13**
	ST	--	--	--	1	1	1	**3**
	OBPH	--	--	1	--	1	--	**2**
	EWS	2	6	3	5	--	3	**19**
Jharkhand	OP	--	--	--	1	1	2	**4**
	OBC	1	--	--	--	--	--	**1**
	OPPH	1	--	--	--	--	--	**1**
	EWS	--	--	--	--	--	1	**1**
Karnataka	OP	--	--	--	1	--	--	1
	SC	--	--	--	1	--	--	1
	ST	--	--	--	1	--	--	1
Orissa	OP	--	--	--	--	1	1	**2**
	OP	--	1	--	2	2	2	**7**

Maharashtra	OBC	1	1	1	--	--	--	**3**
	SC	--	1	1	--	--	--	**2**
	OPPH	--	--	--	1	--	--	**1**
	SCPH	1	--	--	--	--	--	**1**
Chhattisgarh	OP	--	1	--	--	--	--	**1**
	ST	--	--	--	--	1	--	**1**
Haryana	OP	--	2	--	--	--	--	**2**
Telangana	OP	2	3	2	5	1	3	**16**
	OBC	2	1	2	6	--	--	**11**
	SC	3	1	2	3	2	2	**13**
	ST	2	3	3	4	--	5	**17**
	OPPH	--	--	1	1	--	--	**2**
	EWS	--	1	3	2	--	1	**7**
Uttarakhand	OP	--	1	--	--	--	--	**1**
	EWS	--	--	1	--	--	--	**1**
West Bengal	OPPH	--	--	--	--	1	--	**1**
	SC	--	--	1	1	--	--	**2**
Punjab	SCPH	--	1	--	--	--	--	**1**
Manipur	SC	1	--	--	--	--	--	**1**
MP	OP	2	--	1	1	1	--	**5**
	SC	--	1	2	1	--	--	**4**
Arunachal Pradesh	ST	2	--	--	--	--	--	**2**
Kerala	OP	1	--	--	--	--	--	**1**
Nagaland	ST	1	--	--	--	--	--	**1**
Tamil nadu	OP	--	--	--	--	--	1	**1**
	OBC	--	--	1	--	--	--	**1**
Himachal Pradesh	OPPH	--	1	--	--	--	--	**1**
Gujarat	OP	--	--	--	1	--	--	**1**
	OBC	--	1	--	--	--	--	**1**
	EWS	--	1	--	--	--	--	**1**
Mizoram	ST	--	1	--	--	--	1	**2**
Tripura	ST	--	--	--	--	1	--	**1**
Foreign: 39(Thirty-nine)	OP	3	15	3	10	6	2	**39**
	No. foreign Students: 36 from Bangladesh , 3 from Nepal							
Grand Total		**157**	**175**	**165**	**171**	**86**	**161**	**915**

(b) Foreign students admitted

Name of country	Category	CE	ME	EE	ECE	CSE	E&I	Total
Bangladesh	ICCR/SII	3	2	3	10	13	5	36
Nepal	SII	--	--	--	--	2	1	3
Grand Total		**3**	**2**	**3**	**10**	**15**	**6**	**39**

Course-Wise Admission statistics (B.Tech-1st Year)-2020-21

Sl.No.	Courses	Intake Capacity	Admitted	Remarks
1	Civil Engineering	157	157	The excess intake (over & above the intake capacity) is including foreign students.
2	Computer Sc. & Engineering	161	175	
3	Electrical Engineering	162	165	
4	Electronics & Communication Engg.	162	171	
5	Electronics & Instrumentation Engg.	81	86	
6	Mechanical Engineering	161	161	
Total		**884**	**915**	

Admission Statistics (M.Tech/M.Sc/MBA)

Admission to M.Tech, M.Sc, and MBA

(a) Indian Students Admitted

The following table shows the course-wise admission statistics with category break up for the year -2019-20

Admission Statistics (M. Tech Branch wise, M.Sc and MBA) for the year 2020-21

Programme	Specialization	General		EWS		SC		ST		OBC		PWD		Foreign Student		Sponored		Total		Grand Total
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
M.Tech in Civil Engg.	Geotechnical Engg.	8	4	0	0	5	0	1	0	6	0	0	0	0	0	0	0	20	4	24
	Structural Dynamics & EQE	13	2	0	0	2	1	1	1	1	0	0	0	0	0	0	0	17	4	21
	Structural Engineering	8	3	2	0	3	1	1	0	6	1	0	0	0	0	0	0	20	5	25
	Transportation Engg.	9	1	3	0	2	1	1	0	7	0	0	0	0	0	0	0	22	2	24
	Water Resources Engg.	11	3	0	0	3	0	2	0	3	0	0	0	0	0	0	0	19	3	22
	TOTAL	**49**	**13**	**5**	**0**	**15**	**3**	**6**	**1**	**23**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**98**	**18**	**116**
M.Tech in Computer Science. & Engg.	**Computer Sc. & Engg.**	**16**	**1**	**0**	**0**	**1**	**1**	**2**	**0**	**3**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**23**	**3**	26
	TOTAL	**16**	**1**	**0**	**0**	**1**	**1**	**2**	**0**	**3**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**23**	**3**	**26**
M.Tech in Electrical Engg.	**Control & Indu. Auto.**	**10**	**1**	**1**	**0**	**2**	**2**	**1**	**0**	**5**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**19**	**4**	23
	Power & Energy Sy. Engg.	**9**	**1**	**3**	**0**	**4**	**0**	**0**	**1**	**6**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**22**	**4**	26
	TOTAL	**19**	**2**	**4**	**0**	**6**	**2**	**1**	**1**	**11**	**1**	**0**	**0**	**0**	**2**	**0**	**0**	**41**	**8**	**49**
M.Tech in Electronics & Communication Engg.	**Communication & Signal Processing Engg.**	10	6	0	0	2	0	1	0	2	0	0	0	0	0	0	0	15	6	21
	Microelectronics & VLSI D	6	4	2	0	3	1	1	0	5	2	0	0	0	0	0	0	17	7	24
	TOTAL	**16**	**10**	**2**	**0**	**5**	**1**	**2**	**0**	**7**	**2**	**0**	0	0	0	0	0	**32**	**13**	**45**
M.Tech in Electronics & Instrumentation Engg.	**Instrumentation Engg.**	6	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	8	1	9
	TOTAL	6	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	8	1	**9**
	CAD-CAM & Automation	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
	Design & Manufacturing	19	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	22	0	22
	Materials Manuf. Tech.	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1

M.Tech in Mechanical Engineering.	**Thermal Engg.**	16	0	1	0	3	0	0	0	2	0	0	0	0	0	0	0	22	0	22
	TOTAL	**39**	**0**	**1**	**0**	**6**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**48**	**0**	**48**
	Grand Total	**145**	**27**	**12**	**0**	**34**	**7**	**11**	**2**	**46**	**4**	**0**	**0**	**0**	**3**	**2**	**0**	**250**	**43**	**293**
M.Sc	**Applied Chem.**	7	4	1	0	0	1	0	0	6	1	0	0	0	0	0	0	14	6	20
	Mathematics	6	4	0	0	3	1	0	0	3	1	0	0	0	0	0	0	12	6	18
	Applied Phy.	11	3	1	2	1	0	0	0	0	0	0	0	0	0	0	0	13	5	18
	TOTAL	**24**	**11**	**2**	**2**	**4**	**2**	**0**	**0**	**9**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**39**	**17**	**56**
Management Studies	**MBA**	20	11	3	2	1	2	0	0	4	4	0	0	0	0	0	0	28	19	47
	TOTAL	20	11	3	2	1	2	0	0	4	4	0	0	0	0	0	0	28	19	47
GRAND TOTAL		**189**	**49**	**17**	**4**	**39**	**11**	**11**	**2**	**59**	**10**	**0**	**0**	**0**	**3**	**2**	**0**	**317**	**79**	**396**

(b) Foreign Students Admitted

The following table shows the admission statistics of foreign students for the year 2020-21.

Name of country	Category	CE	ME	EE	ECE	CSE	E&I	Total
Bangladesh	ICCR	--	--	2	--	--	--	2
Bhutan	Sponsored	--	--	--	--	1	--	1
Grand Total		**--**	**--**	**2**	**--**	**1**	**--**	**3**

M.Tech, M.Sc & MBA Intake Capacaity & Admission

The following table shows course admission statistics of PG programmes (M.Tech, M.Sc. & MBA) for the year 2020-21.

Deptt.	Sanctioned Strength including sponsored category	M.Tech. M.Sc. & MS Specialization	No. of Students admitted
CE	25+5	M.Tech. in Geotechnical Engg.	24
	25+5	M.Tech. in Structural Dynamics & Earthquake Engg.	21
	25+5	M.Tech. in Structural Engg.	25
	25+5	M.Tech. in Transportation Engg.	24
	25+5	M.Tech. in Water Resources Engg.	22
CSE	25+5	M.Tech. in Computer Science & Engg.	26
EE	25+5	M.Tech. in Control & Industrial Automation	23
	25+5	M.Tech. in Power & Energy System Engg.	26
ECE	25+5	M.Tech. in Communication & Signal Processing Engg.	21
	25+5	M.Tech. in Microelectronics & VLSI Design.	24
EIE	13+2	M.Tech. in Instrumentation Engg.	9
ME	13+2	M.Tech. in CAD-CAM & Automation	3
	25+5	M.Tech. in Design & Manufacturing	22
	12+2	M.Tech. in Materials & Manufacturing Technology	1

	25+5	M.Tech. in Thermal Engg.	22
CHEM	25+5	M.Sc. in Applied Chemistry	20
MATH	25+5	M.Sc. in Mathematics	18
PHY	25+5	M.Sc.in Applied Physics	18
MS (MBA)	75+5	MBA	47
Grand Total (M.Tech + M.Sc + MBA) = 293+56+47			**396**

CE= Civil Engineering, ME= Mechanical Engineering, EE= Electrical Engineering, ECE= Electronics & Communication Engineering, CSE= Computer Science & Engineering, E&I= Electronics & Instrumentation Engineering, PHY= Physics, CHEM= Chemistry, MATH= Mathematics, MS=Management Studies.

The following is a summary of the total number of PG students on the roll of NIT Silchar during 2020-21

Courses	**CE**	**CSE**	**EE**	**ECE**	**E&I**	**ME**	**CHY**	**MATHS**	**PHY**	**MBA**	**TOTAL**
M.Tech	190	44	77	74	16	78					479
M.Sc							34	35	29		98
MBA										93	93
Total											**670**

Students Strength

The following table shows the total student strength on the roll (course wise) of the year 2020-21 at NIT Silchar.

Courses		**Branches**	**Total students strength (course-wise)**
UG (B.Tech.)		Civil Engineering	516
		Mechanical Engineering	556
		Electrical Engineering	521
		Electronics & Communication Engg.	591
		Computer Science & Engineering	586
		Electronics & Instrumentation Engg.	266
PG	M.Tech	Postgraduate Course (all engineering department)	479
	M.Sc.	Applied Chemistry/Applied Physics/Mathematics	98
	Management studies	MBA	93
GRAND TOTAL			3706

Awards

The Institute offered the following awards during the period under consideration:

a. UG MEDAL WINNERS

NAME	Remarks	Branch	Medal
Kshitij Mehrotra	**Overall Topper**	**ME**	**Gold**
Ashesh Choudhury	Branch Topper	CE	Silver
Akanksha Kedia	Branch Topper	EE	Silver
Rahul Raj Singh	Branch Topper	ECE	Silver
Atmashree Ray	Branch Topper	CSE	Silver
Tinkumoni Kalita	Branch Topper	EIE	Silver

b. PG MEDAL WINNERS

Name	Specialisation	Medal
Sujith T	Thermal Engineering (ME	**Gold**
Subhatosh Pramanik	Geotechnical Engineering (CE)	Silver
Aman Kumar	Structural .Dynamics & Earthquake Engg. (CE)	Silver
Anetta Annu Joseph	Structural Engineering (CE)	Silver
Mohamed Hasain N	Transportation Engg. (CE)	Silver
Abhishek Patial	Water Resources Engg. (CE)	Silver
Anandamoy Bandyapadhyay	Computer Science & Engg	Silver
Shilalipi Sahoo	Control & Industrial Automation (EE)	Silver
Karishma K. George	Power & Energy System Engg. (EE)	Silver
Baishalee Sonowal	Microelectronics & VLSI Design (ECE)	Silver
Sanjeev Ranjan	Instrumentation Engg. (EIE)	Silver
Purohit Dhrumil Maheshkumar	CAD-CAM & Automation (ME)	Silver
Vamsi Krishna Majeti	Design & Manufacturing (ME)	Silver
Nabanita Roy	Applied Chemistry	Silver
Afsana Zannat Ahmed	Mathematics	Silver

c. Sponsored awards

(a) Sl.No.	Kalikrishna Mrinalini Krori Gold Medal Title of the Medal	Department	Awardees
1.	Best B.Tech. Graduate on overall performance, (Instituted by Dr. K.D Krori, Guwahati)	Electrical Engineering	Hladini Agnivesh

(b) Sl.No.	Saswata Purkayastha Memorial Gold Medal Title of the Medal	Department	Awardees
1.	Best B.Tech. Graduate on overall performance, (Instituted by Shri Niharendu Purkayastha, Silchar)	Electrical Engineering	Ashish Ranjan

Best All Round Graduate Award			
Sl.No.	**Title of the Medal**	**Department**	**Awardees**
1.	Best All Round Graduate Award	Computer Science & Engg.	Jha Prakash

Best Doctoral Award			
Sl.No.	**Title of the Medal**	**Department**	**Awardees**
1.	Best Doctoral Award	Chemistry	Kalyani Rajkumari

EXAMINATION DETAILS

* Even semester examinations were held in the month of June 2020 (both UG & PG)
Odd semester examinations were held in the month of Dec. 2020 (both UG & PG).

Statistics of the Results

Statistics of the Results 0f UG & PG students passed out in 2020

B. Tech

Programme	Branch & Course	No. of Students appeared	Passed & Eligible for Degree	Failed/ Withheld	Percentage passed	Remarks
B.Tech.	Civil Engg.	99	94	5	94.95%	
	Mechanical Engg.	109	107	2	98.17%	
	Electrical Engg.	106	104	2	98.11%	
	Electronics & Comm. Engg.	106	102	4	96.23%	
	Computer Sc. & Engg.	89	88	1	98.88%	
	Electronics & Instrumentation	45	45	--	100%	
	Total	**554**	**540**	**14**	**97.47%**	

M.Tech

Department	Specialization	No. of students appeared	Passed & eligible for Degree	Withheld/ Not Appeared	Percentage of pass.
Civil Engg.	Geotechnical Engg.	17	17	-	100%
	Structural Dynamics & Earthquake Engg.	19	19	-	100%
	Structural Engineering	17	17	-	100%
	Transportation Engg.	17	17	-	100%
	Water Resources Engg.	15	15	-	100%
Mechanical Engineering	CAD-CAM & Automation	05	05	-	100%
	Design & Manufacturing	17	17	-	100%
	Materials & Manufacturing Tech.	07	07	-	100%
	Thermal Engineering	15	15	-	100%
Electrical Engineering	Control & Industrial Automation.	10	09	01	90%
	Power & Energy System Engineering.	16	15	01	93.75%
Electronics & Comm. Engineering	Communication & Signal Processing Engineering	04	04	-	100%
	Microelectronics & VLSI Design.	14	12	02	85.71%
Computer Sc. & Engg.	Computer Sc. & Engg.	14	14	-	100%
Electronics & Instrumentation Engineering	Instrumentation Engg.	05	05	-	100%
	TOTAL	**192**	**188**	**04**	**97.92%**

M.Sc

Department	Specialization	No. of students appeared	Passed & eligible for Degree	Withheld/ Not Appeared	Percentage of pass.
Chemistry	Applied	12	12	-	100%
Mathematics	Mathematics	08	08	-	100%
Physics	Applied Physics	10	10	-	100%
	TOTAL	**30**	**30**	-	**100%**

MBA

Department	Specialization	No. of students appeared	Passed & eligible for Degree	Withheld/ Not Appeared	Percentage of pass.
Management Studies	Master of Business Administration (MBA)	43	43	-	100%
	TOTAL	**43**	**43**	**-**	**100%**

b) List of candidates qualified for the Degree of Bachelor of Technology after 17th Convocation held in Nov. 2019 and before 18th Convocation held in November 2020

Branch	Appeared	Passed
Civil Engg (B.Tech)	04	04
Mechanical Engineering (B.Tech)	07	07
Electrical Engineering (B.Tech)	10	10
Electronics & Communication Engg. (B.Tech)	04	04
Computer Science & Engg. (B.Tech)	05	05
Electronics & Instrumentation Engg (B.Tech)	02	02

PLACEMENT STATISTICS OF NIT SILCHAR 2020-21

Sl.	Name of Organization	Date of visit	CTC	CE	ME	EE	ECE	CSE	EI	MBA	M.Sc	M.Tech.	Total	Remarks
1.	Amazon India	PPO	28.75 LPA	-	-	-	1	2	-	-	-	-	3	
2.	Goldman Sachs	PPO	23 LPA	-	-	-	1	6	-	-	-	-	7	
3.	Publicis Sapient	6-8 Aug 2020	9 LPA	-	-	-	6	7	-	-	-	-	13	
		Online Interview												
4.	Lowe's India	10-14 Aug 2020	19.34 LPA	-	-	-	2	3	-	-	-	-	5	
		Online Interview												
5.	Fanatics	17-18 Aug 2020	16 LPA	-	-	-	-	4	-	-	-	-	4	
		Online Interview												
6.	SAP Lab India Pvt. Ltd.	19-10 Aug 2020	26 LPA	-	-		3	2	-	-	-	-	7	
		Online Interview												
		PPO	26 LPA	-	-	-	1	1						
7.	Go-MMT	24-26 Aug 2020	18 LPA	-	-	-	-	6	-	-	-	-	6	
		Online Interview												
8.	Amdocs	27 Aug 2020	6.9 LPA	-	-	-	5	5	-	-	-	-	10	
		Online Interview												
9.	Innovaccer	PPO	13 LPA	-	-	-	-	1	-	-	-	-	1	
10.	Saggezza	30-31 Aug 2020	6.5 LPA	-	-	1	1	0	0	-	-	-	2	
		Online Interview												
11.	Veritas Technologies	1-2 Sep 2020	12.82 LPA	-	-	-	-	4	-	-	-	-	4	
		Online Interview												
12.	Icertis	31 Aug-02 Sep 20	8 LPA	-	-	-	-	4	-	-	-	-	4	
		Online Interview												
13.	Incture Technologies	5 Sep 2020	8 LPA	-	0	1	3	1	0	-	-	-	5	
		Online Interview												
14.	Oracle Financial Service Software	7-8 Sep 2020	6.41 LPA	-	3	7	2	1	3	-	-	CSE-1	16+1 =17	
		Online Interview												
15.	Commvault	7-9 Sep 20-20	24 LPA	-	-	0	0	0	1	-	-	-	1	
		Online Interview												
16.	BookMyShow	11-12 Sep 2020	10 LPA	-	-	-	1	0	-	-	-	-	1	
		Online Interview												
17.	Wissen Technology	11-12 Sep 2020	9 LPA	-	0	2	0	1	0	-	-	-	3	
		Online Interview												
18.	Anchanto Service Pvt. Lrd.	11-13 Sep 2020	10 LPA	-	-	-	-	2	-	-	-	0	2	
		Online Interview												
19.	Mahindra Comviva	9-11 Sep 2020	6.5 LPA	-	-	1	4	0	3	-	-	-	8	
		Online Interview												
20.	ZS Association	12-13 Sep 2020	13.43 LPA	-	-	1	0	0	1	-	-	-	2	
		Online Interview												
21.	Optum UnitedHealth Group	PPO	11.6 LPA	-	-	-	-	9	-	-	-	-	9+6+4 =19	
		17 Sep 2020		-	-	-	-	6	-	-	-	-		
		05 Aug 2021		-	-	-	-	4	-	-	-	-		
		Online Interview												
22.	Jaro Education	15-17 Sep 2020	PG-8.46 UG-6.6	0	1	0	0	0	0	Mktg-2	0	0	1+2=3	
		Online Interview												

23.	Infosys	16-17 Sep 2020	5 LPA	-	-	-	2	1	-	-	-	-	3+12+3+5 =23+1 PG =24	
			3.6 LPA	-	-	-	1	-	-	-	-	-		
		20 Dec 2020		2	5	3	0	0	1	-	-	-		
		26-31 May 21	8 & 5 LPA	-	-	2+1 =3	-	-	-	-	-	-		
		Jun 2021	8 & 5 LPA	-	-	1	2	2				CSE-1		
		Online Interview												
24.	Larson & Toubro Infotech (LTI)	19-21 Sep 2020	5, 6.5 & 8 LPA	2+1 =3	12+1 =13	7+2 =9	1+2 =3	1	3+1 =4	-	-	-	28+5 =33	Level 1-5 LPA Level 2-6.5 LPA Level 3-8 LPA
		Online Interview												
25.	Capgemini (1st & 2nd Phase)	21-24 Sep 2020	6.8 LPA	2	4	2	3	2	2	-	-	-	15+10 =25	
		22 Apr 2021		1	5	1	3	0	0	-	-	-		
		Online Interview												
26.	MathWorks	PPO	15 LPA	-	-	-	-	1	-	-	-	-	1	
27.	GreyB Services	24-25 Sep 2020	6 LPA	-	-	0	0	0	1	-	-	-	1	
		Online Interview												
28.	Deloitte	23&30 Sep 20	7.60 LPA	-	-	5	7	-	1	-	-	-	13	
		Online Interview												
29.	Addverb Technologies	PPO	14.19 LPA	-	-	1	-	-	-	-	-	-	1	
30.	TCS	7-8 Oct 2020	M.tech-11.5 B.Tech-9 & MBA-5.7 LPA	0	0	0	0	0	0	-	-	CSE-2	8+5 =13	
		8-9 Jan 2021		0	0	3	3	1	1	Mktg-2	-	CSE-1		
		Online Interview												
31.	Learning Routes	17 Oct 2020	3.5 LPA	-	-	1	-	-	-	-	-	-	1	
		Online Interview												
32.	Reliance JIO	20-22 Oct 2020	8.75 LPA	-	-	-	21	7	-	-	-	-	28	
		Online Interview												
33.	Hike Education	24 Oct 2020	5.04 LPA	1	0	0	-	-	0	-	-	-	1	
		Online Interview												
34.	Delhivery	27 Oct 2020	8 LPA	-	-	-	2	2	-	-	-	-	4	
		Online Interview												
35.	CDAC, Pune	29 Oct 2020	7.8 LPA	-	-	-	-	1	-	-	-	-	1	
		Online Interview												
36.	Bajaj Auto	29-30 Oct 2020	9.085 LPA	-	3	-	-	-	-	-	-	-	3	
		Online Interview												
37.	Digite Infotech Pvt. Ltd.	5 Nov 2020	6.5 LPA	-	-	1	0	0	-	-	-	-	1	
		Online Interview												
38.	APISERO	17-18 Nov 2020	UG-5.5 LPA PG-8 LPA	-	1	-	0	0	2	-	-	CSE-2	3+2=5	
		Online Interview												
39.	Wipro Ltd.	18-23 Nov 2020	6.5 LPA	2	3	10	6	2	6	-	-	-	29	
		Online Interview												
40.	TASL	19 Nov 2020	4 LPA	-	2	-	-	-	-	-	-	-	2	
		Online Interview												
41.	L&T Tech. Services	23 Nov 2020	7 LPA	-	-	3	1	2	1	-	-	-	7	
		Online Interview												
42.	Thermax Services	25-26 Nov 2020	5.75 LPA	-	2	-	-	-	-	-	-	-	2	
		Online Interview												
43.	Swiggy	25-26 Nov 2020	18 LPA	-	-	0	3	2	0	-	-	-	5	
		Online Interview												
44.	L&T Construction	1-5 Dec 2020	6.01 LPA	10	5	7	1	0	2	-	-	-	25	
		Online Interview												
45.	Neridio Sys Pvt Ltd.	2-3 Dec 2020	5.5 LPA	-	-	-	-	-	-	Mktg-1	-	-	1	
		Online Interview												

46.	Razorpay	3-4 Dec 2020 Online Interview	20 LPA	0	0	1	1	1	0	-	-	-	3	
47.	Pepsico India	4 Dec 2020 Online Interview	6 LPA	-	1	0	0	-	1	-	-	-	2	
48.	ITC Ltd.	9 Dec 2020 Online Interview	4.44 LPA	-	-	-	-	-	-	Mktg-4	-	-	4	
49.	Digit General Insurance Ltd.	9 Dec 2020 Online Interview	7 LPA	-	-	1	0	0	0	-	-	-	1	
50.	Microchip Technology	9 Dec 2020 Online Interview	UG-7.5 LPA PG-8 LPA	-	-	0	0	-	1	-	-	CSE-1	1+1=2	
51.	UNISYS India Pvt Ltd.	10-11 Dec 2021 Online Interview	6 LPA	-	-	-	-	1	-	-	-	-	1	
52.	NCR Corporation	15-16 Dec 2020 Online Interview	13 LPA	-	-	0	1	1	-	-	-	-	2	
53.	Evosys. Pvt. Ltd.	18 Dec 2020 Online Interview	5.5 LPA	0	3	0	1	0	1	-	-	-	5	
54.	OYO Rooms	20-22 Dec 2020 Online Interview	10.5 LPA	-	-	0	4	0	1	-	-	-	5	
55.	Pie Infocomm	30 Dec 2020 Online Interview	3.5 LPA	1	0	0	-	-	1	-	-	CSE-1 PESE-1	2+2=4	
56.	Model N Software	29-31 Dec 2020 Online Interview	11.32 LPA	-	-	1	2	0	1	-	-	-	4	
57.	Brigosha Technologies	30-31 Dec 2020 Online Interview	7 LPA	-	-	-	1	2	-	-	-	-	3	
58.	CGI	11-13 Jan 2021 Online Interview	6.8 LPA	2	1	2	3	1	3	-	-	-	12	
59.	Innominds Software Pvt Ltd.	12-13 Jan 2021 Online Interview	7,7.5&8 LPA	1	0	0	2	0	2	-	-	0	5	
60.	Click Labs Pvt. Ltd.	11-15 Jan 2021 Online Interview	8 LPA	-	-	0	2	0	-	-	-	0	2	
61.	Myntra	13-14 Jan 2021 Online Interview	24 LPA	-	-	-	-	3	-	-	-	-	3	
62.	Vedanta	15-16 Jan 2021 Online Interview	10 LPA	-	5	2	0	-	2	-	-	-	9	
63.	Oracle CGBU	17-18 Jan 2021 Online Interview	11 LPA	-	-	0	4	0	0	-	-	0	4	
64.	Alstom Transport India Ltd.	19-20 Jan 2021 Online Interview	PG-7 LPA UG-6.5 LPA	-	0	1	0	0	0	-	-	CSE-2 PESE-2 D&M-2	1+6=7	
65.	Navyug Infosolutions Pvt. Ltd.	21-22 Jan 2021 Online Interview	7 LPA	0	0	2	0	0	0	-	-	-	2	
66.	LivNSense Technologies Pvt. Ltd.	25-27 Jan 2021 Online Interview	4.5 LPA	-	1	-	0	0	0	-	-	-	1	
67.	Meesho Business	27 Jan 2021 Online Interview	25 LPA	-	-	0	1	0	0	-	-	-	1	
68.	NoBroker Technologies Pvt. Ltd.	27-28 Jan 2021 Online Interview	7.52 LPA	-	-	-	-	-	-	Mktg-1	-	-	1	
69.	Axis Bank	2-3 Feb 2021 Online Interview	6.68 LPA	0	0	1	0	0	0	-	-	-	1	
70.	Schlumberger	3 & 5 Feb 2021 Online Interview	12 LPA	-	-	0	1	1	0	-	-	-	2	
71.	iQuanti India Pvt. Ltd.	7-8 Feb 2021 Online Interview	6.61 LPA	0	1	0	0	0	1	-	-	-	2	
72.	ICICI Prudential	8-9 Feb 2021 Online Interview	2.3 LPA	-	-	-	-	-	-	Fin-5 Mktg-5 HR-1	-	-	11	

73.	314e IT Solutions India Pvt. Ltd.	9-10 Feb 2021	13.30 LPA	-	-	-	-	-	-	-		CSE-1	1	
		Online Interview												
74.	Sify Technologies	22-23 Feb 2021	8.5 LPA	-	-	0	1	0	-	-	-	-	1	
		Online Interview												
75.	Microsoft	25-26 Feb 2021	41.86 LPA	-	-	-	-	1	-	-	-	-	1	
		Online Interview												
76.	Tata Power	4 Mar 2021	6.06 LPA	0	1	0	-	-	1	-	-	-	2	
		Online Interview												
77.	Cognizant Technology Solutions	15 Mar 2021	7 LPA	-	-	1	0	-	1	-	-	-	2	
		Online Interview												
78.	Aptean (I) Pvt Ltd	18 Mar 2021	10.5 LPA	-	-	-	-	1	-	-	-	-	1	
		Online Interview												
79.	Accenture	20-21 Mar 2021	9 & 9.08 LPA	0	0	1	1+1 =2	0	1	-	-	-	4	
		25 May 2021	8 LPA	2	0	0	2	0	1	-	-	-	5	
		Online Interview												
80.	Tata Hitachi	26 Mar 2021	6.25 LPA	-	1	-	-	-	-	-	-	-	1	
		Online Interview												
81.	Saint Gobain	5 Apr 2021	6.3 LPA	0	1	-	-	-	-	-	-	-	1	
		Online Interview												
82.	eClerx Services Ltd.	8 & 15 Apr 21	7 LPA	1	-	0	0	2	0	-	-	-	3	
		Online Interview												
83.	Kreeti Technologies	15 Apr 2021	5.4 LPA	0	0	1	0	-	0	-	-	-	1	
		Online Interview												
84.	Planet Spark	17 Apr 2021	7.1 LPA	2	0	0	-	-	-	-	-	-	2	
		Online Interview												
85.	Just Dial	17 Apr 2021	6.3 LPA	-	-	-	-	5	-	-	-	-	5	
		Online Interview												
86.	Invenio Business Solution	23 Apr 2021	5 LPA	-	-	1	1	-	0	-	-	-	2	
		Online Interview												
87.	Swiflearn (Incassable Technologies Pvt. Ltd.)	27 Apr 2021	4.5 LPA	2	3	3	-	-	-	-	-	CIA-2	8+2 =10	
		Online Interview												
88.	Mphasis	27 Ap4 2021	5 LPA	-	-	1	0	-	1	-	-	-	2	
		Online Interview												
89.	Maruti Suzuki	28 Apr 2021	8.4 LPA	-	1	-	-	-	-	-	-	-	1	
		Online Interview												
90.	Analytics Quotient (Kantar)	5 May 2021	5.64 LPA	2	1	0	0	0	0	-	-	-	3	
		Online Interview												
91.	KEC International	21 May 2021	UG-4.75 LPA PG-5.25 LPA	8	3	6	1	0	0	0	0	CIA-1, SE-1 & Geo-3	18+5=23	
		Online Interview												
92.	Samsung, Bangalore	26 May 2021	13 LPA	-	-	0	1	4	-	-	-	-	5	
		Online Interview												
93.	Pine Labs	14-18 May 2021	6.79 LPA	-	-	3	1	-	0	-	-	-	4	
		Online Interview												
94.	TMEIC Industrial Sys (I) Pvt. Ltd.	18-19 May 2021	4.5 LPA	-	2	4	-	-	1	-	-	-	7	
		Online Interview												
95.	Kickdrum	18 May 2021	14.66 LPA	-	-	-	0	1	-	-	-	-	1	
		Online Interview												
96.	Anglo Eastern MTC	18 May 2021	6.48 LPA	-	1	-	-	-	-	-	-	-	1	
		Online Interview												

97.	Amrut Energy Pvt. Ltd.	29 May 2021	3.6 LPA	-	-	-	-	-	-	Mktg-1	-	-	1	
		Online Interview												
98.	Impulse Classes	22 May 2021	4.8 LPA	0	0	0	0	0	1	-	-	-	1	
		Online Interview												
99.	Sentieo (I) Pvt.Ltd.	21,25 May 2021	12 LPA	-	-	2	2	1	0	-	-	-	5	
		Online Interview												
100.	K12 Techno Services Pvt. Ltd.	31 May 2021	3.5 LPA	-	-	-	-	-	-	Mktg-2	-	-	2	
		Online Interview												
101.	BYJU'S	02 Jun 2021	10 LPA	2	3	1	2	-	-	-	Chem-1	-	8+1=9	
		Online Interview												
102.	Modak Analytics LLP	03 Jun 2021	6 LPA	-	-	-	1	1	-	-	-	-	2	
		Online Interview												
103.	Suzuki Motors	28-29 Jun 2021	5.75 LPA	-	2	0	-	-	-	-	-	-	2	
		Online Interview												
104.	Arcesium (I) Pvt. Ltd	28-29 Jun 2021	36 LPA	-	-	0	1	0	0	-	-	-	1	
		Online Interview												
105.	Samsung R&D Delhi	1-3 Jul 2021	14 LPA	-	-	4	6	0	0	-	-	-	10	
		Online Interview												
106.	Jubliant FoodWorks	2-3 Jul 2021	7.94 LPA	-	1	0	-	-	0	-	-	-	1	
		Online Interview												
107.	Subros Ltd.	23 Jul 2021	4 LPA	-	1	0	-	-	-	-	-	-	1	
		Online Interview												
108.	IOCL	05c Aug 2021	15.17 LPA	-	-	-	-	2	-	-	-		2	
		Online Interview												
109.														

Details of Placement	CE	ME	EE	ECE	CSE	EI	MBA	M.Sc	M.Tech.	Total	
Total No of students	105+2	114	106	116	97+4	53	46	42	185	591 + 6 (B.Tech.)	
Total No of eligible students (CPI 6.5 & above)	92	97	98	105	96	50	39	35	176	538 (B.Tech.)	
Total No. Of Job offers (till date)	44	80	102	132	121	50	24	1	24	529	
Total No. Of Job Placed	37	68	77	89	91	40	22	2	22	402	
Average Job Placed on eligible (B.Tech.- 74.72%)	40.22	70.10	78.57	84.76	94.79	80.00	56.41	2.38	12.50		
Average Job Placed on Total students less Foreigners (B.Tech-68.02%)	35.24	59.65	72.64	76.72	93.81	75.47	47.83	2.38	11.89		
Average Job Offer (B.Tech.- 98.33%)	47.83	82.47	104.08	125.71	126.04	100.00	61.54	2.86	13.64		
Average Salary (B.Tech. – 8.83 LPA)	6.03 LPA	6.18 LPA	6.99 LPA	10.02 LPA	12.59 LPA	7.02 LPA	3.96 LPA	10.00 LPA	7.00 LPA		
Median Salary (B.Tech. – 7.50 LPA)	6.01 LPA	6.06 LPA	6.8 LPA	8.00 LPA	10.00 LPA	6.56 LPA	4.97 LPA	10 LPA	6.71 LPA		
Highest package	B.Tech. – 41.86 LPA M.Tech. – 13.30 LPA MBA – 8.46 LPA										
Average Package	B.Tech. – 8.83 LPA M.Tech. – 7.09 LPA MBA – 5.96 LPA										

DEPARTMENTS

1. Name of the Department:

Civil Engineering

The Department at a glance
Year of Establishment: 1977
Academic Programmes Offered: • Bachelor of Technology (B.Tech) • Master of Technology (M.Tech) • Doctor of Philosophy (Ph.D)
Total Faculty Strength: 33 • Professor: 8 • Associate Professor: 2 • Assistant Professor: 22 • Trainee Teacher: 1
Total Student Strength: 830 • B.Tech: 516 • M.Tech: 190 • Ph.D: 124
New Students Joined in 2020-2021: 306 • B.Tech: 157 • M.Tech: 116 • Ph.D: 33

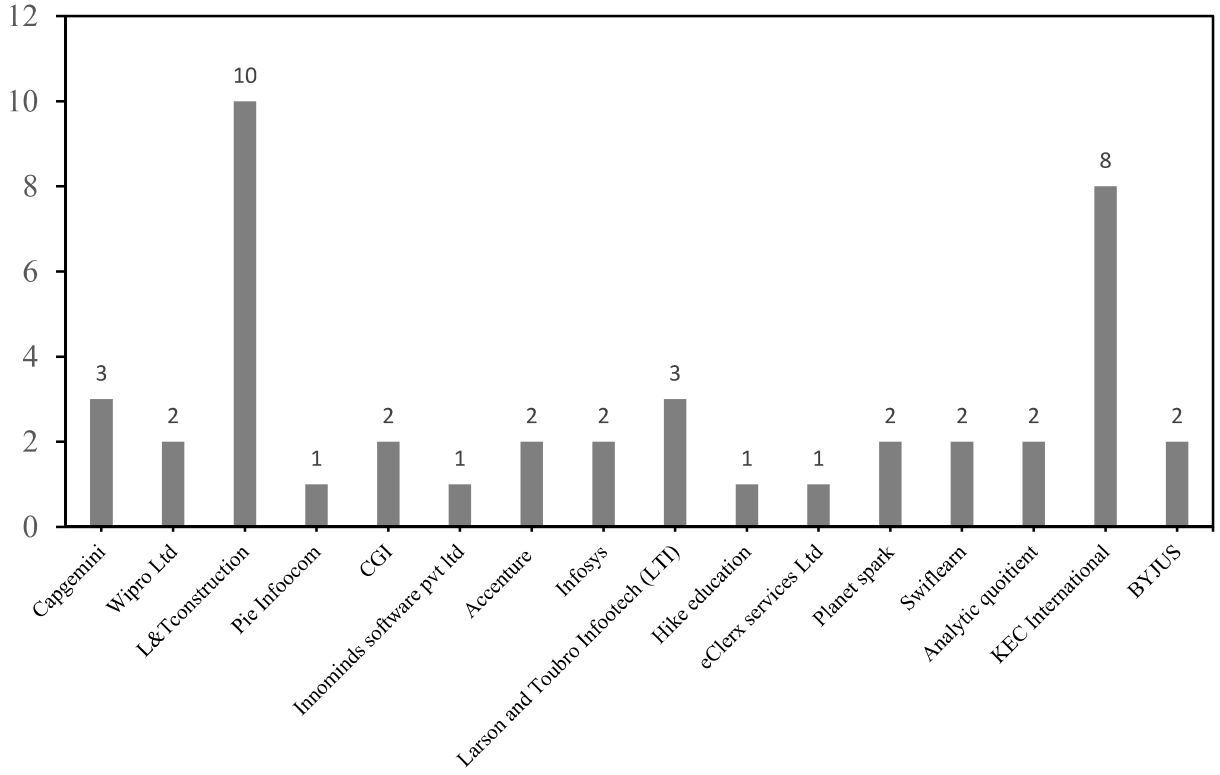

Fig: 1 Placement statistics of the students in the Civil Engineering Department during 2020-2021

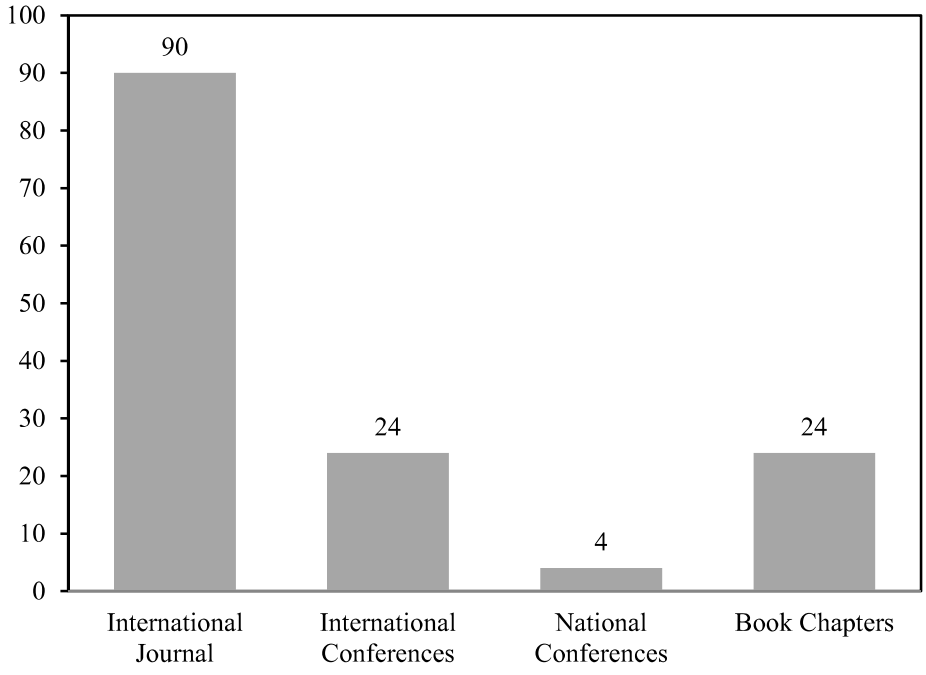

Fig: 2 Publication details of Civil Engineering Department during 2020-2021

1.1 Academic Staff

HEAD: Dr. Parthajit Roy, Associate Professor

Professor	Associate Professor	Assistant Professor
Prof. Satyabrata Choudhury	Dr. T. Rahman	Dr. Nirmali Borthakur
Prof. A.K Dey	Dr. P. Roy	Dr. Parbin Sultana
Prof. P. Choudhury		Mr. Pallab Das
Prof. D. Chakraborty		Dr. Arjun Sil
Prof. A. I. Laskar		Dr. Nirmalendu Debnath
Prof. M. Ali Ahmed		Dr. Dilip Kumar Ghose
Prof. A. K. Barbhuiya		Dr. Debjit Bhowmik
Prof. U. Kumar		Dr. Monowar Hussain
		Dr. Laxmi Vara Prasad M
		Dr. Briti Sundar Sil
		Dr. Khwairakpam Lakshman Singh
		Dr. Susmita Ghosh
		Dr. Bijan Kumar Roy
		Dr. Prashanth J
		Dr. Amit Kumar Das
		Dr. Subhrajit Dutta
		Ms. Anangsha Alammyan
		Dr. Olympa Baro
		Dr. Atanu Sahu
		Dr. Kulkarni Vihangraj Vijaykumar
		Dr. Suprava Jena
		Dr. Ambika Kuity

Visiting Professor (If any): Nil

1.2 Distinction Achieved

a) By Student:

1. Shikher Chitransh Srivastav : Selected for SAARC Internship Programme, Nepal
2. Ridon Prasad Kakoti & Team: All India Inter NIT Tournament (Table Tennis) : Position achieved - Champion at VNIT Nagpur, India
3. The conference paper titled “Towards an early warning system in Guwahati city for landslides triggered by rainfall and earthquake” authored by Jai Prakash Kumar, Amarjeet Paswan, Sudhanshu Awasthi 6th semester students under the guidance of Dr. Olympa Baro and Dr. Risha Mal has been accepted for

presentation in the International conference on recent advances in geotechnical earthquake engineering and soil dynamics, to be conducted by the Indian Institute of Science, Bangalore from 12th to 15th July 2021

b) By Faculty Member:

- **S. Choudhury**

1. Guest editor of ASCE journal "Practice Periodicals in Structural Design and Construction".
2. Member of the Editorial Board for Structural Integrity book series, Springer

- **Subhrajit Dutta:**

1. Indo-Finland mobility grant award, DST
2. Associate and Guest Editor of ASCE, Practice Periodical on Structural Design and Construction, American Society of Civil Engineers
3. Review Editor: Frontiers in Sustainable Cities, Section on Sustainable Infrastructures
4. Guest Editor for ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering
5. Guest Editor for Journal of Remote Sensing, MDPI
6. Guest Editor for Journal of Modeling, MDPI
7. Member of the Editorial Board for International Journal of Ocean Systems Management, Inder Science
8. Member of the Editorial Board for Structural Integrity book series, Springer
9. External Researcher, FEUP, University of Porto, Portugal
10. Member of International and Asian Society of Structural and Multidisciplinary Optimization (ISSMO and ASSMO)

1.3 SEMINARS, SYMPOSIA, SHORT TERM COURSES, WORKSHOPS

a) Conducted by Faculty Member

Sl. No.	Name(s) of the Coordinator	Title	Funding Agency	Duration
1	Dr. Dillip Kumar Ghose	Development of Spatial Data Infrastructure (SDI) and its Impact on Climate Change for Cachar District, Assam (India)	MHRD Govt. of India	16th April 2021 (1 day)
2	Dr. Kulkarni Vihangraj Vijaykumar Dr. Biplab Das	Sustainable Energy & Environmental Practices (SEEP 2020)	TEQIP III	June 5-6, 2020
3	Dr. Olympa Baro Dr. Kulkarni Vihangraj Vijaykumar	Recent Advances in Earthquake Engineering and Environmental Engineering (RAEEE-2020)	TEQIP III	Sept 7-11, 2020

4	Dr. Kulkarni Vihangraj Vijaykumar Dr. Asha Rani Dr. Pranjit Barman	North East Green Summit (NEGS) 2020	Vibgyor N.E. Foundation	16-18 Nov 2020
5	Prof. Upendra Kumar Dr. Kulkarni Vihangraj Vijaykumar Dr. Biplab Das	Sustainable Ecosystem Restoration Initiatives & Practices (SERIP 2021)	Institute Funded	June 5 & 7, 2021
6	Dr. Atanu Sahu Dr. Amit Kumar Das Dr. Bijan Kumar Roy	Developments in Structural Dynamics & Soil-Structure Interaction (DSD&SSI-2020)	TEQIP III	September 11 - 15, 2020
7	Dr. Briti Sundar Sil	Importance of testing for quality control in the construction field	Institute Fund	14th Feb, 2021
8	Prof. A K Barbhuiya Dr. Susmita Ghosh Dr. Prashanth J	Climate change impact on water resources system	TEQIP III	28th Sep to 2nd Oct'2020
9	Prof. M. Ali Ahmed Dr. Ambika Kuity Dr. Suprava Jena Dr. Kh. Lakshman Singh	Modern Trends in Transportation System	TEQIP III	25th -29th July, 2020
10	IGS Silchar Chapter (Faculty of Geotechnical Engg)	Terzaghi Day	Webinar Jointly with PT Tinelo Poliyama, Jakarta	2nd Oct & 5th Oct, 2020
11	IGS Silchar Chapter (Faculty of Geotechnical Engg)	Importance of Testing and Evaluation of Geotech Properties for better infrastructure	Webinar Jointly with IGS Agartala Chapter	29th August, 2020

b) Participated by Faculty Member

Sl. No.	Name of Faculty	Details of the Program	Organizing Institute
1	Dr. Briti Sundar Sil	Short Term Course on Classical and Metaheuristic Optimization Methods for Engineering planning and design. 22-26 February, 2021	IIT Guwahati
2	Dr. Kulkarni Vihangraj Vijaykumar	Online Short-term Course on Biomass valorization and its life cycle assessment (LCA) December 1-5, 2020	IIT Delhi
3	Dr. Kulkarni Vihangraj Vijaykumar	Online Short-term Course on Recent Advances in Construction Materials and Building Technologies 26-31 December 2020	IIT Guwahati

4	Dr. Kulkarni Vihangraj Vijaykumar	Online Training on Basics of Decentralized Wastewater Treatment and Local Reuse 01 June – 26 June, 2020	CSE, Delhi
5	Dr. L. V. Prasad M	One Week Workshop On Effective Online Teaching and Conducting Examinations with Moodle LMS,	NIT Silchar
6	Dr. L. V. Prasad M	One day workshop on Future of Engineering Education in Light of New Education Policy 2020 15th december 2020.	NIT Silchar
7	Dr. L. V. Prasad M	Five-day Faculty Development Programme on NURTURING INNOVATION LEADING TO PATENT GENERATION, 9th to 13th December 2020.	NIT AndhraPradesh
8	Dr. L. V. Prasad M	TEQIP III Sponsored One Week Online Short Term Course On 'Sustainable Concrete Construction- Issues & Challenges' 26th to 30th October 2020	Dr B R Ambedkar NIT Jalandhar
9	Dr. L. V. Prasad M	SCRS Lecture Series on Soft Computing , May 30 to june 01 2020	SCRS New Delhi,
10	Dr. Ambika Kuity	'Recent Trends in Concrete Pavement' 19th - 20th June, 2020	CSIR- Central Road Research Institute, New Delhi
11	Dr. Ambika Kuity	'Machine learning and computer vision: applications, research challenges (MLCV 2020),	NIT Silchar
12	Dr. Ambika Kuity	Recent Advances in Pavement Material Testing and Design', 17th -22nd August, 2020	Misrimal Navajee Munoth Jain, engineering college, Chennai
13	Dr. Ambika Kuity	'Transport Research and Innovations', 18th - 22nd September, 2020	NIT Uttarakhand
14	Dr. Ambika Kuity	Data Collection and Analytics in Pavement Management Systems', 1st-05th March, 2021	IIT BHU
15	Dr. Olympa Baro	One week Faculty Development Program on Sustainable Smart Cities 15-19 June 2020	Chennai Institute of Technology
16	Dr. Olympa Baro	"Soil-Structure Interactions and Its Applications", Aug 31st - Sept 11th, 2020	G. B. Pant Institute of Engineering and Technology
17	Dr. Ambika Kuity	'Design, construction, Quality control and Maintenance of Rigid Pavements' January 27-29, 2021	CSIR-CRRI, New Delhi.

18	Dr. Ambika Kuity	'Design, construction, Quality control and Maintenance of Flexible Pavements', January 06-08, 2021	CSIR-CRRI, New Delhi.
19	Dr. Prashanth J	One Week Workshop On Effective Online Teaching and Conducting Examinations with Moodle LMS,	NIT Silchar
20	Dr. Prashanth J	One day workshop on Future of Engineering Education in Light of New Education Policy 2020 15th december 2020.	NIT Silchar
21	Dr. Kh. Lakshman Singh	One week short term training program on Recent Advances in Pavement Material Testing and Design, 17th -22nd Aug.2020	Mishrimal Navajee Munoth Jain Engineering college, Chennai
22	Dr. Kh. Lakshman Singh	Sustainable Engineering Series (SES), 26 september to 28 november, 2020, Bangalore.	Association of Consulting Civil Engineers (India), Bangalore Centre
23	Mr. Pallab Das	Short Term Course on Recent Advances in Construction Materials and Building Technologies, 26-31 December, 2020	IIT Guwahati
24	Dr. Atanu Sahu	Workshop on Grant Writing under STARS scheme, Ministry of Education, 10th December, 2020	Indian Institute of Science, Bangalore
25	Dr. Atanu Sahu	Short term course on "Machine learning for Beginners", 16-20 Jan, 2021	NIT Jaipur
26	Dr. A.K. Barbhuiya	Riverbank Erosion and its Counter Measures" Five Days International Virtual Workshop on Climate Change Impact on Water Resources Systems (CCIWRS-2020, September 28-October 02, 2020.	TEQIP – III In Association with IIC, NIT Silchar
27	Dr. A.K. Barbhuiya	Academic reforms with reference to NEP2020" AICTE sponsored Five-Day Faculty Development Program On Model Curriculum, March 15 - 19, 2021.	NIT Mizoram

c) Participated as Resource Person

- **Prof. S. Choudhury**
- Delivered invited lecture at IE(I) Silchar local center
- Delivered lectures as resource person in "Disaster Management" organized by District Administration, Cachar.
- **Prof. U. Kumar**:

1. Five days online Faculty Development Program cum Workshop on "Recent Advances in Earthquake Engineering and Environmental Engineering" (RAEEE-2020) Sponsored by TEQIP III, Civil Engineering Department, NIT Silchar, 7th to 11th September 2020.

- Online Workshop on "Importance of Environmental Engineering and Climate Change" Organized and Sponsored by TEQIP III, Department of Civil Engineering, National Institute of Technology Meghalaya, March 12-16, 2021.

- **Dr. Briti Sundar Sil**:

1. Delivered lecture on "Hydrological Modeling for climate change impact assessment" at the webinar A National Webinar on 'Climate Change Impact on Hydrological Regime. 28.09.2020 conducted by Civil Engineering Department, ICFAI University Tripura.
2. Delivered a lecture on "Climate Change assessment through modeling" as an Expert speaker at "Climate change impact on water resources system **(** CCIWRS)" five day virtual workshop from 28th Sept to 2nd Oct'2020, NIT Silchar

- **Mr. Pallab Das**:

1. Delivered lectures as resource person in "Disaster Management" organized by District Administration, Cachar.

- **Dr. Kulkarni Vihangraj Vijaykumar**

1. Invited as expert speaker and technical chair in an International Conference on "Environmental Pollution and Its Control (EPIC-2020)" during March 02-03, 2020 at Engineering College Banswara (Rajasthan).
2. Delivered "Orientation lecture on GATE 2021" at Engineering College Banswara (Rajasthan), June 29, 2020
3. Delivered expert talk on "Green sludge management practice in Lead-Acid battery manufacturing Industries" at K.S.R College Of Engineering, Tamil Nadu in one Week Online AICTE Sponsored STTP as "Forum on nurturing Clean-Water and Green-Waste" held during August 24-19, 2020
4. Delivered a "Guidance session on GATE 2021" at K. K. Wagh Institute of Engineering Education And Research, Nashik, Maharashtra on October 26, 2020.
5. Delivered expert talk on "Application of Advanced Analytical Methods for Green Sludge Management Practices in Lead-acid Battery Manufacturing Industry" in STTP on Advanced Analytical Techniques in Chemistry (AATC-2020) held at SVNIT Surat, Gujarat held during Oct 26-30, 2020.
6. Delivered expert talk on "Present Prospectus of Industrial Wastewater Treatment: A Case of Lead Acid Battery Industry" at Lukhdhirji Engineering College, morbi, Gujarat on Dec 21, 2021
7. Delivered expert talk on "Production of composite clay bricks: A value-added solution to hazardous sludge through effective heavy metal fixation" in TEQIP III sponsored FDP on "Modern Construction Techniques & Management" at Aravali Institute of Technical Studies, Udaipur held during March 2-6,2021
8. Delivered expert talk on "Ecosystem Restoration: Need of an hour" at Indian Water Works Association, Aurangabad local chapter, Maharashtra on June 05, 2021
9. Delivered expert talk on "From Tool Centric Science to Problem Centric Science: The Need of Hour" in an International Conference on Recent Advancements in Science and Technology (ICRAST-20), at Glocal University, Saharanpur, Uttar Pradesh, India during Nov 11-12, 2020.
10. Delivered expert talk on "Analyzing Valorization potential of heavy metal laiden Industrial sludge (IBPs) through lenses of Environmental Technology" organized by National Institute of Technology, Goa during 21-26 June, 2021.

- **Dr. L. V. Prasad M.**

1. Delivered expert talk on "Recent Trends in Structural and Environmental Engineering" in A Four Days Free WEBINAR organized by Assam Science and Technology University, Guwahati Under TEQIP - III, 13th to 14th May 2020.
2. Delivered expert talk on "Recent Advances and Trends in Concrete Technologies", Webinar Series on Concreting Concrete on 13th & 14th May 2020, Sree Chaitanya College of Engineering , Karimnagar,20th June 2020.
3. Delivered expert talk on "Making Concrete without Cement: A way to Develop Green Concrete, Webinar Series on Recent Advances & Trends in Concrete Technologies at Brindavan Institute of Technology & Science , Kurnool on 28 june 2020.
4. Delivered expert talk on "Environmental friendly SCC with sustainable development concept" One Week Online Faculty Development Program (FDP) on "Advances in Concrete Science and Technology for Sustainability (ACSTS)" organised by VNR-VJIET, Hyderabad during 13-18 July 2020.

- **Dr. Prashanth J**

1. 1.Delivered a lecture on "Introduction to application of remote sensing and GIS in Civil Engineering" in Four-Days eFDP on "Application of Remote Sensing and GIS in Civil Engineering" Organised by Department of Civil Engineering, Silicon Institute of Technology, Sambalpur, Odisha during 07th to 10th July 2020.
2. Delivered a lecture on "Introduction to Neural Networks and its application in coastal engineering" in One week FDP on "Application of Artificial Intelligence in Civil Engineering (AAICE-2020)" from 20th to 24th July 2020.
3. Delivered a lecture on "ENSO Prediction using Soft Computing Tools" as an Expert speaker at "Climate change impact on water resources system **(**CCIWRS 2020)" five day virtual workshop from 28th Sept 2020 to 2nd Oct' 2020, NIT Silchar

- **Dr. Susmita Ghosh**

1. Delivered a lecture on "Planning of Agricultural Groundwater development considering climate change" as an Expert speaker at "Climate change impact on water resources system **(** CCIWRS)" five day virtual workshop from 28th Sept to 2nd Oct'2020, NIT Silchar
2. Present jointly with Prof. Deepak Kashyap on "Role of AI in planning of agricultural groundwater development" at Taiwan-India Joint Seminar on Artificial Intelligence and Hydraulic Engineering, organized by IIT Ropar.

- **Dr. Olympa Baro:**

1. Five days online Faculty Development Program cum Workshop on "Recent Advances in Earthquake Engineering and Environmental Engineering" (RAEEE-2020) Sponsored by TEQIP III, Civil Engineering Department, NIT Silchar, 7th to 11th September 2020.

- **Dr. Ambika Kuity**

1. Delivered an expert talk on five days online International Workshop on "Recent Trends in Transportation systems" (MTTS-2020) Sponsored by TEQIP III, Civil Engineering Department, NIT Silchar, 25th -29th July, 2020.
2. Delivered an expert talk on a Webinar on "Sustainable Approaches in Civil Engineering Infrastructure" (SACEI -2021) during Jan 28,2021 at Haldia Institute of Technology, Haldia.

3. Delivered an expert talk on 'Rigid Pavement' for the undergraduate students of G H Raisoni College of Engineering, Nagpur on 3rd March, 2021.
4. Delivered an expert talk on '"My City My Dream" under the module Smart City of Tecnoesis 2021 at NIT Silchar on 27th April, 2021.

- **Dr. Kh. Lakshman Singh**

1. Delivered an expert talk on five days online International Workshop on "Recent Trends in Transportation systems" (MTTS-2020) Sponsored by TEQIP III, Civil Engineering Department, NIT Silchar, 25th -29th July, 2020.

- **Prof. M. Ali Ahmed**

1. Delivered an expert talk on five days online International Workshop on "Recent Trends in Transportation systems" (MTTS-2020) Sponsored by TEQIP III, Civil Engineering Department, NIT Silchar, 25th -29th July, 2020.

- **Dr. Atanu Sahu**

1. Delivered a lecture in the five days online workshop on Developments in Structural Dynamics & Soil-Structure Interaction (DSD&SSI-2020) at Civil Engineering Department of NIT Silchar during 11-15 September, 2020.

- **Dr. Arjun Sil**

1. Delivered invited expert lecture Webinar for One day Seminar on "*Necessity of seismic response assessment for Geotechnical sites*" organized by Indian Geotechnical Society Silchar Student Chapter, on dated-14/06/2020 through online
2. Delivered invited expert lecture webinar for One Week Online International Workshop on "Developments in Structural Dynamics & Soil-Structure Interaction (DSD&SSI-2020) during 11-15 September, 2020, Sponsored by TEQIP-III and In association with IIC, NIT Silchar organized by Dept of Civil Engineering,NIT Silchar,India [https://youtu.be/4es1vX01LKQ]
3. Delivered invited lecture on "Seismic Risk Evaluation with Local Site Effects for Earthquake Resistant Design" in a five days online faculty development program on Seismic analysis & Retrofitting of structures" from 30th November to 4th December 2020 by Marwadi Education Foundation & Marwadi , University Gujarat, India. [https://www.youtube.com/watch?v=UBgaxvx0h24&feature=youtu.be&fbclid=IwAR0-V3O8TqGl2BXfP4fS-5n8efxze1UaZXnENEvI588BI92e2Kwz_k69uDM]
4. Delivered invited lecture on "Estimating Service-Life Deterioration Of RC Bridges Due To Multi-Hazards In Barak Valley Region, Assam, India" on Virtual conference on disaster risk reduction from 15-20 march 2021 [VCDRR-2021] [https://www.youtube.com/watch?v=HA-Ul5CZCy0]

- **Dr. Subhrajit Dutta**:

1. Delivered lectures as resource person in "Disaster Management" organized by District Administration, Cachar.
2. Invited speaker for Short Term Course on Advances in Structural Engineering at NIT Hamirpur during Jan 11-15, 2021.

Dr. Ashim Kanti Dey

1. Delivered lecture as resource person in "Disaster Management" organized by District Administration, Cachar.

2. Delivered lecture on "Application of Seismic Refraction and Electrical Resistivity Survey in Geotechnical Investigation" in Webinar on "Terzaghi Day" on 2nd October, 2020.
3. Delivered lectured on "Experience with NABL Accreditation" in Webinar on "Importance of Testing and Evaluation of Geotechnical properties for better Infrastructure" on 29th August, 2020.

1.4 Research Development

a) Ph.D. Programme (Specializations):

- Geotechnical Engineering (GE)
- Structural Engineering (SE)
- Structural Dynamics and Earthquake Engineering (SDEE)
- Transportation Engineering (TE)
- Water Resources Engineering (WRE)
- Environmental Engineering (EE)

b) Ph.D. Produced/Ongoing (in number):

Sl. No	Name of the Supervisor	Specializations	Completed	Submitted	Ongoing
1	Prof. S. Choudhury	Structural Engg	02	Nil	07
2	Prof. A. K. Dey	Geotechnical Engineering	04	Nil	03
3	Prof. A. I. Laskar	Structural Engineering	04	0	Full time-2 Part-time- 2
4	Prof. M. Ali Ahmed	Transportation Engineering	01	01	04
5	Prof. U. Kumar	Environmental Engineering	05	Nil	06
6	Prof. A. K. Barbhuiya	Water Resources Engineering		01	04
7	Dr. P. J. Roy	Water Resources Engineering	3	0	Full time-4 Part-time- 2
8	Dr.L.V.Prasad M	Structural Engineering	01	-	Full time-2 Part time-3
9	Dr.Dillip Kumar Ghose	Water Resources Engineering	01	01	Full time-2 Part time-2
10	Dr. Debjit Bhowmik	Geotechnical Engineering	NIL	NIL	Full Time-3 Part Time-1
11	Dr. Nirmali Borthakur	Geotechnical Engineering	NIL	NIL	0
12	Subhrajit Dutta	Structural Engineering	NIL	NIL	03

13	Dr. Nirmalendu Debnath	Structural Engineering	NIL	01	Full Time-03, Part-time -01
14	Dr. Arjun Sil	Structural Dynamics and Earthquake Engineering	01	01	Full Time- 06, Part-time -01, JRF-01
15.	Dr. Monowar Hussain	Geotechnical Engineering	02	01	05
16	Dr. Parbin Sultana	Geotechnical Engineering	NIL	NIL	1
17	Dr. Susmita Ghosh	Water Resources Engineering	Nil	Nil	Full Time- 03 Part time-02
18	Dr.Amit Kumar Das	Geotechnical Engineering	Nil	Nil	Full Time- 03 Part Time - 02
19	Dr. Suprava Jena	Transportation Engineering	Nil	Nil	01
20	Dr. Ambika Kuity	Transportation Engineering	Nil	Nil	02
21	Dr.Kh.Lakshman Singh	Transportation Engineering	Nil	Nil	06
22.	Dr. Olympa Baro	Geotechnical Engineering	Nil	Nil	01
23.	Dr. B S Sil	Water Resources Engineering	02	NIL	02
24	Dr. Bijan Kumar Roy	Structural Engineering	NIL	NIL	02
25	Dr. Prashanth J.	Coastal Engineering	Nil	Nil	05
26	Dr. Parbin Sultana	Geotechnical Engineering	NIL	Nil	01
27	Dr. Kulkarni Vihangraj Vijaykumar	Environmental Engineering	NIL	NIL	01
28	Dr. Atanu Sahu	Structural Dynamics and Earthquake Engineering	Nil	Nil	Full Time- 1 Part-time - 1
29	Dr. Subhrajit Dutta	Structural Engineering	Nil	02	Full Time- 03 Part-time - -02

c) Research Lab/ Workshop:

Sl. No.	Name of Lab/Workshop	Faculty name	Purpose/Linkage to an existing/new programme
1	Structural Engineering Laboratory	Prof. A I Laskar Mr. Pallab Das	To conduct UG and PG lab (Structural Engineering, Structural Dynamics and Earthquake Engineering) and to serve the PhD research, R&D and Consultancy.

2	Concrete Laboratory	Dr.L.V.Prasad	To conduct UG and PG lab (Structural Engineering, Structural Dynamics and Earthquake Engineering) and to serve the PhD research, R&D and Consultancy.
3	Geotechnical Engineering Laboratory	Dr. Amit Kr Das	To conduct UG and PG lab (Geotechnical Engineering) and to serve the PhD research, R&D and Consultancy.
4	Soil Dynamics Laboratory	Prof. A. K. Dey	To conduct UG and PG lab (Geotechnical Engineering) and to serve the PhD research, R&D and Consultancy.
5	Centre for Testing and Consultancy (NABL accredited)	Prof. A. K. Dey	Advanced level research and consultancy
6	PG Computation Lab	Dr. Prashanth J	PG-Programs: Geotechnical Engineering (GE), Structural Engineering (SE), Structural Dynamics and Earthquake Engineering (SDEE), Transportation Engineering (TE), Water Resources Engineering (WRE). (NOTE: this lab also serves the needs for environmental engineering requirements).
7	Fluid & Hydraulics Lab	Dr. B. S. Sil	To conduct UG and PG lab for Hydraulic and Water resource Engineering, Also Serves as lab to perform PhD research
8	Water Resources Lab	Dr. D.K.Ghose	To conduct UG and PG lab for Hydraulic and Water resource Engineering, Also Serves as lab to perform PhD research
9	Highway Engineering Lab	Dr. Ambika Kuity	To conduct UG and PG lab for Transportation Engineering, Also Serves as lab to perform PhD research
10	Modal Testing Lab (Sponsored by SERB, DST)	Dr. N. Debnath	Modal Testing Facility
11	Computational Geomechanics Laboratory	Dr. Debjit Bhowmik	PG and Ph.D. research with advance computational softwares in the field of Geomechanics/Geotechnical Engineering
12	RS Computational Laboratory	Dr. Atanu Sahu	Computational facility for the research scholars of the department of CE
13	Environmental Engineering Laboratory	Prof. U Kumar, and Dr. Kulkarni Vihangraj Vijaykumar	The laboratory serves to felicitate UG students to perform environmental engineering laboratory experiments along with serving Master students from Water resource engineering for research activities. It also serves research scholars for their doctoral works.

14	UG Computational Laboratory	Mr. Pallab Das Dr. Subrajit Datta	Computational facility for the UG students of the department of CE
15	Surveying Laboratory	Prof. M A Ahmed	To perform various survey field experiments using chain, tape, compass, Plane table, dumpy level, theodolite, total station etc.
16	Geology Laboratory	Dr. Olympa Baro	To conduct various tests to determine different rocks and studying their properties

d) Ongoing/Completed Sponsored Research Project:

Sl. No.	Project Title	Principal Investigator(s)	Funding Agency	Cost in lakhs	Duration
1	Effect of variations in input-excitation on the performance of limited-sensors based operational modal analysis.	Dr. N. Debnath	DST, SERB.	31.66 Lakhs	3 years (2016-19)
2	Topology optimization of complex structures and architected metamaterials -- Computational design considering uncertainties	Dr.S Dutta	DST International Cooperation (Bilateral) Division and Finland Scheme	1 Lakh (DST) + 8000 Euros (Academy of Finland)	2 years (April, 2019 - Dec, 2021)
3	Condition Assessment & Reliability of Existing Bridges.	Dr. A. Sil	DST, SERB.	19.09 Lakhs	3 years (2017-20)
4	Development of Site Specific Design Response Spectrum [DRS] for the city of Silchar, Assam, India	Dr. A. Sil	STIS Scheme funded by Institute grant	2.8 Lakhs	
5	Development of Spatial Data Infrastructure (SDI) and its impact on climate change for Cachar district, Assam, India.	Dr. D.K. Ghose	DST (NSDL)	30 Lakh	2 years 2019-2021
6	STA NIT Silchar	Prof. M. A. Ahmed	NRRDA	-	2018-2021
7	A study on effects of sediment load on river bank erosion in the Barak River system.	Dr. B S Sil	DST	22.50 Lakh	2017-2020

e) Research Paper Reviewed

Sl. No.	Faculty Name	Journal Name	No. of Paper	Year
1	Prof. S. Choudhury	Journal of Building Engg J. of IEI(A)	03	2020-2021
2	Dr.L.V.Prasad M.	Engineering Structures, Elsevier Publisher Iranian Journal of Science and Technology Transactions of Civil Engineering, Springer Publications. International Journal of Sustainable Construction Engineering and Technology International Journal of Integrated Engineering.	05 04 04 02	2020-2021
3	Dr. Amit Kumar Das	International Journal of Geomechanics	05	2020-2021
4	Dr. Briti Sundar Sil	ISH Journal of Hydraulic Engineering SN Applied Science Water Resources Management International journal of Civil Engineering	04	2020-21
5	Dr. Prashanth J	Institute of Engineers (IEI)	01	2020-2021
6	Dr. Debjit Bhowmik	Journal of Materials in Civil Engineering, ASCE International Journal of Geomechanics, ASCE Geotechnical and Geological Engineering	01 02 01	2020-2021
7	Dr. Ambika Kuity	International Journal of Pavement Engineering Journal of Advanced Transportation	01 01	2020-2021
8	Dr. M. Hussain	Bulletin of Engineering Geology and the Environment,	02	2020-21
9	Dr.Kh.lakshman Singh	Materials Today Proceedings, Elsevier	02	2020
10	Dr. Atanu Sahu	Journal of Intelligent Material Systems and Structures Journal of Structural Engineering, ASCE	02 01	2020-2021
11	Dr. Nirmali Borthakur	Geotechnical and Geological Engineering	01	2020-2021
12	Dr. Subhrajit Dutta	Structural and Multidisciplinary Optimization Reliability Engineering and System Safety Structures	07 04 09	2020-21

		Engineering and Failure Analysis Material and Design International Journal of Disaster and Risk Reduction	02 02 01	
13	Dr. Ashim Kanti Dey	Geotextiles and Geomembranes International Journal of Geotechnical Engineering Arabian Journal of Geosciences	01 01 06	2020-21
14	Dr. D.K.Ghose	KSCE Journal of Hydrology Water Resources Management ISH Journal of Hydraulic Engineering	07 02 02 01	2020-21
15	Dr. N. Debnath	Journal of Vibration and Control, Sage. Journal of The Institution of Engineers (India): Series A (IEIA), Springer	01 02	2020-21

f) Chairing of Technical Section

Sl. No.	Faculty Name	Details
1	Dr. Kulkarni Vihangraj Vijaykumar	Technical chair in an International Conference on "Environmental Pollution and Its Control (EPIC-2020)" during March 02-03, 2020 at Engineering College Banswara (Rajasthan).
2	Dr. L. V. Prasad M	Technical Chairperson in My City My Dream" under the module SMART CITY of Tecnoesis 21 scheduled on 27th April, 2021
3	Prof. U Kumar	"Recent Advances in Earthquake Engineering and Environmental Engineering" (RAEEE-2020) Sponsored by TEQIP III, Civil Engineering Department, NIT Silchar, 7th to 11th September 2020.
4	Dr. Prashanth J	Technical Chairperson in My City My Dream" under the module SMART CITY of Tecnoesis 21 scheduled on 27th April, 2021
5	Dr. Prashanth J	Chaired a session in an international conference "Recent Trends in Science and Technology (ICRTST 2020)", during 17th and 18th June 2020, ATME College of Engineering, Mysore.
6	Dr. Prashanth J	Chaired a session in Material Physics and Engineering section in the International Conference on "ACCELERATING INNOVATIONS IN MATERIAL SCIENCE" during 4th to 7th August, 2020, BMS Institute of Technology & Management, Bengaluru, India.
7.	Dr. Susmita Ghosh	Technical Chairperson in "My City My Dream" under the module SMART CITY of Tecnoesis 21 scheduled on 27th April, 2021
8	Dr. Ambika Kuity	Technical Chairperson in "My City My Dream" under the module SMART CITY of Tecnoesis 2021 on 27th April, 2021 Chaired a session in 'International Conference on Resource Sustainability – Sustainable Pavement Technologies' (icRS SPT 2021), May 26-27, 2021.

9.	Dr. Briti Sundar Sil	Technical Chairperson in "International Conference on Modeling, Simulation and Optimization held during 3-5 August, 2020, at National Institute of Technology Silchar
10	Dr. Ashim Kanti Dey	Chaired one Technical Session in Indian Geotechnical Conference, 2020 (Virtual) held in Vishakhapatnam

1.5 PUBLICATION

a) International Journal(s):

1. Laskar, S.M., Mozumder, R.A., Laskar, A.I., 2021, Behaviour of RC beam repaired using alkali activated slag-based agent under static and cyclic loading, Structures, 31, pp. 761–768.
2. Biswajit Roy Aminul Islam Laskar, 2020, Construction joints in substandard beam–column connections subjected to cyclic loading, Magazine of Concrete Research, Volume 72 Issue 8, pp. 379-391.
3. Mozumder, R.A., Laskar, S.M., Laskar, A.I., 2021, Optimization of Geometrical Features of a Vane Concrete Rheometer Using Genetic Algorithm , Arabian Journal for Science and Engineering,.
4. Tripura J., Roy, P. and Barbhuiya, A. K., 2020"Simultaneous Streamflow Forecasting Based On Hybridized Neuro-Fuzzy Method For A River System" Neural Computing and Applications, 33, 3221–3233 https://doi.org/10.1007/s00521-020-05194-x, Springer-Verlag London Ltd., part of Springer Nature 2020.
5. R. Karthik R., Kumar U. and Barbhuiya, A. K.,(2020). "Velocity and Turbulent Flow Field at Around the Cylindrical Pier" International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, Vol.-9 Issue-4, April 2020.
6. Singh, Kh. L and Jamatia, M. (2020). "Study on Pavement Soil Subgrade Properties with Reinforced Fibres" Indian Geotech Journal, 50 (2):300-306. 2020. http://doi.org/10.1007/s40098-020-00425-3.
7. Kamal Sukla Baidya and Upendra Kumar, "Adsorption of brilliant green dye from aqueous solution onto chemically modified areca nut husk." South African Journal of Chemical Engineering 35 (2021) 33 – 43. https://doi.org/10.1016/j.sajce.2020.11.001
8. Kamal Sukla Baidya and Upendra Kumar, 2020 "Adsorption of cationic dye in aqueous solution by chemically modified Areca catechu husk." Desalination and Water Treatment, 205, 422–434. doi: 10.5004/dwt.2020.26353
9. Arpan Herbert, Upendra Kumar and Prashanth Janardhan, 2020 "Removal of hazardous dye from aqueous media using low cost peanut (Arachis hypogaea) shells as adsorbents." Water Environment Research. DOI: 10.1002/wer.1491. 01, Scopus and Web of Science.
10. L.V Prasad M and Endow M, 2021, "Effect of Quantity of Industrial Waste on Eco-Friendly Geopolymer Concrete", Materials Science Forum,Vol. 1019, pp 102-109,Trans Tech Publications Ltd, Switzerland.
11. M. L. V. Prasad and Nilanjan T, 2020, "Seismic Performance of Box Girder Bridge with Non-Linear Static Pushover Analysis", International Journal on Emerging Technologies 11(2): 897-904.
12. Annayat, Wajahat, and Briti Sundar Sil, 2020 "Assessing channel morphology and prediction of centerline channel migration of the Barak River using geospatial techniques." Bulletin of Engineering Geology and the Environment: 1-23.

13. Annayat, Wajahat, and Briti Sundar Sil, 2020 "Changes in Morphometric Meander Parameters and Prediction of Meander Channel Migration for the Alluvial Part of the Barak River." J Geol Soc India 96, 279–291. https://doi.org/10.1007/s12594-020-1548-3
14. Shehnaj Ahmed Pathan, B S Sil 2020"Prioritization of soil erosion prone areas in upper Brahmaputra River Basin up to Majuli River Island." Geocarto International.
15. Singh, M and Ghosh, S. 2020 "Groundwater flow modeling for cachar, India using modflow: case study" ISH Journal of Hydraulic Engineering. (online published) https://doi.org/10.1080/09715010.2020.1868357
16. Durga Mibang and Satyabrata Choudhury, 2021, Effect of Damage Limit States on the Seismic Fragility of Reinforced Concrete Frame-Shear Wall Buildings, Disaster Advances.
17. Pritam Hait, Arjun Sil and Satyabrata Choudhury, 2021, Modified damage assessment method for reinforced concrete buildings, Practice Periodical on Structural Design and Construction, ASCE, , doi: 10.1061/(ASCE)SC.1943-5576.0000605.
18. Sourav Das, Iman Mansouri, Satyabrata Choudhury, Amir H. Gandomi, Jong Wan Hu 2021, A Prediction Model for the Calculation of Effective Stiffness Ratios of Reinforced Concrete Columns, Materials journal. https://doi.org/10.3390/ma14071792. V. 14 (7), April-5-2021.
19. Pritam Hait, Arjun Sil and Satyabrata Choudhury , 2021, Prediction of Global Damage Index of Reinforced Concrete Building Using Artificial Neural Network, International Journal for Computational Methods in Engineering Science & Mechanics (Taylors & Francis); https://doi.org/10.1080/15502287.2021.1887405.
20. Pritam Hait, Arjun Sil and Satyabrata Choudhury (2021), Damage assessment of low to mid rise reinforced concrete buildings considering planner irregularities, International Journal for Computational Methods in Engineering Science and Mechanics, Taylors and Francis, https://doi.org/10.1080/15502287.2020.1856971,
21. BindeshNunia., T. Rahman, S. Choudhury and Prashanth Janardhan (2020), Effect of vehicle speed and road surface roughness on the impact factor of simply supported bridges due to IRC Class A and B loading, SN Applied Science, V.2 No. 5, April 2020; doi:10.1007/s42452-020-2733-0.
22. S. Das and D. Bhowmik (2020), Small-Strain Dynamic Behavior of Sand and Sand–Crumb Rubber Mixture for Different Sizes of Crumb Rubber Particle, Journal of Materials in Civil Engineering, ASCE, Vol 32, Issue 11, 04020334.
23. S. Das and D. Bhowmik (2020), Dynamic Behaviour of Sand–Crumbed Rubber Mixture at Low Strain Level, Geotechnical and Geological Engineering 38 (6), 6611-6622.
24. O Baro, A Kumar, A Ismail-Zadeh (2020) Seismic Hazard assessment of the Shillong Plateau using a Probabilistic Approach. Geomatics Natural Hazards and Risk, Vol 11 (1) pp 2210-2238.
25. Kuity, A., and Das, A. (2020) In search of a possible size-demarcation between load bearing and suspended aggregates in asphalt mix-an experimental approach, *Road materials and Pavement Design,* 21:8, 2264-2281, DOI: 10.1080/14680629.2019.1604406.
26. Singh, D., Kuity, A., Girimath, S., Suchismita, A., & Showkat, B. 2020, Investigation of Chemical, Microstructural, and Rheological Perspective of Asphalt Binder Modified with Graphene Oxide. Journal of Materials in Civil Engineering. vol.32, no.11, pp.302-323, Nov.: 10.1061/(ASCE)MT.1943-5533.0003385.

27. Vishnu, T.B, Singh, Kh. L, Thomas, P and Rumjit, N. P (2020) "Investigating the suitability of used heavy, medium, and light automobile tyres for bituminous mix pavement applications" Environment, Development and Sustainability, 22:1505–1527, https://doi.org/10.1007/s10668-018-0260-6
28. Vishnu, T.B and Singh, Kh.L (2020) "A study on the suitability of solid waste materials in pavement construction: A review" International Journal of Pavement Research and Technology, December 2020, 14(1), DOI:10.1007/s42947-020-0273-z
29. Vishnu, T.B and Singh, Kh. L. (2021)"Experimental Investigation on Fatigue Characteristics of Asphalt Mixes with Different Automobile Waste Tyres as Modifiers" Iranian Journal of Science and Technology-Transactions of Civil Engineering, DOI:10.1007/s40996-021-00588-w
30. Vivek, A, Sukhija, M and Singh, Kh. L (2021) "Effect of montmorillonite nanoclay and sulphur-modified blends on the properties of bituminous mixes". Innovative Infrastructure Solution, https://doi.org/10.1007/s41062-021-00484-2
31. A Dey, G Miyani, S Debroy, A Sil (2020), "In-situ NDT investigation to estimate degraded quality of concrete on existing structure considering time-variant uncertainties", Journal of Building Engineering 27, 101001
32. J Das, A Sil (2020), "Condition assessment and failure probability of existing bridges in the Cachar District, Assam", Advances in Computer Methods and Geomechanics, 593-606
33. A Sil, NK Vanapalli, A Kumari, P Gogoi, D Mojumder (2020), "Experimental Comparative Study on Strength Parameters of Concrete Assimilating Glass Fibers of Fine Aggregate, Cement with Rubber and GGBS", Advances in Computer Methods and Geomechanics, 467-474
34. J Das, A Sil (2020), "Condition assessment of superstructure component of reinforced concrete bridges through visual inspection in the Assam, India", Bridge Structures 16 (1), 39-57
35. A Sil, VN Kumar (2020), "Comprehensive Empirical Equation for Assessing Atmospheric Corrosion Progression of Steel Considering Environmental Parameters", Corrosion Science and Technology 19 (4), 174-188
36. P Hait, A Sil, S Choudhury (2020), "Seismic damage assessment and prediction using artificial neural network of RC building considering irregularities", Journal of Structural Integrity and Maintenance 5 (1), 51-69
37. A Bahuguna, A Sil (2020), "Comprehensive seismicity, seismic sources and seismic hazard assessment of Assam, North East India", Journal of Earthquake Engineering 24 (2), 254-297
38. A Dey, G Miyani, A Sil (2020), "Application of artificial neural network (ANN) for estimating reliable service life of reinforced concrete (RC) structure bookkeeping factors responsible for deterioration", Soft Computing 24 (3), 2109-2123
39. MM Borah, A Dey, A Sil (2020), "Service life assessment of chloride affected bridge located in coastal region of India considering variation in the inherent structural parameters", Structures 23, 191-203
40. N Sabah, A Sil (2020), "Probabilistic Forecasting of Tsunami Occurrences Across Various Tsunamigenic Zones of the Earth", Pure and Applied Geophysics, 1-34
41. VN Kumar, A Sil (2020), "Assessment and spatial mapping of atmospheric corrosion amelioration using empirical equation considering environmental parameters", Corrosion Engineering, Science and Technology 55 (5), 400-410

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44. SK Shaw, A Sil (2020), “Experimental study on cyclic loading characteristics of fly ash as partial replacement of cement in beam-column joint”, Case Studies in Construction Materials 13, e00362
45. A Zarola, A Sil (2021), “Estimation of Seismicity Parameters and a Backpropagation Neural Network for Prediction of Earthquake Magnitude in Northeast Region of India”, Case Studies in Building Constructions, 31-53
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51. Kalyan A.V.S., Ghose D.K., Thalagapu R., Guntu R.K., Agarwal A.,Kurths J., Rathinasamy M. (2021). "Multiscale spatiotemporal analysis of extreme events in the Gomati River Basin, India ". Atmosphere. vol.12,no.4, pp.Art.480,. DOI-10.3390/atmos12040480 SCI
52. Sahoo A., Samantaray S., Ghose D. K. (2021) "Prediction of Flood in Barak River using Hybrid Machine Learning Approaches: A Case Study".Journal of the Geological Society of India volume 97, pages 186–198 DOI-DOI: 10.1007/s12594-021-1650-1 | 0016-7 SCI
53. Abinash Sahoo, Dillip K Ghose. "Flood Frequency Analysis for Menace Gauging Station of Mahanadi River, India". Journal of The Institution of Engineers (India): Series A. pp.1-12,(2021).DOI-10.1007%2Fs40030-021-00544-x
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57. Khanday, S.A., Hussain, M. and Das, A.K., 2021. Stabilization of Indian peat using alkali-activated ground granulated blast furnace slag. Bulletin of Engineering Geology and the Environment, pp.1-13.

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3. Bindesh Nunia, Prashanth J. and S. Choudhury, "Coupled Dynamic Analysis of Freestanding Bridge Pylon Subjected to Extreme Environmental Loads", 2nd ASCE India Conference on Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies (CRSIDE2020), March 2-4, 2020, Kolkata, India.
4. Banerjee S. and Choudhury S., Design of Bridge Pier using Unified performance-based design method, Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies (CRSIDE 2020), Organized by ASCE India Section in Association with IIEST, Shibpur and IEI, March 02-04, 2020, p. 354.
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9. M. L. V. Prasad and K. V. S. Prasad, Effect of Various Combinations of Aperture Diameter and Pattern on Concrete Paver Block"" during "2nd International Conference on Aspects of Materials Science and Engineering" ICAMSE 2021 organized by Panjab University Chandigarh on 05th – 06th March, 2021.
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d) National Conference(s):

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2. Pramanik, S., Das, A. K. and Dey, A. K. (2020). "Use of Geofoam for Road Construction over Very Soft Clay." Proceedings of Indian Geotechnical Conference 2020, December 17-19, 2020, Andhra University, Visakhapatnam, India.
3. Kumar JP, Paswan A, Awasthi S, Baro O and Mal R (2021) (Accepted). Towards an early warning system in Guwahati city for landslides triggered by rainfall and earthquake. International conference on recent advances in geotechnical earthquake engineering and soil dynamics, 12-15 July 2021, Indian Institute of Science, Bangalore .
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5. K Handique and O Baro, "Education in times of Corona: The Psycological impact of Covid-19 epidemic on College students in Assam" book chapter in "Impact of Covid-19 on Economy, Business, Education and Social Life" Kripa Drishti Publications. ISBN: 978-81-948755-9-8.
6. Kuity, A., Das, A. 'Effect of Gradation of Fine Aggregates on Creep Deformation of Fine Aggregate Mix (FAM) and Asphalt Mix'. In Transportation Research (pp. 737-745). Springer, Singapore, (2020).
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8. Amit Zarola and Arjun Sil. Estimation of Seismicity Parameters and a Backpropagation Neural Network for Prediction of Earthquake Magnitude in Northeast Region of India. In edited book entitled *Case Studies in Building Constructions* of the Book Series Building Pathology and Rehabilitation,Vol.15 Editors: Delgado, J.M.P.Q. (Ed.),ISBN 978-3-030-55893-2, Pages 31-53. Published by Springer Nature Switzerland AG. (2020).
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Engineering, vol 55. Edited by Prashant A., Sachan A., Desai C. Published by Springer Singapore. (2020) ISBN: 978-981-15-0886-8.pp 467-474.

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13. Suhail Ahmad Khanday and Mokaddes Ali Ahmed "Modelling and Analysis of Mode Choice Behaviour for Work Trips in Srinagar", https://doi.org/10.1007/978-3-030-42363-6_9, Intelligent Techniques and Applications in Science and Technology, Proceedings of the First International Conference on Innovations in Modern Science and Technology, Page 75, (2020)
14. Debasish Das, Mokaddes Ali Ahmed, and Saikat Deb, "Model for Estimating On-street Parking Demand in Urban CBD", https://doi.org/10.1007/978-3-030-42363-6_38, Intelligent Techniques and Applications in Science and Technology, Proceedings of the First International Conference on Innovations in Modern Science and Technology, Page 321, (2020)
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19. Banchiva K. Marak and Nirmali Borthakur "Behaviour of Square Footing on Cement Modified Fibre Reinforced Sand Layer Underlain by Soft Clayey Soil" In book: Proceedings of the Indian Geotechnical Conference 2019, IGC-2019 Volume III Springer. DOI: 10.1007/978-981-33-6444-8_1 (2021).
20. Kumar A, Dutta S, Gandomi AH, Surrogate model-driven bio-inspired optimization algorithms for large-scale and high-dimensional problems, Biomimicry in Aerospace, Aloysius F. Hepp et al. (Eds.), Elsevier. (Forthcoming, in press) (2021).
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22. Aakash Kumar, N. Debnath, Seismic Behaviour of a Typical Rail Bridge Using North-East India Specific Synthetic Ground Motions Under Multi-support Excitation, Recent Developments in Sustainable Infrastructure (Springer), 291-300 (2021).
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24. Ayan Das, N. Debnath, Sampling-Based Techniques for Finite Element Model Updating in Bayesian Framework Using Commercial Software, Advances in Structural Technologies (Springer), 363-379 (2021).

1.6 CONSULTANCY SERVICES

Sl. No.	Faculty name	Name of the Scheme	Sponsoring Agency	Amount Earned
1	A.K. Dey, P.J. Roy, P. S. Choudhury, A.K. Barbhuiya	Mathematical Model study of river Barak and its tributaries with emphasis on flood & erosion problem in Barak Basin Assam India	Brahmaputra Board, Guwahati	96.78 Lakhs
2	P.S. Choudhury, P. J. Roy, P. Das	Time Motion Study under MGNREGA	Panchayat and Rural Development, Guwahati, Assam	25 Lakhs
3	D. K.Ghose	Hydrological investigation and proof checking of Bridges	RVNL NERly SE RLY Sm Consultant	18.75 lakhs
4	M. Hussain	Geotechnical laboratory Investigation and allowable bearing pressure for soil and rock	Aizawl Smart city Ltd.	1.3 lakhs
5	L. V. Prasad M.	Concrete Laboratory Material testing & Different Grades of Mix Design.	N. F. Railway Silchar	2.47 lakhs

1.7 MAJOR EQUIPMENT ACQUIRED: Nil

1.8 PATENT

Sl No.	Name	Details	Year
1.	Dr. D. K. Ghose.	Method And Systems For Warning A User Regarding A Water Flooding Type Disaster	Granted 2021 Patent no-359309
2.	Dr. D. K. Ghose	Apparatus And Method To Protect A Predetermined Area From Flood Water	Filed 202031015430 A (Published)
3.	Dr. L.V. Prasad M	A Composition Of Self-Compacting Geopolymer Concrete And Method Of Preparation Thereof	Published

1.9 VISITS TO ABROAD: Nil

1.10 M.Tech. / M.Sc. (Thesis/Project)

Sl. No.	Name Of The Scholar	Name Of The Supervisor	Title Of The Thesis/Project
1.	Dhawal Kumar	Dr. Parbin Sultana	Design Of Shallow Foundations Using Site Specific Parameters By Probabilistic Approach And Support Vector Machine
2.	Mr. Basudev Das	Dr. Kulkarni Vihangraj Vijaykumar	A Study On Closing Potential Of NIT Silchar Dumpsite: Characterization, Challenges And Opportunities.
3.	Mr.Md Osama Azmi	Dr. L. V. Prasad M	Performance Study Of Self Compacting Geopolymer Concrete At Ambient Curing Conditions
4.	Mr. Sneh Rathore	Dr.L.V.Prasad M	Performance Of Pier-Pile Cap Of Bridge Structure Using Glass Fibre Reinforced Self Compacting Concrete
5.	Anetta Annu Joseph	Dr.L.V.Prasad M	Performance Study Of Modified Fly Ash Based Geopolymer Concrete
6.	Mr. K V S Prasad	Dr.L.V.Prasad M	A Study On Concrete Paver Block With Various Aperture Diameters And Patterns
7.	Mr.Sandeep Kumar Saw	Dr.L.V.Prasad M	Developing M40 Grade Concrete With Partial Replacement Of Cement And Sand
8	Suhit Chakraborty	Dr. Amit Kumar Das	Response Of Foundation Soil Under Storage Tanks With Tilted Condition
9	Subhranil Saha	Dr. Amit Kumar Das	Stabilization Of Rainfall Induced Slope Failure In Hilly Regions Using Gabion Wall
10	Razib Hussain	Dr. Amit Kumar Das	Numerical Modelling Of California Bearing Ratio Test For Layered Soils
11	Subhatosh Pramanik	Prof. A. K. Dey And Dr. Amit Kumar Das	Experimental And 3D Numerical Analysis Of Geofoam Fill Embankment
12	Surajit Roy	Briti Sundar Sil	Development Of Flood Inundation Map For The Alluvial Part Of Barak River Using One-Dimensional Unsteady Flow Hydraulic Model
13	Vineeth Swami	Dr. Prashanth J	A CFD Approach To Breakwater
14	C Francis George	Dr. Prashanth J	Experimental Investigation On Flexural Behaviour Of Voided Rcc Beams
15	Dilrabin K	Dr. Prashanth J	Detection And Analysis Of Crack In Structural Members
16.	Himakhi Saikia	Dr. Prashanth J	Oil Spill Detection And Separation Using Image Processing Technique

17.	Aparna Panda	Dr. Prashanth J	Prediction Of ENSO Phenomena Using Soft Computing Techniques
18	Tushar Khankhoje	Dr. Susmita Ghosh	Discharge Prediction Of Meandering River Using Artificial Neural Network
19	Ankita Agnihotri	Dr. Susmita Ghosh	Simulation Of Stream Flow Using SWAT Model For Eastern Yamuna Canal: Parameterization And Global Sensitivity Analysis Using SWAT-CUP
20	Shreya Das	Dr. Parbin Sultana	Prediction Of Ultimate Bearing Capacity Of Pile Foundation In Cohesionless Soil Using Artificial Intelligence Techniques
21	Suvendu Sardar	Dr. Debjit Bhowmik	Shear Strength Improvement Of Barak River Sand Using Coir Fibre
22	Debapriyo Ghosh	Dr. Debjit Bhowmik	Study Of Geogrid-Reinforced Soft Soil Slope Loaded With A Strip Footing
23	Rahul Barman	Dr. Debjit Bhowmik	Numerical Analysis Of Vibration Screening Using Trench Filled With Sand Crumb Rubber Mixture
24	Navnit Kumar	Dr. Olympa Baro	Analysis Of Soil Pipeline Interaction Due To Earthquake Induced Permanent Ground Deformation In Silchar Town
25	Sonjuraj Pegu	Dr. Olympa Baro	Empirical Relationship Between Peak Ground Acceleration, Peak Ground Velocity And Modified Mercalli Intensity Of Silchar
26	Avratanu Roy	Dr. Ambika Kuity	Effect Of Reclaimed Asphalt Pavement Material On Open Graded Friction Course Mixes
27	Sayantan Sasmal	Dr. Ambika Kuity	Study The Rutting Behaviour On Asphalt Mix With Different Types Of Waste Materials As Filler
28	Priyank Bhardwaj	Dr. Ambika Kuity	Effect Of Aggregate Gradation On Drainage Layer Of Flexible Pavement
29	Bishal Halder	Dr. Ambika Kuity	Effect Of Low-Density Polyethylene Commercial Waste Plastic On Asphalt Mix
30	Avishek Ghosh	Dr. Ambika Kuity	The Effect Of Aggregate Gradation On Moisture Susceptibility Of Bituminous Concrete Mixes
31	Md Naumanul Yaqueen	Dr. Ambika Kuity	Performance Study Of Open Graded Friction Course Using Reclaimed Asphalt Pavement Materials
32	Anubhav Pratap Singh	Dr. Kh. Lakshman Singh	Effect Of Nano Silica And Micro Silica Additive For Modification Of Bitumen In HMA
33	Ankur Kumar	Dr. Kh. Lakshman Singh	Rutting And Fatigue Behaviour Of Sub-Base And Subgrade Composite Layer Using Layered Geopolymer Interface

34	Aiondeep Gogoi	Dr. Kh. Lakshman Singh	Study On Strength Characteristics Of Polyethylene Modified Bituminous Concrete Mix For Various Levels Of Compaction
35	Kanmoni Das	Dr.Kh.Lakshman Singh	Performance Evaluation Of Bituminous Mixes Modified With Waste Materials
36	Sagar Talukdar	Dr. Kh. Lakshman Singh	Performance Evaluation Of Modified & Unmodified Cold Asphalt Emulsion Mixture (CAEM) Utilizing Different Filler
37	Sanjeev Kumar	Dr. Kh. Lakshman Singh	Effect Of Nano-Hydrated Lime And SBS Polymer On Strength Properties Of Bituminous Concrete Mix
38	Ajanta Baishya	Dr. Kh. Lakshman Singh	Experimental Investigation Of Hot Mix Asphalt Mixes By Using Different Types Of Aggregates
39	Sabyasachi Das	Dr. Kh. Lakshman Singh	Performance Evaluation Of Pavement Subgrade Soil Using Lime And Cement
40	Sachidananda Behera	Dr. D. K. Ghose	Estimation Of Missing Rainfall Using ANN And Its Influence On Climate Change
41	Bijay Narayan Sarkar	Dr. D. K. Ghose	Groundwater Vulnerability Assessment Using Arc-GIS: A Case Study
42	Sneha Raichel Jimmy	Dr. D. K. Ghose	Delineation Of Groundwater Potential Zone Of Neyyar Basinkerala, India Using GIS
43	Nitender Yadav	Prof. M. Ali Ahmed	Impact Of Application Based Cab Aggregators On Non-Application Based IPT Services
44	Debashis Das	Prof. M. Ali Ahmed	Role Of E-Rickshaw In Urban Transportation
45	Tanpuii Darlong	Prof. M. Ali Ahmed	Parking Demand Analysis For On-Street Parking For 4-Wheelers: A Case Study In Silchar
46	Sanket Paul	Prof. M. Ali Ahmed	Study Of Parking Behaviour Of 4 Wheelers In Commercial Areas Of Siliguri
47	Shashidhar Kundagol	Prof. M. Ali Ahmed	Calibration Of Webster Delay Model At Signalized Intersection For Unsaturated Cycles Under Mixed Traffic Condition
48	Ugrasen Poddar	Prof. M. Ali Ahmed	Dynamic PCU Of E-Rickshaw In Heterogeneous Traffic Condition
49	Mohamed Hasain N	Prof. M. Ali Ahmed	Proactive Evaluation Of Traffic Safety In The Unsignalized Intersection Using Surrogate Safety Measures For Mixed Traffic Condition
50	Lalit Swami	Prof. M. Ali Ahmed	Quality Assessment Of Bike Sharing System By Benchmarking And Numerical Rating Approach: Guwahati

51	Ameet Das	Mr. Pallab Das	Effects Of Shear Walls And Steel Bracings On The Seismic Performance Of Rc Frames
52	Parigela Ravali	Mr. Pallab Das	Seismic Analysis Of An Existing Bridge Using Csi Bridge
53	Akashdeep Bordoloi	Mr. Pallab Das	Seismic Analysis Of Buildings Having Vertically Stepped Irregularity
54	Rohit Singh Patel	Mr. Pallab Das	Seismic Performance Evaluation Of RC Frame By Incremental Dynamic Analysis And Static Pushover Analysis
55	Om Prakash Gadtya	Mr. Pallab Das	Quantification Of Seismic Damage Of Rc Structure
56	Chandradeep Tondwal	Dr. Atanu Sahu Dr. Bijan K Roy	Vibration Control Of Laminated Composite Plate And Shell Structures Using Particle Dampers
57	Kondepogu Ravi Prakash	Dr. Briti Sundar Sil	Flood Frequency Analysis Using Probability Distribution Method.
58	Md Jakaria Miah	Dr. Nirmali Borthakur	Behavior Of Prestressed Geogrid Reinforced Soil Beds Overlying Clay
59	Vinu Sunny	Dr. Nirmali Borthakur	Settlement Analysis Of Recycled Plastic Pins For Embankments
60	Sayanika Bora	Dr. Nirmali Borthakur	A Study On Uplift Behavior Of Piles In Sandy Soil
61	Sakul Surendran	Dr. Subhrajit Dutta	Bayesian Network Models For Resilience Quantification Of Buildings
62	Jahir Iqbal Laskar	Dr. Subhrajit Dutta	A Framework For Modeling And Quantification Of Flood Resilience For Housing Infrastructure Systems Using Dempster-Shafer (Evidence) Theory
63	Aniket Kumar	Dr. Subhrajit Dutta	Regression Model Assisted Heuristic Optimization Techniques For High-Dimensional Structural Optimization Problems
64	Anna Jose	Prof. Ashim Kanti Dey	Evaluation Of Earthquake Induced Settlement And Cyclic Softening Of Soft Clay In Silchar
65	Anisuzzaman Ahmed	Prof. Ashim Kanti Dey	Enhancement Of Bearing Capacity Of Pile Foundation On Soft Clay Under Vertical Loading Using Soil-Cement Bed
66	Atul Kumar Verma	Dr. N. Debnath	Structural Health Monitoring Using Gaussian Mixture Model
67	Paleti Mohan Krishna	Dr. N. Debnath	LQG/LTR Semi-Active Vibration Control Of Building Using Magneto-Rheological Damper
68	Prem Sagar Bag	Dr. N. Debnath	Passive-Vibration Control Of RC Frame Structure Using Kdamper Concept

69	Kunal Bharali	Dr. N. Debnath	Application Of Gaussian Mixture Modal In Structural Health Monitoring
70	Mujahidul I Babhuiya	Prof. A. I. Laskar	Rehabilitation Of Sub-Standard Beam-Column Joint Using Geo-Polymer
71	Sahnawaj Sarif	Prof. A. I. Laskar	Study Of Cold Joint And Hoop Reinforcement Yielding On Beam-Column Joint Rehabilitated By Removal And Replacement Technique

1.11. Ph.D. Thesis

Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis
1.	Prasenjit Saha	Dr. L. V. Prasad M	Cyclic Behaviour of Reinforced SCC beam column joint using rectangular spiral reinforcement arrangement
2.	Pritam Hait	Dr. A. Sil Prof. S. Choudhury	Structural damage assessment models and prediction of global damage index of reinforced concrete buildings using artificial neural network.
3.	Sourav Das	Prof. S. Choudhury	Performance of RC Frame Buildings Designed using Unified Performance-Based Design
4.	Sandeep SamantaRay	Dr. D. K. Ghose	Prediction of runoff and sediment load in watersheds using hybrid neural networks.
5.	Abhinaba Paul	Dr. M. Hussain	A Study on Characterization of Peat of North-Eastern Region and their Improvement Using Cement and Pozzolanic Materials
6	Subhradeep Dhar	Dr. M. Hussain	Performance Evaluation of lime stabilized-fiber reinforced subgrade soil.
7.	Modu Puming	Dr. M. Hussain	Performance evaluation and selection of liner material with solid waste management at selected landfill sites of arunachal pradesh
8	Manish Dutta	M. Ali Ahmed	Capacity of Three-legged Unsignalised and Manually Controlled Intersections Under Mixed Traffic Condition
9.	Subhrajyoti Deb	Dr. Briti Sundar Sil	Trend Analysis of the Meteorological Variables for the Barak River Basin in India
10.	Wajahat Annayant	Dr. Briti Sundar Sil	Prediction and Analysis of river migration for the alluvial part of the Barak River in India
11	Ayan Das	Dr. N. Debnath	Bayesian Probabilistic finite element model updating and detection of structural damages. (*thesis submitted*)

1. Name of the Department:

Mechanical Engineering

The Department at a glance
Year of Establishment: 1977
Academic Programmes Offered: • Bachelor of Technology (B.Tech) • Master of Technology (M.Tech) • Doctor of Philosophy (Ph.D.)
Total Faculty Strength: 34 • Professor: 5 • Associate Professor: 3 • Assistant Professor: 25 • Visiting Professor: 1
Total Student Strength: 770 • B.Tech: 556 • M.Tech: 78 • Ph.D.: 136
New Students Joined in 2020-2021: 240 • B.Tech: 161 • M.Tech: 48 • Ph.D.: 31

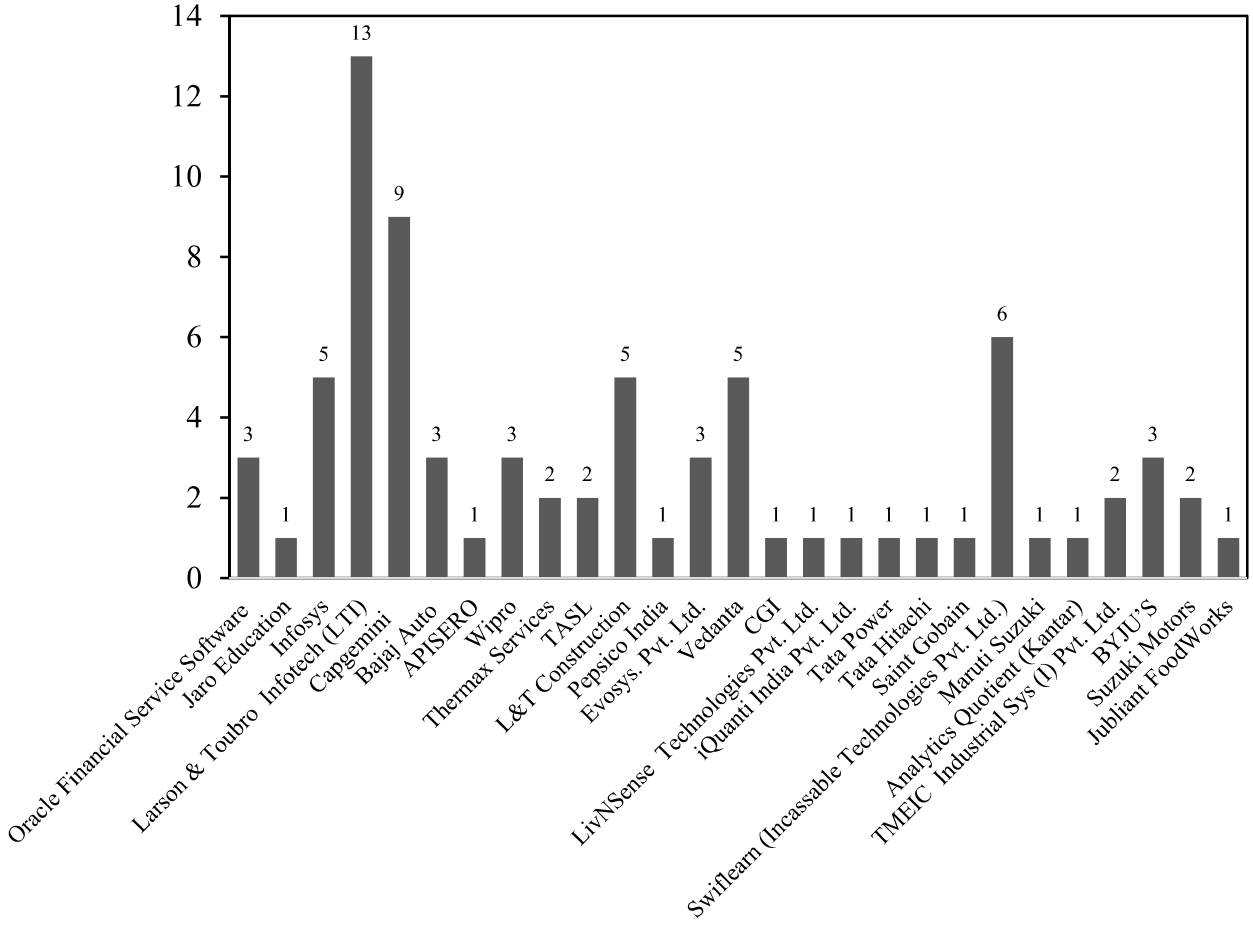

Fig: 1 Placement statistics of students in the Mechanical Engineering Department during 2020-2021

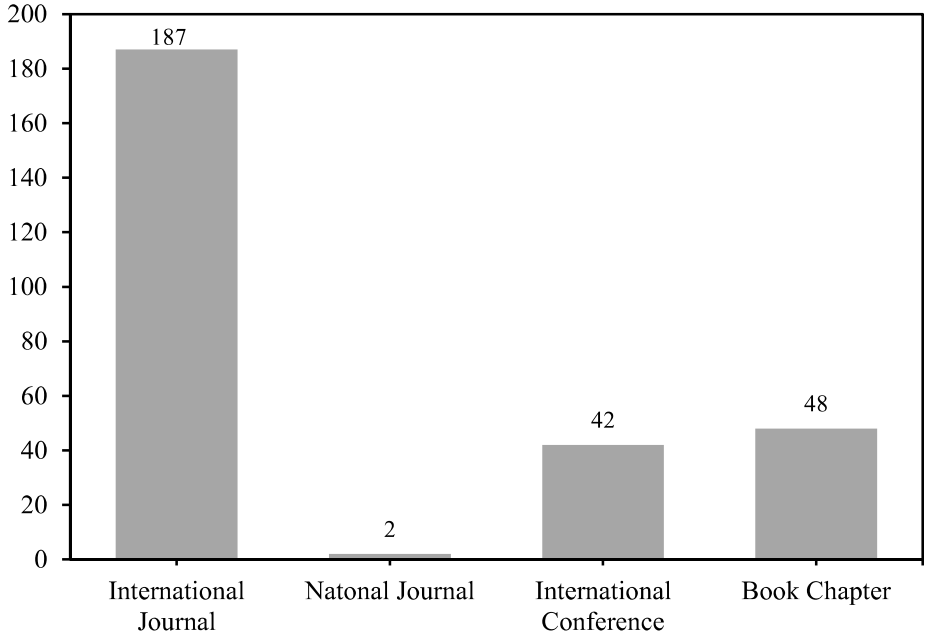

Fig: 2 Publications details of Mechanical Engineering Department during 2020-2021

1.1 Academic Staff:

HEAD: Dr. Sumit Bhowmik, Assistant Professor (05.10.2020 - Till Date)

Dr. Agnimitra Biswas, Assistant Professor (01.04.2020 - 04.10.2020)

Name of Faculty members:

Professor	Associate Professor	Assistant Professor
Prof. R. Gupta (On deputation)	Dr. K. Chakraborty	Dr. L. Roy
Prof. K.M. Pandey	Dr. P. Choudhury	Mr. S. K. Pattanayak
Prof. R.D. Misra	Mr. D.H. Das	Dr. A. Biswas
Prof. P.K. Patowari		Dr. S. Debbarma
Prof. K.K. Sharma		Dr. S. Halder
		Dr. S. Bhowmik
		Dr. D. Bhanja
		Dr. S. Nath
		Dr. P. Deb Roy
		Dr. S. Pati
		Dr. A. B. Deoghare
		Dr. Biplab Das
		Dr. S. Dey
		Dr. S. R. Maity
		Dr. P. R. Randive
		Dr. C. K. Sahoo
		Dr. A. Paul
		Dr. Bipul Das
		Dr. Y. Singh
		Dr. S. Sharma
		Dr. A. Bisoi
		Dr. R. N. Gupta
		Dr. S. Negi
		Dr. S. Kar
		Dr. V. Mahesh

Visiting Professor (If any): Prof. A. Sarkar

1.2 Distinction Achieved

a) By Student: N/A

b) By Faculty Member:

1. Dr. Sukumar Pati: Selected IOP Publishing Outstanding Reviewer for the Journal *Physica Scripta* in 2020

1.3 Seminars, Symposia, Short Term Courses, Workshops

a) Conducted by Faculty Member

Sl. No.	Name(s) of the Coordinator	Title	Funding Agency	Duration
1.	Head, ME (Convener)	2nd International Conference on Recent Advancements in Mechanical Engineering (ICRAME 2021)	NIT Silchar	07.02.2021 to 09.03.2021
2.	Dr. Yogesh Singh Dr. Abhishek Paul	One Week Webinar on Electronic Systems for Mechanical Automation & Robotic Technology (eSMART – 2020)	TEQIP-III	12/09/2020 to 16/09/2020
3.	Dr. Sukumar Pati Dr. Pitambar Randive	FDP on Fundamentals and Applications of Computational Fluid Dynamics in Fluid-Thermal Systems	AICTE	13/03/2021 to 17/03/2021
4.	Dr. Alfa Bisoi, Dr. Simanchal Kar Dr. Sushant Negi	How to define Research Problems and Solving Methods in Sustainable Design Manufacturing and Energy Engineering"	TEQIP-III	24/08/2020 to 28/08/2020
5.	Dr. Rajeev Nayan Gupta Dr. Sushant Negi	Interdisciplinary Approach in Tribology in engineering and Biomedical Research	TEQIP-III	04/08/2020 to 08/08/2020
6.	Dr. Sumitra Sharma	NEMS Technologies: Modern interdisciplinary approach in engineering	TEQIP-III	17/08/2020 to 21/08/2020
7.	Dr. Chinmaya Kr. Sahoo Dr. Bipul Das	Innovation and Research in Welding, Joining and Cutting Technology	TEQIP-III	07/09/2020 to 11/09/2020
8.	Dr. Biplab Das Dr. V. Kulkarni	Sustainable Energy and Environmental Practices (SEEP 2020)	TEQIP-III	05/06/2020 to 06/06/2020
9.	Dr. Biplab Das Dr. Ripon Patgiri	International Conference of Modelling Simulation and Optimization	Springer	03/08/2020 to 05/05/2020
10.	Dr. Biplab Das	Indigenous Knowledge System for Sustainable Rural Development	TEQIP-III	11/07/2020
11.	Dr. Bipul Das Dr. Arnab Nandi	AICTE sponsored five-day faculty development program on outcome based education and accreditation	AICTE	24/02/2021 to 28/02/2021
12.	Dr. Bipul Das Dr. Yogesh Singh	Business Model Canvas 1.0	NIT Silchar, IIC 3.0	20/02/2021
13.	Dr. Bipul Das Dr. Yogesh Singh	Business Model Canvas-A step towards self-reliant India	NIT Silchar, IIC 3.0	27/02/2021

14.	Dr. Sudip Dey	Online FDP on "Magical Mathematics of Ramanujan" by Prof. A. K. Mallik, IIT Kanpur	TEQIP-III	16/07/2020
15.	Dr. Sudip Dey	Online Technical Talk on "Probabilistic Methods for Finite Element Model Updating" by Prof. C. S. Manohar, IISc Bangalore	TEQIP-III	14/10/2020

b) Participated by Faculty Member

Sl. No.	Name of Faculty	Details of the Program	Organizing Institute
1.	Dr. S. Bhowmik	Analytical Mechanics and its Applications	IIT Guwahati
2.	Dr. Sukumar Pati	Electrochemical Energy Storage Devices	IIT Delhi
3.	Dr. Agnimitra Biswas	Two days Webinar on Sustainable Energy & Environmental Practices (SEEP 2020) held during June 5-6, 2020	TEQIP-III, NIT Silchar
4.		AICTE Sponsored Five Day Faculty Development Program on Outcome Based Education and Accreditation held during February 24- 28, 2021	TEQIP-III, NIT Silchar
5.		One day workshop on Protection on IPR in the age of Internet: How, What, and Why?, IPR-2021, held on March 21, 2021	Institute Innovation Cell, NIT Silchar
6.	Dr. Sushant Negi	Short term course on Advances in Welding and Additive Manufacturing, held on December 10-14, 2020	IIT Guwahati
7	Dr. P R Randive	Electrochemical Energy Storage Devices	IIT Delhi
8	Dr. Bipul Das	Short term course on Advances in Welding and Additive Manufacturing, held during December 10-14, 2020	IIT Guwahati
9.	Dr. Sudip Dey	Short term course on Ergonomics in the Era of Industry 4.0, organized by Department of Design, under TEQIP-III held during December 14-18, 2020	IIT Guwahati
10.	Dr. Sudip Dey	Short term course on Atomistic Modelling of Solids: Theory and Applications under TEQIP-III held during December 21-25, 2020	IIT Indore
11.	Dr. Sudip Dey	Short term course on “Multi-Functional Characteristics of Analytical Materials for Defence	IIT Roorkee

		Applications" under TEQIP-III held during December 7-11, 2020	
12.	Dr. Sudip Dey	One day workshop on "Grant writing under Mathematics and Data Sciences domain" on December 12, 2020	IISc Bangalore
13.	Dr. R.N. Gupta	5 Days Virtual International Short Term Course on Tribology and Sustainability during August 24-28, 2020.	SRM Institute of Science and Technology
14.	Dr. Abhishek Paul	One Week workshop on Combustion Emission and Power technology during February 22-26, 2021.	IIT Guwahati

c) Invited/ Expert Talks by the faculty

Sl. No.	Name of the Faculty	Name of the Course/ Program/ STTP/ Workshop etc. with details	Organizing Institute
1.	Dr. Sukumar Pati	AICTE sponsored FDP on Model Curriculum during March 15-19, 2021	NIT Mizoram
2.	Dr. Sukumar Pati	TEQIP sponsored short term course on "How to define Research Problems and Solving Methods in Sustainable Design, Manufacturing and Energy Engineering" during August 24-28, 2020	NIT Silchar
3.	Dr. S. Bhowmik	TEQIP-III sponsored Short Term course on "How to define Research Problems and Solving Methods in Sustainable Design Manufacturing and Energy Engineering" during August 24-28, 2020	NIT Silchar
4.	Dr. S. Bhowmik	TEQIP-III sponsored Short Term course on "Interdisciplinary Approach in Tribology in engineering and Biomedical Research" during August 04-08, 2020	NIT Silchar
5.	Dr. S. Bhowmik	TEQIP-III sponsored Short Term course on "NEMS Technologies: Modern interdisciplinary approach in engineering" August 17-21, 2020	NIT Silchar
6.	Dr. S. Bhowmik	TEQIP-III sponsored Short Term course on "Innovation and Research in Welding, Joining and Cutting Technology" during September 7-11, 2020	NIT Silchar

7.	Dr. S. Bhowmik	TEQIP-III sponsored STTP on "Advances in Mechanical, Industrial Engineering & Management (AMIEM-2021)" during March 09– 13, 2021	NIT Raipur
8	Dr. Biplab Das	FDP on "Energy and Environment : Conversion/generation, storage and efficient utilization" during August 24- 28, 2020	NERIST, Itanagar
9	Dr. Biplab Das	FDP on "Recent Trends in Solar Energy, Optimization and its Applications" during November 23-27, 2020	NMIT, Bangalore
10	Dr. Biplab Das	Webinar on "Advances in Production And Usage Of Biodiesel As Alternative Fuel"	AEC, Assam
11	Dr. Biplab Das	Webinar on "Solar Air-Collectors with Modified Absorbers" September 11, 2020	Parul University,
12	Dr. Biplab Das	Webinar on "Engine combustion and Emission Diagnostics", September 14-19, 2020	NIT Agartala
13	Dr. Biplab Das	Webinar on "Development of Low-Cost Solar Air Collectors", June 22, 2020	Francis Xavier Engineering College, Tirunelveli
14	Dr. Bipul Das	"Advances in Welding and Additive Manufacturing" held during December 10-14, 2020	IIT Guwahati
15	Dr. Bipul Das	Recent Advances in Manufacturing Science and Technologies, held during February 22-26, 2021	IIT Guwahati
16	Dr. Sushant Negi	TEQIP-III sponsored STC on Electronic Systems for Mechanical Automation & Robotic Technology (eSMART – 2020), held during September 12-16, 2020	NIT Silchar
17	Dr. Sushant Negi	One week workshop on Mechanical System Design and Modeling, during January 27-31, 2021	BCE, Bihar
18	Dr. S.R. Maity	Two-week National Webinar on "Recent Advancements on Mechanical Engineering" during November 1-13, 2020	Cooch Behar Government Engineering College, West Bengal
19	Prof. K.M. Pandey	Two-week National Webinar on "Recent Advancements on Mechanical Engineering" during November 1-13, 2020	Cooch Behar Government Engineering College, West Bengal

20	Dr. Sudip Dey	Online Annual Symposium 2020 organized by Research & Development Establishment (Engineers), held on May 21 – 22, 2020.	DRDO, Pune
21	Dr. Sudip Dey	Five days' workshop on Inter-Disciplinary Approach of Tribology in Engineering and Bio-medical Research, topic entitled "Uncertainty Quantification in Tribology and Bearing Tribology" on August 6, 2020.	NIT Silchar
22	Prof. P. K. Patowari	One Week Online FDP on Research Opportunities and Challenges in Manufacturing Sector, during June 1-6, 2020	SVERI's College of Engineering, Pandharpur, Maharastra
23	Prof. P. K. Patowari	Online National Workshop on NBA Accreditation – Assurance of Quality in Technical Education on June 11, 2020.	Jointly organized by SPIU Uttar Pradesh, TEQIP-III, Dr APJ Abdul Kalam Technical University, Lucknow, The Institution of Engineers (India)
24	Prof. P. K. Patowari	Keynote Lecture delivered in International Conference on "Recent Advances in Manufacturing (RAM -2020)" during July 3 – 5, 2020	SVNIT Surat, Gujarat
25	Prof. P. K. Patowari	TEQIP III Sponsored One Week Online Short Term Course (e-STC) Advanced Manufacturing Processes & Applications (AMPA 2020), August 24 – 28, 2020	MNIT Jaipur, Rajasthan
26	Prof. P. K. Patowari	TEQIP-III Sponsored One Week Short-Term Course on "How to define Research Problems and Solving Methods in Sustainable Design, Manufacturing and Energy Engineering" August 24 – 28, 2020	NIT Silchar, Assam
27	Prof. P. K. Patowari	One week online short term course on Innovation and Research in Welding, Joining and Cutting Technology, September 07-11, 2020	NIT Silchar, Assam
28	Prof. P. K. Patowari	TEQIP –III Sponsored Online Short Term Training Program on Advances in Manufacturing (AIM 2.0), October 05 – 09, 2020	SVNIT Surat, Gujarat
29	Prof. P. K. Patowari	One Week Online Short-Term Course on "Recent Development and Advances in Manufacturing Processes" Sponsored by TEQIP – III, December 07 – 11, 2020	NIT Nagaland

30	Prof. P. K. Patowari	AICTE sponsored Six days online STTP (Phase-III) on Manufacturing Applications of Micromachining with Emphasis on Make in India, December 14- 19, 2020	RMK College of Engineering & Technology, Tamil Nadu
31	Prof. P. K. Patowari	One Week online Induction/Refresher Program on "Outcome-Based Pedagogical Principles for Teaching-Learning in Engineering Education" Sponsored by AICTE and ISTE, January 6−12, 2021	Nowgong Polytechnic, Nagaon, Assam
32	Prof. P. K. Patowari	AICTE Sponsored STTP – Online Short-Term Course On "Science: How it is documented, communicated and published", February 15-19, 2021	NIT Nagaland
33	Dr. R.N. Gupta	Five Days Workshop on "Mechanical System Design and Modelling" Sponsored by TEQIP-III during January 27-31, 2021	Bhagalpur College of Engineering, Bhagalpur, Bihar
34	Dr. Abhishek Paul	Webinar on "Engine combustion and Emission Diagnostics", September 14-19, 2020	NIT Agartala

1.4 Research Development

a) Ph.D. Programme (Specializations):

- Thermal Engineering
- Design and Manufacturing
- Renewable Energy
- Molecular Dynamics
- Hard Surface coating
- Arc based Additive Manufacturing
- Advanced Manufacturing Processes
- Composite Materials
- Materials Engineering
- Tribology
- Advanced welding processes
- Vibration and Rotordynamics
- Thermal spray technology, surface Engineering and Abrasive Machining
- Additive Manufacturing
- Tissue Engineering,
- Medical Implant Designing and Manufacturing,
- Farm / Agriculture machinery and equipment designing and manufacturing,
- Machine Design and manufacturing for medical / solid waste, recycling/ vending / sorting purpose
- Material Selection
- MCDM Techniques

- Non-traditional Optimization
- Surface Coating
- Fatigue & Fracture
- Uncertainty Quantification

b) Ph.D. Produced/Ongoing (in number):

Completed	Submitted	Ongoing
14	**05**	**89**

c) Research Lab/ Workshop:

Sl. No.	Name of Lab/Workshop	Purpose/Linkage to an existing/new programme
1.	Machine Element Laboratory	Research and development/Design and Manufacturing Specialization
2.	Advanced Engine Research Lab	Research and development / Thermal Engineering Specialization
3.	FRP Lab	PhD and M.Tech project, UG Project
4.	Fuel Research Lab	Research and development / Thermal Engineering Specialization
5.	Machine Design Lab	PhD and M.Tech project, UG project
6.	Material Characterization Lab	PhD and M.Tech project, UG project
7.	Nanocomposite Materials Lab	PhD and M.Tech project, UG project
8.	Ocean Renewable Energy Lab	Research and Development/New programme
9.	Ocean Simulation Lab	Research and Development/New programme
10.	Uncertainty Quantification Lab	PhD and M.Tech project, UG project
11.	Vibration and Rotor dynamics Lab	Research and Development, UG/PG experiment lab
12.	Tribology Lab	Research and Development
13.	Renewable Energy Lab	Research and Development
14.	Solar Regional Test Center	Research and Development/ Testing
15.	Solar PVT Lab	Research and Development
16.	Advanced Robotics Lab (ARL)	Research and Development
17.	Flexible Manufacturing System Lab	Research and Development, UG/PG experiment lab
18.	Laser Material Processing Lab	B.Tech, M.Tech, Ph.D, Research & Development
19.	Advanced Manufacturing Lab	B.Tech, M.Tech, Ph.D, Research & Development
20.	Micro-Nano Manufacturing Lab	B.Tech, M.Tech, Ph.D, Research & Development
21.	Computational Combustion Lab	Ph.D, Research & Development
22.	Refrigeration and Air Conditioning Lab	Research and Development, UG/PG experiment lab

23.	Heat Transfer Lab	Research and Development, UG/PG experiment lab
24.	Fluid Mechanics and Machinery Lab	Research and Development, UG/PG experiment lab
25.	Instrumentation and Measurement Lab	Research and Development, UG/PG experiment lab
26.	Material Testing Lab	Research and Development, UG/PG experiment lab
27.	Mechanical Workshop	Research and Development, UG/PG experiment lab
28.	Machine Dynamics Lab	Research and Development, UG/PG experiment lab
29.	CAD/CAM and Computational Lab	Research and Development, UG/PG experiment lab

d) Ongoing/Completed Sponsored Research Project:

Sl. No.	Project Title	Principal Investigator(s)	Funding Agency	Cost in lakhs	Duration
1.	Design and development of a hybrid photo voltaic thermal (PVT) system for rural application	Dr. Biplab Das (PI) Dr. A. Biswas, (Co-PI)	DST	14.6	3 years (Completed)
2.	Development and testing of hybrid solar photovoltaic thermal (PVT) air system for the composite environment of North-East India for tea drying applications	Dr. Biplab Das (PI) Dr. A. Biswas, (Co-PI)	DST	30.3	3 years (On-going)
3.	Design and development of a high-speed three-dimensional printer with a large range of micro motion using a scanning projection stereo-lithography technique.	Dr. Yogesh Singh (PI)	CSIR	27	3 years (On-going)
4.	Design and development of a three dimensional printer based on shape memory alloy smart actuator and micro stereo-lithography (MSL) technique.	Dr. Yogesh Singh (PI)	SERB DST	30	2 years (On-going)
5.	Experimental and computational analysis of heat sink application for optimal performance by developing low-cost natural filler reinforced the composite material	Dr. S. Bhowmik (PI) Dr. Biplab Das (Co-PI)	Central Power Research Institute (CPRI)	22.63	2 years (Completed)
6.	Modeling of nonlinear instability and breakup of viscoelastic planar liquid sheet co-flowing with gases and prediction of size and velocity distribution of resulting droplets	Dr. S. Nath	SERB DST	6.6	3 years (On-going)

7.	Investigation of silicon oil based MR damper and biodegradable oil based MR damper for attenuation of the jump phenomena in an unbalanced rotor-motor system.	Dr. Alfa Bisoi	SERB DST	21.97	2 years (On-going)
8.	Development and testing of combustion characteristics of nanoparticle embedded biodiesel in an open ECU based dual fuel diesel engine	Dr. Sumita Debbarma	SERB DST	23.84	3 years (On-going)
9.	Design and development of a heat pipe embedded solar collector based latent heat storage system for domestic application	Dr. Biplab Das	SERB	27.2	3 years (Completed)
10.	Standardization of Measurement Protocol For Overall Heat Transfer Co-Efficient (U-Value) For Building Materials & Components For Indian Subcontinent	Dr. Biplab Das	DST	16.6	4 years (Ongoing)
11.	Development and Testing of nano doped hybridized biodiesel as pilot fuel for hydrogen dual fuel operation in CI engine	Dr. Abhishek Paul (PI) Dr. Sumita Debbarma (Co-PI), Dr. Biplab Das (Co-PI)	DST	51.5	3 years (Ongoing)
12.	Design and Development of Induction Welding System for in situ repair of exit hole defect in friction stir welded sample	Dr. Bipul Das	DST-SERB	28.48	2 years (Ongoing)
13.	Development of bamboo bottles and containers using processed bamboo dust in micro and medium scale	Dr. Bipul Das	MSME, Govt. of India	8.62	1 Year (Ongoinig)
14.	Stochastic multi-scale failure of composites	Dr. Sudip Dey	AR&DB	14.98	2 years (On-going)
15.	Centre for Advanced Manufacturing and Material Testing	HoD, ME	DST-FIST	210 Lakhs	Ongoing

e) Research Paper Reviewed

Sl. No.	Faculty Name	Journal Name	No of Paper	Year
1.	Dr. S. Bhowmik	Silicon	04	2020-21
2.	Dr. S. Bhowmik	Polymer Bulletin	01	2020-21
3.	Dr. S. Bhowmik	Materials and Design	01	2020
4.	Dr. S. Bhowmik	Arabian Journal for Science and Engineering	02	2020-21
5.	Dr. S. Bhowmik	Journal of Material Cycles and Waste Management	01	2020
6.	Dr. S. Bhowmik	International Journal of Quality & Reliability Management	01	2020
7.	Dr. S. Bhowmik	Multidiscipline Modeling in Materials and Structures	01	2020
8.	Dr. S. Bhowmik	Journal of Manufacturing Processes	01	2020
9.	Dr. S. Bhowmik	Journal of Central South University	01	2021
10.	Dr. Agnimitra Biswas	Applied Energy	10	2020-2021
11	Dr. Agnimitra Biswas	Energy Conversion and Management	15	2020-2021
12	Dr. Agnimitra Biswas	Sustainable Energy Technologies and Assessments	13	2020-2021
13.	Dr. Agnimitra Biswas	Energy- The International Journal	03	2020-2021
14.	Dr. Agnimitra Biswas	Renewable Energy	04	2020-2021
15.	Dr. Agnimitra Biswas	International Journal of Ambient Energy	01	2020-2021
16.	Dr. Agnimitra Biswas	International Journal of Green Energy	06	2020-2021
17.	Dr. Agnimitra Biswas	Environmental Progress & Sustainable Energy	02	2020-2021
18.	Dr. Agnimitra Biswas	SN Applied Sciences (SNAS)	01	2020-2021
19.	Dr. Agnimitra Biswas	Scientific African	02	2020-2021
20.	Dr. Agnimitra Biswas	Ocean Engineering	04	2020-2021
21.	Dr. Agnimitra Biswas	Solar Energy	01	2020-2021
22.	Dr. Agnimitra Biswas	International Journal of Power and Energy Systems	02	2020-2021
23.	Dr. Agnimitra Biswas	Journal of the Institution of Engineers (India): Series C	01	2020-2021
24.	Dr. Agnimitra Biswas	Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy	01	2020-2021
25.	Dr. Agnimitra Biswas	Journal of Energy Storage	02	2020-2021
26.	Dr. Sukumar Pati	International Journal of Heat and Mass Transfer	2	2020-2021
27.	Dr. Sukumar Pati	Physics of Fluids	1	2020-2021

28.	Dr. Sukumar Pati	Physica Scripta	4	2020-2021
29.	Dr. Sukumar Pati	Chemical Engineering & Processing: Process Intensification	3	2020-2021
30.	Dr. Sukumar Pati	International Communications in Heat and Mass Transfer	4	2020-2021
31.	Dr. Sukumar Pati	Journal of Thermal Analysis and Calorimetry	1	2020-2021
32.	Dr. Sukumar Pati	Journal of Thermophysics and Heat Transfer	1	2020-2021
33.	Dr. Sukumar Pati	Journal of the Institution of Engineers (India):Series C	5	2020-2021
34.	Dr. Sukumar Pati	Journal of Thermal Science and Engineering Applications (ASME)	2	2020-2021
35.	Dr. Sukumar Pati	Powder Technology	3	2020-2021
36.	Dr. Sukumar Pati	Scientia Iranica	1	2020-2021
37.	Dr. Sukumar Pati	Chinese Journal of Chemical Engineering	1	2020-2021
38.	Dr. Sukumar Pati	Computers and Mathematics with Applications	1	2020-2021
39.	Dr. Sukumar Pati	Journal of Computational and Applied Mechanics	1	2020-2021
40.	Dr. Sukumar Pati	Advances in Mechanical Engineering	1	2020-2021
41.	Dr. Sukumar Pati	International Journal of Hydrogen Energy	1	2020-2021
42.	Dr. Sukumar Pati	Archive of Applied Mechanics	1	2020-2021
43.	Dr. Sukumar Pati	European Physical Journal E	1	2020-2021
44.	Dr. Sukumar Pati	Heat Transfer Research	1	2020-2021
45.	Dr. Sukumar Pati	International Journal of Chemical Reactor Engineering	3	2020-2021
46.	Dr. Sukumar Pati	Energy	1	2020-2021
47.	Dr. Sukumar Pati	Alexandria Engineering Journal	1	2020-2021

48.	Dr. Sukumar Pati	Heat Transfer	1	2020-2021
49.	Dr. Dipankar Bhanja	International Communication in Heat and Mass Transfer	6	2020-2021
50.	Dr. Dipankar Bhanja	Heat Transfer Asian Research	1	2020-2021
51.	Dr. Dipankar Bhanja	International Journal of Thermal Science	1	2020-2021
52.	Dr. Dipankar Bhanja	Inverse Problems in Science and Engineering	1	2020-2021
53.	Dr. Dipankar Bhanja	Structural and Multidisciplinary Optimization	1	2020-2021
54.	Dr. Dipankar Bhanja	Waves in Random and Complex Media	1	2020-2021
55.	Dr. Sujit Nath	International Journal of Heat and Mass Transfer	2	2020-2021
56.	Dr. Sujit Nath	International Communication in Heat and mass Transfer	2	2020-2021
57.	Dr Alfa Bisoi	Journal of Industrial Textiles	2	2020-2021
58.	Prof. P. K. Patowari	Materials and Manufacturing Processes, Taylor & Francis	16	2020-2021
59.	Prof. P. K. Patowari	Journal of Manufacturing Processes	2	2020
60.	Dr Sushant Negi	Rapid Prototyping Journal	1	2020-2021
61.	Dr. P R Randive	Journal of Thermal Analysis and Calorimetry	2	2020-2021
62.	Dr. P R Randive	Journal of propulsion AIAA	1	2020-2021
63.	Dr. P R Randive	Acta Astronautica	1	2020-2021
64.	Dr. P R Randive	Journal of hydrogen energy	1	2020-2021
65.	Dr. Biplab Das	Applied Energy, Elsevier	1	2020-2021
66.	Dr. Biplab Das	Clean Technologies and Environmental Policy, Springer	1	2020-2021
67.	Dr. Biplab Das	Journal of Building Engineering, Elsevier	1	2020-2021
68.	Dr. Biplab Das	Journal of CO2 Utilization, Elsevier	1	2020-2021
69.	Dr. Biplab Das	ASME Journal of Thermal Science and Engineering Applications	1	2020-2021
70.	Dr. Biplab Das	Journal of Renewable and Sustainable Energy, AIP	1	2020-2021

71.	Dr. Biplab Das	Environment, Development and Sustainability, Springer	1	2020-2021
72.	Dr. Biplab Das	Journal of Mechanical Science and Technology, Springer	1	2020-2021
73.	Dr. Biplab Das	Powder Technology, Elsevier	1	2020-2021
74.	Dr. Biplab Das	Journal of Building Engineering, Elsevier	1	2020-2021
75.	Dr. Biplab Das	Biofuels - Taylor & Francis	1	2020-2021
76.	Dr. Biplab Das	Energies - MDPI	1	2020-2021
77.	Dr. Biplab Das	Sustainability - MDPI	1	2020-2021
78.	Dr. Biplab Das	Electronics - MDPI	1	2020-2021
79.	Dr. Vinyas Mahesh	Composite Structures	02	2020-2021
80.	Dr. Vinyas Mahesh	Engineering with computers	03	2020-2021
81.	Dr. Vinyas Mahesh	Structural Engineering and Mechanics	01	2020-2021
82.	Dr. Vinyas Mahesh	Part L: Journal of Material Design and Applications	02	2020-2021
83.	Dr. Vinyas Mahesh	Thin Walled Structures	03	2020-2021
84.	Dr. Vinyas Mahesh	European Journal of Mechanics A/Solids	02	2020-2021
85.	Dr. Bipul Das	Experimental Techniques	10	2020-2021
86.	Dr. Bipul Das	Journal of Manufacturing Processes	03	2020-2021
87.	Dr. S.R. Maity	RAIRO - Operations Research, EDP Sciences	1	2020-2021
88.	Dr. S.R. Maity	IEEE Access, Institute of Electrical and Electronics Engineers Inc.	1	2020-2021
89.	Dr. S.R.Maity	Journal of Ambient Intelligence and Humanized Computing, Springer	1	2020-2021
90.	Dr. S.R. Maity	Soft Computing (SOCO), Springer	2	2020-2021

91.	Dr. S.R. Maity	Artificial Intelligence Review, Springer	1	2020-2021
92.	Dr. S.R. Maity	Facta Universitatis, Series: Mechanical Engineering, University of Nis	1	2020-2021
93.	Dr. S.R. Maity	Kybernetes, Emerald Publishing	1	2020-2021
94.	Dr. S.R. Maity	Ceramic International, Elsvier	2	2020-2021
95.	Dr. S.R. Maity	Journal of Engineering Optimization, Taylor Francis	2	2020-2021
96.	Prof. K.M.Pandey	Aerospace Science and Technology	6	2020-21
97.	Prof. K.M.Pandey	American Institute of Aeronautics and Astronautics Journal (AIAA Journal)	3	2020-2021
98.	Prof. K.M.Pandey	Annals of Nuclear Energy	3	2020-2021
99.	Prof. K.M.Pandey	International Journal of Aerospace Engineering (Hindawi Publication)	4	2020-2021
100.	Prof. K.M.Pandey	Renewable and Sustainable Energy Reviews	3	2020-2021
101.	Prof. K.M.Pandey	International Journal of Hydrogen Energy	10	2020-2021
102.	Prof. K.M.Pandey	Journal of The Institution of Engineers (India): Series C	11	2020-2021
103.	Prof. K.M.Pandey	Heat Transfer	1	2020-2021
104.	Prof. K.M.Pandey	Heat Transfer - Asian Research	2	2020-2021
105.	Prof. K.M.Pandey	Acta Astronautica	2	2020-2021
106.	Prof. K.M.Pandey	Energy	9	2020-2021
107.	Prof. K.M.Pandey	Propulsion and Power Research	3	2020-2021
108.	Prof. K.M.Pandey	International Journal of Ambient Energy	3	2020-2021
109.	Prof. K.M.Pandey	Case Studies in Thermal Engineering	9	2020-2021
110.	Prof. K.M.Pandey	Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering	1	2020-2021

111.	Prof. K.M.Pandey	Applied Thermal Engineering	3	2020-2021
112.	Prof. K.M.Pandey	International Journal of Energy Research	3	2020-2021
113.	Prof. K.M.Pandey	Journal of Materials Engineering and Performance	1	2020-2021
114.	Prof. K.M.Pandey	Materials Today: Proceedings	15	2020-2021
115.	Prof. K.M.Pandey	International Communications in Heat and Mass Transfer	2	2020-2021
116.	Prof. K.M.Pandey	Solar Energy Materials and Solar Cells	2	2020-2021
117.	Prof. K.M.Pandey	Central European Journal of Energetic Materials	1	2020-2021
118.	Prof. K.M.Pandey	Experimental Thermal and Fluid Science	1	2020-2021
119.	Prof. K.M.Pandey	Applied Mathematical Modelling	1	2020-2021
120.	Prof. K.M.Pandey	Nuclear Engineering and Technology	1	2020-2021
121.	Prof. K.M.Pandey	Ain Shams Engineering Journal	1	2020-2021
122.	Prof. K.M.Pandey	International Communications in Heat and Mass Transfer	1	2020-2021
123.	Prof. K.M.Pandey	Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering	1	2020-2021
124.	Prof. K.M.Pandey	Engineering Applications of Computational Fluid Mechanics	2	2020-2021
125.	Prof. K.M.Pandey	Synthetic Metals	1	2020-2021
126.	Prof. K.M.Pandey	Combustion Science and Technology	3	2020-2021
127.	Prof. K.M.Pandey	Defence Technology	1	2020-2021
128.	Dr. Sudip Dey	Composites Part B: Engineering	1	2020-21
129.	Dr. Sudip Dey	Computer Methods in Applied Mechanics and Engineering	1	2020-21
130.	Dr. Sudip Dey	Applied Mathematical Modelling	1	2020-21

131.	Dr. Sudip Dey	International Journal of Mechanical Science	1	2020-21
132.	Dr. Sudip Dey	Composite Structures	2	2020-21
133.	Dr. Sudip Dey	Thin-Walled Structures	1	2020-21
134.	Dr. Sudip Dey	Aerospace Science and Technology	1	2020-21
135.	Dr. Sudip Dey	Mechanical Systems and signal processing	2	2020-21
136.	Dr. Sudip Dey	Journal of Aerospace Engineering: Part G	1	2020-21
137.	Dr. Sudip Dey	Materials Science and Engineering:B	1	2020-21
138.	Dr. Sudip Dey	Institute of Engineers Part C	1	2020-21
139.	Dr. Sudip Dey	Sadhana	1	2020-21
140.	Dr. R. N.Gupta	Alexandria Engineering Journal	1	2020-21
141.	Dr. Abhishek Paul	Energy	1	2020-21
142.	Dr. Abhishek Paul	Advances In Mechanical Engineering	1	2020-21
143.	Dr. Abhishek Paul	Journal of Automobile Engineering	1	2020-21
144.	Dr. Abhishek Paul	Fuel	1	2020-21
145.	Dr. Abhishek Paul	Environmental Progress and Sustainable Energy	1	2020-21

f) Chairing of Technical Section

Sl. No.	Faculty Name	Details
1.	Dr. Sukumar Pati	Chaired the session on Computational Fluid and Gas Dynamics at 8th International and 47th National Conference on Fluid Mechanics and Fluid Power December 9-11, 2020 Indian Institute of Technology Guwahati, India.
2.	Dr. Sukumar Pati	Chaired a session in the International Conference ICRAME 2021, held during February 07-09, 2021 in ME Deptt. at NIT Silchar
3.	Dr. Dipankar Bhanja	Co-chaired one technical session in the International Conference on COMSO 2020 held during 03-05 August 2020 at NIT Silchar.
4.	Dr. Dipankar Bhanja	Co-chaired a session in the International Conference ICRAME 2021, held during February 07-09, 2021 in ME Deptt. at NIT Silchar

5.	Dr. Sujit Nath	Co-chaired a session in the International Conference ICRAME 2021, held during February 07-09, 2021 in ME Deptt. at NIT Silchar
6.	Dr. Agnimitra Biswas	Co-chaired one technical session in the International Conference on COMSO 2020 held during 03-05 August 2020 at NIT Silchar.
7.	Dr. Agnimitra Biswas	Co-chaired a session in the International Conference ICRAME 2021, held during February 07-09, 2021 in ME Deptt. at NIT Silchar
8	Dr. Chinmaya Kumar Sahoo	Co-chaired technical session in Third International Congress on Advances in Mechanical Sciences" (ICAMS-2020), Vardhaman College of Engineering (Autonomous) Shamshabad, Hyderabad, August 27-28, 2020
9.	Dr. Sushant Negi	Co-chaired a session in the International Conference ICRAME 2021, held during February 07-09, 2021 in ME Deptt. at NIT Silchar
10.	Dr. Sushant Negi	Chaired one technical session in ICAST 2020, held during November 06-07, 2020 in ME Deptt. at LPU, Punjab.
11.	Dr. A. B.Deoghare	Co-chaired technical session in 28th National (Virtual) Conference on Condensed Matter Physics - Condensed Matter Days (CMDAYS20) held during 11-13 December, 2020 at NIT Silchar, Assam.
12.	Dr. A. B.Deoghare	Co-chaired a session in the International Conference ICRAME 2021, held during February 07-09, 2021 in ME Deptt. at NIT Silchar
13.	Dr. P. R. Randive	Chaired the session on Computational Fluid and Gas Dynamics at 8th International and 47th National Conference on Fluid Mechanics and Fluid Power 9th-11th December 2020 Indian Institute of Technology Guwahati, India
14.	Dr. Biplab Das	Co-chaired a session in the International Conference ICRAME 2021, held during February 07-09, 2021 in ME Deptt. at NIT Silchar
15.	Prof. K. K. Sharma	Co-chaired a session in the International Conference ICRAME 2021, held during February 07-09, 2021 in ME Deptt. at NIT Silchar
16.	Dr. Bipul Das	Co-chaired a session in the International Conference ICRAME 2021, held during February 07-09, 2021 in ME Deptt. at NIT Silchar
17.	Dr. S.R. Maity	Chaired a session in the International Conference ICRAME 2021, held during February 07-09, 2021 in ME Deptt. at NIT Silchar
18.	Prof. K.M. Pandey	Chaired a session in the International Conference on Interdisciplinary Research in Technology and Management held in IEM Kolkata, New town during February 26-28,2021.
19.	Prof. K.M. Pandey	3rd International Conference on Novel Functional Materials (ICNFM), Xiamen, China held on December 20-21, 2020
20.	Prof. K.M. Pandey	Chaired a session in the 2nd International Conference on Future Learning Aspects of Mechanical Engineering (FLAME - 2020) held in Department

		of Mechanical Engineering, Amity School of Engineering & Technology, Amity University Uttar Pradesh, Noida during August 05-07, 2020
21.	Prof. K.M. Pandey	Participate as keynote speaker in International Conference on Mechanical Engineering and Materials (ICMEM 2020), Beijing, China held on October 16-17, 2020.
22.	Prof. K.M. Pandey	6th International Conference on Green Materials and Environmental Engineering (GMEE2021), Changsha, China held on February 03-05,2021.
23.	Prof. K.M. Pandey	AI5G Forum & AIAM2020, Shanghai, China held on December 26, 2020.
24.	Dr. Sudip Dey	Chaired technical session in International Conference ICRAME 2021, held during 07-09 Feb 2021 in ME Deptt. at NIT Silchar, Assam.
25.	Dr. R.N. Gupta	Co-chaired technical session in International Conference ICRAME 2021, held during 07-09 Feb 2021 in ME Deptt. at NIT Silchar, Assam.
26.	Dr. R.N. Gupta	Chaired technical session in International Conference on Recent Advances in Design Materials and Manufacturing during October 15-16, 2020 at Amity University Gwalior, Madhya Pradesh.
27.	Dr. Abhishek Paul	Co-chaired technical session in International Conference ICRAME 2021, held during 07-09 Feb 2021 in ME Deptt. at NIT Silchar, Assam.
28.	Dr. Pannalal Choudhury	Chaired technical session in International Conference ICRAME 2021, held during 07-09 Feb 2021 in ME Deptt. at NIT Silchar, Assam.

1.5 PUBLICATIONS

a) International Journal(s):

1. Basumatary M., Biswas A., Misra R.D., 2020, Detailed hydrodynamic study for performance improvement of an innovative combined lift and drag (CLD) based modified Savonius hydrokinetic turbine. Journal of Energy Resources Technology-Transactions of the ASME (SCIE), Vol 142(8): 081301 (12 pages). https://doi.org/10.1115/1.4045924.
2. Mazarbhuiya H.M.S.M, Biswas A., Sharma K.K. (2020), Low wind speed aerodynamics of asymmetrical blade H-Darrieus wind turbine- desired blade pitch for performance improvement in built environment. J Braz. Soc. Mech. Sci. Eng. (SCIE) 42, 326.
3. Mazarbhuiya H.M.S.M, Biswas A., Sharma K.K. Effect of blade attachments on the performance of an asymmetric blade H-Darrieus turbine at low wind speed. Energy Sources, Part A: Recovery, Utilization, and Environmental Effects (SCIE).https://doi.org/10.1080/15567036.2020.1826601.
4. Bhuyan S., Biswas A. (2020) Comparative investigation of Savonius and hybrid H-Savonius wind rotor-an energy and exergy analysis. EAI Transactions on Energy Web (Scopus)- doi: 10.4108/eai.25-9-2020.166362.
5. Basumatary, M., Biswas, A., Misra, R. D., (2021) Experimental verification of improved performance of Savonius turbine with a combined lift and drag based blade profile for ultra-low head river application. Sustainable Energy Technologies and Assessments 44 100999 (SCIE).

6. Kumar S., Das S., Biswas A., Das, B., (Feb 2021) CFD study of an innovative solar photo-voltaic thermal collector (PVTC) for simultaneous generation of electricity and hot air. Int. Journal of Power and Energy Systems (ESCI / Scopus)- accepted.
7. Mahakur, V. K., Gouda, K., Patowari, P. K., and Bhowmik, S., 2021, A Review on Advancement in Friction Stir Welding Considering the Tool and Material Parameters, Arabian Journal for Science and Engineering, SCIE, Impact Factor: 1.711, 1 - 17,DOI: 10.1007/s13369-021-05524-8.
8. Bhowmik, C., Bhowmik, S., and Ray, A., 2021, Selection of optimum green energy sources by considering environmental constructs and their technical criteria: a case study, Environment, Development and Sustainability, SCIE, Impact Factor: 2.191, 1 – 29, DOI: https://doi.org/10.1007/s10668-021-01244-z.
9. Saha, A., Kumar, S., Zindani, D. and Bhowmik, S., 2021, Micro-mechanical analysis of the pineapple-reinforced polymeric composite by the inclusion of pineapple leaf particulates, Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, SCIE, Impact Factor: 2.014, 1 – 16, DOI: https://doi.org/10.1177/1464420721990851
10. Kumar, M. S., Kumar, S., Gouda, K., and Bhowmik, S., 2020, Influence of filler hybridization on thermomechanical properties of hemp/silver epoxy composite, Polymers and Polymer Composites, SCIE, Impact Factor: 1.023, DOI:https://doi.org/10.1177/0967391120978112.
11. Bhosale, B. S, Bhowmik, S., and Ray, A., 2020, Experimental analysis and parametric optimization of drilling process for ferrous clay composite using GRA-PCA approach, Journal of Materials Research and Technology, SCIE, Impact Factor: 5.289, 10, 376-389, DOI: https://doi.org/10.1016/j.jmrt.2020.12.032.
12. Zindani, D., Maity, S.R., and Bhowmik, S., 2020, A concurrent decision-making approach toward uncertainty, vagueness and risk appetite for sustainable manufacturing systems, Clean Technologies and Environmental Policy, SCIE, Impact Factor: 2.429, 1 – 24, DOI: https://doi.org/10.1007/s10098-020-01989-7.
13. Zindani, D., Kumar, S., Maity, S. R., and Bhowmik, S., 2020, Mechanical Characterization of Bio-epoxy Green Composites Derived from Sodium Bicarbonate Treated PunicaGranatum Short Fiber Agro-waste, Journal of Polymers and the Environment, SCIE, Impact Factor: 2.572, 1 – 13, DOI: https://doi.org/10.1007/s10924-020-01868-8.
14. Paul, R., Gouda, K., and Bhowmik, S., 2020, Effect of Different Constraint on Tribological Behaviour of Natural Fibre/Filler Reinforced Polymeric Composites: a Review, Silicon, SCIE, Impact Factor: 1.499, 1 – 23, DOI: https://doi.org/10.1007/s12633-020-00613-z.
15. Paul, R., and Bhowmik, S., 2020, Tribological Behavior of Micro Coir Filler Reinforced Polymer Composite under Dry, Wet, and Heated Contact Condition, Journal of Natural Fibers, 1 – 16, SCIE, Impact Factor: 2.622, DOI: https://doi.org/10.1080/15440478.2020.1798845.
16. Zindani, D., Maity, S.R., and Bhowmik, S., 2020, Complex interval-valued intuitionistic fuzzy TODIM approach and its application to group decision making, Journal of Ambient Intelligence and Humanized Computing, 1–24, SCIE, Impact Factor: 4.594, DOI: https://doi.org/10.1007/s12652-020-02308-0.
17. Zindani, D., Kumar, S., Maity, S.R., and Bhowmik, S., 2020, PunicaGranatum Fibers as Potential Reinforcement of Composite Structures, Fibers and Polymers, 21(7), 1535 – 1549, SCIE, Impact Factor: 1.439, DOI 10.1007/s12221-020-1047-6.
18. Kumar, S., Zindani, D., and Bhowmik, S., 2020, Investigation of Mechanical and Viscoelastic Properties of Flax- and Ramie-Reinforced Green Composites for Orthopedic Implants, Journal of Materials Engineering and Performance, 29 (5), 3161 - 3171, SCIE, Impact Factor: 1.476, DOI: https://doi.org/10.1007/s11665-020-04845-3.

19. Bhowmik, C., Bhowmik, S., and Ray, A., 2020, Green Energy Sources Selection for Sustainable Planning: A Case Study, IEEE Transaction on Engineering Management, SCIE, Impact Factor: 1.876, PP: 1 – 13, DOI: 10.1109/TEM.2020.2983095.
20. Zindani, D., Maity, S.R., and Bhowmik, S., 2020, Decision Making Tools for Optimal Material Selection: A Review, Journal of Central South University, 27, 629−673, SCIE, Impact Factor: 0.973, DOI:https://doi.org/10.1007/s11771-020-4322-1.
21. Zindani, D., Maity, S.R., and Bhowmik, S., 2020, Excogitating Material Rankings Using Novel Aggregation Multiplicative Rule (AMR): A Case for Material Selection Problems, Arabian Journal of Science and Engineering, SCIE, Impact Factor: 1.52, PP: 1-16, DOI: https://doi.org/10.1007/s13369-020-04495-6.
22. Mahesh, V., Harausampath, D., & Vinyas, M., (2021), An experimental study on ballistic impact response of jute reinforced polyethylene glycol and nano silica based shear thickening fluid composite. Defence Technology. https://doi.org/10.1016/j.dt.2021.03.013 (SCI; Q1 rating; IF= 2.637; ISSN=2214-9147)
23. Singh, D., Choudhury, R., Singh, Y. & Mukherjee, M., (2021), Workspace analysis of 3-DOF U-shape base planar parallel robotic motion stage using shape memory alloy restoration technique (SMART) linear actuators. SN Applied Sciences volume 3, Article number: 511.
24. Dutta, S., Pati, S., Biswas, A. K., Thermal transport analysis for natural convection in a porous corrugated rhombic enclosure, Heat Transfer 49 (2020) 3287-3313, https://doi.org/10.1002/htj.21774
25. Kanchan, B. K., Randive, P., Pati, S., (2020) Numerical investigation of multi-layered porosity in the gas diffusion layer on the performance of a PEM fuel cell, International Journal of Hydrogen Energy 45 21836–21847.https://doi.org/10.1016/j.ijhydene.2020.05.218
26. Raju, B. H. S., Nath, D., Pati, S., (2020) Analysis of mixed convective heat transfer past an isoflux /isothermal sphere: Influence of Prandtl number, Physica Scripta. 95 085211 https://doi.org/10.1088/1402-4896/ab9f7c
27. Mehta, S. K., Pati, S., (2021) Thermo-hydraulic and entropy generation analysis for magnetohydrodynamic pressure driven flow of nanofluid through an asymmetric wavy channel, International Journal of Numerical Methods for Heat & Fluid Flow 31(4) 1190–1213 https://doi.org/10.1108/HFF-05-2020-0300
28. Deka, D. K., Boruah, M. P., Pati, S., Randive, P., Mukherjee, P. P., (2020) Tuning the splitting behaviour of droplet in a bifurcating channel through wettability-capillarity interaction, Langmuir 36(35) 10471-10489 https://doi.org/10.1021/acs.langmuir.0c01633
29. Raju, B. H. S., Nath, D., Pati, S., Baranyi, L., (2020) Analysis of mixed convective heat transfer from a sphere with an aligned magnetic field, International Journal of Heat and Mass Transfer 162 120342https://doi.org/10.1016/j.ijheatmasstransfer.2020.120342
30. Faizan, Md., Pati, S., Randive, P. R, (2021) Implication of geometrical configuration on heat transfer enhancement in converging minichannel using nanofluid by two phase mixture model: A numerical analysis,ProcIMechE Part E: J Process Mechanical Engineering 235(2) 416–427https://doi.org/10.1177/0954408920964694
31. Dwivedi, R., Pati, S., Singh, P. K., (2020). Combined effects of wall slip and nanofluid on interfacial transport from a thin film evaporating meniscus in a microfluidic channel Microfluidics and Nanofluidics24,84https://doi.org/10.1007/s10404-020-02390-y

32. Borah, A., Pati, S., (2021) Influence of non-uniform asymmetric heating on conjugate heat transfer in a rectangular minichannel using nanofluid by two-phase Eulerian-Lagrangian method, Powder Technology 381164-180 https://doi.org/10.1016/j.powtec.2020.12.037..
33. Goswami, N., Randive, P.R., Pati, S. (2021), Natural convection from a pair of heated cylinders in a square cavity with non-uniform temperature on the side walls, Journal of The Institution of Engineers (India): Series C 102(2), 389-396 https://doi.org/10.1007/s40032-021-00667-x
34. Mehta, S. K., Pati, S., Mondal, P. K., Numerical study of the vortex induced electroosmotic mixing of non-Newtonian biofluids in a non-uniformly charged wavy microchannel: Effect of finite ion size, Electrophoresishttps://doi.org/10.1002/elps.202000225
35. Tripathi, E., Patowari, P. K., Pati, S., (2021) Comparative assessment of mixing characteristics and pressure drop in spiral and serpentine micromixers, Chemical Engineering & Processing: Process Intensification 162 108335:https://doi.org/10.1016/j.cep.2021.108335
36. Deshamukhya, T., Bhanja, D., Nath, S., 2020. Application of metaheuristic algorithms in optimum thermal design analysis of a rectangular porous fin subjected to both insulated and convective tip conditions, Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, SAGE Publications, Vol. 234(8), (2020), pp. 1175-1188,DOI: 10.1177/0957650919899559, (Citation: 3) SCIE (Impact Factor: 1.694) ISSN: 0957-6509.
37. Hazarika, S. A., Bhanja, D., Nath, S., 2020. Fork-shaped constructal fin array design a better alternative for heat and mass transfer augmentation under dry, partially wet and fully wet conditions, International Journal of Thermal Sciences, Elsevier, Vol. 152, June 2020, 106329 https://doi.org/10.1016/j.ijthermalsci.2020.106329, (Citation: 5) SCIE (Impact Factor: 3.488) ISSN: 1290-0729.
38. Zeeshan, M., Nath, S. and Bhanja, D., 2020, Numerical analysis to predict the optimum configuration of fin and tube heat exchanger with rectangular vortex generators for enhanced thermohydraulic performance, Heat and Mass Transfer, Springer Berlin Heidelberg, Vol. 56(7), pp. 2159-2169. https://doi.org/10.1007/s00231-020-02843-8SCI (Impact Factor: 1.551) ISSN: 0947-7411.
39. Deshamukhya, T., Bhanja, D. and Nath, S., 2020.Optimization of Constructal T-shaped Porous Fins under Convective Environment using Swarm Intelligence Algorithms, Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, SAGE Publications, Vol. 234(14), pp. 2100-2113, SCIE (Impact Factor: 1.104) https://doi.org/10.1177/0954410020926660 ISSN: 0954-4100.
40. Tamuli, B.R., Nath, S. and Bhanja, D., 2021. Unveiling the melting phenomena of PCM in a latent heat thermal storage subjected to temperature fluctuating heat source, International Journal of Thermal Sciences, Elsevier, Vol. 164, February 2021, 106879 (https://doi.org/10.1016/j.ijthermalsci.2021.106879).
41. Deshamukhya, T., Bhanja, D. and Nath, S., 2021.A Metaheuristic Analysis of Heat Transfer Rates through Porous Fins of Tapered and Step Profiles: A Comparative Study, Neural Computing and Applications, Springer, Accepted, https://doi.org/10.1007/s00521-021-05911-0, SCIE (Impact Factor: 4.744) ISSN: 1433-3058.
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1.6 Consultancy Services: Nil

1.7 Major Equipment Acquired

Sl. No.	Details	Year
1.	CNC controlled fiber laser micromachining setup	2020
2.	High Temperature Rotary Tribometer	2021
3.	Single Cylinder CRDi Engine with Open ECU	2020

1.8 Patent

Sl. No.	Details	Year
1	Patent Number: 355547; Patent Title: Planer Machine Tool using Magnetic Levitation, Applicant: National Institute of Technology Silchar (Inventors: P. K. Patowari, Ashesh Srivastava and Ravi Yadav), Application No.: 421/KOL/2013.	Granted: 08/01/2021
2.	Patent Application Number: 202031021533. (Filed on 22-05-2020); Patent Title: Development of composite bone scaffold from Puntius conchonius fish bone derived Hydroxyapatite. (Inventors: Payel Deb, Emon Barua, Sumit Das Lala, Ashish B. Deoghare)	
3.	Patent Application Number: 201931010903 (Filed on 20-03-2019, Published on 08-05-2020, FER Issued on: 09-02-2021); Patent Title: Development of composite bone scaffold using hydroxyapatite derived from Caprine bone bio-waste and Polylactic-co-glycolic acid (PLGA). (Inventors: Emon Barua, Payel Deb, Sumit Das Lala, Ashish B. Deoghare)	
4.	Patent Application Number: 202031004656 (Filed date: 2020/3/13); Patent Title: Desiccant Inserting Machine for Drying Moisture Inside the Blind Hole of an Automobile Component. (Inventors: Saikat Ranjan Maity, Lokeswar Patnaik, Sunil Kumar)	

5.	Patent Application Number: 20203101080, (Filed date: 2020/5/15), First Examination Report submitted on 2021/05/02. Patent Title: Polishing Attachments on Conventional Lathe Machine. (Inventors: Saikat Ranjan Maity, Lokeswar Patnaik, Sunil Kumar)	
6	Patent Application Number: 202131009263 (Filed Date: 2021/4/9); Patent Title: Polishing set up on a vertical milling machine: An alternate to metallographic polishing machine. (Inventors: Saikat Ranjan Maity, Lokeswar Patnaik, Sunil Kumar)	

1.9 Visits to Abroad: Nil

1.10 M.Tech. (Thesis/Project)

Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis/Project
1	Prayag Raj Chanda	Dr. Agnimitra Biswas	Greenhouse Solar Dryer for Paddy Drying
2	Govinda Koli	Dr. Agnimitra Biswas	Stress Analysis of Horizontal Axis Wind Turbine Blade
3	Voddepalli Soumith	Dr. Sujit Nath and Dr. Agnimitra Biswas	Numerical Analysis of Heat Transfer In Helically Grooved Tubes
4	Kshounish Brahma	Dr. S. Bhowmik	Investigation and characterization of Coir fiber reinforced polymeric composite under cyclic loading
5	Barun Barman	Dr. S. Bhowmik	An Integrated Multi-Criteria Decision-Making Model for Green Supplier Selection under fuzzy Environment: A Case Study in Automotive Industry
6	Divyansh Singh	Dr. Abhishek Paul	Design and Development of a Pyrolyser unit for conversion of Waste Plastic into Fuel.
7	Sujith T	Dr. Sukumar Pati	Analysis of Combined Effects of Joule Heating and Finite Size of Ions on Thermal Transport Characteristics for Electroosmotic Flow Through Microchannel
8	Ankit Chourasia	Dr. Sukumar Pati	Numerical Investigation of Natural Convection from a Pair of Elliptical Heated Cylinders within a Square Porous Enclosure
9	Santanu Borah	Dr. Dipankar Bhanja	Numerical Modelling and Thermo-Hydraulic Performance Enhancement of Wavy Double Layered Microchannel Heat Sink With Height Tapering

10	Binay Bhusan Bora	Dr. Sujit Nath	Numerical Modeling and Thermo-Hydraulic Analysis of Circular Pipe having Internal Vortex Generators
11	Rahul Kumar Mahato	Dr. Chinmaya Kumar Sahoo	Development of Mild Steel weld bead using Wire and Arc Additive Manufacturing process
12	Lokavarapu Rama Krishna	Dr. Chinmaya Kumar Saho	Thermo mechanical analysis of TIG welding process
13	Anand Mohan Singh	Prof. P. K. Patowari	Performance Evaluation for Slot Cutting of Glass Using USM
14	Jaswant Kumar	Prof. P. K. Patowari	Machinability Study and Parametric Optimization for Photochemical Machining of Monel 400
15	Atul Pathak	Dr. Sushant Negi	Study on the aeroacoustic performance of axial fan based on bio-inspired design
16	Purohit Dhrumil Maheshkumar	Dr. A. B. Deoghare	Mechanical Characterization of Silicon, Boron and Nitrogen Doped Graphene with Single Vacancy Defects
17	Sunny Ujlan	Dr. A. B. Deoghare	A Machine Learning Model for Psychological Stress Indication
18	Arnab Das	Dr. A. B. Deoghare	Analysis of non-toxic Perovskite solar cell with inorganic HTMs
19	Chayad Barbhuiya	Dr. A. B. Deoghare	Modelling of Differential Electromagnetic Transducer of Implantable Middle Ear Hearing Devices
20	Avinash Mali	Dr. P. Randive	Numerical investigation of Marangoni induced coalescence of simple and compound drop in a liquid pool
21	Deep Mohanta	Dr. P. Randive	Numerical investigation on electrochemical characteristics of Li-Ion Battery
22	Ashutosh Padhan	Dr. Yogesh Singh	Design and Development of a XY Positioning Stage Using Shape Memory Alloy Springs

23	Anuj Kumar	Dr. Yogesh Singh	Design & development of Xyθ Planar Parallel motion platform for precision movement of an object
24	Sunny Kumar Saurabh	Dr. Yogesh Singh	Design and Development of Ni-Ti Alloy (SMA) based complaint linear actuator
25	Prashant	Dr. Sumita Debbarma Dr. Biplab Das	Design and development of low cost solar energy storage device for space heating
26	Sandeep Kumar Pandey	Dr. S.R.Maity	Microstructural characteristics and porosity behavior of spray formed and high reduction of rolled Al-6Si-25Pb.
27	Angkan Bania	Dr. S.R.Maity	Identification of Ultrasonic machining parameters on drilling of grapheme oxide/pineapple leaf filler reinforced epoxy hybrid composite.
28	Rahul Kumar	Dr. Sudip Dey	Free vibration of bio-inspired composite circular plates.
29	Vamsi Krishna Majeti	Dr. Sudip Dey	Effect of vacancy defects on mechanical properties of monolayer h-BN: A molecular dynamics study.
30	Kumar Saumya	Dr. Sudip Dey	Atomistic Simulations on the mechanical behaviour of single-walled boron nitride nanotubes
31	Nikimoni Das	Prof. K M Pandey Prof. K. K. Sharma	Design and analysis of landing gear of an aircraft
32	Plabita Sonowal	Prof. K M Pandey Prof. K. K. Sharma	Design and stress analysis of landing gear shock absorber of commercial airplane
33	MD Shadab Hasan	Prof. K M Pandey and Prof. D H Das	Analytical and experimental analysis of tribo electric nano generator for harnessing low frequency ocean wave energy
34.	Jiomani Talukdar	Dr. Bipul Das	Numerical modelling of ultrasonic machining tool for failure analysis
35	Aman Dwivedi	Dr. Bipul Das	Machine vision system for weld quality and surface defect monitoring in arc welding
36	Anoop K	Dr. Kalyan Chakraborty	Machining of nickel based super alloy Inconel 718 and H13 tool steel

37	Vikram Pandey	Dr. Kalyan Chakraborty	Machinability studies of aluminium based nanocomposites.
38	Yogendra Kumar Verma	Dr. Sudipta Halder Dr. Pannalal Choudhury.	Investigation of Functionalized Bamboo based NanoCellulose as a Filler in Hybrid FRP Laminated Composites.
39	Bikash Lahon	Dr. Sudipta Halder Dr. Pannalal Choudhury.	Development of Low Temperature Self-Healing Agent for Carbon Fibre Reinforced Laminated Composites.
40	Sandeep Kumar Singh	Dr. Sudipta Halder Dr. Pannalal Choudhury.	Surface Functionalization TiO_2 Reinforced Hybrid FRP Laminated Composites.

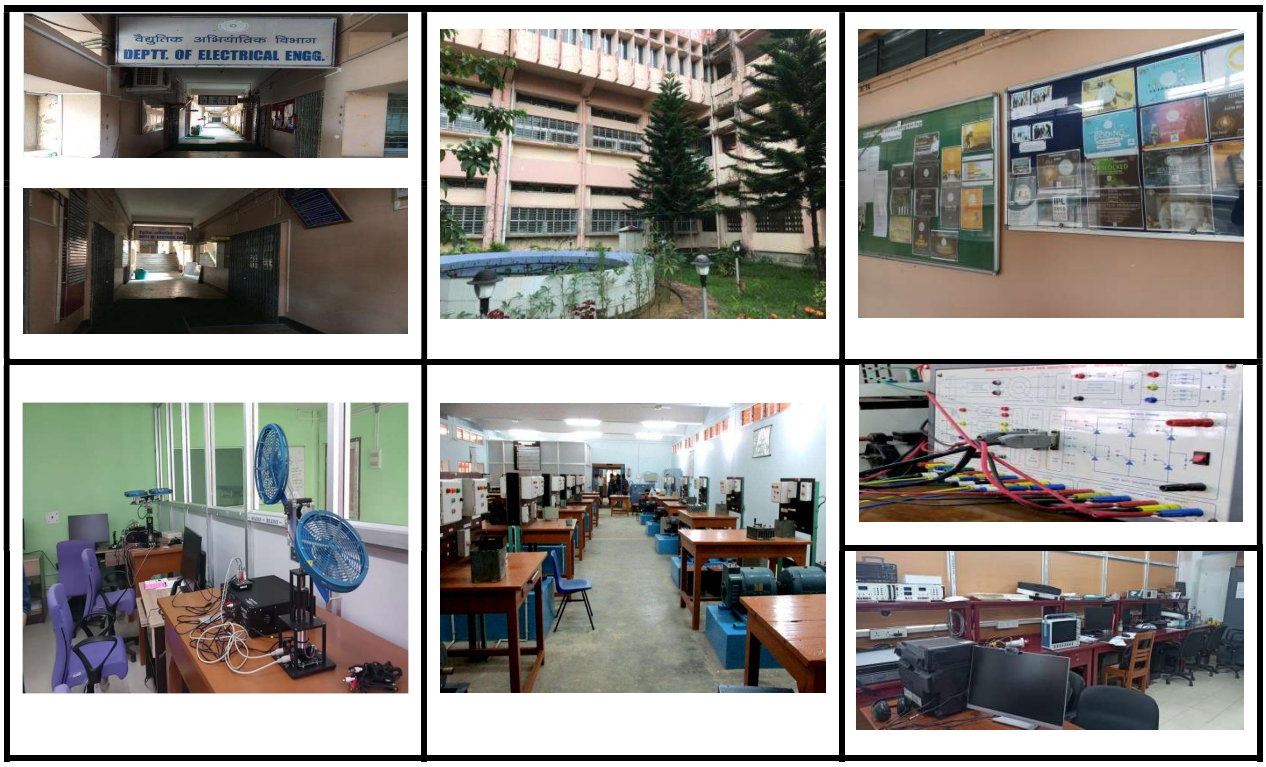
1.11 Ph.D. Thesis

Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis
1.	Abhijit Borah	Dr. Sukumar Pati	Analysis of conjugate heat transfer and entropy generation for forced convection through narrow confinements
2.	Mithinga Basumatary	Dr. Agnimitra Biswas Prof. R.D. Misra	Investigations into the Combined Lift and Drag based Savonius Water Turbine
3.	Hussain Mahamed Sahed Mostafa Mazarbhuiya	Prof. K.K. Sharma Dr. Agnimitra Biswas	Design and Development of Asymmetric Blade H-Darrieus Vertical Axis Wind Turbines for Built Environment
4.	Krushna Gouda	Dr. S. Bhowmik Dr. Biplab Das	Experimental investigation for thermomechanical behaviour of hybrid filler reinforced epoxy composite.
5.	Tuhin Deshamukhya	Dr. Dipankar Bhanja	Determination of Optimum Design Parameters for the Thermal Performance of Porous Fins of Various Shapes Using Swarm Intelligence
6.	Debayan Dasgupta	Dr. Sujit Nath Dr. Dipankar Bhanja	Modelling of Atomization by Disintegration of Liquid Sheet of Inviscid, Viscous and Viscoelastic Fluid
7.	Tapas Debnath	Prof. P. K. Patowari	Design and analysis of different microfeatures and their fabrication using Wire EDM
8.	Siddhartha Kar	Prof. P. K. Patowari	Micro Electrical Discharge Milling and its Parametric Study
9.	Payel Deb	Dr. A B. Deoghare	Synthesis of Hydroxyapatite from Fish Scales to Develop Bone Scaffold

10.	Emon Barua	Dr. A. B. Deoghare Dr. Sushovan Chatterjee	Development and Characterization of Hydroxyapatite (HA) based Composite Bone Scaffold for Bone Tissue Engineering
11.	Krishna Roy	Dr. Biplab Das	Investigation of Natural and Mixed Convection Heat Transfer from an Inclined Fin Array
12.	Prabhakar Jha	Dr. Biplab Das Prof. Rajat Gupta	Performance of Photovoltaic Thermal Air Collector in the Climatic Condition of North East India

1. Name of the Department:

Electrical Engineering



The Department at a glance
Year of Establishment: 1977
Academic Programmes Offered: • Bachelor of Technology (B.Tech) • Master of Technology (M.Tech) • Doctor of Philosophy (Ph.D.)
Total Faculty Strength: 27 • Professor: 4 • Associate Professor: 3 • Assistant Professor: 20
Total Student Strength: 713 • B.Tech: 521 • M.Tech: 77 • Ph.D.: 115
New Students Joined in 2020-2021: 246 • B.Tech: 165 • M.Tech: 49 • Ph.D.: 32

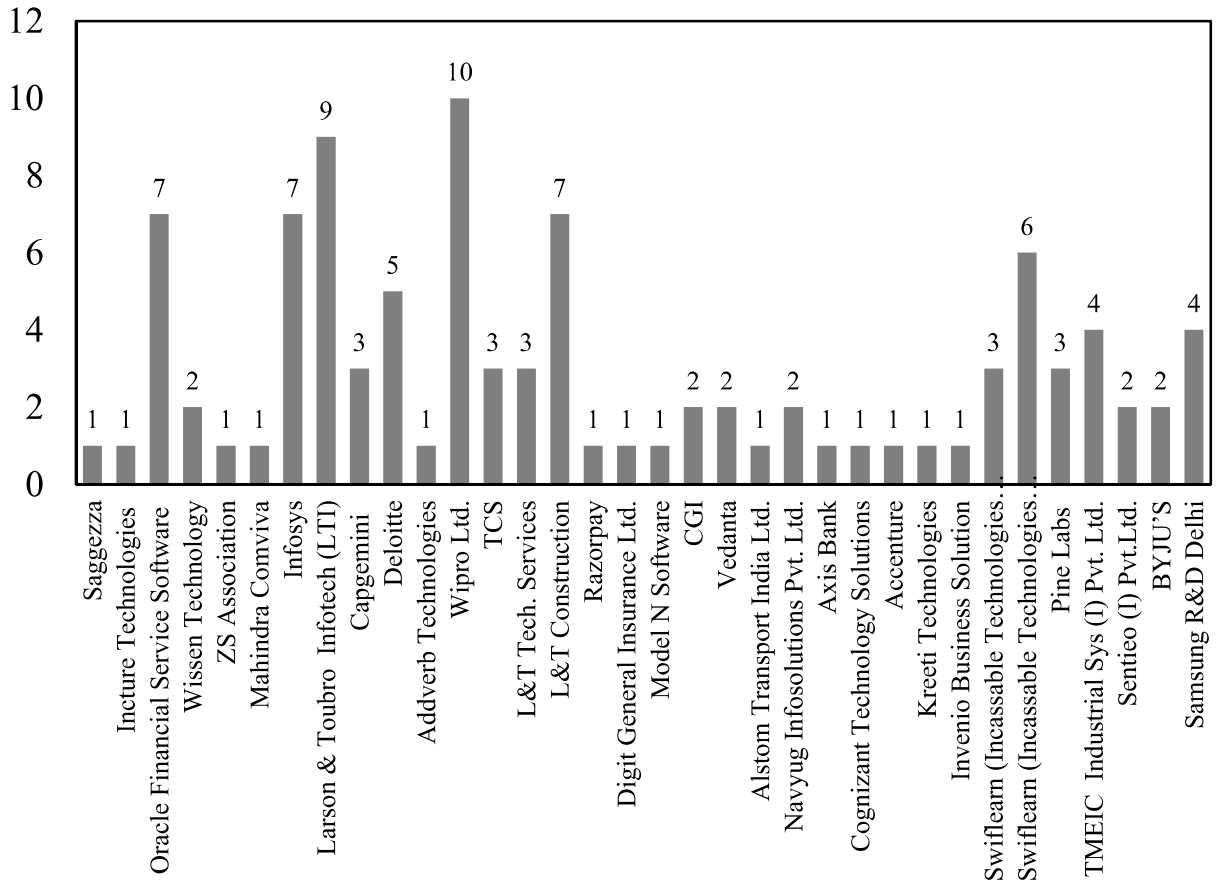


Fig: 1 Placement statistics of students in the Electrical Engineering Department during 2020-2021

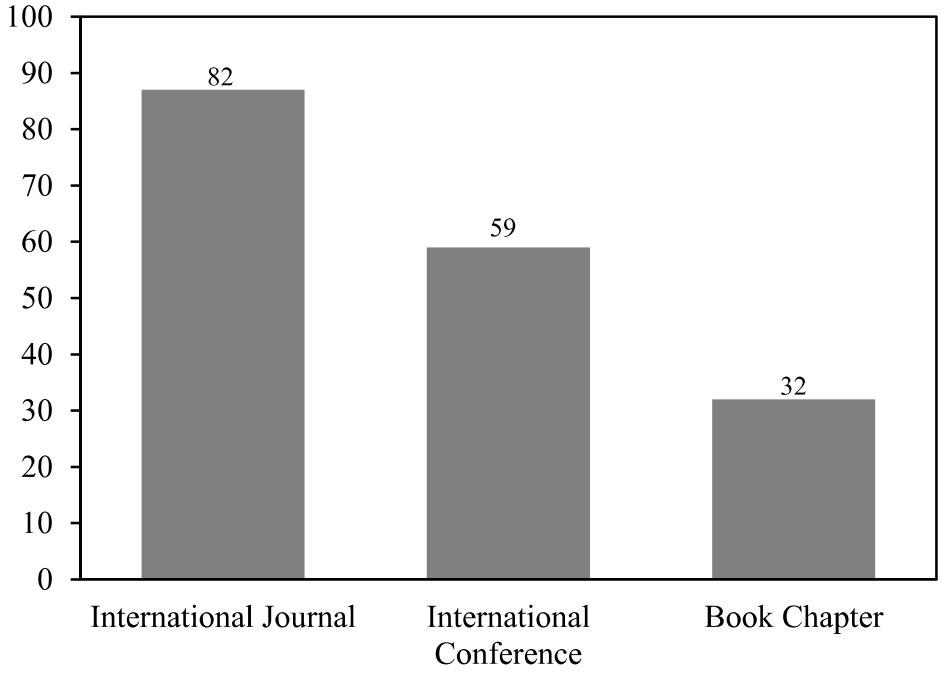


Fig: 2 Publication details of Electrical Engineering Department during 2020-2021

1.1 Academic Staff:

HEAD of the Department: Dr. Jyoti Prakash Mishra, Associate Professor

Name of Faculty members:

Professor	Associate Professor	Assistant Professor
Prof. Nidul Sinha	Dr. Lalit Chandra Saikia	Dr. Tanmoy Malakar
Prof. Binoy Krishna Roy	Dr. Jyoti Prakash Mishra	Dr. Dulal Chandra Das
Prof. Saurabh Chaudhury	Dr. Arup Kumar Goswami	Dr. Chayan Bhatacharjee
Prof. N. B. Dev Choudhury		Dr. Prashant Kumar Tiwari
		Dr. Prasanta Roy
		Dr. Nirmala Soren
		Dr. Rajeeb Dey
		Dr. Raj Kumar Biswas
		Dr. Saheli Ray
		Dr. Amritesh Kumar
		Dr. D. Koteswara Raju
		Dr. Partha Kayal
		Dr. Nabanita Adhikary
		Dr. Tapan Pradhan
		Dr. Avadth Pati
		Dr. Jiwanjot Singh
		Dr. Asha Rani M. A.
		Dr. Sreejith.S
		Dr. Risha Mal
		Dr. Swapna Mansani
		Dr. Ashish Paramane

Visiting Professor (If any): NIL

1.2 Distinction Achieved

a) By Student:

1. **Abdul Latif, the** Ph.D. student of Dr.Dulal Chandra Das, received an award in the *"**Award for Research Excellence**"* category from the ICCIC conference held on 25-26 July 2020 (Organized by IETE Kolkata Section).
2. **Abdul Latif**, the Ph.D. student of Dr.Dulal Chandra Das, received the *"**Young Scientist Award**"* from the 12th International Scientist Awards on Engineering Science and Medicine was held on 20-21 November 2020 (Organized by VDGOOD).

3. **Gaurahari Kaunr**, the student of Prof. Saurabh Chaudhury, received the "***Best Paper Award"*** to paper in the International Conference ICSM 2020.
4. **Soumya Samanta**, Jyoti Prakash Mishra, and Binoy Krishna Roy are awarded **The IET Electric Power Applications Premium Award** for the paper titled 'Virtual DC machine: an inertia emulation and control technique for a bidirectional DC-DC converter in a DC microgrid', Volume 12, Issue 6, July 2018, pp. 874 – 884 in December 2020
5. **Arkadeep Kashyap**: Technerd Hackathon, Srijan 2.0, First prize
6. **Prastuti Mazumdar, Bandita Saikia, Sarmistha Bora**: Myntra HackerRamp: WeForShe Description: Hackathon, Pre-finalist among Top 32 out of 6245 teams
7. **Prachurya Nath:** Completed Summer Analytics hackathon by CSA, IITG and bagged CDAC Research internship on the Deep learning project on Image classification
8. **Manish Kumar Poddar**: First Prize, CRACK THE CODE, Sponsored by coding ninjas; CODECHEF global rank 34(May lunch time, 2021, div 3)
9. **Kartik Verma**: Winner of Cyberbot, contributed in hacktoberfest 2020.

b) By Faculty Member:

1. **Prof. Saurabh Chaudhury**, awarded **Distinguished Faculty 2020** by NIT Silchar.
2. **Prof. Saurabh Chaudhury,** awarded **Fellow of IEI**.
3. **Dr.Rajeeb Dey**, appointed as **Visiting Professor** at **Aurel Vlaicu University of Arad**, Romania - July 2020.

1.3 SEMINARS, SYMPOSIA, SHORT TERM COURSES, WORKSHOPS

a) Conducted by Faculty Member

Sl. No.	Name(s) of the Coordinator	Title	Funding Agency	Duration
1	Dr.RajeebDey, Dr. Nabanita Adhikary	2 days International Symposium on Control, Communications and Embedded Systems for Robotics	SPARC, MHRD	03-04 October 2020
2	Dr. Rajeeb Dey, Dr. Risha Mal	One week online International Workshop on Biological Advances and Research BAR-2020	TEQIP-III	22nd -26th August 2020
3	Dr.JiwanjotSingh, Dr. Asha Rani M A, Dr.Amritesh Kumar, Dr. Avadh Pati	Short Term Training program on Power Electronics Applications For Industrial Systems	TEQIP-III	07-11, September 2020
4	Dr.Sreejith.S, Dr. Swapna M	Five days online Workshop on Advancements in Electrical Engineering: An Academic & Industrial Approach	TEQIP-III	3rd to 7th August 2020

5	Dr. Swapna M, Dr. Sreejith.S, Dr. D. C. Das	Webinar On The Smart City Building Blocks and Their Synergy with Smart Villages	TEQIP-III and In association with IIC & IEEE PES Student chapter NIT Silchar	21st September 2020
6	Dr. ParthaKayal, Dr. Saheli Ray, Dr. Sreejith. S	Five-day online Short Term Course on Opportunities and Challenges in New Power Distribution Paradigm	TEQIP-III	18th to 22nd September 2020
7	Dr.Dulal Chandra Das, Dr. C. Bhattacharjee, Dr. D. Koteswara Raju, and Dr.Tapan Pradhan	Five days online Workshop On "Development of the Energy Internet of Things (eIOT) in Green Energy Infrastructure"	TEQIP-III and in association with IIC NIT Silchar	01-09-2021 to 05-09-2021
8	Prof. Nalin Behari Dev Choudhury, Dr. Asha Rani M. A.	Webinar on "Global Renewable Power Generation Scenario & Challenges in Microgrids"	TEQIP-III	21st September 2020
9	Dr. Asha Rani M. A. as Co-coordinator	5th Edition of Northeast Green Summit organized by NIT Silchar in Collaboration with IIT Guwahati	Vibgyor N. E. Foundation, North East Green Summit	16th - 18th November 2020
10	Dr.Jiwanjot Singh as Organizer of a special session in Symposium	Symposium in International conference of modeling simulation and optimization (COMSO)	NIT Silchar	3rd August to 5th August 2020
11	Prof. B. K. Roy	Effective online teaching and conducting examination using Moodle LMS	NIT Silchar	8th April to 10th April 2021
12	Dr.MunmunKhanra and Prof. B K Roy	ATAL FDP on Energy System for Sustainable Development	All India Council for Technical Education, GOI	26th - 30th September 2020.
13	Prof. B K Roy	One day online workshop on "Nonlinear Dynamics; Chaos-Introduction to Applications",	Department of EE, Rewa Engineering College, Rewa and Department of EE, NIT Silchar.	25-05-2020,

b) Participated by Faculty Member

Sl. No.	Name of Faculty	Details of the Program	Organizing Institute
1	Dr.Dulal Chandra Das	Outcome-Based Education (OBE) and NBA Accreditation" (SAR Preparation and Assessment) during, 12-14 Aug 2020	Osmania University, Hyderabad, Telangana State
2	Dr.Dulal Chandra Das	Advancements in Electrical Engineering: An Academic & Industrial Approach Department of	National Institute of Technology, Silchar

		Electrical Engineering, 3rd to 7th August 2020	
3	Dr.Sreejith.S	Smart Grid Features and Blockchain Technology for Smart Grid, 16th to 20th November 2020	National Institute of Technology, Tiruchirappalli
4	Dr.Sreejith.S	Five days Online International Workshop on Biotechnological Advances and Research 2020 from 22nd to 26th August 2020.	National Institute of Technology, Silchar
5	Dr.Sreejith.S	Online Short Course on Deep Learning, 06th - 10th July 2020	National Institute of Technology, Tiruchirappalli
6	Dr.Risha Mal	Five days online Workshop on “Advancements in Electrical Engineering: An Academic & Industrial Approach” - 3rd to 7th August 2020	National Institute of Technology, Silchar
7	Dr. Avadh Pati	One day online workshop on "Opportunities in Indo German Bilateral Funding Programmes" 20th July 2020.	National Institute of Technology, Andhra Pradesh
8	Dr. Swapna Mansani	One-week STTP on“Application of Artificial Intelligence in Electrical Energy Systems” From 17th August to 21st August 2020	National Institute of Technology Srinagar, J&K, India
9.	Dr. Swapna Mansani	Five days Online International Workshop on Biotechnological Advances and Research 2020 from 22nd to 26th August 2020.	National Institute of Technology, Silchar
10.	Dr. Swapna Mansani	Webinar Series on Advancements in Electrical and Electronics Engineering during 12th-16th October 2020.	REVA University IEEE PES Student Branch Chapter
11	Dr.Amritesh Kumar	AICTE sponsored short term training program on “Challenges in Electrical Vehicular battery charging & Grid Integration Issues” held in August 24-29, 2020	Rajeev Gandhi Memorial College of Engineering & Technology, Andhra Pradesh, India
12	Dr.Amritesh Kumar	Future of Electrical Power and Energy sectors: Sustainable Development Goals” held on September 3,2020	Rajshahi University of Engineering & Technology
13	Dr.Amritesh Kumar	Online FDP on “Electrical Vehicles” held in September 01-05	Gyan Ganga Institute of Technology and Sciences, Jabalpur.
14	Dr.Amritesh Kumar	TEQIP-III sponsored five days online workshop on “Advancements in Electrical Engineering: An Academic & Industrial Approach” held on August 03-07, 2020	NIT Silchar
15	Dr.Amritesh Kumar	One Week online FDP on “Emerging Trends in Power Electronics and Power System (ETPEPS-2020)” held on August 24-29, 2020	O P Jindal University, Raigarh (CG), Chhattisgarh,India

16	Dr.Amritesh Kumar	New Education Policy:2020 Impact on Technical Education" held on 14th August 2020	NIT Agartala
17	Dr. Saheli Ray	Five days online Workshop on "Advancements in Electrical Engineering: An Academic & Industrial Approach" - 3rd to 7th August 2020	National Institute of Technology, Silchar
18	Dr. J.P. Mishra	One day workshop on "Future of Engineering Education in Light of New Education Policy 2020" held on December 15, 2020.	IIC 3.0, National Institute of Technology Silchar
19	Dr. J.P. Mishra	AICTE Sponsored Five days online Faculty Development Programme (FDP) on "Outcome Based Education and Accreditation" held on 24th - 28th Feb 2021	National Institute of Technology, Silchar
20	Dr. C. Bhattacharjee	6 days TEQIP sponsored workshop on 'Advanced Battery Technologies: Powder to Power", held on December 25-30, 2020	Indian Institute of Technology, Roorkee, Uttarakhand
21	Dr. Prasanta Roy (As resource Person)	"Power Electronics Applications to Industrial Systems held from 7th September 2020 to 11th September 2020	National Institute of Technology, Silchar
22	Dr. Prasanta Roy	New Education Policy:2020 Impact on Technical Education" held on 14th August 2020	NIT Agartala
23	Dr. Prasanta Roy	A 6 weeks course on "Unmanned Aerial Vehicles" held in June-July 2020	University of Pennsylvania
24	Dr. Asha Rani M. A.	AICTE Sponsored STTP on "Advances in Power Electronics to Renewable Energy Systems and E-Mobility Applications, 16th – 21st November 2020 (Phase-II)	Anurag University, Telangana
25	Dr. Asha Rani M. A.	AICTE Sponsored STTP on "Advances in Power Electronics to Renewable Energy Systems and E-Mobility Applications, 7th – 12th December 2020 (Phase -III)	Anurag University, Telangana
26	Dr. Asha Rani M. A.	Webinar on "Renewable Energy Integration with Grid and its Challenges" on 27-09-2020	Chettinad College of Engineering & Technology, Karur
27	Dr. Asha Rani M. A.	Five-day Online Faculty Development Programme on "Solar Photovoltaic Systems: Fundamentals and Challenges" from 20th to 24th July 2020.	Madanapalle Institute of Technology & Science, A.P.
28	Dr. Asha Rani M. A.	5-day Faculty Development Programme on "Contemporary Challenges in Electrical Engineering and Aiding Technologies" from 6th to 10th July 2020	St. Josephs College of Engineering, Chennai

29	Dr. Asha Rani M. A.	One Week FDP on "Green Technology & Sustainability Engineering " 15th to 19th February 2021	SVCET, Tirupati
30	Dr.Jiwanjot Singh	Webinar on wide bandgap devices	IEEE
31	Prof. B. K. Roy	TEQIP III Sponsored Five days online Workshop on “Advancements in Electrical Engineering: An Academic & Industrial Approach” from 3rd to 7th August 2020.	Department of Electrical Engineering, National Institute of Technology, Silchar
32	Prof. B. K. Roy	TEQIP III Sponsored Five days Online International Workshop on “Biotechnological Advances and Research” from 22nd to 26th August 2020.	Department of Electrical Engineering, National Institute of Technology, Silchar
33	Prof. B. K. Roy	Online STTP on “MOODLE Learning Management System”, from 04-01-2021 to 08-01-2021,	Department of Mechanical Engineering and Department of Computer Science and Engineering, NIT Warangal.
34	Prof. B. K. Roy	Robotics; Control (RoboCon)-2020 from 15th - 19th July, 2020.	Department of Electrical Engineering, National Institute of Technology, Silchar
35	Dr. Arup Kumar Goswami (As resource person)	Five-day Faculty Development Program (Online mode) on “Instrumentation, Operation, and Control of Electrical Power Systems (IOCEPS)” from 1st-5th March 2021.	Department of Electrical Engineering, Girijananda Chowdhury Institute of Management and Technology, Guwahati in collaboration with Assam Science and Technology University, under TEQIP III
36	Dr.Jiwanjot Singh	One week short term training program on "Advanced Control Paradigms and Evolving Trends (ACPET 2020) from 26-31 Oct 2020	NIT Kurukshetra
37	L.C.Saikia (As resourse person)	Five days online Workshop On “Development of the Energy Internet of Things (eIOT) in Green Energy Infrastructure” 01-09-2021 to 05-09-2021	NIT Silchar
38	L.C.Saikia (As resourse person)	Short Term Training program on Power Electronics Applications For Industrial Systems, 07-11, September 2020	NIT SILCHAR

39	L.C.Saikia (As resourse person)	Faculty Development Program (FDP) on "Energy and Environment: Conversion/generation, storage and efficient utilization" 24th Aug, 2020 to 28th Aug 2020.	(NERIST) Nirjuli, Arunachal Pradesh
40	L.C.Saikia (As resourse person)	Atal AICTE FED on Energy application and Engineering, 21-25th Sep 2020	(NERIST) Nirjuli, Arunachal Pradesh
41	L.C.Saikia (As resourse person)	Short Term Training Programme (STTP) on "Modern Power Plant Technologies: Policies, Industrial Practices and Sustainability" during June 28 - July 3, 2020.	Girijananda Chowdhury Institute of Management and Technology Guwahati and Assam Science and Technology University
42	Prof. S. Chaudhury	Semiconductor memories and Subsystem design in an FDP during 16-21 Nov. 2020	Sasi Institute of Technology and Engineering, Kakinada.

1.4 Research Development

a) Ph.D. Program (Specializations):

1. Power System Analysis and Optimization, Renewable Energy Sources
2. Non-conventional Energy, Application of soft computing techniques in control and Operation of non-conventional energy-based hybrid power system
3. Smart grid, Power Quality, Power system Reliability, Renewable energy sources
4. Cogeneration Management, Application of Big Data in Power system
5. Micro-grid, Renewable energy integration in competitive power markets, FACTS device Transmission system planning
6. Power Electronics applications to Electric Power and Energy Systems; Grid interactive and isolated Renewable Energy Systems and Control (Wind, SPV, Hybrid); Microgrid Control (Power Management, Power Quality, and Transient Issues); Smart Grid Power Management and Control; Power Conditioning of Power Distribution Systems using Active Filters (Shunt/ Series/ Combined/ Hybrid); Multifunctional and Flexible Power Converters and its applications; Power Converters applications in Electric Vehicles; Electric Drive
7. Smart grid, Reliability of power system, cost allocation, Deregulated Power System, use of artificial intelligence in power system, Economics of Power System
8. Control Theory, Application of control in biomedical application Time-delay system and control, Robust Control
9. Control System, Nonlinear Control, adaptive control, Fractional order control
10. Low power VLSI, Image Processing, CNT & Nanowires Compound Semiconductors, Semiconductor Devices and Modelling, Embedded Systems and Applications
11. High Voltage Engineering and Testing, Insulation Materials for High Voltage Equipment, Electric Vehicles, and Power Electronics applications

12. Brain-waves analysis
13. Electric vehicle charging infrastructure, High gain/high-efficiency dc-dc converter, Multilevel converters, Grid-connected /Off-grid renewable energy systems, Active and passive filter design, AC–DC microgrids, Distributed and coordinated control of microgrid and Hybrid electric vehicle
14. Power system operation and control, Power system deregulation, smart grid, power quality
15. Instrumentation, Signal Processing, and Image Processing; Embedded System Design

b) Ph.D. Produced/Ongoing (in number):

Completed	Submitted	Ongoing
3	2	90

c) Research Lab/ Workshop:

Sl. No.	Name of Lab/Workshop	Purpose/Linkage to an existing/new program
1	Power Electronics System Research Lab	This lab is under development, to provide a research environment for Ph.D., PG, and UG students to work in the area of Energy converter/ Power Electronics and its applications. The lab is designed to facilitate the faculty and the students to perform both simulation and hardware in the lab in connection with their research, theses, and industry-sponsored projects in the power electronics field of applications.

d) Ongoing/Completed Sponsored Research Project:

Sl. No.	Project Title	Principal Investigator(s)	Funding Agency	Cost in lakhs	Duration
1	Investigation and development of robust control strategy for nonlinear bilateral teleoperation system with delayed communication: An experimental validation for rehabilitation of stroke patients	Dr.Rajeeb Dey Co-PI Dr. N. Adhikary	SPARC MHRD	67	2 years
2	Feasible Coordinated Controlled Grid-connected Photovoltaic Source DC-based Fast Charging Infrastructure for Electric Vehicle: Design, Development and Experimental Validation	PI- Dr.Amritesh Kumar Co-PI Dr. Avadh Pati	DST/SERB with MHRD	187	3years
3	Development of Thermoelectric generator integrated Charcoal Stove	PI- Kritika Awasthi (BIT Sindri, Jharkhand) Co-PI Dr.Risha Mal	TEQIP Collaborative Research Scheme	3.86	2 years

4	Development of Battery Supercapacitor Hybrid Energy Storage System for Stand-alone Solar Photovoltaic Power System	PI: Dr. Munmun Khanra (E&I Dept., NIT Silchar) Co-PI: Dr. J.P. Mishra, EE Dept., NIT Silchar	DST, SEED Division	22.22	03 Years
5	Design and Development of Soft Interconnect for DC Microgrids using Power Electronics Interface for Improved Reliability of Power Supply	PI-Dr.Amritesh Kumar	SRG/SERB	30 Lakh	02 years
6	Inertia Emulation in a Microgrid	CO-PI-Prof. B. K. Roy	TEQIP-III, NPIU,	7.5	01year
7	A better and robust secure communication using a highly complex and disordered hyperchaotic system	CO-PI-Prof. B. K. Roy	TEQIP-III, NPIU,	7.5	01year
8	Multistability and hidden attractors in dynamical systems DST, Indo-Russian collaboration	CO-PI-Prof. B. K. Roy	DST, Indo-Russian	65.2	03years
9	Identification of depressed persons with AI based classifier using EEG signals	Co-PI: Prof. N. Sinha	NPIU TEQIP III	15.43	01year
10	Investigation of linear and nonlinear Delay-Differential-Equation (DDE) models for prediction of stability in dyadic interpersonal relationship: A case study for urban Indian married and dating couple	PI: Rajeeb Dey	DST SERB, MATRICS	6.6	3years (2020-2023)
11	An Effective Negative Sequence Flux Minimization Technique for Enhanced Operation of DFIG based Wind Power Plants under Grid Voltage Unbalance	PI: Asha Rani M. A.	SERB (SRG)	19.99	2 Yrs
12	Design & Implementation of underwater vehicle for surveillance applications	PI: Prof. B.K. Roy	TIH, IIT Guwahati	10 (First Phase)	2 Yrs

e) Research Paper Reviewed

Sl. No	Faculty Name	Journal Name	No. of Paper	Year
1	Prof. B.K. Roy	Chaos Soliton and Fractal	01	2020-21
		Complexity	01	2020-21

		Engineering Science and Technology – an International Journal	02	2020-21
		European Journal of Control	03	2020-21
		IEEE SMCA	05	2020-21
		Trans of Industrial Electronics	02	2020-21
		International Journal of Control	01	2020-21
		International Journal of Robust and Nonlinear Control	02	2020-21
		International Journal of Electronics and Communication	04	2020-21
		International Journal of System Science	01	2020-21
		ISA Transaction	01	2020-21
		Journal of Electrical and Computer Engineering	01	2020-21
		Journal of Energy Storage	01	2020-21
		Mathematical Problems in Engineering	04	2020-21
		Mathematics and Computer in Simulation	01	2020-21
		Measurement	03	2020-21
		Signal Processing and Image Communication	01	2020-21
2	Prof. S. Choudhury	Journal of Circuits, Systems and Computers	1	2020-21
		International Journal of Electronics	2	2020-21
		Expert Systems with Applications	2	2020-21
		Journal of Circuit Theory and Applications	1	2020-21
		IETE Journal of Research	2	2020-21
3	Dr. L. C. Saikia	Electric power component and systems	04	2020-21
		International Transactions on Electrical Energy System	31	2020-21
		Journal of ambient energy	03	2020-21
		IEEE transaction on Sustainable Energy	01	2020-21
		Optimal control and application	03	2020-21
		Journal Of Energy Storage	03	2020-21
		Science Progress	01	2020-21

		IEEE transaction on circuit and systems	01	2020-21
		PLOS ONE	01	2020-21
		IJEPES	01	2020-21
		ISA transactions	02	2020-21
		IET GTD	03	2020-21
		IETE Journal of research	10	2020-21
4	Dr. Arup Kumar Goswami	IEEE Transaction on Industry application	10	2020-21
		IEEE Transactions on Industrial Informatics	05	2020-21
		IEEE Systems Journal	05	2020-21
		IEEE Transactions on Power Delivery	05	2020-21
		IEEE Transactions on Fuzzy Systems	02	2020-21
		IET Generation, Transmission & Distribution	03	2020-21
		IEEE Access as Associate Editor handled	03	2020-21
5	Dr. T. Malakar	IEEE Transac. on Industrial Informatics	2	2020-21
		Electric Power Components and Systems	4	2020-21
		International Journal of Electric Power & Energy System	2	2020-21
		Applied Soft Computing	3	2020-21
		Engineering Optimization	1	2020-21
		Electrical Engineering	01	2020-21
6	Dr. D. C. Das	IEEE Systems Journal	06	2020-21
		IEEE Access	01	2020-21
		International Journal of Sustainable Energy	03	2020-21
		IETE Journal of Research	02	2020-21
		International Transactions on Electrical Energy Systems	08	2020-21
7	Dr. C. Bhattacharjee	ECM 2	02	2020-21
8	Dr. R. Dey	EEE Transaction of System Man and Cybernatics	02	2020-21
		ISA Transaction	05	2020-21

		IEEE Transaction of Control System Technology	01	2020-21
		Int J of System Science	02	2020-21
		Automatica	01	2020-21
		Asian Journal of Control	01	2020-21
		Biomedical Signal Processing and Control	01	2020-21
		Int J of Energy and Power System	01	2020-21
		IMA journal of Mathemtical Control and Information	01	2020-21
		IFAC TDS Workshop	01	2020-21
9	Dr. RK Biswas	Journal of the Franklin Institute, Journal of Vibration and Control, Asian Journal of Control	05	2020-21
10	Dr. P. Roy	ISA Transactions	05	2020-21
		Transactions of the Institute of Measurement and Control, SAGE Publisher	02	2020-21
		IEEE access	01	2020-21
11	Dr. Saheli Ray	Reliability Engineering and System Safety	01	2020-21
12	Dr.Amritesh Kumar	IEEE Transactions on Industry Applications	01	2020-21
13	Dr. D. Koteswara Raju	ISA Transactions (Elsevier)	10	2020-21
		IEEE Access Journal	05	2020-21
		Canadian Journal of Electrical & Computer Engineering (IEEE)	02	2020-21
		Electrical Power components and systems (EPCS), Tylors& Francis Journals.	04	2020-21
		Energy Reports (Elsevier)	04	2020-21
		International Transactions on Electrical Energy Systems (Wiley	03	2020-21
		IET Generation, Transmission & Distribution	02	2020-21
		Electrl Engineering Journal (Springer).	02	2020-21
		Transactions of the Institute of Measurement and Control, SAGE Publisher.	02	2020-21
		International Journal of Circuit Theory and Applications. (Wiley	01	2020-21

14	Dr. P. Kayal	International Transactions on Electrical Energy Systems	03	2020-21
15	Dr. N. Adhikary	Journal of the Franklin Institute	05	2020-2`1
		ISA Transactions	01	2020-21
		International Journal of Robust and Nonlinear Control	01	2020-21
16	Dr.Tapan Pradhan	IEEE Transactions on Instrumentation & Measurement	03	2020-21
17	Dr. A. Pati	ISA Transactions	07	2020-21
		British Journal of Mathematics and Computer Science	01	2020-21
		COMPEL - The international journal for computation and mathematics in electrical and electronic engineering	01	2020-21
		Transactions of the Institute of Measurement and Control	01	2020-21
18	Dr.Jiwanjot Singh	International Journal of Power Electronics (IJPELEC)	02	2020-21
		IEEE Transactions on Power Electronics	01	2020-21
		International Journal of Emerging Electric Power Systems	01	2020-21
19	Dr. Asha Rani M. A	IEEE Transactions on Industrial Informatics	01	2020-21
		International Journal of Emerging Electric Power Systems	01	2020-21
20	Dr.Risha Mal	Springer Nature	02	2020-21
		IEEE Access	05	2020-21
		Wiley	01	2020-21
21	Dr. Swapna M	Energy Storage	01	2020-21
22	Dr. Ashish Paramane	IEEE Transactions on Dielectrics and Electrical Insulations	09	2020-21
		IEEE Electrical Insulation Magazine	01	2020-21
		IEEE Transactions on Industry Applications	01	2020-21
		IEEE Transactions on Industrial Informatics	01	2020-21
		IET High Voltage	03	2020-21
		IET Science, Measurement and Technology	03	2020-21

		CSEE Journal of Power and Energy Systems	05	2020-21
		SPE Polymers	01	2020-21
		Transactions on Electrical and Electronic Materials	05	2020-21
		Journal of Applied Polymer Science	03	2020-21
		IEEE Access	02	2020-21
		Wiley Polymer Composites	01	2020-21
		ACS Applied Polymer Materials	01	2020-21
		Cell Press – Matter	01	2020-21

f) Chairing of the Technical Section

Sl. No.	Faculty Name	Details
1	Prof. S. Choudhury	Session chair in SPARC International Conference on Control, Communications, Embedded Systems and Robotics 2020 (SOCCER 2020) organized by EE Deptt, NIT Silchar
2	Dr. L. C. Saikia	1. Session Chair in SCES 2020 organized by the Electrical Engineering Department, MNNIT Allahabad during 10 -12 July 2020. 2. Session Chair in International Conference on Modeling, Simulation, and Optimization (CoMSO-2020) held at NIT Silchar from 03-05, August 2020
3	Dr. T. Malakar	1. Session Chair in SCES 2020 organized by the Electrical Engineering Department, MNNIT Allahabad during 10 -12 July 2020. 2. Session Chair in International Conference on Modeling, Simulation, and Optimization (CoMSO-2020) held at NIT Silchar from 03-05, August 2020.
4	Dr. D. C. Das	1. Session Chair in SCES 2020 organized by the Electrical Engineering Department, MNNIT Allahabad during 10 -12 July 2020. 2. Session Chair in International Conference on Modeling, Simulation, and Optimization (CoMSO-2020) held at NIT Silchar from 03-05, August 2020.
5	Dr. R. Dey	1. Session Chair in SCES 2020 organized by the Electrical Engineering Department, MNNIT Allahabad during 10 -12 July 2020. 2. International Symposium on Control, Communication and Embedded System for Robotics (SOCCER-2020) NIT Silchar Session Co-Chair 03-10-2020 to 04-10-2020. 3. Tutorial-2A: Global Navigation Satellite Systems-I, Speaker: Biswas, Sanat K, IIIT Delhi2020 Advances in Control & Optimization of

		Dynamical Systems, Feb. 16-19, 2020, Indian Institute of Technology Madras, India
6	Dr. P. Roy	Session Chair in SCES 2020 organized by the Electrical Engineering Department, MNNIT Allahabad during 10 -12 July 2020.
7	Dr. Saheli Ray	Session Chair in International Conference on Smart and Intelligent Systems (SIS-2021), Department of Electrical and Electronics Engineering, Velagapudi Ramakrishna Siddhartha Engineering College, Andhra Pradesh, India during February 25-26, 2021.
8	Dr.Amritesh Kumar	1. Act as a session chair in the 6th Students' Conference on Engineering & Systems (SCES-2020) on "S24 – Mechanical systems and Mechatronics" held on July 10-12, 2020, at Department of Electrical Engineering, Motilal Nehru National Institute of Technology Allahabad, Prayagraj, India. 2. Act as a session chair in "3rd International Conference on Energy, Power, and Environment: Towards clean Energy technologies (ICEPE 2020)" held on March 5-7, 2021, at National Institute of Technology Meghalaya, Shillong, India. 3. Act as a session chair in "9th IEEE Power Electronics, Drives, and Energy Systems (PEDES) 2020" held on Dec 16-19, 2021, at MNIT, Jaipur, India. International Symposium on Control, Communication and Embedded System for Robotics (SOCCER-2020) NIT Silchar Session Co-Chair 03-10-2020 to 04-10-2020.
9	Dr. P. Kayal	Session Chair in 1st International Conference on Contemporary Issues in Computing 2020 jointly organized by The Electro Inventor, Institution of Electronics and Telecommunication Engineers, Kolkata and Eureka Scientech Research Foundation, Kolkata during 25th-26th July 2020.
10	Dr. A. Pati	1. 3rd International Conference On Communication, Circuits, And Systems (Ic3s 2020) KIIT Du, Bhubaneswar, India KIIT, Bhubaneswar Session chair 16-10-2020 to 18-10-2020. 2. Electric Power and Renewable Energy Conference-2020 (EPREC-2020) NIT Jamshedpur Program Committee Member 29-05-2020 to 30-05-2020 3. International Symposium on Control, Communication and Embedded System for Robotics (SOCCER-2020) NIT Silchar Session Co-Chair 03-10-2020 to 04-10-2020.
11	Dr.Jiwanjot Singh	1. Session Chair in International Conference on Modelling, Simulation, and optimization, organized by National Institute of Technology, Silchar, Assam, India, during 3–5 August 2020
12	Dr. Asha Rani MA	1. International Symposium on Control, Communication and Embedded System for Robotics (SOCCER-2020) NIT Silchar Session Co-Chair 03-10-2020 to 04-10-2020.

13.	Prof. B.K. Roy	1. Technical Chair of International Symposium of Control, Communication and Embedded System for Robotics (SOCCER), 3 – 4th October 2000, held at NIT Silchar. 2. Chair, Plenary Session of International Symposium of Control, Communication and Embedded System for Robotics (SOCCER), 3 – 4th October 2000, held at NIT Silchar. 3. Session Chair of Technical Session – 1 of 25th International Symposium on Frontiers of Research in Speech and Music 2020 (FRSM), 08 -09 Oct 2020, held at NIT Silchar. 4. Session Chair of Technical Session – 1 of International Conference on Modeling, Simulation and Optimization (CoMSO 2020), 03-05, August 2020.
14.	Dr. Arup Kumar Goswami	1. Session Chair: 3rd International Conference on Energy, Power and Environment: Towards Clean Energy Technologies (ICEPE 2020), 05-07 March 2021, IEEE, National Institute of Technology Meghalaya, Shillong. 2. Session Chair: International Conference on Smart and Intelligent Systems (SIS-2021), Department of Electrical and Electronics Engineering, Velagapudi Ramakrishna Siddhartha Engineering College, Andhra Pradesh, India during February 25- 26, 2021 3. Session Chair: 6th Student conference on engineering & systems 2020 (SCES 2020), Department of Electrical Engineering, MNNIT Allahabad, July 10-12, 2020. 4. Session Chair: International Online Conference on Smart Grid Energy Systems and Control (SGESC-2021), March19-21, 2021, NIT Kurukshetra.
15.	Dr. Nirmala Soren	1. Session Chair: 6th Student conference on engineering & systems 2020 (SCES 2020), Department of Electrical Engineering, MNNIT Allahabad, July 10-12, 2020.

1.5 PUBLICATION

a) International Journal(s):

1. Satish Kumar Ramoji and Lalit Chandra Saikia, 2021, "Utilization of electric vehicles in combined voltage□frequency control of multi□area thermal□combined cycle gas turbine system using two degree of freedom tilt□integral□derivative controller," Energy storage, https://doi.org/10.1002/est2.234
2. Manoja Kumar Behera and Lalit Chandra Saikia, 2020, "A new combined extreme learning machine variable steepest gradient ascent MPPT for PV system based on optimized PI-FOI cascade controller under uniform and partial shading condition," Sustainable Energy Technologies and Assessments, vol. 42, no. 1
3. Manoja Kumar Behera and Lalit Chandra Saikia, 2021, "An intelligent hybrid GMPPT integrating with accurate PSC detection scheme for PV system using ESSA optimized AWFOPI controller," Sustainable Energy Technologies and Assessment (accepted for publication).

4. Dekaraja B, Lalit Chandra Saikia, 2021. “Performance of redox flow battery in combined frequency and voltage control of multi-area multi-source system using CFOPDN-FOPIDN controller,” inInt Trans ElectrEnerg Syst.;e12782.
5. NR, Babu and LC. Saikia. 2021,“Load Frequency control of a multi-area system incorporating realistic high-voltage direct current and dish-Stirling Solar thermal system models under deregulated scenario,” in IET Renewable Power Generation;1-17.
6. SK Bhagat, LC Saikia, NR Babu and D Saha, 2021, “Impact of PLL and Virtual Inertia on Deregulated AGC System Integrated with Parallel AC/HVDC,” IETE Journal of Research, https://doi.org/10.1080/03772063.2021.18942491-14
7. Suamana Das, L. C. Saikia and S. Datta, 2021, “Maiden Application of TIDN-(1+PI) Cascade Controller in LFC of a Multi-area Hydro-thermal System Incorporating EV–Archimedes Wave Energy-Geothermal-Wind Generations under Deregulated Scenario,” International Transactions on Electrical Energy System
8. Alok Kumar Dubey, Jyoti Prakash Mishra, andAmritesh Kumar. 2021, “Performance Improvement of Shunt Active Power Filter under Variable Grid Frequency Condition using Complex Coefficient Filter-Frequency Locked Loop", International Journal of Circuit Theory and Applications; 49: 1164 – 1181, https://doi.org/10.1002/cta.2920; © 2021 John Wiley & Sons, Ltd.
9. S. Samanta, J. P. Mishra, and B. K. Roy, 2020, "Isochronous control of a virtual synchronous generator using inertia and excitation emulations with restoration control in a standalone microgrid", IET Smart Grid, Vol. 3 Iss. 6, pp. 814-824, http://creativecommons.org/licenses/by/3.0/; eISSN 2515-2947,https://doi.org/10.1049/iet-stg.2019. 0206, www.ietdl.org.
10. S. Samanta, S. Barman, J. P. Mishra, P. Roy, and B. K. Roy, 2021, "Energy management and damping improvement of a DC microgrid with constant power load using interconnection and damping assignment-passivity based control", Transactions of the Institute of Measurement and Control, Volume: 43 issue: 7, page(s): 1545-1559, DOI: 10.1177/0142331220960828, [SAGE Publication], journals.sagepub.com/home/tim
11. Subir Datta, Jyoti Prakash Mishra & Anjan Kumar Roy, 2020, “Effectiveness of B2BC-based SGSC–PGSC and NSC-based SGSC–PGSC in a DFIG-based Grid-connected WT System – A Comparative Study”, IETE Journal of Research), https://doi.org/10.1080/03772063.2020.1770132 [Taylor & Francis].
12. Soumya Samanta, Jyoti Prakash Mishra & Binoy Krishna Roy, 2020, “Inertia Enhancement of an Isolated DC Microgrid using Hierarchical Virtual Inertia Control”, IETE Journal of Research, https://doi.org/10.1080/03772063.2020.1754932 [Taylor & Francis].
13. S. Samanta, S. Barman, J. P. Mishra, P. Roy, and B. K. Roy, 2020, "Design of an Interconnection and Damping Assignment-Passivity Based Control Technique for Energy Management and Damping Improvement of a DC Microgrid", IET Generation Transmission & Distribution, Volume 14, Issue 11, p. 2082 – 2091, https://doi.org/10.1049/iet-gtd.2019.1075, www.ietdl.org.
14. Priti Das, T. Malakar. , 2021, A Realistic Assessment of Day-Ahead Profit for Wind Farms in Frequency–Based Energy Pricing Environment, Energy Sources, Part B: Economics, Planning, and Policy, Taylor & Francis https://doi.org/10.1080/15567249.2021, 1916794. (SCI)
15. Priti Das, T. Malakar, 2021, A day-ahead sleeved power purchase agreement model for estimating the profit of wind farms in the Indian energy market, Int Trans ElectrEnerg Syst. 31:e12821. Wiley (SCI), https://doi.org/10.1002/2050-7038.12821.

16. Soumyabrata Das, T. Malakar, 2020. Estimating the impact of uncertainty on optimum capacitor placement in wind integrated radial distribution system, Int Trans ElectrEnerg Syst.30:e12451. Wiley (SCI), https://doi. rg/10.1002/ 2050-7038.12451.
17. Abdul Latif; S. M. Suhail Hussain; Dulal Chandra Das; Taha Selim Ustun. 2020, "Optimum Synthesis of a BOA Optimized Novel Dual-Stage PI-(1+ID) Controller for Frequency Response of a Microgrid". Energies 13, 3446.
18. A. Barik, D. C. Das, A. Latif, S. M. S. Hussain, T. S. Ustun "Optimal Voltage-Frequency Regulation in Distributed Sustainable Energy-Based Hybrid Microgrids with Intregrated Resource Planning" Energies, vol. 14, no. 10, pp. 2735, Impact Factor- 2.702, (SCI).
19. A. Latif, S. M. S. Hussain, D C Das, T S Ustun, 2021 "Optimization of Two-stage IPD-(1+I) Controllers for Frequency Regulation of Sustainable Energy Based Hybrid Microgrid Network," Electronics, (Accepted for publication) Impact Factor- 2.412, (SCI)
20. S. Ranjan, D C Das, N. Sinha, A. Latif, S. M. S. Hussain, T S Ustun, 2021 "Voltage Stability Assessment of Isolated Hybrid Dish-Stirling Solar Thermal-Diesel Microgrid with STATCOM using Mine Blast Algorithm," Electric Power Systems Research, (Accepted for publication), Impact Factor-3.211, (SCI)
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35. R. Aryan, R. Ranjan and A. Kumar, "Primary Control Strategies for Power Sharing and Voltage Regulation in DC Microgrid: A Review," 2020 3rd International Conference on Energy, Power and Environment: Towards Clean Energy Technologies, 2021, pp. 1-6, doi: 10.1109/ICEPE50861.2021.9404516. Date: March 2021.
36. R. Aryan, R. Ranjan and A. Kumar, "Distributed Primary and Secondary Control Strategy for Power Sharing and Voltage Restoration in a DC Microgrid," 2020 3rd International Conference on Energy, Power and Environment: Towards Clean Energy Technologies, 2021, pp.1-6, doi:10.1109/ICEPE50861.2021.9404419. Date: March 2021.
37. NabanitaAdhikary and Jobin Mathew, "Adaptive Backstepping Based Non-singular Finite Time Sliding Mode Controller for Suspension of Maglev Platforms", International Symposium on Control Communication and Embedded System for Robotics (SOCCER2020), NIT Silchar,3rd-4th October, 2020.
38. NabanitaAdhikary, Rajeeb Dey, Muhammad Usman Asad, Jason Gu,Umar Farooq and Rupak Dutta, "Adaptive Robust Control of Tele-Operated Master-Slave Manipulators with Communication Delay", International Symposium on Control Communication and Embedded System for Robotics (SOCCER2020), NIT Silchar, 3rd-4th October,2020.
39. Manash Jyoti Deori, NabanitaAdhikary and Krishna Jyothi Pallacherla,"Performance Comparison of EKF and UKF for Oshore Boom Crane System", International Symposium on Control Communication and Embedded System for Robotics (SOCCER2020), NIT Silchar, 3rd-4th October, 2020.
40. Muhammad Usman Asad, Jason Gu, Umar Farooq, Rajeeb Dey and NabanitaAdhikary, "A Multi-Master Single-Slave Teleoperation System through Composite State Convergence", International Symposium on Control Communication and Embedded System for Robotics (SOCCER2020), NIT Silchar, 3rd-4th October, 2020.
41. Vipin Chandra Pal, Sudipta Chakraborty, Avadh Pati and Gurpreet Singh "A Note on Lyapunov KrasovskiiFuntional for Discrete Time Delayed Systems" International Conference on Modeling, Simulation and Optimization (CoMSO 2020), 03-05, August 2020.
42. MohanAnitha Asha Rani, Manickam Chakkarapani, ChilakapatiNagamani and Saravana Ilango Ganesan, "An Improved Angular Stator Flux Frequency Computation Method for Enhanced MPPT Operation of DFIG under Unbalanced Grid Voltage", IEEE 17th India Council Conference 2020, INDICON 2020, December 2020.
43. M A Asha Rani, M Chakkarapani, C Nagamani, G Saravana Ilango and M. Jaya Bharata Reddy, "Performance Evaluation of R-PLL for Robust Sensorless Operation of DFIG under Harmonics, DC

Offset and Phase Jump in Grid Voltage", IEEE International Conference on Power Electronics and Energy, ICPEE, January 2021.

44. Mamata Debbarma, PydiBala Krishna and M A Asha Rani, “A Robust Sensorless Speed Estimation Method for SCIG based WECS with Reduced Current Sensors”, 3rd International Conference on Energy, Power and Environment: Towards Clean Energy Technologies, March 2021.
45. Jai Prakash Kumar, Sudhanshu Awasthi, Amarjeet Paswan, OlympaBoro, Risha Mal ‘Towards an early warning system in Guwahati city for landslides triggered by rainfall and earthquake ', in 7th International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics (ICRAGEE 2021), April 22, 2021.
46. Ashish Paramane, X. Chen, C. Dai, & Y. Tanaka (2020), “Enhancing the Electrical Properties of XLPE Insulation by Blending Aromatic Voltage Stabilizer”, IEEE International Conference on High Voltage Engineering and Application (ICHVE), Beijing, China (pp. 1–4).
47. Ashish Paramane, D. Chao, L. Yu, X. Chen, & Y. Tanaka (2020), “DC Insulation Properties of Commercial Grade 320 kV HVDC XLPE/MgO Nanocomposite Material”, Proceedings of International Symposium on Electrical Insulating Materials (ISEIM), Tokyo, Japan, (pp. 399–402).
48. M. Fanbo, D. Chao, Ashish Paramane, X. Chen, & Y. Tanaka (2020), “Effect of Thermal Ageing on Insulation Properties of 500 kV DC XLPE Submarine Cable Insulation”, IEEE Conference on Electrical Insulation and Dielectric Phenomena (CEIDP), USA, 2020.
49. T. Jiang, Ashish Paramane, X. Chen, & Y. Tanaka (2020), “Thermal and Electrical Properties of EP/AlN Nanocomposites at Different Temperatures", Proceedings of International Symposium on Electrical Insulating Materials (ISEIM), Tokyo, Japan (Vol. 2020, p. 1).
50. C. Dai, T. Jiang, A. Paramane, X. Chen and Y. Tanaka, "Thermal and Electrical Properties of EP/AlN Nanocomposites at Different Temperatures," 2020 International Symposium on Electrical Insulating Materials (ISEIM), 2020, pp. 124-127.
51. Phukan, Hillol, and Jiwanjot Singh. "Improvement in Fault Clearance Time of the Cascaded H-Bridge Multilevel Inverter Using Novel Technique Based on Frequency Detection." Modeling, Simulation and Optimization: Proceedings of CoMSO 2020. Springer Singapore, 2021.
52. Debela, Tamiru, HillolPhukan, and Jiwanjot Singh. "New H-Bridge for Symmetrical and Asymmetrical MLI with Reduced Number of Devices." Electronic Systems and Intelligent Computing. Springer, Singapore, 2020. 875-884.
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55. A Chitra, A Manathara, K Sivaramakrishnan, W Razia Sultana, S Sreejith “Performance Comparison of Conventional IC and Dragonfly-Based MPPT for Solar PV Systems Under Partial Shading Conditions”, Advances in Automation, Signal Processing, Instrumentation, and Control ,Select Proceedings of I-CASIC 2020.
56. S. Debbarma. KK Pavan Kumar, Nirmala Soren, D Jha, A.K. Roy "Day ahead demand side management using Firefly Algorithm"AIP Conference Proceedings 2273, 050068 (2020); https://doi.org/10.1063/5.0024786

57. P. K. Kushwaha, C. Battacharjee, “Role of Energy Storage System for improving System Stability considering Customer Behavior Uncertainties,” IEEE International Conference on Contemporary Computing and Applications 2020 pp. 1-5, 2020, 978-1-7281-5432-9/20/$31.00 ©2020 IEEE
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59. S. Samanta, S. Datta, S. Das, B. K. Roy and A. Ganguly, "Design and FPGA Implementation of a Deloading Control Technique for DC Link Voltage Regulation of a PV System," 2020 3rd International Conference on Energy, Power and Environment: Towards Clean Energy Technologies, 2021, pp. 1-6, doi: 10.1109/ICEPE50861.2021.9404466.

d) **National Conference(s): NIL**

e) **Book/Chapter:**

1. Ksh. Robert Singh & Saurabh Chaudhury, “Texture analysis for rice grain classification using wavelet decomposition and back propagation neural network”. Learning and Analytics in Intelligent Systems, 2020, Springer (book chapter) , ISBN: 978-3-030-42362-9, vol-12, pp. 55-65
2. Inamul Hussain and Saurabh Chaudhury, “A new 4-2 compressor for VLSI Circuits and Systems” in Advances in Smart System Technologies. Advances in Intelligent Systems and Computing, vol 1163. Springer, Singapore. https://doi.org/10.1007/978-981-15-5029-4_33. (Scopus Indexed, Web of Science).
3. More Raju, Upasana Sharma, Lalit Chandra Saikia, “Application of Firefly Algorithm Optimized Fuzzy 2DOF PID Controller for Diverse-Sourced Multi-area LFC”, Computing Algorithms with Applications in Engineering: Proceedings of ICCAEEE 2019, pp.261-267, 2020
4. Sanjeev Kumar Bhagat, Lalit Chandra Saikia, DehenuvakondaKoteswara Raju, Naladi Ram Babu, Satish Kumar Ramoji, BiswanathDekaraja and Manoja Kumar Behera,“Maiden Application of Hybrid Particle Swarm Optimization with Genetic Algorithm in AGC Studies Considering Optimized TIDN Controller [SOPES 2020],”(accepted for publication)
5. Naladi Ram Babu, TirumalasettyChiranjeevi, Lalit Chandra Saikia, DhenuvakondaKoteswara Raju,” Optimization Solutions for Demand Side Management,” in Metaheuristic and Evolutionary Computation: Algorithms and Applications, pp. 729-746, 2021
6. Satish Kumar Ramoji, Lalit Chandra Saikia, BiswanathDekaraja, Naladi Ram Babu, Sanjeev Kumar Bhagat and Manoja Kumar Behera,“Modeling and Simulation of an Isolated CCGT and DSTS plant using BWO optimized PIλDμ Controller for amalgamated control of Voltage and Frequency [SOPES 2020]”, (accepted for publication)
7. BiswanathDekaraja, Lalit Chandra Saikia, Satish Kumar Ramoji, Naladi Ram Babu, Sanjeev Kumar Bhagat and Manoja Kumar Behera, “Modeling and Simulation of a Multi-area Hydro-thermal Interconnected System Using FOPIμ Controller for Integrated Voltage and Frequency Control [SOPES-2020]”(accepted for publication)
8. Manoja Kumar Behera, Lalit Chandra Saikia, Satish Kumar Ramoji, BiswanathDekaraja, Sanjeev Kumar Bhagat and Naladi Ram Babu, “A novel effective single sensor MPPT technique for a uniform and partially shaded solar PV system via MSCA approach [SOPES 2020]”, (accepted for publication)

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10. Naladi Ram Babu, Lalit Chandra Saikia, Sanjeev Kumar Bhagat, ArinditaSaha, "Maiden Application of Hybrid Crow-Search Algorithm with Particle Swarm Optimization in LFC Studies," ," Proceedings of International Conference on Artificial Intelligence and Applications, pp. 427-439, 2020.
11. ArinditaSaha, Lalit Chandra Saikia, Naladi Ram Babu, "LFC of Thermal System with Combination of Renewable Energy Source and Ultra-Capacitor," Proceedings of International Conference on Artificial Intelligence and Applications, pp. 395-405, 2020.
12. Naladi Ram Babu, Lalit Chandra Saikia, DhenuvakondaKoteswara Raju, TirumalasettyChiranjeevi, "Maiden Application of Hybrid Shuffled Frog-Leaping Algorithm with Pattern Search Algorithm in AGC Studies of a Multi-area System," Computing Algorithms with Applications in Engineering, pp.335-348, 2020.
13. Naladi Ram Babu, Lalit Chandra Saikia, DhenuvakondaKoteswara Raju, TirumalasettyChiranjeevi, "Multi-area AGC System Incorporating GTPP and Coyote Optimized PI Minus DN Controller," Computing Algorithms with Applications in Engineering, pp.349-360, 2020
14. Naladi Ram Babu, Lalit Chandra Saikia, DhenuvakondaKoteswara Raju, "Maiden Application of Hybrid Crow Search Algorithm with Pattern Search Algorithm in LFC Studies of a Multi-area System Using Cascade FOPI-PDN Controller," in Soft Computing for Problem Solving 2019, pp.337-351, 2020
15. Puja Dash, Lalit Chandra Saikia, "Damping Control of a Multi—Area Thermal System Using SSO Optimized 2DOF-PID-UPFC Based Controller," Advances in Electrical Control and Signal Systems, pp.923-931, 2020
16. Nibha Rani, T. Malakar, "Enhancement of Reactive Power Reserve Using Salp Swarm Algorithm", Modeling, Simulation and Optimization & Springer Nature. DOI: 978-981-15-9828-9. pp. 347-366, 2021.
17. Sahoo S.C., Latif A., Naidu S., Patel S., Kumar R., Das D.C. (2021) Demand Side Management-Based Load Frequency Control of Islanded Microgrid Using Direct Load Control. In: Das B., Patgiri R., Bandyopadhyay S., Balas V.E. (eds) Modeling, Simulation and Optimization. Smart Innovation, Systems and Technologies, vol 206. Springer, Singapore.https://doi.org/10.1007/978-981-15-9829-6_40
18. Phukan, Hillol, and Jiwanjot Singh. "Improvement in Fault Clearance Time of the Cascaded H-Bridge Multilevel Inverter Using Novel Technique Based on Frequency Detection." Modeling, Simulation and Optimization: Proceedings of CoMSO 2020. Springer Singapore, 2021.
19. Debela, Tamiru, HillolPhukan, and Jiwanjot Singh. "New H-Bridge for Symmetrical and Asymmetrical MLI with Reduced Number of Devices." Electronic Systems and Intelligent Computing. Springer, Singapore, 2020. 875-884.
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21. Phukan, Hillol, TamiruDebela, and Jiwanjot Singh. "Fault-Tolerant Cascaded Asymmetrical Multilevel Inverter for the Solar-Based Electric Vehicle." Electronic Systems and Intelligent Computing. Springer, Singapore, 2020. 863-874.
22. Sreejith S, Asha Rani M A, Swapna Mansani, Estimation of Pay Back Period Incorporating SVC and TCSC in SCUC Problem, Advances in smart grid technology, Springer, 2020, 335-352.

23. Swapna Mansani, Udaykumar R Y, SantoshkumarHampannavar, Asha Rani M A and Sreejith S, Phase Balancing of DG Integrated Smart Secondary Distribution Network, Advances in smart grid technology, Springer, 2020, 321-333.
24. Santosh Kumar, K. N. Patil, Swapna Mansani, Udaykumar R Y, Rajashekar Mandi, Nandakumar C, Wind Potential Assessment for Micro Power Generation in Tropical Wet Climate of India, Recent advances in power systems, Springer, 2020, 337-448.
25. N Himabindu, Rajashekhar P Mandi, Swapna Mansani, Wireless Access Support for Distribution Management System (DMS) to Microgrid Communication in Power Network, Electronic Systems and Intelligent, Springer, 2020, 805-812.
26. Kumar, Prabhat and Amritesh Kumar. "Analysis and Design of a Parallel Switched-Inductor DC-DC Converter." Computational Methodologies for Electrical and Electronics Engineers, edited by Rajiv Singh, et al., IGI Global, 2021, pp. 93-110. http://doi:10.4018/978-1-7998-3327-7.ch008. Date: March 2021.
27. MA Asha Rani, M Chakkarapani, Pranjit Barman, "Green Energy: Renewable Power Generation from Solar PV Cells: Impact of Irradiation, Materials and Aging on Solar Power Generation, and Green Materials for Solar Power Extraction", Renewable Materials and Green Technology Products, CRC Press (Taylor& Francis),pp.113-133, 2021.
28. P. Pratap Singh, B. K. Roy, C. Volos,Memristor-based novel 4D chaotic system without equilibria: Analysis and projective synchronization,nEditor(s): Christos Volos, Viet-Thanh Pham,In Advances in Nonlinear Dynamics and Chaos,Mem-elements for Neuromorphic Circuits with Artificial Intelligence Applications,Academic Press, 2021,Pages 183-205,ISBN 9780128211847,https://doi.org/10.1016/B978-0-12-821184-7.00017-7.
29. A Jain, and B. K. Roy. "State Estimation of Moving Vehicle Using Extended Kalman Filter: A Cyber Physical Aspect." *HIS* (2019).
30. N.P. Mohanty, R. Dey, B.K. Roy , Patel N.C. (2021) Synchronization for Nonlinear Time-Delay Chaotic Diabetes Mellitus System via State Feedback Control Strategy. In: Dash S.S., Das S., Panigrahi B.K. (eds) Intelligent Computing and Applications. Advances in Intelligent Systems and Computing, vol 1172. Springer, Singapore. https://doi.org/10.1007/978-981-15-5566-4_69
31. A. Jain, B.K. Roy, (2020) Simultaneous Vehicle Steering and Localization Using UKF. In: George V., Roy B. (eds) Advances in Control Instrumentation Systems. Lecture Notes in Electrical Engineering, vol 660. Springer, Singapore. https://doi.org/10.1007/978-981-15-4676-1_7
32. J.P.,Singh, A.B. Sarkar, K. Lochan, B.K. Roy, (2020) Synchronisation Between Two Uncertain Highly Complex Hyperchaotic Systems in the Occurrence of Unmatched Disturbances Using Disturbance Observer-Based Adaptive SMC. In: George V., Roy B. (eds) Advances in Control Instrumentation Systems. Lecture Notes in Electrical Engineering, vol 660. Springer, Singapore. https://doi.org/10.1007/978-981-15-4676-1_23

1.6 CONSULTANCY SERVICES: NIL

1.7 MAJOR EQUIPMENT ACQUIRED:

Power Electronics System Research Lab

1. Workstation PC, Make:Dell, model: Precision 5820 Tower

Advance Power electronics and energy conversion lab (APEC)

1. AC/DC clamp meter
2. AMETEK programmable power
3. Siglent make Digital Storage Oscilloscope
4. ITECH make DC electronic load
5. Tektronix make 8-Channel Mixed Signal Oscilloscope
6. Wavect FPGA based controller

Advance Control Laboratory:

1. 3D Hover workstation, Quanser
2. 2D Helicopter workstation, Quanser

1.8 PATENT: NIL

1.9 VISITS TO ABROAD

Sl.No.	Name of the Faculty	Name of the Conference/ Programme	Place	Date
1	NIL	NIL	NIL	NIL

1.10 M.Tech. / M.Sc. (Thesis/Project)

Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis/Project
1	Rakesh Jotder	Dr. C. Bhattacharjee	Reduction of Electromagnetic Interference in Electric Vehicles
2	AbhinabGogoi	Supervisor: Dr. A K Goswami Co-Supervisor: Dr. N. Choudhury	Wind Power Uncertainties Forecasting for Short Term Scheduling Using LSTM
3	Bablu Kumar	Dr. P Kayal	Assessment of Energy Storage Capacity in Electric Power Distribution Network
4	G Yaswanth R S Narayana	Supervisor: Dr. D C Das Co-Supervisor: Dr. A Kumar	Switched Inductor Based Quasi Z-Source DC-DC Converter for Rooftop PV Applications
5	Koudagani Sunil	Prof N Sinha	Automatic generation control of two area thermal system with renewable energy sources using various two degree of freedom based fuzzy fractional order controllers
6	Ravi Raj	Supervisor: Dr. L C Saikia Co-Supervisor: Dr.D K Raju	Power Sharing in Islanded Microgrid using Virtual Impedance Droop Based on Phase Locked Loop Technique
7	Samdarshi Kumar	Dr. L C Saikia	Control strategies for weak grid Integrated PV System

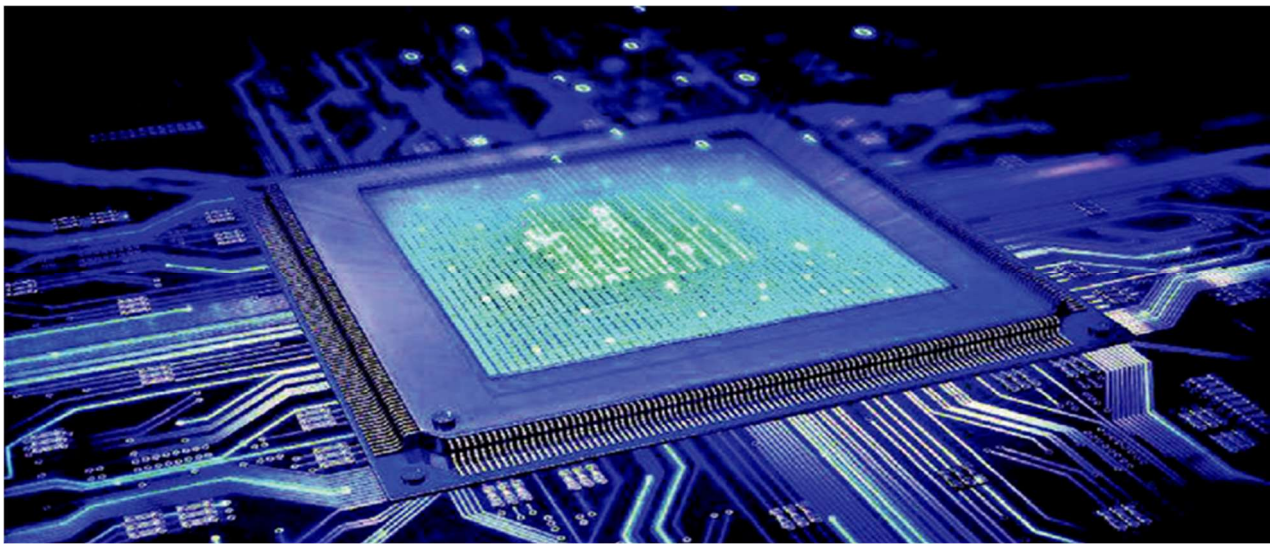
8	Karishma K George	Dr. J P Mishra	Virtual impedance and admittance based power quality improvement in microgrid
9	Mayank Kumar Gupta	Dr. J P Mishra	Investigation of Single-Phase Six Switch Dual Output Inverter With Standalone and Grid-Connected PV System
10	Manoranjan Sahoo	Dr. T Malakar	Economic Load Dispatch in Deregulated Power Market
11	Raj Aryan	Dr.Amritesh Kumar	Distributed Primary and Secondary Control Strategy for Power Sharing and Voltage Regulation in a DC Microgrid
12	Abdul Vasih TV	Dr. P Kayal	Online Fault Detection in Photovoltaic System
13	Faridul Hassan	Dr. C. Bhattacharjee	Harmonic Elimination Techniques for Non-Linear Loads
14	Shilalipi Sahoo	Supervisor: Prof B K Roy Co-Supervisor: Prof S. C. Choudhury	Localisation of hidden attractors, design of a chaotic system and its synchronisation
15	ManashJoytiDeori	Dr. N. Adhikary	Disturbance Observer Based on UnscentedKalman Filter for Offshore Boom Crane
16	Aniket Roy	Dr. P Roy	Some Studies on the Applications of Multi-Variable Quantitative Feedback Theory
17	Rakesh Kumar	Dr. A Pati	Control strategy for active magnetic bearing systems
18	Tirthankar Chakaraborty	Supervisor: Prof B K Roy Co-Supervisor: Dr. T Pradhan	Tip Position and Tip Deflection Control of a Two-Link Flexible Manipulator using Sliding Mode Control
19	Anirban Nanda	Dr. A Pati Dr. M K Bera	Robust Tracking Control of Differential Drive Mobile Robot
20	Rohit Kumar Maurya	Dr. R K Biswas	Studies on Fractional Order Phase Locked Loop
21	Sristi Jain	Dr. R K Biswas	Optimal control of variable order fractional order systems
22.	ParthaPratim Dey	Dr. D C Das	Frequency Regulation of Grid Integrated Virtual Power Plant with High-Penetration of Renewables considering Communication Delay
23.	Neeraj Kumar Mahto	Dr. D C Das	Demand Side Management Using Heuristic Optimization with Solar generation and Storage devices for Future smart Grid

1.11 Ph.D. Thesis

Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis
	Chandan Kumar Pandey	Prof. Saurabh Chaudhury	Modelling and simulation of some novel Tunnel FET structures for low power VLSI applications
	Soumyabrata Das	Dr. Tanmoy Malakar	Optimum capacitor placement and sizing in active radial distribution network systems using Meta-Heuristic optimization algorithms
	Sudhanshu Ranjan	Dr. D C Das	Frequency and Voltage Control of Isolated Single Area/MultiArea Hybrid Power Systems in presence of Distributed Generation

1. **Name of the Department:**

Electronics & Communication Engineering



The Department at a glance
Year of Establishment: 1983
Academic Programmes Offered: • Bachelor of Technology (B.Tech) • Master of Technology (M.Tech) • Doctor of Philosophy (Ph.D.)
Total Faculty Strength: 31 • Professor: 2 • Associate Professor: 6 • Assistant Professor: 22 • Trainee Teacher: 1
Total Student Strength: 787 • B.Tech: 591 • M.Tech: 74 • Ph.D.: 122
New Students Joined in 2020-2021: 261 • B.Tech: 171 • M.Tech: 45 • Ph.D.: 45

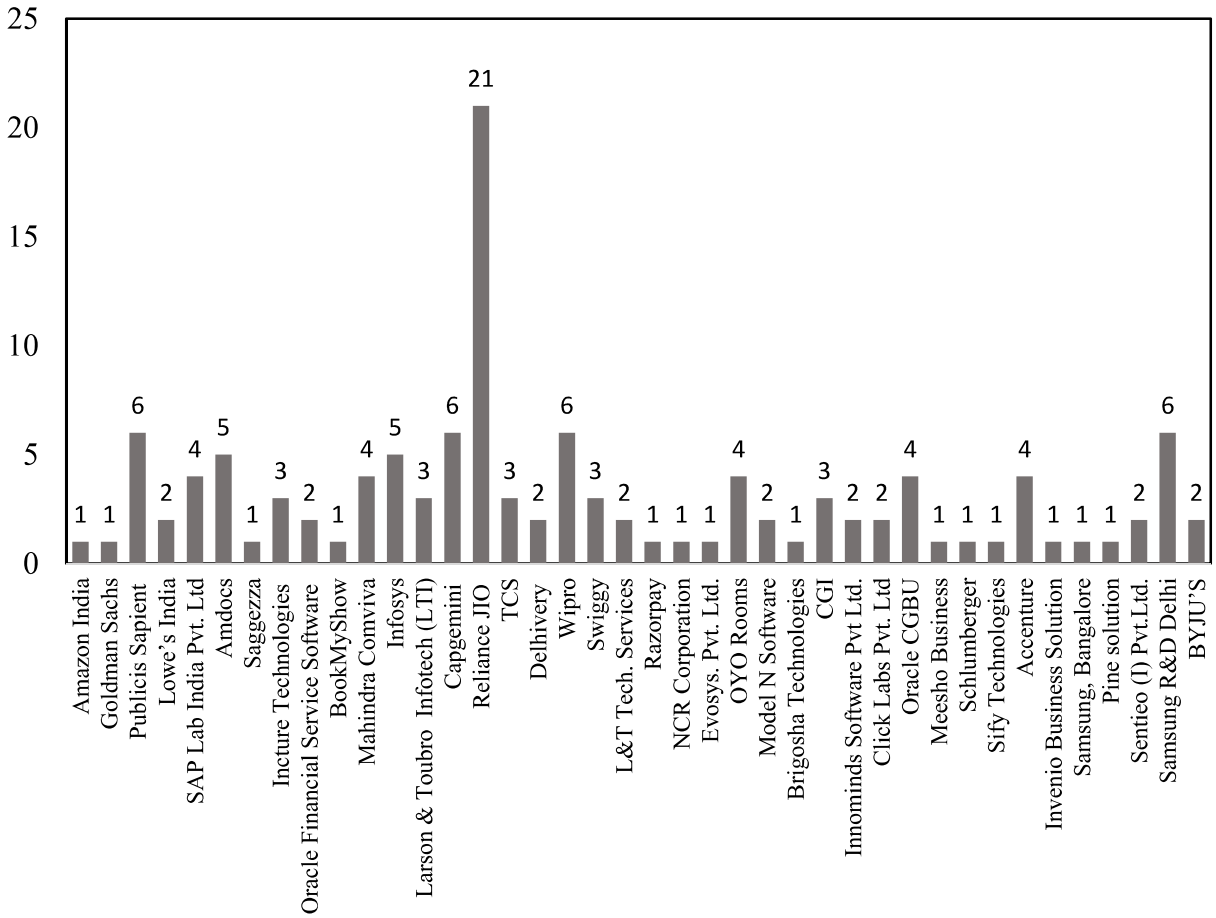


Fig: 1 Placement statistics of students in the ECE Department during 2020-2021.

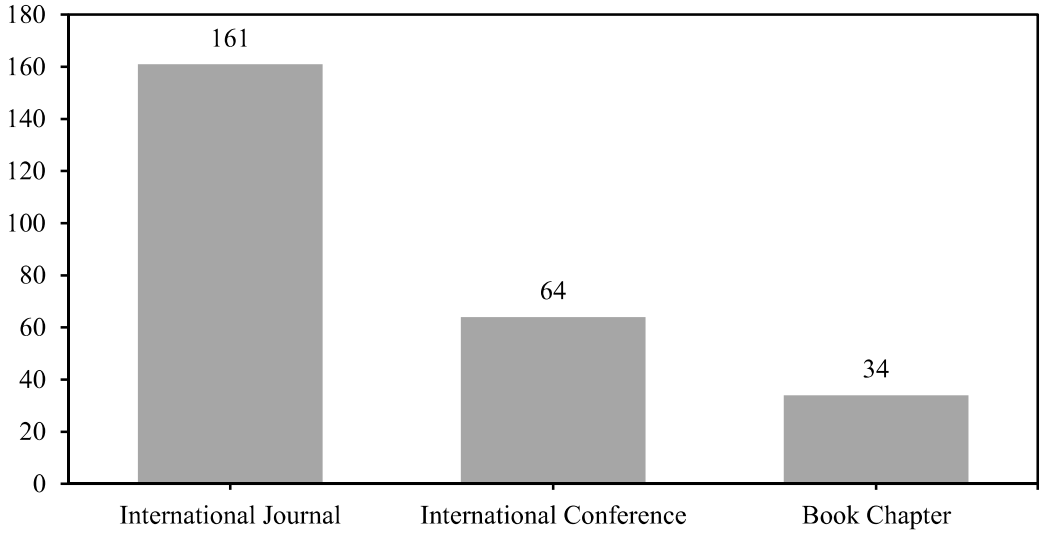


Fig: 2 Publication details of ECE Departement during 2020-2021.

1.1 Academic Staff:

HEAD: Dr. Krishna Lal Baishnab, Associate Professor

Name of Faculty members:

Professor	Associate Professor	Assistant Professor	Trainee Teacher
Prof. Fazal Ahmed Talukdar	Dr. Madhucchanda Choudhury	Dr. Wasim Arif	Mr. Anupal Deka
Prof. Srimanta Baishya	Dr. Madhumita Paul	Dr. Koushik Guha	
	Dr. Prashanta Kumar Paul	Dr.Trupti Ranjan Lenka	
	Dr. Krishna Lal Baishnab	Dr. Ashraf Hossain	
	Dr. Rabul Hussain Laskar	Dr. Ram Kumar Karsh	
	Dr. (Mrs.) Brinda Bhowmick (Shome)	Dr. Ganesh Prasad	
		Dr. Taimoor Khan	
		Dr. Banani Basu	
		Dr. Susanta Kumar Tripathy	
		Dr. Arnab Nandi	
		Dr. Ujjal Chakraborty	
		Dr.Chandrajit Choudhury	
		Dr. Robin Khosla	
		Dr. Prabina Pattanayak	
		Dr. R. Murugan	
		Dr. Kavicharan Mummaneni	
		Dr. Pukhrambam Puspa Devi	
		Dr. Gaurav Singh Baghel	
		Dr. M. V. Swati	
		Dr. Tripti Goel	
		Dr. Devendra Singh Gurjar	
		Dr. Bijit Choudhuri	

Visiting Professor (If any): NIL

1.2 Distinction Achieved

a) By Student:

(i) Patha Pratim Goswami received PMRF (B.Tech. 2019 batch).

b) By Faculty Member:

1. Dr. K. Guha, Research Excellence Award 2020 by InSc.
2. Dr. K. Guha, International Scientist Award on Engineering, Science, and Medicine by VD GOOD Technology Factory in Dcemeber 2020.
3. Dr. D. S. Gurjar and Dr. P. Pattanayak,Co-authors of the best paper award in the IEEE Advanced Communication Techlogies and Signal Processing (ACTS-2020).
4. Dr. P. Pattanayak, Senior Member IEEE
5. Dr. P. Pattanayak, Fellow IETE
6. Dr. R. Murugan, Fellow IETE
7. Dr. R Murugan, Dr.Tripti Goel, Co-authors of the best paper award (Special metion) in the IEEE Advanced Communication Techlogies and Signal Processing (ACTS-2020).
8. Dr. R. Murugan and T. Goel, Three research articles has been indexed by Global literature on coronavirus disease, World Health Organization (WHO).
9. Dr. R K Karsh, Best paper award in the IEEE International Conference on Electronics, Materials Engineering & Nano-Technology (IEMENTech 2020).
10. Dr. S K Tripathy, Fellow IETE.
11. Dr. S K Tripathy, Life Member of ISTE.
12. Dr. T. Khan, Fellow IEI India.
13. Dr. T. Khan, Prestigious National Award IETE-Prof. SVC Aiya Memorial Award September 2020.
14. Dr. T. Khan, Senior Member, URSI Belgium.
15. Dr. T R Lenka, Founding Chair, IEEE Kolkata Section Nanotechnology Council Chapter, 2020.
16. Dr. T R Lenka, Fellow of the Institution of Electronics and Telecommunication Engineers (IETE), 2020.
17. Dr. T R Lenka, Fellow of the Institution of Engineers (India) (IEI), 2020.
18. Dr. T R Lenka, Award of Chartered Engineer by The Institution of Engineers (India), 2020.
19. Dr. T R Lenka, Associate Editor, International Journal of Reconfigurable and Embedded Systems (IJRES), 2020.
20. Dr. T R Lenka, Associate Editorial Board Member, Micro and Nanosystems, Bentham Science, 2020.
21. Dr. T R Lenka, Academic Editor, Shock and Vibration, Hindawi 2020.

1.3 Seminars, Symposia, Short Term Courses, Workshops

a) Conducted by Faculty Member

Sl. No.	Name(s) of the Coordinator	Title	Funding Agency	Duration
1	Dr. Arnab Nandi	Webinar on Higher Technical Education in Post COVID Scenario and NBA Accreditation	TEQIP 3	13 June 2020
2	Dr. Arnab Nandi and Dr. Bipul Das	AICTE Sponsored Five Day Faculty Development Program on Outcome Based Education and Accreditation	AICTE	24th–28th February 2021
3	Dr. Banani Basu	Webinar on Sexual Harassment of Women at Workplace	TEQIP 3	18 July 2020
4	Dr. Banani Basu	Webinar on Tera Hertz System Design and Applications	TEQIP 3	26 Sep 2021
5	Dr. Banani Basu	(IEEE AP-S Activity)	TEQIP 3	3 Oct 2021
6	Dr.Tripti Goel and Dr. R Murugan	One Week Webinar on "Machine Intelligence in Biomedical and Health Informatics(MIBHI-2020)"	TEQIP 3	20th – 24thAugust , 2020
7	Dr. Brinda Bhowmick	Satyendra Nath Bose Summer Internship Program 2021	NIT silchar	6 weeeks
8	Dr. Ganesh Prasad	Recent Trends in Signal Processing and Communications (RTSPC-20)	TEQIP-III, NIT Silchar	10th-14th Sept. 2020
9	Dr. T. Khan, Dr. Gaurav Singh Baghel, Dr. D. S. Gurjar	One-Week Indo-Canada SPARC-Workshop on RF Energy Harvesting Systems, REHS-2020	SPARC	July 17-21, 2020
10	Dr. Gaurav Singh Baghel, Dr. M. V. Swati	One-week Webinar on RF & Millimeter-Wave Technologies (RMWT-2020)	TEQIP-III	Aug 29 – Sep 2, 2020
11	Dr. Koushik Guha, Dr. M. Kavicharan, Dr. Bijit. Choudhuri	Five-Days National Workshop on "Recent trends in CMOS-MEMS technologies and applications: Hands on Learning"	TEQIP-3	11 to 15 Sept-2020
12	Dr. R Murugan	Role of Artificial Intelligence in Science and Engineering Applications (RAISEA-2020)" for CBSE School Teachers	ATAL	26 – 30 October 2020

13	Dr. Prabina Pattanayak, ECE, NIT Silchar	Engineering Applications of Optimization Techniques - 2020	TEQIP III	05-09th September 2020
15	Dr. K.L. Baishnab & Dr. Koushik Guha	Five-Days Webinar and Faculty Development Program (FDP) on "Analog/Mixed VLSI Circuits for Brain - Machine Interface"	(ATAL) AICTE, Govt. of India	12th-16th October-2020
16	Dr. Koushik Guha (OrganisingCo-Chair)	International Conference on Micro/Nanoelectronics Devices, Circuits and Systems (MNDCS-2021)	IEEE Electron Device Society	30-31 Jan 2021
17	Dr. Koushik Guha	One Day Webinar on "Teaching and Research in Post COVID Scenario"	NIT Silchar	4th July 2020
18	Dr. Koushik Guha	Study in France (Choose France/ Higher education and scholarship opportunities)	NIT Silchar	7th October 2020
19	Dr. Wasim Arif & Dr. Koushik Guha	One Day Webinar on "Halting the Spread of COVID-19"	NIT Silchar	17th June 2020
20	Dr. Ram Kumar Karsh	Recent Trends on Signal Processing and Communication	TEQIP-III	10-14 Sept. 2020
21	Dr. Ram Kumar Karsh	Deep Learning for Visual Computing and Communication	The Electronics and ICT academy, NIT Patna	15-21 Oct. 2020
22	Dr. S. K. Tripathy	Organizing Co-Chairs	IEEE	29-31 Jan 2021
23	Dr. Taimoor Khan	One-Day Workshop on "Protection of IPR in the Age of Internet: How, What and Why? (IPR-2021)"	NIT Silchar	21March 2021
24	Dr. Taimoor Khan	One Week Indo-US VAJRA Course on "Fundamentals of Electromagnetics, EMF-2021"	VAJRA, SERB	15-19 March 2021
25	Dr. Taimoor Khan	One Week Indo-Canada SPARC Students Research Conclave on "RF Energy Harvesting Systems" SRC-2020	SPARC, MoE	11-15 Dec 2020
26	Dr. Taimoor Khan	One Week Indo-Canada SPARC Course on "Dielectric Resonator and Its Applications", DRA-2020	SPARC, MoE	20-24 Nov 2020

27	Dr. Taimoor Khan	One Week Indo-Canada SPARC-Workshop on "RF Energy Harvesting Systems (REHS-2020)"	SPARC, MoE	17-21 July 2020
28	Dr. T. R. Lenka	International Conference on Micro/Nanoelectronics Devices, Circuits and Systems (MNDCS-2021)	IEEE EDS/NTC	29-31 Jan 2021
29	Dr. T. R. Lenka	IEEE EDS Mini-Colloquium (MQ) on "Nanoelectronics and Nanotechnology" on 31 OCT 2020	IEEE EDS	31 Oct 2020
30	Dr. T. R. Lenka	IEEE EDS Distinghushed Talk By Prof. Durga Misra, NJIT, USA	IEEE EDS	31 July 2020
31	Dr. T. R. Lenka	IEEE EDS Distinghushed Talk By Prof. Ajit Panda, ECoE, Bhubaneswar	IEEE EDS	27 Jun 2020
32	Dr.W Arif, Dr.DS Gurjar, Dr.P Pattanayak	IEEE-ACTS-2020	TEQIP III	4-6 Dec 2020

b) Participated by Faculty Member

Sl. No.	Name of Faculty	Details of the Program	Organizing Institute
1	Dr. Arnab Nandi	Invited Speaker in Recent Advancement of System Design Towards 5G Communication (RASDT5C 2021)	Haldia Institute of Technology (Autonomous Institute), West Bengal
2	Dr. Banani Basu	Invited Speaker in AICTE – ISTE Sponsored Induction /Refresher Programme Faculty Development Programme On Antenna Design And Analysis	St. Xavier's Technical Institute, Mahim Mumbai 400016
3	Dr. Banani Basu	Invited Speaker in AICTE – ISTE Sponsored Induction / Refresher Programme Phase II Faculty Development Programme On Antenna: Design And Analysis Phase Ii	St. Xavier's Technical Institute, Mahim Mumbai 400016
4	Dr. Bijit Choudhuri	Four days workshop on Solar cell simulation using open-source TCAD software (SCAPS-1D)	Chitkara University
5	Dr. Bijit Choudhuri	TEQIP III sponsored Faculty Development Program (FDP) on "VLSI and Nanotechnology in Energy, Environment, and Neuromorphic Computation	IIT Indore
6	Dr. Devendra Singh Gurjar	Innovation in Antenna Design and Analysis, July 9, 2020	ALTAIR

9	Dr. Devendra Singh Gurjar	One Day VirtualWorkshop on Internet of Things (System Configuration Perspectives), June 20, 2020	IIIT Allahabad
10	Dr. Devendra Singh Gurjar	5G and Beyond Wireless Technologies: Modelling and Simulations using MATLAB, 24-26 December 2020	IIT Indore
11	Dr. Prabina Pattanayak	Engineering Applications of Optimization Techniques – 2020 during 05-09th September 2020	NIT Silchar
12	Dr. P. Puspa Devi	Effective online teaching and conducting examination using Moodle LMS	NIT Silchar
13	Dr. P. Puspa Devi	Outcome Based Education and Accreditation	NIT Silchar
14	Dr. Ram Kumar Karsh	MATLAB & Its applications in AI & ML	Electronics & ICT Academy, NIT Patna
15	Dr. S. K. Tripathy	Advanced Rechargeable Batteries: From Powder to Power	IIT Roorkee
16	Dr. S. K. Tripathy	Advanced Energy Science and Technology	IIT Indore
17	Dr. S. K. Tripathy	Basic Training Program in Nano Science and Technology	IISc Bangalore

1.4 Research Development

a) Ph.D. Programme (Specializations):

- Medical Image Processing
- Speech Processing
- Wireless Sensor Networks
- 5G and Beyond Wireless Communications
- Design of Antenna and Metamaterials Structure
- Soft Computing Techniques in Antenna Array Optimization
- Microwave Engineering
- Microelectronics
- Nano and Optoelectronics Materials
- VLSI Design

b) Ph.D. Produced/Ongoing (in number):

Completed	Submitted	Ongoing
12	04	78

c) Research Lab/ Workshop:

Sl. No.	Name of Lab/Workshop	Purpose/Linkage to an existing/new programme
1	IoT and Wireless System Research Lab	New lab to focus on 5G and beyond wireless technologies and create infrastructure to address some core challenges
2	Computaion Lab-III	A new lab is established to develop and design 5G and Beyond 5G (B5G) wireless networks
3	Terahertz Devices Lab	Design & modelling of devices working in Terahertz frequency range (mm-Wave range).
4	Biomedical Imagingn lab	Linkage to an existing
5	Optical Communication Lab and Photonics Research Lab	New lab for U.G and PG/PhD to focus on high speed optical communication and photonics devices
6	Speech and Image Processing	Reseach
7	Advanced Antenna Research Lab	A research laboratory established for PG/PhD Scholars working in the area of Antenna Research and Allied Domain.

d) Ongoing/Completed Sponsored Research Project:

Sl. No.	Project Title	Principal Investigator(s)	Funding Agency	Cost in lakhs	Duration
1	Impact of error control code (ECC) on characteristic distance for underwater wireless sensor network (UWSN) and study of energy outage duration for energy harvested UWSN using Markov model	Dr Ashraf Hossain	Science and Engineering Research Board (SERB), DST	6.0 lakhs	2020-2023
2	Modernization of weaving units for empowerment of economically weaker tribal women of Lakhipur, Assam	Dr. Banani Basu	DST	21.81 Lakhs	3 Years
3	Visvesvaraya Young Faculty Research Fellowship	Dr. Brinda Bhowmick	MeitY Govt of India	37 lakhs	5 years
4	Development of Efficient Joint Antenna and User Scheduling Schemes for Massive MIMO Limited Feedback Broadcast Channels for 5G and Beyond Communication Systems	PI: Dr. Prabina Pattanayak Co-PI: Dr. Ganesh Prasad	CC&BT and Strategic Electronics	16.49	3 years

5	SMDP C2SD Project	Dr K L Baishnab	MeitY	3.2 Crores	5 years
6	A Nationwide Study on Retinal Detachment in India with Emphasis on the Risk of the Fellow Eye through Fundus Images using Deep Learning.	Dr. R.Murugan	SERB	16.48	2 Years
7	Multimodal user interface for assisting elderly people in indoor environment	Dr. Joyeetha Singha (PI) Dr. Rabul Hussain Laskar (Co-PI)	DST-SEED	32.20	3 years (2019-2022)
8	Development of a prototype of disabled-friendly automatic virtual text entry keyboard interface system under practical environmental conditions	Dr. Rabul Hussain Laskar (Co-PI)	DST-SERB	89	3 years (2019-2022)
9	Chips to System Design- Special Manpower Development Project (C2SD-SMDP) in IIT Madras cluster	Dr. K. L. Baishnab, Dr. Koushik Guha	MeitY, Govt. of India	97 Lakhs	5 years
10	Novel topology for energy harvesting & conversion under EnABLES (Ireland)	Dr. Koushik Guha	EnABLES, Horizon 2020	1600 Euro	1 year
11	Effect of metal doped TiO□ on photoanode and lead free organic-inorganic metal halide perovskite on photovoltaic performance of perovskite solar cell: experimental and theoretical approach	Dr. S. K. Tripathy	DST-SERB	42.38	3.5 years
12	High Pressure Phase Transitions, Electronic, Elastic and Optical Properties of Selected Defect Chalcopyrite Semiconductors for Optoelectronic Application	Dr. S. K. Tripathy	CSIR	11.42	3 years
13	Development of Low-Cost, High-Efficiency and High-Stability Perovskite/Silicon Tandem Solar Cell for Energy Harvesting	Dr. S. K. Tripathy (Co-PI)	ASEAN-India S&T Development Fund (AISTDF) of DST-SERB	31.94	2 Years

14	Development of Low-Cost, High-Stability and High-Efficiency Perovskite Solar Cell for Energy Harvesting: A Theoretical and Experimental Study	Dr. S. K. Tripathy (Co-PI)	CSIR-EMR-II	21.50	3 Years
15	Some Investigations on Design and Development of Efficient Printed Components for 5G Wireless Communications	Taimoor Khan, Lead Indian Collaborator	SERB, Govt of India (VAJRA Scheme)	108.348 Lakh ongoing	(2020-2022)
16	Design and Development of Dielectric Resonator Based Electromagnetic Sensors for Efficient Harvesting of Renewable RF Ambient Energy in Smart City Applications	Taimoor Khan, Indian Principal Investigator	MHRD, Govt. of India (SPARC Scheme)	INR 49.59 Lakh Ongoing	(2019-2021)
17	Development of EBG-Structured Printed Antennas for Ultrawideband Communication and Futuristic Modeling for Prediction of Performance Parameters using Computational Intelligence Techniques	Taimoor Khan, Principal Investigator	SERB, Govt. of India (Core Research Grant Scheme)	INR 16.28 Lakh Completed	(2017-2020)
18	One-Week ATAL Faculty Development Programme on “Information and Communication Technologies for Smart City Applications”, ICT4Smart2021	Taimoor Khan Course Coordinator	ATAL, AICTE New Delhi	INR 93000 Approved	(11-15 January 2021)
19	Development of Low-Cost, High-Stability and High-Efficiency Perovskite Solar Cell for Energy Harvesting: A Theoretical and Experimental Study	Dr. T. R. Lenka	CSIR	21.50	3 Years
20	Development of Low-Cost, High-Efficiency and High-Stability Perovskite/Silicon Tandem Solar Cell for Energy Harvesting	Dr. T. R. Lenka	SERB	31.94	2 Years
21	Visvesvaraya Young Faculty Research Fellowship Award	Dr. T. R. Lenka	MeitY	17.2	3 Years
22	Visvesvaraya PhD Scheme	Dr K L Baishnab	MeitY	330 Lakhs	5 yeras

e) Research Paper Reviewed

Sl. No.	Faculty Name	Journal Name	No of Paper	Year
1	Dr Ashraf Hossain	IEEE Sensor Journal	01	2020
2	Dr Ashraf Hossain	IEEE Communication Letters	01	2020
3	Dr Ashraf Hossain	Wireless Personal communications, Springer	01	2020
4	Dr Ashraf Hossain	EURASIP Journal on Wireless Communications and Networking	01	2021
5	Dr. Bijit Choudhuri	IEEE Transaction on Electronic Devices	01	2020
6	Dr. Bijit Choudhuri	IEEE Sensor journal	01	2021
7	Dr. Brinda Bhowmick	IEEE Transction on Electron Devices	03	2020-2021
8	Dr. Brinda Bhowmick	International Journal of Electronics	02	2020-2021
9	Dr. Brinda Bhowmick	Silicon	02	2020-2021
10	Dr. Brinda Bhowmick	Journal of Computational electronics	02	2020-2021
11	Dr. Brinda Bhowmick	International Journal of Numerical modelling	01	2020-2021
12	Dr. Devendra Singh Gurjar	IEEE Internet of Things Journal	03	2020-2021
13	Dr. Devendra Singh Gurjar	IEEE Transactions on Vehicular Technology	02	2020-2021
14	Dr. Devendra Singh Gurjar	IEEE Wireless Communication Letters	01	2020-2021
15	Dr. Devendra Singh Gurjar	IET Communications	02	2020-2021
16	Dr. Devendra Singh Gurjar	IEEE Sensors Letters	02	2020-2021
17	Dr. Devendra Singh Gurjar	International journal of Electronics	02	2020-2021
18	Dr. Ganesh Prasad	IEEE Transcations on Vehicular Technology	01	2020
19	Dr. Ganesh Prasad	IEEE Networking Letters	01	2021
20	Dr. Ganesh Prasad	IEEE Transcations on Wireless Communications	01	2021
21	Dr. Gaurav Singh Baghel	IEEE Transactions on Plasma Science	03	2020-2021
22	Dr. M. Kavicharan	Microelectronics Reliability	01	2020

23	Dr. M. Kavicharan	Silicon	02	2021
24	Dr. M. Kavicharann	Applied Physics A	01	2021
25	Dr. Prabina Pattanayak	Elsevier AEUE - International Journal of Electronics and Communications	01	2020
26	Dr. Prabina Pattanayak	International Journal of Electronics	02	2020
27	Dr. Prabina Pattanayak	International Journal of Electronics Letters	01	2020
28	Dr. Prabina Pattanayak	Telecommunication Systems	03	2020
29	Dr. Prabina Pattanayak	Wireless Personal Communications	02	2020
30	Dr. Prabina Pattanayak	Wireless Personal Communications	01	2021
31	Dr. Prabina Pattanayak	Wireless Networks	01	2021
32	Dr. R Murugan	IEEE Transaction on Medical Imaging	01	2020
33	Dr. R Murugan	Biomedical Signal Processing and control	05	2020 & 2021
34	Dr. R Murugan	International Ophthalmology	03	2020 & 2021
35	Dr. R Murugan	Multimedia Tools and Applications	04	2020 & 2021
36	Dr. R Murugan	Electronic Imaging	01	2021
37	Dr. R Murugan	Signal, Image and Video Processing	01	2021
38	Dr. Koushik Guha	IEEE Access	03	2020
39	Dr. Koushik Guha	International Journal of Electronics	02	2020
40	Dr. Koushik Guha	Journal of Sensors and Sensor Systems	01	2021
41	Dr. Koushik Guha	Microelectronics Reliability	01	2021
42	Dr. Koushik Guha	Measurement	01	2021
43	Dr. Koushik Guha	Transactions on Electrical and Electronic Materials	01	2021
44	Dr. Koushik Guha	Concurrency and Computation: Practice and Experience	01	2021
45	Dr. P. Puspa Devi	Optik	01	2021
46	Dr. P. Puspa Devi	Optics and Laser Technology	01	2021

47	Dr. Ram Kumar Karsh	IEEE Transactions onDependable and Secure Computing	01	2020-2021
48	Dr. Ram Kumar Karsh	The Journal ofSupercomputing	02	2020-2021
49	Dr. Ram Kumar Karsh	Journal of ElectronicImaging	02	2020-2021
50	Dr. Ram Kumar Karsh	Journal of Software:Practice andExperience	01	2020-2021
51	Dr. Ram Kumar Karsh	Journal of MathematicalProblems inEngineering	01	2020-2021
52	Dr. Ram Kumar Karsh	The Visual Computer	01	2020-2021
53	Dr. Robin Khosla	Microsystem Technologies	01	2020
54	Dr. Robin Khosla	IEEE 7th International Conference on Electrical, Electronics and Computer Engineering (UPCON 2020)	02	2020
55	Dr. Robin Khosla	International Conference on Micro/Nanoelectronics Devices, Circuits, and Systems (MNDCS-2021)	04	2021
56	Dr. S. K. Tripathy	Thin Solid Films	01	2021
57	Dr. S. K. Tripathy	Materials Today: Proceedings	01	2020
58	Dr. S. K. Tripathy	Journal of Physics and Chemistry of Solids	01	2020
59	Dr. S. K. Tripathy	Journal of Alloys and Compounds	01	2020
60	Dr. S. K. Tripathy	Facta	01	2021
61	Dr. Taimoor Khan	IEEE Transaction on Microwave Theory and Techniques	02	2020
62	Dr. Taimoor Khan	Frequenz	01	2020
63	Dr. Taimoor Khan	AEU-International Journal of Electronics and Communication	05	2020
64	Dr. Taimoor Khan	Microwave and Technology Letters	02	2020
65	Dr. Taimoor Khan	International Journal of RF and Microwave Computer Aided Engineering	10	2020
66	Dr. Taimoor Khan	IETE Journal of Research	03	2020
67	Dr. Taimoor Khan	IETE Technocal Review	02	2020
68	Dr. Taimoor Khan	International Journal of Artificial Intelligence	02	2020

69	Dr. Taimoor Khan	International Journal of Microwave and Wireless Technologies	03	2020
70	Dr. Taimoor Khan	IEEE Transaction on Microwave Theory and Techniques	01	2021
71	Dr. Taimoor Khan	Frequenz	01	2021
72	Dr. Taimoor Khan	AEU-International Journal of Electronics and Communication	02	2021
73	Dr. Taimoor Khan	Microwave and Technology Letters	02	2021
74	Dr. Taimoor Khan	International Journal of RF and Microwave Computer Aided Engineering	05	2021
75	Dr. Taimoor Khan	IETE Journal of Research	02	2021
76	Dr. Taimoor Khan	IETE Technocal Review	02	2021
77	Dr. Taimoor Khan	International Journal of Artificial Intelligence	01	2021
78	Dr. Taimoor Khan	International Journal of Microwave and Wireless Technologies	02	2021
79	Dr. T. R. Lenka	International Journal of Numerical Modelling: Electronic Networks, Devices and Fields	01	2020-2021
80	Dr. T. R. Lenka	IETE Technical Review	01	2020-2021
81	Dr. T. R. Lenka	IEEE Transactions on Industrial Electronics	01	2020-2021
82	Dr. T. R. Lenka	Journal of Computational Electronics	01	2020-2021
83	Dr. T. R. Lenka	International Journal of RF and Microwave Computer-Aided Engineering	01	2020-2021
84	Dr. T. R. Lenka	Nanotechnology	01	2020-2021
85	Dr. T. R. Lenka	Journal of Materials Science: Materials in Electronics	01	2020-2021
86	Dr. T. R. Lenka	IEEE Transactions on Electron Devices	01	2020-2021
87	Dr. T. R. Lenka	IEEE Access	01	2020-2021
88	Dr. T. R. Lenka	Superlattices and Microstructures	01	2020-2021
89	Dr. T. R. Lenka	Applied Physics A	01	2020-2021
90	Dr. T. R. Lenka	International Conference on Electrical, Electronics and Computer Engineering	01	2020-2021

91	Dr. T. R. Lenka	Electronics Letters	01	2020-2021
92	Dr. T. R. Lenka	IETE Journal of Research	01	2020-2021
93	Dr. T. R. Lenka	International Journal of Energy Research	01	2020-2021
94	Dr. T. R. Lenka	Semiconductor Science and Technology	01	2020-2021
95	Dr. T. R. Lenka	IEEE Electron Device Letters	01	2020-2021
96	Dr. T. R. Lenka	International Journal of Ambient Energy	01	2020-2021
97	Dr. T. R. Lenka	Micro & Nano Letters	01	2020-2021
98	Dr. T. R. Lenka	Current Nanoscience	01	2020-2021
99	Dr. Tripti Goel	International Journal of Speech Technology	01	2021
100	Dr. Ujjal Chakraborty	IETE Journal of Research	5	2021
101	Dr. Ujjal Chakraborty	International Journal of RF and Microw	2	2020
102	Dr. Ujjal Chakraborty	Journal of Electromagnetic Waves and Applications	1	2020

f) Chairing of Technical Section

Sl. No.	Faculty Name	Details
1	Brinda Bhowmick	MNCDS 2021 NIT Silchar via online mode
2	Dr. Devendra Singh Gurjar	IEEE ACTS-2020, December 4-6, 2020
3	Dr. Ganesh Prasad	IEEE PIMRC 2020, TS PHY-FUN 18 (Energy Efficiency and Harvesting)
4	Dr. Ganesh Prasad	IEEE CCNC 2021, (Session 12: Next Generation Protocols: MAC and Above)
5	Dr. Ganesh Prasad	IEEE ACTS 2020, December 4-6, 2020
6	Dr. M. Kavicharan	Acted as Technical session chair of IEEE COMPE 2020 conference
7	Dr K L Baishnab	FDP on Industry 4.0 Karunya Institute of Technology and Sciences. July 15th to 17th 2020
8	Dr K L Baishnab	AICTE Sponsored STTP Mixed Design approaches Artifical Inteligence Processors 1st February 2021, Andra University
9	Dr K L Baishnab	Recent Trends in Advanced Materials and Devices"between 21st - 25th September, 2020 NIT Jalandar

10	Dr K L Baishnab	Advances in Communication Systems for Integrated Technology, NIT Jalandar 06 to 10 July 2020.
11	Dr. Prabina Pattanayak	Advanced Communication Technologies and Signal Processing (ACTS) 4-6 December, 2020.
12	Dr. R Murugan	26th (Virtual) annual International Conference onAdvanced Computing and Communications (ADCOM 2020)December 16-18, 2020
13	Dr. R Murugan	International Conference on Micro/Nanoelectronics Devices, Circuits and Systems (MNDCS-2021) 30-31 Jan 2021
14	Dr. R Murugan	IEEE- Advanced Communication Technologies and Signal Processing (ACTS), 4-6 December, 2020
15	Dr. R Murugan	International E-Conference On Information, Communication Networking (eICICN'21),
16	Dr. Koushik Guha	Session Chair of the session "VLSI and Optical Communication" in 6th Students' Conference on Engineering & Systems (SCES-2020) during 10-12 July 2020
17	Dr. S. K. Tripathy	Session Chair at 3rd International Conference on Communication and Computational Technologies (ICCCT 2021) held at Jaipur, Rajasthan, India during 27-28, Feb 2021.
18	Dr. S. K. Tripathy	Session Chair at 3rd INTERNATIONAL CONFERENCE ON ELECTRONICS, COMPUTERS AND COMMUNICATION (ICAECC) held at REVA University, Bangalore on 11-12 Dec 2020.
19	Dr. Taimoor Khan	Session Chair on “S12-RF/Microwave Antennas and Filters” in 6th Students’ Conference on Engineering and Systems, SCES-2020, organized by Electrical Engineering Department, Motilal Nehru National Institute of Technology Allahabad, India during 10-12 July 2020.
20	Dr. T. R. Lenka	6th Students Conference on Engineering and Systems (SCES 2020), July 10-12, 2020
21	Dr. T. R. Lenka	28th National Conference on “Condensed Matter Days 2020” (CMDAYS 2020), 11-13 December 2020.
22	Dr. Tripti Goel	26th (Virtual) annual International Conference on Advanced Computing and Communications (ADCOM 2020) December 16-18, 2020
23	Dr. Tripti Goel	International Conference on Micro/Nanoelectronics Devices, Circuits and Systems (MNDCS-2021) 30-31 Jan 2021

1.5 PUBLICATIONS

a) International Journal(s):

[1] Shovon Nandi, Narendra Nath Pathak and Arnab Nandi, 2020, "A Novel Adaptive Optimized Fast Blind Channel Estimation for Cyclic Prefix Assisted Space–Time Block Coded MIMO□OFDM Systems," Wireless Personal Communications, Vol. 115, Issue 2, pp. 1317–1333. Impact Factor 1.061. [SCIE]

[2] Bidisha Hazarika, Banani Basu and Arnab Nandi, 2020, "An AMC Backed Monopole Antenna to Obtain High gain, Conformability and Lower SAR for WBAN Applications," International Journal of RF and Microwave Computer-Aided Engineering (Wiley), Vol.30, Issue 12, pp. 1-9. Impact Factor 1.528. [SCIE]

[3] Bidisha Hazarika, Banani Basu and Arnab Nandi, 2020, "Design of Antennas using AMC Layer to Improve Gain, Flexibility and SAR," Microwave and Optical Technology Letters (MOTL), Vol. 62, Issue12, pp. 3928-3935. Impact Factor 0.957. [SCIE]

[4] Abhishek Mondal, Ashraf Hossain (2020), "Channel characterization and performance analysis of UAV operated communication system with multihop RF–FSO link in dynamic environment" International Journal of Communication Systems, Wiley, July 2020. DOI:10.1002/dac.4568.

[5] Rajeev Kumar, Ashraf Hossain (2020), "Full-duplex wireless information and power transfer in two-way relaying networks with self-energy recycling", Wireless Networks, Springer, vol. 26, pp. 6139–6154, 2020, DOI: 10.1007/s11276-020-02432-x.

[6] Sultan Mahmood Chowdhury, A. Hossain (2020), "Different Energy Saving Schemes in Wireless Sensor Networks: A Survey", Wireless Personal Communications, Springer, vol. 114, pp. :2043–2062, 2020, DOI 10.1007/s11277-020-07461-5

[7] Ganesh Prasad, Deepak Mishra, Kamel Tourki, Ashraf Hossain, Mérouane Debbah (2020), "QoS and Energy Aware Optimal Resource Allocations in DF Relay-Assisted FSO Networks", IEEE Transactions on Green Communications and Networking, vol. 4, no. 3, pp. 914-926, Sept. 2020, doi: 10.1109/TGCN.2020.2969422.

[8] Remika Ngangbam, Ashraf Hossain, Alok Shukla (2020), " Improved Low Energy Adaptive Clustering Hierarchy and its optimum Cluster Head selection", International Journal of Electronics, Taylor & Francis, vol. 107, pp. 390-402, 2020, DOI: 10.1080/00207217.2019.1661023

[9] Sagar Dutta, Banani Basu and Fazal Ahmed Talukdar, 2021, "Classification of Lower Limb Activities based on Discrete Wavelet Transform using On-Body Creeping Wave Propagation," IEEE Transactions on Instrumentation & Measurement, Vol. 30, Issue. 1, pp. 1-7. Impact Factor 3.658. [SCIE]

[10] Sagar Dutta, Banani Basu and Fazal Ahmed Talukdar, 2021, "ACascaded Neural Network Based Small Array Synthesis with Robustness to Noise," International Journal of RF and Microwave Computer-Aided Engineering (Wiley), Vol. 31, Issue 1, pp. 1-16. Impact Factor 1.528. [SCIE]

[11] Kamal Kant Kashyap, Bijit Choudhuri, and P. Chinnamuthu, 2020, "Enhanced Optical and Electrical Properties of Metallic Surface Plasmon Sensitized TiO2 Nanowires" IEEE Transactions on Nanotechnology, Volume 19, Pp. 519-526, DOI: 10.1109/TNANO.2020.3004876

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d) National Conference(s): Nil

e) Book/Chapter:

[1] Yogita Maithani, Bijit Choudhuri, B. R. Mehta, J. P. Singh, A comprehensive review on fabrication and performance evaluation of dry electrodes for long term ECG monitoring, Book Title: "Modelling and Analysis of Active Biopotential Signals in Healthcare-Volume 2" Volume 1, Online ISBN: 978-0-7503-3411-2, Print ISBN: 978-0-7503-3409-9, YEAR 2020.

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1.6 CONSULTANCY SERVICES: Nil

1.7 Major Equipment Acquired

1. Spartan 7 Kit Procured under Project
2. Zed board Procured under Project

1.8 Patent

Sl. No.	Details	Year
1	Australian Patent on "Modeling And Simulation Of Heterojunction Solar Cell With Photonic Crystal On Photoactive Material". Patent number: 2020102168.	2020
2	Indian Patent published on "Design And Analysis Of Rf Mems SwitchConfigured Csrr Embedded Bandstop Filter For Ku BandApplications". Patent number: 2021102313, Publication Date: 05/02/2021	2021

1.9 Visits To Abroad

Sl.No.	Name of the Faculty	Name of the Conference/ Programme	Place	Date
1	Dr. Robin Khosla	Alexander von Humboldt post-doctoral Research Fellowship	Stuttgart, Germany	Aug. 2019-July 2021

1.10 M.Tech. / M.Sc. (Thesis/Project)

Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis/Project
1	Sanoj Mahato	Dr. Arnab Nandi & Dr. T Khan	Band Notched Characteristics Using EBG Structure for UWB Antenna
2	Ms. Jyoti Pandit	Dr. G S Baghel & Dr. Banani Basu	Performance Improvement of Antipodal Vivaldi Antenna Using Metamaterials
3	Khan Abdulkaleem Abdulquyyaum	Bijit Choudhuri	Enabling Improved Gate Level Simulation at IP and SOC Level
4	Urmila Bag	Dr.Brinda Bhowmick	Simulation and reliability study of strained SOI TFET
5	Mayank Saini	Dr. Brinda Bhowmick	Designing a Splittable IOMUX CELL used in Pin Multiplexing of the Automotive Microcontrollers”
6	Mr. Sagar Kumar	Dr. Wasim Arif & Dr. Devendra Singh Gurjar	Performance Analysis of Wireless Powered UAV-enabled Cooperative Communication over Mixed LoS and NLoS Channels
7	Mr. Avinandan Das	Dr. Devendra Singh Gurjar & Dr. Tripti Goel	Performance of Three-Phase Two-Way SWIPT enabled DF-Relay Networks under Nakagami-m Fading
8	Ms. Jyoti Pandit	Dr. Gaurav Singh Baghel	Performance Improvement of Antipodal Vivaldi Antenna Using Metamaterials
9	Sagarika Naik	Dr. M. Kavicharan	Customized Routing Algorithm for Timing Collateral on Layout Tool
10	Suresh Kumar	Dr K L Baishnab Dr Taimoor Khan	Creation of Automation Framework for Ethernet PHY Validation using Python
11	Saikiran	Dr K L Baishnab Dr Taimoor Khan	Role Of Ecc In Arm M7 Processor Sub System
12	Ananya Das	Dr. Prabina Pattanayak	Efficient Pilot Scheduling Scheme for Massive MIMO Systems

13	Dhanunjay Reddy	Dr. R.Murugan	Automatic Diagnosis Of Arrhythmia Using Dynamic Features Through Ecg Signals
14	Soumya Gupta (1924107)	Dr. Rabul Hussain Laskar (Supervisor) Dr. Taimoor Khan (Co-supervisor)	Speaker independent physiological model for estimating heart rate
15	Pinki Shrivas	Dr. Koushik Guha	Improved Structure of Piezoelectric MEMS Vibration Energy Harvester;Design & Analysis
16	Kh. Dayananda Singh	Dr. P. Puspa Devi	pH sensor characterisation for different ISFET structures towards biosensor application
17	Mr. Dibyakanti Mahapatra	Dr. Ram Kumar Karsh, Co-supervisor	Hand written character and word recognition using deep learning
18	Mr. Prasanth Kumar	Dr. S. K. Tripathy	Validating Partial Reconfiguration for Intel FPGA
19	Karnati Saikiran	Taimoor Khan	Design and Development of Efficient Rectifier Circuits using Graphene Technology for Low Power Sensors Applications
20	Manumanthu Sureshkumar	Taimoor Khan	Design and Development of Efficient Rectifier Circuits using CMOS Technology for Low Power Sensors Applications
21	Sanoj Mahato	Taimoor Khan	Band Notch Characteristics in Ultra-wideband MIMO Antennas
22	Umakanta Padhan	Dr. T. R. Lenka	Analog Validation, Characterization and Analysis of I/O Pad in Test Vehicle, Internship at NXP, Noida.
23	Mr. Shubham Dwivedi	Dr. Tripti Goel	Multi-Modal Fusion Based Deep Learning Framework For Early Diagnosis Of Alzheimer's Disease
24	Mr. Avinandan Das	Dr. Tripti Goel	Performance of Three-Phase Two-Way SWIPT enabled DF-Relay Networks under Nakagami-m Fading
25	Harshit Kumar Mishra	Ujjal Chakraborty	Functional Validation of Smart NoC

1.11 Ph.D. Thesis

Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis
1	Ashish Pandey	Dr. Arnab Nandi	Energy Efficient Clustering and Energy Aware Routing for Performance Enhancement of Wireless Sensor Networks using Optimization Techniques
2	Pratistha Brahma	Dr. Banani Basu	Design and Optimization of Antenna Array with Equal and Unequal Split Power Dividers
3	Bidisha Hazarika	Dr. Banani Basu	Design of AMC Integrated Monopole Antennas with Enhanced Radiation Performances for Body-centric Applications
4	Puja Ghosh	Brinda Bhowmick	Bandgap Engineered Selective Buried Oxide Tunnel FETs: Simulation, Modeling and Applications
5	Lison Singh	Dr. K. L. Baishnab	Design and Optimization of Analog Circuits for Low Noise Application using SI-based Algorithm"
6	Paramita Sarkar	Dr. K. L. Baishnab Dr. S. K. Tripathy (Co-Supervisor)	Study of Organic-Inorganic Lead Halide Perovskites for Optoelectronic Applications
7	Naushad Manzoor Laskar	Dr. K. L. Baishnab	Design and Optimization of Neural Amplifiers using the novel Hybrid Whale Particle Swarm Optimization Algorithm
8	Mr. Manir Ahmed	Dr. Rabul Hussain Laskar	Design and development of human eye center localization methods for uncontrolled environment
9	K Girija Sravani	Dr. Koushik Guha	Design, Fabrication and Characterization of Step Structured RF MEMS Switch for Reconfigurable Antenna
10	Naushad Manzoor Laskar	Dr. Koushik Guha	Design and Optimization of Neural Amplifiers using novel Hybrid Whale Particle Swarm Optimization Algorithm
11	Partha Pratim Shome	Dr. Taimoor Khan	Design, Development and Characterization of Efficient Planar Microwave Circuits for Ultra-wideband Applications
12	Ashim Kumar Biswas	Ujjal Chakraborty	Design and Performance Analysis of Wideband Multiple Input Multiple Output Antennas Comprised of Conventional and non- Conventional Substrates

1. Name of the Department:

Computer Science and Engineering

The Department at a glance
Year of Establishment: 1987
Academic Programmes Offered: • Bachelor of Technology (B.Tech) • Master of Technology (M.Tech) • Doctor of Philosophy (Ph.D.)
Total Faculty Strength: 24 • Professor: 1 • Associate Professor: 1 • Assistant Professor: 22
Total Student Strength: 737 • B.Tech: 587 • M.Tech: 44 • Ph.D.: 106
New Students Joined in 2020-2021: 236 • B.Tech: 175 • M.Tech: 26 • Ph.D.: 35

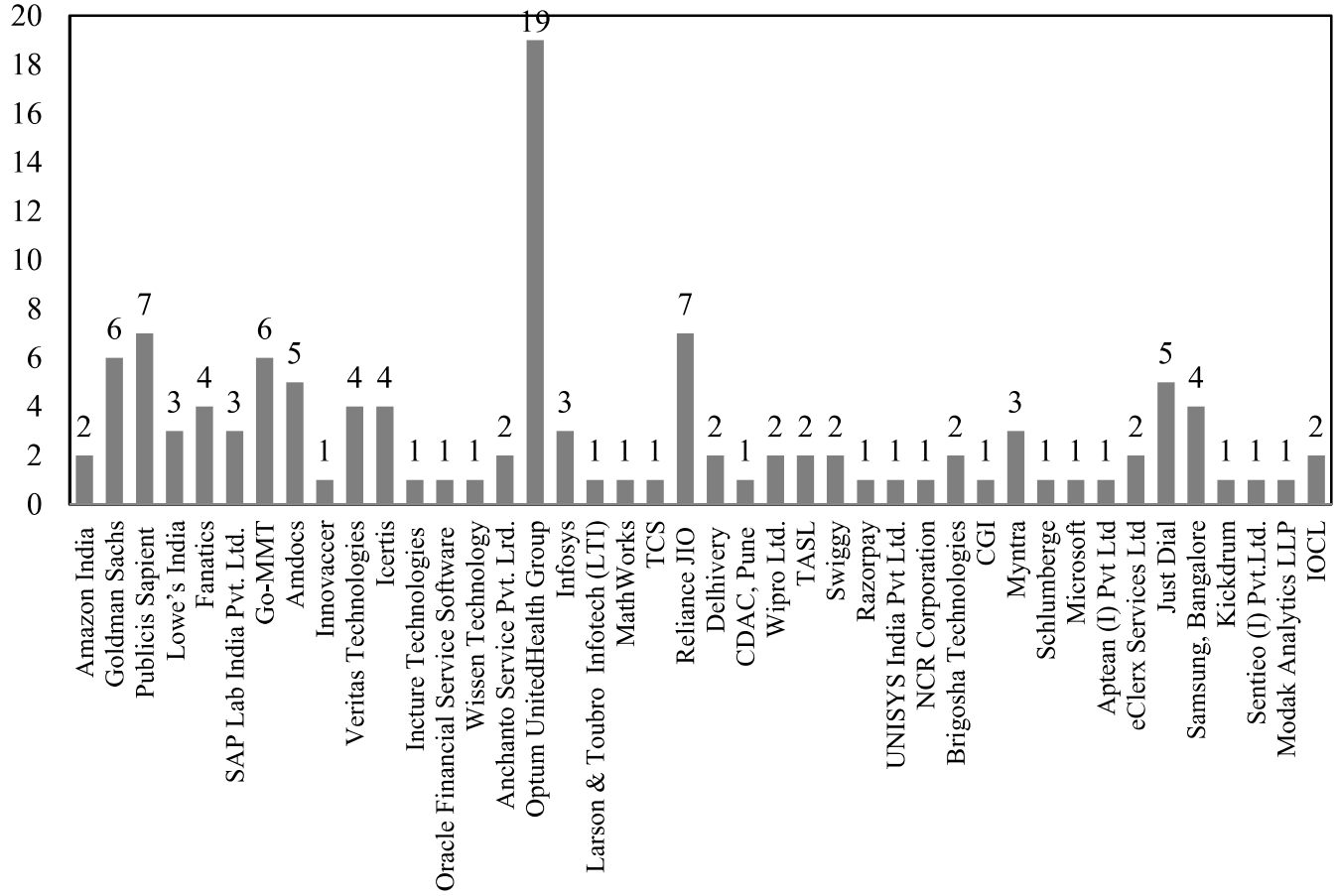

Fig: 1 Placement statistics of the student in the CSE Department during 2020-2021.

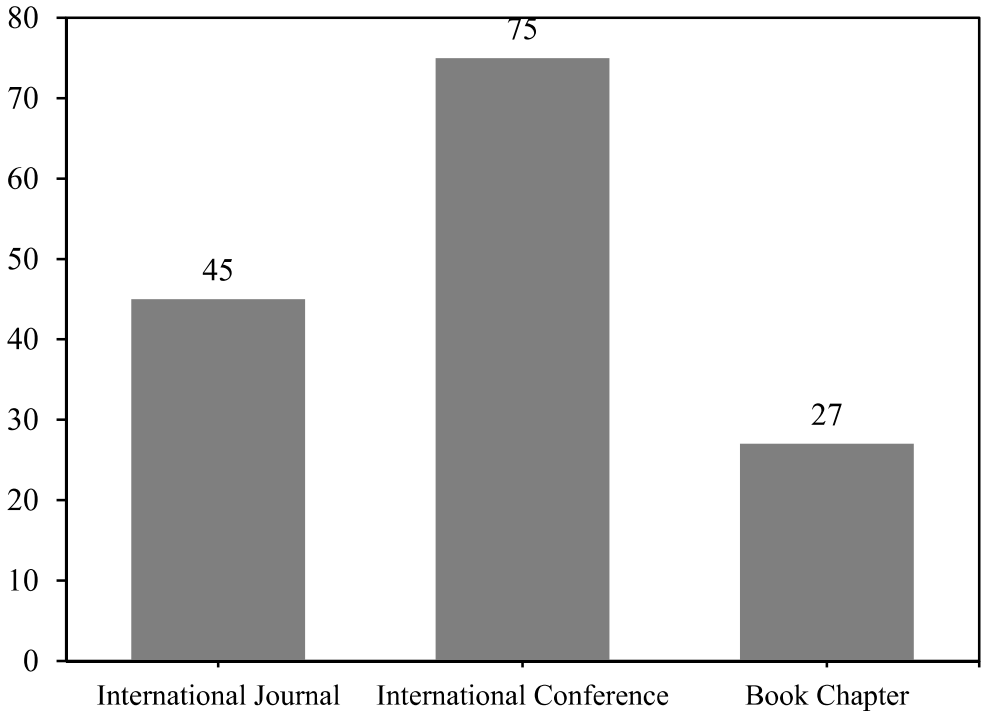

Fig: 2 Publication details of CSE Departement during 2020-2021.

1.1 Academic Staff:

HEAD of the Department: Dr. Samir Kumar Borgohain

Name of Faculty members:

Professor	Associate Professor	Assistant Professor
Prof. Sivaji Bandyopadhyay	Dr. Biswajit Purkayastha	Dr. Arup Bhattacharjee
		Dr. Ujwala Baruah
		Dr. Pinki Roy
		Dr. Samir Kumar Borgohain
		Mr. Prabhakar Sharma Neog
		Mr. Biswanath Dey
		Mr. Pantha Kanti Nath
		Dr. Saroj Kumar Biswas
		Dr. Dalton Meitei Thounaojam
		Dr. Badal Soni
		Dr. Ripon Patgiri
		Mr. Umakanta Majhi
		Dr. Shyamosree Pal
		Dr. Shyamapada Mukherjee
		Dr. Laiphrakpam Dolendro Singh
		Dr. Malaya Dutta Borah
		Dr. Anish Kumar Saha
		Dr. Thoudam Doren Singh
		Dr. Anupam Biswas
		Dr. Partha Pakray
		Dr. Suganya Devi K
		Dr. Naresh Babu Muppalaneni

Visiting Professor (If any): NIL

1.2 Distinction Achieved

a) By Student:

1. Miss Atmashree Ray (16-1-5-004) has been awarded Silver Medal for being "Branch Topper (UG-CSE)" during the 18th Convocation (2nd Nov, 2020), NIT Silchar.
2. Mr. Anandamoy Bandyopadhyay (18-25-111) has been awarded Silver Medal for being "Branch Topper (PG- CSE)" during the 18th Convocation (2nd Nov, 2020), NIT Silchar.

3. Mr. Prakash Jha (16-1-5-054) has been awarded "Best All Round Graduate" during the 18th Convocation(2nd Nov, 2020), NIT Silchar.
4. Miss Satashree Roy (17-1-5-010) is placed in Microsoft with a highest package of INR 41 Lakhs.
5. Mr. Navneet Gangwar(16-1-5-053) has scored AIR 4 in GATE 2021.
6. Mr. Ajay Sherawat (1-61-5-050) is currently pursuing M.Tech from NIT Surathkal.
7. Mr. Navneet Gangwar (16-1-5-053) is currently pursuing M.Tech- CSA from Indian Institute of Science (IISc).
8. Md. Shafkat Samin (16-1-5-088) is currently pursuing M.Tech from Jahanginagar University.
9. Mr. Santosh Rajak(18-25-116), M.Tech (CSE) is currently pursuing PhD from NIT Silchar.

b) By Faculty Member:

1. Dr. Arup Bhattacharjee, Dr. Samir Kumar Borgohain, Dr. BadalSoni: Conference Proceedings Editors "International Conference Machine Learning, Image Processing, Network Security and Data Sciences(MIND 2020), published in Springer,CCIS 1240-1241.
2. Dr. Pinki Roy: Delivered Expert Talk titled "Research Challenges and Applications of Machine learning: Special Emphasis on Deep Learning", in One Week Online International Faculty Development Programme on "Machine Learning and Computer Vision: Applications, Research Challenges", organised by Dept. of CSE NIT Silchar and GUIST, Guwahati during August 24-28, 2020.
3. Dr. Saroj Kumar Biswas : Delivered Expert Talk titled " Foundation of Machine Learning for Data Science", in One Week Online International Faculty Development Programme on "Machine Learning and Computer Vision: Applications, Research Challenges", organised by Dept. of CSE NIT Silchar and GUIST, Guwahati during August 24-28, 2020.
4. Dr. Badal Soni , Dr. Suganya Devi K.: Editor of the book " Information Retrieval: Models and Concepts", Wiley publisher, ISBN: 9789354246791, 2021.
5. Dr. Ripon Patgiri, Dr. Anupam Biswas and Dr. Pinki Roy,Editors of the book, "Health Informatics: A Computational Perspective in Healthcare" , Studies in Computational Intelligence, vol. 932, pages 330, 2021, Springer Book Series, doi: 10.1007/978-981-15-9735-0.
6. Dr. Ripon Patgiri, Dr. Anupam Biswas, Editors of the book, "Principles of Social Networking: The New Horizon and Emerging Challenges", Smart Innovation, Systems and Technologies (SIST), Springer, DOI: 10.1007/978-981-16-3398-0.
7. Ripon Patgiri, Sivaji Bandyopadhyay, Malaya Dutta Borah, Dalton Meitei Thounaojam, Conference Proceedings Editors "Big Data, Machine Learning, and Applications", Springer Publication, 2020, eISBN: 978-3-030-62625-9.
8. Dr. Malaya Dutta Borah, Editor In a multi-authored edited book titled "Blockchains in Digital Healthcare, CRC Press, Taylor & Francis [IN PRESS].
9. Dr. Malaya Dutta Borah: Delivered Expert Talk titled "Introduction to Blockchain and its Research Direction" in the Guest Lecture organised by the Dept. of Computer Engineering, GH Raisoni College of Engineering and Management, Pune on 13 Feb 2021.
10. Dr. Malaya Dutta Borah: Delivered Expert Talk titled "Introduction to machine Learning and Classification by Decision Tree Induction" at One Week Online Faculty Development Programme on "Emerging Trends and Challenges: ML, IoT and Cyber Security", organized by Department of E&TC Engineering, SKNCOE during 18th-22nd January, 2021. Talk delivered on 19 January 2021.

11. Dr. Malaya Dutta Borah: Delivered Expert Talk titled "Introduction to machine Learning and Classification by Decision Tree Induction" at " Online Expert Talk on Algorithm, Machine Learning and Data Science" Sponsored by Assam science and Technology University, (Sept 4-5,2020) Organised by Dept. of CSE, Assam Engineering College, Assam, Talk delivered on 5th Sept 2020.
12. Dr. Malaya Dutta Borah: Delivered Expert Talk titled "Introduction to Blockchain: Basics, History and Architecture" at "One Week ISTE Certified FDP on Blockchain Technology and its Application" organized by JNNCE, Shivamogga in association with Dept. of IT, NITK, Surathkal (August 17-21,2020), Talk delivered on August 17, 2020.
13. Dr. Anish Kumar Saha: Invited Speaker, National e-Workshop on Linux Fundamentals, NWLF-2020, 3-8th December 2020, Department of Information Technology, Women's College, Agartala.
14. Dr. Anish Kumar Saha : Invited Speaker, International Webinar on "Barrier and Elucidation of Academic Activities and Various Schemes in Education System", Organized by Dept. of IT, Rabindranath Thakur Mahavidyala", Govt. of Tripura, India, 08/09/2020.
15. Dr. Anish Kumar Saha : Invited Speaker, "International Webinar on Application of ICT in Higher Education During COVID-19 Pandemic", IGNOU Agartala and Govt. Degree College Kamalpur India, Date-02/09/2020.
16. Dr. Thoudam Doren Singh:Journal Guest Editor: Recent Advances on Social Media Analytics and Multimedia Systems: Issues and Challenges, [ongoing- Tentative publication date: Autumn 2021] [SCIE Indexed]
17. Dr. Anupam Biswas: Delivered Expert Talk titled "Community Detection in Social Networks" at One Week Virtual Faculty Development Programme (FDP) on "Communication Networks and Machine Learning", organized by Department of Computer Science & Engineering, IIIT Bhagalpur, Bihar, during 18th-22nd January, 2021. Talk delivered on 19 January 2021.
18. Dr. Anupam Biswas: Delivered Expert Talk "Social Media Influence and Identification of Communities in Social Networks" at AICTE (All India Council for Technical Education) sponsored five-days online Faculty Development Programme (FDP) on "Recent Advances of NLP using Deep Learning" (NLP-DL-2021) organized by Department of Computer Science & Engineering, NIT Silchar during 8-12 March, 2021. Talk delivered on 12 Mar 2021.
19. Dr. Partha Pakray : Delivered Expert Talk titled : "Natural Language Processing Trends and Machine Translation: Past, Present and Future", at Intelligent Data Analytics (IDA) Lab, IIR4.0, UKM Malaysia, through online, 23/03/2021.
20. Dr. Partha Pakray: Delivered Expert Talk titled: "Emerging Technologies: Natural Language Processing & Artificial Intelligence", at The Institution of Engineers (India), SILCHAR LOCAL CENTRE, 10/11/2020.
21. Dr. Partha Pakray: Delivered Expert Talk titled: "Machine Translation Overview: PAST -> PRESENT -> FUTURE", at National Institute of Technology Rourkela, 16/10/2020.
22. Dr. Partha Pakray : Delivered Expert Talk titled : "Hands-on Practical Session on Machine Translation", at National Institute of Technology Rourkela, 17/10/2020.

1.3 SEMINARS, SYMPOSIA, SHORT TERM COURSES, WORKSHOPS

a) Conducted by Faculty Member

Sl. No.	Name(s) of the Coordinator	Title	Funding Agency	Duration
1.	Dr. Thoudam Doren Singh Prof. Sivaji Bandyopadhyay	AICTE Training and Learning (ATAL) Academy Sponsored One Week Online Faculty Development Program on "Recent Advances of NLP using Deep Learning (NLP-DL-2021)"	AICTE	8th March to 12th March, 2021
2.	Dr. Thoudam Doren Singh Prof. Sivaji Bandyopadhyay	One Week Indo-German SPARC Symposium cum Workshop on "Recent Advances in Machine Translation (RAMT(2021)"	SPARC Project P995	15th March 2021 to 19th March 2021
3.	Dr. Malaya Dutta Borah Dr. Naresh Babu Muppalaneni	One Week Online International Faculty Development Programme on "Machine Learning and Computer Vision: Applications, Research Challenges"	TEQIP-III	August 24-28, 2020
4.	Dr. Malaya Dutta Borah, Dr. Partha Pakray	WEBINAR on "Positive Mental Health during Covid -19 Pandemic"	NIT Silchar	11 July 2020
5.	Dr. Suganya Devi K.	AICTE Training and Learning (ATAL) Academy Sponsored One Week Online Faculty Development Program on "Role of Artificial Intelligence inScience and Engineering Applications (RAISEA-2020)" for CBSE School Teachers.	NIT Silchar	October 26-30, 2020.

b) Participated by Faculty Member

Sl. No.	Name of Faculty	Details of the Program	Organizing Institute
1.	Dr Biswajit Purkayastha	One Week Online International Faculty Development Programme on "Machine Learning and Computer Vision: Applications, Research Challenges, August 24-28, 2020	National Institute of Technology Silchar
2.	Mr. B Dey	Effective online teaching and conducting examination using Moodle LMS	National Institute of Technology Silchar in association with National

			Institute of Technology Warangal during 05-10,April 2021
3.	Mr. Pantha Kanti Nath	Effective online teaching and conducting examination using Moodle LMS	organized by NIT Silchar in association with NIT Warangal during 05-10,April 2021
		SCIP Online Workshop 2020	organized by University of Exeter, Date: 3rd and 4th June 2020
4.	Dr Saroj Kr Biswas	Webinar on "Teaching and Research in Post COVID Scenario", 4th July 2020.	NIT Silchar
		Webinar on "Higher Technical Education in Post COVID Scenario",June 20, 2020	AICTE
		AICTE Sponsored online Faculty Development Programme (FDP) on "Outcome Based Education and Accreditation 24th - 28th Feb 2021	NBA Cell, National Institute of Technology Silchar
		One Week Online International Faculty Development Programme on "Machine Learning and Computer Vision: Applications, Research Challenges, August 24-28, 2020	National Institute of Technology Silchar
5.	Dr. Badal Soni	AICTE Sponsored online Faculty Development Programme (FDP) on "Outcome Based Education and Accreditation 24th - 28th Feb 2021	NBA Cell, National Institute of Technology Silchar
		One Week Online International Faculty Development Programme on "Machine Learning and Computer Vision: Applications, Research Challenges, August 24-28, 2020	National Institute of Technology Silchar
		Two weeks online Faculty Development Programme on "Machine Learning for Computer Vision" during February 1-12, 2021.	Jointly organized by the Electronics and ICT Academies at IIT Guwahati, IIT Kanpur, MNIT Jaipur, NIT Patna and PDPM IIITDM Jabalpur, under the "Scheme of financial assistance for setting up of Electronics and ICT Academies" of the Ministry of Electronics and Information Technology (MeitY), Government of India.

6.	Mr. Umakanta Majhi	Effective online teaching and conducting examination using Moodle LMS	organized by NIT Silchar in association with NIT Warangal during 05-10,April 2021
		One week workshop (Webinar) on Engineering Applications of Optimization Techniques 2020	Organized by Dept. of ECE,ME,Math NITS during 05-09 Sept 2020
		TEQIP-III Online STP on " Formal verification of Cyber-Physical System : Opportunities and Challenges"	Organized by Dr B R Ambedkar NIT, Jalandhar during 11-15 Sept 2020
		One day Workshop on Protection of IPR in the age of Internet:How, what and Why? IPR 2021	Organized by IPR Cell NITS, on 21st march 2021
7.	Dr. Shyamapada Mukherjee	Effective online teaching and conducting examination using Moodle LMS	NIT Silchar
		Webinar on Higher Technical Education in Post COVID Scenario by Prof. Anil D. Sahasrabudhe, June 20, 2020	NIT Silchar
8.	Dr. Malaya Dutta Borah	Webinar on "Teaching and Research in Post COVID Scenario", 4th July 2020.	NIT Silchar
		Webinar on "NIRF Methodology and Strategic Planning", June 24, 2020	NIT Silchar
		National Webinar On "The Role Of Mathematical Modeling In Covid19 Pandemic Response: Main Challenges", 22nd June, 2020	Department of Mathematics,Vijaygarh Jyotish Ray College, Kolkata
		Webinar on "Higher Technical Education in Post COVID Scenario",June 20, 2020	AICTE
		Webinar Series on "Out come Based Education", Jun 19, 2020	NIT Silchar
		Online FDP on "Online Course Preparation and Effective Delivery", 16 May 2020	PMMM-NMIT
		Digital Conference on RE-START (Reboot the Economy through Science, Technology & Research Translations) on National Technology, 11 May 2020	Confederation of Indian Industry (CII) and Technology Development Board, DST, @ CII-HIVE
		Webinar on "Project Based Learning and Higher Order Thinking Skills", 8 May 2020	Amity University
9.	Dr. A K Saha	Machine learning and Computer Vision: Applications, Research Challenges (MLCV 2020) 24-28 August 2020.	Dept. of CSE, NIT Silchar.

		One week Online Faculty Development Programme on "Energy and Environment: Conversion, generation, storage and efficient utilization", from 24/08/2020 to 28/08/2020.	North Eastern Regional Institute of Science & Technology, Nirjuli, Arunachal Pradesh.
10.	Dr. Thoudam Doren Singh	Webinar on "Teaching and Research in Post COVID Scenario", 4th July 2020.	NIT Silchar
		Webinar on "NIRF Methodology and Strategic Planning", June 24, 2020	NIT Silchar
		Webinar on "Higher Technical Education in Post COVID Scenario",June 20, 2020	AICTE
		Webinar Series on "Out come Based Education", Jun 19, 2020	NIT Silchar
11.	Dr. Partha Pakray	Workshop on Grant Writing, Dec 12, 2020	IISc Bangalore
		Webinar on Higher Technical Education in Post COVID Scenario by Prof. Anil D. Sahasrabudhe, June 20, 2020	NIT Silchar
		Webinar on Outcome Based Education (OBE), June 19, 2020	NIT Silchar
		Webinar on Halting the Spread of COVID-19 by Padmashree Dr. Ravi Kannan, June 17, 2020	NIT Silchar
12.	Dr. Naresh Babu Muppalaneni	One Day National Level Faculty Development Workshop on Cyber Security, 10th April 2020	Shivaji University, Kholapur

1.4 Research Development

a) Ph.D. Programme (Specializations):

Cryptography, Big Data and Networking, Natural Language Processing, Machine Learning / Deep Learning, Cryptography, Bioinformatics, Computational Intelligence, Image Processing, Medical Image Processing, Artificial Intelligence, Quantum Computing, Quantum Algorithm, Cloud Computing Blockchain Technology, e-Governance System, Data Mining, Security, Watermarking, Image Processing, Graphic Recognition, Combinatorial Image Analysis, Sensor Network System, Speech Processing, Image Forensic and ChatBot.

b) Ph.D. Produced/Ongoing (in number):

Completed	Submitted	Ongoing
02	05	78

c) Research Lab/ Workshop:

Sl. No.	Name of Lab/Workshop	Purpose/Linkage to an existing/new programme
1	BigCyber Research Lab	The purpose of the lab is to empower the students and research scholars to be front-runners in the area of Big Data, Cyber Security and Network Security by provisioning quality research, consultancy and outreach. Users: B.Tech/M.Tech/PhD Students & Faculty Members of CSE DeptStakeholder of other departments of NIT Silchar for multidisciplinary research work.
2	Internet of Things	Purpose of the lab is to develop an infrastructure for all levels of students (UG, PG, PhD) who can explore various IoT related research and studies.
3	AI Lab	The purpose of the lab is to emphasize on research in the area of AI and ML for M.Tech and Ph.D scholars.
4.	Medical Imaging Lab.	The purpose of this lab is to explore and predict the anomalies in medical images and smear images obtained from different modalities using AI and machine learning. The users are all levels of students fraternity and faculty fraternity of NIT silchar for multidisciplinary research.

d) Ongoing/Completed Sponsored Research Project:

Sl. No.	Project Title	Principal Investigator(s)	Funding Agency	Cost (Rs.)	Duration
1.	Multimodal Machine Translation – Convergence of Multiple Modes of Input	Prof. Sivaji Bandyopadhyay (PI) Dr. Thoudam Doren Singh. (Co-PI)	SPARC MHRD	49, 58,000	2 years
2.	Leveraging Machine Learning and Soft Computing Techniques to Investigate Raag Formation in Indian Classical Music	Dr. Anupam Biswas	SERB-DST, Govt. of India	24,68,400	3 years (2019-2022)
3.	Optimal Solution Evaluation	Dr. Anupam Biswas	SERB-DST, Govt. of India	23,36,500	3 years (2019-2022
4.	A Computer-aided Recommendation Engine for the Health Diagnostic	Dr. Partha Pakray (PI) Prof. Sivaji Bandyopadhyay (Co-PI)	ASEAN-SERB	11,33,000	2 Years (2019-2021)

5.	Deep Summarization Evaluation	Dr. Partha Pakray (PI) Prof. Sivaji Bandyopadhyay (Co-PI)	DST-CNRS	31,06,000	3 Years (2020-2022)

e) Research Paper Reviewed

Sl. No	Faculty Name	Journal Name	No. of Paper	Year
1.	Dr. Dalton Meitei Thounaojam	• Applied Intelligence	03	2020-2021
2.	Dr. Badal Soni	• Sensing and Imaging, Springer • Multimedia Systems, Springer • Sadhana • IET Image Processing • IEEE Sensors Journal • Journal of Digital Imaging • Journal of Computer Vision and Image Processing (IJCVIP)	01 03 01 03 02 01 02	2020-21 2020-21 2020-21 2020-21 2020-21 2020-21 2020-21
3.	Dr. Ripon Patgiri	• ACM Transactions on Knowledge Discovery from Data • Journal of Universal Computer Science • International Journal of Advanced Computer Science and Applications • Concurrency and Computation: Practice and Experience • IEEE Access • IEEE Communication Letters • International journal of distributed sensor networks • The Journal of Supercomputing	02 01 10 01 01 01 01 01	2020-21 2021 2020-21 2021 2020 2020 2020 2020
4.	Dr. Laiphrakpam Dolendro Singh	• Journal of Information Security and Applications	01	2020
5.	Dr. Malaya Dutta Borah	• IEEE Transaction on Services Computing • Int. J. of Business Intelligence and Data Mining, Inderscience Publishers Ltd. • CSI Transaction on ICT	01 01 01	June 2020 June 2020 May 2020

6.	Dr. Thoudam Doren Singh	• Sadhana • Multimedia Tools and Applications • Springer Nature: SN Computer Science	01 04 01	2020 2020-21 2021
7.	Dr. Anupam Biswas	• IEEE Transactions on Fuzzy Systems • ACM Transactions on Knowledge Discovery from Data • IEEE Transactions Transactions on Knowledge and Data Engineering • Information Sciences	01 01 01 01	2020 2020 2020 2021
8.	Dr. Partha Pakray	• Knowledge-Based Systems (KNOSYS) Journal • Book Reviewer – Universities Press • IEEE Access Journal (Click Here) • Language Resources and Evaluation (LREV) Journal • 7th International Symposium on Language & Knowledge Engineering (LKE 2019) • Heliyon • SADHANA (Click Here) • Transactions on Asian and Low-Resource Language Information Processing (TALLIP)		2020-21
9.	Dr. Suganya Devi K.	• Artificial Intelligence review • IEEE ACCESS • Engineering Applications in Artificial Intelligence • Journal of SuperComputing	02 03 04 01	2020-2021 2020-2021 2020-2021 2020-2021
10.	Dr. Naresh Babu Muppalaneni	• Arabian Journal for Science and Engineering	01	2020-21

f) Chairing of the Technical Section

Sl. No.	Faculty Name	Details
1.	Dr. Ujwala Baruah	• Session Coordinator : 2nd International Conference on Machine Learning, Image Processing, Network Security and Data sciences (MIND-2020) 23 – 24 April 2020, NIT Silchar
2.	Dr. Samir Kumar Borgohain	• Session Coordinator : 2nd International Conference on Machine Learning, Image Processing, Network Security and Data sciences (MIND-2020) 23 – 24 April 2020, NIT Silchar

3.	Mr. B Dey	• Session Co-chair, International symposium on "Frontiers of Research in Speech and Music (FRSM-2020)", NIT Silchar, Url: http://frsm2020.nits.ac.in/index.html, Date-8/10/2020-09/10/2020.
4.	Dr Saroj Kr Biswas	• Session Coordinator: 31st July, 2020 MIND-2020 NIT Silchar • Co-Session Chair: 3rd July, 2020 IEEE International Conference on Computational Performance Evaluation (ComPE-2020), NEHU
5.	Dr. Dalton Meitei Thounaoja	• Session Coordinator : 2nd International Conference on Machine Learning, Image Processing, Network Security and Data sciences (MIND-2020) 23 – 24 April 2020, NIT Silchar
6.	Dr. Badal Soni	• Organizing Chair, 2nd International Conference on Machine Learning, Image Processing, Network Security and Data sciences (MIND-2020) during July 30-31, 2020, organized by Department of CSE, NIT Silchar • Session Chair, "SCES2020″ Organized by Motilal Nehru National Institute of Technology Allahabad during July 10-12 2020.
7.	Dr. Ripon Patiri	• Organizing Chair, International Conference on Modeling, Simulations and Optimizations (CoMSO 2020), held during 3-5 August 2020. URL: http://comso.nits.ac.in • Organizing Chair, 25th International Symposium Frontiers of Research in Speech and Music (FRSM 2020), to be held during 08-09 October 2020. URL: http://frsm2020.nits.ac.in • Organizing Chair, 26th annual International Conference on Advanced Computing and Communication (ADCOM 2020), to be held during 26-28 August 2020. URL: htttp://adcom.nits.ac.in
8.	Dr. Shyamosree Pal	• Session Coordinator : 2nd International Conference on Machine Learning, Image Processing, Network Security and Data sciences (MIND-2020) 23 – 24 April 2020, NIT Silchar
9.	Dr. Shyamapada Mukherjee	• Session Coordinator: Session 1 & 8 : 2nd International Conference on Machine Learning, Image Processing, Network Security and Data sciences (MIND-2020) 23 – 24 April 2020, NIT Silchar • Session Coordinator, 25th International Symposium on Frontiers of Research in Speech and Music (FRSM 2020), October 8-9, 2020. (Website http://frsm2020.nits.ac.in)
10.	Dr. Laiphrakpam Dolendro Singh	• Session Chair: International Conference on Computer Vision, High Performance Computing, Smart Devices and Networks (CHSN-2020) during 28-29 December, 2020.
11.	Dr. Malaya Dutta Borah	• Session Chair: Session 10: (December 19, 2020), 10th International Conference on Soft Computing for Problem Solving – SocProS 2020,

		December 18-20, jointly organized by IIT Indore & Soft Computing Research Society. • Session Co-Chair: Session 8: (August 5, 2020), International Conference on Modeling, Simulations and Optimizations (CoMSO 2020), 3-5 August 2020, NIT Silchar. • Session Coordinator: Session 9: Image Processing and Computer Vision International Conference Machine Learning, Image Processing, Network Security and Data Sciences(MIND 2020), July 31, 2020 • Session Chair: International Conference on. Computer Vision, High Performance Computing, Smart Devices and Networks (CHSN2020), 28th-29th December 2020, JNTU Kakinada, Andhra Pradesh, India
12.	Dr. A K Saha	• Session Co-chair, International symposium on "Frontiers of Research in Speech and Music (FRSM-2020)", NIT Silchar, Url: http://frsm2020.nits.ac.in/index.html, Date-8/10/2020-09/10/2020. • Session Chair, 26th (Virtual) annual International Conference on Advanced Computing and Communications (ADCOM 2020), Dept. of CSE, NIT Silchar, Url: http://adcom.nits.ac.in/, Date: December 16-18, 2020. • Session Co-chairs, International Conference on Modeling, Simulations and Optimizations (CoMSO 2020), 3-5 August 2020.
13.	Dr. Thoudam Doren Singh	• Session Chair, International Conference on Computational Performance Evaluation (ComPE-2020), JULY 2-4, 2020 • Session Coordinator: Session 5: Machine Learning and Computational Intelligence, International Conference Machine Learning, Image Processing, Network Security and Data Sciences (MIND 2020), July 30, 2020.
14.	Dr. Anupam Biswas	• General Chair, 25th International Symposium on Frontiers of Research in Speech and Music (FRSM 2020), October 8-9, 2020. (Website http://frsm2020.nits.ac.in) • Session Co-chair, International Conference on Modeling, Simulation and Optimization 2020 (CoMSO 2020), 3–5 August 2020, Silchar, Assam, India. • Session Chair, 26th (Virtual) annual International Conference on Advanced Computing and Communications (ADCOM 2020), Dept. of CSE, NIT Silchar, Url: http://adcom.nits.ac.in/, Date: December 16-18, 2020.
15.	Dr. Partha Pakray	• 1st Research Conclave at NIT Mizoram, 22-23 March, 2021 NIT Mizoram NIT Mizoram TRACK 1: ENGINEERING Chair • 2nd International Conference on Machine Learning, Image Processing, Network Security and Data sciences (MIND-2020) 23 – 24 April 2020, NIT SilcharSession Coordinator

		• 25th International Symposium on Frontiers of Research in Speech and Music (FRSM 2020) 08-09 October 2020 - NIT Silchar, Publicity Chair, Session Coordinator • 26th annual International Conference on Advanced Computing and Communications (ADCOM 2020) 26-28 August 2020 NIT Silchar, NIT SilcharPublicity Chair • International Conference on Modeling, Simulation and Optimization 2020 (CoMSO 2020) Aug 03-05, 2020 NIT Silchar NIT Silchar Publicity Chair, Session COordinator
16.	Dr. Suganya Devi K	• Session Chair, 26th (Virtual) annual International Conference on Advanced Computing and Communications (ADCOM 2020), Dept. of CSE, NIT Silchar, Url: http://adcom.nits.ac.in/, Date: December 16-18, 2020. • Organizing Co-ordinator, ATAL-2020, Role of Artificial Intelligence in Science and Engineering Applications (RAISEA-2020) for CBSE School Teachers, Dept. Of CSE, NIT, Silchar Date: October 26-30, 2020. • Session Coordinator: Session 1 & 8 : 2nd International Conference on Machine Learning, Image Processing, Network Security and Data sciences (MIND-2020),23 – 24 April 2020, NIT Silchar
17.	Dr. Naresh Babu M.	• Session Chair: 35th International Conference on Information Networking (ICOIN2021), January 13-16, 2021, Jeju Island, Korea, Korean Institute of Information Scientists and Engineers • Session Chair: International Conference on. Computer Vision, High Performance Computing, Smart Devices and Networks (CHSN2020), 28th-29th December 2020, JNTU Kakinada, Andhra Pradesh, India • Session Chair: International Conference on Modeling, Simulation and Optimization 2020 (CoMSO 2020) Aug 03-05, 2020 , NIT Silchar • Session Coordinator: Session 1 & 8 : 2nd International Conference on Machine Learning, Image Processing, Network Security and Data sciences (MIND-2020),23 – 24 April 2020, NIT Silchar

1.5 PUBLICATION

a) International Journal(s):

1. Dutta, A., Borgohain, S.K., 2021 "Verb Sense Disambiguation by Measuring Semantic Relatedness between Verb and Surrounding Terms of Context", International Journal of Advanced Computer Science and Applications, 12(2), pp. 429–436.
2. Katiyar, S., Borgohain, S.K, 2020., " Comparative evaluation of CNN architectures for image caption generation", International Journal of Advanced Computer Science and Applications,11(12), pp. 793–801.

3. Sabuzima Nayak, Ripon Patgiri, and Angana Borah, (2021) "A Survey on the roles of Bloom Filter in implementation of the Named Data Networking", Computers Networks, Vol. 196C, Elsevier, DOI: 10.1016/j.comnet.2021.108232 [Indexed: SCIE, Scimago Ranking: Q1, Impact Factor: 3.111]
4. Sabuzima Nayak and Ripon Patgiri, 2020, "6G Communication: Envisioning the Key Issues and Challenges", EAI Endorsed Transactions on Internet of Things, vol 6, DOI: 10.4108/eai.11-11-2020.166959.
5. Sabuzima Nayak and Ripon Patgiri, 2020, "A Vision on Intelligent Medical Service for Emergency on 5G and 6G Communication Era", EAI Endorsed Transactions on Internet of Things, Vol. 6, DOI: 10.4108/eai.17-8-2020.166293
6. Ripon Patgiri, Sabuzima Nayak and Samir Kumar Borgohain, October 2020 "PassDB: A Password Database with Strict Privacy Protocol using 3D Bloom Filter", Information Sciences, Vol. 539,, pages: 157 – 176, DOI: 10.1016/j.ins.2020.05.135 [Indexed: SCIE, Scimago Ranking: Q1, Impact Factor: 5.910].
7. Sabuzima Nayak, Ripon Patgiri and Thoudam Doren Singh, "Big Computing: Where are we heading?" EAI Endorsed Transaction on Scalable Information Systems, online first, DOI: 10.4108/eai.13-7-2018.163972 [Indexed: ESCI].
8. Khoirom, M.S., Laiphrakpam, D.S. & Tuithung, T. (2021), Audio Encryption Using Ameliorated ElGamal Public Key Encryption Over Finite Field. Wireless Pers Commun 117, 809–823. https://doi.org/10.1007/s11277-020-07897-9
9. Aasawari Sahasrabuddhe, Dolendro Singh Laiphrakpam, 2021, Multiple images encryption based on 3D scrambling and hyper-chaotic system, Information Sciences, Volume 550, Pages 252-267, ISSN 0020-0255, https://doi.org/10.1016/j.ins.2020.10.031.
10. Khoirom Motilal Singh*, Laiphrakpam Dolendro Singh and Themrichon Tuithung, "Text Encryption Based on Huffman Coding and ElGamal Cryptosystem", Recent Patents on Engineering 2021; 15(4) :e210421186010. https://doi.org/10.2174/1872212114999200917144000
11. S Debnath, B Bhuyan, A K Saha, 2020, "Privacy Preserved Secured Outsourced Cloud Data Access Control Scheme with efficient Multi-authority Attribute Based Signcryption", Multiagent and Grid Systems, vol. 16, no. 4, pp. 409-432, DOI: 10.3233/MGS-200338, Scopus.
12. J Pachuau, A Roy, G Krishna, A K Saha (2021), "Estimation of Traffic matrix from links load using Genetic Algorithm", Scalable Computing: Practice and Experience, Volume 22, Issues 1, pp. 29–38, DOI 10.12694:/scpe.v22i1.1834, Scopus.
13. Thoudam Doren Singh, Abdullah Faiz Ur Rahman Khilji, Divyansha, Apoorva Vikram Singh, Surmila Thokchom, Sivaji Bandyopadhyay, (2020), Predictive Approaches for the UNIX Command Line: Curating and Exploiting Domain Knowledge in Semantics Deficit Data, Multimed Tools Appl. https://doi.org/10.1007/s11042-020-10109-y [SCIE Indexed]
14. L.S. Meetei, Thoudam Doren Singh, Borgohain, S.K., S. Bandyopadhyay. (2021), Low resource language specific pre-processing and features for sentiment analysis task. Lang Resources & Evaluation. https://doi.org/10.1007/s10579-021-09541-9
15. Alok Singh, Thoudam Doren Singh, Bandyopadhyay, S. (2021), Attention based video captioning framework for Hindi. Multimedia Systems. https://doi.org/10.1007/s00530-021-00816-3
16. Irshed Hussain and Dalton Meitei Thounaojam, 2021, "WOLIF: An efficiently tuned classifier that learns to classify non-linear temporal patterns without hidden layers." Applied Intelligence, vol. 51, pp. 2173–2187.

17. Saptarshi Chakraborty, Alok Singh, and Dalton Meitei Thounaojam, 2021, "A novel bifold-stage shot boundary detection algorithm: invariant to motion and illumination." The Visual Computers. https://doi.org/10.1007/s00371-020-02027-9.
18. Saptarshi Chakraborty, Dalton Meitei Thounaojam and Nidul Sinha, 2021, "A Shot boundary Detection Technique based on Visual Colour Information." Multimedia Tools & Application, vol. 80, pp. 4007–4022.
19. Saptarshi Chakraborty and Dalton Meitei Thounaojam, 2021, "SBD-Duo: a dual stage shot boundary detection technique robust to motion and illumination effect." Multimedia Tools & Application, vol. 80, pp. 3071–3087.
20. Irshed Hussain and Dalton Meitei Thounaojam, 2020, "SpiFoG: an efficient supervised learning algorithm for the network of spiking neurons." Scientific Reports, vol. 10, pp. 13122.
21. Badal Soni, Angana Borah, Pidugu Naga Lakshmi Sowgandhi, Pramod Sarma, Ermyas Fekadu Shiferaw, 2020, "KTRICT A KAZE Feature Extraction: Tree and Random Projection Indexing-Based CBIR Technique" Published in International Journal of Multimedia Data Engineering and Management (IJMDEM), Vol. 11, issue-2, pp. 49-65.
22. Anji Reddy Vaka, Badal Soni, Sudheer Reddy K, 2020. "Breast cancer detection by leveraging Machine Learning" Published in Elsevier, Information & Communications Technology Express.
23. Arnab Kumar Mishra, Sujit Kumar Das, Pinki Roy and Sivaji Bandyopadhyay. 2020, "Identifying COVID19 from chest CT images: a deep convolutional neural networks based approach". Journal of Healthcare Engineering (2020). Hindawi publications. (DOI: 10.1155/2020/8843664) (SCIE, Scopus Indexed) (IF: 1.803)
24. Arnab Kumar Mishra, Pinki Roy, Sivaji Bandyopadhyay and Sujit Kumar Das. (2021), "Breast ultrasound tumour classification: A Machine Learning—Radiomics based approach". Expert Systems, e12713. Wiley publications. (DOI: 10.1111/exsy.12713) (SCIE, Scopus Indexed) (IF: 1.546)
25. Sujit Kumar Das, Pinki Roy and Arnab Kumar Mishra. (2021), "Recognition of ischaemia and infection in diabetic foot ulcer: A deep convolutional neural network based approach". International Journal of Imaging Systems and Technology. Wiley publications. (DOI: 10.1002/ima.22598) (SCIE, Scopus Indexed) (IF: 1.925)
26. Manomita Chakraborty, Amit Kumar Verma, Saroj Kr. Biswas, "Breast Cancer Management System using Decision Tree and Neural Network", SN Computer Science Springer, Accepted
27. Abhinaba Dattachaudhuri, Saroj Kr. Biswas, Manomita Chakraborty, A Transparent Rule Based Expert System Using Neural Network, Soft Computing, Springer, Accepted (SCI journal, IF: 3.050)
28. Debashree Devi, Saroj Kr. Biswas, Biswajit Purakayastha, Correlation-based Oversampling aided Cost Sensitive Ensemble learning technique for Treatment of Class Imbalance, Journal of Experimental & Theoretical Artificial Intelligence, Taylor & Francis, Accepted: (SCI journal, IF: 2.111)
29. Monali Bordoloi, S. K. Biswas, Keyword Extraction using Supervised Cumulative TextRank, Multimedia Tools and Applications, Springer, Accepted (SCI journal, IF: 2.101)
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25. Amitabh Biswal, Malaya Dutta Borah, Zakir Hussain, (2020) "Music Recommender System using Restricted Boltzmann Machine with Implicit Feedback," published in Advances in Computer Book Series: Hardware Accelerator Systems for Artificial Intelligence and Machine Learning Volume 122, pg. 367-402, Elsevier Publication.
26. Ravi Kishore Devarapalli and Anupam Biswas, 2021, "Rumor Detection and Tracing its Source to Prevent Cybercrimes on Social Media", in "Intelligent data analytics for terror threat prediction: Architectures, methodologies, techniques and applications", ch. 1, pp. 1-30, Wiley-Scrivener publication, USA.
27. Ranjeet Kumar, Anupam Biswas and Pinky Roy, 2020, "Melody Extraction from Music: A Comprehensive Study", in Applications of Machine Learning, pp. 141-155. Springer, Singapore.

1.6 CONSULTANCY SERVICES:

Sl. No.	Name of the Faculty	Title Of the Project	Cost (Rs.)	Year	Status
1.	Dr. Partha Pakray, Dr. Naresh Babu M	College Recommender System	1.0 Lakh	Sanctioned on April 2020	Completed

1.7 MAJOR EQUIPMENT ACQUIRED:

a) Multimedia and Image Processing Laboratory

- Dell Precision 7820 Tower Workstation (04)

b) IoT Laboratory

- Signal Generator (1)
- Raspberry pi boards
- Arduino Board
- Soldering and desoldering machine
- Sensors
- Power Supply kit

1.8 PATENT:

Sl. No.	Name of the Faculty	Title Of patent	File Number	Status
1.	Dr. Suganya Devi K.	System on Chip to Receive Multiple Frequency	202031027960	Published

1.9 VISITS TO ABROAD: NIL

1.10 M. Tech. (Thesis/Project)

Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis/Project
1.	Mr. Rahul Barman (18-25-110)	Dr Biswajit Purkayastha	Early detection of diabetic retinopathy using case based reasoning
2.	Santosh Rajak (18-25-116)	Dr. Ujwala Baruah	An Ensemble Method for Predicting Passenger Demand Using Taxi Dataset
3.	Chengrang N Sangma (18-25-105)	Dr. Samir Kumar Borgohain	Tweaking the Linux kernel task scheduler (O(1) scheduler) as counter-measure against malicious process execution
4.	Mr. Abhinaba Dutta Choudhury (18-2-5-104)	Dr Saroj Kr Biswas	Transparent Rule Extraction From Neural Networks And Its Application In Banking Sector
5.	Mr. Santosh Pal (18-25-113)	Dr. Dalton Meitei Thounaojam	Robust Perceptual Image Hashing based on Ring-partition and Color Histogram
6.	Ayush Kumar (18-25-115)	Dr. Badal Soni	Image copy-move forgery detection using Convolutional Neural Network
7.	Gautam Jee (18-25-107)	Mr. Umakanta Majhi	System Utialization Analysis of SDN/Openflow Controllers (RYU Versus POX)
8.	Ms. Aasawari Sahasrabuddhe (18-25-114)	Dr. Laiphrakpam Dolendro Singh	Multiple Images Encryption using 3D scrambling and Hyper chaotic System
9.	Mr. Amitabh Biswal (18-25-101)	Dr. Malaya Dutta Borah	Recommender System using Restricted Boltzmann Machine with Implicit feedback.

10.	Mr. K. Anand Singh (18-25-109)	Dr. A K Saha	"Study and exploration of flow rule aggregation and creation scheme for avoiding overflow in SDN", 2020.
11.	Ms. Anwesha Das (18-2-5-102)	Dr. Thoudam Doren Singh	Study on Development of English to Bengali Neural Machine Translation Systems
12.	Mr. Abhijit Das (17-25-110)	Dr. Anupam Biswas	Rumour Source Identification on Social Networks
13.	Mr. Vikrant Rajput (18-25-106)	Dr. Partha Pakray	Multi-Input Neural Abstractive Text Summarization with Multi-Objective
14.	Mr. Anandamoy Bandyopadhyay (18-2-5-111)	Dr. Suganya Devi K	Unsupervised Anomaly Detection in Mammograms using Generative Modelling

1.11 Ph.D. Thesis

Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis
1.	Ujwala Baruah (13-3-5-101)	Dr. R H Laskar, Dr. Biswajit Purkayastha	A Study of Significance of different acoustic features and modelling techniques for the design of a text dependent speaker verification system
2.	Debashree Devi (14-3-05-108)	Dr. Saroj Kr Biswas, Dr. Biswajit Purkayastha	Some Studies on Treatment of Class Imbalance Problem Based on Data level and Ensemble Learning Solutions
3.	Hussain Ahmed Choudhury (14-3-05-106)	Prof. Nidul Sinha	Design and Implementation of Block Matching Algorithms for Motion Estimation in Video Compression.
4.	Saswati Debnath (15-3-05-106)	Dr. Pinki Roy	Audio-Visual Automatic Speech Recognition and its Application on Multimodal Authentication

1. Name of the Department:

Electronics & Instrumentation Engineering

The Department at a glance
Year of Establishment: 2008
Academic Programmes Offered: • Bachelor of Technology (B.Tech) • Master of Technology (M.Tech) • Doctor of Philosophy (Ph.D.)
Total Faculty Strength: 15 • Professor: 0 • Associate Professor: 1 • Assistant Professor: 14
Total Student Strength: 329 • B.Tech: 266 • M.Tech: 16 • Ph.D.: 47
New Students Joined in 2020-2021: 107 • B.Tech: 86 • M.Tech: 09 • Ph.D.: 12

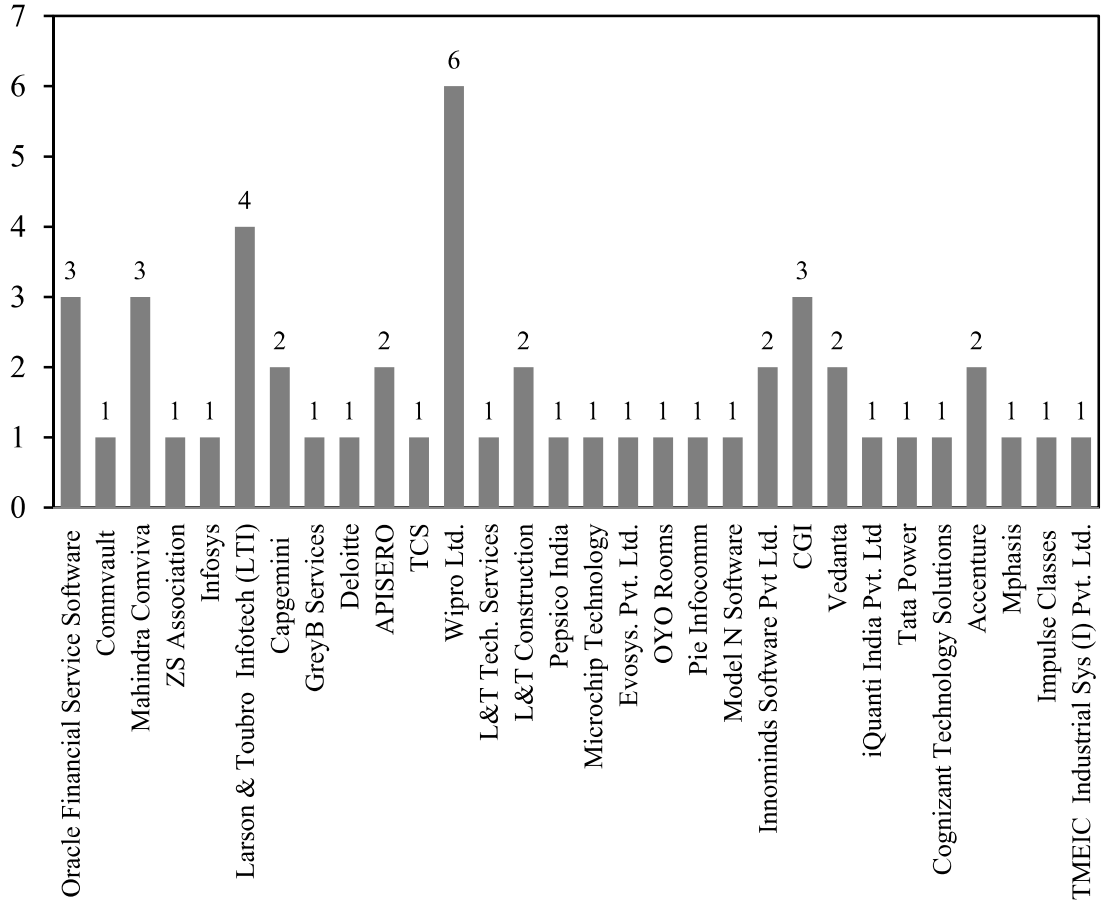


Fig: 1 Placement statistics of the student in the E&I Department during 2020-2021.

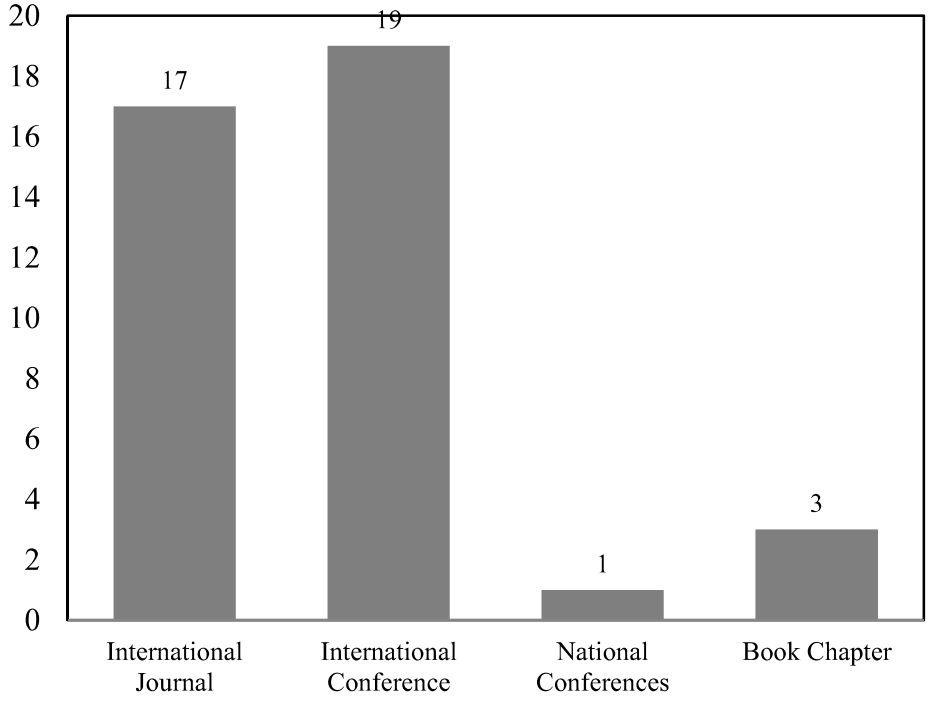


Fig: 2 Publication details of E&I Department 2020-2021

1.1 Academic Staff:

Head of the Department: Dr. Manas Kumar Bera, Assistant Professor, Grade-I

Name of Faculty members:

Professor	Associate Professor	Assistant Professor
NIL	Dr. Shahedul Haque Laskar	Dr. Rajdeep Dasgupta
		Dr. Lalu Seban
		Dr. Jupitara Hazarika
		Dr. Sudarsan Sahoo
		Dr. Munmun Khanra
		Dr. Arun Kumar Sunaniya
		Dr. Manas Kumar Bera
		Dr. Ranjay Hazra
		Dr. Shivendra Kumar Pandey
		Dr. Koena Mukherjee
		Dr. Shankar K.
		Dr. Sudipta Chakraborty
		Dr. Anup Kumar Sharma
		Dr. Vipin Chandra Pal

Visiting Professor (If any): NIL

1.2 Distinction Achieved

a) By Student:

1. **Vivek Raj** (Scholar ID:18-26-102) of PG batch 2018-20 is presently pursuing Ph.D from IIT Delhi.
2. **Raju Sharma** (Scholar ID: 15-1-6-062) of UG batch 2015-19 has scored AIR 11 and AIR 6 in GATE 2020 & 2021 respectively (Instrumentation Engineering).
3. **Diptanu Debnath** (Scholar ID: 18-26-101) of PG batch 2018-20 is presently pursuing Ph.D from IIT Bombay.
4. **Sanjeev Ranjan** (Scholar ID: 18-26-106) of PG batch 2018-20 is presently pursuing Ph.D from IIT Guwahati.
5. **Kuldeep Kushwah** (Scholar ID: 18-26-103) of PG batch 2018-20 is presently pursuing Ph.D from IIT Guwahati.
6. **Siddharth C.** (Scholar ID: 15-16-071) of UG batch 2015-19 has scored 99.74 percentile in CAT 2020.
7. **Akanksha** (Scholar ID: 14-16-033) of UG Batch 2014-18 has scored 95.54 percentile in CAT 2020.
8. **Krishanu Nath** is awarded best presenter for a session in International Symposium of Control, Communication and Embedded System for Robotics (SOCCER), 3-4 Oct. 2020

b) By Faculty Member:

1. Patent awarded to Dr. S. H. Laskar, on "A Selsyn based Vibration Measurement of Machines", Patent no. 338468; application no. 3470/DEL/2011, date of award: 15/06/2020

1.3 SEMINARS, SYMPOSIA, SHORT TERM COURSES, WORKSHOPS

a) Conducted by Faculty Member

Sl. No.	Name(s) of the Coordinator	Title	Funding Agency	Duration
1	Dr. Munmun Khanra and Prof.Binoy K. Roy	Energy Storage for Sustainable Development	AICTE	26th – 30th September 2020
2	Dr.Koena Mukherjee & Dr.Manas Kumar Bera	One week FDP (webinar) on Robotics & Control (RoboCon) 2020	TEQIP-III	15th – 19th July 2020
3	Dr. V. C. Pal, Dr. S. Chakraborty, Dr. Anup K Sharma & Dr. Shankar K.	Recent Trends in Control Instrumentation & Allied Engineering: A Multidisciplinary approach	TEQIP-III	04th – 08th September 2020
4	Dr. V. C. Pal & Dr. M. K. Bera	Nonlinear Systems: Modelling and Control	AICTE	01st-05th March 2021
5	Dr.Shivendra Kumar Pandey & Dr. Sumitra Sharma	NEMS Technologies: Modern Interdisciplinary approach in Engineering	TEQIP-III	17th-21st August 2020
6	Dr. Saurabh Verma, Dr.Ashim K. Das and Dr. Ranjay Hazra	One Week Online Workshop on Intellectual Property Rights and Entrepreneurship Development (IPRED-2020)	TEQIP-III	01st-05th September 2020
7	Dr.Sudipta Chakraborty and Dr. Jiwanjot Singh	International Symposium on Power Electronics and Control systems	Symposium under CoMSO Conference at NIT Silchar	03rd – 05th August 2020
8	Dr. Sudarsan Sahoo, Dr. Kailash Chandra Rout and Swati S. Singh,	STTP on "IoT, Machine Learning and Optimization in Engineering Applications.	Under TEQIP-III at Capital engineering college, Bhubaneswar	27th Jan-01stFebuary 2021

9.	Dr. Suganya Devi.K., Dr. R. Murugan, Dr.Shankar.K., Dr. P. Srinivasan	ATAL FDP on "Role of Artificial Intelligence in Science and Engineering Applications (RAISEA-2020)"	AICTE	26th – 30th October 2020

b) Participated by Faculty Member

Sl. No.	Name of Faculty	Details of the Program	Organizing Institute
1	Dr. S. H. Laskar	Recent Trends in Control Instrumentation & Allied Engineering: A Multidisciplinary approach, 04th–08thSeptember 2020	TEQIP-III, NIT Silchar
2	Dr. Munmun Khanra	Delivered lecture at National Faculty Development Webinar on Power Electronics and Energy Systems [NFDWPEES], 14th – 16thJuly 2020.	Dumka Engineering College
3	Dr. Koena Mukherje	Delivered lecture at webinar eSMART-2020, 12th-16th September 2020.	Mechanical Engg Dept., National Institute of Technology
4	Dr. V C. Pal	Delivered lecture at Faculty Development Programme on "Recent Trends in Control System Engineering" jointly organized by Electrical Engineering Department and Electronics & ICT Academy, NIT Patna from 22nd – 28thJune 2020.	NIT Patna
5	Dr. V C. Pal	Speaker' for Technical Talk organized by IEEE BBDITM Student Branch in Collaboration with IEEE WIE Affinity Group, Department of Electrical Engineering, Department of Electrical & Electronics Engineering, BBDITM, Lucknow, on December 04th, 2020	BBDITM, Lucknow
6	Dr.Shivendra Kumar Pandey	Delivered lecture at Online FDP course on Next-Generation Semiconductor Devices for high-end applications, 21st – 27th June 2020	NIT Patna
7	Dr. Shivendra Kumar Pandey	Delivered lecture at Webinar on Electronic Systems for Mechanical Automation & Robotic Technology (eSMART – 2020), 12th-16thSeptember 2020	NIT Silchar

8	Dr. Shivendra Kumar Pandey	Delivered lecture at Webinar on RF &Millimeter-wave Technologies (RMWT)-2020, 29thAugust – 02ndSeptember 2020	NIT Silchar
9	Dr.Shivendra Kumar Pandey	Participated in Webinar on National Education Policy: 2020 Impact on Technical Education, 14thAugust 2020	NIT Agartala
10	Dr.Shivendra Kumar Pandey	Participated in One Week Online Workshop on Intellectual Property Rights and Entrepreneurship Development (IPRED-2020), 01st-05th September 2020	NIT Silchar
11	Dr. A. K. Sunaniya	Delivered lecture at Webinar on "IC Design and Packaging", 07thAugust 2020.	Mahakal Institute of Technology, Ujjain, M.P
12	Dr. A. K. Sunaniya	Delivered lecture at Webinar on "VLSI Design", 20thMay 2021.	GHRIET, Nagpur, Maharashtra.
13	Dr. M. K. Bera	Delivered lecture at TEQIP-III sponsored “National Faculty Development Webinar on Modern Control System for Industrial Application”(NFDWMCSIA) during 9th–11thJuly, 2020.	Department of Electronics & Communication Engineering of Dumka Engineering College
13	Dr. M. K. Bera	Delivered lecture at TEQIP-III sponsored Online Webinar on “Recent Research Trends in Control, Instrumentation & Allied Engineering: A Multidisciplinary Approach” (RRTCIA)-2020 during 4th-8thSeptember 2020.	Department of EIE, NIT Silchar
14.	Dr. M. K. Bera	Delivered lecture at AICTE sponsored Online STTP on “Recent advances in Industrial Robotics and applications” during 30th November-5thDecember 2020.	Shree Ramchandra College of Engineering, Pune
15	Dr. M. K. Bera	Delivered lecture at “Recent Trends in Control System Engineering” from 22nd-28thJune 2020	Department of Electrical Engineering & ICT Academy, NIT Patna
16	Dr. M. K. Bera	Delivered lecturer at AICTE sponsored Online FDP on “Recent Advances in Control Systems” (RACS-2020) during 17th – 21stOctober 2020	Department of Electrical Engineering Madan Mohan Malaviya University of Technology

			Gorakhpur-273010, (U.P) INDIA
17	Dr. M. K. Bera	Delivered lecture at AICTE sponsored Online Faculty Development Program (Series-I) on "Fractional order robust control system design" during 26th – 31stOctober 2020.	Department of Electrical and Electronics Engineering, Vardhaman College of Engineering, Hyderabad
18	Dr. M. K. Bera	Delivered lecture at AICTE sponsored Online Faculty Development Program (Series-II) on "Fractional order robust control system design" during 23rd– 28thNovember 2020.	Department of Electrical and Electronics Engineering, Vardhaman College of Engineering, Hyderabad
19	Dr. M. K. Bera	Delivered lecture at AICTE sponsored Online Faculty Development Program (Series-III) on "Fractional-order robust control system design" during 15th– 20thMarch 2021.	Department of Electrical and Electronics Engineering, Vardhaman College of Engineering, Hyderabad
20	Dr. M. K. Bera	Delivered lecture at AICTE sponsored Online Faculty Development Program on "Control System Design- Classical & Modern with Hands-on" during 22nd– 27thMarch 2021.	Department of Electrical Engineering, College of Engineering, Pune
21	Dr. S Chakraborty	Delivered lecture at TEQIP-III sponsored "National Faculty Development Webinar on Modern Control System for Industrial Application"(NFDWMCSIA) during 9th– 11thJuly 2020.	Department of Electronics & Communication Engineering of Dumka Engineering College
22	Dr. S Chakraborty	Delivered lecture at AICTE sponsored Online STTP on "Recent advances in Industrial Robotics and applications" during 30th November– 5th December 2020.	Department of ECE, Shree Ramchandra College of Engineering, Pune
23	Dr. S Chakraborty	Delivered lecture at "Recent Trends in Control System Engineering" from 22nd– 28th June 2020.	Department of Electrical Engineering & ICT Academy, NIT Patna
24	Dr. S Chakraborty	Delivered lecture at AICTE sponsored Online STTP on "Recent advances in Industrial Robotics and applications" during 07th– 12thDecember 2020.	Department of EE, Shree Ramchandra College of Engineering, Pune

25	Dr. R. Hazra	Delivered Lecture at AICTE Sponsored One Week Online STTP on "Wireless Communications - Future IoT" during 20th– 25thJuly 2020.	Department of ECE, Vardhaman College of Engineering (A), Hyderabad
26	Dr. R. Hazra	Delivered Lecture at Short term course on "Recent Advances in Electronic Devices for real life application (REDA-2020)" during 24th– 28thNovember 2020.	Department of ECE, NIT Jamshedpur.
27	Dr. R. Hazra	Delivered Lecture at One-week Webinar on "RF and Millimeter-Wave Technologies (RMWT-2020)" during 29th August– 2ndSeptember 2020.	Department of ECE, NIT Silchar and Gauhati University Institute of Science & Technology, Guwahati.
28	Dr A K Sharma	Delivered lecture at TEQIP III sponsored Online STTP on "Recent trends in Instrumentation, Measurement and Automation" during 26th– 30thOctober 2020.	Engineering College Ajmer, Rajasthan
29	Dr A K Sharma	Delivered lecture at TEQIP III sponsored Online STTP on "Machine Vision, Data Acquisition System and Smart Sensors" during 21st December to 25th December 2020	Rajkiya Engineering College Banda, UP
30	Dr A K Sharma	Delivered lecture on "Thin Film Supercapacitor Electrodes" in TEQIP-III sponsored Online FDP "Recent Research Trends in Control, Instrumentation & Allied Engineering: A Multidisciplinary Approach" (RRTCIA)-2020 on 08thSeptember 2020.	Dept. of EIE, NIT Silchar, Assam.
31	Dr. Sudarsan Sahoo	Speaker for Webinar on Application of Artificial Intelligence and Machine Learning in Biomedical Field on 24th September 2020.	Gandhi Institute For Technology, Bhubaneswar
32	Dr. Sudarsan Sahoo	Resource Person in the webinar on Energy management under large scale renewable integration on 21stNovember 2020.	Raajdhani Engineering college, Bhubaneswar.

34	Dr. Sudarsan Sahoo	Guest speaker in TEQIP-III sponsored faculty development programme on roll of artificial intelligence in data science and internet of things applications on 18th – 21stSeptember, 2020.	IGIT Saranga, Odisha
36	Dr. Sudarsan Sahoo	Delivered a lecture at TEQIP-III, BPUT Odisha sponsored STTP on "Communication and Signal Processing in Engineering Applications on 11th – 12thJanuary 2021.	Capital Engineering College, Bhubaneswar
38	Dr. Sudarsan Sahoo	Delivered a lecture at TEQIP-III, BPUT Odisha sponsored STTP on IoT, Machine Learning and Optimization in Engineering Applications on 28th – 30thJanuary 2021.	Capital Engineering College, Bhubaneswar
39.	Dr Jupitara Hazarika	Guest speaker in TEQIP-III, BPUT Odisha sponsored STTP on "Communication and Signal Processing in Engineering Applications (CSEPA-2021)" on 14thJanuary 2021.	Department of Electronics and Communication Engineering, Capital Engineering college, Bhubaneswar
40.	Dr.Shankar.K.	Delivered a Lecture on "Realization of Objectivity in Pain" in Faculty and Staff Development Programme on 07thSeptember 2020.	Dept, of EIE, Haldia Institute of Technology, West Bengal
41.	Dr.Shankar.K.	Delivered lecture on "Objective Pain Measurement" in TEQIP-III sponsored Online FDP "Recent Research Trends in Control, Instrumentation & Allied Engineering: A Multidisciplinary Approach" (RRTCIA)-2020 on 08thSeptember 2020.	Dept. of EIE, NIT Silchar, Assam.
42.	Dr.Shankar.K.	Delivered a Lecture on "Cyber Safety & Ethics" in ATAL FDP on 28th October 2020.	NIT Silchar, Assam.
43.	Dr.Shankar.K.	Delivered a Lecture on "A Journey from Idea to Product" in an online Webinar on 06th December 2020.	Dept. EIE, B.S. Abdur Rahman Crescent Institute of Science and Technology, Chennai, Tamilnadu

44.	Dr.Shankar.K.	Delivered a Lecture on "Idea to Product: An Entrepreneurial Approach" in an online Webinar of IIC on 19thMarch 2021.	New Prince Shri Bhavani College of Engineering and Technology, Chennai, Tamilnadu
45.	Dr.Shankar.K.	Participated in National Productivity Council Webinar on "Biomedical Waste Management Rules, 2016" on 09th June 2020.	National Productivity Council, Govt. of India
46.	Dr.Shankar.K.	Participated in National Productivity Council Webinar on "Plastic Problems and Its Solutions" on 04thFebruary 2021.	National Productivity Council, Govt. of India
47	Dr.Shankar.K.	Participated in an AICTE Sponsored Five Day FDP on "OBE and Accreditation" during 24th– 28thFebruary 2021.	NIT Silchar, Assam.
48	Dr. Lalu Seban	Delivered a lecture at TEQIP-III, BPUT Odisha sponsored STTP on IoT, Machine Learning and Optimization in Engineering Applications on 28thJanuary 2021.	Capital Engineering College, Bhubaneswar

1.4 Research Development

a) Ph.D. Programme (Specializations):

1. Measurement, Sensors, Instrumentation and Biomedical Engineering.
2. Control Systems, Industrial Process Control, Power Electronics and Energy Systems.
3. Signal Conditioning and Monitoring, Signal and Image Processing, Communication Systems, Electronics and VLSI systems.

b) Ph.D. Produced/Ongoing (in number):

Completed	Submitted	Ongoing
02	01	45

c) Research Lab/ Workshop:

Sl. No.	Name of Lab/Workshop	Purpose/Linkage to an existing/new programme
1	Energy Lab	1. Execution of the funded research project from SEED-DST, GOI. 2. To facilitate experimental research on Energy and smart transportation. 3. To make students aware of sustainable development.
2	Nanoelectronics and Emerging Memory Research Lab	1. To successfully execute the funded research project from SERB-DST, Govt. of India. 2. Useful for M.Tech students to fabricate and characterize the nanoscale electronic devices for several applications.

d) Ongoing/Completed Sponsored Research Project:

Sl. No.	Project Title	Principal Investigator(s)	Funding Agency	Cost in lakhs	Duration
1	Design and development of multi-bit phase change memory devices for next-generation high density non-volatile memory applications	Dr.Shivendra K. Pandey	SERB-DST, Govt. of India	44.77	3 years (2019-2022)
2	Development of battery supercapacitor hybrid energy storage for standalone solar photovoltaic power systems	Dr. Munmun Khanra	Department of Science & Technology, Govt. of India.	22.22	3.5 yrs. (2016-2020)
3	Design of a stable baby walker for different age groups.	Dr. Koena Mukherjee	MSME, Govt. of India.	1.25	9months (March, 21-Nov,21)
4	Design and implementation of underwater vehicle for surveillance applications	Dr. Koena Mukherjee (Co-PI)	TIH under NM-ICPS for underwater exploration, IITG-TI&DF	110	5 years

e) Research Paper Reviewed

Sl. No	Faculty Name	Journal Name	No. of Paper	Year
1	Dr.Lalu Seban	Defence Science Journal	01	2021
		Transactions of the Institute of Measurement and Control	01	2020

2	Dr.Sudarsan Sahoo	International Journal of Electrical and Computer Engineering	01	2020
3	Dr. Arun K. Sunaniya	IET Circuits, Devices and Systems	01	2020
4	Dr.Munmun Khanra	Journal of Cleaner Production (Elsevier)	02	2020
		ISA Transaction	03	2020, 2021
		IEEE Trans. on Circuits & Systems-II	02	2020
		AEUE - International Journal of Electronics and Communications	01	2020
		HKIE Transaction	01	2020
5	Dr. Manas Kumar Bera	IET Control Theory & Applications	03	2020
		IEEE Journal of Emerging and Selected Topics in Industrial Electronics	02	2020
		IEEE/ASME Transactions on Mechatronics	01	2020
		Journal of Control and Systems Engineering	01	2020
		Asian Journal of Control	01	2020
		ISA Transactions	03	2020
6	Dr. Ranjay Hazra	Expert Systems, Wiley	01	2021
		Computer Communications, Elsevier	01	2020
		IEEE Sensors	02	2020
		IEEE Consumer Electronics Magazine	01	2020
		IET Communications	01	2020
		Digital Signal Processing, Elsevier	01	2020
		Ad Hoc Networks, Elsevier	01	2020
		International Journal of Systems Assurance Engineering and Management, Springer	01	2021
		KSII Transactions on Internet and Information Systems	01	2020
		IEEE NCC 2021	05	2021
		IEEE IEMCON 2020	05	2020
		IEEE UEMCON 2020	04	2020
		IEEE CCWC 2021	04	2021
		IEEE UPCON 2020	02	2020
7	Dr.Koena Mukherjee	Ocean Engineering Journal, Elsevier	03	2020
		Ocean Engineering Journal, Elsevier	01	2021

		IEEE Access	01	2020
8	Dr.Sudipta Chakraborty	ISA Transactions	01	2020
		IET Control theory & Applications	01	2021
		Journal of Control Automation and Electrical Systems, Springer	01	2021
9	Dr.Anup K Sharma	Journal of Optical Technology	01	2020
10	Dr.Vipin Ch. Pal	Transactions of the Institute of Measurement and Control, Sage Journal	01	2020
		ISA Transactions	01	2020

f) Chairing of the Technical Section

Sl. No.	Faculty Name	Details
1	Dr. Lalu Seban	Co-chair SOCCER 2020, Co-chair CMDAYS 2020
2	Dr. Munmun Khanra	Co-chair, International Symposium of Control, Communication and Embedded System for Robotics (SOCCER), 3rd-4thOctober 2020.
3	Dr. Manas Kumar Bera	1. Session Chair, 6th Students' Conference on Engineering & Systems 2020 (SCES-2020) during 10th-12th July 2020, organized by the Department of Electrical Engineering, MNIT, Allahabad, Prayagraj, India. 2. Co-chair, International Symposium of Control, Communication and Embedded System for Robotics (SOCCER), 3rd-4thOctober 2020, organized by the Department of Electrical Engineering, NIT Silchar
4	Dr. Ranjay Hazra	1. Session Chair, 6th Students' Conference on Engineering & Systems 2020 (SCES-2020) during 10th-12th July 2020, organized by the Department of Electrical Engineering, MNIT, Allahabad, Prayagraj, India. 2. TPC Co-Chair of IEEE ACTS-2020 during 04th – 06th December 2020, organized by Department of Electronics & Communication Engineering, NIT Silchar. 3. TPC of MIND 2020 during 23rd – 24thApril 2020, organized by Department of Computer Science & Engineering, NIT Silchar. 4. TPC of IEEE IEMCON 2020 during 04th – 07th November 2020, organized by IEEE Vancouver Section. 5. TPC of IEEE UEMCON 2020 during 28th – 31stOctober 2020, organized by IEEE New York Section.

5	Dr. Koena Mukherjee	Co-chair, International Symposium of Control, Communication and Embedded System for Robotics (SOCCER), 3rd – 4th October 2020.
6	Dr. Sudipta Chakraborty	Session chair, CoMSO 2020, Co- session chair SOCCER 2020
7	Dr. Anup Kumar Sharma	1. Session Chair, IEEE Bangalore Section 2nd International Conference of Emerging Technology (INCET 2021), 21st – 23rdMay 2021, Jain College of Engineering Belagavi. 2. Session Chair, International Conference on Advances in Materials Science, Communication and Microelectronics (**ICAMCM-2021**), 19th – 20thFebuary2021, ECE Department JECRC University Jaipur
8	Dr. Vipin Chandra Pal	Co-chair, International Symposium of Control, Communication and Embedded System for Robotics (SOCCER), 3rd – 4thOctober 2020.

1.5 PUBLICATION

a) International Journal(s):

1. D. J. Bora and R.Dasgupta, 2020, "Estimation of skin impedance models with experimental data and a proposed model for human skin impedance", *IET Systems Biology,*
2. D. J. Bora and R. Dasgupta, 2020, "Various skin impedance models based on physiological stratification", *IET Systems Biology,*
3. P. Kant, S. H. Laskar, J. Hazarika, and R.Mahamune (2020). "CWT Based Transfer Learning for Motor Imagery Classification for Brain Computer Interfaces." *Journal of Neuroscience Methods* 345: 108886.
4. S.K. Barik, K.K. Gogoi, S. Sahoo, H.J. Kim and S. Hajra, (2021), "A lead-free perovskite Bi1/2(Na1/4Li1/4)TiO3: Investigation on structural, electrical properties and device application", *Journal of Materials Science:Materials in Electronics* 32 4629.
5. S. Das, A. K. Sunaniya, R. Maity and N. P. Maity, 2021, "Efficient FPGA Implementation and Verification of Difference Expansion Based Reversible Watermarking with Improved Time and Resource Utilization.",*Journal of Microprocessor and Microsystems,* Vol-83.
6. S. Das, A. K. Sunaniya, R. Maity and N. P. Maity, 2020, "Efficient FPGA Implementation of Corrected Reversible Contrast Mapping Algorithm for Video Watermarking.", *Journal of Microprocessor and Microsystems,* Vol-76
7. S. Das, A. K. Sunaniya, R. Maity and N. P. Maity, 2020, "Parallel Hardware Implementation of Efficient Embedding Bit Rate Control Based Contrast Mapping Algorithm For Reversible Watermarking", *IEEE Access,* Vol-8.
8. A. Yesmin and M. K.Bera, 2020, "Design of event-based sliding mode controller with logarithmic quantized state measurement and delayed control update", *ISA Transactions,* ISSN 0019-0578, https://doi.org/10.1016/j.isatra.2020.07.014.
9. R. Hazra and A. Tyagi, 2020, "Bit Error Probability Analysis of IR-UWB ED-OOK system using Cooperative Dual-Hop DTF Strategy", *Annals of Telecommunication, Springer*, vol. 75, pp. 381-395.
10. S.Biswas and R. Hazra, 2020, "A new binary level set model using L0 regularizer for image segmentation", *Signal Processing, Elsevier,* vol. 174, 107603.

11. S. Biswas and R. Hazra, 2021, “A level set model by regularizing local fitting energy and penalty energy term for image segmentation”, *Signal Processing, Elsevier*, vol. 183, 108043.
12. P. Khuntia and R. Hazra, 2021, “An Efficient Channel and Power Allocation Scheme for D2D Enabled Cellular Communication System: An IoT Application”, *IEEE Sensors Journal*.
13. S. S. Sarma, P. Khuntia and R. Hazra, 2021, “Power control scheme for D2D communication using uplink channel in 5G mm-Wave network”, *Transactions on Emerging Telecommunication Technologies,* Wiley.
14. S. K. Pandey and A. Manivannan, (2021); Direct evidence of structural transformation and thermal stability of amorphous InSbTe phase change material*, ScriptaMaterialia*192, 73
15. S. Chakraborty, A. K.Naskar and S. Ghosh (2020). "Inverse plant model and frequency loop shaping-based PID controller design for processes with time-delay." *International Journal of Automation and Control* 14, no. 4: 399-422. DOI: 10.1504/IJAAC.2020.10029538
16. A. K. Sharma, Anup K. Sharma, and R. Sharma, (2021), Synthesis and study of polyaniline/MWCNT composite for optoelectronic application. *Bulletin of Materials Science,* 44(2), pp.1-8.
17. A. K. Sharma, Anup K. Sharma, and R. Sharma, (2021), Model study of complex conductivity and permittivity of CNT/PANI composite (CPC) material for application of THz antenna, *Materials Today Proceedings,*https://doi.org/10.1016/j.matpr.2021.02.729.

b) National Journal(s): NIL

c) International Conference(s):

1. Vivek Raj, Jupitara Hazarika, and Ranjay Hazra. "*Feature selection for attention demanding task induced EEG detection*." In *2020 IEEE Applied Signal Processing Conference (ASPCON)*, pp. 11-15. IEEE, 2020.
2. Rupjyoti Haloi, Jupitara Hazarika, and Dipankar Chanda. "*Selection of Appropriate Statistical Features of EEG Signals for Detection of Parkinson’s Disease*." In *2020 International Conference on Computational Performance Evaluation (ComPE)*, pp. 761-764. IEEE, 2020.
3. A. Anupam, N. J. Mohan, S. Sahoo and S. Chakraborty, "*Preliminary Diagnosis of COVID-19 Based on Cough Sounds Using Machine Learning Algorithms*," *2021 5th International Conference on Intelligent Computing and Control Systems (ICICCS)*, 2021, pp. 1391-1397, doi: 10.1109/ICICCS51141.2021.9432324.
4. S. Sahoo, K. Kushwah and A. K. Sunaniya, "*Health Monitoring of Wind Turbine Blades through Vibration Signal Using Advanced Signal Processing Techniques*," 2020 Advanced Communication Technologies and Signal Processing (ACTS), 2020, pp. 1-6, doi: 10.1109/ACTS49415.2020.9350405.
5. K. Kushwah, S.Sahoo, and A. Joshuva, *Health Monitoring of Wind Turbine Blades Through Vibration Signal Using Machine Learning Techniques*, Proceedings of the International Conference on Computing and Communication Systems, Lecture Notes in Networks and Systems, 170, 2021, https://doi.org/10.1007/978-981-33-4084-8_22
6. S. Chakraborty, V. C. Pal and S. Sahoo, "*2DOF Robust PID Controller Design for Industrial Large Time-constant Plus Dead-Time Processes*," 2020 International Conference on Contemporary Computing and Applications (IC3A), Lucknow, India, 2020, pp. 271-274, doi: 10.1109/IC3A48958.2020.233312.

7. M. Saha, P. Saha, and M. Khanra, "*Performance Comparison of Nonlinear State Estimators for State-of-Charge Estimation of Supercapacitor*," IEEE Second International Conference on Control, Measurement and Instrumentation (CMI 2021), Kolkata, India, Jan 2021.
8. P. Saha and M. Khanra, "*Online Estimation of State-of-Charge, State-of-Health and Temperature of Supercapacitor*," IEEE International Symposium on Circuits and Systems (ISCAS), Seville, Spain, Oct. 2020.
9. S. Sahoo, K. Kushwah and A. K. Sunaniya, "*Health Monitoring of Wind Turbine Blades through Vibration Signal Using Advanced Signal Processing Techniques*," 2020 Advanced Communication Technologies and Signal Processing (ACTS), 2020, pp. 1-6, doi: 10.1109/ACTS49415.2020.9350405.
10. A. Mukherjee, J.J.P.C. Rodrigues, P. Goswami, L. Manman, R. Hazra and Y. Lixia, "*Green Cooperative Communication based Cognitive Radio Sensor Networks for IoT applications*", in proceedings of IEEE International Conference on Communications Workshops (ICC Workshops), Dublin, Ireland, June 2020.
11. V. Raj, J. Hazarika and R. Hazra, "*Feature selection for attention demanding task induced EEG detection*", in proceedings of IEEE Applied Signal Processing Conference (ASPCON), Kolkata, India, Oct 2020.
12. Subhra S. Sarmah and R. Hazra, "*Pathloss attenuation analysis for D2D communication in 5G mmWave networks*," in proceedings of Advanced Communication Technologies and Signal Processing (ACTS), Silchar, India, December 2020.
13. Om Prakash Das and Shivendra Kumar Pandey; *Influence of conducting filament dimension on the performance of ReRAM device in the SET state*; IEEE International Symposium on Smart Electronic Systems (iSES) (Formerly iNiS) 13 -16 (2020).
14. A. Goswami, R. Kashyap, T. Kalita, T. Rasul and K. Mukherjee, "Homing of a Robot," *2020 IEEE International Conference on Distributed Computing, VLSI, Electrical Circuits and Robotics (DISCOVER)*, 2020, pp. 57-62, doi: 10.1109/DISCOVER50404.2020.9278080.
15. V. C. Pal, S. Chakraborty, A. Pati and G. Singh, "*A Note on LyapunovKrasvoskiiFuntional for Discrete Time Delayed Systems*". In Modeling, Simulation and Optimization: Proceedings of CoMSO 2020 (pp. 671-679). Springer Singapore03rd – 05th August 2020.
16. S. Chakraborty, V.C. Pal and S. Sahoo, "*2DOF Robust PID Controller Design for Industrial Large Time-constant Plus Dead-Time Processes*". In 2020 International Conference on Contemporary Computing and Applications (IC3A) (pp. 271-274). IEEE on 05th – 07thFebruary 2020 , Dr. A.P.J. Abdul Kalam Technical University, Lucknow In Collaboration with Madan Mohan Malaviya University of Technology, Gorakhpur & Dr. Babasaheb Ambedkar Technological University, Maharashtra.
17. P.Tripathi, S K Pandey and A. K. Sharma, "*Design and Simulation based Analysis of Flexible Capacitive Pressure Sensor and Improvement in Sensing Characteristics*" IEEE Bangalore Section 2nd International Conference of Emerging Technology (INCET 2021), 21-23 May 2021, Jain College of Engineering Belagavi.
18. V. C. Pal, S. Chakraborty, A. Pati and G. Singh, "*A Note on LyapunovKrasvoskiiFuntional for Discrete Time Delayed Systems*". In Modeling, Simulation and Optimization: Proceedings of CoMSO 2020 (pp. 671-679). Springer Singapore03rd – 05th August 2020.
19. S. Chakraborty, V.C. Pal and S. Sahoo, "*2DOF Robust PID Controller Design for Industrial Large Time-constant Plus Dead-Time Processes*". In 2020 International Conference on Contemporary Computing and Applications (IC3A) (pp. 271-274). IEEE on 05th – 07thFebruary 2020 , Dr. A.P.J. Abdul Kalam

Technical University, Lucknow In Collaboration with Madan Mohan Malaviya University of Technology, Gorakhpur &Dr. Babasaheb Ambedkar Technological University, Maharashtra.

d) **National Conference(s):**

1. S. Biswas, R. Hazra, S. Prasad and A. Sirvee, "*A Level Set Model Driven by New Signed Pressure Force Function for Image Segmentation*," in proceedings of IEEE National Conference on Communications (NCC), IIT Kanpur and IIT Roorkee, India, 2021. (Accepted)

e) **Book/Chapter:**

1. A. K Paul, M. K. Bera, M. Waman, B. Bandyopadhyay, "*Industry Grade Robust Controller Design for Constant Voltage Arc Welding Process*", Emerging Trends in Sliding Mode Control –Theory and Application" edited by A. Mehta and B. Bandyopadhyay, Studies in Systems, Decision and Control, Springer Nature Singapore, 2020.
2. A. Yesmin, M. K. Bera "*Design of event-triggered integral sliding mode controller for systems with matched and unmatched uncertainty*", edited by A. Mehta and B. Bandyopadhyay, Studies in Systems, Decision and Control, Springer Nature Singapore, 2020.
3. Shankar K., Abudhahir A. (2021) *Realization of Objectivity in Pain: An Empirical Approach*. In: Patgiri R., Biswas A., Roy P. (eds) Health Informatics: A Computational Perspective in Healthcare. Studies in Computational Intelligence, vol 932. Springer, Singapore. https://doi.org/10.1007/978-981-15-9735-0_11

1.6 CONSULTANCY SERVICES: NIL

1.7 MAJOR EQUIPMENT ACQUIRED:

S. No.	Equipment Name
01	Programmable DC Electronics LOAD 120 V/60 A/300W ITECH Make IT8512C +Programmable DC Electronics Load
02	Single phase IGBT Based PWM GENERATOR
03	Bi Directional DC-DC Power Converter
04	DC-DC Converter for MPPT
05	Speed control AC induction Motor
06	MOSFET and IGBT based DC-DC Converter
07	Thyristor and MOSFET
08	Bi directional DC-DC Converter
09	Flow Measuring Workbench
10	Multi-Function Process Workstation
11	Real Time Driving Simulator
12	NI LabVIEW

13	Sensor Trainer Kit
14	IKA Vaccum Pump and Controller for Rotary Evaporator
15	Bidirectional DC-DC Converter
16	Magnetron Sputtering System

1.8.1 PATENT: 01

1. Patent awarded to **Dr. S. H. Laskar**, on "A Selsyn based Vibration Measurement of Machines", Patent no. 338468; application no. 3470/DEL/2011, date of award: 15/06/2020

1.9 VISITS TO ABROAD: NIL

1.10 M.Tech. / M.Sc. (Thesis/Project)

Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis/Project
1.	Nitika Jaggi	Dr. K. Mukherjee & Dr. M. Khanra	Design and Control of Medical Aid delivery drone
2.	Heena Udawat	Dr. Rajdeep Dasgupta & Dr. S.H. Laskar	Iontophoretic Drug Delivery System
3.	Arup Anupam	Dr.Sudarsan Sahoo and Dr. S. Chakraborty	Preliminary Diagnosis Of Covid-19 Based On Cough Sounds Using Machine Learning, Artificial Neural Network And Deep Learning Algorithms
4.	Ardhendu Sekhar	Dr.Ranjay Hazra & Dr. A.K. Sunaniya	Brain Tumor Classification Using Transfer Learning
5.	Mohd Wasim Siddiqui	Dr. M. K. Bera Dr. V. C. Pal	Design Of Sliding Mode Controller For Quadrotor UAV
6.	Prachi Tripathi	Dr A K Sharma Dr S K Pandey	Design And Simulation Based Analysis Of MEMS Flexible Capacitive Pressure Sensor
7.	Durlov Jyoti Buragohain	Dr.Jupitara Hazarika Dr. Shankar K	EEG based stress meter

1.11 Ph.D. Thesis

Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis
1	Pratap Khuntia	Dr. Ranjay Hazra	Device-to-Device Underlay Communication for Future Cellular Networks: Resource Management and Multi-hop Relaying
2	Surabhi hom Chaudhury	Dr. S. H. Laskar	Investigation Of Fingernail Traits For Personal Authentication

1. Name of the Department:

Mathematics

The Department at a glance
Year of Establishment: 1977
Academic Programmes Offered: • Master of Science (M.Sc.) • Doctor of Philosophy (Ph.D.)
Total Faculty Strength: 13 • Professor: 0 • Associate Professor: 04 • Assistant Professor: 09
Total Student Strength: 64 • M.Sc.:35 • Ph.D.: 29
New Students Joined in 2020-2021: 20 • M.Sc.:18 • Ph.D.: 02

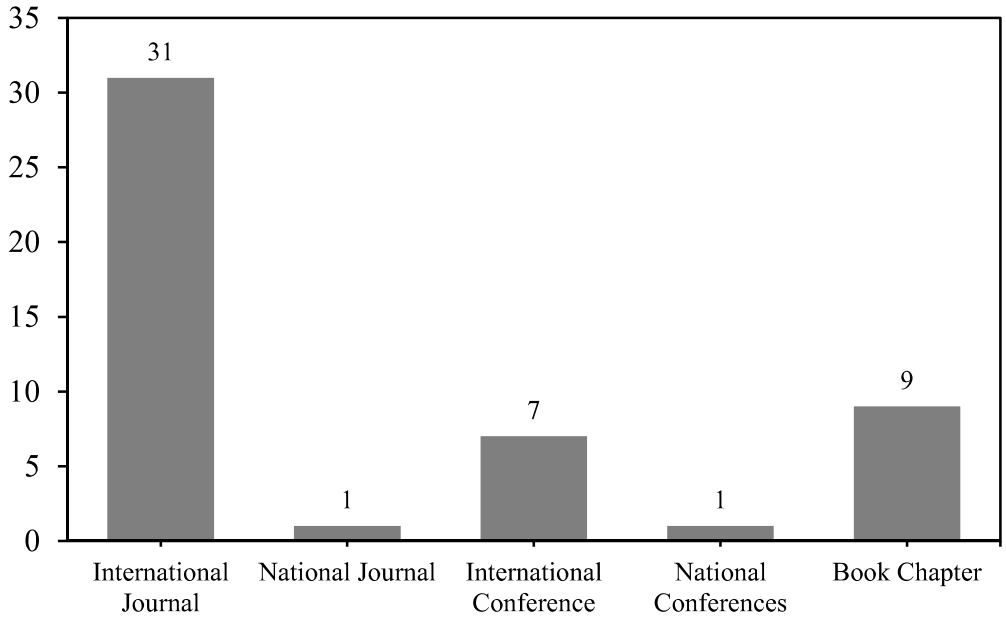


Fig: 1 Publication details of the Maths Department in 2020-2021

1.1 Academic Staff:

HEAD of the Department: Dr. Mausumi Sen, Associate Professor

Name of Faculty members:

Professor	Associate Professor	Assistant Professor
NIL	Mr. Bijan Nath	Dr. Ganti Ramesh
	Dr. Pijus Kanti De	Dr. Kedar Nath Das
	Dr. Santanu Roy	Dr. Praveen Kumar Gupta
	Dr. Mausumi Sen	Dr. Md. Maqbul
		Dr. Pankaj Biswas
		Dr. Juthika Mahanta
		Dr. Subrata Bera
		Dr. Balla Hema Sundar Raju
		Dr. Santan Kumar

Visiting Professor (If any): NIL

1.2 Distinction Achieved

a) By Student:

1. **Nimai Sarkar**, Ph.D. Student, won the **best paper award** for a paper entitled **"An investigation on existence and uniqueness of solution for Integro differetial equation with fractional order"** in the 2nd National Conference on "Recent Advancement in Physical Sciences" jointly organized by Department of Chemistry, Department of Physics and Department of Mathematics, National Institute of Technology, Uttarakhand during Decemer 19-20, 2020 at NIT Uttarakhand (Virtual mode).

2. **Yogita**, M.Sc. Student, received the **best paper award** for a paper entitled **"A Mathematical Study of Hepatitis C Virus Model During Drug Therapy Treatment"** in the 5th International Conference on Soft- Computing: Theories and Applications (SoCTA-2020) held in Virtual Mode in support with STEM - Research Society, India on December 25-27, 2020.
3. **Nishi Gupta**, Ph.D. Student, participated in the "International Conference on Applied Mathematics and Computational Intelligence (ICAMCI-2020)" during 23-24 December 2020, organized by the Department of Mathematics, National Institute of Technology Agartala, Tripura. She has presented a paper entitled **"Solutions of nonlinear diffusion equations with time delay and integral forcing function"** and has been selected as the **best paper presenter** of that session of the conference.

b) By Faculty Member: NA

1.3 SEMINARS, SYMPOSIA, SHORT TERM COURSES, WORKSHOPS

a) Conducted by Faculty Member

Sl. No.	Name(s) of the Coordinator	Title	Funding Agency	Duration
1	Dr. Kedar Nath Das	Engineering Applications of Optimization Techniques	TEQIP-III	Sept. 5-9, 2020
2	Dr. Pankaj Biswas & Dr. Praveen Kumar Gupta	Webinar cum FDP on Mathematical Modeling for Covid-19	TEQIP-III	21st August, 2020
3	Dr. M. Sen, Dr. S. Bera, Dr. R. Dutta, Dr. S. Mahapatra, Dr. S. Dhar and Dr. P. Barman (Jointly organised by Dept of Math., Phy., and Chem.)	National Science Day 2021	NIT Silchar	Febuary 28, 2021
4	Dr. M. Sen and Dr. S. Bera	2nd Research Scholar's Day 2021 on International Day of Mathematics	NIT Silchar	March 14 & 16, 2021

b) Participated by Faculty Member

Sl. No.	Name of Faculty	Details of the Program	Organizing Institute
1	Dr. Santanu Roy	One day Workshop on "Future of Engineering Education in Light of New Education Policy 2020" on 15-12-2020.	NIT, Silchar
2	Dr. Pankaj Biswas	AICTE Sponsored Five Day Faculty Development Program on "Outcome Based Education and Accreditation", during 24-28 February 2021.	NIT, Silchar
3	Dr. Pankaj Biswas	Two Weeks Online FDP on "Biomathematics" from 15th October to 28th October, 2020.	P.G.D.A.V. College, University of Delhi in collaboration with Mahatma Hansraj Faculty

			Development Centre (MHRFDC), Hansraj College
4	Dr. Pankaj Biswas	Webinar on "Approximation of eigenvalue problems arising from partial differential equations: examples and counterexamples" speaker is Prof. Daniele Boffi (Kaust, Saudi Arabia and University of Pavia, Italy) on 19thAugust 2020.	Department of Mathematics at Indian Institute of Technology, Roorkee
5	Dr. Pankaj Biswas	Webinar on "Geometric errors in surface finite element methods" speaker is Prof. Alan Demlov (Texas A&M, TX, USA) on 28th October 2020.	Department of Mathematics at Indian Institute of Technology, Roorkee
6	Dr. Pankaj Biswas	Webinar on "Nonintrusive reduced order models using physics informed neural networks" speaker is Prof. Jan S. Hesthaven (École polytechnique fédérale de Lausanne) on 26th November 2020.	Department of Mathematics at Indian Institute of Technology, Roorkee
7	Dr. Pankaj Biswas	Webinar on "Static condensation, hybridization and the devising of the HDG methods" speaker is Prof. Bernardo Cockburn (School of Mathematics, University of Minnesota, USA) on 10th February 2021.	Department of Mathematics at Indian Institute of Technology, Roorkee
8	Dr. Pankaj Biswas	Webinar on "Nonlinear Fokker-Planck equations with measures as initial data and McKean-Vlasov equations" speaker is Professor Dr Michael Röckner (University of Bielefeld, Germany) on 31 March 2021.	Department of Mathematics at Indian Institute of Technology, Roorkee
9	Dr. Santan Kumar	One Day Virtual Workshop on "Microsensor Applications in Defence and Aerospace" on March 16, 2021	ISSS Pune Chapter in association with AISSMS's Institute of Information Technology, Pune
10	Dr. Santan Kumar	Workshop on "Metamaterial and Metasandwich for Energy Harvesting and Vibration Control" during March 26-27, 2021	Department of Mechanical Engineering, Indian Institute of Technology, Kanpur

1.4 Research Development

a) Ph.D. Programme (Specializations):

1. Operations Research, Optimization Techniques, Mathematical Modelling
2. Convergence on Fuzzy Real-valued Triple Sequence Spaces
3. Sequence spaces and summability theory, Inverse eigenvalue problem, Fractional integral equations, Integro-differential equation
4. Evolutionary Computation, Networking Optimization, Nature-inspired Optimization, Multi-/Many-objective Optimization
5. Mathematical Modelling of Biological Problems, Fractional Calculus, Numerical Methods for ODE and PDEs

6. Applications of Semigroup Theory of Bounded Linear Operators to Differential Equations
7. Almost Periodicity of Solutions of Differential Equations
8. Spectral Element Methods for PDEs
9. Fuzzy set theory, Fuzzy Mathematics , Fuzzy optimization and Fuzzy topology
10. Computational Fluid Dynamics: Micro-nano Fluidics Modelling
11. Numerical methods to PDE-applications to fluid flow and heat transfer
12. Elastodynamics, Wave Propagation, Theoretical Seismology, Smart Materials and Structures

b) Ph.D. Produced/Ongoing (in number):

Completed	Submitted	Ongoing
02	0	28

c) Research Lab/ Workshop:

Sl. No.	Name of Lab/Workshop	Purpose/Linkage to an existing/new programme
1	Numerical Computation Lab	For Scientific Computations

d) Ongoing/Completed Sponsored Research Project:

Sl. No.	Project Title	Principal Investigator(s)	Funding Agency	Cost in lakhs	Duration
1	A study on measure theoretical approach to convergence of sequences in probabilistic normed spaces	Dr. Mausumi Sen	SERB-DST, Govt. of India	15.3552	2015-2018 (03 Years)
2	Spring rejuvenation for water security in Himalaya	PI: Mr. S. K. Pattanayak Co-PI: Dr. K. N. Das Co-PI Dr. S. Haldar	Ministry of Environment, Forest & Climate Change, Govt. of lndia	33.71	2020-2022 (02 Years)
3	Numerical study on electrokinetic flow through polyelectrolyte coated canonical nanopore	Dr. Subrata Bera	SERB-DST, Govt. of India	15.10683	2017-2020 (03 Years)
4	Spectral element methods for elliptic and parabolic interface problems on parallel computers	PI: Dr. N. Kishore Kumar, Department of Mathematics, BITS Pilani, Hyderabad Campus Co-PI: Dr. Pankaj Biswas, NIT Silchar	NBHM	13.59	2015-2018 (03 Years)

e) Research Paper Reviewed

Sl. No	Faculty Name	Journal Name	No. of Paper	Year
1	Dr. S. Roy	AIMS Mathematics	01	2020-21
2	Dr. P.K. Gupta	Applied Mathematics and Computation	01	2020-21
		Chaos, Solitons & Fractals	02	2020-21
		Discrete and Continuous Dynamical Systems	01	2020-21
		Computational Thermal Sciences: An International Journal	02	2020-21
		Fractals	01	2020-21
		The European Physical Journal Plus	02	2020-21
3	Dr. Pankaj Biswas	European Journal of Medical and Educational Technologies	01	2020-21
4	Dr. Subrata Bera	Langmuir	01	2020-21
5	Dr. Santan Kumar	International Journal of Geomechanics	01	2020-21

f) Chairing of the Technical Section

Sl. No.	Faculty Name	Details
1	Dr. Kedar Nath Das	10th Int. Conf. on "Soft Computing for Problem Solving (SocProS 2020)", organized by IIT Indore, during Dec. 18-20, 2020
2	Dr. Kedar Nath Das	International Conference on "Scientific and Natural Computing (SNC-2021)", Organized by Gautam Buddha University, Greater Noida, during Feb. 5-6, 2021
3	Dr. Kedar Nath Das	3rd International Conference on "Communication and Computational Technologies (ICCCT 2021)", Organized by RTU Kota, during Feb. 27-28, 2021
4	Dr. P.K. Gupta	International Conference on "Modeling, Simulation and Optimization (CoMSO 2020)" held at NIT Silchar on Aug. 03-05, 2020
5	Dr. P.K. Gupta	National Conference on "Recent Advancement in Physical Sciences (NCRAPS-2020)" held at NIT Uttarakhand on Dec. 19-20, 2020

1.5 PUBLICATION

a) International Journal(s):

1. Abhijit Barman, Rubi Das, Pijus Kanti De, "An analysis of retailer's inventory in a twoechelon centralized supply chain co-ordination under price-sensitive demand" SN : Applied Sciences, 2(12), 1-15, Dec, 2020. DOI:10.1007/s42452-020-03966-7
2. Rubi Das, Pijus Kanti De & Abhijit Barman, "Pricing and ordering strategies in a two-echelon supply chain under price discount policy: a Stackelberg game approach" Journal of Management Analytics, 2020. https://doi.org/10.1080/23270012.2021.1911697

3. Abhijit Barman, Rubi Das, Pijus Kanti De, "Impact of COVID-19 in food supply chain: Disruptions and recovery strategy" Current Research in Behavioral Sciences, 2,100017. 2021. https://doi.org/10.1016/j.crbeha.2021.100017
4. Abhijit Barman, Rubi Das, Pijus Kanti De, "Optimal pricing, replenishment scheduling, and preservation technology investment policy for multi-item deteriorating inventory model under shortages" International Journal of Modeling, Simulation, and Scientific Computing, 2150039, 2021. https://doi.org/10.1142/S1793962321500392
5. Rubi Das, Abhijit Barman & Pijus Kanti De, "A two-echelon supply chain contract under advertisement and retail price-dependent demand" International Journal of Mathematics in Operational Research, 2021. http://dx.doi.org/10.1504/IJMOR.2020.10037929
6. Sangeeta Saha, Binod Chandra Tripathy and Santanu Roy, "On almost convergent of complex uncertain sequences", New Mathematics and Natural Computation, 16(3), 573-580, 2020
7. D. Saha, M. Sen and S. Roy, "Analyzing the existence of solution of a Fractional order integral equation: A Fixed point Approach", Journal of Applied Analysis, Accepted on Dec 18 2020
8. Sangeeta Saha, Binod Chandra Tripathy and Santanu Roy, "On Riesz mean of complex uncertain sequences", Journal of Mathematical Analysis and Applications, 2021, (SCI), I.F. 1.220, In press.
9. Sangeeta Saha, Binod Chandra Tripathy and Santanu Roy, "Relationships between statistically convergence concepts of complex uncertain sequences", Applied Sciences, 2021, (SCOPUS), In press.
10. D. Dutta, M. Sen, A. Deshpande, B. Singha, "A New Method for Solving Multi-Criteria Multi-Attributes Decision Making Based on the Ranking of Type-2 Fuzzy Variables", 10(1), 20-42, 2021
11. D. Sharma, M. Sen, "The minimax inverse eigenvalue problem for matrices whose graph is a generalized star of depth 2", Linear Algebra and its Applications, 621, 334-344, 2021
12. D. Saha, M. Sen, N. Sarkar, S. Saha, "Existence of a solution in the Holder space for a nonlinear functional integral equation", Armenian Journal of Mathematics, 12(7), 2020
13. D. Saha, M. Sen, "Solution of a generalized two dimensional fractional integral equation", International Journal of nonlinear analysis and Applications, 12(1), 481-492, 2021
14. P. Mohapatra, S. Roy, K. N. Das, S. Dutta, S. S. Raju M. "A Review of Evolutionary Algorithms in Solving Large Scale Benchmark Optimization Problems", International Journal of Mathematics in Operational Research, Accepted in Aug. 2020 (Scopus).
15. Biplab Dhar, Praveen Kumar Gupta "A numerical approach of tumor□immune model with B cells and monoclonal antibody drug by multi□step differential transformation method", Mathematical Methods in the Applied Sciences, 44(5), 4058-4070, 2021, Elsevier (SCIE Indexed).
16. Md. Maqbul, "Almost periodic solutions for a class of nonlinear Duffing system with time-varying coefficients and Stepanov-almost periodic forcing terms", Nonlinear Dynamics and Systems Theory, 20(5), 512-522, 2020
17. Kishore Kumar, N., Biswas, P., "Fully discrete least-squares spectral element method for parabolic interface problems", Mathematics And Computers In Simulation, 181, 364-379, 2021
18. Saha, S., Biswas, P., Nath, S., Singh, L., "Numerical simulations of Newtonian fluid flow through a suddenly contracted rectangular channel with two different types of baffle plates, Soft Computing", 2020, https://doi.org/10.1007/s00500-020-05326-4

19. Saha, S., Biswas, P., Nath, S., "Bifurcation phenomena for incompressible laminar flow in expansion channel to study Coanda effect", Journal of Interdisciplinary Mathematics, 23(2), 493-502, 2020
20. Saha S., Biswas P., Das N A., Raut S., "Convective heat transfer of laminar nanofluids flow through a rectangular microchannel with different types of baffle-corrugation", International Journal for Computational Methods in Engineering Science and Mechanics, 2021, https://doi.org/10.1080/15502287.2021.1894509
21. Saha, S., Das N. A., Biswas, P., Nath, S., "Bifurcation analysis of two-dimensional laminar flow through sudden expansion channel", International Journal of Social Ecology and Sustainable Development, 2021, Accepted
22. Saha, S., Das, N. A., "Flow Bifurcation Phenomena of Shear-Thinning and Newtonian Fluids in a Rectangular Channel in Presence of Intermediate Steps: using Carreau-Yasuda Model", Journal of Applied Fluid Mechanics, 14(4), 1283-1293, 2021.
23. Saha, S., Das N. A., Biswas, P., Raut, S., "Numerical simulations of turbulent airflow phenomena and characteristics of heat transfer through a rectangular microchannel with mixed type baffles", International Journal of Fluid Mechanics Research, 2021, 48(2), Accepted.
24. Saha, S., Das N. A., Biswas, P., "Numerical simulations of heat transfer phenomena through a baffled rectangular channel", International Journal of Mathematical, Engineering and Management Sciences, 2021, Accepted.
25. Roy, S., Saha, S., Raut, S., Das, N. A., "Studies on the effect of kinetic viscosity on electron acoustic cylindrical and spherical solitary waves in a plasma with vortex electron distribution", Journal of Applied Mathematics and Computational Mechanics, 2021, Accepted.
26. Saha, S., Numerical study of airflow phenomena through a baffles rectangular micro-channel, Journal of Modelling and Optimization, 2021, Accepted.
27. Saha, S., Biswas, P., Nath, S., Numerical prediction for spreading novel corona virus disease in India using logistic growth and SIR models, European Journal of Medical and Educational Technologies, 14(2), 1-9, 2021.
28. Mahanta, J., Panda, S., "A novel distance measure for intuitionistic fuzzy sets with diverse applications" Int J Intell Syst., 36, 615- 627, 2021, https://doi.org/10.1002/int.22312
29. B. H. S. Raju, D. Nath, S. Pati and L. Baranyi, "Analysis of mixed convective heat transfer from a sphere with an aligned magnetic field", International Journal of Heat and Mass Transfer, 162, 120342, 2020
30. B. H. S. Raju, D. Nath, and S. Pati, "Analysis of mixed convective heat transfer from a an isoflux/ isothermal sphere: Influence of Prandtl", Physica Scripta, 95(8), 1-18, 2020
31. G. B. C. Mouli, K. Gangadhar and B. H. S. Raju, "On spectral relaxation approach for thermal diffusion and diffusion thermo effects on viscous disspative casson fluid through a stretched surface", International Journal of Applied and Computational Mathematics, 6(6), 1-21, 2020

b) National Journal(s):

1. D. Dutta, M. Sen and A. Deshpande, "Generalized Type-2 Fuzzy Equivalence Relation", Proc. Natl. Acad. Sci., India, Sect. A Phys. Sci., 2020, https://doi.org/10.1007/s40010-020-00707-8

c) International Conference(s):

1. Abhijit Barman, Rubi Das, and Pijus Kanti De, "Pricing and inventory policy for deteriorating item in a two-echelon supply chain: a stackelberg duopoly game approach" In 2020 8th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions)(ICRITO), pp. 796-800. IEEE, 2020. https://doi.org/10.1109/ICRITO48877.2020.9197770
2. Abhijit Barman, Rubi Das, and Pijus Kanti De, "Optimal pricing and greening decision in a manufacturer retailer dual-channel supply chain" Materials Today: Proceedings 42 (2021): 870-875. https://doi.org/10.1016/j.matpr.2020.11.719
3. Rubi Das, Pijus Kanti De, and Abhijit Barman, "Co-Ordination of a Two-Echelon Supply Chain with Competing Retailers Where Demand Is Sensitive to Price and Quality of the Product" In Mathematical Modeling, Computational Intelligence Techniques and Renewable Energy: Proceedings of the First International Conference, MMCITRE 2020, pp. 379-387. Springer Singapore, 2021. https://doi.org/10.1007/978-981-15-9953-8_33
4. Abhijit Barman, Rubi Das, and Pijus Kanti De, "Pricing and Inventory Decisions of Multi-item Deteriorating Inventory System under Stock, Time and Price Sensitive Demand Policy" In 2020 9th International Conference System Modeling and Advancement in Research Trends (SMART), pp. 453-458. IEEE, 2020. https://doi.org/10.1109/SMART50582.2020.9337124
5. N. Sarkar, M. Sen, "An investigation on existence and uniqueness of solution for Integro differential equation with fractional order", Journal of Physics: Conference Series 1849 (1), 012011, 2021
6. S. Saha, P. Biswas, S. Nath, "A review on spectral element solver Nek5000", AIP conference proceedings, 2336, 1-7, (CSMCS-2020), NIT Calicut.
7. Saha, S., Das N. A., Biswas, P., Raut, S., "Analysis of heat transfer characteristics through a rectangular enclosure", Material Today Proceedings, 2021, https://doi.org/10.1016/j.matpr.2021.04.19, NIT Uttarakhand.

d) National Conference(s):

1. Saha, S., Numerical simulation of turbulent airflow and heat transfer through a rectangular channel along with two trapezoidal baffle plates: comparison between plane and trapezoidal shape baffles, AIP Conference Proceedings, 2341, 1-10, 2021.

e) **Book/Chapter:**

1. D. Saha, M. Sen and S. Roy, "Investigation of the existence criteria for the solution of the Functional integral equation in the Lp space", Springer book series (Accepted)
2. P. Mohapatra, K. N. Das and S. Roy, "Novel Competitive Swarm Optimizer for Sampling-Based Image Matting Problem" In: Elçi A., Sa P., Modi C., Olague G., Sahoo M., Bakshi S. (eds) Smart Computing Paradigms: New Progresses and Challenges. Advances in Intelligent Systems and Computing, vol 766. Springer, Singapore, 2020, https://doi.org/10.1007/978-981-13-9683-0_12
3. Ajoy Dutta, Asish Adak, Praveen Kumar Gupta, "Analysis of Fractional-Order Deterministic HIV/AIDS Model During Drug Therapy Treatment". In: Das K., Bansal J., Deep K., Nagar A., Pathipooranam P., Naidu R. (eds) Soft Computing for Problem Solving, Advances in Intelligent Systems and Computing, Vol. 1048. Springer, Singapore, 2020, https://doi.org/10.1007/978-981-15-0035-0_1

4. S Saha, P Biswas, S Nath, "Numerical Simulation of Blocked Blood Vessel for Early Diagnosis of Coronary Artery Disease", Proceedings of International Conference on Modeling, Simulation and Optimization (CoMSO 2020) held at NIT Silchar, India, pp 711-721.
5. Saha, S., "A Survey on flow phenomena and heat transfer through expansion geometry", Lecture notes in Mechanical Engineering (Springer), 206, 257-264, 2021.
6. Saha, S., "Numerical simulation of turbulent flow through a sudden expansion channel: comparison between three models", Lecture notes in Mechanical Engineering (Springer), 206, 49-56, 2021.
7. Saha, S., Biswas, P., Nath, S., "Numerical modelling of bifurcation and leakage of blood flow in mitral valve to predict heart malfunctioning", Springer LAIS Series, 693-702, 2021.
8. Yogita, Praveen Kumar Gupta, "A Mathematical Study of Hepatitis C Virus Model During Drug Therapy Treatment", 5th International Conference on Soft-Computing: Theories and Applications (SoCTA-2020), India from 25-27th December, 2020
9. Biplab Dhar, Praveen Kumar Gupta, "Mathematical analysis on the behaviour of tumor cells in the presence of monoclonal antibodies drug", Proceedings of International Conference on Modeling, Simulation and Optimization (CoMSO 2020) held at NIT Silchar, India, pp 311-321

1.6 CONSULTANCY SERVICES: NIL

1.7 MAJOR EQUIPMENT ACQUIRED: NIL

1.8 PATENT: NIL

1.9 VISITS TO ABROAD: NIL

1.10 Ph.D. Thesis

Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis
1.	Sangita Saha	Dr. Santanu Roy	A Study on Statistical and Ideal Convergence of Triple Sequence Spaces of Fuzzy Real Numbers
2.	Biplab Dhar	Dr. Praveen Kumar Gupta	Mathematical Study and Simulation on Tumor-Immune System with Targeted Chemotherapeutic Drug

1. **Name of the Department:**

PHYSICS

The Department at a glance
Year of Establishment: 1977
Academic Programmes Offered: • Master of Science (M.Sc.) • Doctor of Philosophy (Ph.D.)
Total Faculty Strength: 08 • Professor: 01 • Associate Professor: 0 • Assistant Professor: 07
Total Student Strength: 47 • M.Sc.: 29 • Ph.D.: 18
New Students Joined in 2020-2021: 23 • M.Sc.: 18 • Ph.D.: 05

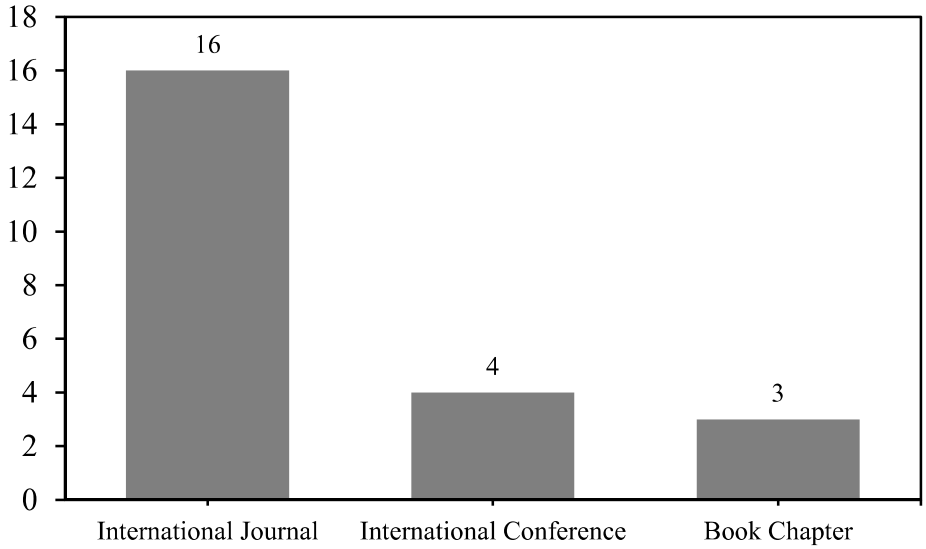


Fig: 1 Publication details of the Physics Department in 2020-2021

1.1 **Academic Staff:**

HEAD: Prof. Asim Roy, Professor (01-04-2020 to 02-09-2020)
Dr. Avijit Chowdhury, Assistant Professor (03-09-2020 to 31-03-2021)

Name of Faculty members:

Professor	Associate Professor	Assistant Professor
Prof. Asim Roy	NIL	Dr. Subrat Kumar Barik
		Dr. Avijit Chowdhury
		Dr. Rupak Dutta
		Dr. Ranjith G Nair
		Dr. Subhasis Panda
		Dr. Soumya Ranjan Mohapatra
		Dr. P. Srinivasan

Visiting Professor (If any): NIL

1.2 Distinction Achieved

a) **By Student:**

(i) Mr. N Rajeev has received the CSIR SRF fellowship on 25-03-2021.

b) **By Faculty Member:**

(i) Invited talk by Dr. R G. Nair on "Semiconductor photocatalysis: Recent advances and future outlook" at Kongunadu Arts and Science College, Coimbatore on 11.07.2020 in an Alumni Technical webinar Lecture Series organized by Department of Physics.

(ii) Invited talk by Dr. R G. Nair on "Role of heterojunction in semiconductor photocatalysis" on 18.08.2020 in an Online One Week Faculty Development Programme "Impacts of nanomaterials in the environment" conducted by Department of Physics, MEPCO Schlenk Engineering College, Sivakasi.

(iii)) Invited talk by Dr. S.R. Mohapatra on "Polymer electrolyte based nanoionic resistive switching memory" in online webinar/(workshop) entitled "ADVANCED NANOMATERIALS & THEIR APPLICATIONS-(I, II, III, IV)" to be held at National Institute of Technology, Manipur during 2nd - 21th November, 2020, NIT Manipur.

(iv) Invited Lecture by Dr. P. Srinivasan on Nonlinear Optical Nanofibers on 10th July 2020 in one week workshop on " Materials Technology advancement in current scenario organized by Department of Physics, Sathyabama Institute of Science and Technology during 4-10 July 2020.

1.3 Seminars, Symposia, Short Term Courses, Workshops

a) Conducted by Faculty Member

Sl. No.	Name(s) of the Coordinator	Title	Funding Agency	Duration
1	Dr. Ranjith G. Nair, Convener Dr. S. Panda, Joint Convener Dr. L Seban, Joint Convener Dr. W. Arif, Joint Convener	28th National Conference on Condensed Matter Physics Condensed Matter Days (CMDAYS20)	Industry Sponsorship	11-13 December 2020
2	Dr. P. Srinivasan	AICTE Training and Learning (ATAL) Academy Sponsored One Week Online Faculty Development Program on "Role of Artificial Intelligence in Science and Engineering Applications (RAISEA-2020)" for CBSE School Teachers.	AICTE	October 26-30, 2020.

b) **Participated by Faculty Member**

Sl. No.	Name of Faculty	Details of the Program	Organizing Institute
1.	Dr. S K Barik	Effective online teaching and conducting examinations with Moodle LMS	NIT Silchar
2.	Dr. S R Mohapatra	MEMRISYS Online Mini-Conference 2020, 18 -19, November, 2020	National Institute of Materials science, Tsukuba, Japan
		TEQIP-III Sponsored e-workshop on Electrochemical Energy Storage Devices, 07th December to 11th December 2020	IIT Delhi
		TEQIP-III Sponsored Online FDP on "VLSI and Nanotechnology in Energy, Environment, and Neuromorphic Computation" during December 21-23, 2020	IIT Indore

3.	Dr. Subhasis Panda	Effective online teaching and conducting examinations with Moodle LMS	NIT Silchar

1.4 Research Development

a) Ph.D. Programme (Specializations):

- Condensed Matter Physics (Experiment)
- Condensed Matter Physics (Theory)
- High Energy Physics
- Resistive Memory Device
- Ferroelectrics and Multiferroics
- Solid State Ionics
- Solar Photovoltaics
- Solar Photocatlysis

b) Ph.D. Produced/Ongoing (in number):

Completed	Submitted	Ongoing
2	0	18

c) Research Lab/ Workshop:

Sl. No.	Name of Lab/Workshop	Purpose/Linkage to an existing/new programme
1	B. Tech Lab	UG
2	Physic Lab I	PG
3	Physic Lab II	PG
4	Physic Lab III	PG
5	Micro Science and Nano Physics	To Conduct advanced level research on materials science and devices.
6	Solar Energy Materials Research and Testing Laboratory (SMaRT Lab) (Dr. Ranjith G. Nair	PG and PhD program
7	Organic Electronics and Sensor Laboratory (Dr. Avijit Chowdhury)	PG and PhD program
8	Computational Condensed matter lab (Dr. S. Panda)	PG and PhD program
11	Multifunctional Materials Laboratory (Dr. S.K. Barik)	PG and PhD program
12	Liquid Crystal Laboratory	PG and PhD program
13	DST-FIST Lab I & II	PG and PhD program

d) **Ongoing/Completed Sponsored Research Project:**

Sl. No.	Project Title	Principal Investigator(s)	Funding Agency	Cost in lakhs	Duration
1.	Nanostructured Metal Oxides Immobilized Ionic Liquids as Green Catalysts for Selective Organic Transformations	Dr. S. S. Dhar (PI) Dr. Avijit Chowdhry (Co PI)	DST-SERB	29.83	3 years

e) Research Paper Reviewed

Sl. No.	Faculty Name	Journal Name	No of Paper	Year
1.	Dr. S K Barik	Journal of Electroceramics	01	2020
		-Do-	01	2021
		CMDAYS-2020	01	2020
2.	Dr. S. R. Mohapatra	Microelectronic Engineering	01	2020
3.	Dr. P. Srinivasan	Crystal Growth and Design	03	2020
		Journal of Alloys and Compounds	01	2020
		Journal of Crystal Growth	02	2021

f) Chairing of Technical Section

Sl. No.	Faculty Name	Details
1.	Dr. S. R. Mohapatra	CMDAYS20, NIT Silchar
2.	Dr. Subhasis Panda	CMDAYS20, NIT Silchar
3.	Dr. P. Srinivasan	CMDAYS20, NIT Silchar

1.5 PUBLICATIONS

a) International Journal(s):

[1] U Das, D Das, B Paul, T Rabha, S Pattanayak, A Kanjilal, S Bhattacharjee, and P Sarkar, A Roy, Induced Vacancy-Assisted Filamentary Resistive Switching Device Based on $RbPbI_{3-x}Cl_x$ Perovskite for RRAM Application, ACS Applied Materials & Interfaces 12 (2020) 41718.

[2] U Das, A Nyayban, B Paul, A Barman, P Sarkar, and A Roy, Compliance current-dependent dual-functional bipolar and threshold resistive switching in all-inorganic rubidium lead-bromide perovskite-based flexible device, ACS Applied Electronic Materials 2 (2020) 1343.

[3] S K Barik, K K Gogoi, S Sahoo, H J Kim, and S Hajra, A lead-free perovskite Bi1/2(Na1/4Li1/4)TiO_3: investigation on structural, electrical properties, and device application, J Materials Science: Materials in Electronics 32 (2021) 4629.

[4] N Das and R Dutta,Implication of b→cτν flavor anomalies on Bs→Ds∗τν decay observables, J.Phys.G 47 (2020) 11, 115001.

[5] K K Gogoi, S Das, S Maiti, and A Chowdhury, Semiconductor Grafted Polymer Embedded Reduced Graphene Oxide Nanohybrid For Power Efficient Non-Volatile Resistive Memory Applications, ACS Appl. Nano Mater. 3 (2020) 11562.

[6] V V Bhagwat, S Roy, B Das, N K Shah, and A Chowdhury, Performance of Finned Heat Pipe Assisted Parabolic Trough Solar Collector System Under The Climatic Condition of North East India, Sustainable Energy Technologies and Assessments, 45 (2021) 101171.

[7] A Das, R R Wary, and R G Nair, Cu modified ZnO nanoflakes: An efficient visible light-driven photocatalyst and a promising photoanode for dye sensitized solar cell (DSSC), Solid State Sciences, 104 (2020),106290.

[8] A Das, P M Kumar, M Bhagavathiachari, and R G Nair, Hierarchical ZnO-TiO2 nanoheterojunction: A strategy driven approach to boost the photocatalytic performance through the synergy of improved surface area and interfacial charge transport, Applied Surface Science, 534 (2020), 147321.

[9] Abinash Das, M Patra, M Bhagavathiachari, and R G Nair, Defect-induced visible-light-driven photocatalytic and photoelectrochemical performance of ZnO–CeO2 nanoheterojunctions, Journal of Alloys and Compounds, 858, 157730.

[10] J Mahanta and S. Panda, Fuzzy Expert System for Prediction of Prostate Cancer. New Mathematics and Natural Computation 16 (2020) 163.

[11] J Mahanta and S Panda, A novel distance measure for intuitionistic fuzzy sets with diverse applications. Int J Intell Syst. 36 (2021) 615.

[12] S K Satti, S Devi K, P Dhar, and P Srinivasan, A machine learning approach for detecting and tracking road boundary lanes, ICT Express, (2020) ISSN 405-9595.

[13] Goluguri, N V R Reddy, S Devi K, and P Srinivasan, Rice-net: an efficient artificial fish swarm optimization applied deep convolutional neural network model for identifying the Oryza sativa diseases Neural Computing and Applications, Neural Computing and Applications (2020).

[14] P Dhar, S. Devi K, S K Satti, and P Srinivasan, A study on various segmentation and machine learning algorithms used for early detection of cancer, Journal of Advanced Research in Dynamical and Control Systems 12 (2020) 1416.

[15] S Devi K, P Srinivasan, and S Bandyopadhyay, "H2K- A rubust and optimum approach for detection and classification of groundnut leaf diseases", Journal of Computer and Electronics in Agriculture 178 (2020) 105749.

[16] K Sekar, S Devi K, and P Srinivasan, Energy Efficient Data Gathering using Spatio-temporal Compressive Sensing for WSNs, *Wireless Pers Commun*. (2021).

b) National Journal(s):

c) International Conference(s):

[1] U Das, T Rabha, A Dehingia, S Bhattacharjee, P K Sarkar, A Roy, Enhanced Photoluminescence in Chloride Doped All-inorganic Rubidium Lead Iodide Perovskite, AIP Conference Proceedings, 2265 (2020)030175.

[2] K. K Gogoi, A Chowdhury, Organic-inorganic nanohybrids for low-powered resistive memory applications, J. Phys.: Conf. Ser., 1706 (2020) 012010.

[3] N Das, R Dutta Exploring Lepton Flavor Universality Violation in $B_s \to D_s^* l\nu$ decay, *Springer. Proc.Phys.* 248 (2020) 439-443.

[4] N Rajeev, R Dutta, S Kumbhakar, Model Independent Study of LFUV in Σb → Σc τν and Ω*b* → Ωc τν baryonic decays, *Springer Proc.Phys.* 248 (2020) 445-449.

d) National Conference(s): Nil

e) Book/Chapter:

[1] N Sekhar Das, K K Gogoi, A Chowdhury, Studies on the Optical and Structural Properties of Exfoliated Graphene Oxide, Modeling, Simulation and Optimization, Smart Innovation, Systems and Technologies 206 (2021) 465 (ISBN 978-981-15-9829-6), Springer (Chapter 36).

[2] N S Das, K K Gogoi, S Das, A Chowdhury, Spectroscopic and Structural Investigation of Graphene Oxide Synthesized via Hummers' Method, Lect. Notes in Mechanical Engineering, Kanishka Jha et al. (Eds): Recent Advances in Sustainable Technologies, 978-981-16-0975-6, 501566_1_En, (Chapter 19).

[3] S Chakraborty, R G Nair, L Seban, Dye Sensitized Solar Cell Parameter Extraction Using Particle Swarm Optimization, Modeling, Simulation and Optimization: Proceedings of CoMSO 2020, 287-295, Springer Singapore.

1.6 Major Equipment Acquired

1. Param Shavak (HPC), CDAC

1.7. M.Sc. (Thesis/Project)

Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis/Project
1	Mayur Meshram	Prof. Asim Roy	Fabrication and Characteristics of Rubidium Lead Chloride QDs as a novel resistive switching material
2.	Siddharth	Dr. S. K. Barik	Preparation and characterization of some perovskite based electroceramics
3.	Subhankar Pandit	Dr. Avijit Chowdhury	A Brief Study on Wearable Technology Using Ferroelectric Polymer and Its Application In Cardiovascular Care
4.	Siddhant Manna		A Mini Review on The Synthesis, Structural Modification of Graphitic Carbon Nitride Based Magnetic Nanocomposite and Their Applications for Environmental Remediation
5.	Rahul Kumar Agrawal	Dr. Rupak Dutta	Neutrino oscillation phenomenology with PT symmetry,
6.	Blesson Tom Joseph		The application of Deep Neural Networks in One-dimensional toy model, BLESSON TOM JOSEPH
7.	Puskar Joshi	Dr. Ranjith G Nair	A Study of the Influence of pH on Anatase-Rutile Phase Composition of pristine and doped TiO2

8.	Bibhas Ghanta	Dr. Subhasis Panda	An investigation on transport properties of TiO2 polymorphs
9.	Roopam Pandey		Exploratory analysis of perovskites via machine learning
10.	Rajesh Kumar	Dr. S. R. Mohapatra	Liquid phase exfoliation and microwave assisted modification in MoS_2 Nanostructure
11.	Aiswarya Puhan		Enhancement of Polar Beta Phase of PVDF-HFP Copolymer for Piezoelectric Nano-generator Application

1.8 Ph.D. Thesis

Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis
1	Dr. Koustav Kashyap Gogoi	Dr. Avijit Chowdhury	Studies on Semiconductor-grafted Layered Nanohybrid Embedded Polymer Composites for Non-volatile Resistive Memory Applications
2.	Dr. Abinash Das	Dr. Ranjith G Nair	"Studies on the role of surface morphology and type-II heterojunction on the improved photocatalytic performance of ZnO"

1. Name of the Department:

Chemistry

The Department at a glance
Year of Establishment: 1977
Academic Programmes Offered: • Master of Science (M.Sc.) • Doctor of Philosophy (Ph.D.)
Total Faculty Strength: 08 • Professor: 0 • Associate Professor: 03 • Assistant Professor: 05
Total Student Strength: 71 • M.Sc.: 34 • Ph.D.: 37
New Students Joined in 2020-2021: 35 • MSc: 20 • Ph.D.: 15

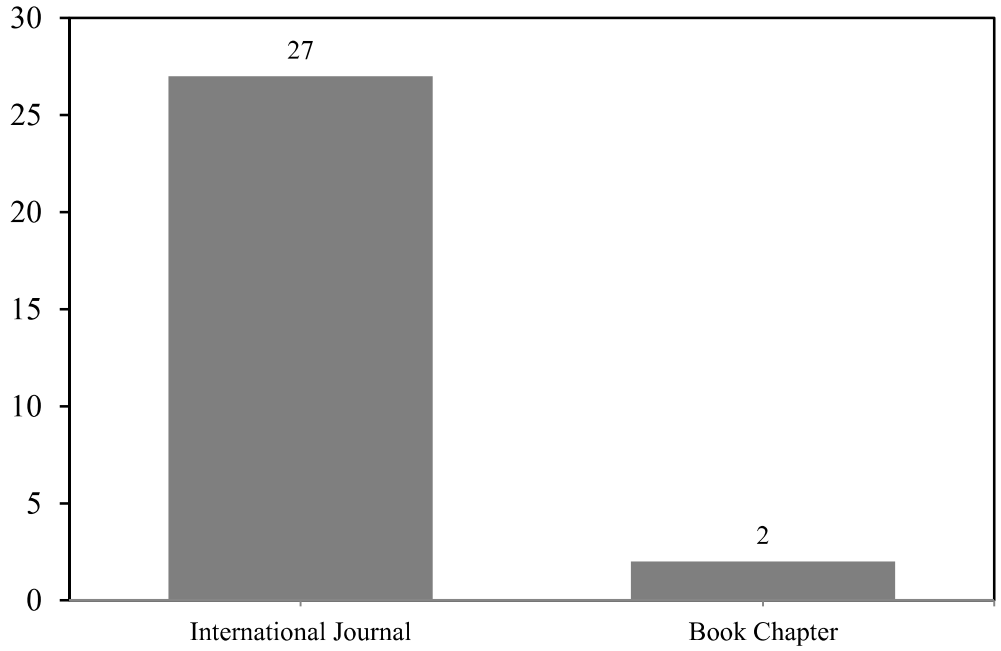


Fig: 1 Publication details of chemistry Department in 2020-2021

1.1 Academic Staff:

HEAD: Dr Siddhartha S Dhar, Associate Professor

Name of Faculty members:

Professor	Associate Professor	Assistant Professor
NIL	Dr. Siddhartha S Dhar	Dr. Ruma Rano
	Dr. Md Ahmaruzzaman	Late Dr. Baban H Shambharkar
	Dr. Pranjit Barman	Dr Lalthazuala Rokhum
		Dr N Shaemningwar Moyon
		Dr Biswa Nath Ghosh

Visiting Professor (If any): NIL

1.2 Distinction Achieved

a) By Student:

Kalyani Rajkumari	Received "Best Doctoral Award 2020' at the Convocation of NIT Silchar in held in November 2020.
Linkon Bharali	Received scholarship award from DST for achieving the outstanding 'S' grade in Summer Research Program organized by CSIR North East Institute of Science and Technology, Jorhat, during June to August, 2020.

b) By Faculty Member:

Name of the Faculty	Name/Nature of the Award
Dr M A Zaman	Ranked in the top 2% scientists in the world released by US based Stanford university. His ranking among Indian scientists is 7 and world-wide ranking is 113 in the chemical engineering category.
Dr S L Rokhum	Inducted as "Associate Editorial Board Member: Current Microwave Chemistry (Emerging Science Citation Indexed journal of BSP)
	"Young Scientist Award (2020)" awarded by VDGOOD Professional Association, Kolkata, India
	"Outstanding Reviewer's Award by IOP Science

1.3 Seminars, Symposia, Short Term Courses, Workshops

a) Conducted by Faculty Member: NIL

b) Participated by Faculty Member: NIL

1.4 Research Development

a) Ph.D. Programme (Specializations):

- Synthesis of nanocatalysts and their application in chemical transformations
- Energy and Environment
- Green Synthesis, Organo-Sulfur compounds, Schiff Base, Metal Complexes, Organic Synthesis
- Synthesis of nanocomposites for environmental remediation
- Synthesis and applications of transition metal complexes of nitrogen-based heterocyclic ligands
- Nanomaterials from solid waste for potential applications in photocatalysis, nanoelectronics, sensor, etc.
- Photophysical and photochemical processes of organic fluorophores in homogeneous and heterogeneous environments using fluorescence spectroscopy; protein-ligand interaction.

b) Ph.D. Produced/Ongoing (in number):

Completed	Submitted	Ongoing
05	**3**	**34**

c) Research Lab/ Workshop:

d) Ongoing/Completed Sponsored Research Project:

Sl. No.	Project Title	Principal Investigator(s)	Funding Agency	Cost in Rupees	Duration
1	Nanostructured Metal Oxides Immobilized Ionic Liquids as Green	Dr. S S Dhar	DST, SERB.	28,64,430/-	3-years (2018-21)

	Catalysts for Selective Organic Transformations				
3	Spectrofluorimetric Studies on Representative Nitrogen-Heterocyclic Drugs and Their Interaction with DNA-Nucleotides	Dr. N. S. Moyon	DST, SERB.	33,09,000/-	3-years (2017-20)

e) Research Paper Reviewed

Sl. No.	Faculty Name	Journal Name	No of Paper	Year
1	Dr S S Dhar	Journal of Organic Chemistry (American Chemical Society)	1	2020-21
		Journal of Alloys and Compounds (Elsevier)	1	
		Materials Letters (Elsevier)	2	
		Ceramic International (Elsevier)	1	
		Green Chemistry Letters and Reviews (Taylor and Francis)	1	
		Environmental Science and Pollution Research (Springer)	1	
		Environmental Chemistry Letters (Springer)	1	
2	Dr. M A Zaman	International Journal of Environmental Analytical Chemistry (Taylor and Francis)	1	2020-21
		Chemical Engineering Journal (Elsevier)	1	
		Journal of Hazardous Materials (Elsevier)	1	
3	Dr P Barman	Advanced Synthesis and Catalysis (Wiley)	1	2020-21
		ChemistrySelect (Wiley)	3	
		Journal of Molecular Structure (Elsevier)	1	
		Polyhedron (Elsevier)	3	
		Catalysis Communications (Elsevier)	2	
		Inorganic & Nano Materials Chemistry (Taylor and Francis)	1	
		Journal of Organic Chemistry (American Chemical Society)	1	
		Inorganic Chemistry Communications (Elsevier)	1	

f) Chairing of Technical Section

Sl. No	Faculty Name	Details
1	Dr S S Dhar	National Conference on Condensed Matter Physics held at Physics Department, NIT Silchar, during 10-12 December 2020.

1.5 PUBLICATIONS

a) International Journal(s):

[1] Krishna Ch Das, **Siddhartha S Dhar**, Debasish G Thakurata, Jayanta Das, Sn(II) inserted on Hydroxyapatite Encapsulated Nickel ferrite ($NiFe_2O_4$@HAp-Sn^{2+}): A novel nanocomposite for the effective photo-degradation of Rhodamine B dye, *Journal of Cleaner Technology* (2021) **290**, 125172. (Elsevier) (IF:7.246)

[2] Krishna Ch Das and **Siddhartha S Dhar**, Removal of cadmium(II) from aqueous solution by hydroxyapatite-encapsulated zinc ferrite (HAP/ZnFe2O4) nanocomposite: kinetics and isotherm study, *Environmental Science and Pollution Research*, (2020), **27**, 37977 (Springer) (IF:3.056)

[3] Krishna Ch Das, **Siddhartha S Dhar**, Fast catalytic degradation of p-nitrophenol by Cu/HAP/ZnFe2O4 nanocomposite, *Materials Science and Engineering B* (2021) **263**, 114841 (Elsevier) (IF: 4.706)

[4] Monjur Hassan Barbhuiya, Meghali Devi, Bishal Das, **Siddhartha S Dhar**, Fabrication of non-covalently grafted $Cu(acac)_2$ over two-dimensional graphene oxide nanosheets: An environmentally benign noble photocatalyst for visible-light-driven degradation of phenol, *Diamond and Related Materials* (2020) **110,** 108153 (Elsevier) (IF: 2.650)

[5] Bishal Das, Meghali Devi, Monjur Hassan Barbhuiya, and **Siddhartha S Dhar**, Sodium and Sulfur Co-Doped Graphitic Carbon Nitride: A Novel and Effective Visible Light-Driven Photocatalyst with Tunable Bandgap for Degradation of Eosin Yellow, *ChemistrySelect* (2020) **5**, 12190 (Wiley) (IF:1.811)

[6] Meghali Devi, Monjur H Barbhuiya, Bishal Das, **Siddhartha S Dhar**, Modified mesoporous graphitic carbon nitride: a novel high-performance heterogeneous base catalyst for transesterification reaction, *Sustainable Energy and Fuels* (2020) **4**, 3537 (Royal Society of Chemistry) (IF:5.503)

[7] Jayanta Das and **Siddhartha S Dhar**, Synthesis of SnO_2 quantum dots mediated by Camellia sinensis shoots for degradation of thiamethoxam, *Toxicological and Environmental Chemistry*, (2020) **102**, 186 (Taylor and Francis) (IF: 1.431)

[8] Jayanta Das and **Siddhartha S Dhar**, Camellia sinensis mediated synthesis of zero-valent iron nanoparticles and study of their efficacy in dye degradation and antibacterial activity, International Journal of Environmental Analytical Chemistry, https://doi.org/10.1080/03067319.2020.1828388 (published online 28 September 2020) (Taylor and Francis) (IF: 1.095)

[9] Th. Babita Devi, **Md. Ahmaruzzaman**, Facile synthesis of rGO/Ag@AgCl core-shells nanocomposite and their multifunctional efficacy as a photocatalyst and antimicrobial agent for decontamination of water, *Journal of Alloys and Compounds* (2021) **860**, 157988. (Elsevier) (IF: 4.650).

[10] Dipyaman Mohanta, Koushik Barman, **Md. Ahmaruzzaman**, Encapsulating bandgap engineered CoSnO3 mixed metal oxide nanocomposite in rGO matrix: A novel catalyst towards LED light-induced photoelectrocatalytic water oxidation at neutral pH, *Journal of Electroanalytical Chemistry* (2021) **880**, 114830. (Elsevier) (IF:3.807)

[11] Pamreishang Kasar, **Md. Ahmaruzzaman**, Thermal and catalytic decomposition of waste plastics and its co-processing with petroleum residue through pyrolysis process, *Journal of Cleaner Production* (2020) **265**, 121639 (Elsevier) (IF:7.246).

[12] Dipyaman Mohanta, **Md. Ahmaruzzaman**, Novel Ag-SnO2-βC3N4 ternary nanocomposite based gas sensor for enhanced low-concentration NO2 sensing at room temperature, *Sensors and Actuators B: Chemical* (2021) **326**, 128910. (Elsevier) (IF: 7.100).

[13] Sauvik Raha, **Md. Ahmaruzzaman**, Enhanced performance of a novel superparamagnetic g-C3N4/NiO/ZnO/Fe3O4 nanohybrid photocatalyst for removal of esomeprazole: Effects of reaction parameters, co-existing substances and water matrices, *Chemical Engineering Journa*l (2020) **395**, 124969 (Elsevier) (IF:10.652).

[14] **Md. Ahmaruzzaman**, Biochar-based nanocomposites for photocatalytic degradation of emerging organic pollutants from water and wastewater, *Materials Research Bulletin* (2021) **140**, 111262 (Elsevier) (IF:4.019)

[15] Sukanya Hazarika and **Pranjit Barman**, Visible-Light Cercosporin Catalyzed Sulfenylation of Electron-Rich Compounds with Thiols under Transition-Metal-Free Conditions**,** *ChemistrySelect*, (2020) **5**, 11583 (Wiley) (IF:1.811)

[16] Pranjal Saikia, Kaushik Dutta, Ankur Kanti Guha, S. K. Dolui, **Pranjit Barman** and Lakshya Jyoti Borthakur, High-performance aqueous electrolyte-based supercapacitor of carboxylic acid functionalized carbon-nanotubes and graphene nano composite, *Materials Chemistry and Physics* (2021) **258(5),** 123786 (Elsevier) (IF:3.408)

[17] Aditi Bora, Subir Kr Maiti, Anmol Singh and **Pranjit Barman**, Studies on the Effect of Remote Substituents on the DNA Binding Activity of Novel Chiral Schiff bases, *Journal of Molecular Structure* (2021) **234(12)**, 130179, (Elsevier) (IF: 2.463)

[18] Anamika Khaskel and **Pranjit Barman**, Bis-4-hydroxycoumarin Synthesis: A Simple Laboratory Experiment for Undergraduate Students, *Journal of Chemical Education* (2021) **98(4)**, 1423 (ACS) (IF: 1.385)

[19] Arpita Paul Chowdhury, **Baban H. Shambharkar**, Fabrication and characterization of BiOBr-$SnWO_4$ heterojunction nanocomposites with boosted photodegradation capability, *Chemical Engineering Journal Advances*. (2020) **4**, 100040 (Elsevier).

[20] Kalyani Rajkumari, Bishwajit Changmai, Ananta Meher, Chhangte Vanlalveni, Putla Sudarsanam, Andrew EH Wheatley and **Samuel Lalthazuala Rokhum**. A reusable magnetic nanocatalyst for bio-fuel additives: the ultrasound-assisted synthesis of solketal, *Sustainable Energy and Fuels* (2021) **5**, 2362-2372 (RSC) (IF:5.503)

[21] Chhangte Vanlalveni, Samuel Lallianrawna, Ayushi Biswas, Manickam Selvaraj, Bishwajit Changmai and **Samuel Lalthazuala Rokhum**. Green synthesis of silver nanoparticles using plant extracts and their antimicrobial activities: a review of recent literature, *RSC Advances* (2021), **11**, 2804 (Royal Society of Chemistry) (IF:3.070)

[22] Bishwajit Changmai, Kalyani Rajkumari, Diparjun Das and **Lalthazuala Rokhum**. Microwave-assisted synthesis of 3,4-Dihydropyrimidin-2(1H)-ones using acid-functionalized mesoporous polymer, *Current Microwave Chemistry,* (2021) DOI: 10.2174/2213335608666210329130736) (Bentham Science)

[23] Bishwajit Changmai, Chhangte Vanlalveni, Avinash Prabhakar Ingle, Rahul Bhagat, **Lalthazuala Rokhum**, Widely used catalysts in biodiesel production: A review, *RSC Advances* (2020) **10**, 41625-41679. (Royal Society of Chemistry) (IF:3.070)

[24] Bishwajit Changmai, **Ruma Rano**, Chhangte Vanlalveni, **Lalthazuala Rokhum**, A novel Citrus sinensis peel ash coated magnetic nanoparticles as an easily recoverable solid catalyst for biodiesel production. *Fuel* (2021) **286**, 119447 (Elsevier) (IF: 5.578)

[25] Aayushi Biswas, C. Vanlalveni, R. Lalfakzuala, Soumitra Nath, **Lalthazuala Rokhum**. Mikania mikrantha leaf extract mediated biogenic synthesis of magnetic iron oxide nanoparticles: Characterization and its antimicrobial activity study, *Materials Today Proceeding* (2021) **42**, 1366-1373. (Elsevier).

[26] Ikbal B Laskar, Bishwajit Changmai, Rajat Gupta, Da Shi, Kellie Jenkinson Andrew EH Wheatley and **Samuel Lalthazuala Rokhum**, A mesoporous polysulfonic acid-formaldehyde polymeric catalyst for biodiesel production from Jatropha curcas oil. *Renewable Energy* (2021) **173**, 415-421 (Elsevier) (IF:6.274).

[27] D. Das, S. Sutradhar, A. Singh, **B N Ghosh**, "Zinc-Terpyridine Based Chemosensor for Detection of Pyrophosphate Anion in Aqueous Medium", *Zeitschrift für anorganische und allgemeine Chemie* (2021) **647**, 1234 (Wiley) (IF:1.240).

b) National Journal(s): NIL

c) International Conference(s): NIL

d) National Conference(s): NIL

e) Book/Chapter:

[1] Bishwajit Changmai, Lalthazuala Rokhum. 2020. Nanostructured catalysts in the protection and deprotection of hydroxyl and thiol groups. ACS Symposium Series volume tentatively titled "Subnanometric-Scale Catalysts: Bridging the Gap between Homogeneous and Heterogeneous Catalysts." Advanced Heterogeneous Catalysts Volume 1: Applications at the Nano-Scale, Chapter 4, pp 129-150 (American Chemical Society)

[2] Kalyani Rajkumari, Lalthazuala Rokhum. Application of functionalized magnetic nanocatalysts in biodiesel production. Book title, “Role of Nano(bio)catalysts in Biodiesel Production”. Wiley (DOI: 10.1002/9781119729969.ch8)

1.6 CONSULTANCY SERVICES: NIL

1.7 Major Equipment Acquired

(a) Digital Analytical Balance, Make- Mettler Toledo, Model- ME-204

(b) Rotary Evaporator Make- KNF, Model- RC-600

(c) Microwave Synthesis System, Make- CEM, model- DY-1073

1.8 Patent:

Sl. No.	Name of the Faculty	Details	Year
1	Dr P Barman	Title: A Grid-Tied Solar Powered Pump Publication Date: 10/07/2020 Publication No. 202031020654A The Patent office Journal No.28/2020 dated 10/07/2020	2020

1.9 Visits to Abroad: NIL

1.10 M. Sc. (Project)

Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis/Project
1	Suraj Gupta Bora Scholar No. 18-48-101	Dr N S Moyon	Mechanism of interaction of the non-steroidal anti-inflammatory drug hesperetin with serum albumin: A fluorescence quenching study
2	Tiyasa Dhar Scholar No. 18-48-102	Dr R Rano	Characterization of Magnetic and Non-Magnetic Components of Fly Ash and application of Surface activated nonmagnetic particles as filler in biodegradable poly(vinyl alcohol) composite films
3	Bidyut Daimary Scholar No. 18-48-103	Dr P Barman	Microwave-assisted synthesis of a new Schiff base ligand and its application in colorimetric sensing ferric ion in aqueous solution
4	Dharmajit Brahma Scholar No. 18-48-105	Late Dr B H Shambharkar	Synthesis and characterization of Ag3PO4-SnWO4 nanocomposite and investigation of their photocatalytic activity
5	Richa Shree Scholar No. 18-48-106	Dr N S Moyon	Interaction of synthesized isoquinoline derivative and serum albumin: A fluorescence spectroscopic approach
6	Nabanita Roy Scholar No. 18-48-107	Dr B N Ghosh	A Comparative Study and Morphological Analysis of Transition Metals Mediated Hydrogelation of Trimethoxy-Terpyridine as Gelator
7	Singh Akta Ramkishor Mira Scholar No. 18-48-108	Dr B N Ghosh	Zinc-Terpyridine Based Chemosensor for Detection of Biologically Significant Pyrophosphate Anion in Aqueous Medium
8	Nitin Dubey Scholar No. 18-47-109	Dr S S Dhar	Enhanced photocatalytic efficiency of magnetically recoverable nickel ferrite grafted over oxygen doped graphitic carbon nitride

9	Swarnali Nath Scholar No. 18-47-110	Dr S S Dhar	Ionic liquid functionalized graphitic carbon nitride as green catalyst for selective side-chain oxidation of toluene
10	Naman Tandon Scholar No. 18-48-111	Dr M A Zaman	Synthesis of low-cost SnO2/ β-C3N4 nanocomposites
11	Ananya Chakraborty Scholar No. 18-48-113	Dr M A Zaman	Synthesis and characterization of low cost, quantum sized NiO nanoparticles encapsulated in β-C3N4 matrix
12	Ravi Purbey Scholar No. 18-48-115	Dr P Barman	Study on the synthesis of ONS donor Schiff base ligands and their Ni(II) complexes

1.11 Ph.D. Thesis: 05 (Five)

Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis
1	Ms Kalyani Rajkumari (Group-A)	Dr L Rokhum	Synthesis, characterization and application of selected heterogeneous catalysts in widely useful organic transformations
2	Ms Sukanya Hazarika (Group-A)	Dr P Barman	Development of catalytic methods for the synthesis and selective oxidation of organosulfur compounds
3	Mr Krishna Ch Das (Group-B)	Dr S S Dhar	Synthesis, Characterization and Application of some selected Spinel Metal Ferrites and their Hydroxyapatite based Nanocomposites
4	Ms Arijita Paul (Group-B)	Dr S S Dhar	A Study on Novel Magnetically Recyclable Nanocomposites as Efficient Catalysts for Organic Transformation Reactions and Environmental Remediation
5	Mr Sauvik Raha (Group – A)	Dr M A Zaman	Fabrication of Integrated Nanostructured Materials for Visible Light Mediated Catalytic Elimination of Emerging Refractory Pharmaceutical Contaminants from Aqueous Phase

1. Name of the Department:

Humanities & Social Sciences

The Department at a glance
Year of Establishment: 1977
Academic Programmes Offered: • Doctor of Philosophy (Ph.D.)
Total Faculty Strength: 04 • Professor: 01 • Associate Professor: 02 • Assistant Professor: 01
Total Student Strength: 26 • Ph.D.: 26
New Students Joined in 2020-2021: 01 • Ph.D.: 01

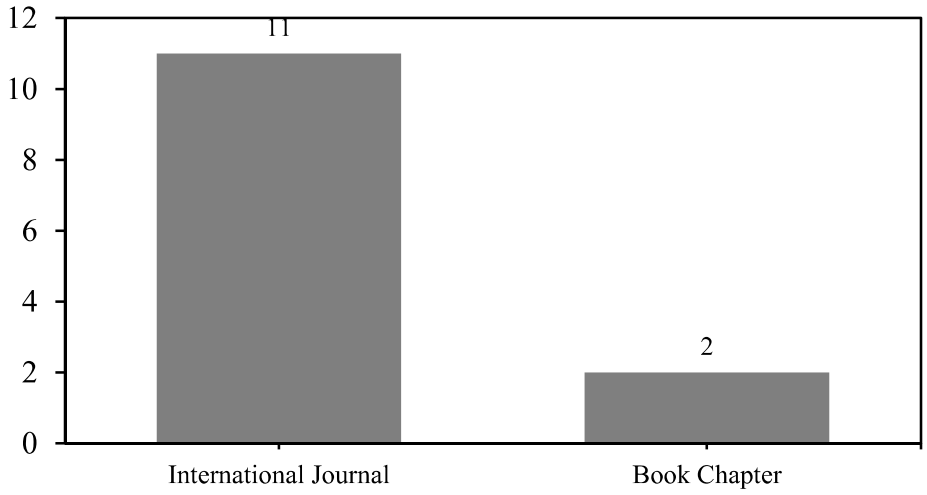


Fig: 1 Publication details of the Humanities Department in 2020-2021.

1.1 Academic Staff:

HEAD : Dr. Reena Sanasam (Associate Professor)

Name of Faculty members:

Professor	Associate Professor	Assistant Professor
Prof. Gurudas Das	Dr. N.B. Singh	Dr. Avishek Ray
	Dr. Reena Sanasam	

Visiting Professor (If any): NIL

1.2 Distinction Achieved

a) By Student: NA

b) By Faculty Member:

Avishek Ray:

- Maynooth University Arts & Humanities Institute Visiting Fellowship, Maynooth, Ireland (2020-21); 2-week research visit, now postponed due to the pandemic
- Seed Funding for Visiting Professorship, Mahidol University, Thailand, 2020 (1-month online research collaboration)
- Invited for panel discussion on 'Infrastructures of Violence' at the Graduate School of Architecture, Planning and Preservation, Columbia University (online), on 19 March 2021
- Serves as member, Syllabus Sub-committee for M.A. Cultural Studies Program (CBCS), University of Mumbai, 2020

1.3 SEMINARS, SYMPOSIA, SHORT TERM COURSES, WORKSHOPS

a) Conducted by Faculty Member

Sl. No.	Name(s) of the Coordinator	Title	Funding Agency	Duration
1.	Dr. Reena Sanasam and Dr. Ratna Nath	Two Day Webinar on Women Empowerment in the Digital Age	NIT, Silchar	2 Days January 30-31, 2021

b) Participated by Faculty Member

Sl. No.	Name of Faculty	Details of the Program	Organizing Institute
1.	Dr. Reena Sanasam	As a Resource Person at the Two Day National Webinar on Tribal Literature and Philosophy of North east India	ICSSR North Eastern Region Shillong during 2-3 October 2020
2	Dr. Reena Sanasam	As a keynote speaker at the Two Day Webinar on Women Empowerment in the Digital Age	NIT, Silchar 2 Days during January 30-31, 2021
3	Dr. Reena Sanasam	As a resource person at the TEQIP Sponsored Online International Conference on Interdisciplinary Interpretation of Literature (COIN-2020)	NIT, Meghalaya during 14-18, December, 2020
4	Dr. Reena Sanasam	As a keynote speaker at the Two Day National Webinar on Women Empowerment at Workplace and Beyond	Organised by the Women Empowerment Committee, Department of Management, Humanities and Social Sciences, National Institute of Technology, Agartala, during 5th and 6th December 2020,
5	Dr. Reena Sanasam	Presented a paper entitled “Women in Low Context Culture: A Scandinavian Perspective” at the Three Day International Virtual Conference on Gender Studies and Women Empowerment.	Organised by the Department of Management, Humanities and Social Sciences, NIT, Agartala, during April 16-18 2021

6	Gurudas Das	Presented a paper on "Covid-19 Pandemic and the political economy of globalization" in a webinar on " Management of the pandemic: Economic and political issues in national and international perspectives"	East Calcutta Girls' College, Kolkata July 14, 2020
7	Gurudas Das	Presented a paper on "IPR and Innovation: Theory and Practice" in a Webinar on " IPR and Entrepreneurship Development"	Department of Managent Studies, NIT Silchar, September 5, 2020
8	Gurudas Das	Presented a paper on "Gap Analysis in Infrastructure at LCSs in Assam" in a Webinar on "*Facilitating India's Act East Policy: Gap Analysis in Infrastructure at LCS in the NER of India"*	Indian Council for Research on International Economic Relations (ICRIER), New Delhi Feb 25, 2021
9	Gurudas Das	Presented a paper on "Developments in India's Cross-border Trade" in a Webinar on "International Trade Issues for Officers of The Reserve Bank of India (RBI)	Academic Staff College, Hydearabad Feb 26, 2021
10	Gurudas Das	Presented a paper on "Does Infrastructure Matter in NER-NCs Trade? " in a webinar on "Act East Policy: Enhancing Trade Infrastructure and Connectivity in the North Eastern Region"	Indian Council for Research on International Economic Relations (ICRIER), New Delhi March 20, 2021
12	Avishek Ray	Presented a paper titled 'Walking as a Metaphor: COVID 19 & the Politics of Mobility', in International Conference on Architecture_Metaphor	Art History Department, Goethe University, Frankfurt, Germany, 5-7 November 2020
13	Avishek Ray	Served as Resource Person for MHRD-SPARC Sponsored 2-Day National Workshop on 'Digital Humanities'	Department of English, Pondicherry University, 9-10 March 2020

1.4 Research Development

a) Ph.D. Programme (Specializations):

1. Gurudas Das: Development Economics, Border Studies, Regional Economics

b) Ph.D. Produced/Ongoing (in number):

Completed	Submitted	Ongoing
2	1	21

c) Research Lab/ Workshop:

Sl. No.	Name of Lab/Workshop	Purpose/Linkage to an existing/new program
1	Language Lab	Linked to Humanities/ Communication courses

d) Ongoing/Completed Sponsored Research Project:

Sl. No.	Project Title	Principal Investigator(s)	Funding Agency	Cost in lakhs	Duration
1	Digital Expressions of the Self(ie) (SPARC)	Avishek Ray (India) / G. Dattatreyan (UK)	MHRD	~60	2 years

e) Research Paper Reviewed

Sl. No.	Faculty Name	Journal Name	No. of Paper	Year
1	Gurudas Das	The Journal of Social and Economic Development (JSED)	1	2021, February
2	Gurudas Das	Book Review for Routledge	1	2020
3	Avishek Ray	Journal of Postcolonial Writing	1	2020

f) Chairing of Technical Section

Sl. No.	Faculty Name	Details
1.	Dr. Reena Sanasam	Three Day Online National Symposium on Reading and Interpreting Literature during 8th to 10th April 2021, organised by the Department of English, Highland National College, Kanglatongbi, Manipur
2.	Dr. Reena Sanasam	A Three Day International Virtual Conference on Gender Studies and Women Empowerment during 16-18 April 2021,organised by Department of Management, Humanities and Social Sciences, NIT, Agartala.
3	Gurudas Das	Chaired a session in an online workshop on "India-Bangladesh Trade and Connectivity via ICP Agartala & Srimantapur" organised by Land Port Authority of India, New Delhi, on March 3, 2021

1.5 PUBLICATION

a) International Journal(s):

Name of Author(s)	Year of publication Volume No., Issue No., Name of Publishing House, Web reference	Title of the paper	Name of the Journal
Hemanta Bora, Reena Sanasam	Vol 21 No. 2 July-December, 2020 Kollam, Kerala, India UGC CARE-listed journal	Bhramyamaan Theatre of Assam: A Socio-Historical Perspective	Journal of Literature and Aesthetics
Gurudas Das (with Himanshu Narayan Pradhan and Gorky Chakraborty)	July-September, 2020 Vol 39, Issue 3 NIRD&PR http://nirdprojms.nirdpr.in/index.php/jrd/issue/view/9066	Economic Viability of Rainfed Agriculture: A Case Study of Southern Assam	Journal of Rural Development
Gurudas Das (with Ujjwal Kanti Paul, Malabika Das and Tanuj Mathur)	July 2020 DOI: 10.1108/JADEE-05-2019-0067 (ahead-of-print)	Small growers' direct participation in the market and its impact on farm income	Journal of Agribusiness in Developing and Emerging Economies
Avishek Ray (With Neha Gupta)	DOI: 10.1080/09584935.2021.1886251	'Of the (Im)Mobility Regime in India: The Post-COVID Medicalisation of Mobilities', in Contemporary South Asia, 2021;	Contemporary South Asia
Avishek Ray	Vol. 35: 1 (2021), pp. 99-110	Remediation, Virality and Affect: A Phenomenological Reading into the Alan Kurdi Image	Continuum: Journal of Media & Cultural Studies
Avishek Ray	Vol. 13: 1 (2021), pp. 99-11	The Cultural Matrix of Online Hindutva Discourse in India	Religions of South Asia

Avishek Ray	Vol. 10: 2-3 (2020), pp. 1-7	Walking as a Metaphor: COVID Pandemic and the Politics of Mobility	Transfers: Interdisciplinary Journal of Mobility Studies
Avishek Ray	Vol. 20: 2-3 (2020), pp. 107-116	The 'Vagabond' as a Nemesis of the Tourist: Toward a Postcolonial Critique of Zygmunt Bauman	Tourism, Culture & Communication [Special Issue on: Critical Tourism Studies]
Avishek Ray	Vol. 12: 3 (2020), pp. 223-28	The Secular University in India and the Discursive Limits of Liberalism	Multicultural Education Review,
Avishek Ray	Vol. 4: 1 (2020), pp. E25-E30	On the Spectacle of Walking: The Migrant Worker and the Mobility Regime	Journal of Extreme Anthropology,
Avishek Ray	Vol. 43: 3 (2020), pp. 379-91	The Discursivity of 'Hindu' Gaze: Reading Bholanauth Chunder's Travelogue	South Asia: Journal of South Asian Studies

b) National Journal(s): Nil

c) International Conference(s): Nil

d) National Conference(s): Nil

e) Book/Chapter:

1. Gurudas Das, "Cross-Border Trade and Development in India's Northeast", 2021, in Ajitava Raychaudhuri, Prabir De and Suranjan Gupta, (eds), *World Trade and India: Multilateralism, Progress and Policy Response*, Sage, New Delhi
2. Gurudas Das, "Covid-19 Shock: Flip side of Globalization", 2020, in *Covid-19 Challenges for the Indian Economy: Trade and Foreign Policy Effects*, EEPC India, New Delhi

1.6 CONSULTANCY SERVICES: NIL

1.7 MAJOR EQUIPMENT ACQUIRED: NIL

1.8 PATENT: NIL

1.9 VISITS TO ABROAD: NIL

1.10 M.Tech. / M.Sc. (Thesis/Project): NIL

1.11 Ph.D. Thesis

Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis
1	Subodh Chandra Das	Prof. Gurudas Das	Governance and Development: A Case Study of Panchayati Raj Institutions in Southern Assam
2	Sanjib Banik	Prof. Gurudas Das	Insurgency and Economic Development: A Case Study of Tripura

1. NAME OF THE DEPARTMENT:

Management Studies

The Department at a glance
Year of Establishment: 2012
Academic Programmes Offered: • Master of Business Administration (MBA) • Doctor of Philosophy (Ph.D.)
Total Faculty Strength: 06 • Professor: 0 • Associate Professor: 0 • Assistant Professor: 06
Total Student Strength: 117 • MBA: 93 • Ph.D.: 24
New Students Joined in 2020-2021: 54 • MBA: 47 • Ph.D.: 07

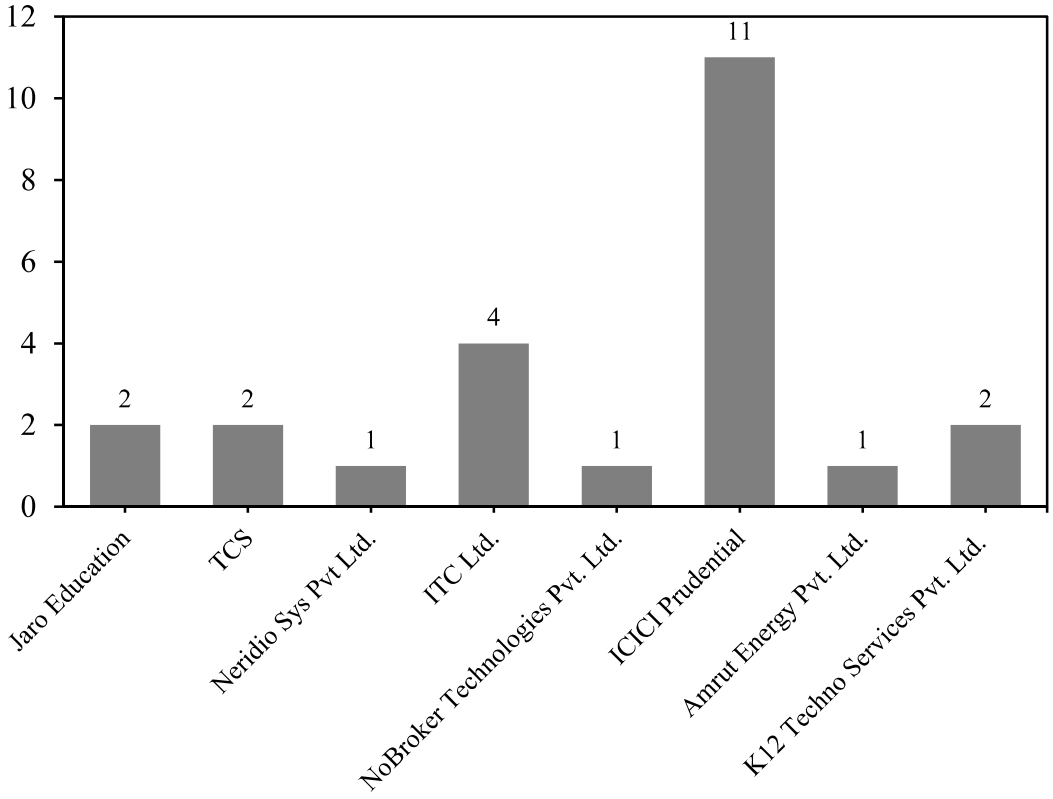


Fig: 1 Placement statistics of MBA Department in 2020-2021

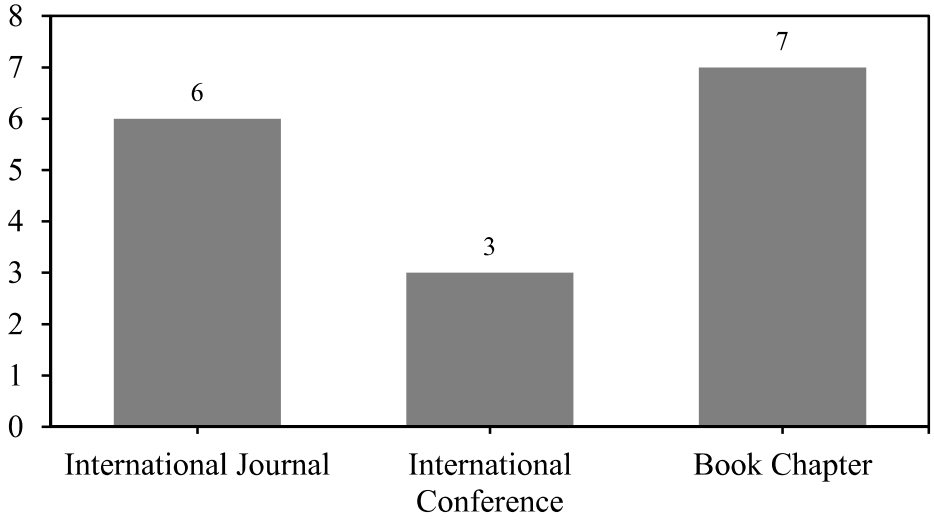


Fig: 2 Publication details of the MBA Department in 2020-2021

1.1 ACADEMIC STAFF

HEAD: Dr. Ashim Kumar Das, Assistant Professor

Name of Faculty members:

Professor	Associate Professor	Assistant Professor
NIL	NIL	Dr. Ashim Kumar Das
		Dr. Soma Panja
		Dr. Binoti Patro
		Dr. Saurabh Verma
		Dr. Rama Koteswara Rao Kondasani
		Dr. Tanaya Nayak

Visiting Professor (If any):

i. CA Anil Jain, Chartered Accountant.
ii. Prof. Rajat Baisya, Retd. Prof. DoMS, IIT Delhi

1.2 DISTINCTION ACHIEVED

a) By Student: NIL

b) By Faculty Member: Dr. Saurabh Verma

1. Delivered expert lecture on *Concepts & Relevance of IPR* during One Week Online Faculty Development Program (e-FDP) ON Intellectual Property Rights, Technological Development And Entrepreneurship (IPRTDE 2021) organized by RDIAS (Rukmini Devi Institute of Advanced Studies) New Delhi from 11-15th January 2021.
2. Delivered expert lecture on 'Copyright Infringements in Academics' during One Week Online Faculty Development Program on Research Methodology in Management from 19th – 24th October 2020 organized by School of Humanities and Management, NIT Andhra Pradesh.
3. Delivered expert lecture on Basics of Intellectual Property Rights- Concepts & Relevance during webinar on "Introduction to Intellectual Property Rights- Concept and Cases" organized by RDIAS (Rukmini Devi Institute of Advanced Studies) New Delhi in association with Department of Management Studies, NIT Silchar on July 11, 2020.
4. Delivered expert lecture on 'Basics of Intellectual Property Rights- Concepts & Relevance' during Live Webinar on Intellectual Property Rights for Academics- Concept and Cases organized by School of Civil Engineering, Galgotias University on 28th June 2020.

1.3 SEMINARS, SYMPOSIA, SHORT TERM COURSES, WORKSHOPS

a) Conducted by Faculty Member:

Sl. No.	Name(s) of the Coordinator	Title	Funding Agency	Duration
1.	Dr. Saurabh Verma	Introduction to Intellectual Property Rights- Concept and Cases	NIT Silchar	One day Webinar July 11, 2020
2.	Dr. Saurabh Verma Dr. Ashim Kumar Das	One Week Online Workshop on Intellectual Property Rights and Entrepreneurship Development (IPRED-2020)	TEQIP III	1st- 5th September 2020

b) Participated by Faculty Member:

Sl. No.	Name of Faculty	Details of the Program	Organizing Institute
1.	Dr. Saurabh Verma	Online workshop on Six Day Enhance your Professional Effectiveness from 27th April to 02nd May 2020	CII (Confederation of Indian Industry)
2.	Dr. Saurabh Verma	Two Weeks Online Advanced Certificate Program on Dimensions and Implications of Laws of Intellectual Property Rights in Contemporary World 13th July to 25th July 2020	IIMT New Delhi
3.	Dr. Saurabh Verma	One Week Online Faculty Development Program (e-FDP) ON Intellectual Property Rights, Technological Development And Entrepreneurship from 11-15th January 2021	RDIAS (Rukmini Devi Institute of Advanced Studies) New Delhi
4.	Dr. Saurabh Verma	Live Webinar on Intellectual Property Rights for Academics- Concept and Cases 28th June 2020	Galgotias University
5.	Dr. Binoti Patro	Faculty Enrichment Webinar for Management Teachers in Higher Educations	National Resource Center for Education (NRCE), NIEPA
6.	Dr. Binoti Patro	Effective Online Teaching and Conducting Examination Using Moodle LMS 5th – 10th Apr 2021	NIT Warangal
7.	Dr. Rama Koteswara Rao Kondasni	One Week Faculty Development Programme on "Structural Equational Modeling using SmartPLS Software" (June 10 - 16, 2020)	Delhi School of Professional Studies and Research

1.4 RESEARCH DEVELOPMENT

a) Ph.D. Programme (Specializations):

- Finance and Accounting
- Marketing Management
- Human Resource and Organisation Behaviour
- Entrepreneurship and Small Business Management
- Intellectual Property Rights

b) Ph.D. Produced/Ongoing (in number):

Completed	Submitted	Ongoing
NIL	NIL	20

c) Research Lab/ Workshop:

Sl. No.	Name of Lab/Workshop	Purpose/Linkage to an existing/new programme
1.	Spoken Tutorial by IIT Bombay	For all the scholars to gain hands on experience in different software applications

d) Ongoing/Completed Sponsored Research Project:

Sl. No.	Project Title	Principal Investigator(s)	Funding Agency	Cost in lakhs	Duration
1.	Intellectual Property Rights Strategy for Promoting Entrepreneurship and Innovation- An Impact Analysis	Dr. Saurabh Verma	DST	13,84,900	02 Years

e) Research Paper Reviewed:

Sl. No.	Name of the Faculty Member	Journal Name	No of Paper	Year
1.	Dr. Saurabh Verma	Asia Pacific Journal of Marketing and Logistics	01	2021
		International Journal of Public Sector Performance Management (IJPSPM)	02	2021

2.	Dr. Binoti Patro	Sustainability Accounting, Management and Policy Journal	1	2021
		Humanities and Social Sciences Communication	1	2021
		Corporate Reputation Review	1	2021
		Recent Advances in Mechanical Engeneering, Springer Book Publication Select Procedings in ICRAME	1	2020
3.	Dr. Rama Koteswara Rao Kondasni	International Journal of Technology Management and Sustainable Development	02	2020
		Total Quality Management & Business Excellence	01	2020
		Asian Journal of Language, Literature and Culture Studies	01	2020
4.	Dr. Tanaya Nayak	International Journal of Management Science and Engineering Management	01	2020
		Asian Academy of Management Journal	01	2020
		Journal of Asia Business Studies	01	2020

f) Chairing of Technical Session:

Sl. No.	Faculty Name	Details
1.	Dr. Ashim Kr. Das	Workshop on Research Methodology, 8th Jan – 17th Jan, 2021 conducted by Assam University, sponsored by ICSSR & NERC.

1.5 PUBLICATIONS

a) International Journal(s):

- Jha, R. & Das, A.K. (2020) "A Critical Analysis of financing in Indian Higher Education", Psychology & Education; Volume 57 No. 9 (2020).
- R. Deb and S. Panja (2020) "Efficiency Analysis of Selected Bank-Sponsored Mutual Fund Schemes in India", International Journal of Operation Research, Inderscience publication, Scopus. (Accepted for publication)
- R. Deb and S. Panja (2021) "Performance Analysis of Selected Mutual Fund Houses – A DEA Intervention", International Journal of Business Excellence, Inderscience publication, Scopus. (Accepted for publication)
- De, A. and Patro, B. (2020). Covid 19 and Kerala Model: An Example of Good Governance. International Research Journal of Management Science and Technology, vol. 11(11), p75-82.
- Patro, B. and Chatterjee, A. (2020). Education Sector – The New Gold Mine for Business Focused Data Analysis: A Case Study of Assam, IAR Journal of Business Management, vol. 1(4), p372-382.
- Srivastava, S., Masih, A. k. and Kondasani, R. K. R. (2020). Assessing And Prioritising Customers' Perceived Service Quality In Cooperative Sector Banks In India: Indian Customer's Perspective. Journal of Critical Reviews. 7(9): 2700-2710. Doi:10.31838/jcr.07.09.430

b) International Conference(s):

- S. Panja (2021), "Impact of Behavioural Biases on the Investment Decision of Youths", International Conference on Business Research And Innovation (ICBRI), 26-27 February, 2021, MDI Murshidabad.
- Patro, B. (2021), Measuring Financial Inclusion in India – An Index Considering Banking & Insurance Indicators, International Conference on Interdisciplinary Research in Technology and Management organized by IEM, Kolkata & UEM, Kolkata and supported by SMART Society, USA on 26-28th Feb, 2021.
- Patro, B. (2021). A Conspectus Study on the Blockchain Technology in Indian Banking Sector, International Conference on Interdisciplinary Research in Technology and Management organized by IEM, Kolkata & UEM, Kolkata and supported by SMART Society, USA on 26-28th Feb, 2021.

c) Book/Chapter:

- Das, A. K. Ethics in Insurance Business- evidence from India. Book Chapter in "Indian Ethos, Ethics & Management". Eureka Publication, Pune, India, January, 2021.
- S. Panja (2020), "Quantifying Perception of Master of Business Administration (Finance) Graduates towards Sustainable Development: An Application of Fuzzy Analytical Hierarchy Process", Business, Economics & Sustainable Development: the Emerging issue, Bloomsbury.
- S. Panja and A. Das (2020) "Exploring Green Investment on the Dynamics of Behavioral Finance and Stock Performance", Business, Economics & Sustainable Development: the Emerging issue, Bloomsbury.
- A. Das and S. Panja (2020), "Exploring the Influence of Emotion in Investment Decision-Making: A Theoretical Perspective", The Financial Landscape of Emerging Economies: Current State, Challenges and Solutions, Springer Nature (Scopus).
- Patro, B. (2021). Examining Relationship between Communalism and Mass Media during the Covid 19 Pandemic. Book name: Impact of Covid 19 in Economy, Business, Education and Social Life, Krupa Dhrishti Publications, (2021) vol. 3, p54-61.
- Patro, B. (2021). Measuring Financial Inclusion in India – An Index Considering Banking & Insurance Indicators, CRC Press, Taylor & Francis Group, (2021) Chapter 6, p32-38.
- Patro, B. (2021). A Conspectus Study on the Blockchain Technology in Indian Banking Sector, CRC Press, Taylor & Francis Group, (2021) Chapter 53, p336-341.

1.6 CONSULTANCY SERVICES: NIL

1.7 MAJOR EQUIPMENT ACQUIRED: NIL

1.8 PATENT: NIL

1.9 VISITS TO ABROAD: NIL

1.10 MBA (THESIS/PROJECT)

Sl. No.	Name Of The Student	Name of the Supervisor	Title Of The Project
1.	Ms. Parishmita Hazarika	Dr. Saurabh Verma	The Effect of Customer Loyalty Programs on Consumer Buying Intentions regarding shopping in the Convenience Stores
2.	Ms. Anakshi Das	Dr. Saurabh Verma	A Consumerism approach towards OTT platforms amid Lockdown in India
3.	Mr. Saptarshi Saikia	Dr. Saurabh Verma	A Study on Aarogya Setu Mobile App: The Digital Platform to Combat Fear during COVID-19
4.	Ms. Dishani Deshamukhya	Dr. Saurabh Verma	The Impact of Social Media Advertising on Consumer Buying Behaviour of Millennials in India
5.	Mr. Reshab Das	Dr. Saurabh Verma	A study on the determinants influencing consumer buying intention regarding purchase of compact sports utility vehicles in Guwahati city
6.	Ms. Suranjana Das	Dr. Saurabh Verma	A study on the determinants influencing Student's perception towards E-learning platforms amid lockdown in India
7.	Mr. Bhaskar Jyoti Rabha	Dr. Saurabh Verma	A study on the determinants affecting consumers' attitude regarding counterfeit luxury apparels and footwear
8.	Mr. Hungliabe Riame	Dr. Saurabh Verma	A study on the determinants affecting Teacher's experience regarding usage of video conferencing platforms during Covid-19
9.	Mr. Ambarish Khound	Dr. Saurabh Verma	The Factors affecting Electronic Word of Mouth regarding online shopping platforms in India
10.	Ms. Debasmita Paul	Dr. Saurabh Verma	A study on the determinants of celebrity endorsement influencing consumer buying behavior regarding Fashion Apparels
11.	Ms. Sutapa Purkayastha	Dr. Saurabh Verma	A study on changing perceptions on personal health and hygiene due to Covid-19
12.	Vishnu Annamalai V	Dr. Rama Koteswara Rao Kondasani	Consumer Preferences Towards Traditional Based Immunity Booster Products During Covid-19 Pandemic
13.	Biswajit Patwary	Dr. Rama Koteswara Rao Kondasani	A Study On The Consumer Buying Behaviour Towards Smart Phones In Assam
14.	Abdul Hamid Laskar	Dr. Rama Koteswara Rao Kondasani	A Study On The Effect Of Demographic Factors on Consumer Ethnocentrism In Assam
15.	Pratyush Pratim Dutta	Dr. Rama Koteswara Rao Kondasani	A Study On Consumer Buying Behavior for Organic Food Products
16.	Pubali Gogoi	Dr. Rama Koteswara Rao Kondasani	Customer Attitude towards Pet Care in Assam

17.	Mamta Bardia	Dr. Rama Koteswara Rao Kondasani	Consumer Perception Towards Fast Food In Silchar
18.	Sudipta Ranjan Gogoi	Dr. Rama Koteswara Rao Kondasani	A Study On Consumer Behaviour Aspects And Brand Preference With Reference To Detergent Powder
19.	Kingsuk Talukdar	Dr. Rama Koteswara Rao Kondasani	A Conspectus Study On Impact Of Covid-19 On The Consumer Perception Towards Tourism In North-East India
20.	Md. Mehraj Uddin	Dr. Rama Koteswara Rao Kondasani	Consumer perception towards Green products
21.	Shreyasree Sinha	Dr. Rama Koteswara Rao Kondasani	Consumer Buying Behaviour Towards Online Shopping In Respect To Clothing
22.	Debabrata Dey	Dr. Rama Koteswara Rao Kondasani	Consumer Preference And Their Purchase Intention Towards Electric Vehicles
23.	Swapnali Dutta Choudhury	Dr. Binoti Patro	ESG Rating & Analyst forecast accuracy: Evidence from India
24.	Karishma Bardia	Dr. Binoti Patro	Role of financial analytics in financial fraud detection: A critical review
25.	Suman Kumar	Dr. Binoti Patro	Intraday return dynamics and volatity spillovers for NIFTY 50
26.	Biltu Ghosh	Dr. Binoti Patro	A detailed study on growth complexities and risk involved in interest rate swap
27.	Suprakash Das	Dr. Binoti Patro	Acquiring profitable positions in stock markets using Candlesticks patterns
28.	Biplab Acharjee	Dr. Binoti Patro	Investment and Decision making- Examining the role of personal characteristics and cultural expectations
29.	Mayuree Sen	Dr. Binoti Patro	Analytical study on shipping freight derivatives: A step towards hedging forward freight agreement
30.	Sahrin Mazumder	Dr. Soma Panja	Impact of Covid-19 on Stock Market: A Comparative Study on Nifty 50
31.	Madhuboni Dutta	Dr. Soma Panja	Effects of Covid-19 Pandemic on the Performance of Micro Finance Institutions in India
32.	Ankush Das	Dr. Soma Panja	Impact of Central Bank Rate and Reserve Ratio on the Financial Performance of Commercial Banks in India
33.	Ummeh Farhin Mazumder	Dr. Soma Panja	A study on the analysis of Foreign Direct Investment of Indian Service Technology and Retail Sector: Impact of Covid-19 on the Indian Economy
34.	Rajorshi Bhattacharjee	Dr. Soma Panja	Analytical Study of Swing and Positional Trading with Technical Analysis
35.	Anuradha Banik	Dr. Soma Panja	A study on variability of determinants of NPA in Indian Banking Sector
36.	Mahashewata Dey	Dr. Soma Panja	A comparative analysis of Capital Structure of Indian steel companies

37.	Anindita Boruah	Dr. Tanaya Nayak	Investigating Factors affecting Online Selfie Behaviour among Youths
38.	Sneha Bhattacharjee	Dr. Tanaya Nayak	Entrepreneurial Intention: A Comparative Study on Engineering and Business Graduates
39.	Protishruti Saikia	Dr. Tanaya Nayak	Exploring The Mental Health Issues Faced By The Students Of Assam Due To The COVID 19 Pandemic
40.	Mohana Chakraborty	Dr. Tanaya Nayak	Effect of Personal Branding on Employability and Career Satisfaction
41.	Rahul Bandyopadhyay	Dr. Tanaya Nayak	Side Effects of Work from Home on Work Life Balance: A Study on Indian IT Industry
42.	Diba Farhat Barbhuiya	Dr. Tanaya Nayak	Factors affecting Social Media Fatigue among Students
43.	Snigdha Sonowal	Dr. Tanaya Nayak	Learn From Home: Student Perceived Learning Outcome and Satisfaction
44.	Momi Gogoi	Dr. Tanaya Nayak	The Job Demand and Resource Model and Burnout: An Investigation of Academicians in Assam.
45.	Bobita Baruah	Dr. Tanaya Nayak	Exploring Health Related Behavioural Interventions During Covid-19 Pandemic
46.	Kaushik Gogoi	Dr. Ashim Kumar Das	Sustainability & Livelihood for Tea Garden Workers during Covid-19 pandemic

1.11 PH.D. THESIS: NIL

1.12 SOCIAL OUTREACH ACTIVITIES

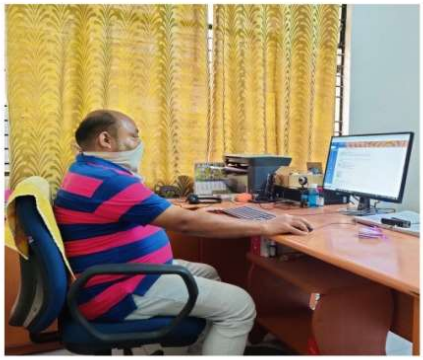
Under Management Society, Department of Management Studies

Sl. No.	Name of the Event/Activity	Date
1.	An Essay Competition was conducted with collaboration with Insolvency and Bankruptcy Board of India on the topic “Role of Insolvency and Bankruptcy Code, 2016 in the development of Credit Market in India”	December 2020

ACADEMIC CENTRES & CELLS

CENTRAL COMPUTER CENTRE

S.No.	NAME	FROM	TO	DESIGNATION
1.	Dr. Samir Kumar Borgohain	09 - Feb - 10	21 - Feb - 11	HEAD CCC
2.	Dr. Saroj Kumar Biswas	22 - Feb - 11	01 - Feb - 13	HEAD CCC
3.	Mr. Kumar Mithilesh	02 - Feb - 13	31 - May - 18	HEAD CCC
4.	HOD CSE	01 - Jun - 18	12 - Aug - 19	HEAD CCC (Additional Charge)
5.	Dr. Ranjay Hazra	14 - Oct - 19		FIC CCC (Networks)
6.	Dr. Saroj Kumar Biswas	19 - Oct - 19		FIC CCC (Computer)



1. HEAD/FACULTY IN CHARGE:

Dr. Saroj Kumar Biswas, Assistant Professor-Grade-I & Faculty in Charge (Computer)
Dr. Ranjay Hazra, Assistant Professor-Grade-I & Faculty in Charge (Networks)

2. STAFFS:

Officer	Technical Staff	Attendant
(i) Mr. Kumar Mithilesh, Senior Tech. Officer. (ii) Mr.Manash Protim Mahanta, Tech. Officer	(i) Abhishek Palit (contractual), (ii) Rupak Ranjan Deb (contractual), (iii) Nazmul Haque Laskar (contractual), (iv) Abinash Bhar (contractual).	(i)Ms.Champabati Balmiki

3. A Brief Introduction and Activities of CCC:

The Institute computing facility is maintained by the Central Computer Centre (CCC) which includes high-end servers, workstations and Intel Core-i5, i7 based Personal Computers. The CCC comprises of two computer labs equipped with around 218 computers.

The state-of-art IT Infrastructure was deployed in the year 2013 and the whole Institute including the various departments, Students' Hostels, Administrative Building, Guest House, Library, Residential Quarters, Health Centre, Estate Engg. Branch, SAC Building, NITS Café, Sports Complex, are connected by a campus-wide LAN and Wi-Fi facility using high-speed Fibre Optic cables (1 GBPS). The LAN, Wi-Fi is managed by High-Level Switches, controllers, and Servers. The Switches are connected by Fibre Optic Cables located in different academic departments, students' hostels, different buildings of the Institute. The Institute has a dedicated 1 Gbps leased line under the National Mission on Education through Information and Communication Technology (NME-ICT)/National Knowledge Network (NKN), which provides 24x7 Internet Connectivity to serve the internet needs of Institution. So as a whole the institute is having two different internet service providers:

a. 1 GBPS high-speed PGCIL line caters to administrative building, academic building, faculty quarters as well as different places of the institute campus.

b. 1 GBPS high-speed NKN line caters to all the student hostels.

Currently, Wi-Fi connectivity is available at Guest House, Administrative Building, Lecture Hall Complex, all Residential Quarters, Health Centre, Estate Engg. Branch, SAC Building, NITS Café, Sports Complex as well as few of the departments. The first phase of network expansion is over whereby most of the locations in the campus have been brought in a ring structure and in the subsequent phase, LAN/Wifi connectivity will be deployed at these locations of the campus. CCC takes all possible steps in its capacity to make the network accessible round-the-clock. Efforts are conducted to improve the reliability of meeting the expectations of the end-users. CCC has played an instrumental role in providing smooth service in all virtual activities during the pandemic. The cooling environment in the server Room of CCC is maintained by the twin PAC's and a central conditioning unit whereas, the power back up is facilitated by a 60 KVA UPS.

4. Facilities/Services provided by the Central Computer Centre :

a. **Campus-wide Internet connectivity**: Providing/maintaining internet and intranet facility around campus through LAN and Wi-Fi on a required basis.

b. **Institution email service**: Creating and looking after personal Institute mail of all employees and students. Institute e-mail Ids are served to all, under nits.ac.in domain. The center manages institute email accounts of faculties, students, and other staff members. Recently the center procured a G-Suite

license free of cost and right now the institute email ID is running on top of a robust and highly available G-Suite service.

c. **Hardware maintenance/ support**: On the required basis, rectifying computer hardware issues over academic and administrative areas.

d. **UPS maintenance/ support**: Based on the requirement, providing UPS backup to active network components at all places of the institute.

e. **Institution web portal:** The institute website is hosted in one of the servers of the CCC and the center has to maintain the hosting of server.

f. **Video conferencing**: CCC is equipped with the arrangement for supporting video conferences with MHRD, Rashtrapati Bhawan, and live lecture series with other institutions, virtual sessions via different framework like G-meet, Cisco Webex, Microsoft Teams etc.

g. **Virtual classroom:** Through this virtual classroom, it is possible to interchange technical sessions/discussions with other institutions. Around the year, virtual classroom is used as a venue for many events (online/offline/blended mode) such as conferences, workshops, GIAN courses, seminars, Ph.D. Defence examination, etc.

h. **Computer lab facility:** Two labs are operated and maintained under the center

i) Training and Placement (T&P) Cell's activities,

ii) Lab for common online examinations and classes.

i. **Supporting surveillance camera:** Providing support on network and configurations for IP Cameras around the campus.

j. **Development of software on adhoc basis:** From time to time, CCC has been instrumental in developing software/web portals like student admission, conference website, teaching/non-teaching recruitment etc.) Thereby, helping all academic branches and administrative branches like academic, establishment, research and consultancy for smooth online functioning.

k. **Maintaining institute's YouTube channel:** CCC is also responsible for maintaining and managing the institute YouTube channel.

l. **Maintenance of ERP servers:** CCC also maintains the ERP servers where Samarth and Smile ERP are running.

m. The center manages all the online meetings and provides Google meet/WebEx/Microsoft Teams solutions to all the faculties and staff to run online classes/meetings smoothly.

5. Future plans of CCC

a. **Increase bandwidth of the institute network**: Currently the institute network is running on two 1GBPS connections provided by NKN and PGCIL respectively. Considering the increase in students, faculties, and staffs strength, the plan is to increase the bandwidth of the institute network for smooth functioning.

b. **Implementation of firewall Solution**: At present the institute is having a proxy based architecture. Considering the cyber security aspect, CCC has proposed an implementation of firewall architecture. This proposed solution will help to monitor the network traffic and avoid cyber attacks.

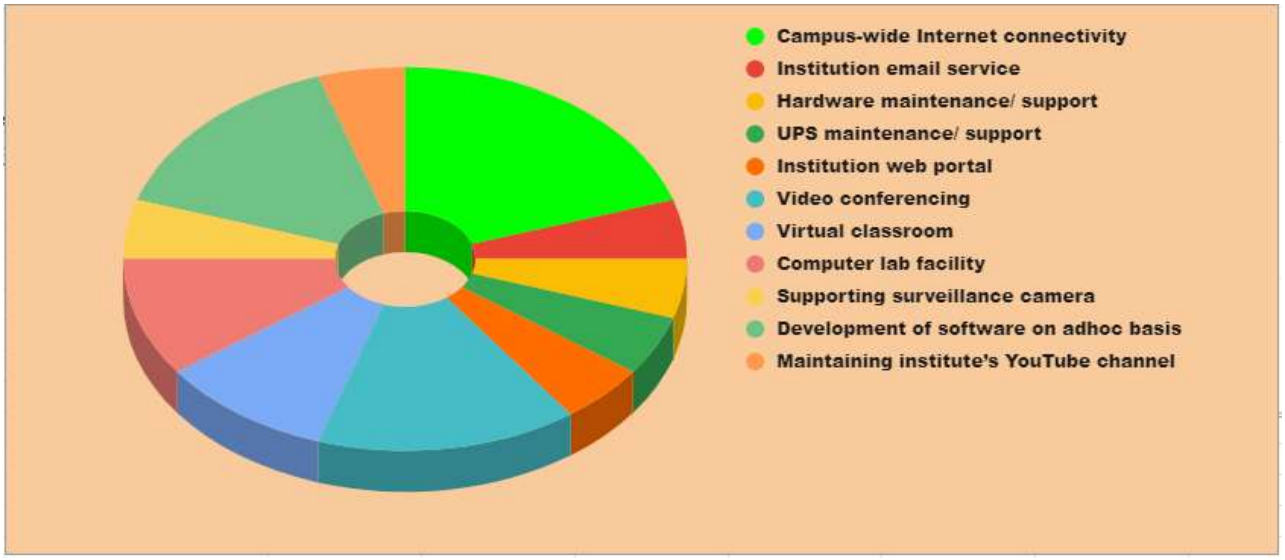
c. **Expansion of LAN connectivity**: The center is planning to expand its LAN connectivity at different locations of the campus where at the moment only Wi-Fi network is deployed.

d. **Procurement of software**: Currently, CCC manages the procurement of software centrally. Off-late, CCC has been instrumental in procuring various software centrally namely MATLAB, Ansys, Cisco WebEx, Adobe Creative Cloud, Anti-Virus, Microsoft Office 2019, Microsoft Office 365 Cloud etc. which are very much needed for different academic, administrative and research purposes.

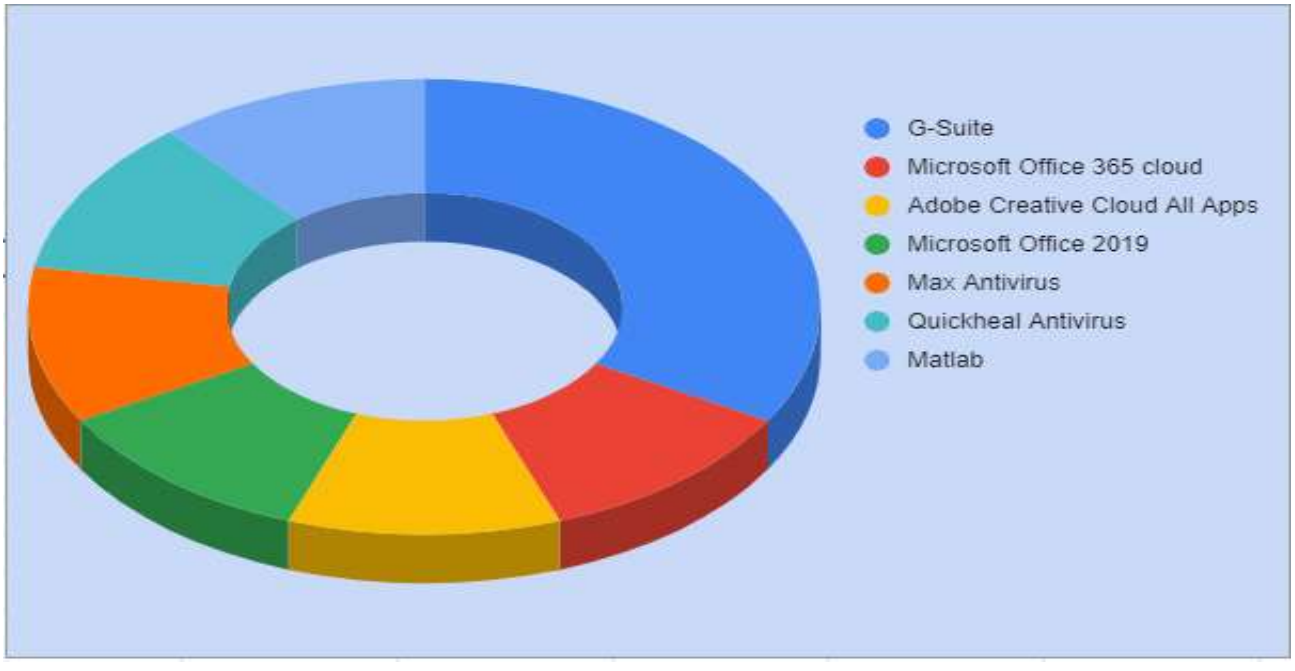
e. **Procurement of high configuration workstation and servers**: Considering the increase in virtual activities, CCC is planning to procure some new technology servers and high configuration workstations

6. Central Computer center at a glance

Services Provided

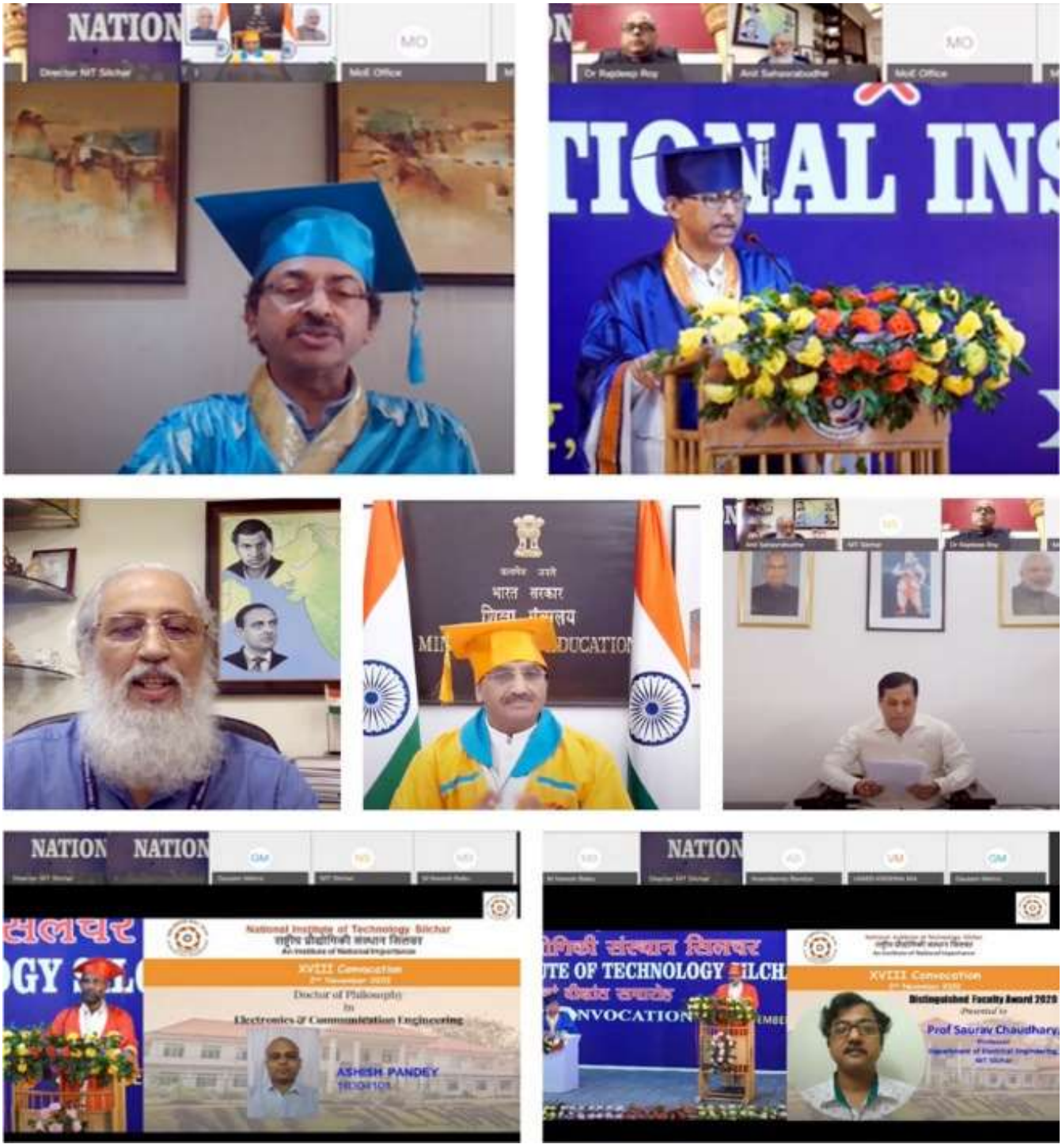


Major Software

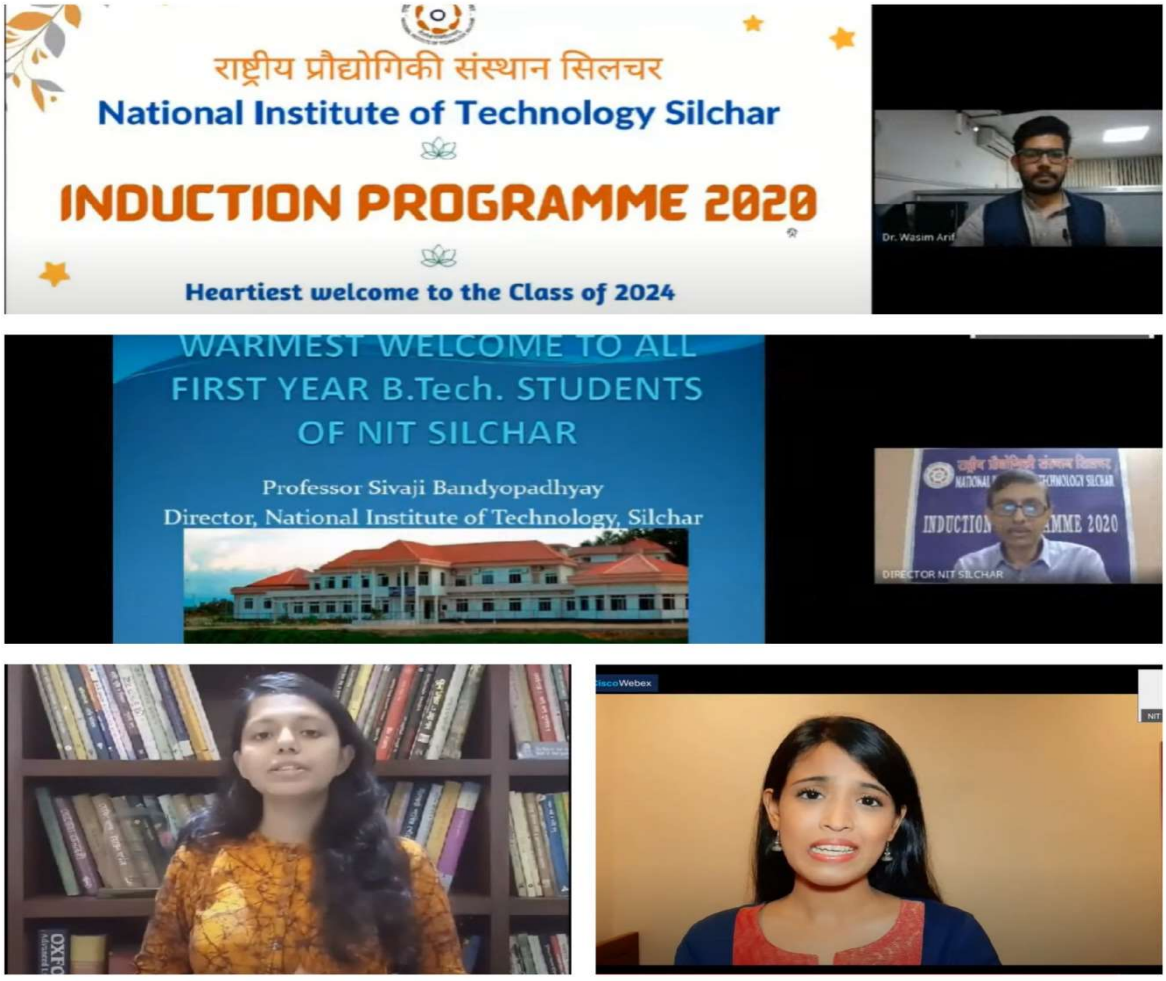


7. Virtual Events conducted

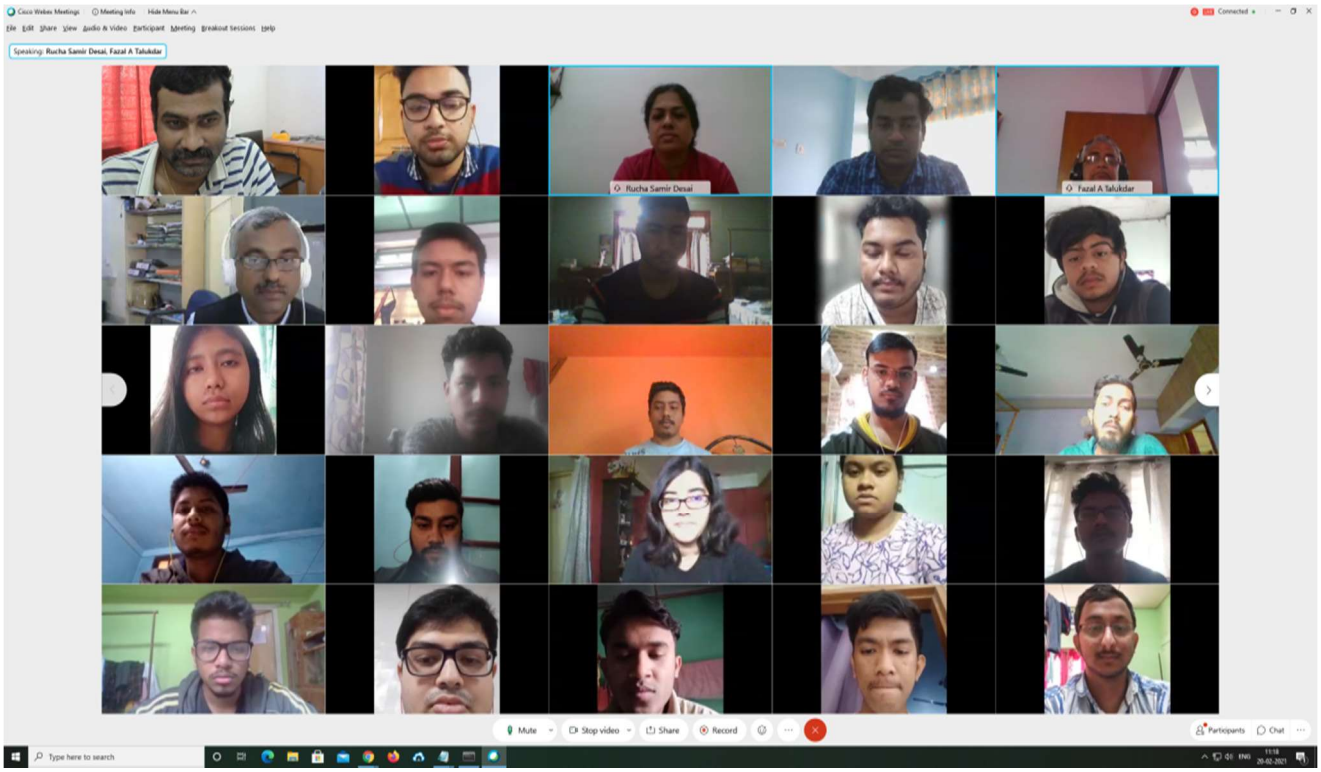
a. Glimpses of Convocation 2020



b. Glimpses of Orientation 2020



c. Different Online workshops during 2020


Speaking: Rucha Samir Desai, Fazal A Talukdar
Rucha Samir Desai
Fazal A Talukdar
Mute
Stop video
Share
Record
Participants
Chat

CENTRAL LIBRARY

1. INTRODUCTION

The Central Library of NIT Silchar renamed as "**Dr. A. P. J. Abdul Kalam Learning Resource Centre**" is an integral part of academic and research activities of NIT Silchar. It was set up in the year 1977 and it is one of the best technical libraries in North East India. It has been growing and expanding in the aspect of collection both in print and digital form since its inception and provide services to the academic fraternity of NIT Silchar to meet their teaching, research, and consulting, training and learning requirements. The range of services offered by the library is comparable to the best libraries in the eastern zone of India.

Keeping in view the dynamic synergic development, during the year 2019-20 and 2020-21, Conference Room, Language Lab and, the Digital Library Room of the Dr. A. P. J. Abdul Kalam Learning Resource Centre has been made ready for the users.

The key officers of the Central Library are:

Chairman

Prof. A. K. Barbhuiya, M.Tech, Ph.D

Faculty-in-Charge (Library)

Prof. M. Paul, M. Tech

Asstt. Librarian

Ms. Krishnamati Singha, BSc, MLISc, MBA (HRM)

2. RESOURCE COLLECTION

Collection building is one of the important functions of the library, which supports academic and research activities of the students, faculty, staff and other users. Collections of central library is consist of printed books, CDs, printed journals, e-journals/databases, e-books, theses, dissertation, reports, standards, and other reading materials covering the areas of science, engineering, technology, humanities, social sciences and management. The following table presents the collections of the library for the year 2020-21.

The total collection of library as on 31st March 2021 stands as follows:

S. N.	Name of Resources	As on 31st March 2017	As on 31st March 2018	As on 31st March 2019	As on 31st March 2020	As on 31st March 2021
1.	Books	96683	98959	1,05,883	1,09,990	110451
2.	Print Journals & Magazines	114	105	92	94	68
3.	Bound Volumes	5468	5468	5468	5768	5768
4.	CD-ROMs	4297	4393	4612	4711	4738
5.	Databases & E-journals	14	21	17	17	18
6.	Videos	909	909	909	909	909
7.	ISI Code (Printed)	8627	8627	8627	8627	8627
8.	Book Bank (General)	9235	9235	9235	9235	9235
9.	Book Bank (SC & ST)	8180	8336	8336	8617	8617
10.	IRC Codes	152	152	152	152	152
11.	Thesis	92	123	202	258	296
12.	Project & Dissertation	425	474	699	1057	1214
13.	Reports/Annual Reports	423	449	488	500	518

A need-based collection of knowledge resources is being developed keeping in mind with the objectives and activities of the Institute.

Printed Journals / Magazines

During the year Library reviewed the printed journals/ magazines and stopped subscribing 5 printed journals that were not utilized by the users and are now available on open access. All total 66 printed journals & magazines were subscribed during the year 2020-21.

Digital Resources:

- **Databases/ E-resource:**

Apart from the 13 databases/e-journals provided by E-ShodhSindhu, NIT Silchar has renewed, 18 databases/e-journals like ASTM, ACI, BIS Standard, EPW Research Foundation, IEEE/ IEL level 2, EBSCO-Business

Source Elite, Emerald, Elsevier Science Direct, Indiastat.com, IOP, LNCS, Royal Society of Chemistry, SIAM, Sage-EMS, Springer, Taylor & Francis and Wiley Engineering collection etc..
In the year 2020-21, in addition to 7 subjects collection of Elsevier Science Direct, institute has added one more subjects i.e. Business, Management and Accounting as new resource.

Details of database/e-journals are listed below:

ACS Publications	ACS Web Edition (2014-16) http://pubs.acs.org/
American Concrete Institute	AMERICAN CONCRETE INSTITUTE (ACI) (3 Jnls) https://www.concrete.org/publications/internationalconcreteabstractsportal.aspx?s=journal
ASTM International	ASTM: Standards + Digital Library (12,800+ standards) https://compass.astm.org
CAPITALINE DATABASES	CAPITALINE (2018) http://www.capitaline.com
EBSCO HOST	EBSCO host – Business Source Elite http://search.ebscohost.com
Emerald	Emerald CFTI Collection www.emeraldinsight.com
EPWRF India Time Series	EPWRF India Time Sires (EPWRFITS) www.epwrfits.in
IEEE Xplore Digital Library	IEL Level II http://ieeexplore.ieee.org/
IIMA CASES	IIM Ahmedabad Cases: 2018 https://cases.iima.ac.in
indiastat.com	Indiastat.com http://www.indiastat.com/default.aspx
IOPscience	Institute of Physics https://iopscience.iop.org/
Springer	LNCS http://link.springer.com
Royal Society of Chemistry	Royal Society of Chemistry http://pubs.rsc.org
ELSEVIER	Science Direct - 8 subject collections: Chemistry, Mathematics, Engineering, Computer Science, Energy, Material Science, Physics & Astronomy, and Business, Management and Accounting http://www.sciencedirect.com/

SAGE Publishing	Sage: Engineering & Materials Science https://journals.sagepub.com/
siam	SIAM https://epubs.siam.org
Taylor & Francis Online	Taylor & Francis http://www.tandfonline.com
WILEY ONLINE LIBRARY	Wiley Blackwell online journals http://onlinelibrary.wiley.com
World Scientific Connecting Great Minds	World Scientific Publishing (2018) https://www.worldscientific.com/

BACKFILES OF E-JOURNALS

AGU ADVANCING EARTH AND SPACE SCIENCE	Water Resources Research, (1965-1996, Backfiles) https://agupubs.onlinelibrary.wiley.com/loi/19447973
Wiley Online Library	International Journal for Numerical Methods in Engineering, (1969-1995, Backfiles) https://onlinelibrary.wiley.com/loi/10970207
	Journal of Applied Polymer Science, (1959-1995, Backfiles) https://onlinelibrary.wiley.com/loi/10974628
	Earthquake Engineering and Structural Dynamics, (1972-1995, Backfiles) https://onlinelibrary.wiley.com/loi/10969845
	Journal of Structural Control (Currently known as Structural Control and Health Monitoring), (1994-2001, Backfiles) https://onlinelibrary.wiley.com/loi/15452263
	Structural Design of Tall Buildings (Currently known as Structural Design of Tall and Special Buildings), (1992-1995, Backfiles) https://onlinelibrary.wiley.com/loi/15417808
New York Academy of Sciences	The New York Academy of Sciences (NYAS), (1801-2013, Backfiles) https://www.wileydigitalarchives.com/the-new-york-academy-of-sciences/
informs Pubs OnLine	Informs Archive (9 Journals) (1952- 1997) http://journals.informs.org 1) Operation Research (1952 – 1997) 2) Management science (1954 – 1997) 3) Transportation Science (1967 – 1997)

	4) Interfaces (1970 – 1997) 5) Mathematics of Operation Research (1976 – 1997) 6) Marketing Science (1982 – 1997) 7) Informs Journal on Computing (1989 – 1997) 8) Information System Research (1990 – 1997) 9) Organization Science (1990- 1997)
	SIAM (LOCUS) (1952-1996 Backfiles) http://locus.siam.org/

STANDARD

	ASTM: Standards + Digital Library https://compass.astm.org
	BIS Codes https://standards.bsb.co.in/

DATABASE

	SCOPUS https://www.scopus.com
	Institute for Studies in Industrial Development (ISID) Database (ESS) http://isid.org.in
	JGate Plus (JCCC) (ESS) http://jgateplus.com/search
	MathSciNet (AMS) (ESS) http://www.ams.org/mathscinet
	Web of Science (ESS) http://www.webofknowledge.com/

ENCYCLOPAEDIA

	Britannica Encyclopaedia (2015) http://academic.eb.com/

THESIS & DISSERTATION

	PROQUEST Dissertation & theses http://search.proquest.com/165799

ANTI PLAGIARISM SOFTWARE

turnitin	Turn-it-in anti-plagiarism software (One student account for every teacher) http://www.turnitin.com
URKUND	https://www.urkund.com/

RESOURCE SHARING & INTER LIBRARY LOAN

DELNET	**DELNET** **http://delnet.nic.in/**

In the year 2020 – 21, Institute has also purchased **Grammarly** for writing thesis and dissertation with correct English without any grammatical mistake and they can search and check their reports through the link: https://www.grammarly.com/edu

Further, in the year 2020-21, institute has also purchased **Knimbus** for providing facilities for off–campus users and also for remote access of library e-resources. During the pandemic situation of Covid 19 all the students are away from the campus and hence Knimbus has helped a lot for dissemination of library resources to the users.

They can get library resources through Knimbus at the link:
https://nits.knimbus.com/user#/home.

- **E-Books:**

In addition to the database/e-journals, Library also get access to the e-books from the major publishers like Elsevier, Springer, Pearson, Oxford University Press, Tata McGraw Hill and Cambridge, Sage E-Vidya and Sage Business cases purchased by NIT Silchar.

In 2020-21, Library has also purchased e-books of the publishers like New Age International, Prentice-Hall of India, Laxmi Publisher through Elib4U platform, Elsevier Science Direct (Material Sc 2019 & 2020), Khanna Publisher, Springer Nature (Energy & Engineering 2019-2020), Wiley e-books -188 titles.

Details of e-books as cited below:

CAMBRIDGE UNIVERSITY PRESS	Cambridge (Text Book of CSE & Engg-2009/2012)-**115 Titles** + (Engineering, CSE, Physics, Mathematics, Management: : 2016-18) **400 Titles** http://ebooks.cambridge.org/home.jsf
elib 4U The platform for digital content e-books & e-journals	Elib4u books includes Laxmi Pub, New Age and Prentice Hall of India http://digital.elib4u.com (For login and password , pl contact Librarian, or email at library@nits.ac.in)
KHANNA PUBLISHERS Investing in Learning	Khanna Publisher 33 titles (CE, ECE, EE, EIE, Math) https://khannapublishers.in/khanna_institution/index.php/user

Knovel	Knovel (ME) 2016 http://www.knovel.com
OXFORD UNIVERSITY PRESS	Oxford University Press (Physics: 2007-2017, Mathematics: 2007-2017, Business Management: 2012-2017, Economics: 2015-2017, & Computer Science: 2013-2017)- **720 Titles** http://www.universitypressscholarship.com/
PEARSON	Pearson – 465 titles https://ebookcentral.proquest.com/lib/nitsilchar-ebooks/home.action
	Proquest - eBrary **(All Subjects) 1,30,000 + Books** http://site.ebrary.com/lib/nitsilchar/
ELSEVIER	Science Direct (CSE-2012, Energy-2011/12, Engg-2011/12, Material Science 2012) - **261 titles + 980 Titles** (Engg & CSE: 2014-16) + **279 titles** (Material Sc 2019 & 2020) http://www.sciencedirect.com/science/bookbshsrw/all/fulltext
Springer SPRINGER NATURE	Springer (CSE-2010/12, Engg-2008/2012)- **5354 Titles** + Springer Nature (Engineering, Computer Science and Energy: 2013-2017) **-10558 Titles + 2134 Titles** (Engineering, and Energy: 2019 & 2020) + **LNCS** http://link.springer.com
South Asia Archive	South Asia Archive (Resources through e-ShodhSindhu) http://www.southasiaarchive.com/
SAGE Publishing	SAGE E-VIDYA E-TEXTBOOKS for Business and Management Collection - **247 titles** http://evidya.sagepub.in
SAGE knowledge	SAGE Business Cases http://sk.sagepub.com/cases
Taylor & Francis Online	Taylor & Francis (CE, ECE, Nanotechnology, ME, Manufacturing, Water Resource Engineering: 2018)-**1069 titles** http://www.taylorfrancis.com
Mc Graw Hill Education	Tata McGraw-Hill (Indian Text Books) (Core Engineering, CE, ME, EE, ECE, CSE, Chemistry): **729 titles** Site URL http://mcgrawhilleducation.pdn.ipublishcentral.com/ Bookshelf URL: http://mcgrawhilleducation.pdn.ipublishcentral.com/bookshelf Instructions for access can be found here http://mcgrawhilleducation.pdn.ipublishcentral.com/faqs#f9

Wiley Online Library	Wiley online books (188 titles) (EE, ECE, CE, ME, Physics, Maths, MBA) https://onlinelibrary.wiley.com/
Where the World Goes to Read WORLD eBOOK LIBRARY	World eBook library (Resources through NDL) https://ndl.iitkgp.ac.in/

World eBook library is provided by NDL and South Asia Archive is provided by e-ShodhSindhu.

3. USAGE STATISTICS OF ELECTRONIC RESOURCES

Major electronic resources have shown a significant increase in use pattern. The most popular full-text databases are ACM, ASCE, ASME, Elsevier' Science Direct, IEEE/IEL – level 2, Springer Link etc. Comparative data of last five calendar years is given below:

Usage Statistics of databases and e-resources from 2016 to 2020

S N	Source	Year wise download statistics				
		2016	2017	2018	2019	2020
1.	**ACM**	2090	1362	1678	4198	1169
2.	**AIP**	455	3403	3178	3088	1128
3.	**ASCE**	5902	11400	14617	3536	1498
4.	**ASME**	2762	2104	2162	1567	836
5.	**MathSciNet (AMS)**	2230	2838	3740	1603	411
6.	**APS**		1026	990	1299	513
7.	**ASTM**	1310	620	463	1030	721
8.	**Elsevier Science Direct**	143521	179704	180469	214016	83614
9.	**Emerald**	3022	3888	5985	7571	6341
10.	**IEEE- IEL level 2**	40,314	94487	91306	55070	42726
11.	**RSC**	4361	4528	5264	10272	17047
12.	**SIAM**	229	280	317	348	301
13.	**Springer Link**	17477	22142	22524	29548	24226
14.	**Taylor & Francis**	5714	7634	7828	11898	7631
15.	**Wiley Journals**	5424	5517	9361	9483	17821

4. BUDGETARY DETAILS

Central Library received a projected allocation of 6 crore under Plan-Head during the financial year 2020-21. Out of the allocation of Plan funds Rs. 13,07,639.00 has been utilized for purchase of printed books, Rs.79,99,975.00.00 has been utilized for purchase of e-books and also 4,69,92,871.00 renewal as well as subscription of database/e-journals. The comparative statement of detailed expenditure incurred on books, journals, newspaper, binding etc. for the year 2016-17 to 2020-21 has been given below:

Details expenditure from 2016-17 to 2020-21:

Description of items	Year				
	2016-17	2017-18	2018-19	2019-20	2020-21
Books	₹ 17,05,851.00	₹ 25,74,764.00	₹ 45,80,623.00	₹ 29,62,178.00	₹ 13,07,639.00
e-Books	₹ 70,558.00	₹ 191,28,778.00	₹ 85,13,190.00	₹ 5,04,498.00	₹ 79,99,975.00
Online Database/ e-Journals	₹ 0.00	₹ 433,65,077.00	₹ 262,09,858.00	₹ 285,54,281.00	₹ 469,92,871.00
Printed Journals/ Magazine	₹ 0.00	₹ 1,99,640.00	₹ 2,80,084.00	₹ 0.00	₹ 2,27,930.00
Contingency/DOC	₹ 3,83,770.00	₹ 1,51,343.00	₹ 2,09,826.00	₹ 1,72,163.00	₹ 50,680.00
News paper	₹ 0.00	₹ 0.00	₹ 3,350.00	₹ 15,976.00	₹ 984.00

5. MEMBERSHIP

All the Faculties, staff and students have got the Library membership. The following table reflects the growth of library users:

S. N.	Members	2016-17	2017-18	2018-19	2019-20	2020-21
01.	**BTech**	2458	2460	2510	2788	3093
02.	**MTech**	423	430	425	407	491
03.	**MBA**	97	83	59	81	93
04.	**MSc**	35	39	55	63	100
05.	**PhD**	284	516	695	782	890
06.	**Academic Staff (Teaching)**	166	181	197	205	208
07.	**Non-Academic**	108	59	55	76	70
Total		**3631**	**3768**	**3996**	**4402**	**4945**

6. LIBRARY SERVICES

Circulation service

The books circulation service is kept open for 48 hours a week. During the year 2020-21, due to the Covid 19 pandemic situation, circulation of books are less than regular years, hence the Library issued around 2500 numbers of books only.

Resource Sharing

The library maintains excellent relations with libraries like Central Library of Assam University, and other local college libraries in Southern Assam and also with DELNET for exchange of books, journals, photocopies etc. for the mutual benefit of the users. Library provides resource sharing service through inter-library loan and document delivery services. Library has core membership of E-ShodhSindhu, and NDL.

Book Bank facilities

The library maintains a book bank facility to help students belonging to Scheduled Castes, Scheduled Tribes, Physically Challenged and economically weaker sections of the society. Further, Book–Bank facilities is also provided to the foreign students. The book bank mainly consists of the prescribed text books for undergraduate courses and loans up to 5 to 7 books each to these students for full semester and sometimes more depending on availability.

Lib 2.0 SERVICES

Central Library has created a web portal for e-resource management, which provides web-based access to its electronics journals, e-books and databases. It has set up a digital library & e-learning portal for the NIT, Silchar community. The library is a part of the institute-wide network and has adequate computing infrastructure to cater to the needs of the users.

Web OPAC (Search Library Catalogue)

The entire Library collection including books, journals, CDs etc. can be searched through the web enabled Online Public Access Catalogue (OPAC). Users can access the OPAC to find out the real-time availability of library materials from their own computer terminals from library of institute website or the URL is: http://10.30.30.66:8001

7. LIBRARY ORIENTATION & TRAINING

Library Orientation for fresher / user's education

Library has taken key initiatives for 'user's education programme' to inform, educate and train users about various resources and services of the library. In addition to that library organizes orientation programmes for the benefit of library users.

प्रगत संगणन विकास केंद्र
CENTRE FOR DEVELOPMENT OF ADVANCED COMPUTING

Centre for Development of Advanced Computing (C-DAC) is a premier R&D organization of the Ministry of Electronics and Information Technology (MeitY) for carrying out R&D in IT, Electronics, and associated areas. C-DAC has established its 11th centre in Silchar, Assam, in February 2014 at National Institute of Technology, Silchar, Assam. Since its inception, the centre has grown significantly, and implemented many vital projects in partnership with various government stakeholders for technological solution of the north-eastern region.

In the year 2020-21, C-DAC Silchar in collaboration with other CDAC centres is India has executed various projects such as:

(i) DVDMS: Drugs and vaccine Distribution Management System, for North Eastern states of Meghalaya, Arunachal Pradesh, Manipur & Sikkim. It is a supply chain management application that deals with Purchase, Inventory Management & Distribution of various drugs, and surgical items to various Regional/District of States.

(ii) JKPWDOMS: Jammu & Kashmir Public Works Department Online Management System.

(iii) ICT Solution for NE Heritage for the preservation and promotion of cultural heritage of North Eastern states of India.

(iv) MIS Software: A web based online project management system for NEC Secretariat, Shilong.

(v) Forest Fire detection system: A drone and IoT based forest fire detection system for Mizoram state.

(vi) ehrms: A Web based Online Human Resource Management System for Meghalaya

(vi) CCPWC Project – Set up a Cyber Forensic & training lab for Arunachal Pradesh Police.

C-DAC Silchar hosted two monthly internship programs for students of NIT Silchar in the year 2020. C-DAC selected 25 numbers of students from NIT Silchar, based on their academics and performance in the interview. Due to the Covid-19 pandemic, C-DAC provided an online internship program. Students had been mapped to mentors across the different C-DAC centers (C-DAC Pune, C-DAC Thiruvananthapuram, C-DAC Bangalore, C-DAC Chennai, and C-DAC Silchar) based on their preferences from the available projects.

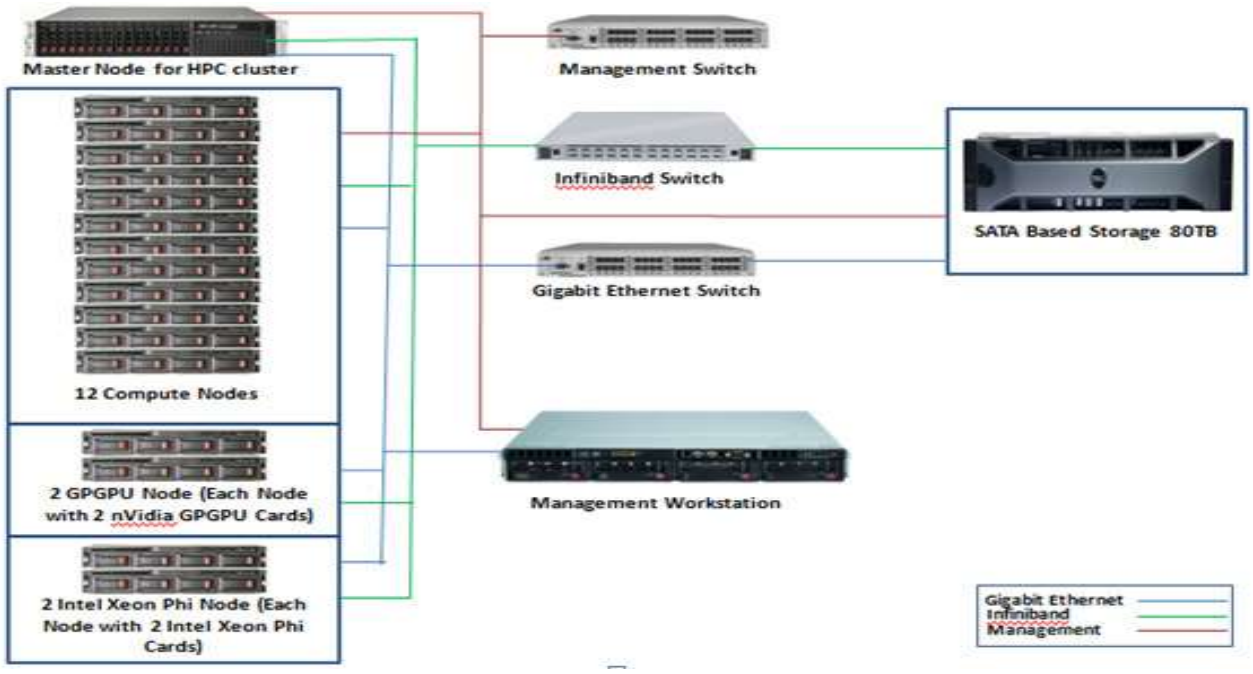
Students from NIT Silchar have received good exposure to various technologies while working on real time projects of C-DAC. Students worked on various projects like Simulation of Power Electronic Circuits, An IPV6 Traffic Analysis System, Object Detection in Ocean Surveillance Videos, Exploration, Study and Implementation of Forest Fire Detection Algorithm, Mobile Application Development using Flutter, Design, and Development of Smoke Detection Algorithm using Computer Vision. On successful completion of internship students are awarded with certificate, which highlights their skills and useful while placements.

SUPER COMPUTING CENTRE

NITS Supercomputing Centre, ***The Centre of Excellence in High-Performance Computing (HPC)*** *was* established on 05th April 2014 at NIT Silchar in technical collaboration with C-DAC, Pune by signing MoU. It was built with x86_64-bit Intel Ivy Bridge processing and Accelerators (Intel Xeon Phi and NVIDIA Kepler Co-processing) technologies with a computing power of 15 Tera Flops. The HPC Centre comprises of one master node, sixteen compute nodes with NVIDIA GPU, Intel Xeon Phi Accelerators, and 84 TB storage capacity

connected by a storage node, management node, and Infy band of 56 Gbps connectivity. It has been used on high priority by the UG/PG/Ph.D. scholars of NIT Silchar and other institutes of North East India in the area of Computational Science and Engineering Research and also highly acknowledged through high impact research publications. The project was proposed by Dr. T. R. Lenka, Coordinator, HPC entitled "**Capability building through Internship Scheme for UG/PG/Ph.D. Research students of recognized universities/institutes in North-Eastern India for strengthening research and development using HPC Technologies**" were approved by C-DAC North East Steering Committee for 2 Years (2016-2017). It covered an internship of 50 students from North East Technical Institutions with a stipend of Rs. 5000 per month for two months during their summer internship at C-DAC, Pune. The UG students of NIT Silchar are regularly undergoing summer internship on HPC Technologies at C-DAC, Pune since 2014 as per MoU signed.

Architecture of NITS Supercomputer



NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

Activity Report of IIC/Innovation Lab/Start-up Center
April 2020-March 2021

- Awareness Program on "Kalam Program for IP Literacy and Awareness (KAPILA)" A National Intellectual Property Literacy Week was organized to celebrate National Innovation Day by MoE, Institution's Innovation Council (IIC) on 15-23 October 2020 was attended on line mode by students, staff and all faculty member.
- Orientation Session on "Methods of Exploring and Capturing Values from Indian Agriculture and Health Sector" organized by MoE, Institution's Innovation Council (IIC) under the theme "Indian Knowledge System (IKS)" was presented on line mode for students, staff and all faculty member on dated 3rd November 2020. Dr Rajive Kumar, Prof. Anil Sahasarabuddha, Dipin Sahu, Dr. Abhay Jera, Dr. Pankaj Panda, Shri. A. B. Sukhala was the leading speakers from AICTE.
- A webinar on "Transforming Ideas into Prototypes" was arranged by student E-cell and Dr. Wasim Arif on 04 November 2020. A German Social Entrepreneur Mr Flo Oberhofer was leading speaker in the program.
- "Revamping the agricultural landscape through technology" My Story -Motivational Session by Successful Entrepreneur / Start-up founder was organized on 04th December 2020 by Dr. Vihangraj Kulkarni for the students. Mr. Kuldeep Parewa Founder and Chief Farmer at Anveshan was speaker in the program.
- "My Story -Motivational Session by Successful innovators" was organized by Dr subrata Bera and Dr Vihangraj Kulkarni on 11th December 2020. Mr ROSHAN FARHAN
- FOUNDER/CEO – GOBILLION discusses the topic- 'BEING A MANAGEMENT CONSULTANT TO A STARTUP FOUNDER'.
- ONE DAY WORKSHOP ON "Future in Engineering Education in Light of New Education Policy 2020 (NEP) was organized on 15th December 2020 by Dr. Sukumar Pati, Dr. Prashanth J and Dr. Wasim Arif for the faculty and students. Prof. Anil D. Sahasrabudhe Chairman, AICTE, PROF. Rajeev Tripathi Director, MNNIT ALLAHABAD, Prof. Subhasis Chaudhuri, Director, IIT Bombay was leading speaker in the program.
- A National Level Toy making competition for students of Class VI to XII Toy Tale 1.0 was organized by Dr. Munmun Khanra, Dr. Sumit Bhowmik, Dr. Manas Kr. Bera, Dr. Bipul Das, Dr. Prashant J. , Dr. Ashish Deoghare, Dr. Wasim Arif, Dr. Tripti Goel, Dr. Malaya Dutta Borah from 17th Dec. 2020 to 28th Dec.2020. More than 30 teams all over the corners of the country participated in the program.

- ONE DAY WORKSHOP ON NATIONAL INNOVATION AND STARTUP POLICY DECODING NISP 2019-WAY AHEAD FOR STARTUP AND INNOVATION (NISP) was held on 19th December 2020 by Dr. Yogesh Singh and Dr. Ashish Deoghare for the faculty and students. Mr Prabir Kumar Das, Mr. Prasanta Kumar Das, Dr. Rucha Desai was narrated the theme in the program.
- "Mentorship Session with Budding Innovators" was organized by Dr. Wasim Arif, Dr. Ashish Deoghare and Dr. Munmun Khanra on January 23, 2021. The program was grace by Mr. Chanchal Rane (IAS) Collector and DM Balngir Odisha, Mr. Swapneel Paul (IAS) Sub-Divisional Magistrate Rangia Assam, Mr. Nalini Atul , IAS Addl. Commissioner Public Instructions Karnataka. Toy Tale 1.0: A National Level Toy Making competition winner were felicitated in the event. The prize distribution ceremony was also held in the event.
- One Day workshop on "Designing Business Model Canvas 1.0" was conducted by Dr. Subrata Bera and Dr. Bipul Das (morning session)on Feb 20, 2021. Ms. Rucha Samir Desai, Rucha Meditech Private Limited, Hyderabad, India shared her experience in the program
- One Day workshop on "Business Model Canvas - A Step Towards Self-reliant India:" was organized by Dr. Subrata Bera, Dr. Ashish Deoghare and Dr. Bipul Das (afternoon session) on Feb 20, 2021. Mr. Yogendra Srivastava, Founder, VSD Enterprise, Hyderabad, leading a growing organization in 3D printing technology shared the importance 3D printing technology in the designing and development of product as well as explained of best practices to be followed in the business.
- One-Day Workshop on "Protection of IPR in the Age of Internet: How, What and Why?" was organized by Dr. Taimoor Khan on 21 March 2021. Mr. R.P. Yadav and Dr. Kunal Srivastava was the leading speakers.

STUDENTS' ACTIVITIES

Students' activities come under the preview of Dean (SW). The office of the Dean (SW) consists of the following members:

DEAN (SW)		
Name	***Qualification*** ***(e.g., B.Tech, M.Tech., Ph.D.)***	***Period***
Prof. R.D. Misra	Ph.D.	**1st May 2018 onwards**
ASSOCIATE Deans (SW)		
Name	***Qualification*** ***(e.g., B.Tech. M.Tech., Ph.D.)***	***period***
Dr. Wasim Arif	Ph. D	**9th January 2018 onwards**
Dr. Koushik Guha	Ph.D	**27th August 2018 onwards**
Dr. Pranjit Barman	PhD	**21/01/2020 onwards**

Scholarship / Assistantship Awarded to the students during 2020-2021:

The students, of this Institute, are awarded various types of scholarships from various schemes of Central Govt., State Governments, PSUs, Charitable Trusts/ Organizations. During this period no. of students received scholarship/stipend from various sources.

Sl. No.	**NAME OF THE SCHOLARSHIP**	**Awarding Authority**	**No. of students received the Scholarship**	**Amount of scholarships sanctioned**	**Remarks**
1.	Central Sector Scholarship of Top Class Education Scheme for SC Students	Ministry of Social Justice & Empowerment	31	Rs.11,18,500/-	

2.	National Fellowship and Scholarship for Higher Education of ST Students - Scholarship (Formally Top Class Education for Schedule Tribe Students) - only for scholarships	Ministry of Tribal Affairs	82	Rs1,64,000/-	This amount was sanctioned & credited to the Institute's scholarship account in favour of the beneficiaries. Rest of the amount were directly transferred to the beneficiaries account through DBT mode
3.	CENTRAL SECTOR SCHEME OF SCHOLARSHIPS FOR COLLEGE AND UNIVERSITY STUDENTS	Department of Higher Education	70	-----	Scholarship amount directly transferred to the beneficiaries account through DBT mode
4.	SCHOLARSHIP FOR TOP CLASS EDUCATION FOR STUDENTS WITH DISABILITIES	Department of Empowerment of Persons with Disabilities	4	---	Scholarship amount directly transferred to the beneficiaries account through DBT mode
5	POST MATRIC SCHOLARSHIP FOR STUDENTS WITH DISABILITIES	Department of Empowerment of Persons with Disabilities	5	---	Scholarship amount directly transferred to the beneficiaries account through DBT mode
6	MERIT-CUM-MEANS SCHOLARSHIP FOR PROFESSIONAL AND TECHNICAL COURSES CS	Ministry of Minority Affairs	41	----	Scholarship amount directly transferred to the beneficiaries account through DBT mode
7	UMBRELLA SCHEME FOR EDUCATION OF ST CHILDREN -POST MATRIC SCHOLARSHIP (PMS) FOR ST STUDENTS ARUNACHAL PRADESH	A Centrally Sponsored Scheme implemented by the State Governments and Union Territory Administrations.	10		Scholarship amount directly transferred to the beneficiaries account through DBT mode

8	POST MATRIC SCHOLARSHIP FOR SC STUDENTS TRIPURA	Ministry of Social Justice & Empowerment (Tripura)	1		Scholarship amount directly transferred to the beneficiaries account through DBT mode
9	Govt. of Telengana	District Tribal Welfare Office	1	Rs.73,140/-	
10	Scholarship programme for Diaspora Children(SPDC)	Govt. of India Ministry of External Affairs	1	Rs.2,88,800/-	Awarded to DASA students only
11	Swami Dayanand Merit-cum-Means Scholarships to students pursuing professional courses in India	Swami Dayanand Education Foundation	6	Rs.1,25,000/-	
No. of students 252				**Rs.17,69,440/-**	

Apart from the aforesaid Scholarships, there are many scholarship schemes which follows DBT System under which the students get directly benefited through scholarship amount

Moreover, many parents (guardians) of our students also avail reimbursement of educational expenditure from their employers like – BSNL, Railways, & other Govt. / PSUs on our recommendations.

Assistantships (M.Tech / Ph.D): Students admitted in the M.Tech & Ph. D programme in the institute are awarded Assistantship as per norms of MHRD and Institute. To be eligible for this Assistantship, a student must have cleared GATE/NET/UGC exams & must be a regular non-sponsored student.

Railway concession service is also provided to students of NIT Silchar from Dean (SW) Office.

Events Organized:

NIT Silchar encourages its students for sports andother co-curricular activities. Students are involved in NCC/NSS/Gyansagar and various other co-curricular activities. They also have a student union body, known as "Gymkhana Union Body".

Due to the Covid -19 Pendemic situation during the year 2020-2021 NIT Silchar did not encourage the formation of any students Union Body and hence, conducted only the general annual events by following all the Covid-19 SOPs as instructed by the Govt. of India.

Following are the list of events organized by the Institute during 2020-2021

I. World Environment Day 2020

On the occasion of World Environment day on 5th June 2020 NIT Silchar carried out a tree plantation drive inside the campus maintaining all Covid-19 protocols.

II. International Day of Yoga 2020

As per the directives of the GOI NIT Silchar celebrated the 6th International Day of Yoga 2020 on 21st June 2021 with a theme **"Yoga at home &Yoga with family".**

III. INDEPENDENCE DAY 2020

On 15th August 2020, NIT Silchar celebrated the Independence Day of India. It started with the hoisting of the Indian National Flag along with a rendition of the National Anthem.

IV. ORIENTATION PROGRAM

Virtual orientation programmes for the newly admitted UG, PG and PhD students were organized by the Institute authority in the month of September and November 2020. The new students were acquainted with the Administration and the HoDs of various departments.

V. HINDI DIWAS

14th September 2020 saw the celebration of Hindi Diwas in accordance with MHRD guidelines. A virtual cultural program was held in the presence of distinguished guests and personalities associated with the Hindi Language.

VI. EKTA DAUD

Ekta Daud was held on 25th January 2021 and on 26th January, 2020, on the occasion of the Republic Day. The run saw a humongous number of participants from the faculty and student communities, who were to run along a predetermined route through the campus. The camaraderie and unity shared by the participants truly made it an Ekta Daud.

VII. REPUBLIC DAY '2021

On 26th January, 2021, NIT Silchar celebrated the 72th Republic Day of India. The day started with the hoisting of the tricolour along with a rendition of the National Anthem.And the Inter-Hostel parade competitions which saw students representing their hostels with great enthusiasm.

VIII. FOUNDATION DAY 2021

On 21st February 2021 NIT Silchar celebrated its 55thfoundation day. To mark this occasion a foundation stone was laid by the Honorable Director of NIT Silchar which was followed by a rally and tree plantation inside the campus.

IX. INTRNATIONAL MOTHER LANGUAGE DAY

NIT Silchar also celebrated the International mother language day on 21se Feb 2021. It started with a cultural procession and was followed by a cultural programme and food festival. The entire NIT Silchar fraternity took part in the occasion to make it a success.

X. FIT INDIA MOVEMENT

As per the Govt. of India initiative and subsequent instruction, NIT silchar organized "Fit India freedom Run "on 29thSeptember 2020 subsequently followed by a Cricket match between Facultyand Staff of the Institute v/s SBI Silchar Zone under 'Fit India Movement" on 07th March 2021.

XI. INTERNATIONAL WOMEN'S DAYS 2021.

A Cricket match was organised between Lady Faculty/ Staff/ Spouse v/s Girls Students of the Institute on the occasion of International Women's Day on 08th March 2021.

INFRASTRUCTURE AND AMENITIES

Estate - An overview:

1. Historical Background

In the late fifties, the Government of India decided to establish Regional Engineering College under the Quality Technical Education Policy - one each in every major state – with the prime objective of imparting quality technical education throughout the country and to foster national integration. These Regional Engineering Colleges were established as a joint venture of the Government of India and the respective State Government. Assam is a major state in the North-East of India and the 15th REC was officially established in Silchar in 1967. Though 14 other RECs started functioning within 1967, it took about another decade for REC, Silchar to start its academic programmes due to various constraints.

The college started functioning in 1967 from a camp office in Shillong (the then Capital of Assam) with Dr. S. K. Baruah as Principal and Prof. B. R. Seth, the then Vice-Chancellor of Dibrugarh University as Chairman of the Board of Governors. Subsequently, an area of about 540 acres of land was acquired by the Govt. Of Assam, on the outskirts of Silchar town. This land was part of Bhorakhai Tea Estate.

The first batch of students was admitted in 1977 in the B.E programmes in 3 branches of engineering viz. Civil Engineering, Mechanical Engineering, and Electrical Engineering. The total intake in the first batch was 60 students. The meager infrastructural facilities consisted of only a part of a hostel, two seven faculty quarters, and a few quarters for Grade-IV staff of the college when the college started its academic programme in November, 1977. Initially, the classes started with only 4 full-time teachers and with Dr. H. R. Chablani as Principal. The college started its academic programme with affiliation to Gauhati University. The affiliation was later shifted to Assam University in 1994. The first batch of B.E students was awarded their degrees in the year 1982-83. Subsequently, two more branches viz (i) Electronics and Telecommunication Engineering and (ii) Computer Science and Engineering started functioning from the year 1983 and 1987 respectively. On the basis of the report of the High Powered Joint Expert Committee of AICTE and UGC under the chairmanship of Prof. S. K. Joshi, Director General of Council for Scientific and Industrial Research (CSIR), Regional Engineering College Silchar has been transformed and upgraded to National Institute of Technology, Silchar with a Deemed University status with effect from 28.06.2002. The Institute has been subsequently made into a fully funded Government of India Institution. This ensures a better financial status for NIT Silchar which will accelerate its growth and ensure that it becomes one of the premier technological institutes of not just the North-East but also of the entire nation. The Institute has remodeled its curriculum and academic activities in line with that of IITs. With its Deemed University status, the Institute started awarding degrees from the year 2002 and the first convocation of the Institute is being organization today to award degrees to all those students who qualified for the degree after its transformation into an NIT.

2. Location

The Institute is situated at Silchar, the headquarters of the district of Cachar in Assam. The location of the Institute is at a distance of about eight kilometers to the south of the town of Silchar on the Silchar-Hailakandi road. Cachar is the southernmost district of Assam bordering Mizoram on the south, Manipur on the east and Tripura, and Meghalaya on the west.

3. Campus

The campus of the Institute is spread over an area of 540 acres. It presents a spectacle of harmony in modern architecture, natural beauty, and picturesque surroundings. The campus area has been organization in three functional sectors, viz.

(a) Hostel for students.

(b) Instructional Buildings and Administrative Block.

(c) Residential sectors for the staff.

The instructional buildings have been so located that these are fairly near to both the hostels and the staff quarters. There is a full-fledged branch of State Bank of India, a Post Office in the campus. The students & staff and also the villagers surrounding the campus get the facility of the SBI & Post Office. The Institute has its own Health Care Centre with a full-time Senior Medical Officer to attend to the emergency medical needs of the students, staff and their families. Patients suffering from a serious illness, requiring intensive care, are referred to the Silchar Medical College & Hospital, which is only about two kilometers from the campus. The Institute hasan ambulance facility for shifting the patient to the nearby hospital. An adequately equipped canteen is there near the instructional zone and mini-market complex which will provide facilities to the students and the staff during and beyond the working hours. There is a well-equipped gymkhana and sports complex attached with an auditorium which is utilized by students for an activity like gymnasium, indoor games, and similar other pursuits.

4. Services

(a) Housekeeping of the campus (Except Hostel) : Outsourced
(b) Housekeeping of the Hostels: Outsourced
(c) Security Management of the campus: Outsourced
(d) Maintenance of Civil & Electrical: Departmentally

5. Staff Structure

(A) Administrative:

Sl. No.	Staff / Officers	Designation	Remarks
1	Dr. M.A. Ahmed	Dean (P&D)	Regular
2	Dr. Prashanth J.	Associate Dean (P&D)	Regular
3	Dr. Lakshmi Vara Prasad. M	Associate Dean (P&D)	Regular
4	Dr. Dulal Chandra Das	Associate Dean (P&D)	Regular
5	Mr. Sikumar Chauhan	Assistant Engineer (E) & Estate (i/c)	Regular
6	Mr. Dhrubajyoti Chakraborty	Assistant Engineer (C)	Contractual
7	Mr. Bipon Sinha	Junior Engineer (E)	Contractual
8	Mr. Tapan Kumar Roy	Junior Engineer (E)	Contractual

(B) Supporting:

Sl. No.	Staff/Officers	Designation	Remarks
1	Mr. Debabrata Barman	Sr. Assistant	Regular
2	Mr. Subasish Barman	Technician	Regular
3	Mr. Ashok Kurmi	Technician	Regular
4	Mr. Monoj Gopal Deb	Attendant SG-II	Regular

Infrastructure details

Sl. No.	Name of building	Area (Sqm)
Academic / Administrative / Lab / Workshop		
1	New Administrative building	8846.36
2	Expansion of classroom	6974.00
3	Mechanical Workshop building	2588.00
4	Mechanical Department	1895.00
5	Civil Engg. Dept	2799.00
6	Electrical Engg. Dept.	1647.00
7	ETE building	1137.00
8	Central Store / Estate Branch	800.00
9	Library building (old)	975.60
10	Vertical Expansion Dispensary building	189.00
11	Old Administrative building	800.00
12	Classroom Expansion Pt. II	2800.00
13	Expansion of Physics Dept (ground floor)	470.00
14	Expansion of Physics Dept (first floor)	164.00
15	Expansion of Chemistry Dept (first floor)	470.00
16	Expansion of Chemistry Dept (ground floor)	164.00
17	CSE & ETE building (G+2)	7935.70
18	Humanities Dept (first floor)	105.00
19	Mathematics Dept (ground & first floor)	195.00
20	Training & placement dept (second floor)	386.00
21	KendriyaVidyalaya	4642.70
22	New Library building	7987.77
23	Guest House (old)	216.00
24	Guest House (new)	4079.17

25	Post Office	118.57
26	Earthquake Engineering Laboratory	2734.00
27	Production Engineering Lab under Mech. Engg. Dept.	5361.00
28	New Academic building	7935.70
29	KID-NITS School	152.64
30	NABL building	790.56
31	Expansion of Electrical Engg. Dept	1152.41
	Sub Total (A) -	**76511.18**
Residential area hostels + faculty + staff quarters		
1	Director's Bungalow	195.00
2	Professor quarters 7 units	1169.00
3	Asst. Prof. quarters 6 units	868.00
4	Type-D quarters 12 units	1344.00
5	Type-C quarters 8 units	480.00
6	Type-A quarters 12 units	540.00
7	Lecturer's quarters 15 units	1200.00
8	Teachers' Flat 12 units	590.00
9	Grade-III quarters 56 units	3600.00
10	Grade-IV quarters 30 units	1350.00
11	Type-VI(EL) Prof. qtrs. 12 units (old)	2466.00
12	Type-VI(EL) Prof. qtrs. 12 units (new)	2466.00
13	Type-V(E) Asst Prof. qtrs. 21 units (old)	2787.00
14	Type-V(E) Asst Prof. qtrs. 21 units (new)	2787.00
15	Type-IV(E) Lecturer qtrs. 30 units (old)	2556.40
16	Type-IV(E) Lecturer qtrs. 30 units (new)	2556.40
17	Type-III – 100 units	9923.04
18	KendriyalaVidyalaya qtrs.	1183.38
19	Boys Hostel No.1 (170 capacity)	3600.00
20	Boys Hostel No.2 (135 capacity)	2620.00
21	Boys Hostel No.3 (135 capacity)	2620.00
22	Boys Hostel No.4 (275 capacity)	5030.00
23	Boys Hostel No.5 (142 capacity)	2894.00
24	Boys Hostel No.6 (300 capacity)	7950.00
25	Boys Hostel No.7 (300 capacity)	7950.00

26	Boys Hostel No.8 (500 capacity)	20654.52
27	Boys Hostel No.9 (1000 capacity)	23560.00
28	Girls Hostel No.1 (185 capacity)	2114.00
29	Girls Hostel No.2 (212 capacity)	3303.00
30	Girls Hostel No.3 (104 capacity)	3303.00
31	300 capacity P.G Hostel & 100 capacity Married Scholar Hostel	12060.00
	Sub Total (B) -	**135719.74**
Sports facility & common facilities		
1	Dispensary building	156.00
2	NIT Café	416.00
3	Students Activity Centre	1145.00
4	Post Office	118.57
5	Eat-Out Dhaba	970.91
6	Sports Complex (Indoor & outdoor)	58823.41
	Sub Total (C) -	**61629.89**

Grand Total (A+B+C) = 273860.81

VEHICLE MANAGEMENT

The Institute at present provides the following vehicles for various purposes as tabled below:

Sl. No.	Vehicle Registration No.	Type of Vehicle	Purpose
01	AS11B-7736	Indigo	T & P, Gust transportation
02	AS11CC-0712	Traveller	T & P, Student Transportation
03	AS11E-2416	Maruti omne	For official work as well as the transportation of students and staff on a requirement basis.
04	AS11E-5501	SX4	Director car
05	Newly launched, the registration process is going on.	Ambulance (Force)	Transportation of patient (student as well as a staff of NIT Silchar)
06	AS11CC-9409	Ambulance (Winger)	Transportation of patient (student as well as a staff of NIT Silchar)
07	AS11B-2701	Tractor	Engaged in the estate for heavy material transportation
08	AS11B-0930	Bus	Student Transportation
09	AS11B-2703	Bus	Student Transportation

BOARD OF HOSTEL MANAGEMENT

Name	*Designation*	*Qualification (e.g., B. Tech., M. Tech., Ph.D.)*
Prof. R.D. Misra	Chairman	Ph. D
Dr. Wasim Arif	Vice Chairman	Ph. D
Dr. Koushik Guha	Secretary	Ph. D
Dr. Pranjit Barman	Member	Ph.D
All Asso. Wardens of Hostels	Members	

Hostel

NIT Silchar is a residential campus. It provides hostel accommodation for students. Separate hostel accommodation is available for girl students. Apart from that, family accommodation is also provided to the married Ph. D scholars. It is mandatory for all the students to stay in the hostels. However, under special and extraordinary cases a student may be permitted to live with his/her parents or local guardian at Silchar. Students permitted to stay outside hostels are exempted from payment of mess charges, electricity and water charges under hostels fees but they will have to pay the hostel establishment charges. The name, full address, office and residence telephone number, designation and willingness of local guardian have to be furnished at the time of admission. Room allotment in the hostels is done in such way that students from different regions of the country freely stay with each other, depicting national integration.

The Institute has **16 nos.** of hostels for the students inside the campus. 10 for the boys (UG/PG separate), 5 for the girl students (UG/PG) and one for family accommodation to the married Ph. D Scholars. Hostels' capacity varies from hostel to hostel. Available capacity of boys' hostels all together (UG/PG) is approximately 4000, the available capacity of girls' hostel (UG/PG) is approximately 650 and available capacity of Married Scholar Hostel is 106 flats.

List of Associate Wardens of Hostel :

Sl No.	Name	Department	Designation	Wardens	Date of taking charge	Mobile No.
1	Dr. Ganesh Prasad	ECE	Assistant Professor	Hostel 1	01/07/2021	***8638689852***
2	Dr. K. Lakshman Singh	Civil Engineering	Assistant Professor GR-I	Hostel-2	04.02.2021	***8474800505***
3	Dr. Gaurav Singh Baghel	Electronics and Communication Engineering	Assistant Professor Grade ll	Hostel 3	26-09-2019	**7987013588**

4	Dr. Lalu Seban	Electronics and Instrumentation Engineering	Assistant Professor Grade ll	Hostel 4	20-09-2019	**8011886745**
5	Dr. Taimoor Khan	Electronics & Communication Engineering	Assistant Professor GR-I	Hostel 5	10-10-2019	**9411823416/8135 048134**
6	Dr. Balla Hema Sundar Raju	Mathematics	Assistant Professor	Hostel-6	01.01.2021	**8811046466**
7	Dr. Saurabh Verma	Management Studies	Assistant Professor Grade-ll	Hostel 7	21-09-2019	**8059442520**
8	Dr. Trupti Ranjan Lenka	ECE	Assistant Professor GR-I	Hostel 8	01.01.2021	**9435387419**
9	Dr. Debjit Bhowmik	Civil Engineering	Assistant Professor Grade ll	Hostel 8	19-08-2019	**8133018185**
10	Dr. R Murugan	Electronics and Communication Engineering	Assistant Professor	J.C. Bose Hall (H-9 A)	06.01.2021	**9600081925**
11	Dr. P. Randive	Mechanical Engineering	Assistant Professor	Hostel 9B	08-04-2019	**7896544874**
12	Dr. Bijon Kumar Roy	Civil Engineering	Assistant Professor	Hostel 9 C	02-01-2020	**7636905506**
13	Dr. Rajeeb Dey	Electrical Engineering	Assistant Professor	Hostel 9 D	25-07-2019	**6295439046**
14	Dr. Suprava Jena	Civil Engineering	Assistant Professor	Girls Hostel 1	05.01.2021	**7008534828**
15	Dr. Alfa Bisoi	Mechanical Engineering	Assistant Professor	Girls Hostel 2	06.01.2021	**8016907628**
16	Dr. Malaya Dutta Borah	Computer Science and Engineering	Assistant Professor Grade ll	Girls Hostel 3	20.08.2018	**9968654303**
17	Dr. Jupitara Hazarika	Electronics and Instrumentation Engineering	Assistant Professor Grade ll	Girls Hostel 1 A	18-07-2019	**8011017849**
18	Dr. Nirmali Borthakur	Civil Engineering	Assistant Professor Grade ll	Girls Hostel 1 B	17-07-2019	**9435009915**
19	Dr. Devendra Singh Gurjar	Electronics and Communication Engineering	Assistant Professor	P.G Hostel (Aryabhatta Hostel)	04.01.2021	**8839111530**

20	Dr. Bipul Das	Mechanical Engineering	Assistant Professor Grade ll	P.G Hostel (Aryabhatta Hostel)	13-08-2019	**8876939381**
21	Dr. Sushant Kumar Tripathy	Electronics and Communication Engineering	Assistant Professor	MSH	12-03-2019	**9402168938**

Following are the list of facilities available in the Hostels:

- Chair, Table, Bed, Wardrobe, and Fan provided in each room
- 24- Hour Reading Room facility.
- Guest room and Seek room in each hostel.
- Round the clock water supply and power supply.
- Water cooler cum Purifier.
- Solar panels installed in all hostels for hot water.
- Diesel generator (centrally) available in case failure of power supply.
- Institute LAN/ Internet connection inside the room
- Wi-Fi connection in all common places
- Uninterrupted Power Supply
- TV Hall with LED TV & DTH Cable connection facility in each hostel.
- Newspapers and Magazines
- Photocopier (Xerox) machines are available in each hostel.
- Ambulance service round the clock.
- Hostel Canteen provided in each hostel for refreshments
- Indoor game like, Table Tennis, carom, chess provided.
- Hygienic kitchen with modern cooking Equipment provided.
- Hygienic Dining hall with dining Table/chair and insect catcher provided
- Fire Extinguisher provided.
- Family accommodation and self-cooking facility in Married scholar hostel and foreign students hostel
- Separate vehicle parking facility in married scholar hostel.
- Bi-cycle stand in the hostels
- Badminton court with lighting arrangement available in Girls Hostel (GH- 2).

Following are the list of services available in the hostels:

- Security services
- CCTV Surveillance
- Ambulance Services round the clock.

- Cleaning / House Keeping service
- Food & catering services
- Laundry services
- Maintenance of civil, electrical, plumbing & sanitary services.
- Maintenance of Aqua guard & cooling cum purifier service.
- Managerial service provided for general maintenance
- Vehicle service provided for attending classes.

INSTITUTE HEALTH CENTRE

- The Institute Health centre is located within the campus, it is located amidst the hostel/residential zone and the academic zone.
- The NITS Health centre provides primary health care round the clock on all days.
- NITS Health centre has casualty, Pharmacy, OPD facilities, 24 hours fully equipped ambulance, and a clinical laboratory working from 09:00 a.m. to 07:00 p.m.

PEOPLE

Chairman, Health Centre Committee: Prof. B.K. Roy , Electrical Department
Medical Officer: Dr. Banibrata Chakraborty; Dr. Arindam Nath
Medical Officer (Ayurveda): Dr. A. R. Laskar, B.A.M.S
Dental Surgeon: Dr. Suman Debnath , B.D.S
Visiting Consultant: Dr. (Major) Sandhya. R (Gynaecology)
Staff Nurse: Mrs. Shila Nath ; Mrs. Moni Akura
Pharmacist: Mr. Samanta Das; Mr. Sanjit Banik

FACILITIES

The Emergency services are available 24/7, 365 days a year. All kinds of medical emergencies are managed effectively with the infrastructure and facilities.

MEDICAL EQUIPMENT

1. ECG
2. Physiotherapy Instruments.
3. Nebulizer
4. Autoclave.

PHYSIOTHERAPY CLINIC

- Treatment for various musculoskeletal disorders, including post-operative cases, sports injuries, stroke, cerebral palsy.
- Pain management and Rehabilitation for sports injuries with corrective and conditioning exercises.

DENTAL CLINIC

Fig: The Health Centre has the facility to handle dental services such as scaling, filling, and extraction of a tooth.

AMBULANCE

24 x 7 (on all days)

Two ambulances are stationed at the institute Health centre. The ambulance is fully equipped with an oxygen cylinder, lifesaving drugs, first aid kit bag. The ambulance is provided with a Trained Emergency Medical Technician (a Paramedical Staff who will be able to operate all the instruments installed in the ambulance), who is capable to deliver pre-hospital care to stabilize the patient and transport the patient to any impaneled hospital will first aid care.

CLINICAL LABORATORY

9:00 a.m. to 7:00 p.m. (all days)

The clinical laboratory is fully functional with the latest equipment and reagents. Samples of blood, urine, mucous, stool, etc., are obtained from the patients referred to the clinical laboratory by the Medical Officers of Institute for the prescribed tests. The results of the tests are reported to the doctor on the same day by the lab technician. All the tests listed under the CGHS scheme are carried out for the students and eligible employees. Testing and waste management are followed as per NABL standards.

Fig: Clinical facilities available in NIT Silchar

PHARMACY

The pharmacy inside the institute hospital is fully functional with various range of regular and emergency medicines.

AWARENESS UPDATE

During the outbreak of **COVID-19 pandemic,** various protective measures and awareness programme has been introduced as per guidelines. Some of the key points are:-

1. Safe use of alcohol-based hand sanitizers.
2. Social Distancing.
3. Usage of a face mask.
4. Healthy diet.
5. Proper washing of hands.
6. Seek advice and help from Medical officers during an emergency.
7. Avoid stress and maintain good mental health.
8. Avoid gathering and eliminate the spread of infection.

ACTIVITIES DURING COVID-19 PANDEMIC

During the outbreak of **COVID-19 pandemic,** our institute organised screening for covid-19 , Rapid Antigen test (RAT) so as to identify any positive cases amongst the campus dwellers.

PREPARATORY MEASURES DURING COVID-19 PANDEMIC

During the outbreak of second wave of **COVID-19 pandemic,** many essential steps were introduced such as :-

1. More numbers of oxygen cylinders were procured.
2. More Digital Thermometers and Pulse Oxymeters were purchased.
3. Two new isolation wards were made functional.
4. RAT kits were purchased in bulk so as to screen entire campus dwellers.
5. Essential Pandemic related Medicines were procured in accordance with ICMR guidelines.
6. Special Ambulance service for Covid positive patients for transportation to SMCH or nearby hospitals during emergency.

KENDRIYA VIDYALAYA NIT SILCHAR

The 7thAcademic Session for the year 2019-20 commenced from 1st April 2019. The Total Enrolment position of Students during the year was 887 with a very healthy gender distribution of 465 boys and 422 girls.A total of 119new students were admitted in the Vidyalaya in the year 2019-20 with 84 of them inclass I and 35 in other classes. In 2019-20, a total of 75 students appeared in CBSE Class-X Board Examination and 23 students appeared in Class-XII Board Examination. Out of these, 97.34% of students qualified Class X and 100% of students qualified Class XII examination. In Class-X, the highest percentage of marks was 95.16% scored by AhmadullahLaskar. Similarly, the highest percentage of marks in Class XII was 96.4 % scored by Arunangshu Roy.

Various games and sports activities are regularly organized and conducted as an integral part of the school curriculum in the Vidyalaya. Under the Sports category, the Vidyalaya stood 1st position out of 29 Vidyalaya at KVS Regional Sports Meet, and also Vidyalaya has seen all-time high participation in the KVS Regional and National Sports Meets where 84 students participated in the KVS Silchar Region Regional Sports Meet. Out of these 84 students, where 58 students got medals (35 students got 1st position, 16 students got 2nd position, and 7 students 3rd position at Regional Level Sports Meet 2019. 25 students got selected for the KVS National Level Sports Meet in various events like Chess, Rope skipping, and Athletics. The students of the Vidyalaya very actively participated in Silverzone International Olympiad 2019-20 conducted in Mathematics, Science, English, and Computer Subjects. A good number of students got Gold, Silver, and Bronze Medals in each of these subjects. In addition, two students namely ShivangiVerma Class XII &Dakshayani Sharma Class VIII got selected for the 2ndlevel to compete for the top slots in Science Olympiad. In the year 2019, several students from our Vidyalaya participated in KVS Cluster Level Social Science Exhibition out of which 3 students were selected to compete at the Regional Level of the Social Science Exhibition at K.V. No. 1 Silchar. A major event for the Vidyalaya was the 47thJawaharlal Nehru National Science Mathematics andEnvironment Exhibition for Children 2019-20 in which a large number of students from our Vidyalaya took a very active part in the Regional Level program of the event and demonstrated their innovative ideas and concepts under various themes of the event through properly designed scientific models and exhibits. 4 (Four) students from the Vidyalayawere selected in different themes for the KVS National Level program of the event that wasorganized at Ahmedabad at the month of November 2019. The students are AnshDahiya, Class VII (B), AmanGoswami Class VIII (A), Siddhartha Bhattacharjee&DipitPatowari Class XI (Sc.) at Ahmedabad. Apart from students, teachers also brought laurels for the Vidyalaya. Our 5 (five) teachers namely Mrs. Anita Meena, PGT (Hindi), Mrs.Manmita Barman, PGT (English), Mr.Jitendra Kr. Verma&Ms.Seetal Sharma TGT (S.St.) and Ms.MarreamZuberi TGT (English) were awarded the prestigious KVS Golden Certificate for the year 2018 for their hard work and full dedication put to their work-place.

Another great achievement of the Vidyalaya was that repetitively in the year 2019-20, K.V. NIT Silchar was awarded the Green School or “Harit Vidyalaya Award-2019” 3rdposition out of 29 Vidyalayas presently working under KVS Silchar Region.

During the session 2019-20, this Vidyalaya hosted many Regional Level programs like:

1. 31st KVS Regional Level Youth Parliament - 2019 held on 23.08.2019 for KVS Silchar Region in which 282 students from five different KVs participated.

2. 47th Jawaharlal Nehru National Science Mathematics and Environment Exhibition for Children 2019-20 (KVS Silchar Regional Level) held on 28.09.2019 in which 184 students from 28 Vidyalaya participated.

3. Regarding the Staff details, a total of 7 (seven) permanent teachers joined the Vidyalaya in the year 2019. Out of them, 5 (five) teachers joined as TGTs and the rest 2 (two) teachers joined as PRTs in the year 2019. 2 (two) of the teachers are transferred out from the Vidyalaya in the year 2019.

4. The Vidyalaya has got a state-of-the-art infrastructure that is well equipped with various facilities including 3 well-furnished Science Labs, 3 E-class Room, a Digital Language Lab., a Yoga Room, Games Room, Music Room, Dance Room, Work Education Room, Art Room, Medical Room, CMP Resource Room, 2 Computer Labs, 1 Mathematics Lab, 1 Junior Science lab, 1 huge library with a very good stock of books. Clean and well-maintained bathrooms are situated in all corners of the building. The Vidyalaya has got a well-furnished building protected with strong boundary walls all around and a beautiful garden in the front.

A group of highly qualified teachers is engaged in devoted work round the corner for the all-round development of the students in the Vidyalaya. This School is running with a proper plan guided by KVS Regional Office, Silchar to achieve all the targets.

KIDS-NITS

NIT Silchar has a school for the kids of the campus as well as nearby areas that runs three classes viz. Nursery, KG 1 and KG.Apart from celebrating Independence Day, Republic Day, Teachers' Day, and Children's Day, the school has also organized Drawing and Sports Competition among the kids.The parents-teacher meet has been organized. The school has also organized Health Check-up for the school kids in NITS Health Centre.

SPORTS COMPLEX & GYM

The Sports Complex, NIT Silchar has training facilities for all the students and staff of this Institute. It has excellent infrastructure facilities for both outdoor and indoor games and sports. The outdoor games include Football, Cricket, Tennis, Basketball (concrete) and Tennis. A flood-Light facility is provided to all the outdoor games. The Indoor Games Complex (IGC) provides the following facilities:

Volleyball, Kabaddi, Kho-Kho, Basket Ball (concrete) and Tennis with Flood Light facility, Chess, Caroms, Yoga room, Shuttle badminton with concrete flooring, Table Tennis, Weightlifting and 08, 16, & 21 stations multi-Gyms, Vibration belt, Rowing Machine, 0505 Treadmills, Bench for Incline & Decline, Twisting machine, Iron weight plates, Rubber weight plates, Iron Rod Dumbells etc. It has separate rooms for changing with attached bathroom and toilets. All the clubs of the institute such as the literary club, photography club, Dramatic club, Gyansagar club, and Music club are there in the sports complex. It has the New Auditorium with 5000 seating capacity and a big stage.

GUEST HOUSE

The Institute Guest House, flanked by green lawns and colorful horticulture remains a pleasant haven for the Institute Guests, whether from academia or alumni or parents of the students. The state-of-the-art Guest House with all modern infrastructures is one of its kind in the North East. Some renowned personalities of the Nation in the likes of Former President of India and Bharat Ratna recipient Late Shri A.P.J. Abdul Kalam and Hon'ble Minister of Railways, Shri Suresh PrabhakarPrabhu are eminent guests who stayed in the Guest House during their visit to Silchar.

POST OFFICE

The Institute has a sub-Post Office within the campus. The Sub Post Office has facilities like registration, money order, and speed post. The post office functions from 9.30 AM to 5.30 PM. Students and staff and people from the surrounding villages take advantage of the facilities of this Post Office.

BANK AND ATMS

A fully computerized full-fledged core-banking branch of State bank of India with an ATM facility operates in this campus. The students, staff, and people of the villages surrounding the campus avail the facilities of the Bank. There is one ATM of Punjab National Bank in the campus.

SHOPPING COMPLEX

There is one Shopping Complex inside the campus for tea, snacks, books, etc. Almost all the household items required by both the students and faculties are available here.

CAFETERIA

A full-fledged Canteen, named NITS Café, is in operation catering quality foods to students, staff, and visitors.

RESEARCH & CONSULTANCY

Research and Consultancy (R & C) is one of the most vital activities of the Institute since its inception. The Institute encourages R & C works that synchronizes with the global technical advancements, with special emphasis on the development of the North-eastern region. The synergy of R & C facilities along with the diverse expertise of the faculties and dedicated students, the Institute is touching new heights of Innovation in terms of research. The Research & Promotion Cell (RPC) / Under-Graduate Research Council (UGRC) / Anvesan further help to identify the young budding student researchers (UG/PG) and provide a unique platform to promote their innovative ideas. The academic curricula of all the disciplines are designed according to the current Industry needs and an initiative is taken to establish a research park comprising of different pioneers of the Industry through MoUs.

RESEARCH DEVELOPMENT:

Ph.D. Programme (specializations):

(i) Civil Engineering
(ii) Mechanical Engineering
(iii) Electrical Engineering
(iv) Electronics & Communication Engineering
(v) Computer Science and Engineering
(vi) Electronics and Instrumentation Engineering
(vii) Humanities and Social Sciences
(viii) Mathematics
(ix) Chemistry
(x) Physics
(xi) Management Studies

a. Ph.D. Produced/ Ongoing (in number):

Completed	Submitted	Ongoing
48	62	784

b. Sponsored Research Project:

Sl. NO.	Name of the Project	Project Coordinator	Total Amount Sanctioned in Rupees	Date of Sanctioning the grant	Name of the Funding Agency
1.	Standardization of Measurement Protocol for overall Heat Transfer Co Efficient (U-Value) for Building Materials & Components for Indian Subcontinent	Dr. Biplab Das, Department of Mechanical Engineering	Rs. 16,99,500/-	22-03-2018	Department of Science & Technology

Sl. NO.	Name of the Project	Project Coordinator	Total Amount Sanctioned in Rupees	Date of Sanctioning the grant	Name of the Funding Agency
2.	Condition Assessment & Reliability of Existing Bridges (Indian Railway & Others) in North East India due to earthquake and deterioration hazards	Dr. Arjun Sil, Department of Civil Engineering	Rs. 19,09,600/-	04-02-2017	Science and Engineering Research Board
3.	Numeric Study on Electrokinetic Flow-through Polyelectrolyte coated Nanopore	Dr. Subrata Bera, Department of Mathematics	Rs. 25,47,140/-	16-02-2017	Science and Engineering Research Board
4.	Effect of metal-doped TiO2 on photoanode and lead-free organic-inorganic metal halide perovskite on photovoltaic performance of petovskite solar cell: experimental and theoretical approach	Dr. S. K. Tripathy, Department of Electronics & Communication Engineering	Rs. 42,38,585/-	22-03-2017	Science and Engineering Research Board
5.	Design and Development of Heat Pipe Embedded solar collector based latent heat storage system for domestic application	Dr. Biplab Das, Department of Mechanical Engineering	Rs. 27,21,000/-	09-03-2017	Science and Engineering Research Board
6.	A study on Effects of Sediment Load on riverbank erosion in the Barak River System	Dr. Briti Sundar Sil, Department of Civil Engineering	Rs. 22,44,460/-	03-07-2017	Science and Engineering Research Board
7.	Spectroflurimetric Studies on Representative Nitrogen Heterocyclic Drugs and Their Interation with DNA Nucleotides	Dr. N. S. Moyon, Department of Chemistry.	Rs. 33,09,000/-	06-07-2017	Science and Engineering Research Board
8.	Metal Complexes of New Chiral Schiff Bases: Design, Structure Elucidation, Reactivity and Synthetic Applications	Dr. Pranjit Barman, Department of Chemistry	Rs. 35,04,600/-	02-03-2016	Science and Engineering Research Board
9.	Nano Structured Metal Oxides Immobilized Ionic	Dr. S. S. Dhar, Department of	Rs. 28,64,430/-	12-03-2018	Science and Engineering

Sl. NO.	Name of the Project	Project Coordinator	Total Amount Sanctioned in Rupees	Date of Sanctioning the grant	Name of the Funding Agency
	Liquids as Green Catalysts for selective Organic Transformations	Chemistry			Research Board
10.	Centre for Advanced Manufacturing and Material Testing	Head, Department of Mechanical Engineering	Rs. 2,10,00,000/-	20-08-2015	Department of Science & Technology under FIST
11.	Design and development of a hybrid photo voltaic (PVT) system for rural applications	Dr. Biplab Das, Department of Mechanical Engineering	Rs. 14,17,800/-	17-01-2017	Department of Science & Technology
12.	Development of Battery Supercapacitor Hybrid Energy Storage System for Stand-alone Solar Photovoltaic Power System	Dr. Munmun Khanra, Department of Electronics & Instrumentation Engineering	Rs. 22,21,816/-	28-11-2016	Department of Science & Technology
13.	Bamboo Bricks/Laminates From BMFs for low cost housing structures for NE Himalayan Region	Dr. Sudipta Halder, Department of Mechanical Engineering	Rs. 44,91,000/-	31-03-2017	National Mission on Himalayan Studies
14.	Hetero-Junction Tunnel FETs: Characterization Modelling and Simulation of Electrical Parameters	Prof. S. Baishya, Department of Electronics & Communication Engineering	Rs. 9,54,667/-	16-05-2017	Council of Scientific and Industrial Research
15.	Development of EBG Structured Printed Antennas for Ultrawide Band Communication and Futuristic Modelling for prediction of performance Parameters using Computational Techniques	Dr. Taimoor Khan, Department of Electronics & Communication Engineering	Rs. 16,27,560/-	27-12-2016	Science and Engineering Research Board
16.	Development & Testing of hybrid solar photovoltaic thermal (PVT) Air system for the composite environment of Northeast India for tea drying applications	Dr. Biplab Das, Department of Mechanical Engineering	Rs. 30,02,560/-	10-03-2018	Science and Engineering Research Board

Sl. NO.	Name of the Project	Project Coordinator	Total Amount Sanctioned in Rupees	Date of Sanctioning the grant	Name of the Funding Agency
17.	Stochastic multi-scale failure analysis of composites	Dr. Sudip Dey, Department of Mechanical Engineering	Rs. 11,55,000/-	26-06-2018	Aeronautics R & D Board
18.	Department of Physics, NIT Silchar under FIST Project	Head, Department of Physics	Rs. 1,18,00,000/-	16-12-2016	Department of Science & Technology under FIST
19.	Development of a prototype of disabled –friendly automatic virtual text-entry keyboard interface system under practical environmental conditions	Dr. R. H. Laskar, Department of Electronics & Communication Engineering Co-PI: Dr. Taimoor Khan, Department of Electronics & Communication Engineering	Rs. 89,45,420/-	24-12-2018	SERB -IMPRINT-2
20.	Deep Summarization Evaluation	PI: Dr. Partha Pakray, Department of Computer Science & Engineering PI (French): Dr. Benoit Favre, Associate Professor, Dept. of informatique et interactions, Aix-Marseille University, France. Co-PI: Prof. Sivaji Bandyopadhyay Co-PI (France): Prof. Pr. Thierry Artieres, Dept. EcoleCentrale Marseille, Aix-Marseille University, France.	Rs. 35,53,777/-	20-03-2019	DST-INRIA / CNRS
21.	Digital Expression of the Self (ie): Photographic Performativity in	Indian PI: Dr. Avishek Ray, National Institute of	Rs. 59,88,555/-	18-03-2019	SPARC

Sl. NO.	Name of the Project	Project Coordinator	Total Amount Sanctioned in Rupees	Date of Sanctioning the grant	Name of the Funding Agency
	Contemporary India. Project Code: P405	Technology Silchar. Indian Co-PIs: Prof. Usha Raman, University of Hyderabad. International PI: Dr. Ethiraj Gabriel Dattatreyan, Goldsmiths, University of London. International Co-PI: Dr. Martin Webb, Goldsmiths, University of London.			
22.	Multimodal Machine Translation- convergence of multiple modes of input. Project code: P995	Indian PI: Prof. Sivaji Bandyopadhyay, NIT Silchar. Indian Co-PI: Dr. Thoudam Doren Singh, NIT Silchar. International PI: Prof. Josef van Genabith (University Des Saarlandes). International Co-PI: Dr. Cristina Espana I Bonet (University Des Saarlandes).	Rs. 49,58,775/-	18-03-2019	SPARC
23.	Design and Development of Dielectric Resonator Based Electromagnetic Sensors for Efficient Harvesting of Renewable RF Ambient Energy in Smart City Applications Project Code: P266	Indian PI: Dr. Taimoor Khan, NIT Silchar. Indian Co-PI: Prof. Asok De (Delhi Technological University) International PI: Prof. Yahia M. M.	Rs. 49,58,775/-	18-03-2019	SPARC

Sl. NO.	Name of the Project	Project Coordinator	Total Amount Sanctioned in Rupees	Date of Sanctioning the grant	Name of the Funding Agency
		Antar (Queen's University) International Co-Pi: Prof. Al P. Freundorfer (Queen's University)			
24.	Investigation and development of robust control strayegy for nonlinear bilateral teleoperation system with delayed communication: An expertimental validation for rehabilitation of stroke patients Project Code: P1087.	Indian PI: Dr. Rajeeb Dey, NIT Silchar. Indian Co-PI: Dr. Nabanita Adhikary, NIT Silchar. International PI: Prof. Jason Gu (Dalhousie University) International Co-PI: Prof. Mo E1 Hawary (Dalhousie University)	Rs. 67,12,451/-	18-03-2019	SPARC
25.	Topology Optimization of Complex Structures and Architected Metamaterials :: computational Design considering Uncertainities (TOCSAM)	Dr. Subhrajit Dutta, Department of Civil Engineering	Rs. 100000/-	17-07-2019	Department of Science & Technology (International Bilateral Cooperation Division)
26.	Enabling innovative multiple self-healing technology in fiber-reinforced composite with unaltered mechanical properties	Dr. Sudipta Halder, Department of Mechanical Engineering	Rs. 3611080/-	21-05-2019	Science and Engineering Research Board
27.	Leveraging Machine Learning and Soft Computing Techniques to Investigate the Raag Formation in Indian Classical Music	Dr. Anupam Biswas, Department of Computer Science and Engineering	Rs. 2468400/-	12-06-2019	Science and Engineering Research Board

Sl. NO.	Name of the Project	Project Coordinator	Total Amount Sanctioned in Rupees	Date of Sanctioning the grant	Name of the Funding Agency
28.	Design and development of multi-bit phase change memory devices for next generation high density non-volatile memory applications	Dr. Shivendra Kumar Pandey, Department of Electronics & Instrumentation Engineering	Rs. 4477340/-	18-03-2019	Science and Engineering Research Board
29.	Development of Spatial Data Infrastructure (SDI) and its impact on climate change for Cachar district, Assam, India	Dr. Dilip Ghose, Department of Civil Engineering	Rs. 2760000/-	12-12-2019	Department of Science & Technology
30.	High Pressure phase Transition Electronics Elastic and Optical Properties of Selected Defect Chalcopyrite Semiconductors for optoelectronics application	Dr. S. K. Tripathy Department of Electronics and Communication Engineering	Rs. 10,70,000/-	17-07-2019	CSIR
31.	A Computer-aided Recommendation Engine for the Health Diagnostic	PI: Dr. Partha Pakray, Department of Computer Science and Engineering. Co-PI: Prof. Sivaji Bandyopadhyay, Department of Computer Science and Engineering.	Rs. 1133000/-	10-09-2019	ASEAN
32.	Development of Low-Cost, High-Efficiency and High-Stability Perovskite / Silicon Tandem Solar Cell for Energy Harvesting	PI: Dr. T. R. Lenka, Department of Electronics & Communication Engineering. Co-PI: Dr. S. K. Tripatry, Department of Electronics & Communication Engineering	Rs. 3194000/-	10-09-2019	ASEAN
33.	Feasible Coordinated Controlled Grid-connected Photovoltaic Sourced DC based Fast Charging Infrastructure for Electric	Dr. Amritesh Kumar, Department of Electrical Engineering	Rs. 18945180/-	27-12-2019	SERB IMPRINT-2

Sl. NO.	Name of the Project	Project Coordinator	Total Amount Sanctioned in Rupees	Date of Sanctioning the grant	Name of the Funding Agency
	Vehicle Design, Development and Experimental Validation				
34.	JalAbhyaranya Campaign for Water Security in IHR	Dr. Sudipta Halder, Department of Mechanical Engineering	Rs. 1362400/-	23-08-2019	National Mission on Himalayan Studies
35.	Development and Tesing of Nano doped hybridized-diesel as pilot fuel operation in a stationary CI engine	Dr. Abhishek Paul, Department of Mechanical Engineering	Rs. 3197000/-	13-09-2019	Department of Science & Technology
36.	Development and testing of combustion characteristics of nanoparticle embedded biodiesel in an open ECU based dual fuel diesel engine	Dr. Sumita Debbarma, Department of Mechanical Engineering	Rs. 2302200/-	19-12-2019	Science and Engineering Research Board
37.	Optimal Solution Evaluation	Dr. Anupam Biswas, Department of Computer Science and Engineering	Rs. 2336500/-	29-10-2019	Science and Engineering Research Board
38.	Design and development of soft interconnect for DC Microgrids using power electronics interface for improved reliability of power supply	Dr. Amritesh Kumar, Department of Electrical Engineering	Rs. 2908400/-	23-12-2019	Science and Engineering Research Board
39.	Development of Low-Cost, High-Stability and High-Efficiency Perovskite Solar Cell for Energy Harvesting: A Theoretical and Experimental Study	Dr. T. R. Lenka, Department of Electronics and Communication Engineering	Rs. 2012500/-	12-02-2019	CSIR
40.	Design and Development of a High-Speed Three Dimensional Pinter with a Large Range of Micro Motion using Scanning Stereo-lithography Technique	Dr. Yogesh Singh, Department of Mechanical Engineering	Rs. 27,30,000/-	02-12-2019	CSIR

Sl. NO.	Name of the Project	Project Coordinator	Total Amount Sanctioned in Rupees	Date of Sanctioning the grant	Name of the Funding Agency
41.	Impact of error control code (ECC) on characteristic distance for underwater wireless sensor network (UWSN) and study of energy outage duration for energy harvested Uwsn using Markov model	Dr. Ashraf Hossain, Department of Electronics and Communication Engineering	Rs. 6,60,000/-	11-02-2020	Science and Engineering Research Board
42.	Multi stability and hidden attractors in dynamical system	Co- PI: Prof B. K. Roy Department of Electrical Engineering	Rs. 66,32,556/-	29-05-2019	Department of Science & Technology (International Bilateral Cooperation Division)
43.	Unravelling the problems, and supportive factors and their impact on the development of Rural Woman Entrepreneurs- A State Level Comparative Study	Co-PI: Dr. Mansi Rastogi / Dr. Ashim Kr. Das, Head, Department of Management Studies, NIT Silchar	Rs. 15,17,400/-	20-03-2019	Indian Council of Social Science Research
44.	Utilizing hazardous heavy metal (HM) sludge through fired brick production	Co-PI: Dr. Kulkarni Vihangraj Vijaykumar, Department of Civil Engineering	Rs. 18,28,000/-	18-06-2019	National Project Implementation Unit
45.	Modernization of weaving units for empowerment of economically weaker tribal women of Lakhipur, Assam	Dr. Banani Basu, Department of Electronics and Communication Engineering	Rs. 21,81,440/-	18-09-2020	Science for Equity Empowerment and Develipment Division
46.	Design and Development of Induction Welding System for in situ repair of exit hole defect in friction stir welded sample	Dr. Bipul Das, Department of Mechanical Engineering	Rs. 28,48,450/-	27-10-2020	Science and Engineering Research Board
47.	Design and development of a three dimensional printer based on shape memory	Dr. Yogesh Singh, Department of Mechanical	Rs. 30,82,800/-	02-11-2020	Science and Engineering

Sl. NO.	Name of the Project	Project Coordinator	Total Amount Sanctioned in Rupees	Date of Sanctioning the grant	Name of the Funding Agency
	alloy smart actuator and micro stereo-lithography (MSL) technique	Engineering			Research Board
48.	An Effective Negative Sequence Flux Minimization Technique for Enhanced Operation of DFIG based Wind Power Plants under Grid Voltage Unbalance	Dr. Asha Rani MA, Department of Electrical Engineering	Rs. 19,99,410/-	14-12-2020	Science and Engineering Research Board
49.	A Nationwide Study on Retinal Detachment in Inmdia with Emphasis on the Risk of the Fellow Eye through Fundus Images using Deep Learning	Dr. R. Murugan, Department of Electronics and Communication Engineering	Rs. 16,48,250/-	02-11-2020	Science and Engineering Research Board
50.	Spring Rejuvenation for Water Security in Himalaya	Dr. S. K. Pattanayak, Department of Mechanical Engineering	Rs. 49,99,0911/-	26-06-2020	National Mission on Himalayan Studies
51.	Development of efficient joint antenna and user scheduling schemes for massive MIMO limited feedback broadcast channels for 5G and beyond communications systems	Dr. Prabina Pattanayak, Department of Electronics and Communication Engineering	Rs. 16,48,900/-	20-01-2021	Ministry of Electronics and Information Technology
52.	Investigation of Silicon based MR damper and biodegradable oil based MR damper for attenuation of the jump phenomena in an unbalanced rotor- motor system	Dr. Alfa Bisoi, Department of Mechanical Engineering	Rs. 21,93,770/-	14-12-2020	Science and Engineering Research Board under
53.	Development of Bamboo Bottles and Containers using processed bamboo dust in micro and medium scale	Dr. Bipul Das, Department of Mechanical Engineering	Rs. 10,00,000/-	18-02-2021	Micro, Small and Medium Enterprise
54.	Stable baby walker design for different age groups	Dr. Koena Mukherjee,	Rs. 1,50,000/-	18-02-2021	Micro, Small and Medium Enterprise

Sl. NO.	Name of the Project	Project Coordinator	Total Amount Sanctioned in Rupees	Date of Sanctioning the grant	Name of the Funding Agency
		Department of Electrical Engineering			
55.	Design and Development of bath-chair for safe bathing of elderly	Dr. Chinmaya Kumar Sahoo, Department of Mechanical Engineering	Rs. 8,19,186/-	11-03-2021	Science for Equity Empowerment and Develipment Division
56.	Utilization of Agro waste for development of bio composite materials for domestic appliances	Dr. Sumit Bhowmik, Department of Mechanical Engineering	Rs. 15,00,000/-	24-03-2021	Khadi and Village Industries Commision

c. Developmental Project:

Sl. NO.	Name of the Project	Project Coordinator	Total Amount Sanctioned in Rupees	Date of Sanctioning the grant	Name of the Funding Agency
1.	Visvesvaraya Ph.D. Scheme for Electronics and IT at National Institute of Technology Silchar	Dr. K. L. Baishnab, Department of Electronics & Communication Engineering	Rs. 30,990,000/-	10-09-2015	Ministry of Communication & Information Technology
2.	Special Manpower Development Programme for CHIPS to System Design (SMDP-C2SD)	Dr. K. L. Baishnab, Department of Electronics & Communication Engineering	Rs. 997,200,000/-	15-12-2014	DeitY
3.	Innovation and Entrepreneurship Development Centre (IEDC) at NIT Silchar	Dr. Ashim Kumar Das, Department of Management Studies	Rs. 13,30,000/-	10-03-2016	Department of Science & Technology
4.	Unnat Bharat Abhiyan	Dr. Arup Kumar Goswami, Department of Electrical Engineering	Rs. 1,75,000/-	22-09-2015	MHRD

STAFF POSITION

i. Chief Academic & Executive Officer (Position as on 31.03.21)

Position	Name
Director	**Prof. Sivaji Bandyopadhyay**

ii. Administrative Staff : (Position as on 31.03.21)

Name of the post	Sanctioned Strength	Staff in Position
Registrar	1	0
Deputy Registrar	3	1
Assistant Registrar	6	4
Librarian	1	0
Deputy Librarian	1	0
Assistant Librarian	1	1
SAS Officer	2	1
Sr. Technical Officer	1	1
Technical Officer	2	1
Executive Engineer	1	0
Engineer	2	0
Sr. Medical Officer	1	0
Medical Officer	2	1
Hindi Officer	1	0
Security Officer	2	0

iii. Academic Staff : (Position as on 01.04.2020- 31.03.2021)

Name of the Post	Sanctioned Strength	Staff in Position
Professor	282	21
Associate Professor		25
Assistant Professor		155
Trainee Teachers		2

iv. Faculty Position as on 31.03.2021 (Department-wise break up)

Sl. No.	Department	Professor	Associate Professor	Assistant Professor	Trainee Teachers	Total
1	Civil Engineering	8	2	22	1	33
2	Mechanical Engineering	5	3	25	0	33
3	Electrical Engineering	4	3	21	0	28
4	Electronics and Communication Engineering	2	6	22	1	31
5	Computer Science and Engineering	0	1	22	0	23
6	Electronics and Instrumentation Engineering	0	1	14	0	15
7	Mathematics	0	4	9	0	13
8	Physics	1	0	7	0	8
9	Chemistry	0	3	6	0	9
10	Humanities and Social Science	1	2	1	0	4
11	Management Studies	0	0	6	0	6

v. Ministerial Higher Staff (as on 31.03.2021)

Name of the Post	Sanctioned Strength	Staff in Position
Superintendent/Accountant/Secretary/Jr. Hindi Translator	10	0
Sr. Superintendent/ Sr. Accountant/ Sr. Secretary	8	1
Superintendent (SG-II) / Accountant (SG-II)/ Secretary (SG-II)	5	0

vi. Technical Higher Staff (as on 31.03.2021)

Name of the Post	Sanctioned Strength	Staff in Position
Technical Assistant/ Junior Engineer/ SAS Assistant	38	1
Sr. Technical Assistant/ Assistant Engineer/ Sr. SAS Assistant	28	1
Technical Assistant (SG-II) / Assistant Engineer (SG-II) / SAS Assistant (SG-II)	13	0

vii. Ministerial Lower Staff (as on 31.03.2021)

Name of the Post	Sanctioned Strength	Staff in Position
Junior Assistant/ Hindi Typist	21	4
Senior Assistant/ Stenographer	16	1
Assistant (SG-II)/ Sr. Stenographer	11	3

viii. Technical Lower Staff (as on 31.03.2021)

Name of the Post	Sanctioned Strength	Staff in Position
Technician/ Works Assistant/ Laboratory Assistant	38	3
Sr. Technician/Sr. Work Assistant/ Sr. Laboratory Assistant	28	1
Technician (SG-II)/ Works Assistant (SG-II)/ Laboratory Assistant (SG-II)	19	4

ix. Supporting Staff (as on 31.03.2021)

Name of the Post	Sanctioned Strength	Staff in Position
Attendant/ Mali	41	48

x. Fresh Appointments Teaching (From 01.04.2020 to 31.03.2021)

Sl No.	Name	Designation	Department	Date of Joining
1	Dr. Ashish Sharad Paramane	Assistant Professor Grade-II	Electrical Engineering	25-Feb-2021
2	Dr. Santan Kumar	Assistant Professor Grade-II	Mathematics	03-Mar-2021
3	Dr. Vinyas Mahesh	Assistant Professor Grade-II	Mechanical Engineering	11-Mar-2021

xi. Fresh Appointments Non-Teaching (During 2020-2021): NIL

xii. Appointments of Teaching (Contractual) (During 2020-2021): NIL

Xiii. Retirement / Resignation (From 01.04.20 to 31.03.21)

Sl No.	Name	Designation	Date of Retirement / Resignation
1	Ms. Bhaswati Bhattacharjee	L.D.A	30-Nov-2020
2	Mr. Himadri Shekhar Chakraborty	Library Assistant	30-Nov-2020
3	Mr. Daulat Barman	Attendant	30-Nov-2020
4	Mr. Joy Narayan Verma	Peon	31-Aug-2020
5	Ms. Lakshmi Rani Sabdakar	Peon	30-Jun-2020
6	Mr. Hussain Miah	Peon	30-Nov-2020
7	Mr. Motibur Rahman Laskar	Attendant (SG-II)	30-Nov-2020
8	Mr. Kajal Paul	Attendant (SG-II)	31-Dec-2020
9	Mr. Pratap Dhar	Sr. Accounts Assistant	31-Jan-2021
10	Mr. Sashi Mohan Roy	Attendant	31-Mar-2021
11	Mr. Budhan Rabidas	Attendant (SG-II)	31-Mar-2021
12	Mr. Angadh Goala	Attendant (SG-II)	31-Jan-2021

xiv. Death in Harness (From 01.04.20 to 31.03.21): NIL

xv. Voluntary Retirement Scheme (From 01.04.20 to 31.03.21): NIL

TEQIP-III

Technical Education Quality improvement Programme (TEQIP) is a World Bank and MHRD funded project for the technical Institutions for improving the quality of Engineering Education in existing institutions with a special consideration for Low Income States and Special Category States (SCS) and support to strengthen few affiliated technical universities to improve their policy, academic and management practices.

TEQIP seeks to enhance quality and equity in participating engineering education institutions and improve the efficiency of the engineering education system in focus states. The Project supports two components:

Component - 1: Improving quality and equity in engineering institutions in focus states

- **Sub-component 1.1**: Institutional Development for Participating Institutions
  An estimated 90 Engineering Education institutions meeting (progressively) the enabling mechanisms and based on quality of Institutional Development Proposals (IDPs), will be selected.
- **Sub-component 1.2**: Widening Impact through ATUs in focus states
  An estimated 8 ATUs meeting the enabling mechanisms will be selected with matching contribution equal to project allocation.
- **Sub-component 1.3**: Twinning Arrangements to Build Capacity and Improve Performance of Participating Institutions and ATUs Institutions (already participated in TEQIP-I and/or II)/ATUs will be selected on a competitive basis based on pre-defined eligibility criteria. The evaluation will be based on quality of IDPs. The proposal should include establishing a mentoring system for twinning arrangements to build the capacity and improvement in performance of institution/ATUs participating under sub-component 1.1/1.2 respectively.

- **Component - 2:** System Level initiatives to strengthen sector governance and performance
  - This component will support MHRD and key apex bodies in engineering education, including AICTE and NBA, to strengthen the overall system of engineering education.

NIT Silchar has successfully completed Phase I and Phase II of TEQIP project. Presently NIT Silchar is under TEQIP phase III, Sub - Component 1.3. Under Twinning arrangements NIT Silchar is selected as Mentor Institute for Guwahati University Institute of Science Technology (GUIST), Guwahati.

TEQIP-III: Project Scope

Only the Government and Government aided AICTE approved Engineering institutions/Engineering faculty/Engineering Teaching Department/Constituent Institutions of Universities/Deemed to be Universities and new centrally funded institutions in SCS will be the part of the project.

An estimated 200 Government and Government funded Engineering institutions including Affiliating Technical Universities (ATUs) will be selected under different sub-components in one or two cycles.

TEQIP-III: Project Objectives

The Project will focus on the following objectives:

- Improving quality and equity in engineering institutions in focus states viz. 7 Low Income States (LIS), eight states in the North-East of India, three Hill states viz. Himachal Pradesh, Jammu & Kashmir, Uttarakhand and Andaman and Nicobar Islands (a union territory (UT))
- System-level initiatives to strengthen sector governance and performance which include widening the scope of Affiliating Technical Universities (ATUs) to improve their policy, academic and management practices towards affiliated institutions, and
- Twinning Arrangements to Build Capacity and Improve Performance of institutions and ATUs participating in focus states.

Name of TEQIP-III Officials, NIT Silchar:

Name	Position	Email
Prof. Sivaji Bandyopadhyay	Director, NIT Silchar & Institute Project Director, TEQIP-III	director@nits.ac.in
Dr. Sukumar Pati	Coordinator TEQIP-III	sukumarpati@gmail.com; sukumar@mech.nits.ac.in
Dr. Rajdeep Dasgupta	Nodal Officer (Academic) TEQIP-III	rdg.nits@gmail.com
Mr. Pulak Nath	Nodal Officer (Finance) TEQIP-III	Pu_nth@yahoo.com
Dr. Wasim Arif	Nodal Officer (Procurement) TEQIP-III	arif.ece.nits@gmail.com
Dr. Wasim Arif	Coordinator, Startup	arif.ece.nits@gmail.com
Dr. Arnab Nandi	Coordinator NBA Accreditation	dr.arnab.nandi@gmail.com
Prof. A. K. Barbhuiya	Coordinator Induction Program	akarim@civil.nits.ac.in
Dr. Bipul Das	Coordinator Twinning	bipul@mech.nits.ac.in
Dr. Partha Pakray	Nodal Officer (MIS)	parthapakray@gmail.com
Mr. Rajat Kumar Rabidas	PFMS Operator	rajat.rabidas@gmail.com
Mr. Salam Uddin Ahmed	MIS Operator	salamahmed806@gmail.com

TEQIP-III NIT Silchar Fund Allocation under Sub- Component 1.3

Total Fund Allocation = 770 lacs.

Indicative Category-wise Funding for Key Activities of NIT Silchar under Subcomponent 1.3

Sl. No	Key activities	Category of Expenditure (Head of expenditure)	Description	Percentage of share	Percenta ge (%)	Cost (Rs. in lacs)
1	Procurement of Goods (equipment, furniture, books LRs, software and minor items) and civil works for improvement in teaching, training and learning facilities	Procurement	Books and LRs	15	Up to 50%	385
			Equipment	15		
			Furniture	5		
			Services	10		
			Civil Works	5		
2	Improvement in Teaching, Learning and Research competence' ▪ Improve student learning ▪ Student employability ▪ Increasing faculty productivity and motivation ▪ Establishing a twinning system o Twining arrangements with institutions under Subcomponent 1.1 to build capacity and improved performance o Individual institutional mentors	Academic	Improve student learning	10	At least 40%	308
			Student employability	10		
			Increasing faculty productivity and motivation	10		
			Establishing a twinning system	10		

3	Incremental Operating Cost	IOC			Up to 10%	77
TOTAL					**100**	**770**

In House workshops/conferences organized under the aegis of TEQIP-III at NIT Silchar in 2020-2021

Sl No	Date	Topic	Deptt.	Name of the Coordinators
1	27 June, 2020	Indigenous Knowledge System for Sustainable Rural Development	ME	Dr. Agnimitra Biswas & Dr. Biplab Das,
2	16 July, 2020	Magical mathematics of Ramanujan	ME	Dr. Sudip Dey
3	25-29 July, 2020	Webinar on "Modern trends in Transportation system (MTTS 2020)"	CE	Prof. M. Ali Ahmed, Dr. K. Lakshman Singh, Dr. Ambika Kuity and Dr. Suprava Jena.
4	26-24 Apr 2020	2nd International Conference on Machine Learning, Image Processing, Network Security and Data sciences (MIND-2020)	CSE	Dr. S. K. Borgohain, Dr. U. Baruah, Dr. S. Devi K, Dr. Badal Soni
5	17–21 Aug 2020	NEMS Technologies: Modern Interdisciplinary Approach in Engineering		Dr. Sumitra Sharma, & Dr. S. K. Pandey
6	20 Aug 2020	GATE Conclave	Institute	Dr. Sudp Dey, ME
7	20-24 Aug 2020	Webinar on "Machine Intelligence in Biomedical and Health Informatics (MIBHI)-2020"	ECE	Dr.T. Goel , Dr. R. Murugan & Mr. A. Talukdar
8	21 Aug 2020	Webinar cum FDP on Mathematical Modeling for COVID-19.	Mathematics	Dr. Pankaj Biswas & Dr. Praveen Kumar Gupta
9	22–26 Aug, 2020	International Workshop on Biotechnological Advances and Research (BAR 2020)	EE	Dr. Risha Mal & Dr. Rajeeb Dey
10	24–28 Aug, 2020	Short Term Course on "How to define Research Problems and Solving Methods in Sustainable Design Manufacturing and Energy Engineering"	ME	Dr. A. Bisoi, Dr. S. Kar & Dr. S. Negi
11	24–28 Aug, 2020	International Faculty Development Programme on Machine Learning and	CSE	Dr. Naresh Babu M., Dr. Malaya Dutta Borah

		Computer Vision: Applications and Research Challenges (MLCV 2020)		& Dr. P. Sarma
12	29 Aug- 02 Sep, 2020	Webinar on "RF & Millimeter-wave Technologies (RMWT)-2020"	ECE	Dr. G. Singh Baghel, Dr. M. V. Swati & Dr. M. P. Sarma
13	1–5 Sept, 2020	online workshop on "The Development of the Energy Internet of Things (eIOT) in Green Energy Infrastructure"	EE	Dr. D. C. Das, Dr. C. Bhattacharjee, Dr. Tapan Pradhan & Dr. D. Koteswara Raju
14	1–5 Sept, 2020	Workshop on Intellectual Property Rights and Entrepreneurship Development (IPRED-2020)	Management Studies	Dr. A. K. Das, Dr. S. Verma & Dr. R. Hazra
15	04-08 Sept 2020	Webinar on " Recent Research Trends in Control, Instrumentation & Allied Engineering: A Multidisciplinary Approach"	EIE	Dr. V. C. Pal, Dr. S. Chakraborty, Dr. A. K. Sharma & Dr. Shankar K.
16	05-09 Sept 2020	Engineering Applications of Optimization Techniques	Maths, ECE, ME	Dr. Kedar Nath Das, Dr. Prabina Pattanayak, Mr S. K. Pattanayak,
17	7–11 Sept, 2020	Workshop on "Power Electronics Applications to Industrial Systems"	EE	Dr. Jiwanjot Singh, Dr. Asha Rani M.A., Dr. Amritesh Kumar and Dr. A. Pati
18	07-11 Sept 2020	Webinar on Innovation and research in Welding, Joining and Cutting Technology	ME	Dr. Bipul Das and Dr. C. K. Sahoo
19	10-14 Sept 2020	Recent Trends in Signal Processing and Communication (RTSPC-20)	ECE	Dr. R. H. Laskar, Dr. R. K. Karsh , Dr. C. Choudhury Dr. A. Hossain &Dr. G. Prasad
20	11- 15 Sept 2020	Developments in Structural Dynamics and Soil-Structure Interaction	CE	Dr. Atanu Sahu, Dr. Amit Kumar Das, Dr. B. K. Roy
21	12-16 Sept 2020	Electronic system for mechanical automation and robotic technology-2020 (eSMART – 2020)	ME	Dr. Y Singh, Dr. A. Paul,
22	18th – 22nd Sept 2020	Opportunities and Challenges in New Power Distribution Paradigm (OCNPDP)	EE	Dr. Partha Kayal, Dr. Saheli Ray and Dr. Sreejith S

23	21 Sept, 2020	One day webinar on "Global Renewable Power Generation Scenario and Challenges in Microgrids"	EE	Dr. Asha Rani M. A & Prof. Nalin B Dev Choudhury
24	21 Sept., 2020	One day Webinar on "The Smart City Building Blocks and Their Synergy with Smart Villages "	EE	Dr. Swapna M, Dr. Sreejith S & Dr. D. C. Das
25	28th Sept – 02nd Oct 2020	Hydrological Modelling and Climate Change (HMSS 2020)	CE	Dr. Prashanth J, Prof. A K Barbhuiya, Dr. Susmita Ghosh
26	October 14, 2020	Technical talk on " Probabilistic methods for finite element model updating"	ME	Dr. Sudip Dey

AWARDS AND ACHIEVEMENTS

- NIT Silchar has secured 48th position amongst all the engineering universities in India as per NIRF 2020 data.
- It is also the 12th amongst all the NITs as per the same ranking and 93th in Overall.
- NIT Silchar has secured 11th position in Top T-Schools (Overall) India Survey 2021 and secured 2nd position in East zone.
- NIT Silchar has secured 24th position in India Today-MDRA Best College ranking (2021).
- NIT Silchar has secured 25th position in THE WEEK Best Engineering Colleges India 2021.
- NIT Silchar has secured 275th in Overall world University Ranking and 6th among Indian Universities in UI GreenMetric Ranking 2021.
- NIT Silchar has secured 801-1000 in the World University Ranking; 19th in India in THE Ranking 2021.
- NIT Silchar has secured 601-800 in Engineering World University Ranking in THE Ranking 2021.
- NIT Silchar has secured 601-800 in Physical Science World University Ranking 2021 under THE Ranking.
- NIT Silchar has secured 251-300 in Emerging Economics University Ranking 2021 under THE Ranking.
- NIT Silchar has secured 201-250 in Asia University Ranking 2021 under THE Ranking.

Achievements:

Following are the list of achievements of students during the year 2020-2021:

1	Google Summer of Code	Aniket Agarwal, Tasneem Koushar
2	ACM ICPC	Aniket Agarwal, Adan Ali
3	CODATHON'21 The annual Inter□NIT coding contest conducted by ISTE Students' Chapter MANIT	Rank: 1, Name: Abhinash Kumar Giri Rank: 2, Name: Ayushman Mathur
5	August 2020: MIT Covid 19 Hackathon 4th Prize (1,700 teams Worldwide)	4th Prize (1,700 teams Worldwide) Nihar Jyoti Basisth Palash Pratim Deka Partha Pratim Choudhury
6	October 2020: RedBull Ideathon Champ	First Prize Nihar Jyoti Basisth
7	November 2020: Uka Tarsadia University hackathon	5th Prize Nihar Jyoti Basisth Palash Pratim Deka Partha Pratim Choudhury
8	December 2020: Sikkim Manipal University Tech Fest	4th Prize Nihar Jyoti basisth Dhritiraj Borah

		Trishanku Sharma
9	April 2021: Cubelelo Cubing Contest	2nd Prize Nihar Jyoti basisth
11	OCTOBER 2020 Ivy League Hackathon 2020 A joint hackathon hosted by 6 Ivy League university hackathons (Brown, Columbia, Cornell, Dartmouth, Harvard, and Princeton)	Prize: Best First-Time Hack winner Saurav Das (1912032) & Kavii Suri (1912075)
12	JANUARY 2021 CODATHON'21 The annual Inter□NIT coding contest conducted by ISTE Students' Chapter MANIT.	Rank : 1 Abhinash Kumar Giri (1912011)
13	MARCH 2021 HACKNITR 2.0	Best Open Innovation Hack Prize Team name: Flush Team members: *Aditya Kotari (1912093)* *Gaurav Bhattacharjee (1912018)* *Sri Sylamsh Amrutakavi (1912065)*
14	March 2021 DiCOVA 2021 Track-1 Challenge (COVID-19 detection fromm cough sounds) A special session at Interspeech 2021 by IISc Bangalore researchers (https://dicova2021.github.io/)	Rank : 1 (https://competitions.codalab.org/competitions/29640#results) Darsh Kumar Kaushik (1912080) Saranga Kingkor Mahanta (1814038)
15	Jan 2021:* Ideate, Sri Sivasubramaniya Nadar College of Engineering, Chennai	2nd runners up:
16	Technex Projectomania, St Vincent Palotti College of Engineering and Technology, Pune	1st prize:
17	July 2020:* AgriHacks E-Ideathon, JEC	1st prize:
22	KIITFest Robo Triathlon, KIIT	2nd Prize:
23	Technovus JEC Robo-Nox, Robo Soccer and Robo Royal, JEC	1st Prize:

Glimpses of Annual Activities

Honourable Education Minister Shir Ramesh Pokhriyal Nishank during XVIII Convocation of NIT Silchar

Republic Day Celebration 2021

National Science Day 2021

International day of Mathematics-2021

International Mother Language Day 2021

Foundation Day at NIT Silchar

Celebration of Cleanliness Drive on occasion of Gandhi Jayanti

Celebration of World Environment Day 2020

Celebrating Food Festival

Convocation 2020

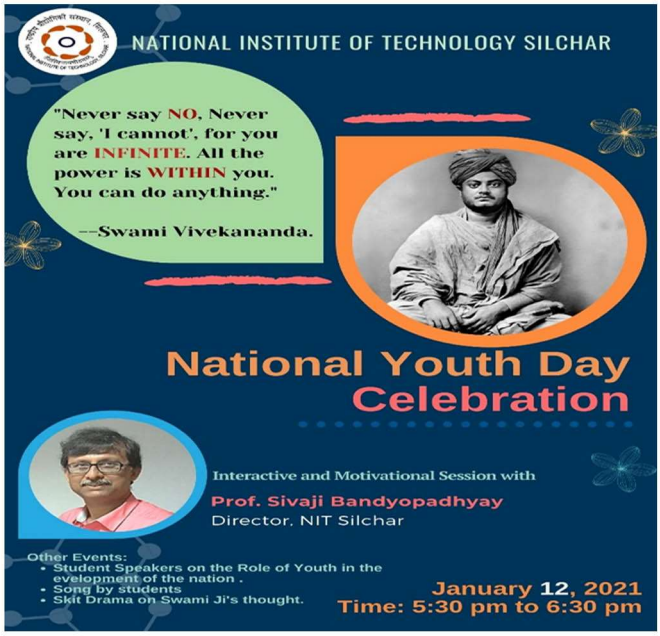
Bihu Celebration in NIT Silchar

Annual Sports Day

International Day of Yoga 2020

Induction Program 2020

Independence Day Celebration 2020



National Youth Day Celebration

Cloth Donation Programme 2020

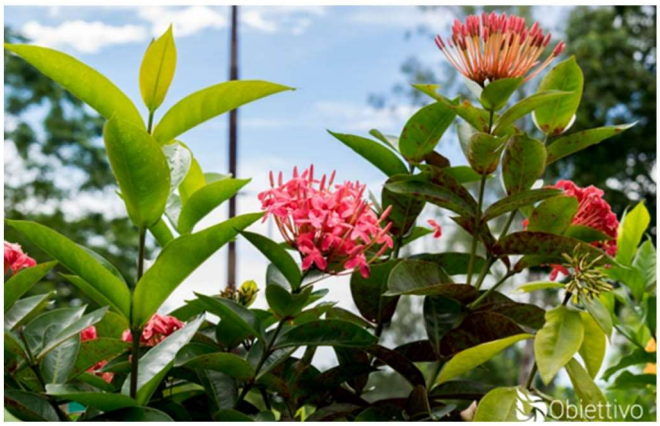
Cloth Donation Programme 2020

Mask Distribution

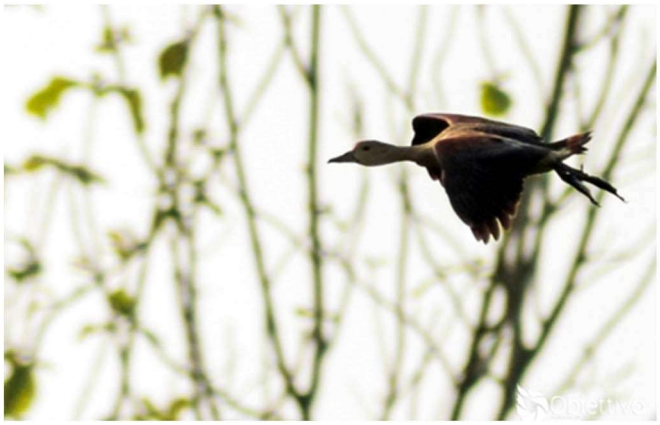
Women's Cricket Tournament NIT Silchar 2020

Hindi Diwas 2020

Flowers in the Campus



Birds in the Campus



Corporate Social Responsibility

Activities Undertaken by Gyansagar

GYANSAGAR
A Step Towards positive Change

Core Team of Gyansagar

Faculty Coordinators - Dr. Partha Kayal
Dr. Suprava Jena
General Secretary - Sudhanshu Kishan
Treasurer - Vaibhav Pal

Gyansagar is a social service wing of NIT Silchar, volunteered by the students of the institute under the patronage of the Honourable Director, NIT Silchar, Professor Sivaji Bandyopadhyay and guided by faculty coordinators Dr .Partha Kayal and Dr. Suprava Jena.

Gyansagar was started in the year 2009 by a group of students led by Mr. Aditya Choudhary, an electrical engineering graduate student of 2012 from NIT Silchar. Since then, it has taken huge leaps to become a social organization that benefits the people of nearby villages and communities near NIT Silchar. It was headed by the dynamic leadership of Dr A. K. Sil, Professor, Department of Chemistry, NIT Silchar, since its establishment.

In the reporting year, various activities of Gyansagar have been carried out due to the persistent effort of the chief student coordinators Mr. Sudhanshu Kishan and Mr.Vaibhav Pal with the support of many other volunteers

from the Barak Valley region as well as other parts of the country. Presently more than 250 registered student volunteers are actively engaged in various welfare activities of Gyansagar. The wholehearted support of the various faculty, staff of NIT Silchar is highly appreciated for successful completions different programs/ events in reporting year.

Activities/Programs Organized:

Gyansagar aims at helping the underprivileged section of society to create a difference in their lives through imparting quality education, awareness programs etc, Gyansagar also lends helping hands through various forms of donations and distributions for the betterment of the lives of people of the villages around NIT Silchar. The prevailing Covid-19 pandemic couldn't deter the relentless efforts shown by the student volunteers of Gyansagar for the improvement of lives of downtrodden people of the society.

The major activities organized from April 2020 to March 2021 are listed below.

1. Masks distribution
2. Gyansagar- Foundation Week
3. Sahyog
4. Deep Daan
5. Gyan Online
6. Vyakhyaa: The Awakening
7. Blanket donation
8. Yoga Camp
9. Visiting orphanages
10. Gyan Samwad

Some details of our activities are as follows:

1. **Masks Distribution (01 April 2020) -** The mask distribution program was held in "Kanpur dehat (Uttar Pradesh)" by the treasurer Vaibhav Pal and his friends. The team spread awareness about the pandemic and helped people understand the importance of measures like social distancing and hygiene alongside wearing face masks to prevent the coronavirus infection to spread rapidly. "Dainik Aaj" a local newspaper from Kanpur acknowledged the efforts of volunteers by the inclusion of a brief report in their newspaper.

2. **Gyansagar - Foundation Week (May 2020)** - The 9th foundation week named SALAAM- ए-WARRIORS was organized from 23rd May to 30th May. The motive of this week-long event was to give tribute to all the corona warriors cheerfully and enjoyably. The foundation week included major talent exhibition events in online mode, such as Nachde ne (dance competition), Sa Re Ga Ma (Music competition), ILM -e- Natak (Monoact competition), and Poem-e-Mehfil (poetry competition) in which many participants took part. The snapshots of their performances were posted on the social media platforms of Gyansagar. The participants were awarded scores based on responses received by them on social media platforms. The event was a fun and learning experience for the participants and it also consisted of prize money worth Rs. 8000/- for winners.

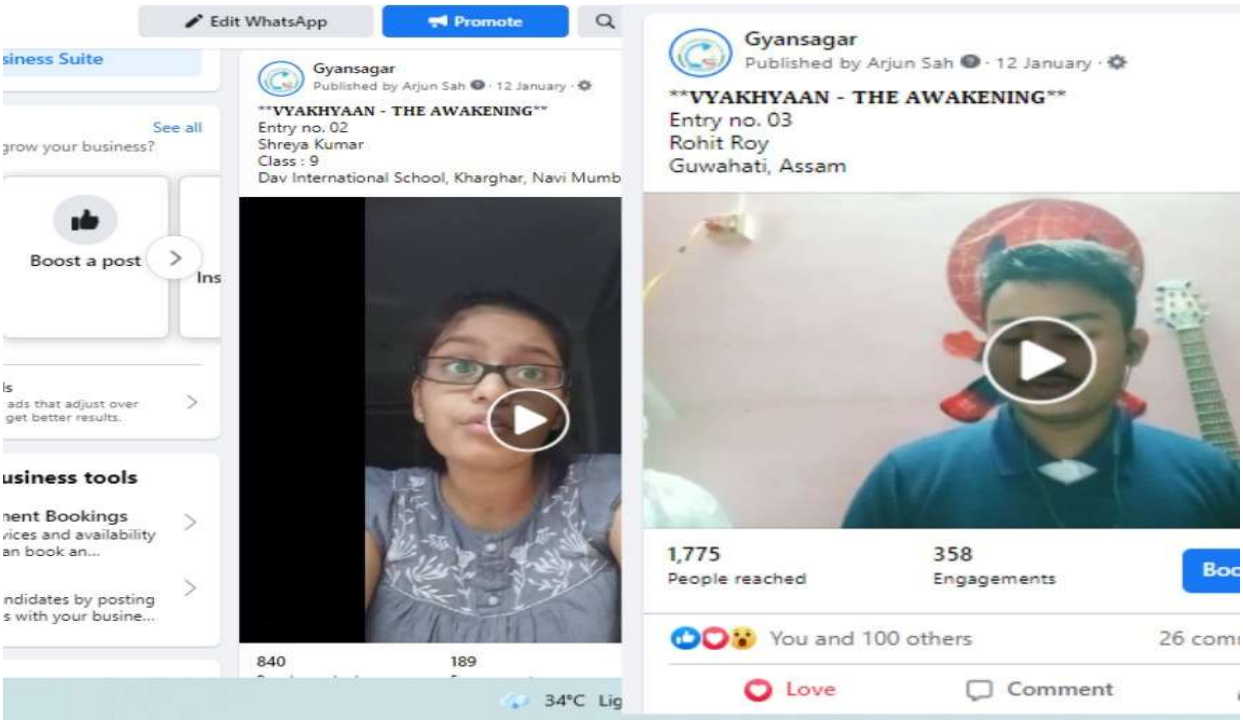
3. **Sahayog (14 August 2020)** – The face mask and sanitizer distribution drive was organized by Gyansagar in collaboration with Lion's Club Silchar Central and Leo Club Silchar Central at nearby tea gardens of NIT Silchar. The distribution drive was a great success. It was conducted in two villages of tea gardens around NIT Silchar. Around 1000 masks and 150 soaps & sanitizers were distributed.

4. **Deep Daan (13 November 2020)** – A program called “Deep Daan” ("दीप दान") was oraganized on the eve of the Diwali 2020 to bring happiness in the lives of people of Babutilla through the donation of blankets, sweets, diyas. About 70 families of the village participated with full enthusiasm and wholeheartedly accepted the small donations from Gyansagar.

5. **Gyan Online** - Gyan online is a free online teaching program started in December 2020 initiated by Gyansagar volunteers by conducting online classes, doubt-solving exercises and quizzes across various locations of the country for students of 6th to 11th standard. The drive was aimed at helping the poor children who live in rural areas. After a month-long program, the participating students were evaluated. The results of the evaluation were announced in January 2021.
Following students secured ranks.

1st: Gunjita (97.80%); 2nd: Priyanka (93.52%); 3rd: Lavish (91.07%). To encourage them, some prizes, such as mobile phone chargers, were also given away to rank holders.

6. **Vyakhyaan: The Awakening (8 - 12 January 2021)**- Remembering one of the greatest spiritual geniuses of commanding intellect and power, SWAMI VIVEKANANDA on his 158th birth anniversary, Gyansagar organized VYAKHYAAN: THE AWAKENING, a virtual speech competition in which many students of NIT Silchar participated. The theme of the competition was "Channelizing Youth Power for Nation Building". Recorded speeches were posted on the social media platform of Gyansagar. Based on responses received by participants in such platforms, they have evaluated marks.



7. **Blanket Donation Drives (January 2021)** - Gyansagar successfully organized the three blanket donation drives. The main aim of these drives was to provide blankets to help needy villagers who were living in the spine-chilling cold without adequate clothing to keep them warm. The fund for this purpose was managed by volunteers of the Gyansagar team. Blanket donation drives of Gyansagar completely fulfilled the motto "Charity brings life to people again those who are spiritually dead."

7.1. Blanket Donation Drive 1.0 (14 January 2021) - On the auspicious occasion of Makar Sankranti, the first edition of the Blanket donation drive was organized in Patna, Bihar. The drive started by the local student volunteers at about 10 pm on 14th January 2021 and ended at 2 am on 15th January 2021. More than 100 blankets were distributed. Volunteers who served in this noble event and made it a grand success were Sudhanshu Kishan, Raushan Raj, Arjun Kumar, Suraj Kumar, Rajeshwar Kumar and Saurav Suman.

7.2. Blanket Donation Drive 2.0 (26 January 2021) - On 26th January 2021 on the occasion 72nd Republic Day of India, Gyansagar organized the second edition of the Blanket donation Drive. The event took place at Gaya, Bihar. Amalendu Singh, a volunteer of Gyansagar along with his family members and friends distributed around 50 blankets to the people living on the streets of Gaya Railway Station, Vishnupad Temple, Mangla Gauri Temple, nearby Bus stands and footpaths and made the second drive a grand success.

7.3. Blanket Donation Drive 3.0 (27 January 2021) - On 27th January 2021, Gyansagar successfully organized the third edition of the blanket donation drive in Kanpur (Dehat), Uttar Pradesh. The event was graced by the Chief Guest IPS Keshav Kumar Chaudhary, SP Kanpur (Dehat). The other dignitaries such as DSP and CO (Commanding officer) of Kanpur (Dehat) were also present. The student volunteers who participated in this noble successful drive were Vaibhav Pal, Sandeep Kumar along with few other local people. A total of 121 blankets were distributed among the needy people.

8. Visiting Orphanage (27 February 2021) - On 27th February 2021, Gyansagar organized a donation drive in the orphanage named Nivedita Nari Sangstha, Meherpur, Silchar to donate a few essential items such as a weighing machine, clinical thermometer, sanitary napkins for women, diapers for babies, and food packets. The funds used for this purpose were raised by Saraswati Puja organizing members of Hostel 9A, NIT Silchar.

9. **Yoga Camp (28 February 2021)** - A one-day Yoga session was organized for the students of DARGAKUNA BAGAN LP SCHOOL, Dargakuna, Cachar to encourage the practice of yoga regularly and to ensure better physical and mental health, which is the need of the hour in this time of COVID-19 pandemic.
All the students, their parents and teachers of the school were invited to participate in the same.

Following are the details of the Yoga Specialists of the session-

Yoga Therapists:

- Mr. Ananda Chandra Das, Yoga Therapist, Silchar Medical College & Hospital (SMCH)
- Mrs. Sutapa Paul Das, Yoga Therapist, Yoga Vijñāna Mahavidyalaya (YVM), Silchar

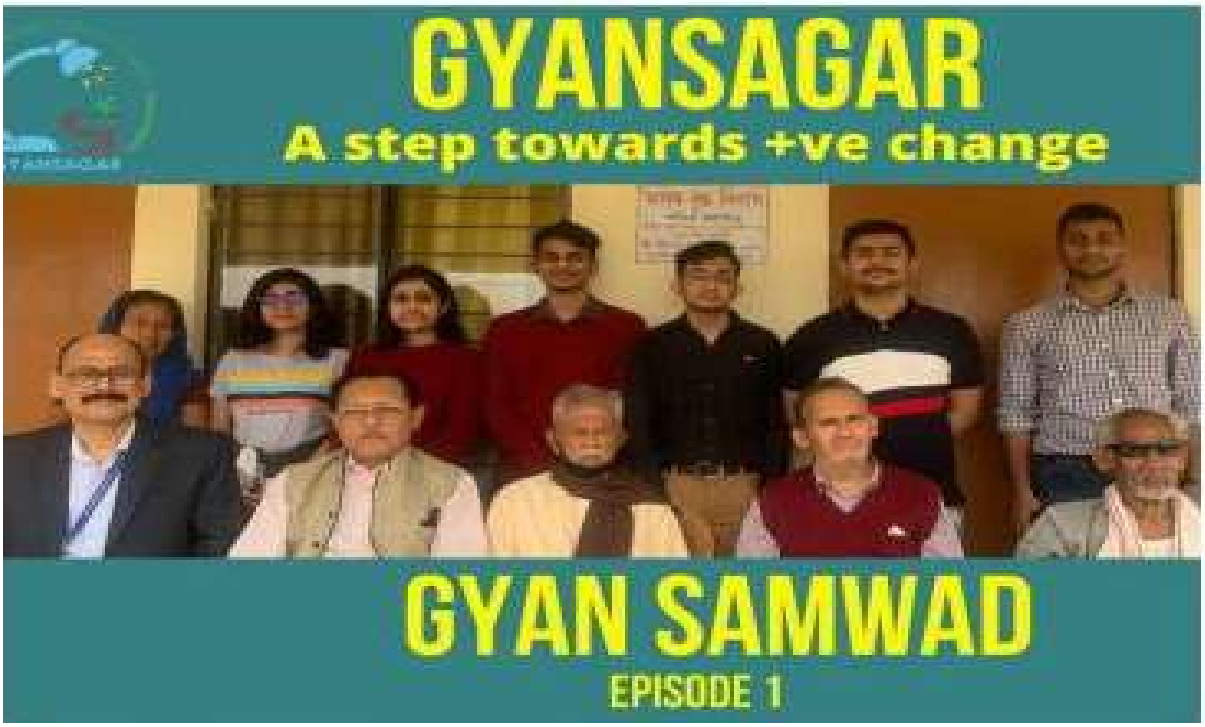
Yoga Instructors:

• Mr. Victor Paul, Yoga instructor, National Institute of Technology Silchar (NITs).

• Mrs. Sushmita Dey, Yoga instructor, National Institute of Technology Silchar (NITs).

10. **Premier of Gyan Samwad (6 March 2021)** - Every interaction is an opportunity to learn and make a positive impact on others. With the vision of spreading positivity in society, Gyansagar introduced "Gyan Samwad" on 6 March 2021. It is an interview cum interactive session, wherein members of the society acquaint themselves with the functioning of NGOs and social service organizations in our localities by interviewing them. These episodes are streaming on the official YouTube channel of Gyansagar.

Gyan Samwad brings an opportunity to learn and get inspired by the interesting stories of the fighters who are devoting themselves to a noble cause. The launch successfully took place and the first episode gained much appreciation from all over inspiring the organization to greater heights. Gyansagar is propelled to work ahead with much enthusiasm and devotion towards the welfare of society.



Activities under Unnat Bharat Abhiyan (UBA)

Faculty Coordinator: Dr Soma Panja

1. Unnat Bharat Abhiyaan (12 January 2021) –

Unnat Bharat Abhiyan in association with Gyansagar celebrated **National Youth Day** on the 12th January 2021 to celebrate the 158th birth anniversary of Swami Vivekananda by distributing masks in the nearby villages of NIT Silchar. It was a combined effort of the students as well as the faculties of the institution. The volunteers went around the villages to make sure that they maintain their hygiene properly and keep themselves safe from the prevailing pandemic of covid-19.

The villages include Fakiratilla, Babutilla, Madhutilla, Ghungoor and Borakhai. The enthusiasm and hard work had brought in enormous enthusiasm among the youth. Small steps count and thus, Gyansagar believes in taking each step sincerely and carefully with the sole objective of helping society.

The faculties under whose supervision it became a successful event were: Dr. S. S. Dhar, Dr. P. Barman, Dr. Avijit Chowdhury, Dr. S. R. Mohapatra and Dr. Soma Panja.

ANNUAL ACCOUNTS
For the financial year 2020-21

NATIONAL INSTITUTE OF TECHNOLOGY
SILCHAR

CONFIDENTIAL

SPEED POST

भारतीय लेखापरीक्षा और लेखा विभाग
प्रधान निदेशक, लेखापरीक्षा का कार्यालय,
केन्द्रीय, कोलकाता

INDIAN AUDIT AND ACCOUNTS DEPARTMENT
OFFICE OF THE PRINCIPAL DIRECTOR OF AUDIT
CENTRAL,KOLKATA

No: OA II (AB)/AR/2020-21/NITS/612
Date: 17.03.2022

A copy of the Separate Audit Report, alongwith Annexure, on the accounts of the National Institute of Technology, Silchar, for the financial year 2020-21, is forwarded to **the Director, National Institute of Technology, Silchar, Assam-788010,** for information and necessary action.

Arrangement may please be made for preparation of Hindi Version of the Separate Audit Report, with Annexure, at your end, and for sending the same directly to the Ministry.

It may please be ensured that the Audited Accounts and the Separate Audit Report, along with Annexure, are placed before the apex body, for consideration and adoption, before the same are sent to the Government for being placed in the Parliament.

A copy of the printed Annual Report, for the financial year 2020-21 (both English and Hindi Version), containing the Audited Accounts and the Separate Audit Report, along with Annexure, as laid before the Parliament, may please be forwarded to this office, for necessary action at this end.

Encl.: as stated

Lamshree
Dy. Director (Inspection)

जी. आई. प्रेस बिल्डिंग, 8,किरण शंकर राय रोड (प्रथम तल), कोलकाता -700 001
Govt. of India Press Building, 8, Kiran Sankar Roy Road, Kolkata - 700 001
Phone : 2254-0221, (Gram : ACCOUNTCENT) Post Box : 2699, Fax No.: 033 22135377

सत्यमेव जयते

CONFIDENTIAL

SPEED POST

भारतीय लेखापरीक्षा और लेखा विभाग
प्रधान निदेशक, लेखापरीक्षा का कार्यालय,
केन्द्रीय, कोलकाता

INDIAN AUDIT AND ACCOUNTS DEPARTMENT
OFFICE OF THE PRINCIPAL DIRECTOR OF AUDIT
CENTRAL,KOLKATA

No: OA II (AB)/AR/2020-21/NITS/611
Date: 17.03.2022

To
The Secretary,
Ministry of Education,
Department of Higher Education,
Shastri Bhawan, New Delhi,
New Delhi - 110001

Subject: Separate Audit Report on the accounts of the **National Institute of Technology, Silchar, Assam**, for the financial year **2020-21**

Sir,

I am to forward herewith the Separate Audit Report, in the prescribed format, on the accounts of the **National Institute of Technology, Silchar, Assam,** for the financial year 2020-21. A copy of the annual accounts of the organisation, for the financial year 2020-21, is also enclosed.

2. A copy of the Separate Audit Report (both English and Hindi Version), as presented before the Parliament, may please be forwarded to this office, for necessary action at this end.

3. The dates of laying of the audited accounts and the Separate Audit Report, for the financial year 2020-21, on the Tables of both the Houses of Parliament, may also please be communicated to this office.

Yours faithfully,

Deepak Narain

Encl.: as stated

(Deepak Narain)
Director General of Audit
Central: Kolkata

जी. आई. प्रेस बिल्डिंग, 8,किरण शंकर राय रोड (प्रथम तल), कोलकाता -700 001
Govt. of India Press Building, 8, Kiran Sankar Roy Road, Kolkata - 700 001
Phone : 2254-0221, (Gram : ACCOUNTCENT) Post Box : 2699, Fax No.: 033 22135377

Separate Audit Report of the Comptroller & Auditor General of India on the Accounts of the National Institute of Technology, Silchar, Assam, for the financial year ended 31 March 2021

We have audited the attached Balance Sheet of the National Institute of Technology, Silchar, Assam, as at 31 March 2021, the Income and Expenditure Account and Receipts and Payments Account for the year ended on that date, under Section-19(2) of the Comptroller and Auditor General's (Duties, Power and Conditions of Service) Act, 1971, read with Section 22(2) of the National Institute of Technology Act, 2007. These financial statements are the responsibility of the Institute's management. Our responsibility is to express an opinion on these financial statements based on our audit.

2. This Separate Audit Report contains the comments of the Comptroller and Auditor General of India (CAG) on the accounting treatment only, with regard to classification, conformity with the best accounting practices, accounting standards and disclosure norms etc. Audit observations on financial transactions, in regard to compliance with extant Laws, Rules & Regulations (i.e Propriety and Regularity aspects) and efficiency-cum-performance aspects etc, if any, are reported through Inspection Reports/CAG's Audit Reports separately.

3. We have conducted our audit in accordance with the Auditing Standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by the management, as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.

4. Based on our audit, we report that:

i. We have obtained all the information and explanations, which, to the best of our knowledge and belief, were necessary for the purpose of our audit;

ii. The Balance Sheet and Income and Expenditure Account/Receipt and Payment Account, dealt with by this report, have been drawn up in terms of the Format of Accounts prescribed by the Ministry of Education (erstwhile Ministry of Human Resource Development), Government of India, vide order No. 29-4/2012-FD dated, 17 April 2015.

iii. In our opinion, proper books of accounts and other relevant records have been maintained by the National Institute of Technology, Silchar, Assam, as required under Section 22(2) of the NIT Act, 2007, insofar as it appears from our examination of books.

iv. We further report that:

Comments on Accounts

A. Balance Sheet

1.1 Liabilities

1.1.1 Corpus/Capital Fund (Schedule 1): ₹542.59 crore

Despite mention in the previous year's Audit Report, the above head was understated by ₹17.22 crore, as the 'Excess of Income over Expenditure' for the financial year 2018-19, was added to the 'Corpus Fund', maintained under the 'Designated/Earmarked/Endowment Funds' (Schedule 2), instead of adding the same to the 'Corpus/Capital Fund' (Schedule 1), as per the format prescribed by the MoE (erstwhile MHRD). This resulted in overstatement of the 'Designated/ Earmarked/ Endowment Funds' (Schedule 2), by the same amount.

1.1.2 Current Liabilities and Provisions (Schedule 3): ₹43.83 crore

a) The above head was understated by an amount of ₹11.86 crore (Non-Recurring: ₹3.39 crore and Recurring: ₹8.47 crore), due to exhibition of a negative balance under the head 'Unutilised Grants'. The said amount of ₹11.86 crore, however, represents the expenditure incurred in excess, over and above the sanctioned grants, which was met from the Institute's internal resources. In terms of the guidelines prescribed by the MoE

(erstwhile MHRD), the excess expenditure incurred towards both – Recurring, as well as Non-Recurring purposes - is not recoverable from the Ministry and should, therefore, not have been depicted as a negative balance under 'Unutilised Grants'. This resulted in overstatement of the 'Capital Fund' (Schedule 1), by the same amount.

b) The above head was understated by an amount of ₹1.02 crore, due to non-provisioning of the expenditure to be incurred towards Security Services and House-Keeping Services, for the month of February 2021, despite receipt of the bills in the month of March 2021 itself. This further resulted in overstatement of the 'Corpus/ Capital Fund' (Schedule 1), by the same amount.

c) The above head was overstated by an amount of ₹24.97 crore, due to booking of the amount incurred towards creation of the Fixed Assets out of funds of Sponsored Projects, ownership of which has not yet been transferred to the Institute. This further resulted in overstatement of the 'Fixed Assets' (Schedule 4), by the same amount.

1.2 Assets

1.2.1 Current Assets (Schedule 7): ₹43.26 crore

The above head was understated by an amount of ₹10.10 crore, due to non-exhibition of the closing balances of twenty six (26) separate savings bank accounts (amounting to ₹5.42 crore) and twelve Term Deposits (amounting to ₹4.68 crore) , as on 31 March 2021. This further resulted in understatement of the 'Current Liabilities and Provisions' (Schedule 3), by the same amount.

B Income and Expenditure Account

2.1 Expenditure

2.1.1 Repair and Maintenance (Schedule 19): ₹ 5.76 crore

(a) The above head was overstated by an amount of ₹20.60 lakh, due to booking of expenditure, incurred towards setting up of 'Networking and Connectivity', which is 'Capital' in nature, under the head 'Repair and Maintenance' (Schedule 19), instead of booking the same against the sub-head 'Computers & Peripherals', under the head 'Fixed

Assets' (Schedule 4). This further resulted in understatement of the Surplus and corresponding understatement of 'Capital Fund' (Schedule 1) and Fixed Assets (Schedule 4) by the same amount.

(b) The above head was overstated by an amount of ₹25.67 lakh, due to booking of expenditure, incurred towards 'Construction of Kitchen Shed, Ramp, Toilet and Approaches of Married Scholar Hostel' (₹14.40 lakh) and 'Construction of Water Proofing Treatment at Sports Complex' (₹11.27 lakh), which was 'Capital' in nature, under the head 'Repair and Maintenance' (Schedule 19), instead of booking the same under the sub-head 'Buildings', under the head 'Fixed Assets' (Schedule 4). This further resulted in understatement of the Surplus and corresponding understatement of 'Capital Fund' (Schedule 1) and Fixed Assets (Schedule 4), by the same amount.

C General

3.1 The Institute had not yet transferred its contribution towards CPF, along with the corresponding interest, together amounting to ₹11.51 crore, in respect of 94 employees, to the 'Pension Fund', under the head 'Designated/ Earmarked/ Endowment Funds' (Schedule 2), in contravention of the decision taken at the the 24th Finance Committee meeting. This resulted in overstatement of the 'GPF Account', as well as understatement of the 'Pension Fund', by ₹11.51 crore, each.

3.2 In contravention of the format prescribed by the MoE (erstwhile MHRD), the Institute followed the 'Written Down Value' method for charging depreciation, instead of the 'Straight Line Method', as stipulated. Further, depreciation on 'Fixed Assets', acquired during a financial year, was being charged on *pro-rata* basis, from the date of acquisition, instead of being charged at full rates. In addition, the Institute did not charge depreciation on its 'Fixed Assets', in terms of the rates prescribed by the MoE (erstwhile MHRD).

3.3 The Institute wrongly booked ₹25.27 lakh, under the head 'Institute Overhead Charges (Projects)', in 'Other Income' (Schedule 13), after adjusting expenditure of

₹4.28 lakh, incurred towards such Projects, instead of booking the entire amount of ₹29.55 lakh.

3.4 The Institute wrongly booked an amount of ₹89.57 lakh, as expenditure incurred towards 'Networking Bill', 'Supply & Installation of Passive Items' and 'Supply of Cable for Networking', under the head 'Other Assets', instead of booking the same under the head 'Computers and Peripherals'.

3.5 The Institute wrongly booked an amount of ₹39.93 lakh, as expenditure incurred towards purchase of Lab Equipment, under the head 'Computers and Peripherals', instead of booking the same under the head 'Lab Equipment'.

financial year 2020-21.

3.6 Despite mention in the previous years' Audit Report, no provisions, on 'actuarial valuation' basis, for retirement benefits, such as gratuity, pension and leave encashment, were made in respect of eligible employees, in contravention of Accounting Standard-15.

3.7 During the financial year 2020-21, the Institute booked an amount of ₹21.36 lakh against 'Refundable Excess Deposit', under the head 'Current Liabilities and Provisions' (Schedule 3), without any supporting documents.

3.8 The Institute booked an balance of ₹70.41 lakh, in respect of the Bank Account No. 10521278244 (Scholarship), instead of booking the balance of ₹78.91 lakh, as exhibited in the Bank Statement. This discrepancy needs to be reconciled.

3.9 The Institute did not maintain separate accounts in respect of GPF and NPS, in contravention of the format prescribed by the MoE (erstwhile MHRD). Further, the bank account in respect of GPF and NPS (Account No.:10521278164), was not disclosed, during the financial year 2020-21.

D Grants-in-Aid

The Institute is mainly financed from grants received from the Government of India. During the financial year 2020-21, it received total grants of ₹84.63 crore {Revenue Non-Salary (OH-31): ₹47.49 crore, Revenue Salary (OH-36): ₹29.64 crore and Capital

(OH-35): ₹7.50 crore}. In addition, it had an opening grant balance of ₹26.57 crore {Revenue Non-Salary (OH-31): ₹4.79 crore, Revenue Salary (OH-36): ₹13.82 crore and Capital (OH-35): ₹7.96 crore}. Against the grants of ₹111.20 crore, so available, it spent ₹122.62 crore {Revenue Non-Salary expenditure (OH-31): ₹60.75 crore, Revenue Salary (OH-36): ₹43.02 crore and Capital Expenditure (OH-35): ₹18.85 crore}. Thus, there was excess expenditure of ₹11.42 crore, at the end of the financial year 2020-21, which was met out from the Internal Resources of the Institute.

E Net Effect

The net effect of the comments given in the preceding paragraphs is that both – the Assets, as well as the Liabilities – were overstated by ₹14.87 crore, as at 31 March 2021 and the Surplus (being the Excess of Income over Expenditure) was understated by ₹0.46 crore, for the year ended 31 March 2021.

F Management Letter:

Deficiencies which have not been included in the Audit Report have been brought to the notice of the Director, National Institute of Technology, Silchar, Assam, through a management letter, issued separately, for remedial/corrective action.

v. Subject to our observations in the preceding paragraphs, we report that the Balance Sheet, Income and Expenditure Account and Receipts and Payments Account, dealt with by this report, are in agreement with the books of accounts.

vi. In our opinion, and to the best of our information, and according to the explanations given to us, the said financial statements, read together with the Accounting Policies and Notes on Accounts, and subject to the significant matters stated above and other matters mentioned in the Annexure to this Audit Report, give a true and fair view, in conformity with accounting principles generally accepted in India:

a. insofar as it relates to the Balance Sheet, of the state of affairs of the National Institute of Technology, Silchar, as at 31 March 2021, and

b. insofar as it relates to the Income and Expenditure Account of the surplus, for the year ended on that date.

For and on behalf of the C&AG of India

Deepak Narain

Place: Kolkata
Date: 17.03.2022

(Deepak Narain)
Director General of Audit
Central :: Kolkata

Annexure

A. Adequacy of the Internal Audit System

The Internal Audit System is inadequate, on account of the following:

(i) There is no Internal Audit wing in the Institute. One Internal Audit Officer was, however, appointed on contractual basis.

(ii) No internal audit is being conducted.

B. Adequacy of the Internal Control System

The Internal Control System of the Institute is not adequate in the following areas:

(i) The Institute does not have its own Accounting Manual.

(ii) There is no internal management reporting system/ MIS (Management Information System).

(iii) No Security Deposits or Fidelity Bonds are being obtained in respect of employees handling cash/ petty cash and stores.

C. System of Physical Verification of Assets and Inventories

The Institute did not conduct physical verification of its Fixed Assets and Inventories, during the financial year 2020-21.

D. Statutory Liabilities

The Institute was regular in payment of its Statutory Dues.

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

BALANCE SHEET AS AT 31ST MARCH 2021

Amount in Rupees

SOURCES OF FUND	SCHEDULE	CURRENT YEAR	PREVIOUS YEAR
CORPUS / CAPITAL FUND	1	5,42,59,34,410	5,33,61,05,097
DESIGNATED / EARMARKED / ENDOWMENT FUNDS	2	1,19,03,03,623	1,10,79,91,778
CURRENT LIABILITIES AND PROVISIONS	3	43,82,98,852	78,43,05,993
TOTAL		**7,05,45,36,885**	**7,22,84,02,868**

APPLICATION OF FUNDS	SCHEDULE	CURRENT YEAR	PREVIOUS YEAR
FIXED ASSETS			
TANGIBLE ASSETS	4	4,97,04,02,322	5,15,19,27,263
INTANGIBLE ASSETS		7,79,88,702	6,48,46,843
CAPITAL WORKS-In-PROGRESS		60,29,191	58,28,591
INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS	5	1,11,87,63,992	1,04,60,00,000
INVESTMENTS - OTHERS	6	34,29,74,487	30,18,53,621
CURRENT ASSETS	7	43,26,35,491	52,53,17,884
LOANS, ADVANCES & DEPOSITS	8	10,57,42,699	13,26,28,666
TOTAL		**7,05,45,36,885**	**7,22,84,02,868**

SIGNIFICANT ACCOUNTING POLICIES	23
CONTINGENT LIABILITIES AND NOTES TO ACCOUNTS	24

Date: The 22nd October, 2021
Place: Silchar

Registrar **Director**

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2021

Amount in Rupees

PARTICULARS	SCHEDULE	CURRENT YEAR	PREVIOUS YEAR
INCOME			
Academic Receipts	9	18,46,22,667	21,15,39,873
Grants /Subsidies	10	1,03,76,95,310	1,09,00,75,337
Income from Investment	11	4,31,45,809	1,14,00,673
Interest Earned	12	3,91,425	13,67,196
Other Income	13	38,65,26,318	40,01,30,294
Prior Period Income	14	-	-
TOTAL (A)		**1,65,23,81,529**	**1,71,45,13,373**

APPLICATION OF FUNDS	SCHEDULE	CURRENT YEAR	PREVIOUS YEAR
EXPENDITURE			
Staff Payment & Benefits (Establishment Expenses)	15	68,63,74,622	45,05,52,453
Academic Expenses	16	21,43,73,497	20,04,58,984
Administrative and General Expenses	17	4,38,92,248	33,96,32,430
Transportation Expenses	18	16,30,587	27,33,112
Repairs & Maintenance	19	5,75,92,097	5,87,98,938
Finance Costs	20	48,259	1,80,421
Depreciation	4	35,66,74,424	35,80,91,546
Other Expenses	21	3,37,84,000	3,77,19,000
Prior Period Expenses	22	-	-
TOTAL (B)		**1,39,43,69,734**	**1,44,81,66,883**
Balance being excess of Income over Expenditure (A-B)		**25,80,11,795**	**26,63,46,490**
Transferred to Corpus Fund		-	-
Building Fund		-	-
Others (specify)		-	-
Balance Being Surplus / (deficit) **Carried to Capital Fund**		**25,80,11,795**	**26,63,46,490**
SIGNIFICANT ACCOUNTING POLICIES	23		
CONTINGENT LIABILITIES AND NOTES TO ACCOUNTS	24		

Date: The 22nd October, 2021
Place: Silchar

Registrar **Director**

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH 2021

SCHEDULE - 1 : CAPITAL FUND

Amount in Rupees

	Particulars	CURRENT YEAR	PREVIOUS YEAR
A.	**CAPITAL FUND : Balance at the beginning of the year**	**5,33,61,05,097**	**5,19,61,64,882**
Less:	Reappropriation of Capital Fund of earlier year against refund to Minisrty (as per Audit Comment)	-	-
Add:	Excess of Income over Expenditure transferred from Income & Exp A/C	25,80,11,795	26,63,46,490
Less:	Depreciation on Capital Assets	35,66,74,424	35,80,91,546
	Total	**5,23,74,42,468**	**5,10,44,19,825**
Add:	Grants from Govt. of India to the extent utilized for Capital expenditure	18,84,91,943	23,16,85,272
Add:	Reappropriation of Capital Fund of earlier year against refund to Minisrty	-	-
Add:	Unclaimed Liability W/off	-	-
	BALANCE AT THE YEAR END	**5,42,59,34,410**	**5,33,61,05,097**

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH 2021

SCHEDULE - 2 : DESIGNATED / EARMARKED / ENDOWMENT FUNDS

Amount in Rupees

Particulars	Fund wise Breakup					Total	
	Pension Fund	Depreciation Fund	Maintenance Fund	Staff Dev. Fund	Student Welfare Fund	Current Year	Previous Year
(1): A.							
a) Opening Balance	-	18,72,06,912	18,20,06,901	2,05,15,770	8,28,314	39,05,57,897	36,80,95,061
b) Additions during the year	73,85,881	8,97,000	-	8,97,000	2,23,636	94,03,517	80,51,365
c) Income from Investments made of the funds	-	89,51,220	89,51,220	11,93,496	-	1,90,95,936	-
d) Accrued Interest on Investments	-	32,71,180	46,11,718	1,38,706	-	80,21,604	1,78,86,481
e) Interest on Savings Bank a/c.	-	33,986	2,76,010	4,644	-	3,14,640	33,94,399
f) Interest on TDS Received	-	-	-	-	-	-	1,07,884
Less: Excess Provision of TDS on accrued interest	-	-	-	-	-	-	4,52,525
Total (A)	**73,85,881**	**20,03,60,298**	**19,58,45,849**	**2,27,49,616**	**10,51,950**	**42,73,93,594**	**39,70,82,665**
B : Utilization /Expenditure towards objective of funds							
i) Capital Expenditure	-	-	-	-	-	-	-
ii) Revenue Expenditure	73,85,881	-	-	-	23,525	74,09,406	65,24,768
Total (B)	**73,85,881**	**-**	**-**	**-**	**23,525**	**74,09,406**	**65,24,768**
Closing balance at the year end (1) (A-B)	**-**	**20,03,60,298**	**19,58,45,849**	**2,27,49,616**	**10,28,425**	**41,99,84,188**	**39,05,57,897**
Represented by							
Cash and Bank Balances	-	5,81,801	8,26,001	1,44,426	-	15,52,228	12,37,588
Investment	-	15,14,74,760	15,03,24,760	1,89,09,968	-	32,07,09,488	28,37,50,000
SBI MF (Savings Fund)	-	4,24,50,000	3,90,00,000	18,00,000	-	8,32,50,000	8,32,50,000
Interest accrued but not due	-	32,82,871	46,22,460	1,39,202	-	80,44,533	1,78,86,481
TDS Receivable	-	-	-	-	-	-	-
Balance lying with Institute A/c	-	25,70,866	10,72,628	17,56,020	10,28,425	64,27,939	44,33,828
Total	**-**	**20,03,60,298**	**19,58,45,849**	**2,27,49,616**	**10,28,425**	**41,99,84,188**	**39,05,57,897**

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR
SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH 2021

SCHEDULE - 2 : DESIGNATED / EARMARKED / ENDOWMENT FUNDS

Amount in Rupees

Particulars	Fund wise Breakup					Total	
	Instt. Dev. Fund	Employees Welfare Fund	Deptt. Promotion Fund	Virtual Class Room	NMEICT Fund	Current Year	Previous Year
(2) : A.							
a) Opening Balance	34,13,244	6,07,779	34,13,244	1,91,656	1,42,420	77,68,343	67,68,171
b) Additions during the year	8,94,546	2,23,637	8,94,546	-	-	20,12,729	10,81,775
c) Income from Investments made of the funds	-	-	-	-	-	-	-
d) Accrued Interest on Investments/Advances	-	-	-	-	-	-	-
e) Interest on Savings Bank a/c.	-	-	-	-	-	-	-
f) Other additions (specify nature)	-	-	-	-	-	-	-
Total (A)	**43,07,790**	**8,31,416**	**43,07,790**	**1,91,656**	**1,42,420**	**97,81,072**	**78,49,946**
B : Utilization /Expenditure towards objective of funds							
i) Capital Expenditure	-	-	-	-	-	-	-
ii) Revenue Expenditure	-	9,751	-	-		9,751	81,603
	-	-	-	-	-	-	-
Total (B)	-	9,751	-	-	-	**9,751**	81,603
Closing balance at the year end (2): (A-B)	**43,07,790**	**8,21,665**	**43,07,790**	**1,91,656**	**1,42,420**	**97,71,321**	**77,68,343**
Represented by							
Cash and Bank Balances	-	-	-	-	-	-	-
Investment	-	-	-	-	-	-	-
Interest accrued but not due	-	-	-	-	-	-	-
Balance lying with Institute A/c	43,07,790	**8,21,665**	**43,07,790**	**1,91,656**	**1,42,420**	97,71,321	**77,68,343**
Total	**43,07,790**	**8,21,665**	**43,07,790**	**1,91,656**	**1,42,420**	**97,71,321**	**77,68,343**

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH 2021

SCHEDULE - 2 : DESIGNATED / EARMARKED / ENDOWMENT FUNDS

Amount in Rupees

Particulars	Fund wise Breakup					Total	
		Student Aid Fund	Corpus Fund			Current Year	Previous Year
(3) : A.							
a) Opening Balance	-	69,04,706	70,27,60,832	-	-	70,96,65,538	68,53,30,493
b) Additions during the year	-	14,95,000	61,80,922	-	-	76,75,922	47,04,015
c) Income from Investments made of the funds	-	-	1,84,99,188	-	-	1,84,99,188	-
d) Accrued Interest on Investments	-	-	2,44,91,108	-	-	2,44,91,108	1,73,94,345
e) Interest on Savings Bank a/c.	-	-	2,16,358	-	-	2,16,358	23,16,078
f) Interest on TDS Received	-	-	-	-	-	-	24,853
g) Surplus of Income & Expenditure A/c transferred	-	-	-	-	-	-	-
Less: Excess Provision of TDS on accrued interest	-	-	-	-	-	-	1,04,246
Total (A)	**-**	**83,99,706**	**75,21,48,408**	**-**	**-**	**76,05,48,114**	**70,96,65,538**
B : Utilization /Expenditure towards objective of funds							
i) Capital Expenditure	-	-	-	-	-	-	-
ii) Revenue Expenditure	-	-	-	-	-	-	-
Total (B)	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Closing balance at the year end (3): (A-B)	**-**	**83,99,706**	**75,21,48,408**	**-**	**-**	**76,05,48,114**	**70,96,65,538**
Represented by							
Cash and Bank Balances	-	-	25,36,011	-	-	25,36,011	23,27,872
Investment	-	-	39,15,54,504	-	-	39,15,54,504	35,57,50,000
SBI MF (Savings Fund)	-	-	32,32,50,000	-	-	32,32,50,000	32,32,50,000
Interest accrued but not due	-	-	2,45,80,137	-	-	2,45,80,137	1,73,94,345
TDS Receivable	-	-		-	-	-	-
Balance lying with Institute A/c	-	83,99,706	1,02,27,756	-	-	1,86,27,462	1,09,43,321
Total	**-**	**83,99,706**	**75,21,48,408**	**-**	**-**	**76,05,48,114**	**70,96,65,538**
Closing balance at the year end (1+2+3)	**43,07,790**	**20,95,81,669**	**95,23,02,047**	**2,29,41,272**	**11,70,845**	**1,19,03,03,623**	**1,10,79,91,778**

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH 2021

SCHEDULE : 2A : DESIGNATED / EARMARKED / ENDOWMENT FUNDS

Amount in Rupees

Sl. No.	Name of the Endowment	Opening Balance		Addition during the year		Total		Expenditure on the object during the year	Closing Balance		Total (10+11)
		Endowment	Accumulated Interest	Endowment	Interest	Endowment (3+5)	Accumulated Interest (4+6)		Endowment	Accumulated Interest	
1	2	3	4	5	6	7	8	9	10	11	12
1	Depreciation Fund	12,42,34,160	6,29,72,752	8,97,000	1,22,56,386	12,51,31,160	7,52,29,138	-	12,51,31,160	7,52,29,138	20,03,60,298
2	Maintenance Fund	11,96,60,204	6,23,46,697	-	1,38,38,948	11,96,60,204	7,61,85,645	-	11,96,60,204	7,61,85,645	19,58,45,849
3	Staff Dev. Fund	1,40,21,915	64,93,855	8,97,000	13,36,846	1,49,18,915	78,30,701	-	1,49,18,915	78,30,701	2,27,49,616
4	Student Welfare Fund	8,28,314	-	2,23,636	-	10,51,950		23,525	10,28,425	-	10,28,425
5	Instt. Dev. Fund	34,13,244	-	8,94,546	-	43,07,790	-	-	43,07,790	-	43,07,790
6	Employees Welfare Fund	6,07,779	-	2,23,637	-	8,31,416		9,751	8,21,665		8,21,665
7	Deptt. Promotion Fund	34,13,244	-	8,94,546	-	43,07,790	-	-	43,07,790	-	43,07,790
8	Virtual Class Room	1,91,656	-	-	-	1,91,656	-	-	1,91,656	-	1,91,656
9	NMEICT Fund	1,42,420	-	-	-	1,42,420	-	-	1,42,420	-	1,42,420
10	Pension Fund	-	-	73,85,881	-	73,85,881	-	73,85,881	-	-	-
11	Student Aid Fund	69,04,706	-	14,95,000	-	83,99,706	-	-	83,99,706	-	83,99,706
12	Corpus Fund	63,03,04,384	7,24,56,448	61,80,922	4,32,06,654	63,64,85,306	11,56,63,102	-	63,64,85,306	11,56,63,102	75,21,48,408
	TOTAL	**90,37,22,026**	**20,42,69,752**	**1,90,92,168**	**7,06,38,834**	**92,28,14,194**	**27,49,08,586**	**74,19,157**	**91,53,95,037**	**27,49,08,586**	**1,19,03,03,623**

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH 2021

SCHEDULE : 3 : CURRENT LIABILITIES AND PROVISIONS

Amount in Rupees

PARTICULARS	CURRENT YEAR	PREVIOUS YEAR
A. CURRENT LIABILITIES		
Deposits from staff	37,58,096	39,91,410
Deposits from Students	3,37,11,926	3,64,03,926
For Goods & Services	1,02,59,782	67,56,008
Others	-	-
Deposits - Others (including EMD, Security Deposit & Project)	1,12,07,265	1,05,59,666
Statutory Liabilities (GSLI, P Tax, EPF, CPF)	1,23,67,772	73,35,082
Other Current Liabilities:		
Sponsored Project Liability (Including P Tax and others)	77,00,345	84,39,085
Receipts against sponsored projects	5,42,73,136	6,11,47,228
Receipts against sponsored fellowships & Scholarship	62,77,495	55,79,471
Unutilized /Deficit Grants :-		
Under Non Recurring Grants (OH-35)	**-3,39,12,145**	7,95,79,798
Under Recurring Grants (OH-31)	**-8,47,33,940**	4,78,77,116
Under Recurring Grants (OH-36)	44,43,095	13,82,16,349
TEQIP PHASE-I	10,31,65,960	10,31,65,960
TEQIP PHASE-II	9,60,64,457	9,60,64,457
Other funds including Sponsored Projects (Previous)	5,64,63,694	5,63,32,201
Other liabilities	15,72,51,914	12,28,58,236
Total (A)	**43,82,98,852**	**78,43,05,993**
B. PROVISIONS		
For Taxation	-	-
Gratuity	-	-
Superannuation Pension	-	-
Others if any	-	-
Total (B)		**-**
TOTAL (A+B)	**43,82,98,852**	**78,43,05,993**

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH 2021

SCHEDULE : 3A : SPONSORED PROJECTS FUND

Amount in Rupees

Sl. No.	Name of the Project	Opening Balance		Receipts during the year		Total	Expenditure during the year	Refund to Ministry /Unspent Balance	Closing Balance	
		Credit	Debit	Grants	Interest/ Other Receipts				Credit	Debit
1	2	3	4	5	6	7	8	9	10	11
A	MCIT, GoI	23,38,478	-	1,66,139	64,018	25,68,635	19,05,255	-	6,63,380	
B	DST, GoI	1,45,77,298	-	18,95,666	4,32,629	1,69,05,593	34,01,978	13,51,824	1,21,51,791	-
C	MNRE, GoI	1,17,234	-	-	3,648	1,20,882	-	-	1,20,882	-
D	MoESc., GoI	28,465	-	-	974	29,439	-	-	29,439	-
E	ICSSR	96,662	-	-	2,340	99,002	69,998	-	29,004	-
F	SERB, GoI	3,36,80,397	-	1,29,14,260	9,28,189	4,75,22,846	1,62,53,314	17,68,408	2,95,01,124	-
G	IBM	9,63,725	-	-	49,986	10,13,711	-	-	10,13,711	-
H	AICTE -RPS	1,64,912	-	-	5,132	1,70,044	-	-	1,70,044	-
I	AICTE -MODROBS	16,82,771	-	-	46,236	17,29,007	-	-	17,29,007	-
J	BRNS	2,73,110	-	-	8,497	2,81,607	-	-	2,81,607	-
K	NRRDA	-	-	-	-	-	-	-	-	-
L	DEITY/MEITY (incl. Instt share)	6,73,786	-	6,01,700	2,003	12,77,489	3,70,144	3,58,342	5,49,003	-
M	SPARC	38,37,517	-	-	83,510	39,21,027	17,05,248	-	22,15,779	-
N	CPRI	3,05,432	-	-	-	3,05,432	-	3,05,432	-	-
O	NMHS	13,72,160	-	13,61,600	39,357	27,73,117	2,02,097	-	25,71,020	-
P	DDMA	-	-	-	-	-	-	-	-	-
Q	CSIR	7,82,352	-	32,62,500	70,956	41,15,808	9,20,472	-	31,95,336	-
R	ARDB	2,52,931		-	5,373	2,58,304	1,90,833	15,461	52,010	
TOTAL		**6,11,47,228**	**-**	**2,02,01,865**	**17,42,848**	**8,30,91,941**	**2,50,19,339**	**37,99,467**	**5,42,73,136**	**-**

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH 2021

SCHEDULE - 3 (1): SPONSORED PROJECTS FUNDS

Amount in Rupees

Particulars	Fund wise Breakup									Total	
	MCIT	DST	MOES	ICSSR	MNRE	DIETY / MEITY	CPRI	NMHS	BRNS	Current Year	Previous Year
(1): A.											
a) Opening Balance	23,38,478	1,45,77,298	28,465	96,662	1,17,234	6,73,786	3,05,432	13,72,160	2,73,110	1,97,82,624	1,56,11,386
b) Additions during the year	1,66,139	18,95,666	-	-	-	6,01,700	-	13,61,600	-	40,25,105	1,81,41,449
c) Interest on Savings Bank a/c.	64,018	4,00,498	974	2,340	3,648	2,003	-	33,357	8,497	5,15,335	6,00,876
d) Other additions	-	32,131	-	-	-	-	-	6,000	-	38,131	-
e) Loan from Institute	-	-	-	-	-	-	-	-	-	-	-
Total (A)	**25,68,635**	**1,69,05,593**	**29,439**	**99,002**	**1,20,882**	**12,77,489**	**3,05,432**	**27,73,117**	**2,81,607**	**2,43,61,195**	**3,43,53,711**
B : Utilization /Expenditure towards objective of funds											
i) Capital Expenditure											
Equipment	-	18,05,473	-	-	-	-	-	-	-	18,05,473	48,87,589
Computer	-	-	-	-	-	-	-		-	-	-
Software	-	-	-	-	-	-	-	-	-	-	-
Furniture	-	-	-	-	-	-	-	-	-	-	-
Other Cost	-	-	-	-	-	-	-	-	-	-	-
ii) Revenue Expenditure	19,05,255	15,96,505	-	69,998	-	3,70,144	-	2,02,097	-	41,43,999	90,58,838
iii) Refunded to Sanctioning authority	-	13,51,824	-	-	-	3,58,342	3,05,432	-	-	20,15,598	6,24,661
iv) Refund of Loan to Institute	-	-	-	-	-	-	-	-	-	-	-
Total (B)	**19,05,255**	**47,53,802**	**-**	**69,998**	**-**	**7,28,486**	**3,05,432**	**2,02,097**	**-**	**79,65,070**	**1,45,71,088**
Closing balance at the year end (1) (A-B)	**6,63,380**	**1,21,51,791**	**29,439**	**29,004**	**1,20,882**	**5,49,003**	**-**	**25,71,020**	**2,81,607**	**1,63,96,125**	**1,97,82,624**

SCHEDULE - 3 (1): SPONSORED PROJECTS FUNDS

Amount in Rupees

Particulars	Fund wise Breakup									Total	
	AICTE - RPS	AICTE - MODROB	I B M Project	S E R B	NRRDA	SPARC	DDMA	CSIR	ARDB	Current Year	Previous Year
(2) : A.											
a) Opening Balance	1,64,912	16,82,771	9,63,725	3,36,80,397	-	38,37,517	-	7,82,352	2,52,931	4,13,64,605	1,95,18,962
b) Additions during the year	-	-	-	1,29,14,260	-	-	-	32,62,500	-	1,61,76,760	3,20,57,513
c) Interest on Savings Bank a/c.	5,132	46,236	49,986	9,28,189	-	83,510	-	70,956	5,373	11,89,382	8,51,886
d) Other additions (specify nature)	-	-	-	-	-	-	-	-	-	-	-
Total (A)	**1,70,044**	**17,29,007**	**10,13,711**	**4,75,22,846**	**-**	**39,21,027**	**-**	**41,15,808**	**2,58,304**	**5,87,30,747**	**5,24,28,361**
B : Utilization /Expenditure towards objective of funds											
i) Capital Expenditure											
Equipment	-	-	-	93,95,080	-	-	-	8,32,561	-	1,02,27,641	34,04,543
Computer	-	-	-	-	-	-	-	-	-	-	-
Software	-	-	-	-	-	-	-	-	-	-	-
Furniture	-	-	-	-	-	-	-	-	-	-	-
Books	-	-	-	-	-	-	-	-	-	-	-
ii) Revenue Expenditure	-	-	-	68,58,234	-	17,05,248	-	87,911	1,90,833	88,42,226	66,44,740
iii) Refunded to Sanctioning authority	-	-	-	17,68,408		-	-	-	15,461	17,83,869	10,14,474
Total (B)	**-**	**-**	**-**	**1,80,21,722**	**-**	**17,05,248**	**-**	**9,20,472**	**2,06,294**	**2,08,53,736**	**1,10,63,757**
Closing balance at the year end (2): (A-B)	**1,70,044**	**17,29,007**	**10,13,711**	**2,95,01,124**	**-**	**22,15,779**	**-**	**31,95,336**	**52,010**	**3,78,77,011**	**4,13,64,605**
Closing balance at the year end (1+2)	**8,33,424**	**1,38,80,798**	**10,43,150**	**2,95,30,128**	**1,20,882**	**27,64,782**	**-**	**57,66,356**	**3,33,617**	**5,42,73,136**	**6,11,47,228**

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH 2021

SCHEDULE : 3B : SPONSORED FELLOWSHIPS AND SCHOLARSHIPS

Amount in Rupees

Sl. No.	Name of the Sponsors	Opening Balance		Transaction during the year		Closing Balance as on 31.03.2021	
		Credit	Debit	Credit	Debit	Credit	Debit
1	2	3	4	5	6	7	8
1	Various Agencies	55,79,471	-	28,51,629	21,53,605	62,77,495	-
Total		55,79,471	-	28,51,629	21,53,605	62,77,495	-

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

SCHEDULE 4 - FIXED ASSETS

Amount in Rupees

S. No	Assets Heads	Gross Block				Depreciation for the Year 2020-21				Net Block	
	TANGIBLE ASSETS	Opening Balance as on 01.04.2020	Additions	Deduction	Cl. Balance	Dep. Opening Balance	Depreciation for the Year	Deductions/ Adjustment	Total Depreciations	31.03.2021	31.03.2020
1	Land	8,66,458	-	-	8,66,458	-	-	-	-	8,66,458	8,66,458
2	Site & Campus Development	6,42,29,140	1,00,83,539	-	7,43,12,679	2,32,97,331	20,76,281	-	2,53,73,612	4,89,39,067	4,09,31,809
3	Buildings	5,22,40,22,178	2,36,63,800	-	5,24,76,85,978	1,06,25,03,645	20,82,11,402	-	1,27,07,15,047	3,97,69,70,931	4,16,15,18,533
4	Roads & Bridges	11,17,48,381	1,13,42,887	-	12,30,91,268	2,46,67,703	46,55,888	-	2,93,23,591	9,37,67,677	8,70,80,678
5	Tubewells & Water Supply	18,65,06,164	-	-	18,65,06,164	5,35,54,426	66,47,586	-	6,02,02,012	12,63,04,152	13,29,51,738
6	Sewerage & Drainage	5,95,92,554	-	-	5,95,92,554	57,62,580	26,91,498	-	84,54,078	5,11,38,476	5,38,29,974
7	Electrical Installation & Equipment	7,98,06,650	91,89,819	4,77,010	8,85,19,459	2,91,37,081	82,53,202	-	3,73,90,283	5,11,29,176	5,06,69,569
8	Plant & Machinery	11,95,27,175	3,35,425	2,50,890	11,96,11,711	7,23,23,844	68,85,074	-	7,92,08,918	4,04,02,793	4,72,03,331
9	Scientific & Laboratory Equipment	39,00,95,307	3,21,76,662	-	42,22,71,969	21,84,87,481	2,62,66,561	-	24,47,54,043	17,75,17,927	17,16,07,826
10	Office Equipment	2,09,80,444	-	-	2,09,80,444	1,43,95,165	9,87,792	-	1,53,82,957	55,97,487	65,85,279
11	Audio Visual Equipment	1,06,97,309	45,98,559	-	1,52,95,868	65,86,535	9,37,886	-	75,24,421	77,71,447	41,10,774
12	Computers & Peripherials	22,18,03,033	1,97,32,976	-	24,15,36,009	16,08,90,917	2,16,55,158	-	18,25,46,075	5,89,89,934	6,09,12,116
13	Furniture, Fixtures & Fittings	16,88,89,703	96,79,847	-	17,85,69,550	8,27,12,055	89,54,878	-	9,16,66,933	8,69,02,617	8,61,77,648
14	Vehicles	70,13,115	-	-	70,13,115	49,51,246	4,12,374	-	53,63,620	16,49,495	20,61,869
15	Lib. Books & Scientific Journals	6,92,32,591	22,96,449	-	7,15,29,040	5,77,54,056	35,94,662	-	6,13,48,718	1,01,80,322	1,14,78,535
16	Other Assets	11,07,97,073	92,30,644	-	12,00,27,717	7,60,86,364	1,08,97,406	-	8,69,83,770	3,30,43,947	3,47,10,709
	Total (A)	**6,84,58,07,276**	**13,23,30,607**	**7,27,900**	**6,97,74,09,983**	**1,89,31,10,430**	**31,31,27,648**	**-**	**2,20,62,38,078**	**4,77,11,71,905**	**4,95,26,96,846**
17	**Capital Works in Progress (B)**	**58,28,591**	**2,00,600.00**		**60,29,191**	-	-	-	-	**60,29,191**	**58,28,591**
	INTANGIBLE ASSETS :										
18	Computer Software	7,97,68,271	1,55,02,633	-	9,52,70,904	3,48,56,069	68,89,364	-	4,17,45,433	5,35,25,471	4,49,12,202
19	E- Books (Perpetueal Assets)	1,96,35,390	28,67,621	-	2,25,03,011	-	-	-	-	2,25,03,011	1,96,35,390
20	E-Journals	16,88,26,245	3,54,49,300	-	20,42,75,545	16,88,26,245	3,37,88,331	-	20,26,14,576	16,60,969	-
21	E Books	-	28,69,081	-	28,69,081	-	28,69,081	-	-	-	-
22	Patents	2,99,251	-	-	2,99,251	-	-	-	-	2,99,251	2,99,251
	Total (C)	**26,85,29,157**	**5,66,88,635**	**-**	**32,52,17,792**	**20,36,82,314**	**4,35,46,776**	**-**	**24,43,60,009**	**7,79,88,702**	**6,48,46,843**
23	**TEQIP I Assets (D)**	**10,31,65,960**	**-**	**-**	**10,31,65,960**	**-**	**-**	**-**	**-**	**10,31,65,960**	**10,31,65,960**
24	**TEQIP II Assets (E)**	**9,60,64,457**	**-**	**-**	**9,60,64,457**	**-**	**-**	**-**	**-**	**9,60,64,457**	**9,60,64,457**
	Grand Total (A+B+C+D+E)	**7,31,93,95,440**	**18,92,19,842**	**7,27,900**	**7,50,78,87,383**	**2,09,67,92,743**	**35,66,74,424**	**-**	**2,45,05,98,087**	**5,05,44,20,215**	**5,22,26,02,697**

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

SCHEDULE 4(C) (I) - PATENTS AND COPYRIGHTS

Amount in Rupees

Particulars	Op Balance 01.04.2020	Additions	Gross	Amortization	Net Block 2020-21	Net Block 2019-20
A. Patents Granted						
1. Balance as on 31.03.2016 of Patents obtained in 2008-09	-	-	-	-	-	-
(Original Value - Rs.)						
2. Balance as on 31.03.2016 of Patents obtained in 2010-11	-	-	-	-	-	-
(Original Value - Rs.)						
3. Balance as on 31.03.2016 of Patents obtained in 2012-13	-	-	-	-	-	-
(Original Value - Rs.)						
4. Patents granted during the Current Year	-	-	-	-	-	-
Total	-	-	-	-	-	-

Particulars	Op Balance	Additions	Gross	Amortization	Net Block 2020-21	Net Block 2019-20
B. Patents Pending in respect of Patents applied for:						
1. Expenditure incurred during 2013-14	-	-	-	-	-	-
2. Expenditure incurred during 2014-15	-	-	-	-	-	-
3. Expenditure incurred during 2015-16	42,180	-	42,180	-	-	42,180
4. Expenditure incurred during 2016-17	83,551	-	83,551	-	-	83,551
5. Expenditure incurred during 2017-18	1,25,790	-	1,25,790	-	-	1,25,790
6. Expenditure incurred during 2018-19	47,730	-	47,730	-	-	47,730
7. Expenditure incurred during 2019-20	-	-	-	-	-	-
8. Expenditure incurred during 2020-21	-	-	-	-	-	-
Total	2,99,251	-	2,99,251	-	-	2,99,251
Grand Total (A+B)	**2,99,251**	**-**	**2,99,251**	**-**	**-**	**2,99,251**

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH 2021

SCHEDULE : 5 : INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS

Amount in Rupees

PARTICULARS	CURRENT YEAR	PREVIOUS YEAR
1. In Central Government Securities	-	-
2. In State Government Securities	-	-
3. Other approved Securities	-	-
4. Shares	-	-
5. SBI Mutual Fund : Saving Fund	40,65,00,000	40,65,00,000
6. **Term Deposits with Banks**		
Investment of Corpus Fund	39,15,54,504	35,57,50,000
Investment of Depreciation Fund	15,14,74,760	13,41,50,000
Investment of Maintenance Fund	15,03,24,760	133000000
Investment of Staff Development Fund	1,89,09,968	1,66,00,000
7. Others	-	-
Total	**1,11,87,63,992**	**1,04,60,00,000**

SCHEDULE : 6 : INVESTMENTS - OTHERS

PARTICULARS	CURRENT YEAR	PREVIOUS YEAR
1. In Central Government Securities	-	-
2. In State Government Securities	-	-
3. Other approved Securities	-	-
4. Shares	-	-
5. Debantures and Bonds	-	-
6. Term Deposits with Banks: Short Term Deposit	34,29,74,487	30,00,00,000
7. Others : Margin Money Account (L.C.)	-	18,53,621
Total	**34,29,74,487**	**30,18,53,621**

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

SCHEDULE SHOWING INVESTMENTS OF EARMARKED AND OTHER FUNDS AS ON 31.03.2021 (Corresponding to Schedule - 5 & 6)

Amount in Rupees

Sl	Bank	F.D No	Date	Face Value as on 31.03.2020	Addition during 2020-21	Matured / encashed during 2020-21	Face Value as on 31.03.2021	Accrured Interets upto 31.03.2020	Accrued Interest earned during 2020-21	Accrued Intt. Recd. during 2020-21	Interest Recd during 2020-21	Accrured Interests Upto 31.03.2021
A	Corpus Fund											
1	SBI NIT Sil	38362343252	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
2	- do -	36362381549	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
3	- do -	38362382270	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
4	- do -	38362382746	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
5	- do -	38362383386	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
6	- do -	38362385612	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
7	- do -	38362386285	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
8	- do -	38362386808	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
9	- do -	38362387369	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
10	- do -	38362387937	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
11	- do -	38362388512	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
12	- do -	38362388986	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
13	- do -	38362389479	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
14	- do -	38362390008	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
15	- do -	38362397162	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
16	- do -	38362397707	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
17	- do -	38362401624	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
18	- do -	38362402673	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
19	- do -	38362411780	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
20	- do -	3836412230	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
21	- do -	38362412897	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
22	- do -	38362413324	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
23	- do -	38362414135	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
24	- do -	38362415093	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
25	- do -	38362415616	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
26	- do -	38362416198	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
27	- do -	38362416686	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
28	- do -	38362417205	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
29	- do -	38362417873	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
30	- do -	38362418298	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
31	- do -	38362483733	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
32	- do -	39238647608	27.03.2020	80,00,000	-	-	80,00,000	6,610	6,50,734	-	-	6,57,344
33	- do -	39238648931	27.03.2020	80,00,000	-	-	80,00,000	6,610	6,50,734	-	-	6,57,344

Sl	Bank	F.D No	Date	Face Value as on 31.03.2020	Addition during 2020-21	Matured / encashed during 2020-21	Face Value as on 31.03.2021	Accrued Interets upto 31.03.2020	Accrued Interest earned during 2020-21	Accrued Intt. Recd. during 2020-21	Interest Recd during 2020-21	Accrured Interests Upto 31.03.2021
34	- do -	39238649059	27.03.2020	80,00,000	-	-	80,00,000	6,610	6,50,734	-	-	6,57,344
35	- do -	39238649082	27.03.2020	80,00,000	-	-	80,00,000	6,610	6,50,734	-	-	6,57,344
36	- do -	39238649117	27.03.2020	80,00,000	-	-	80,00,000	6,610	6,50,734	-	-	6,57,344
37	- do -	39238649151	27.03.2020	80,00,000	-	-	80,00,000	6,610	6,50,734	-	-	6,57,344
38	- do -	39238649195	27.03.2020	80,00,000	-	-	80,00,000	6,610	6,50,734	-	-	6,57,344
39	- do -	39238649220	27.03.2020	80,00,000	-	-	80,00,000	6,610	6,50,734	-	-	6,57,344
40	- do -	39238649253	27.03.2020	80,00,000	-	-	80,00,000	6,610	6,50,734	-	-	6,57,344
41	- do -	39238649311	27.03.2020	80,00,000	-	-	80,00,000	6,610	6,50,734	-	-	6,57,344
42	- do -	39238649297	27.03.2020	80,00,000	-	-	80,00,000	6,610	6,50,734	-	-	6,57,344
43	- do -	39238649355	27.03.2020	80,00,000	-	-	80,00,000	6,610	6,50,734	-	-	6,57,344
44	- do -	39238649446	27.03.2020	80,00,000	-	-	80,00,000	6,610	6,50,734	-	-	6,57,344
45	- do -	39238649661	27.03.2020	37,50,000	-	-	37,50,000	3,099	3,05,031	-	-	3,08,130
46	- do -	SBI Saving Fund	31.03.2020	32,32,50,000	-	-	32,32,50,000	-	1,57,26,535	-	-	1,57,26,535
TOTAL				**67,90,00,000**	**28,38,04,504**	**24,80,00,000**	**71,48,04,504**	**1,73,94,345**	**2,44,91,108**	**1,73,05,316**	**1,84,99,188**	**2,45,80,137**
B	**Depreciation Fund**											
1	SBI NIT Sil	38362321545	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
2	- do -	38362340422	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
3	- do -	38362341299	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
4	- do -	38362345227	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
5	- do -	38362345884	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
6	- do -	38362346468	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
7	- do -	38362347075	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
8	- do -	38362347532	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
9	- do -	38362348308	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
10	- do -	38362348807	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
11	- do -	38362349469	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
12	- do -	38362350779	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
13	- do -	38362351503	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
14	- do -	38362353747	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
15	- do -	38362341903	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
16	- do -	39238649923	27.03.2020	61,50,000	-	-	61,50,000	5,081	5,00,252	-	-	5,05,333
17	- do -	39238649876	27.03.2020	80,00,000	-	-	80,00,000	6,610	6,50,734	-	-	6,57,344
18	- do -	SBI Saving Fund	31.03.2020	4,24,50,000	-	-	4,24,50,000	-	21,20,194	-	-	21,20,194
TOTAL				**17,66,00,000**	**13,73,24,760**	**12,00,00,000**	**19,39,24,760**	**83,85,231**	**32,71,180**	**83,73,540**	**89,51,220**	**32,82,871**
C	**Maintenance Fund**											
1	SBI NIT Sil	38362366451	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
2	- do -	38362367159	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-

Sl	Bank	F.D No	Date	Face Value as on 31.03.2020	Addition during 2020-21	Matured / encashed during 2020-21	Face Value as on 31.03.2021	Accrued Interets upto 31.03.2020	Accrued Interest earned during 2020-21	Accrued Intt. Recd. during 2020-21	Interest Recd during 2020-21	Accrured Interests Upto 31.03.2021
3	- do -	38362367692	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
4	- do -	38362368244	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
5	- do -	38362368890	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
6	- do -	38362329758	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
7	- do -	36362361588	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
8	- do -	38362362344	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
9	- do -	38362362821	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
10	- do -	38362363201	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
11	- do -	38362363788	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
12	- do -	38362364238	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
13	- do -	38362364737	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
14	- do -	38362365209	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
15	- do -	38362365804	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
16	- do -	39238649990	27.03.2020	65,00,000	-	-	65,00,000	5,371	5,28,721	-	-	5,34,092
17	- do -	39238649956	27.03.2020	65,00,000	-	-	65,00,000	5,371	5,28,721	-	-	5,34,092
18	- do -	SBI MMD Fund	31.03.2020	3,90,00,000	-	-	3,90,00,000	-	35,54,276	-	-	35,54,276
Total				**17,20,00,000**	**13,73,24,760**	**12,00,00,000**	**18,93,24,760**	**83,84,282**	**46,11,718**	**83,73,540**	**89,51,220**	**46,22,460**
D	**Staff Development Fund**											
1	SBI NIT Sil	38362419100	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
2	- do -	38362419164	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	-	5,58,236	5,96,748	-
3	- do -	39238648454	27.03.2020	6,00,000	-	-	6,00,000	496	48,804	-	-	49,300
4	- do -	SBI Saving Fund	31.03.2020	18,00,000	-	-	18,00,000	-	89,902	-	-	89,902
Total				**1,84,00,000**	**1,83,09,968**	**1,60,00,000**	**2,07,09,968**	**11,16,968**	**1,38,706**	**11,16,472**	**11,93,496**	**1,39,202**
Total Earmarked Fund (A+B+C+D)				**1,04,60,00,000**	**57,67,63,992**	**50,40,00,000**	**1,11,87,63,992**	**3,52,80,826**	**3,25,12,712**	**3,51,68,868**	**3,75,95,124**	**3,26,24,670**
E	**RECURRING/NONRECURRING**											
1	SBI NIT Sil	38362521384	30.03.2019	10,00,00,000	11,43,24,829	10,00,00,000	11,43,24,829	69,22,329	-	69,22,329	74,02,500	-
2	- do -	38362504415	30.03.2019	10,00,00,000	11,43,24,829	10,00,00,000	11,43,24,829	69,22,329	-	69,22,329	74,02,500	-
3	- do -	38362522195	30.03.2019	10,00,00,000	11,43,24,829	10,00,00,000	11,43,24,829	69,22,329	-	69,22,329	74,02,500	-
Total				**30,00,00,000**	**34,29,74,487**	**30,00,00,000**	**34,29,74,487**	**2,07,66,987**	**-**	**2,07,66,987**	**2,22,07,500**	**-**
4	**Axis Bank**	**Stock TDR against LC**	31.03.16	15,82,451	-	15,82,451	-	3,20,199	-	3,20,199.0	1,49,779	-
5	**HDFC Bank**	**Stock TDR against LC**	31.03.2020	2,71,170	-	2,71,170	-	-	-	-	21,543	-
Grand Total				**1,34,78,53,621**	**91,97,38,479**	**80,58,53,621**	**1,46,17,38,479**	**5,63,68,012**	**3,25,12,712**	**5,62,56,054**	**5,99,73,946**	**3,26,24,670**

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

BALANCE SHEET AS AT 31ST MARCH 2021

Amount in Rupees

SOURCES OF FUND	SCHEDULE	CURRENT YEAR	PREVIOUS YEAR
CORPUS / CAPITAL FUND	1	5,42,59,34,410	5,33,61,05,097
DESIGNATED / EARMARKED / ENDOWMENT FUNDS	2	1,19,03,03,623	1,10,79,91,778
CURRENT LIABILITIES AND PROVISIONS	3	43,82,98,852	78,43,05,993
TOTAL		**7,05,45,36,885**	**7,22,84,02,868**

APPLICATION OF FUNDS	SCHEDULE	CURRENT YEAR	PREVIOUS YEAR
FIXED ASSETS			
TANGIBLE ASSETS	4	4,97,04,02,322	5,15,19,27,263
INTANGIBLE ASSETS		7,79,88,702	6,48,46,843
CAPITAL WORKS-In-PROGRESS		60,29,191	58,28,591
INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS	5	1,11,87,63,992	1,04,60,00,000
INVESTMENTS - OTHERS	6	34,29,74,487	30,18,53,621
CURRENT ASSETS	7	43,26,35,491	52,53,17,884
LOANS, ADVANCES & DEPOSITS	8	10,57,42,699	13,26,28,666
TOTAL		**7,05,45,36,885**	**7,22,84,02,868**

SIGNIFICANT ACCOUNTING POLICIES	23
CONTINGENT LIABILITIES AND NOTES TO ACCOUNTS	24

Date: The 22nd October, 2021
Place: Silchar

Registrar **Director**

SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH 2021

SCHEDULE : 7 (A) ANNEXURE - CURRENT ASSETS

Amount in Rupees

PARTICULARS	CURRENT YEAR	PREVIOUS YEAR
With Scheduled Banks:		
In Current Accounts		
SBI-10521277057 (NON PLAN)	11,72,87,671	3,05,16,926
SBI-10521277068 (PLAN GRANT)	22,67,59,447	41,19,07,457
SBI-34999649864 ONLINE FEE A/C	1,57,533	20,08,325
HDFC A/C No.-50200039712972	73,10,459	
Total	**35,15,15,110**	**44,44,32,709**
In Savings Accounts		
SBI-10521277818(CORPUS FUND)	25,36,011	23,27,872
SBI-30052416379(STAFF DEV FUN)	1,44,426	1,39,782
SBI-30052438520(DEPRECIATION FUND)	5,81,801	5,47,815
SBI-30052443879(MAINT.FUND)	8,26,001	5,49,991
AXIS-10049704315 (PLAN)	33,29,722	29,20,971
SBI-10521278244 (SCHOLARSHIP)	70,41,108	62,55,276
SBI-30763009570(NONPLAN FEE)	85,47,373	19,53,543
HDFC A/C No.-50200039712972 (Plan)	-	13,83,395
SBI-38478849539 Tendering A/c	26,69,933	14,00,441
SBI-36535392913 (AWARD FUND)	4,83,753	4,70,816
SBI-36017852338 (START UP INDIA FUND)	953	897
SBI-39745824808 (QIP A/C)	18,079	-
SBI-30293190682(TUC)	27,500	7,544
SBI-35538434664 (IEDC)	15,03,653	6,39,523
SBI-30033506221 (SMDP)	52,089	8,04,991
SBI-34671803739 (AM&MT/FIST)	64,45,049	90,95,976
SBI-30780415571(RPS SCHEME)	1,76,53,515	3,05,84,823
SBI-30780416041(MODROBS)	17,29,007	16,82,771
SBI-31306562769(BEHAVIOUR OF CLAY/MoESc)	8,857	8,619
SBI-37093726031 (NHMS)	19,11,887	7,19,027
SBI-31306566082(REG EXTREME RAINFALL)	7,751	26,764
SBI-37808839310 (ARDB)	51,244	2,52,165
SBI 38599144369 (SERB)	2,27,65,827	1,57,67,764
SBI 38692109587 (SPARC)	21,45,796	32,60,517
SBI 39925901632 (MEITY)	5,49,003	-
Total	**8,10,30,336**	**8,08,01,280**

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH 2021

SCHEDULE : 8 : LOANS, ADVANCE AND DEPOSITS

Amount in Rupees

PARTICULARS	CURRENT YEAR	PREVIOUS YEAR
1. Advances to employees (Non-interest bearing) :		
Loan to Staff	36,789	33,229
HTC Advance	22,000	22,000
LTC Advance	10,19,002	22,17,038
Other Advance To Employees (for Medical treatment)	-	-
Recoverable Advance	65,12,070	1,60,66,388
TA Advance	2,68,247	8,43,028
2. Long Term Advances to employees: (Interest bearing) :	-	-
Vehicle Loan	-	-
Home Loan	-	-
Soft Loan	5,13,067	4,93,066
3. Advances & other amt recoverable in cash or in kind or for value to be received :	-	-
On Capital Account	-	-
Deposit Work	11,42,640	11,42,640
Secured Advance	-	-
Advance - PHE Water Supply	124	124
Margin Money for LC	-	-
Suppliers/Firm	-	
Electricity Consumption Receivable	10,769	2,91,161
House Rent / Licence Fee receivable	1,08,735	83,448
Shop & Canteen Rent receivable	-	-
Receivable from Mtech 1st Sem 2020 Betch	27,900	-
Receivable against Start Up India (Project)	15,61,301	15,61,301
Receivable from NE Books	-	843
DST Receivable	1,69,687	1,69,687
Receivable from Ashim Kumar Das (I Tax)	8,040	8,040
Receivable from Consultancy	-	-
Receivable from Scholarship Fund	12,82,766	12,82,766
SMDP Project Receivable	-	-
RPS Project Receivable	-	-
4. Prepaid Expenses :		
Insurance	57,115	36,415
Against E Journal	2,43,77,275	1,30,81,036
E Books	2,47,574	-

PARTICULARS	CURRENT YEAR	PREVIOUS YEAR
5. Deposits :		
APDCL (Electricity)	54,49,323	54,49,323
AICTE	-	-
SBI ATM (TDR)	10,000	10,000
Security for POL	1,62,084	1,62,084
Security against LPG	46,200	46,200
6. Income Accrued :		
On investments from Earmarked / Endowment Fund	3,26,24,670	3,52,80,826
On Investment - Others	-	3,20,199
On Loans and Advances	-	-
Others (including income due unrealized)	-	-
7. Other - Current assets receivable from UGC /Sponsored projects :		
Debit balances in Sponsored Projects	-	-
Debit balances in sponsored Fellowship & Scholarships	-	-
Grants receivable	-	-
Grants receivable from UGC	-	-
Recoverable from MR Staff (EPF Subscription)	27,08,310	27,08,310
TDS Receivable	-	13,41,600
TDS Receivable- Sponsored Project	755	755
TDS Receivable- Others (Non Plan)	3,87,973	2,16,875
Adv to Firm- Balmer lawrie	56,64,416	77,26,249
8. Claims receivable :	**2,13,23,867**	4,20,34,035
Total	**10,57,42,699**	**13,26,28,666**

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

SCHEDULES FORMING PART OF INCOME & EXPENDITURE ACCOUNT

SCHEDULE 9- ACADEMIC RECEIPTS

Amount in Rupees

FEES FROM STUDENTS	CURRENT YEAR	PREVIOUS YEAR
Academic		
1. Tuition fee	15,38,45,453	17,75,09,926
2. Admission fee	70,63,000	69,06,510
3. Enrolment fee	-	-
4. Library Admission fee	33,43,600	37,28,000
5. Laboratory fee - I T System fee	1,03,09,152	74,38,000
6. Art & Craft fee	-	-
7. Registration fee / Institutional fee	-	-
8. Syllabus fee	-	-
Total (A)	**17,45,61,205**	**19,55,82,436**
Examinations		
1. Admission test fee	-	-
2. Annual Examination fee	66,31,850	72,96,280
3. Mark sheet, certificate fee	-	-
4. Entrance fee	-	-
Total (B)	**66,31,850**	**72,96,280**
Others Fees		
1. Identity card fee	-	-
2. Fine/Miscelleneuos fee	7,12,122	18,80,552
3. Medical fee	4,10,190	22,37,070
4. Transportation fee	5,36,300	22,23,700
5. Hostel fee - Light & Water charges	-	-
6. Migration fee	-	-
7. Summer term course fee	7,23,000	14,83,335
Total (C)	**23,81,612**	**78,24,657**

FEES FROM STUDENTS	CURRENT YEAR	PREVIOUS YEAR
Sale of Publications		
1. Sale of Admission forms	-	-
2. Sale of syllabus and question paper, etc.	-	-
3. Sale of prospectus including admission forms	-	-
Total (D)	**-**	**-**
Other Academic Receipts		
1. Registration fee for workshops, training programmes	-	28,000
2. Registration fee (Academic Staff College)	-	-
3. Training & Placement	10,48,000	8,08,500
Total (E)	**10,48,000**	**8,36,500**
Grand Total (A+B+C+D+E)	**18,46,22,667**	**21,15,39,873**

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

SCHEDULES FORMING PART OF INCOME & EXPENDITURE ACCOUNT

SCHEDULE 10- GRANTS/SUBSIDIES (IRRECOVERABLE GRANTS RECEIVED)

Amount in Rupees

Particulars	Current Year				Previous Year			
	OH-35 (Creation of Assets)	OH-31 (Recurring General)	OH-36 (Salaries)	Current Year Total	OH-35 (Creation of Assets)	OH-31 (Recurring General)	OH-36 (Salaries)	Previous Year Total
Balance B/F	7,95,79,798	4,78,77,116	13,82,16,349	26,56,73,263	31,12,65,070	-	23,87,68,802	55,00,33,872
Add: Receipts during the year	7,50,00,000	47,49,00,000	29,64,11,000	84,63,11,000	-	68,74,00,000	35,00,00,000	1,03,74,00,000
Add: Interest earned				-	-	-	-	-
Add: Adjsutment against refunded to Ministry written back				-	-	-	-	-
Total	**15,45,79,798**	**52,27,77,116**	**43,46,27,349**	**1,11,19,84,263**	**31,12,65,070**	**68,74,00,000**	**58,87,68,802**	**1,58,74,33,872**
Less: Utilized for Capital expenditure (A)	18,84,91,943			18,84,91,943	23,16,85,272	-	-	23,16,85,272
Balance	**-3,39,12,145**	**52,27,77,116**	**43,46,27,349**	**92,34,92,320**	**7,95,79,798**	**68,74,00,000**	**58,87,68,802**	**1,35,57,48,600**
Less: Utilized for Revenue expenditure (B)	-	60,75,11,056	43,01,84,254	1,03,76,95,310	-	63,95,22,884	45,05,52,453	1,09,00,75,337
Balance C/F (C)	**-3,39,12,145**	**-8,47,33,940**	**44,43,095**	**-11,42,02,990**	**7,95,79,798**	**4,78,77,116**	**13,82,16,349**	**26,56,73,263**

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

SCHEDULES FORMING PART OF INCOME & EXPENDITURE ACCOUNT

Schedule 11 - INCOME FROM INVESTMENT

Amount in Rupees

Particulars		Earmarked/Endowment Funds		Other Investments	
		CURRENT YEAR	PREVIOUS YEAR	CURRENT YEAR	PREVIOUS YEAR
1	Interest				
	a. On Government Securities	-	-	-	-
	b. Other Bonds/Debentures	-	-	-	-
2	Interest on Term Deposits	-	-	-	-
	Interest on Stock Term Deposits from AXIS Bank	-	-	1,49,779	-
	Interest on Stock Term Deposits from HDFC Bank	-	-	21,543	-
	Interest on Term Deposits against short term deposits.	3,75,95,124	-	2,22,07,500	1,14,00,673
3	Income accrued but not due on Term Deposits	3,25,12,712	3,52,80,826	-	-
4	Interest on Savings Bank Accounts	5,30,998	57,10,477	-	-
5	Last year Interest accrued on Term Deposits accounted during the year	-	-	2,07,66,987	-
Total		**7,06,38,834**	**4,09,91,303**	**4,31,45,809**	**1,14,00,673**
Transferred to Earmarked/Endowment Funds		**7,06,38,834**	**4,09,91,303**		
Balance		**-**	**-**	**4,31,45,809**	**1,14,00,673**

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

SCHEDULES FORMING PART OF INCOME & EXPENDITURE ACCOUNT

SCHEDULE 12: INTEREST EARNED

Amount in Rupees

Particulars	CURRENT YEAR	PREVIOUS YEAR
1 **On Savings Accounts with scheduled banks :**		
Against fee account no. 30763009570	1,20,612	8,46,878
Against Scholarship account no. 10521278244	1,32,641	2,09,024
Interest on Axis Bank account no. 10049704315	38,383	1,80,908
Interest on HDFC Bank A/C No.50200039712972	-	11,179
Interest on E-Tender Account: SBI A/C No.38478849539	55,422	11,355
Interest received on TDS	-	30,381
Total (A)	**3,47,058**	**12,89,725**
2 **On Loans :**		
a. Employees/Staff - Interest on Soft Loan	44,367	77,471
b. Others - Against Interest recovery of LTC/HTC	-	-
Total (B)	**44,367**	**77,471**
3 **On Debtors and Other Receivables**		
Total (C)	**-**	**-**
Grand Total (A+B+C)	**3,91,425**	**13,67,196**

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

SCHEDULES FORMING PART OF INCOME & EXPENDITURE ACCOUNT

SCHEDULE 13- OTHER INCOME

Amount in Rupees

Particulars	CURRENT YEAR	PREVIOUS YEAR
A. Income from Land & Buildings		
1. Hostel room Rent	40,55,820	74,40,183
2. License fee	37,01,896	47,29,413
3. Hire Charges of Auditorium/Play ground/Convention Centre, Shop etc.	2,98,613	14,57,238
4. Guest House Rent	2,00,344	23,73,039
5. Electricity charges recovered	57,41,458	66,58,857
6. Light & Water charges recovered	35,31,710	71,44,000
Total	**1,75,29,841**	**2,98,02,729**
B. Sale of Institute's Publications		
C. Income from holding events		
1. Gross Receipts from annual function/Sports Carnival	-	-
Less: Direct expenditure incurred on the annual function/Sports Carnival	-	-
2. Gross Receipts from fetes	-	-
Less: Direct expenditure incurred on the fetes	-	-
3. Gross Receipts for educational tours	-	-
Less: Direct expenditure incurred on the tours	-	-
4. Others (to be specified and separately disclosed)	-	-
Total	-	-

Particulars	CURRENT YEAR	PREVIOUS YEAR
D. Others		
1. Institute Overhead (Project)	25,27,412	22,20,644
2. RTI Fees	300	558
3. Income from Royalty	-	-
4. Sale of application form (Recruitment)	19,99,784	24,11,839
5. Misc. receipts (Sale of Tender Form)	1,65,497	4,94,500
6. Profit on sale/disposal of Assets	-	-
a) Owned assets	-	-
b) Assets received free of cost	-	-
7. Others (Lake)	-	-
8. Pension Fund Contribution	73,85,881	65,24,768
09. Capital Fund appropriation against Depreciation	35,66,74,424	35,80,91,546
10. Misc. Receipts	2,43,179	5,83,710
Total	**36,89,96,477**	**37,03,27,565**
Grand Total (A+B+C+D)	**38,65,26,318**	**40,01,30,294**

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

SCHEDULES FORMING PART OF INCOME & EXPENDITURE ACCOUNT

SCHEDULE 14- PRIOR PERIOD INCOME

Amount in Rupees

Particulars	Current Year	Previous Year
1. Academic Receipts	-	-
2. Income from Investments	-	-
3. Interest earned	-	-
4. Other Income	-	-
Total	**-**	**-**

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

SCHEDULES FORMING PART OF INCOME & EXPENDITURE ACCOUNT

SCHEDULE 15 - STAFF PAYMENTS & BENEFITS (ESTABLISHMENT EXPENSES)

Amount in Rupees

Particulars	CURRENT YEAR			PREVIOUS YEAR		
	Plan	Recurring	Total	Plan	Recurring	Total
A) Salaries and Wages						
Teaching & Admin	-	36,33,36,183	36,33,36,183	-	34,96,21,674	34,96,21,674
Group B & C	-	1,27,64,405	1,27,64,405	-	1,87,14,839	1,87,14,839
Group D	-	2,68,75,018	2,68,75,018	-	3,22,94,821	3,22,94,821
B) Other Adhoc						
Salary of Contractual Teaching & Admin	-	1,91,33,372	1,91,33,372	-	-	-
Salary of M R Staff	-	1,84,63,669	1,84,63,669	-	-	-
C) Allowances & Bonus						
Cumulative Professional Dev. Allowance	-	73,39,152	73,39,152	-	72,42,613	72,42,613
D) Contribution to Other Fund						
NPS Contribution	-	3,51,26,642	3,51,26,642	-	-	-
Pension contribution (Deputation)	-	-	-		-	-
EPF Contribution(Employer) MR	-	17,93,845	17,93,845	-	-	-
EPF Contribution FFW Workers' Society	-	-	-		-	-
CPF Contribution	-	2,09,916	2,09,916	-	-	-
EPF Contributiion Contractual & others	-	11,10,669	11,10,669	-	-	-
E) Staff Welfare Expenses						
Mobile & Telephone expenditure	-	6,85,170	6,85,170	-	3,35,008	3,35,008
F) Retirement and Terminal Benefits						
Death cum Retirement Gratuity	-	52,27,645	52,27,645	-	1,62,57,950	1,62,57,950
Pension	-	7,79,35,192	7,79,35,192	-	-	-
Commuted Pension	-	42,53,669	42,53,669	-	-	-
Leave Encashment	-	30,51,637	30,51,637	-	72,72,985	72,72,985
Leave Salary (Deputation)	-	-	-	-	-	-
G) LTC facility						
Home Travel Concession	-	54,236	54,236	-	3,27,198	3,27,198
Leave Travel Concession	-	85,80,437	85,80,437	-	70,50,960	70,50,960

Particulars	CURRENT YEAR			PREVIOUS YEAR		
	Plan	Recurring	Total	Plan	Recurring	Total
H) Medical facility						
Medical Reimbursement	-	13,30,312	13,30,312	-	24,36,599	24,36,599
Medicine & Dispensery expenses	-	5,69,389	5,69,389	-	11,43,565	11,43,565
I) Children Education Allowances		2,16,000	2,16,000	-	72,04,500	72,04,500
J) Honorarium	-	4,68,000	4,68,000	-	-	-
K) Others :						
Security Services	-	5,86,81,855	5,86,81,855	-	-	-
House Keeping	-	3,90,13,539	3,90,13,539	-	-	-
Joining Time TA	-	-	-	-	1,60,375	1,60,375
Relocation Charges	-	1,54,670	1,54,670	-	4,89,366	4,89,366
			-			-
Total	-	**68,63,74,622**	**68,63,74,622**	-	**45,05,52,453**	**45,05,52,453**

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

SCHEDULES FORMING PART OF INCOME & EXPENDITURE ACCOUNT

SCHEDULE 15 A - EMPLOYEES RETIREMENT AND TERMINAL BENEFITS

Amount in Rupees

Particulars	Pension	Gratuity	Leave Encashment	Total
Opening Balance as on.....	-	-	-	-
Addition : Capitalized value of Contributions received from other Organisations	-	-	-	-
Total (a)	-	-	-	-
Less : Actual payment during the year (b)	-	-	-	-
Balance Available on 31.03..... (a-b)	-	-	-	-
Provision required on 31.03..... As per Actuarial Valuation (d)	-	-	-	-
A. Provision to be made in the Current year (d-c)	-	-	-	-
B. Contribution to New Pension Scheme	-	-	-	-
C. Medical Reimbursement to Retired Employees	-	-	-	-
D. Travel to Hometown on Retirement	-	-	-	-
E. Deposit Linked Insurance Payment	-	-	-	-
Total (A+B+C+D+E)	-	-	-	-

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

SCHEDULES FORMING PART OF INCOME & EXPENDITURE ACCOUNT

SCHEDULE 16- ACADEMIC EXPENSES

Amount in Rupees

Particulars	CURRENT YEAR			PREVIOUS YEAR		
	Plan	Recurring	Total	Plan	Recurring	Total
a) Laboratories expenses	-	7,91,833	7,91,833	-	5,91,596	5,91,596
b) Field work/Participation in Conferences	-	-	-	-	-	-
c) Expenses on Seminars/workshops	-	13,68,737	13,68,737	-	15,37,458	15,37,458
d) Payment to visiting faculty	-	-	-	-	2,93,500	2,93,500
e) Examination Expenses	-	14,91,700	14,91,700	-	30,81,107	30,81,107
f) Students Welfare expenses - Student Internship	-	-	-	-	-	-
g) Admission expenses	-	-	-	-	-	-
h) Convocation expenses	-	11,04,551	11,04,551	-	27,75,625	27,75,625
i) Publications	-	-	-	-	-	-
j) Scholarship for PG & PhD	-	20,94,67,825	20,94,67,825	-	19,09,13,659	19,09,13,659
k) Subscription expenses	-	-	-	-	-	-
l) Contingency to Ph.D. Scholars	-	-	-	-	-	-
m) Students Project Expenses	-	35,811	35,811	-	3,60,279	3,60,279
n) Library Contingency	-	50,680	50,680	-	3,16,936	3,16,936
o) Industry Institute Partnership exp	-	-	-	-	-	-
p) STIS Project Exp	-	-	-	-	-	-
q) Internship Exp	-	-	-	-	1,74,430	1,74,430
r) Industry Visit (MBA)	-	-	-	-	-	-
s) Student Orientation Program	-	62,360	62,360	-	54,394	54,394
t) Summer Term Course Expenses	-	-	-	-	3,60,000	3,60,000
Total	**-**	**21,43,73,497**	**21,43,73,497**	**-**	**20,04,58,984**	**20,04,58,984**

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

SCHEDULES FORMING PART OF INCOME & EXPENDITURE ACCOUNT

SCHEDULE 17 - ADMINISTRATIVE AND GENERAL EXPENSES

Amount in Rupees

Particulars	CURRENT YEAR			PREVIOUS YEAR		
A. Other Establishment Expenses	**Plan**	**Recurring**	**Total**	**Plan**	**Recurring**	**Total**
Pension	-		-	-	7,68,11,177	7,68,11,177
Commuted Pension	-	-	-	-	1,40,71,913	1,40,71,913
NPS Contribution	-	-	-	-	1,92,83,665	1,92,83,665
CPF Contribution	-	-	-	-	2,09,916	2,09,916
EPF Contributiion Contractual & others	-	-	-	-	36,44,581	36,44,581
EPF Contribution (MR)	-	-	-	-	21,61,629	21,61,629
Salary of Contractual Teaching & Admin	-	-	-	-	2,41,29,720	2,41,29,720
Salary of M R Staff	-	-	-	-	1,76,02,838	1,76,02,838
Security Services	-	-	-	-	6,48,94,936	6,48,94,936
House Keeping	-	-	-	-	3,95,61,248	3,95,61,248
Honorarium	-	-	-	-	3,62,202	3,62,202
B. Insfrastructure	-	-	-	-		-
Electricity	-	1,42,72,163	1,42,72,163	-	3,34,20,245	3,34,20,245
Water Charges	-	61,43,983	61,43,983	-	1,04,33,205	1,04,33,205
Solar Energy Charges	-	18,01,415	18,01,415	-	15,15,906	15,15,906
C. Communication	-		-	-		-
Postage	-	1,49,285	1,49,285	-	43,266	43,266
Telephone, Fax and Internet Charges	-	-	-	-	6,37,644	6,37,644
D. Others	-		-	-		-
Printing and Stationery (consumption)	-	17,25,760	17,25,760	-	20,02,717	20,02,717
Travelling and Conveyance Expenses	-	2,87,420	2,87,420	-	43,01,300	43,01,300
Hospitality	-	3,55,122	3,55,122	-	5,39,969	5,39,969
Auditors Remuneration	-	6,23,445	6,23,445	-	11,99,225	11,99,225
Professional Charges - Legal fee	-	83,391	83,391	-	3,02,810	3,02,810
Advertisement and Publicity	-	33,85,276	33,85,276	-	60,64,846	60,64,846
Magazines & Journals - News paper	-	11,975	11,975	-	16,954	16,954
Training & Placement expenses	-	1,450	1,450	-	4,92,159	4,92,159
Board & Committee meeting	-	1,75,203	1,75,203	-	25,10,060	25,10,060
Computer Consumable	-	5,43,362	5,43,362	-	7,60,558	7,60,558
Initiative to foster Social Responsibility	-	10,41,438	10,41,438	-	3,89,400	3,89,400

Particulars	CURRENT YEAR			PREVIOUS YEAR		
A. Other Establishment Expenses	**Plan**	**Recurring**	**Total**	**Plan**	**Recurring**	**Total**
Misc. Expenses	-	7,03,102	7,03,102	-	1,21,745	1,21,745
Gyan Sagar expenses	-	2,90,789	2,90,789	-	1,78,345	1,78,345
Celebration of National Day	-	5,16,811	5,16,811	-	14,03,995	14,03,995
NCC & NSS Activity	-	97,758	97,758	-	2,81,851	2,81,851
Promotion of Rashtra Bhasha	-	-	-	-	1,65,734	1,65,734
Consumable expenses	-	4,71,379	4,71,379	-	7,49,876	7,49,876
Contingency Exp	-	-	-	-	-	-
Transit House Rent	-	-	-	-	-	-
Celebration of Foundation Day	-	5,15,331	5,15,331	-	1,60,034	1,60,034
HPC Cell Expenses	-	-	-	-	-	-
Innovation Lab Exp	-	4,12,155	4,12,155	-	1,34,450	1,34,450
Other Admin Exp	-	9,63,060	9,63,060	-	34,77,911	34,77,911
Registration/Nomination fee	-	-	-	-	-	-
Short Term Training Program	-	-	-	-	35,022	35,022
NABL Expenses	-	-	-	-	1,61,129	1,61,129
Start-up conclave expense	-	-	-	-	-	-
NSDL Service Charges	-	26,636	26,636	-	20,209	20,209
Gymkhana Expenditure	-	49,32,004	49,32,004	-	35,05,313	35,05,313
Swachh Bharat Mission Exp	-	10,72,242	10,72,242	-	4,14,235	4,14,235
Insurance against Assets	-	-	-	-	12,78,015	12,78,015
NITs Conclave Exp	-	-	-	-	53,210	53,210
Excess Provision of accred interest	-	-	-	-	1,27,267	1,27,267
Inter NIT Sports Meet	-	32,90,293	32,90,293	-	-	-
TOTAL	**-**	**4,38,92,248**	**4,38,92,248**	**-**	**33,96,32,430**	**33,96,32,430**

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

SCHEDULES FORMING PART OF INCOME & EXPENDITURE ACCOUNT

SCHEDULE 18 - TRANSPORTATION EXPENSES

Amount in Rupees

Particulars	CURRENT YEAR			PREVIOUS YEAR		
	Plan	Recurring	Total	Plan	Recurring	Total
1. Vehicles (owned by Institution)	-	-	-	-	-	-
a) Running Expenses	-	12,48,341	12,48,341	-	26,32,330	26,32,330
b) Insurance Expenses	-	3,82,246	3,82,246	-	1,00,782	1,00,782
2. Vehicles taken by Rent/Lease	-	-	-	-	-	-
a) Rent/Lease Expenses	-	-	-	-	-	-
3. Vehicle (Taxi) hiring Expenses	-	-	-	-	-	-
TOTAL	**-**	**16,30,587**	**16,30,587**	**-**	**27,33,112**	**27,33,112**

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

SCHEDULES FORMING PART OF INCOME & EXPENDITURE ACCOUNT

SCHEDULE 19 - REPAIRS & MAINTENANCE

Amount in Rupees

Particulars	CURRENT YEAR			PREVIOUS YEAR		
	Plan	Recurring	Total	Plan	Recurring	Total
a) Buildings	-	2,79,41,223	2,79,41,223	-	3,53,09,027	3,53,09,027
b) Furniture & Fixtures	-	12,550	12,550	-	9,71,139	9,71,139
c) Plant & Machinery	-	13,57,290	13,57,290	-	27,98,901	27,98,901
d) Office Equipment	-	-	-	-	-	-
e) Scientific Equipment - (Digital Labrary)	-	-	-	-	-	-
f) Audio Visual Equipment	-	-	-	-	-	-
g) Cleaning Materials & Casual work	-	6,960	6,960	-	1,74,711	1,74,711
h) Book Binding Charges	-	-	-	-	-	-
i) Gardening	-	95,25,855	95,25,855	-	9,14,143	9,14,143
j) Estate Maintenance (Electrical)	-	21,71,638	21,71,638	-	38,94,343	38,94,343
k) Bio Gas Contingency expenses	-	-	-	-	-	-
l) D.G. Set	-	1,13,25,721	1,13,25,721	-	99,62,559	99,62,559
m) Networking including AMC	-	50,54,231	50,54,231	-	44,28,608	44,28,608
n) Guest House Maintenances	-	1,96,629	1,96,629	-	3,45,507	3,45,507
TOTAL	**-**	**5,75,92,097**	**5,75,92,097**	**-**	**5,87,98,938**	**5,87,98,938**

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

SCHEDULES FORMING PART OF INCOME & EXPENDITURE ACCOUNT

SCHEDULE 20 - FINANCE COSTS

Amount in Rupees

Particulars	CURRENT YEAR			PREVIOUS YEAR		
	Plan	Recurring	Total	Plan	Recurring	Total
a) Bank Charges	-	48,259	48,259	-	1,80,421	1,80,421
b) Others	-	-	-	-	-	-
TOTAL	**-**	**48,259**	**48,259**	**-**	**1,80,421**	**1,80,421**

SCHEDULE 21 - OTHER EXPENSES

Particulars	CURRENT YEAR			PREVIOUS YEAR		
	Plan	Recurring	Total	Plan	Recurring	Total
a) Provision for Bad and Doubtful Debts/Advances	-	-	-	-	-	-
b) Irrecoverable Balances/Written-off	-	-	-	-	-	-
c) Grants to Kendriya Vidyalaya	-	3,37,84,000	3,37,84,000	-	3,77,19,000	3,77,19,000
d) Support/Salaries to NITS-KIDS staff	-	-	-	-	-	-
TOTAL	**-**	**3,37,84,000**	**3,37,84,000**	**-**	**3,77,19,000**	**3,77,19,000**

SCHEDULE 22 - PRIOR PERIOD EXPENSES

Particulars	CURRENT YEAR			PREVIOUS YEAR		
	Plan	Recurring	Total	Plan	Recurring	Total
1) Establishment Expenses (CEA)	-	-	-	-	-	-
2) Academic Expenses	-	-	-	-	-	-
3) Administrative Expenses	-	-	-	-	-	-
4) Transportation Expenses	-	-	-	-	-	-
5) Repair & Maintenance	-	-	-	-	-	-
6) Others	-	-	-	-	-	-
TOTAL	**-**	**-**	**-**	**-**	**-**	**-**

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

SIGNIFICANT ACCOUNTING POLICIES

SCHEDULE: 23

1. BASIS FOR PREPARATION OF ACCOUNTS

The financial statements are prepared under the Historical cost convention and on the basis of Generally Accepted Accounting Principles in India. Institute's accounts are maintained on accrual system of accounting in terms of the New System.

2. REVENUE RECOGNITION

2.1 Fees from students (except Tuition Fees), Application fee, Interest on Savings Bank accounts are accounted on cash basis. Tuition Fees collected separately for each semester is accounted on accrual basis.

2.2 Income from Land, Buildings & other Property and Interest on Investments are accounted on accrual basis.

2.3 Interest on interest bearing advances to staff for Soft Loan is accounted on actual basis every year.

3. FIXED ASSETS AND DEPRECIATION

3.1 Fixed assets are stated at cost of acquisition including inward freight, duties and taxes and incidental and direct expenses related to acquisition and commissioning.

3.2 Depreciation on Fixed assets is provided on written down value method as followed in earlier years, at the rates mentioned below. As regard to Govt. of India guidelines for providing depreciation on straight line method, the same could not be given effect during 2020-21 also, due to the fact that, change in method and rate of depreciation on the assets procured prior to 2014-15 will attracts complicacy.

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

Tangible Assets		Rate of Depreciation
1.	Land	0%
2.	Site Development	5%
3.	Buildings	5%
4.	Roads & Bridges	5%
5.	Tube wells & Water Supply	5%
6.	Electrical Installation and equipment	15%
7.	Plant & Machinery	15%
8.	Scientific & Laboratory Equipment	15%
9.	Office Equipment	15%
10.	Audio Visual Equipment	15%
11.	Computers & peripherals	30%
12.	Furniture, Fixtures & Fittings	10%
13.	Vehicles	20%
14.	Lib. Books & Scientific journals	30%

Intangible Assets (amortization):

1.	E-Journals & E-Books	100%
2.	Computer Software	15%

3.3 Depreciation is worked out 100% on the opening balance and proportionately on additions during the year. The amount of depreciation has been adjusted with the Capital Fund account and simultaneously shown under "Other Income" in the Income & Expenditure A/c.

3.4 Assets created out of Sponsored Projects funds, are setup by credit to Current Liabilities (Schedule No. 3.A), with separate entity. No depreciation on the Assets created out of projects has been charged.

3.5 Electronic Journals (E-journals) are separated from Library Books in view of the limited benefit that could be derived from the on-line access provided. E-journals are not in a tangible form, but temporarily capitalized in view of the magnitude of expenditure and the benefit derived in terms of perpetual knowledge of academic and Research Scholars, Depreciation is provided in respect of E-journals at a higher rate of 100% as against depreciation of 30% provided in respect of Library Books, since the access is permitted for a specific period only.

3.6 No depreciation has been charged on E-Books since the procurement of e-books are made on perpetual basis for the Institute.

4. **STOCKS:** Expenditure on purchase of chemicals, glassware, publications other stores as revenue expenditure, they are valued at cost.

5. **RETIREMENT BENEFITS**

Retirement benefits of employees appointed prior to the year 2004 are entitled to pension and terminal benefits such as Gratuity, commuted value of pension, Leave encashment etc., are shown at actual as per provisions made by the Institute in annual Budget as Grants in Aid and provided for as per orders of the Govt. of India and paid as per schemes as applicable from time to time. Employees appointed after 2004 are governed by the New Pension Scheme to whom on a monthly basis and employer's unequal contribution is paid from the salary grants provided under Plan (recurring) Grant duly budgeted.

6. **INVESTMENT**

Institute has invested temporary surplus in Term Deposits with banks. Investments are stated at cost. A schedule showing details of Investments of various funds annexed with the statement of accounts.

7. **Earmarked/ Endowment Funds.**

The following long term funds are earmarked for specific purpose. Most of the funds have separate bank account. Those with large balances also have investments in term deposits with Banks. The income from Investment/advances, interest on savings Bank Accounts are credited to the respective Funds. The expenditure and advances if any, are debited to the fund. The balance in the respective funds is carried forward and is represented on the assets side by the balance at Bank, Investments and accrued interest.

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

7.1 CORPUS FUND

Corpus Fund is created in compliance with Govt. of India, MHRD, Department of Higher Education, New Delhi vide letter no. F.21-7/2006-TS.III dated 31.03.2006. This fund is in the nature of Endowment Fund. Income from the investments of the fund is added to the fund. The balance in the Corpus Fund which is carried forward is represented by the balance in a separate bank Account, investment in fixed deposits and SBI Mutual fund with the Bank and Accrued interest on investments.

8. GOVERNEMENT GRANTS

9.1 Government Grants are accounted on accrual basis (as per date of sanction letters).

9.2 To the extent utilized towards capital expenditure, (on accrual basis) government grants are transferred to the Capital fund.

9.3 Government Grants for meeting revenue Expenditure (on accrual basis) are treated utilized and simultaneously transferred to Income & Expenditure a/c as Income from Grants and Subsidies.

9.4 Unutilized grants including advances paid out of such grants are carried forward and exhibited as liability in the Balance Sheet.

9. INVESTMENTS OF EARMARKED FUNDS AND INTEREST INCOME ACCRUED ON SUCH INVETSMENTS:

To the extent not immediately required for the expenditure, the amounts available against such funds are invested in fixed term deposits with Banks and SBI Mutual fund leaving the balance in savings Bank Accounts.

Interest received, interest accrued due and interest accrued but not due on such investments are added to the respective funds as income of the institution.

10. SPONSORED PROJECTS

In respect of ongoing Sponsored Projects, the amount received from sponsors is credited to the head "Current Liabilities and Provisions- Current Liabilities-Other Liabilities-Receipt against ongoing sponsored projects". As and when expenditure is incurred/

advances are paid against such projects, or the concerned project account is debited with allocated overhead charges, the liability account is debited.

11. The Institution itself also awards Scholarships to M.Tech/M.Sc. & Ph.D. scholars, which are accounted as academic expenses.

12. In compliance of audit observation for the year 2018-19, excess of income over expenditure amounting to Rs.2580.11 lakh during the current year transferred to Capital Fund account instead of Corpus fund account.

13. Unequal employers' contribution as per GoI norms in NPS is to be followed.

14. Investment in the form of STDR has been auto renewed during the year and necessary disclosure shown thereon in the schedule of investment.

Date: The 22nd October, 2021
Place: Silchar

Registrar Director

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

SCHEDULE: 24

CONTINGENT LIABILITIES AND NOTE TO ACCOUNTS (ILLUSTRATIVE)

1. **CONTINGENT LIABILITIES:** There is no contingent liability during the year under report.

2. **CAPITAL COMMITMENTS:** All the major works have been completed and thus there is no Capital commitment during the year.

3. **FIXED ASSETS:**

   3.1 Addition in the year to Fixed Assets in Schedule 4 includes Assets purchased out of Plan Funds Rs.1884.92 lakh. The assets have been set up by credit to Capital Fund.

   3.2 In the Balance Sheet as on 31.03.21 and the Balance Sheets of earlier years, fixed assets created out of Plan funds were exhibited distinctly. The additions during the years, from plan and other funds, and the depreciation on those additions respectively have been exhibited in the Sub Schedules A,B,C,D & E to the main schedules of Fixed Assets (Schedules 4).

4. **CURRENT ASSETS, LOANS, ADVANCES AND DEPOSITS**

   In the opinion of the management, the current assets, Loans, Advances and Deposits have a value on realization in the ordinary course, equal to at least the aggregate amount shown in the Balance Sheet.

5. The details of the Balances in the Savings Bank accounts, Current accounts with Banks are depicted in Schedule 7A of Schedule of Current assets. The details of Investment with banks against various funds are annexed separately in page no. 17 & 18 of the Annual Accounts.
6. Figures in the Final accounts have been rounded off to the nearest rupee.

7. Schedules 1 to 22 are annexed and form an integral part of Balance Sheet at 31st March 2021, and the Income & Expenditure account for the year ended on that date.

8. Provident fund accounts and the New Pension Scheme accounts are shown separately with the Institute Accounts. A Receipt & Payments Account, an Income & expenditure Account and a Balance Sheet of the Provident fund Accounts as well as the New Pension Schemes for the

year 2020-21 have been attached with the Institute accounts. The balance held in New Pension Scheme as on 31.03.2021 is Rs.265.66 lakh. Out of which, Rs.139.68 lakh to NSDL were initiated for remittance in June 2021 against the enrolled subscriber and the remaining amount in respect of 14 members yet to be transferred to NSDL, due to non-allotment of PRA number till date.

9. Pension Fund Contribution (Schedule-2): During the year a total amount of Rs.73.86 Lacs has been appropriated as income from the Pension Fund Contribution and the same has been stated as revenue expenditure against the Pension Fund (Endowment Fund).

10. Fixed Assets (Schedule-4): Addition of fixed assets during the year amounting to Rs.1884.92 Lac. Further expenditure Rs.4.11 lakh incurred against Patent, out of which Rs.2.44 Lakh were met from TEQIP-III and Rs.1.67 Lakh from CPDA head respectively. Thus total capital expenditure of Rs.1884.92 Lac booked as capital expenditure from Plan Grant (OH-35) only.

11. A statement showing the details of investment and interest accrued is annexed, which is corresponding to Schedule 5 and 6.

12. Grants and Subsidies (Schedule-10): The **Unspent/Deficit** balance under Non Recurring Grant (OH-35) is **(-) Rs.339.12 lakh** and under Recurring Grant of OH- 31 is **(-) Rs.847.34 lakhs** & OH-36 is Rs.44.43 lakhs respectively as on 31.03.2021.

13. TEQIP III project has been allotted to the Institute during the year 2017-18. The project is implemented as a Central Sector Scheme implying that it is 100% funded by the Union Govt. and implemented by the Central Government machinery. With this background MHRD has developed Direct Fund Transfer System through PFMS. Accordingly the Institute is registered on PFMS and all the transaction under TEQIP III are made through PFMS. A consolidated statement showing details of expenditure under TEQIP III is annexed with the Books of Account.

14. The Institute had spent an amount of Rs.92.17 lakh through foreign currency transaction against procurement of Equipment and other expenses.

15. In compliance of audit observation for the year 2019-20, Establishment expenditure under Schedule 15 & Administrative & General expenses under Schedule 17 has been classified as followed in previous years.

Date: The 22nd October, 2021
Place: Silchar

Registrar Director

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2021

Amonut in Rupees

RECEIPTS	CURRENT YEAR	PREVIOUS YEAR	PAYMENTS	CURRENT YEAR	PREVIOUS YEAR
I. Opening Balances:			**I. Expenses:**		
a) Cash Balances	**15,223**	8,837	Establishment expenses	46,61,49,839	44,29,87,021
b) Bank Balance :			Academic Expenses	19,69,69,394	19,94,79,517
Current Accounts	44,44,32,709	65,83,39,628	Administrative Expenses	26,01,94,401	31,84,71,787
Savings Account	8,08,01,280	15,44,03,251	Transportation Expenses	9,40,403	24,13,588
			Repairs & Maintenance	5,48,22,861	5,18,08,232
			Finance Cost	48,259	1,80,421
II. Grants Received:			Prior Period Expenses	-	-
Non Recurring Grant: From Govt of India	7,50,00,000	-	Other Expenses	3,37,84,000	3,79,92,410
Recurring Grant: From Govt of India	77,13,11,000	1,03,74,00,000	**II. Payments against**		
			Earmarked/Endowment Funds	86,276	6,84,374
Grants-in-Aid Receivable :					
Non Recurring Grant: From Govt of India	-	-	**III. Payments against Sponsored Projects**	2,11,78,870	1,74,46,710
Recurring Grant: From Govt of India	-	-	Misc Payments against Grant/Conference		
			IV. Payments against Sponsored Scholarships	21,53,605	46,00,339
III. Academic Receipts	18,50,74,028	19,83,99,565			
			V. Investments and Deposits made		
IV. Receipts against Earmarked/Endowment	1,06,41,859	44,36,831	a) Out of Earmarked	-	54,20,00,000
Funds			b) Out of own funds(Investments-others)	-	18,50,000
V. Receipts against Sponsored Project:			VI. Term Deposits with Schedule Banks	-	-
Grants Received from AICTE/GOI	2,02,54,602	5,01,98,962			
Other Misc Receipts against Conference	53,76,339	2,26,97,793			
VI. Receipts against sponsored Fellowships	28,51,629	19,07,845	**VII. Expenditure on Fixed Assets and Capital Works- in -Progress**		
& Scholarships			a) Fixed Assets	14,42,13,643	21,86,91,122
VII. Income on Investments from			**b) Capital works -in- Progress**	2,00,600	-
Earmarked/Endowment funds	3,14,640	35,02,283			
Other investments	-		Viii. Other Payments including statutory	6,91,60,505	6,55,60,960
VIII. **Interest received :**			IX. Refund of Grants (Sponsored Projects)	37,99,467	16,39,135
Bank Deposit	-				

RECEIPTS	CURRENT YEAR	PREVIOUS YEAR	PAYMENTS	CURRENT YEAR	PREVIOUS YEAR
Loans and Advances (Margine Money)	-	-	**X. Deposits and Advances**	3,24,19,150	7,03,85,328
Savings Bank Account	20,56,085	12,64,870			
Interest on Others	1,71,322	1,14,00,673			
Against Project Account	-	14,52,762			
IX. Investments encashed			**XI. Other Payments**	18,02,60,271	24,34,84,393
X. Term Deposits with Scheduled Banks	18,53,621	21,15,78,830			
encashed			XII. **Closing balances**		
XI. Other income (including prior Period	2,43,74,171	3,74,59,412	**a) Cash in hands**	21,373	15,223
Income)			**b) Bank balances**		
XII. **Deposits and Advances**			Current Accounts	35,15,15,110	44,44,32,709
Plant Machinery & Equipment	-		Savings Account	8,10,30,336	8,08,01,280
Other Deposits (S Debtors)	6,95,651	10,20,13,737			
Loans & Advances	9,11,60,412	6,97,81,950			
XIII. Miscellenous Receipts including Statutory	11,11,96,970	11,03,83,205			
Receipts					
XIV. Any other Receipts	7,13,66,821	6,82,94,115			
TOTAL	**1,89,89,48,362**	**2,74,49,24,549**	**TOTAL**	**1,89,89,48,362**	**2,74,49,24,549**

Dated, Silchar
The 22nd October, 2021.

Registrar

Director

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

SCHEDULES FORMING PART OF RECEIPTS & PAYMENTS ACCOUNTS FOR THE YEAR ENDED 31ST MARCH 2021

RECEIPTS :		*Amount in Rupees*
Particulars	**Current Year**	**Previous Year**
GRANTS-IN-AID RECEIVED FROM GOVT OF INDIA:		
NON RECURRING GRANT : RECEIVED FROM GOVT OF INDIA: OH-35	7,50,00,000	-
RECURRING GRANT: RECEIVED FROM GOVT OF INDIA OH-36 (SALARIES)	29,64,11,000	35,00,00,000
RECURRING GRANT: RECEIVED FROM GOVT OF INDIA OH-31 (GENERAL)	47,49,00,000	68,74,00,000
Total	**84,63,11,000**	**1,03,74,00,000**
Academic Receipts		
Academic Fee		
Tuition Fees	15,31,37,814	16,19,19,530
Admission Fee	64,73,000	67,74,510
Library Fee	31,07,600	36,62,000
I.T System Fee	1,00,14,152	73,06,000
Examination Fee	65,46,850	71,67,568
Late Fine/Penalty	12,888	3,24,584
Misc Fees	9,39,234	14,89,968
Medical Facility Fee	4,10,190	21,97,470
Transportation Fees	5,36,300	21,84,100
Summer Term Course Fee	7,23,000	14,83,335
Other Academic Receipts		
Training & Placement Fee	4,58,000	7,42,500
Short Term Training Programme Fee	-	28,000
Development Fee	27,15,000	31,20,000
Total	**18,50,74,028**	**19,83,99,565**
EARMARKED / ENDOWMENT FUND:		
Pension Fund Contribution	73,85,881	-
Employees welfare fund	-	-
Student Aid Fund	9,32,000	10,48,000
Total (A)	**83,17,881**	**10,48,000**
CORPUS FUND :		
Corpus Fund	2,16,358	23,40,931
Corpus fee received from Students	18,15,000	10,47,000
Migration fee (Charged under income of Corpus Fund)	1,200	900
Institute Share from Transcript fee & Verification Fee	2,91,420	-

RECEIPTS :	Amount in Rupees	
Particulars	Current Year	Previous Year
Corpus Fund interest on Savings Bank	-	-
Total (B)	**23,23,978**	**33,88,831**
Grand Total (A+B)	**1,06,41,859**	**44,36,831**
SPONSORED PROJECTS:		
Grants Received against Sponsored Projects:		
MCIT : GoI	1,78,188	63,47,791
SERB : GoI	1,29,14,260	2,66,64,270
DST: GoI	19,28,004	79,50,213
MNRE: GoI	-	-
BRNS: GoI	-	-
UGC	-	-
MOESc	974	-
ICSSR	-	75,000
DEITY	6,03,703	22,55,000
CPRI	-	-
ARDB	5,373	-
NMHS	13,61,600	15,13,445
SPARC Scheme	-	47,14,910
CSIR	32,62,500	6,78,333
Total	**2,02,54,602**	**5,01,98,962**
OTHER MISC. GRANTS/SPONSHORSHIP:		
Received from SERB (DST)	1,58,937	13,92,710
Received from Project	65,268	9,138
Received from CBSE	-	-
Manish Roy Memorial Scholarship Fund	6,117	6,903
K.K Mrinalini Kroni Gold Medal Fund	3,058	3,451
Abhijit Hom Choudhury Memorial Award Fund	450	507
Saswata Purkayastha Memorial Fund	3,312	3,738
YFRFs Visvesvararya scheme (Project A/c)	-	15,21,620
DST- FIST	-	91,08,000
GIAN Course Fee	-	40,500
GIAN FUND	8,52,000	10,88,000
AICTE Exam	3,72,000	-
NMHS Project	-	6,50,000
Payable Against Gandhi Global Yatra	-	1,22,840

RECEIPTS :		*Amount in Rupees*
Particulars	**Current Year**	**Previous Year**
Payable Against IAF Exam	-	16,820
Payable Against TEQIP III	2,93,250	8,000
Payable Against Written Test Exam	60,000	-
Payable Against NEET 2019 Exam	-	2,48,850
Payable Against ONGC Online Exam	-	1,66,592
Payable to Balmer Lawrie & Co	20,49,038	4,83,097
Payable to Bhargov Bhattacharyya (Student)	-	5,000
Payable to GP Fund (TDS)	-	7,65,192
Payable to P.J.Roy (NPS)	-	3,710
Payable Project (TDS)	-	755
START UP India	56	-
Payable to Project A/c	16,000	-
Payable to Sagarika Choudhury	1,000	-
Payable To Suprava Jena	20	-
Payable To Yamini Agarwal	2,500	-
QIP Grants	1,49,377	-
QIP Grants Payable	1,48,500	-
Special Exam	3,73,000	-
West Bengal JEE	-	29,460
Academic Development Fee (MBA)	5,27,000	14,40,000
SPARC Scheme	6,692	53,82,910
NEC-2020	2,88,764	2,00,000
Total	**53,76,339**	**2,26,97,793**
VI. Receipts against sposored Fellowships and Scholarships:		
Outside Scholarship Doctoral Fellowship (ICSSR)	28,51,629	19,07,845
Total	**28,51,629**	**19,07,845**
INTEREST RECEIVED FROM EARMARKED FUND:		
Depreciation Fund Interest on Savings Account	33,986	17,64,582
Maintenance Fund Interest on Savings Account	2,76,010	17,03,058
Staff Dev Fund Interest on Savings Account	4,644	34,643
Kids Fund Interest on Savings Account	-	-
Total	**3,14,640**	**35,02,283**
Interest Earned		
Interest on Saving A/c		

RECEIPTS :		*Amount in Rupees*
Particulars	**Current Year**	**Previous Year**
Interest on Fees A/c	1,20,612	8,35,007
Interest on Scholarship A/c	1,32,641	2,09,024
Interest on Savings Bank A/c	93,805	1,90,458
Interest on Savings Bank A/c (Project)	17,09,027	-
Interest on TDS		30,381
Total	**20,56,085**	**12,64,870**
Interest Others		
Interest Others (from Plan/Non-plan Investment)	1,71,322	1,14,00,673
Total	**1,71,322**	**1,14,00,673**
Interest Against Project A/c		
Interest on Saving A/c (Sponsored projects a/c.)	-	14,52,762
Misc Receipts	-	-
Total	**-**	**14,52,762**
Investment with scheduled banks		
Investment (Corpus Fund)	-	-
Investment (Depreciation Fund)	-	-
Investment (Maintenanc Fund)	-	-
Investment (Staff Dev. Fund)	-	-
Investment (KIDs NITS Fund)	-	-
Investment (Nonplan)	-	11,00,00,000
Investment (Nonplan Fees)	-	10,00,00,000
Investment (Plan- Margin Money A/C)	18,53,621	15,78,830
Total	**18,53,621**	**21,15,78,830**
Other Income (Including Prior Period Income)		
Income From Land & Building		
License Fee	35,93,161	46,38,405
Hire Charges for Shops Canten and Office	2,98,613	14,57,238
Seat Rent/Hostel Room Rent	40,55,820	73,08,183
Guest House Room Rent	2,00,344	23,71,069
Electricity Consumption Receipts	57,30,689	63,67,696
Light & Water (Hostel)	35,31,710	70,12,000
Other Income		
RTI Fees	300	558
Application Fee	19,99,784	24,11,839
Tender Form Fee	1,65,497	4,94,500

RECEIPTS :		*Amount in Rupees*
Particulars	**Current Year**	**Previous Year**
Institute Overhead on Project	24,64,327	37,20,046
Misc Receipts	97,561	4,75,906
Institute Overhead on Consultancy	22,36,365	12,01,972
Total	**2,43,74,171**	**3,74,59,412**
Margin Money for LC		
Total	-	-
OTHER DEPOSITS:		
Accrued Interest on LC Investment	3,20,199	
Accrued Interest on Corpus Fund	-	-
Accrued Interest on Depreciation Fund	-	
Accrued Interest on Maintenace Fund	-	-
Accrued Interest on Staff Dev Fund	-	-
Accrued Interest on Non Plan Fund	-	-
Accrued Interest on KIDS NITS Fund	-	-
Electricity Consumpation Receivable	2,91,161	3,04,633
House Rent/Licence Fee Recivable	83,448	49,443
N.E.Books (Recivable)	843	-
Shops & Canteen Rent Recivable	-	1,13,914
Hydarulic Engineering Lab Building (Recovery)	-	-
Receivable from Consultancy	-	24,528
Grants Receivable	-	10,00,00,000
Receivable From Scholarship Fund	-	15,07,000
Receivable from SMDP Project	-	14,219
Earth Quik Engg Building (Recovery)	-	-
Girls Hostel No.3 (Recovery)	-	-
Lab Equipment	-	-
Boys Hostel No.9	-	-
Total	**6,95,651**	**10,20,13,737**
Loans,Advances & Deposits		
Sundry Debtors		
Panorama International	-	5,08,542
Advance to Employees		
HTC Advance	-	-
LTC Advance	30,12,868	19,25,879
Other Advance To Employees		

RECEIPTS :	Amount in Rupees	
Particulars	Current Year	Previous Year
Recoverable Advance	72,83,510	73,52,361
Recoverable Advance (Project)	1,25,707	93,900
TA Advance	4,13,100	26,22,449
TA Advance (Project)	1,03,833	1,15,999
Soft Loan (Staff)	4,01,710	7,35,842
Interest Free Loan	2,72,440	3,72,860
Medical Advance	-	5,00,000
Deposit Work		
CPWD	-	-
Adv to NCC Ltd	-	-
Adv to N C Roy	-	12,16,000
Receivable from CSAB against Fee	5,55,17,000	3,09,65,000
Receivable from CCMT against Fee	-	66,45,300
Receivable from CCMT-Others	-	3,90,574
Receivable from CCMN	-	8,55,000
Receivable from CP Fund (Against Pension Contb.)	65,24,768	-
TDS Receivable (IT Non Plan)	-	7,15,403
TDS Receivable (Earmarked Fund)	-	31,29,748
TDS Receivable	13,41,600	-
Prime Minister Care Fund (Covid-19)	10,82,923	-
Receivable from RPS Fund	18,88,950	3,77,752
Group Insurance Claim Receivable	62,054	-
Loan to CSAB	-	-
Loan to TEQIP (Recovery)	1,31,29,949	1,12,59,341
Total	**9,11,60,412**	**6,97,81,950**
MISCELLANEOUS RECEIPTS INCLUDING STATUTORY RECEIPTS:		
Provision -TAX:		
GST (PAYABLE)	49,56,625	57,61,768
GST (PAYABLE) Project	1,69,907	21,904
Income Tax (Against Salary & Contracts)	6,41,41,520	6,31,51,845
Income Tax -Project	-	-
Professional Tax	10,16,210	12,04,782
Professional Tax (Project)	6,240	9,360
Labour Cess	4,74,053	3,00,427
GSLI	5,21,200	5,38,800

RECEIPTS :	Amount in Rupees	
Particulars	Current Year	Previous Year
EPF Subscription MR Employee	17,80,542	20,10,822
EPF Subscription FW Workers Society/Housekeeping	-	21,55,133
EPF Subscription Contractual Staff	10,88,803	12,61,244
GPF Advance Recovery	20,16,835	12,12,323
GPF	1,18,54,449	1,22,28,534
GPF Subscription (Other org)	10,40,000	12,15,000
CPF Subscription	2,09,916	2,09,916
NPS Subscription	2,19,20,670	1,91,01,347
Total	**11,11,96,970**	**11,03,83,205**
CURRENT LIABILITIES		
OTHER DEPOSITS FROM STUDENTS:		
Hostel Caution Money	-	35,000
Institute Caution Money	46,25,000	53,55,000
Sundry Creditors & Others	-	
CIS Bureaus Services Pvt Ltd	-	1,28,726
CIS Bureaus Services Pvt Ltd (As per Labour Union)	-	5,45,102
M/s Sify Technologies Ltd	-	-
Vanguards Security Services & Systems	62,09,821	
Balmer Lawrie & Co	-	63,06,257
Mashuk Uddin Barbhuiya	-	4,00,000
Rajib Sen	1,50,000	1,60,000
saidul Alam Mazumder	-	18,50,000
Sudip Nath	-	4,46,500
Shree Gonesh & Associates	1,36,680	-
Better Power Service Ltd	24,526	-
B.K.Construction	57,35,000	3,00,000
Biswajit Chakraborty	10,00,000	-
Dhruba Dutta	4,50,000	-
Dipak Nath	83,90,000	-
Monotosh Bhattacharjee	15,00,000	-
Nurul Hussain Barbhuiya	89,000	-
Priyanka Das	24,00,000	-
Rajarshee Dey	7,00,000	-
Rambabu Kurmi	33,71,000	-
Ratneswar Bhattacharjee	6,00,000	-

RECEIPTS :	Amount in Rupees	
Particulars	Current Year	Previous Year
Rafique Uddin Ahmed	47,95,000	6,00,000
NCC Ltd	-	-
Gulanur Hussain Choudhury	10,00,000	10,00,000
Naresh Chandra Roy	-	12,00,000
Sudev Podder	-	5,00,000
Nupin Enterprises	-	11,00,000
DDF Consultant Pvt. Ltd.	-	-
Duttco Instruments	-	-
Integrated Micro system	-	-
J V Enterprises	-	-
Labtech Electronics	-	-
LCGC Bioanalytic Solutions	-	-
Rajiv Sen	-	-
Swapan & Associates	-	-
Mukesh & Associates	-	-
Nanda Kr. Singh	-	-
Earnest Money Deposit	10,50,573	42,95,750
Security Deposit	32,72,060	25,09,096
Performance Security (BRNS project)	-	-
Performance Security (Proect A/c)	1,67,424	-
BIG DML 2019 Conference (Project)	74,242	-
Alumini Association Fee	9,33,000	10,53,000
Deposit Remittance	1,71,564	9,82,952
Deposit Remittance (project)	6,47,972	43,481
Recovery of Electricity Charges (Project)	38,520	35,858
Recovery of Licence Fee (Project)	61,268	1,23,494
CCTV Payable	4,77,982	11,87,871
Group Insurance Claim	1,41,770	5,95,442
Gymkhana	44,90,000	73,41,000
Hostel Management	-	-
Leave Encashment Payable (Other Org)	-	2,34,956
Leave Encashment Payable	97,072	-
Liability Towards DCRG	50,000	3,00,000
L.I.C.I Payable	44,58,157	47,92,904
Institute Contribution Towards NDS DICOBA Scheme	2,50,890	-

RECEIPTS :		*Amount in Rupees*
Particulars	**Current Year**	**Previous Year**
Pension Fund Contribution (Other Org)	-	-
Mediclaim Insurance	19,44,870	21,19,357
Mess Establishment	34,25,500	67,42,480
Processing Charges	28,000	4,25,369
Refundable Excess Deposit	73,023	2,27,833
Student Mediclaim	3,07,907	8,18,286
Transcript Fee	9,34,700	7,51,400
RPS Project A/c	5,00,000	93,77,269
Verification fee	93,600	1,37,500
Provision -Plan (others)	-	5,77,637
DST FIST (M.E Adv Mfg)	-	-
Recovery against Trainee Teachers (RD)	2,20,800	2,20,800
Unclassified receipts (Institute)	12,83,865	16,07,302
Unclassified receipts (Project A/c)	-	-
ATAL FDP Programme Payable	3,72,000	
ASDMA Training	-	1,73,700
APDCL Exam	-	-
BHM Fee	15,500	1,66,000
CMDAYS 2020 Payable	1,48,750	-
CEE 2018	-	45,940
CSAB Exp	4,88,592	6,47,351
Death Cum Ret. Gratuity Payable	30,690	-
CTET 2021	37,000	2,05,250
DST FIST (Demurrage Charges)	16,865	3,55,971
EDCIL India Ltd	13,12,000	-
GM finance	8,99,795	-
MSME Project Fund	9,74,625	-
CCMT Exp	3,71,182	-
CoMSO-2020	2,40,500	-
IEEE ACTS-2020	88,500	-
Payable To Arjun Sil	10	-
Payable To Books & Equipments Distributors	27	-
ICRAME 2020	-	2,62,546
Mahabir Systems	-	9,735
Total	**7,13,66,821**	**6,82,94,115**

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

SCHEDULES FORMING PART OF RECEIPTS & PAYMENTS ACCOUNTS FOR THE YEAR ENDED 31ST MARCH 2021

PAYMENTS :		*Amount in Rupees*
Particulars	**Current Year**	**Previous Year**
Establishment Expenses		
Salary Teach & Admin	36,33,36,183	34,96,21,674
Salary Class-III	1,27,64,405	1,87,64,977
Salary Class-IV	2,68,75,018	3,22,94,821
Salary of Cont. Staff (Teach/admin/III/IV)	1,91,33,372	-
Salary of MR Staff	1,84,63,669	-
Salary of Outsourced Staff	-	-
Professional Dev Allowance	68,80,743	61,89,797
NPS Contribution	-	-
CPF Contribution	-	-
EPF Contribution on MR Salary	-	-
EPF Contribution on Contract Staff Salary	-	-
Mobile & Telephone Bill Reimbursement	6,69,875	3,16,223
Death Cum Ret. Gratuity	52,27,645	1,55,76,483
Pension	-	-
Commuted Pension	-	-
Leave Encashment	30,51,637	72,72,985
Home Travel Concession	54,236	2,15,106
Leave Travel Concession	77,80,669	48,73,186
Medical Reimbursement	13,30,312	23,89,263
Medicine & Dispensary Exp	2,11,405	11,23,765
Children Education Allowance	2,16,000	36,99,000
Honorarium/Sitting Fees	-	-
Security Services	-	-
House Keeping	-	-
Joining Time T.A	-	1,60,375
Relocation Charges (Transportation)	1,54,670	4,89,366
Total	**46,61,49,839**	**44,29,87,021**
Academic Expenses		
Lab Consumable	6,52,241	5,22,758
Conferences	-	3,36,463

PAYMENTS :		*Amount in Rupees*
Particulars	**Current Year**	**Previous Year**
Visiting Faculty Remuneration	-	2,93,500
Examination Expenses	13,43,771	27,13,562
Convocation Expenses	11,04,551	27,46,166
Stipend to M.Tech/ Ph.D	19,29,72,739	19,09,13,659
Student Project Expenses	35,811	3,01,194
Library Contingency	50,680	3,16,936
Industry Visit (MBA)	-	-
Student orientation programme	5,000	54,394
Summer Term Course Exp	-	3,60,000
Workshop & Seminer expense	8,04,601	9,20,885
Total	**19,69,69,394**	**19,94,79,517**
Administrative Expenses		
Pension	7,79,35,192	7,67,48,304
Commuted Pension	42,53,669	1,33,36,713
NPS Contribution	3,51,26,642	1,92,83,665
CPF Contribution	2,09,916	1,74,930
EPF Contributiion Contractual & others	11,10,669	35,42,503
EPF Contribution (MR)	17,93,845	19,99,779
Salary of Contractual Teaching & Admin	-	2,40,27,331
Salary of M R Staff	-	1,76,02,838
Security Services	5,86,81,855	5,88,88,207
House Keeping	3,90,13,539	3,58,97,429
Honorarium	4,68,000	3,60,202
Electricity & Power Charges	1,42,72,163	3,34,20,245
Water and Electricity Charges to PHE	61,43,983	89,21,622
Solar Energy Charges	18,01,415	15,15,906
Postage Exp	1,49,285	43,266
Internet Expenses	-	6,37,644
Telephone Charges	-	-
Printing and Stationary Exp	13,51,496	18,94,427
Local Conveyance	2,330	4,800
TA/DA Expenses	2,85,090	39,74,185
Hospitality Exp/Refreshment	3,28,921	5,13,246
Audit Fees	6,23,445	11,99,225

PAYMENTS :		*Amount in Rupees*
Particulars	**Current Year**	**Previous Year**
Professional Fee & Legal Exp	83,391	-
Advertisement Expenses	27,59,644	55,41,441
News Paper & Periodicals	11,975	16,954
Training & Placement Expenses	-	4,92,159
Board & Committee Meeting	1,75,203	4,64,928
Computer Consumable Exp	5,15,147	7,38,345
Foster Social Resposibility Exp	10,41,438	3,89,400
Miscellanous Exp	5,02,677	76,166
Gyan Sagar Exp	2,90,789	54,986
Celebration of National Day	3,34,961	10,33,205
NCC & NSS Activities	87,641	1,18,100
Promotion of Rashtriya Bhasha	-	1,46,689
Consumable	1,88,792	7,28,950
Innovation Lab Exp	4,12,155	1,02,100
Other Admin Exp	8,02,389	30,80,242
Short Term Training Programe Exp	-	35,022
NSDL Service Charges	26,636	20,209
Gymkhana Expenditure	47,32,404	5,65,029
NIT Conclave	-	18,730
Swach bharat mission Exp	10,32,042	4,14,235
Celebration Of foundation Day	5,15,331	1,60,034
Inter NIT Sports Meet	31,30,331	-
Excess Accrued Interest	-	1,27,267
Contingency expenditure	-	-
HPC Cell exp	-	-
NABL expense	-	1,61,129
Start-up conclave expense	-	-
Innovation expense	-	-
Total	**26,01,94,401**	**31,84,71,787**
Transportation Expenses		
Vehicle Running Expenses	9,40,403	24,13,588
Insurance Exp- Vehilces	-	-
Total	**9,40,403**	**24,13,588**
Repairs and Maintenance Expenses		

PAYMENTS :		*Amount in Rupees*
Particulars	**Current Year**	**Previous Year**
Repairs & Maintenace- Building & Others	2,59,76,225	3,14,02,082
Maintenance of Furniture & Fixtures	12,550	9,71,139
Repairs and Maintenace- Tools & Equipments	9,79,874	18,87,765
Casual Work & Carriage	3,500	1,66,161
Gardening & Horticulture	95,25,855	1,39,542
Repairs & Maintenance- Electricity	18,80,596	35,90,957
Maintenance of D.G Set	1,12,49,471	91,39,496
Manitenance of Networking	50,32,991	30,64,809
Repairs & Maintenace of Guest House	1,61,799	1,14,966
AMC for IT Facility	-	13,31,315
Total	**5,48,22,861**	**5,18,08,232**
Finance Cost		
Bank Charges	48,259	1,80,421
Total	**48,259**	**1,80,421**
Prior Period Expenses		
Total	-	-
Other Expenses		
Support to NITS KIDS School	-	2,73,410
Support to Kendriya Vidyalaya	3,37,84,000	3,77,19,000
Total	**3,37,84,000**	**3,79,92,410**
EARMARKED FUND / ENDOWMENT FUND :		
Corpus Fee	-	38,000
NMICT Awareness Program Fund	-	-
Student Aid Fund	27,000	8,000
Student Welfare Fund	23,525	-
Employees' Welfare Fund	9,751	81,603
Depreciation Fund	-	1,99,740
Maintenance Fund	-	2,20,721
Staff Dev Fund	-	32,064
Pension Fund	-	-
Corpus Fund	26,000	1,04,246
Total	**86,276**	**6,84,374**
SPONSORED PROJECTS:		
Expenditure against Sponsored Projects		

PAYMENTS :		*Amount in Rupees*
Particulars	**Current Year**	**Previous Year**
Capital Expenditure		
Equipment	1,20,33,114	19,08,446
Computer	-	-
Books	-	-
Revenue Expenditure	91,45,756	1,55,38,264
Total	**2,11,78,870**	**1,74,46,710**
FELLOWSHIP / SCHOLARSHIP :		
Outside Scholarship Payable	21,53,605	46,00,339
Doctoral Fellowship (ICSSR)		
Total	**21,53,605**	**46,00,339**
INVESTMENTS & DEPOSITS:		
OUT OF EARMARKED/ENDOWMENT FUNDS;		
Corpus Fund Investment	-	43,10,00,000
Depreciation Fund Investment	-	5,66,00,000
Maintenance Fund Investment	-	5,20,00,000
Staff-Dev Fund Investment	-	24,00,000
Total	**-**	**54,20,00,000**
OTHER INVESTMENT		
Investment (Recurring)	-	-
Investment (Fee)	-	-
Total	**-**	**-**
OUT OF OWN FUNDS;		
Investment- LC Margin Money A/C	-	18,50,000
Total	**-**	**18,50,000**
EXPENDITURE ON FIXED ASSETS		
Software Developments	41,87,938	1,10,70,125
E-Journals	2,07,07,295	2,80,52,790
E-Books	57,36,702	14,20,449
Patent and Copyright	-	-
Buildings		
Institute Building Renovation	-	-
Married Scholar Hostels	-	4,65,619
Girls Hostel No.1	-	10,16,737
Boys Hostel No.6	-	3,87,551

PAYMENTS :	Amount in Rupees	
Particulars	Current Year	Previous Year
Boys Hostel No.9	-	46,84,631
Renovation of Hostels	1,11,70,842	-
Renovation of Staff qtr.	-	1,55,814
Renovation of Inst. Building	31,32,131	32,32,316
Electrical Substation I & II	2,28,076	
Security Barrack 2		-
Sports field/Volly Ball/tennis/Batbinton		26,63,575
Campus Development/Beautification	9,04,420	
Waiting Shed/Parking	39,72,976	8,97,388
DG Shed	6,45,220	
New Administrative Building	1,23,683	43,840
New Academic Building	7,67,239	7,35,617
New Lib. Building	-	18,62,309
Earth Quik Engg Building	-	48,139
Non Faculty Staff qtrs.	-	35,58,063
Expansion of E.E Building	80,102	51,851
Staff qtr. Type V	-	-
Eat out Dhaba	-	33,573
Electrical renovation	-	-
Girls Hostel No.3	81,61,727	-
Roads & Bridges		
Renovation of Internal Road and gate	1,43,988	13,18,576
Road & Power supply	1,11,98,899	1,21,13,469
Plant, Machinery & Equipments		
Audio Visual Equipments	45,98,559	1,05,500
Electrical Equipments	-	2,67,32,859
L.T.Line & U.G.Cabling	86,895	15,32,157
D.G.Set	-	56,65,820
Field Equipments	-	2,48,343
Lab Equipments	1,89,27,954	3,48,73,921
Gym Equipment	2,48,530	-
Furniture Including Hostels	94,20,064	2,10,99,296
Furniture (K.V.NITS)	-	1,86,240
Tools & Equipments	-	3,65,770

PAYMENTS :		*Amount in Rupees*
Particulars	**Current Year**	**Previous Year**
Office Equipments	-	50,880
Institute Contribution Towards Dicoba Scheme	-	-
Computer Pheriphrals	1,93,90,806	2,60,24,692
Books	22,96,449	22,34,948
Networking	89,56,704	2,44,60,949
Electronics Equipment	88,52,504	59,000
Other assets (Kitchen equpt. For Hostel)	2,73,940	4,22,200
Vehicle	-	8,16,115
Total	**14,42,13,643**	**21,86,91,122**
CAPITAL WORK IN PROGRESS:		
Boys Hostel-9 (WIP)	-	-
Director Bunglow (WIP)	2,00,600	
Library Building (WIP)	-	-
Total	**2,00,600**	**-**
PROVISIONS : (TAX)		
Income Tax (Against Salary & Contrats)	6,39,22,113	5,82,60,556
GST	45,47,133	61,45,374
GST (Project)	1,69,907	21,904
Income Tax (Project)	-	-
Professional Tax	5,15,112	11,23,766
Professional Tax (Project)	6,240	9,360
Labour Cess Payable	-	-
Total	**6,91,60,505**	**6,55,60,960**
Refund to Ministry (Project A/C)		
Refund from Project Account	37,99,467	16,39,135
Total	**37,99,467**	**16,39,135**
Loans,Advances & Deposits		
Sundry Debtors		
Advance to Employees		
HTC Advance	-	-
LTC Advance	26,14,600	40,60,500
Other Advance To Employees		
Recoverable Advance	50,30,793	2,77,32,760
Recoverable Advance (Project)	1,18,000	17,31,591

PAYMENTS :	*Amount in Rupees*	
Particulars	**Current Year**	**Previous Year**
TA Advance	94,000	42,17,540
Soft Loan (Staff)	3,77,344	5,26,172
Interest Free Loan (Festival Advance)	2,76,000	3,24,000
Medical & Other Advance	-	2,00,000
TA Advance (Project)	-	6,45,999
Adv To Balmer Lawrie & co.	3,61,513	1,35,83,766
Advances & Other Receivable on Capital A/c		
Deposit Work		
Deposit Work-CPWD For Internal Road	-	-
Deposit Work-CPWD New Admin Building	-	-
Deposit Work-CPWD Non Faculty-100 Units Qtr	-	-
Deposit Work-CPWD Swage Disopl. Sytm	-	-
Margin Money for LC against Equipment	-	-
Advance to NCC Ltd	-	-
Advance to N.C.Roy	-	-
Advance to Sudeep Nath	-	-
Advance to Dipak Nath	83,40,000	31,90,000
Advance to Hanney Electronics	-	16,79,000
Advance to Mashuk Uddin Barbhuiya	-	4,00,000
Advance to monotosh Bhattacharjee	15,00,000	15,00,000
Advance to Nurul Hussain Barbhuiya	89,000	-
Advance to Priyanka Das	24,00,000	-
Advance to Rajarshee Dey	7,00,000	-
Advance To Rajib Sen	-	3,10,000
Advancce to Rambabu Kurmi	25,00,000	8,71,000
Advance to Ratneswar Bhattacharjee	10,00,000	-
Advance to Biswajit Chakraborty	10,00,000	-
Advance to Dhruba Dutta	4,50,000	-
Advance to Saidul Alam Mazumder	-	18,50,000
Advance to B.K.Construction	35,50,000	29,85,000
Advance to Erafique Uddin Ahmed	19,90,000	45,78,000
Other Receivable (M.tech st sem-2020 Batch)	27,900	-
Total	**3,24,19,150**	**7,03,85,328**
Current Liabilities & Provisions		

PAYMENTS :		*Amount in Rupees*
Particulars	**Current Year**	**Previous Year**
Hostel Caution Money	60,75,000	53,54,000
Institute Caution Money	41,92,000	2,46,000
M/s Sify Technologies	17,82,336	-
M/s Panorama International	-	5,08,542
Blue Star ltd	-	1,81,000
Intigrated Micro Systems	-	69,825
Gulanur Hussain Choudhury	25,39,203	10,00,000
Sudeb Podder	-	5,00,000
Naresh Chandra Roy	-	12,00,000
Nupin Enterprises	-	11,00,000
N.E.Books	-	843
M/s NCC Ltd	-	-
Shree Gonesh Associates	1,36,608	-
LCGC Bioanalytic Solutions LLP	43,485	-
Vanguards Security Services & Systems	9,04,824	-
Earnest Money Deposit	18,93,617	81,67,452
Security Deposit	17,81,417	91,18,029
Performance Security (project)	-	-
GSLI Payable	3,95,050	4,98,100
EPF Subscription MR Employees	18,03,524	18,47,995
EPF Subscription FFW Workers' Society/Housekeeping	1,03,499	21,09,224
EPF Subscription Contract Staff	11,25,845	11,67,227
GPF Advance Recovery	18,31,505	17,30,869
GPF Payable (Others)	10,40,000	15,30,000
GPF Subscription Payable	1,06,99,304	1,22,28,034
CPF Subscription Payable	2,44,902	1,74,930
CPF Contribution Payable	34,986	-
NPS Subscription Payable	1,97,25,160	1,92,83,665
Academic Development Fee (MBA)	31,000	-
EPF Contribution Payable	2,63,928	-
NRCs SWAYAM PMMMNMTT Scheme	10,29,500	-
NEC-2020	2,00,000	-
Payable Against Celebration Of National Day	3,49,400	-
Commuted Pension Payable	7,35,200	-

PAYMENTS :		*Amount in Rupees*
Particulars	**Current Year**	**Previous Year**
IUSSTF Base Fellowship (Project A/c)	-	-
Electricity Recovery (Project A/c)	38,520	37,462
Recovery of Licence Fee (Project)	61,268	1,51,892
Payable to R.G Nair (Project A/c)	-	17,154
YFRF's Visvevaraya PhD	6,81,130	5,39,159
Business Environment Law Cirriculum Fund	-	-
Unnat Bharat Abhiyaan	-	1,14,720
GIAN Course Fee	-	9,000
GIAN Fund	-	9,75,562
DST Inspire Scholarship	-	-
Alumini Association Fee	59,72,641	8,000
CCTV Payable	9,52,576	7,00,840
Deposit Remittance	2,94,254	2,45,637
Deposit Remittance (Project A/c)	6,47,972	-
Group Insurance Claim	1,79,971	7,28,235
Gymkhana	8,64,824	20,33,355
Leave encashment payable	-	20,36,160
Hostel Management	-	-
Liability Towards DCRG	2,50,000	1,50,000
L.I.C.I Payable	44,91,471	44,18,321
Sponsored Project Liability	-	-
Sponsored Project Current Year	-	-
Dst Fist (PHY) Payable	-	91,08,000
DDF Consultant Pvt Ltd	-	-
Mr.Rajib Sen	-	-
M/S.P.Swapan & Associates	-	-
Nando Kumar Singh	-	-
Mediclaim Insurance	23,00,832	20,25,360
Mess Dues	-	-
Mess Establishment	9,36,928	17,89,514
Processing Charges	3,65,250	4,45,750
Refundable Excess Deposit	93,82,630	98,09,347
Salary teach/Admin Payable	-	-
Student Mediclaim	4,54,261	9,15,050

PAYMENTS :	Amount in Rupees	
Particulars	Current Year	Previous Year
Transcript Fee	7,71,400	6,27,100
CPF Contribution Payable	-	-
Advertisement Exp Payable	5,23,405	1,76,346
DG Set Maintenance Payable	8,23,063	-
Gardening & Horticulture Exp Payable	7,44,491	-
Repairs & Maintenane Electricity Payable	-	4,66,074
Repairs & Maintenane Build & Others Payable	22,35,686	-
Repairs & Maintenane Tools & Equip. Payable	8,57,806	1,900
Water & Electricity Charges to PHE Payable	-	-
RPS Project A/c	5,00,000	93,77,269
House-keeping Exp Payable	36,63,819	-
NPS Contribution Payable	-	-
HTC/LTC Exp Payable	-	-
Medical Reimbursment Exp Payable	-	81,514
Printing & Stationery Exp Payable	1,500	-
Guest House Maint. Exp Payable	-	-
BHM Fee	56,500	1,40,500
APDCL Exam Payable		78,600
CASB Exp	4,88,592	8,47,351
CEE 2018	-	-
ICRAME-2020	25,519	
CTET 2020	37,000	67,380
Death Cun Ret.Gratuity Payable	6,81,467	-
DST Fist (Demurrage Charge/Heldup)	3,72,836	-
GPF Payable Against Autosweeep	-	2,96,847
DST Inspire Payable	-	-
Education Loan Refundable	-	-
Payable To Pulak Nath	42,820	-
Payable to Sagarika Choudhury	1,000	
Payable Against AICTE Exam	3,36,975	-
QIP Grants	1,31,298	
QIP Grants Payable	1,48,500	
Special Exam	5,05,000	
Payable Against CHSL Online Exam	-	-

PAYMENTS :		*Amount in Rupees*
Particulars	**Current Year**	**Previous Year**
Payable Against Indian Academic of Sciences (IASc)	-	-
Children Education Allowance Payable	35,05,500	-
Electricity & Power Charges Payable	15,11,583	-
Contractual Staff Salary Payable	1,02,389	37,13,585
MR Staff Salary Payable	-	-
Security Service Charges Payable	60,06,729	1,37,37,180
Stipend to M.Tech/ Ph.D Payable	-	1,49,76,008
Legal & Professional Fees Payable	3,02,810	
Support to NITS KIDS Staff Payable	-	55,264
Telephone Charges payable	-	-
Vehicle Repair Expenses Payable	-	1,35,188
Unclassified Receipts	-	5,800
House Keeping Charges Payable	-	26,17,305
NMHS Project Account	-	6,50,000
Provision Plan Others	1,11,69,256	1,60,04,469
Provision Non Plan Others	67,212	-
Verification Fee	1,56,000	74,000
CCMT Expenses Payable	3,21,182	1,09,127
CoMSO-2020	78,740	-
Gandhi Gobal Solar Yatra Payable	-	1,22,840
IAF Exam Payable	16,820	-
Payable Against Written Test Exam	50,945	-
NEET 2019 Examimation Payable	-	2,33,126
Refundable To CCMN	50,000	-
ATAL FDP Programme Payable	2,09,415	-
MIND-2020	4,82,279	-
Payable to Rajib Kahar	-	53,592
ONGC Exam Payable	-	1,66,592
Prepaid E-Journals	2,43,77,275	1,30,81,036
Prepaid E-Books	2,47,574	
Prepaid Insurance	-	-
Relief fund remittance	-	-
Mooc project - Library	-	-
INSA Visiting Fellowship	-	-

PAYMENTS :	Amount in Rupees	
Particulars	Current Year	Previous Year
BMG Informatics	-	-
CIS Bureau Services Pvt. Ltd.	-	20,38,642
DST Project - SERB	-	17,05,698
PMMMNT Scheme Fund	-	4,10,500
West Bengal JEE	-	29,460
SPARC Scheme	-	53,82,910
CSIR - NISTADS	-	-
Payable to Agilent Technologies India Pvt Ltd (Project)	26,41,257	-
Payable to brinda bhowmick (Project)	33,175	
Payable against Visveswaria Contingency (Project)	-	1,21,519
Payable to BMG Informatics(Project)	-	-
Payable to Chandra Drug Distributors (Project)	24,972	-
Payable to Institute against VISH VFRF (Project)	4,50,000	-
Payable to Munmun Khanra (Project)	31,088	-
Payable to North East Chemicals Corporation (Project)	24,999	-
Payable Praveen Kumar (Project)	3,78,000	-
Payable to Sanjay Debnath	3,15,444	-
Payable to NS Moyon (Project)	-	-
Payable to Saubrata Bera (Project)	-	-
Payable to Wasim Arif (project)	-	-
Payable to Krushna Goura (project)	-	83,518
Payable to M Khanra (project)	-	28,699
Payable to Nikhil (Project)	-	52,680
Payable to Pujita N (Project)	-	81,722
Payable to Subrata Bera (Project)	-	89,934
Payable to Subrata Kushari (Project)	1,90,833	25,000
Payable to T.R.Lenka	23,242	
Payable to VVV (Project)	1,79,423	1,29,410
Payable to Biplab Das (Project)		-
Other Receivable		
Receivable from CCMN	-	8,11,500
Receivable from CCMT	-	3,48,350
DST Inspire Recoverable	-	-
Receivable From Consultancy A/c	-	-

PAYMENTS :		*Amount in Rupees*
Particulars	**Current Year**	**Previous Year**
RPS Project Recoverable	18,88,950	60,000
Receivable from CCMT against Fee	-	38,78,100
Receivable CSAB	2,08,78,000	2,31,15,000
Receivable From Project A/c	32,890	10,75,343
SPARC Receivable	52,310	6,692
Receivable From BHM (Mess Adv)	-	-
Loan to TEQIP	12,20,332	2,03,51,600
TDS Receivable (I Tax) including Project	-	-
TDS Receivable(IT Non Plan)	25,262	84,216
NEC-2020 Receivable	2,88,764	-
Receivable From DST SERB	1,65,639	-
Receivable From DST-FIST Project (ME)	15,28,320	-
TDS Receivable	-	13,41,600
Prime Minister Care Fund (Covid-19)	10,82,923	-
Group Insurance Receivable	-	62,054
Receivable From SMDP Project	-	-
Receivable From Institute (Project A/c)	2,71,950	-
IIT GHY Project Adv (Project A/c)	92,291	-
Total	**18,02,60,271**	**24,34,84,393**

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

GENERAL PROVIDENT FUND and NPS ACCOUNTS

BALANCE SHEET AS AT MARCH 31, 2021

(Amount in Rupees)

LIABILITIES	Current Year	Previous Year	ASSETS	Current Year	Previous Year
CAPITAL FUND (GPF):			**INVESTMENT:**		
Opening Balance	27,83,11,288	25,82,22,340	Investment with Bank_FD/STDR	1,60,21,222	26,50,00,000
Less: Final Payment	1,00,19,702	97,92,413	Investment with Bank_Mutual Fund	23,50,00,000	
Less: Fund towards Pension Fund transferred	73,85,881	65,24,768			
Balance	**26,09,05,705**	24,19,05,159	Interest accrued on FD/STDR	-	2,05,07,106
Add: GPF Subscription	1,18,54,949	1,22,28,034	Interest accrued on Mutual Fund	3,87,50,094	
Add: GPF Subscription (Other Org)	10,40,000	11,15,000			
Add: Excess payment recovered	-	-	**CURRENT ASSETS:**		
Add: Excess of Income Over Exp	2,22,28,129	2,30,63,095	Advance to Subscriber	67,27,169	50,60,399
Capital Fund	29,60,28,783	27,83,11,288	Receivable from Institute (NPS Sub & Contr)	1,92,37,473	-
CURRENT LIABILITIES & PROVISIONS:			Receivable from Institute against GPF Subs.	11,55,645	-
Pension Fund Contribution Payable (2019-20)	-	65,24,768	Receivable from Institute	7,65,192	7,65,192
Total	**29,60,28,783**	**28,48,36,056**	GPF Advance receivable from Institute	2,00,330	-
NPS Account:					
Opening Balance	**1,60,59,515**	**88,90,683**			
Add: Subscription & Contribution (Received)	6,01,09,461	3,82,02,694	**CASH AT BANK**	**47,37,561**	**95,62,874**
Add: Subscription & Contribution (Other Org)	-	-			
Less: Paid during the year (NSDL)	4,96,03,073	3,10,33,862			
Total (Payable to NSDL)	**2,65,65,903**	1,60,59,515			
Grand Total	**32,25,94,686**	**30,08,95,571**	**Grand Total**	**32,25,94,686**	**30,08,95,571**

Date: The 22nd October, 2021
Place: Silchar

Registrar

Director

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

GENERAL PROVIDENT FUND and NPS ACCOUNTS

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED MARCH 31, 2021

(Amount in Rupee

EXPENDITURE	Current Year	Previous Year	INCOME	Current Year	Previous Year
Bank charges	-	266	Interest Received on FD	5,81,378	-
Excess of Income over Expenditure	**2,22,28,128**	2,30,63,095	Interest Accrued on Investment:		
			On STDR	10,44,309	20,93,385
			On SBI Mutual Fund	2,03,36,373	1,84,13,721
			Interest received on Savings Account	2,66,068	25,56,255
Total	**2,22,28,128**	**2,30,63,361**	**Total**	**2,22,28,128**	**2,30,63,361**

Date: The 22nd October, 2021
Place: Silchar

Registrar

Director

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

GENERAL PROVIDENT FUND and NPS ACCOUNTS

RECEIPTS AND PAYMENTS ACCOUNTS FOR THE YEAR ENDED 31ST MARCH 2021

(Amount in Rupees)

RECEIPTS	Current Year	Previous Year	PAYMENTS	Current Year	Previous Year
Opening Balance: (As on 01.04.2019)					
Cash at Bank	95,62,874	23,07,57,079	**ACCUMULATED FUND:**		
ACCUMULATED FUND:					
GPF Subscription	1,06,99,304	1,22,28,034	**GPF Adv./Withdrawal**		
GPF Subscription Received (Other Org)	10,40,000	11,15,000	Advance to Subscriber	37,36,605	22,77,000.00
GPF Advance recovery	18,69,505	11,97,323	Pension Fund Contrb. Paid	73,85,881	-
NPS Subscription (Institute)	1,97,13,626	1,91,01,347	Final payment	1,00,19,702	97,92,413.00
NPS Contribution (Institute)	2,11,58,362	1,91,01,347			
			NPS Subscription (Institute)	1,69,98,326	1,55,16,931.00
GPF Subscription Receivable (2018-19)		4,15,000	NPS Contribution (Institute)	2,17,58,568	1,55,16,931.00
NPS Contribution Receivable (2018-19)		1,82,318	NPS Subscription Arrear	54,23,089	-
NPS Subscription Receivable (2018-19)		1,82,318	NPS Contribution Arrear	54,23,089	-
GPF Advance Receivable (2018-19)		5,33,546			
Autosweeep Investment received from Inst.	-	2,96,000	**INVESTEMENT**		
Autosweeep Interest received from Inst.	-	847	Investment during the year (in SBI Mutual Fund)	-	23,50,00,000
			Interest on FD	15,370	
INVESTMENT			**EXPENSES**		
Investment Matured	1,60,00,000	-	Bank Charges	-	265.60
Accrued Interest Received (Maturity)	11,16,472	-	Pension Fund Contribuiton Payable (2019-20)	65,24,768	
INTEREST			**Closing Balance:**		
Interest Received against FD	2,66,068	-	Cash at Bank	47,37,561	95,62,874
Interest on SB A/c	5,96,748	25,56,255.00			
CURRENT LIABILITY					
Deposit Remittance		-			
Total	**8,20,22,959**	**28,76,66,414**	**Total**	**8,20,22,959**	**28,76,66,414**

Date: The 22nd October, 2021
Place: Silchar

Registrar

Director

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

GENERAL PROVIDENT FUND and NPS ACCOUNTS

Schedule of Investment & Interest accrued of G P Fund upto 31.03.2021

(Amount in Rupees)

Sl	Name of Bank	Fixed Deposit /Mutual Fund Account No	Dated	Face Value as on 31.03.2020	Addition during 2020-21	Matured/ Encashed during 2020-21	Face Value as on 31.03.2021	Accrued Intt. Earned upto 2019-20	Accrued Intt. received during 2020-21	Accrued Intt. Earned during 2020-21	Intt Received during 2020-21	Accrued Interets Upto 31.03.2021
1	SBI NIT Sil	38362654224	30.03.2019	80,00,000	-	80,00,000	-	5,58,236	5,58,236	-	-15,370	-
2	- do -	38362656243	30.03.2019	80,00,000	-	80,00,000	-	5,58,236	5,58,236	-	5,96,748	-
3	- do -	38362656742	30.03.2019	80,00,000	91,54,984	80,00,000	91,54,984	5,58,236	5,58,236	-	5,96,748	-
4	- do -	38362657134	30.03.2019	40,00,000	45,77,492	40,00,000	45,77,492	2,79,118	2,79,118	-	2,98,374	-
5	- do -	38362657521	30.03.2019	20,00,000	22,88,746	20,00,000	22,88,746	1,39,559	1,39,559	-	1,49,187	-
6	- do -	Mutual Fund	02.4.2019	16,00,00,000		-	16,00,00,000	1,71,26,569		1,33,39,459	-	3,04,66,028
7	- do -	Mutual Fund	27.1.2020	7,50,00,000		-	7,50,00,000	12,87,152		69,96,914	-	82,84,066
Total Rs.				**26,50,00,000**	**1,60,21,222**	**3,00,00,000**	**25,10,21,222**	**2,05,07,106**	**20,93,385**	**2,03,36,373**	**16,25,687**	**3,87,50,094**

Note Sl (1) Prematured withdrwal made during 2020-21 due to urgency and penalty charges adjusted with earned accrued interest thereon.
Sl (3), (4) and (5) were autorenewed during the year, thereby, necessary disclosure shown on the table.

Date: The 22nd October, 2021
Place: Silchar

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME [TEQIP - III]

BALANCE SHEET AS AT 31ST MARCH, 2021

Sr.No	PARTICULARS	Schedule No.	Current Year Amount (₹)	Previous Year Amount (₹)
A	**SOURCE OF FUNDS**			
	1) Amount Received From NPIU	I	7,78,17,060	6,48,84,470
	2) Contribution From:		-	-
	3) Less: Excess of Expenditure Over Income	II	7,78,17,060	6,46,42,470
	As par last Account: Rs.6,46,42,470.00			
	Add: During the year: Rs.1,31,74,590.00			
Total			-	**2,42,000**
B	**APPLICATIONS OF FUNDS**			
	1) Fixed Assets		-	-
	2) Work in progress - Scheme work under implementation		-	-
	3)Investment	III	-	-
	4) A. Current Assets, Loan & Advances	IV		
	a. Cash Balance		-	-
	b. Bank Balance		-	-
	c. Advance for Capital Goods		-	-
	d. Loan & Advances		-	2,42,000
	Total (A)		-	2,42,000
	B. Current Liabilities	V		
			-	-
	Total (B)		-	-
	Net Current Assets (A - B)		-	2,42,000
Total			-	**2,42,000**

Date: The 22nd October, 2021
Place: Silchar

Registrar

Director

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME [TEQIP - III]

INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD ENDED 31ST MARCH, 2021

EXPENDITURE			INCOME		
Previous Year Amount (₹)	Particulars	Current Year Amount (₹)	Previous Year Amount (₹)	Particulars	Current Year Amount (₹)
	Procurement of Goods				
1,10,07,787	1.3.1.1 Equipment	38,88,132	3,03,90,092	Receipt from NPIU	1,29,32,590
-	1.3.1.2 Learning Resources	-	8,99,600	Settlement of adv for the last FY 19-20	2,42,000
29,16,774	1.3.1.3 Furniture	-			
	Academic Process:				
7,07,517	1.3.2.11 Industry-Institute Interaction	-			
20,62,959	1.3.2.1 Improve Student Learning	14,10,586			
-	1.3.2.2 Research Assistantship	2,50,000			
3,75,478	1.3.2.3 Graduate Employability	1,63,707			
94,400	1.3.2.10 Services	1,65,200			
72,44,695	1.3.2.4 Faculty/staff Development & Motivation	17,82,665		(Excess of expenditure transferred to Capital A/c)	
44,87,971	1.3.2.5 Research and Development	17,56,609			
4,10,879	1.3.2.7 Monitoriing/ Twinning System	27,899			
10,97,080	1.3.2.8 Reforms, Governance	28,98,200			
59,000	1.3.2.9 Management capacity development	-			
66,617	1.3.2.6 MOOCs Digital Learning	-			
	Operating Cost:				
18,878	1.3.3.1 Consumables	-			
-	1.3.3.2. Operation & Maintenance of Equipment	2,90,725			
8,290	1.3.3.3 Office Expenses	16,484			
1,41,422	1.3.3.4 Meetings	69,611			
3,47,945	1.3.3.6 Travel Cost	69,892			
-	1.3.3.7 Salary	3,84,880			
	Total Expenditure	1,31,74,590			
	Others:				
2,42,000	Payment against advance during FY 20-21 (unadjusted)	-			
3,12,89,692	**Total**	**1,31,74,590**	**3,12,89,692**	**Total**	**1,31,74,590**

Date: The 22nd October, 2021
Place: Silchar

Registrar

Director

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME [TEQIP - III]

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD ENDED 31ST MARCH, 2021

RECEIPTS			PAYMENTS		
Previous Year Amount (₹)	**Particulars**	**Current Year Amount (₹)**	**Previous Year Amount (₹)**	**Particulars**	**Current Year Amount (₹)**
	Opening Balance			Release to	
-	a) Cash	-	1,66,06,596	Payment to Consultants, Seminar & workshops	84,54,866
-	b) Bank	-	1,39,24,561	Procurement of Assets	38,88,132
3,03,90,092	Received From NPIU through PFMS	1,29,32,590	5,16,535	Administration Expenditure	8,31,592
	Other Receipts (Adjst. Various Adv):			**Other Payments :**	
8,99,600	Settlement of unadjusted adv of prev. financial year	2,42,000	2,42,000	Payment against advance during FY 2019-20 (Unsettled)	-
				Closing Balance	
			-	a) Cash	-
			-	b) Bank	-
3,12,89,692	**Total**	**1,31,74,590**	**3,12,89,692**	**Total**	**1,31,74,590**

Date: The 22nd October, 2021
Place: Silchar

Registrar

Director

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME - PHASE-III [TEQIP-III]

Schedules Forming Part of Balance Sheet as at 31st March 2021

(Amount in Rs.)

SCHEDULE-I : GRANTS-IN-AID :	Current Year
Opening Balance as par last account	6,48,84,470
Received from MHRD, GOI (through PFMS) during the period	1,29,32,590
Total	**7,78,17,060**

SCHEDULE-II : EXPENDITURE	Current Year
Opening Balance as per last Account	6,46,42,470
Transferred from Income & Expenditure Statement	1,31,74,590
Total	**7,78,17,060**

SCHEDULE-III : FIXED ASSETS :	Balance as on 01/04/2020	Addition	Deletion during the year	Closing Balance
Equipment	1,79,86,677	38,88,132	-	2,18,74,809
Furniture	29,16,774		-	29,16,774
Books & LRs & Software	1,03,55,883	-	-	1,03,55,883
Minor Works	-	-	-	-
Total	**3,12,59,334**	**38,88,132**	**-**	**3,51,47,466**

N.B.: Certified that the Assets acquired during the period under report is physically verified.

SCHEDULE-III (A): INVESTMENT:	Current Year
STDR (FIXED DEPOSIT)	-
Total	**-**

SCHEDULE-IV : Current Assets, Loans and Advances:	Current Year
1. Cash in Hand	-
2. Cash at Bank (SBI, NIT Silchar Branch)	-
Total (A)	**-**

NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME - PHASE-III [TEQIP-III]

Schedules Forming Part of Balance Sheet as at 31st March 2021

(Amount in Rs.)

3. **Loan and Advances :**	
i) Advances for workshop	-
ii) TA Advances	-
Total (B)	**-**
Total (A+B)	**-**

SCHEDULE-V : Current Liabilities :	**Current Year**
EARNEST MONEY DEPOSIT	-
Total	**-**

Date: The 22nd October, 2021
Place: Silchar

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME [TEQIP-III]

STATEMENT OF SOURCES AND APPLICATION OF FUNDS AS ON 31/03/2021

(Amount in Rupees)

Particulars	Current year	Previous year	Project to date
Opening Balance (A)	-	-	-
Receipts:			
Funds equivalent to expenditure shown in PFMS (Funds made available by MHRD)	1,35,32,625	3,03,90,092	7,84,92,701
Less: Debit Failures	-	-	21,500
Less: Ineligible expenditure*	-	-	16,163
Less: Expenditure not claimed/Debit Pending	6,00,035	-	6,37,978
Add: Settlement of Unadjusted advance of FY 2019-20	2,42,000	8,99,600	23,59,600
Total receipts (B)	**1,31,74,590**	**3,12,89,692**	**8,01,76,660**
Total sources (C=A+B)	**1,31,74,590**	**3,12,89,692**	**8,01,76,660**
Expenditures by Component:			
A. Procurement of Goods	38,88,132	1,39,24,561	3,51,47,466
B. Academic Process	84,54,866	1,66,06,596	4,00,91,957
C. Operating Costs	8,31,592	5,16,535	25,77,637
Total Expenditures (D)	**1,31,74,590**	**3,10,47,692**	**7,78,17,060**
Closing Balance (C-D) (unadjusted adv in FY 2020-21)	-	**2,42,000**	**23,59,600**

Date: The 22nd October, 2021
Place: Silchar

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME [TEQIP - III]

STATEMENT OF SOURCES AND APPLICATION OF FUNDS AS ON 31/03/2021

(Amount in ` Rs.)

PARTICULARS	Current Year Amount (₹) 2020-21	Previous Year Amount (₹) 2019-20	Previous Year Amount (₹) 2018-19	Previous Year Amount (₹) 2017-18	PROJECT TO DATE
Opening Balance (A)		-	-	-	-
Receipts					
Funds equivalent to expenditure shown in PFMS	1,35,32,625	3,04,01,337	3,05,53,908	40,04,831	7,84,92,701
(Funds made available by MHRD)					-
Less : Debit failures	-	-	-	21,500	21,500
Less : Ineligible expenditure	-	-	-	16,163	16,163
Less : Expenditure not claimed/Debit pending	6,00,035	11,245	26,698		6,37,978
Total Receipts (B)	**1,29,32,590**	**3,03,90,092**	**3,05,27,210**	**39,67,168**	**7,78,17,060**
Add: Settlement of unadjusted advance (Prev FYs)	2,42,000	8,99,600	12,18,000	-	**23,59,600**
Total Sources (C= A+B)	**1,31,74,590**	**3,12,89,692**	**3,17,45,210**	**39,67,168**	**8,01,76,660**
Expenditure by Components:					
a) Capital Expenditure	38,88,132	1,39,24,561	1,73,34,773	-	3,51,47,466
b) Revenue Expenditure	92,86,458	1,71,23,131	1,35,10,837	27,49,168	4,26,69,594
Total Expenditure (D= a+b)	**1,31,74,590**	**3,10,47,692**	**3,08,45,610**	**27,49,168**	**7,78,17,060**
Closing Balance, (C-D) **(Payment against unadjusted adv during the FY)**	-	**2,42,000**	**8,99,600**	**12,18,000**	**23,59,600**

-

Date: The 22nd October, 2021
Place: Silchar

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

RECONCILIATION OF CLAIMS TO TOTAL APPLICATIONS OF THE FUNDS

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME [TEQIP - III]

Reconciliation of Claims to Total Applications of Funds for the period ended 31st March, 2021

Particulars	Schedules	Amount (₹ in Lakh)				
		CURRENT YEAR 2020-21	PREVIOUS YEAR 2019-20	PREVIOUS YEAR 2018-19	PREVIOUS YEAR 2017-18	PROJECT TO DATE
Bank Funds claimed during the year (A)	I	1,29,32,590	3,03,90,092	3,05,27,210	39,67,168	7,78,17,060
Total Expenditure made during the year (B)		1,37,74,625	3,10,58,937	3,08,72,308	27,86,831	7,84,92,701
Less: Outstanding bills (C)	II					-
Ineligible expenditures (D)	III				16,163	16,163
Expenditure not claimed/Debit pending (E)	IV	6,00,035	11,245	26,698	21,500	6,59,478
Total Expenditures Claimed (F)=(B)-(C)-(D)-(E)		1,31,74,590	3,10,47,692	3,08,45,610	27,49,168	7,78,17,060
World Bank Share @ 50% of (F) above (G)		-				

Date: The 22nd October, 2021
Place: Silchar

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME [TEQIP] [Ph- III]

PFMS RECONCILIATION STATEMENT FOR THE YEAR ENDED 31/03/2021

Sl No.	Statement of Expenditure	Amount (Rs.)	Project to Date (Rs.)
A	Expenditure as per PFMS Statement (as per M32) / **Tally**	1,37,74,625	7,84,92,701
	Less: Ineligible Expenditure	-	16,163
	Less: Expenditure not claimed during the year / Debit Pending [Report EP-04]	6,00,035	6,59,478
	Total	1,31,74,590	7,78,17,060
B	**Expenditure as per books of accounts (A - B)**	1,31,74,590	7,78,17,060

STATUS OF ADVANCES

Sl No.	Date	Amount (Rs.)	Amount (Rs.)
A	Opening Balance as on 1st day of the Quarter / year	2,42,000	2,42,000
B	Add:		-
	Advances paid in the quarter/year	-	-
C	Less:		-
	Adjustment/ Settlement of advances	2,42,000	2,42,000
D	Balance as on Last date of Quarter/Year	-	-

AGENCIES OF ADVANCES

Sl No.	Particulars	Period	Amount (Rs.)
1	Ageing of Advances in closing Balance	upto 15 days	-
2		upto 30days	-
3		more than 30 days	-

PHYSICAL AND FINANCIAL PROGRESS (PROCUREMENT)

Sl No.	Particulars	Amount (Rs.)
A	Procurement made during the quarter/year as per PFMS report	38,88,132
B	Procurement made during the quarter as per PMSS report	38,88,132
C	Variation, if any	-
D	Reasons for the variations	-

Date: The 22nd October, 2021

Place: Silchar

NOTES

BHARAT RATNA DR A P J ABDUL KALAM LEARNING RESOURCE CENTRE

NIT SILCHAR