

Institution Brochure



**NATIONAL INSTITUTE OF TECHNOLOGY,
SILCHAR
ASSAM, INDIA**

NIT SILCHAR AT A GLANCE

RANK

NIRF Rank 2020	46 th (In Engineering)
	9 th (Among NITS)
	94 th (Overall)
Atal Ranking of Institutions on Innovation Achievements (ARIIA) 2020	11-25 th
Category 'Institute of National Importance, Central Universities and CFTIs'	
Dataquest Top T-Schools in India 2020	16 th (Overall)
	3 rd (In East Zone)
	9 th (Top T-Schools (Government))
India Today Best College Ranking 2020	26 th (Among Govt. Engineering Colleges)
	5 th In (East Zone)
THE WEEK Best Engineering Colleges all India 2020	32 nd
UI GreenMetric World University Ranking 2020	275 th Overall
US News Ranking 2020	750 th Overall
THE World University ranking-2021	801-1000 in Overall; 601-800 in Engineering; 601-800 in Physical science; 251-300 in Emerging Economics
THE Asia University Ranking 2021	201-250 rank band
Dataquest Top T-Schools in India 2021	11 th (Overall)
	2 nd (In East Zone)
	8 th (Top T-Schools (Government))

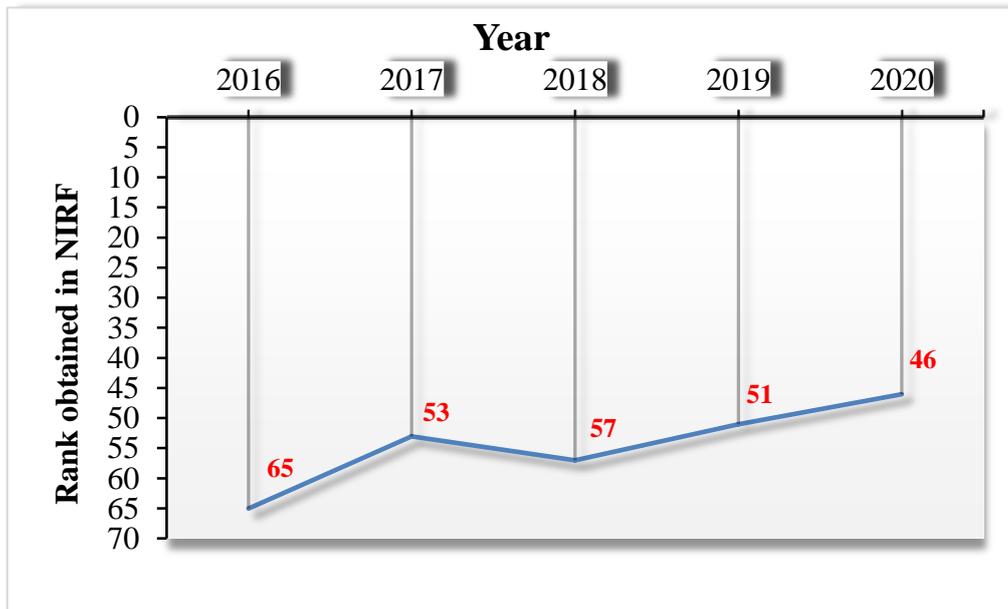


Fig:1 National Institutional Ranking Framework (NIRF-Engineering) of NIT Silchar

DEPARTMENTS

B.Tech ■ M.Tech ● M.Sc ● MBA ● Ph.D ▲

Engineering

<i>Civil Engineering</i>	■	●	▲
<i>Mechanical Engineering</i>	■	●	▲
<i>Electrical Engineering</i>	■	●	▲
<i>Electronics & Communication Engineering</i>	■	●	▲
<i>Computer Science & Engineering</i>	■	●	▲
<i>Electronics & Instrumentation Engineering</i>	■	●	▲

Science

<i>Physics</i>	●	▲
<i>Chemistry</i>	●	▲
<i>Mathematics</i>	●	▲

Humanities and Management

<i>Humanities</i>	▲
<i>Management Studies</i>	● ▲

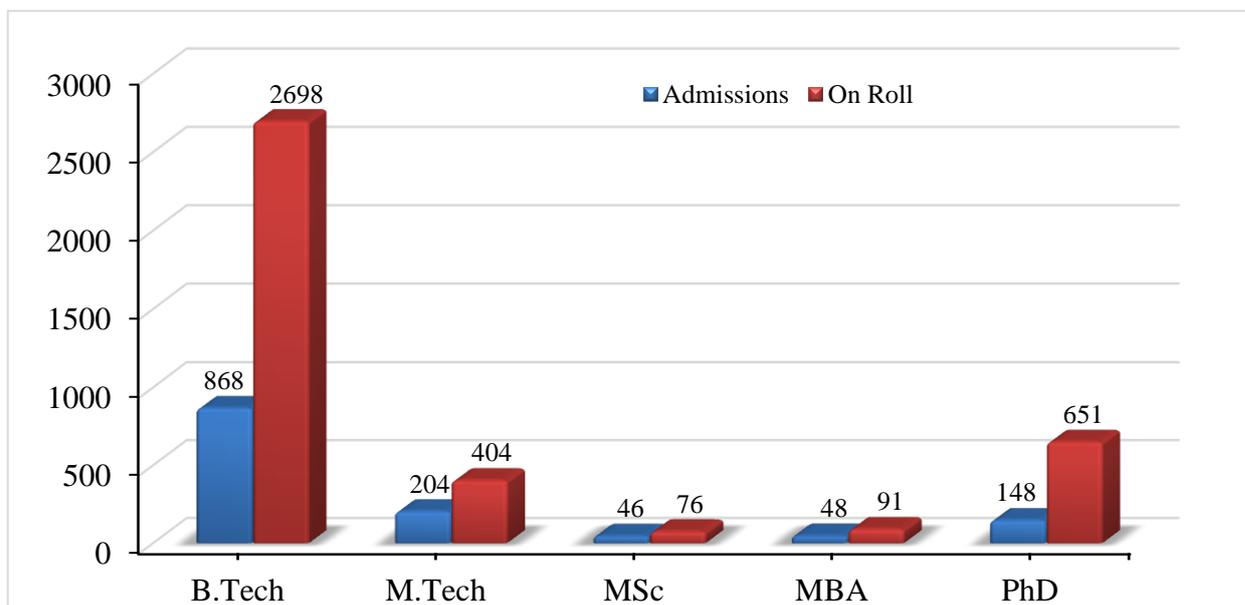


Fig:2 Student-admissions and On-Roll during 2019-20.

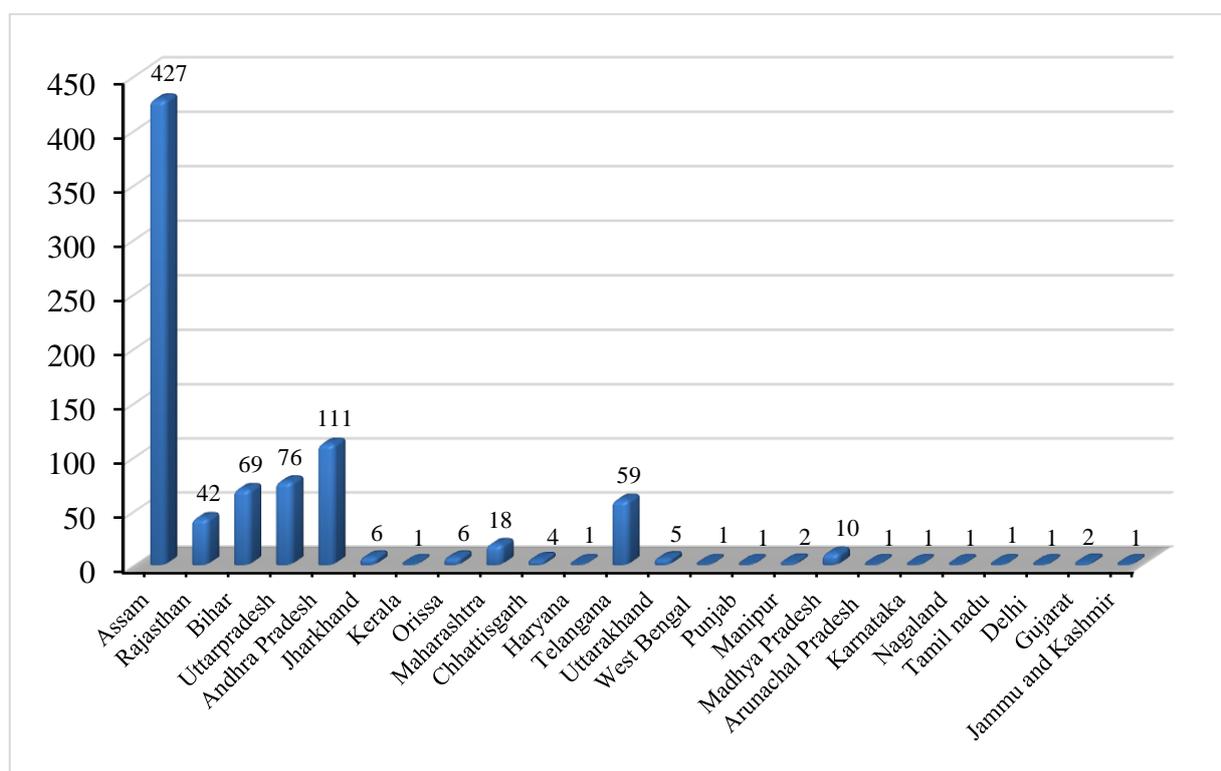


Fig:3 State-wise distribution of Indian students admitted in B.Tech course in 2019-20

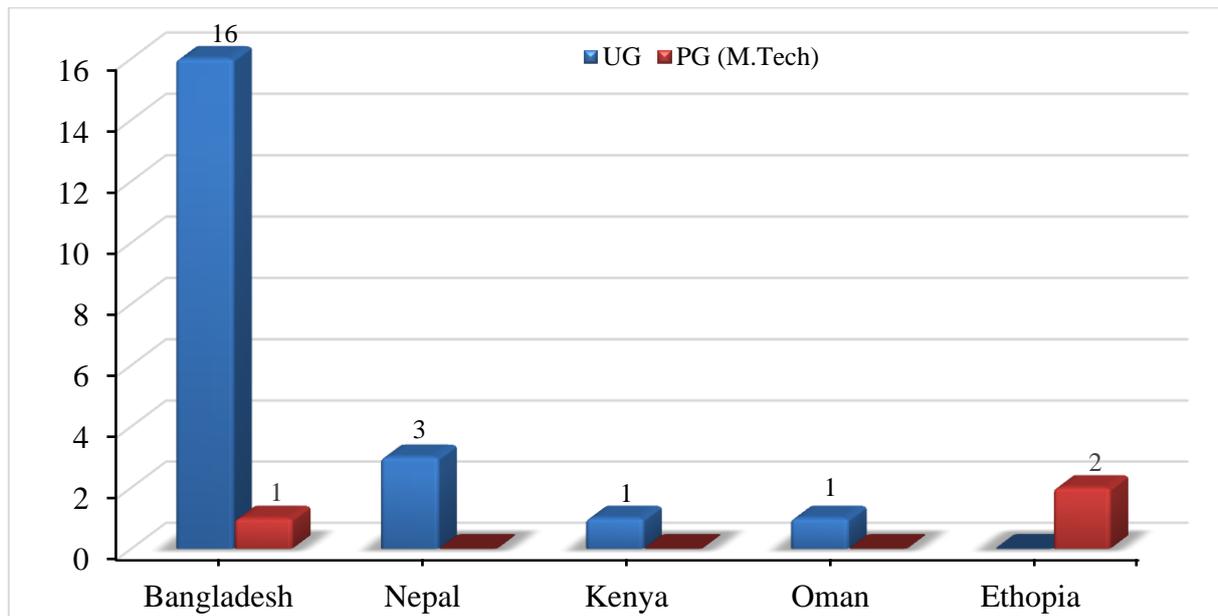


Fig:4 Foreign students admitted in 2019-20

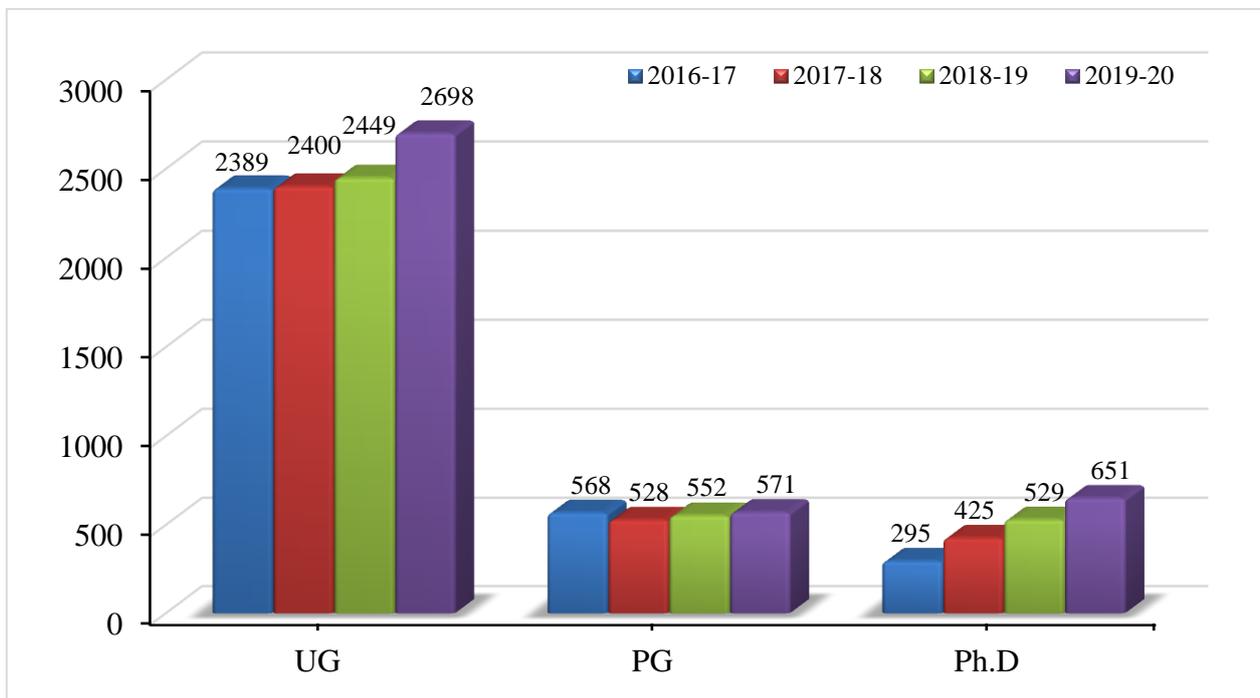


Fig:5 Growth in the enrolment of students (UG/PG/Ph.D) during the last four years i.e from 2016-2020.

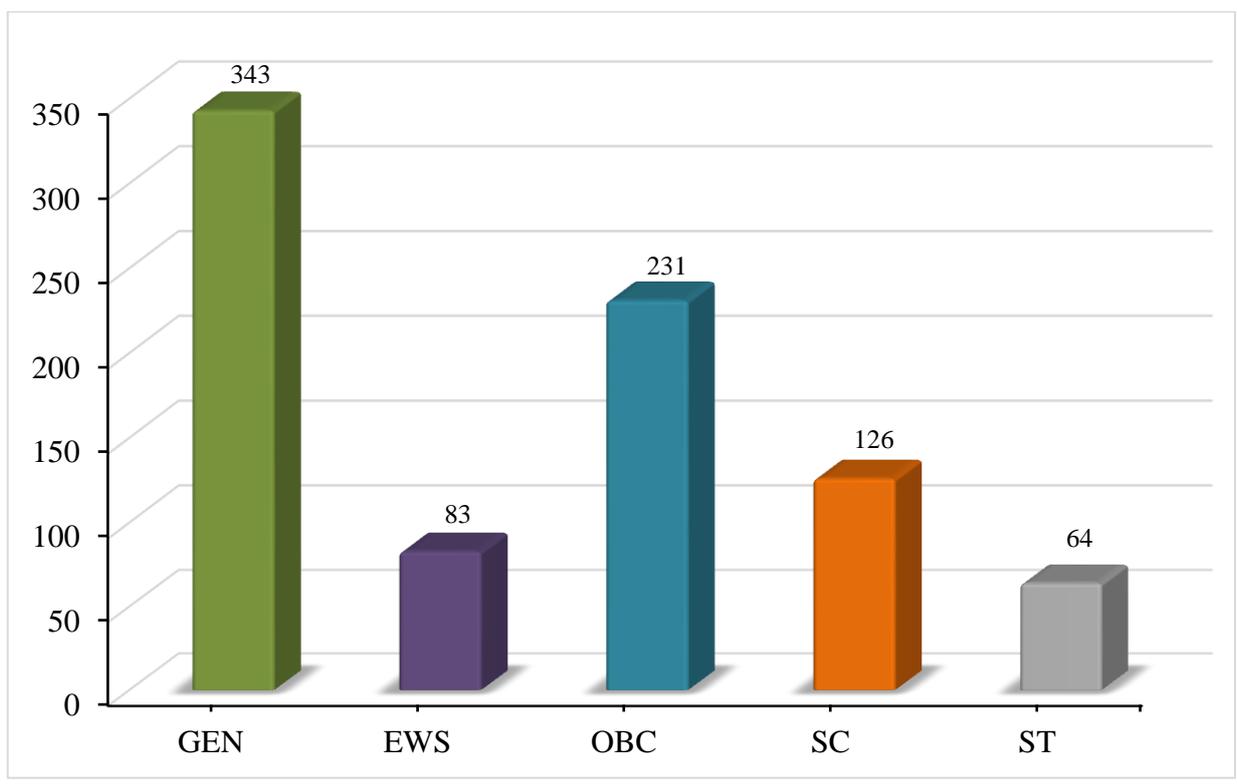


Fig:6 Category wise admission count of UG students in 2019-2020.

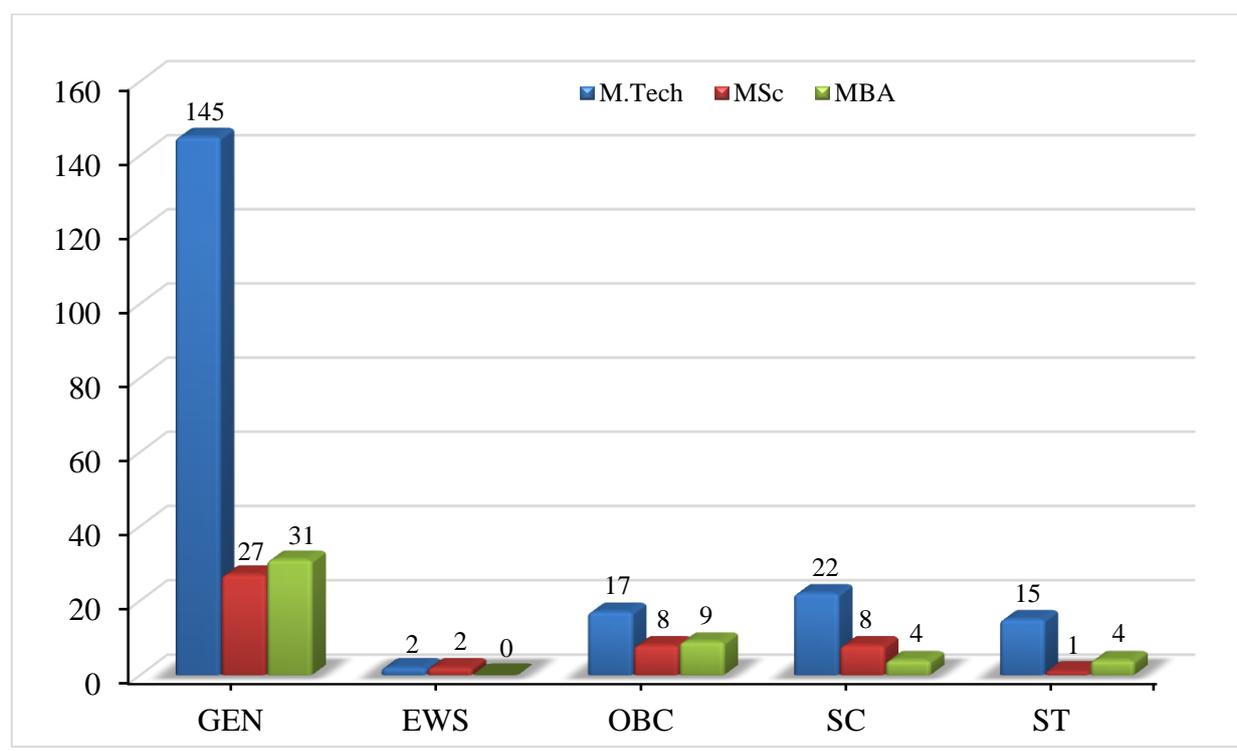


Fig:7 Categorywise admission count of PG students in 2019-2020

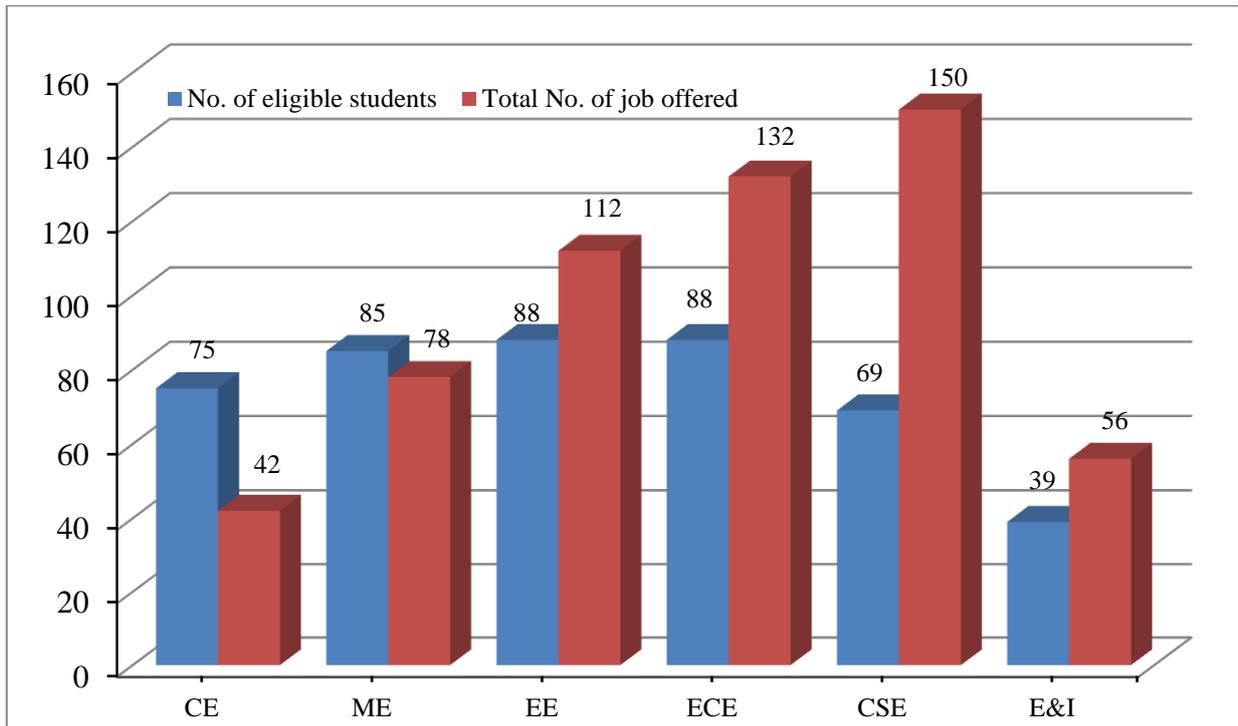


Fig:8 Placement statistics of B.Tech students in 2019-20

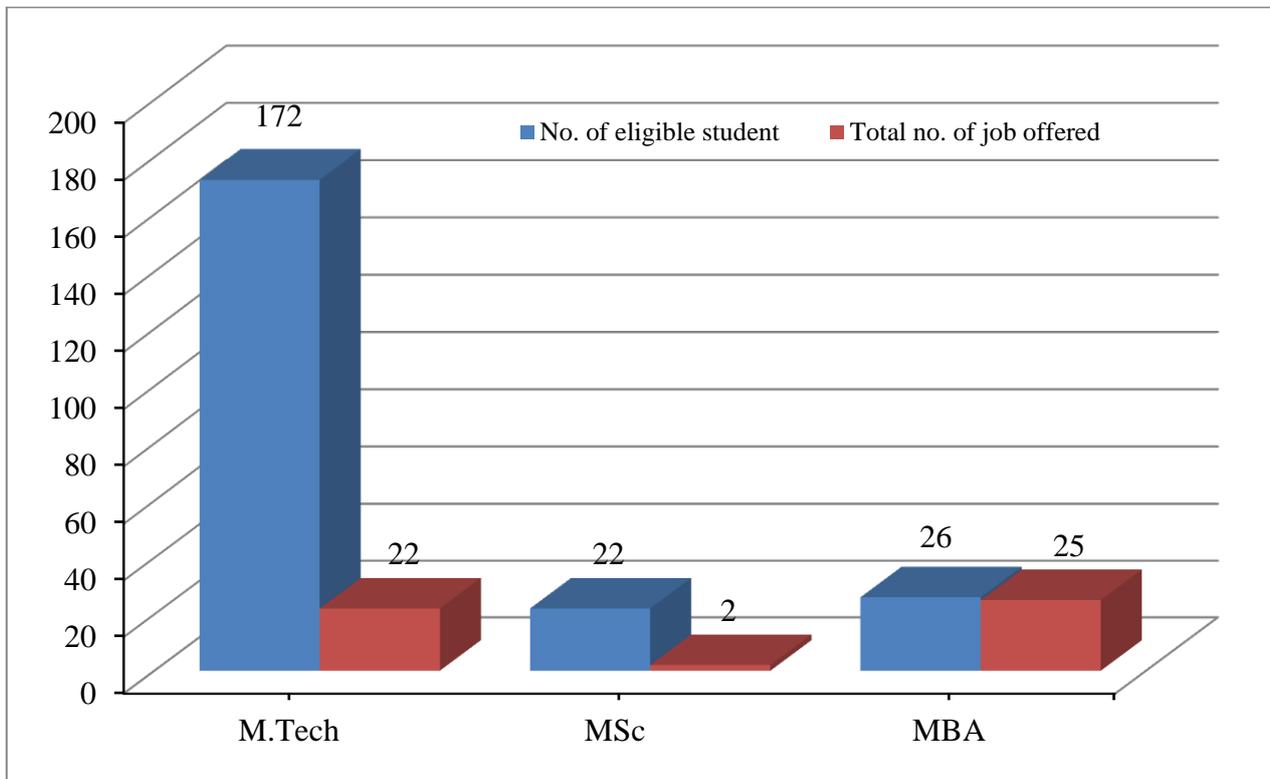


Fig:9 Placement statistics of PG students in 2019-20

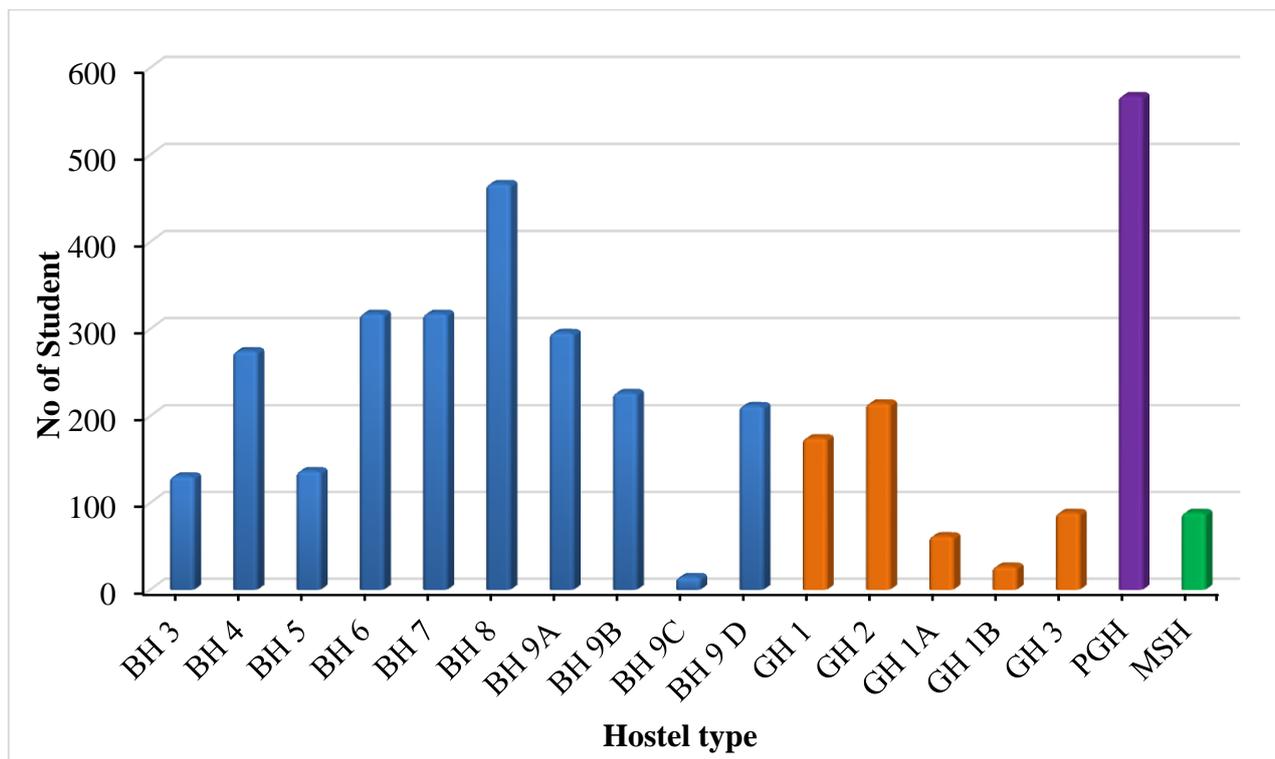


Fig:10 Number of students resided in hostel during 2019-2020 (*Note BH = Boys hostel; GH = Girls hostel; PGH = Post-Graduate hostel; MSH = Married scholar hostel; BH 1 & BH 2 are under renovation work)

PUBLICATIONS

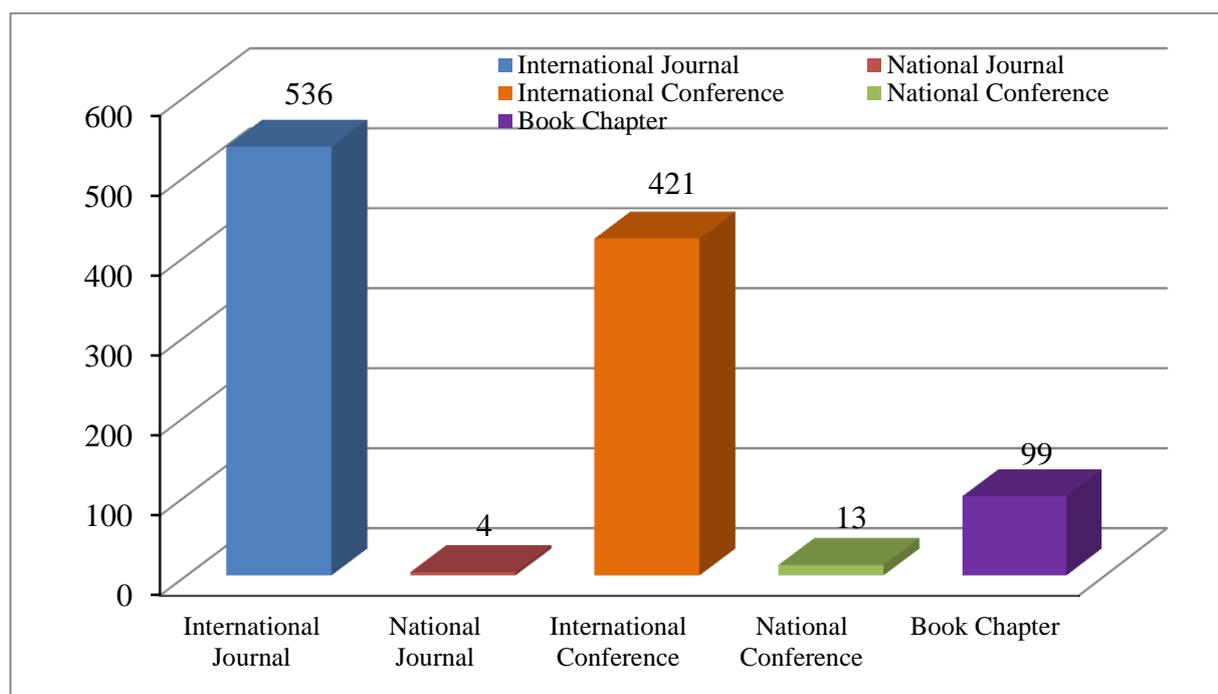


Fig:11 Publication details of NIT Silchar during 2019-20

LIBRARY

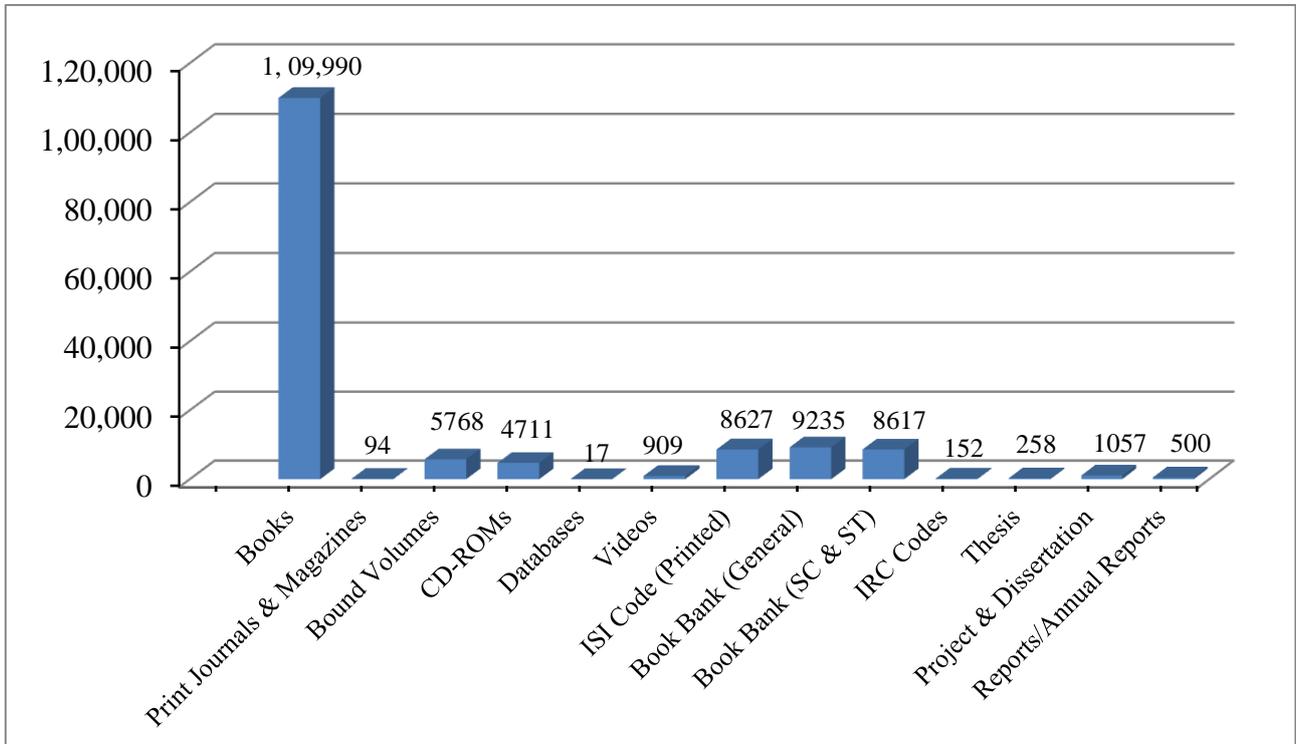


Fig:12 Library resource statistics during 2019-2020

FACULTY/STAFFS

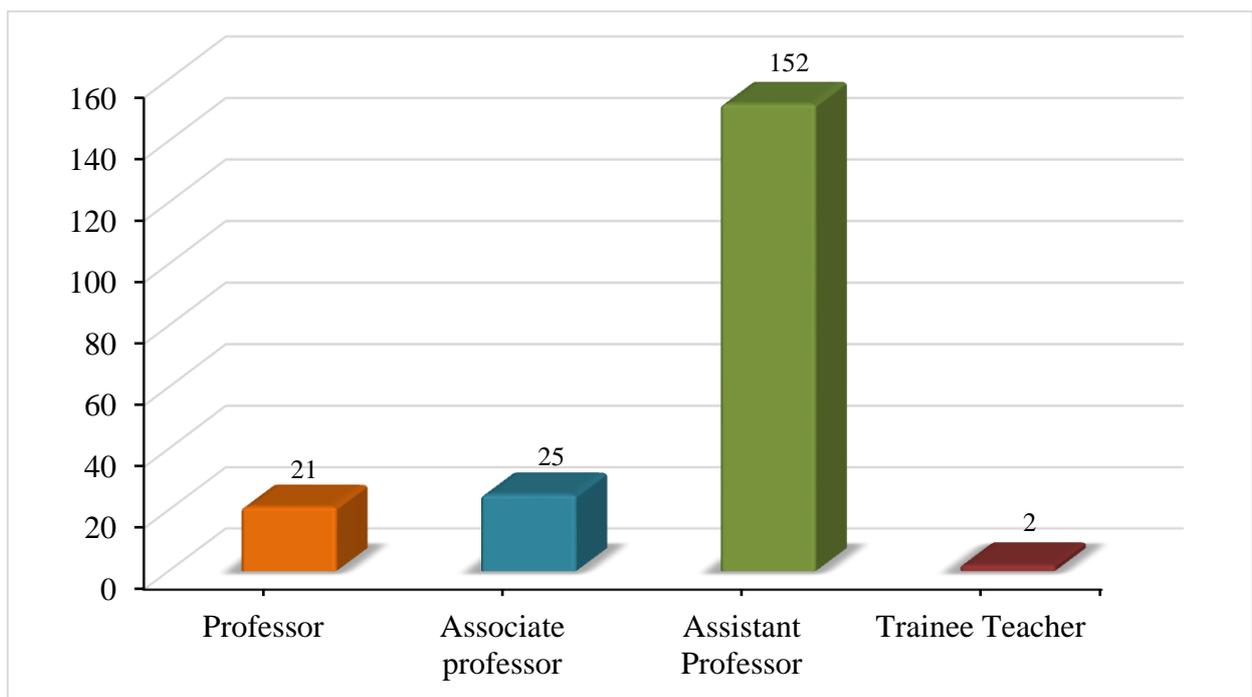


Fig:13 Faculty in position during 2019-20

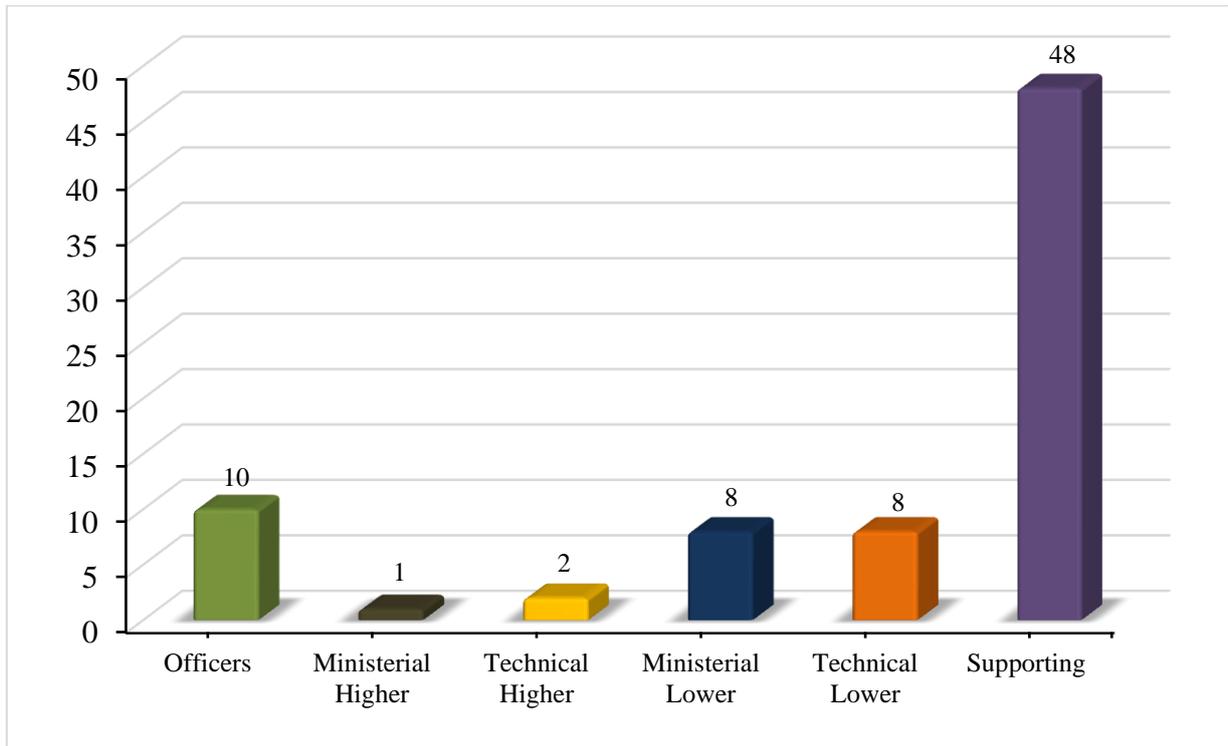


Fig:14 Non-teaching staff in position during 2019-20

FINANCE

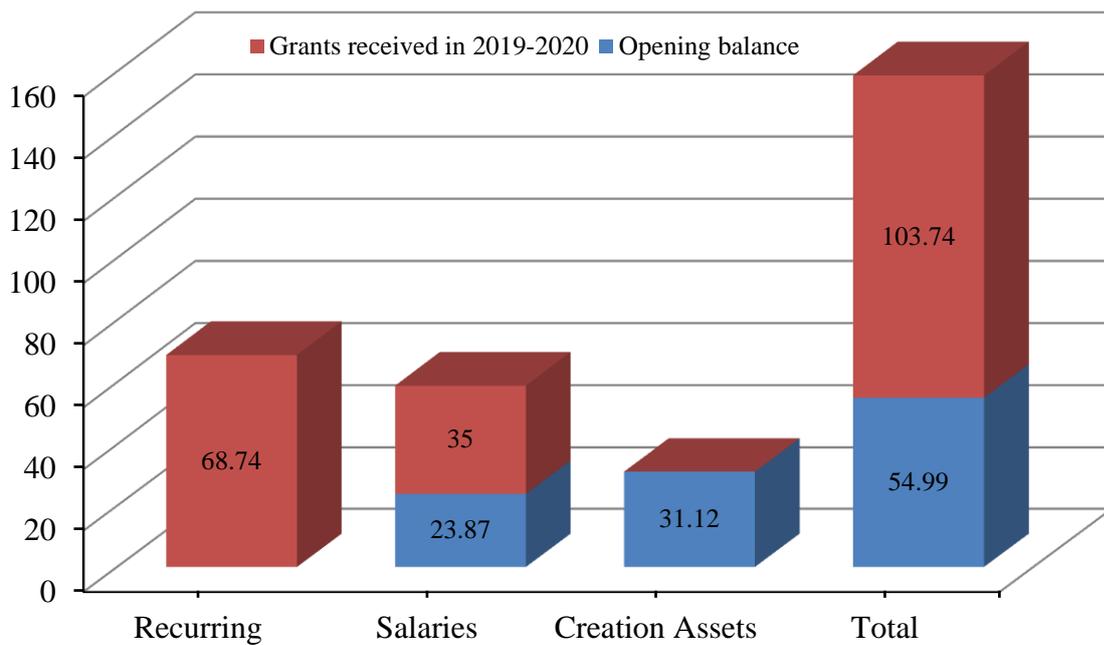


Fig:15 Total availability of fund during the year 2019-2020 (In Crores)

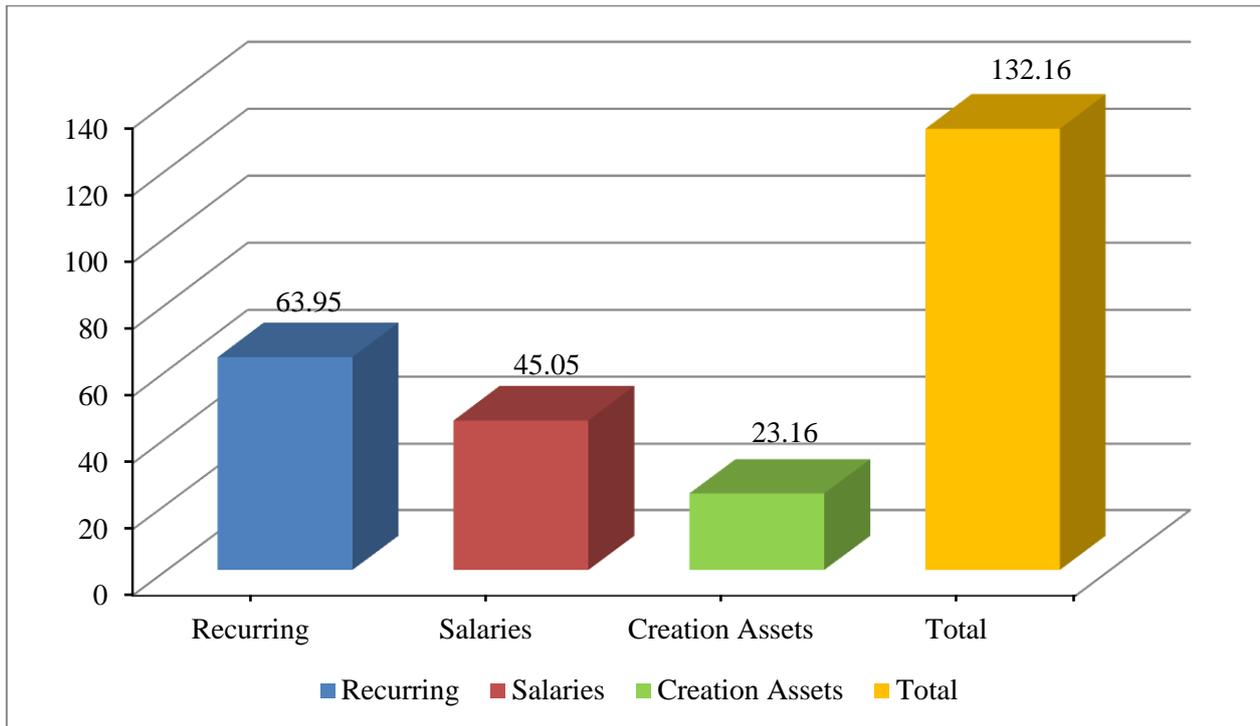


Fig:16 Total fund utilized during the year 2019-2020 (In Crores)

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.

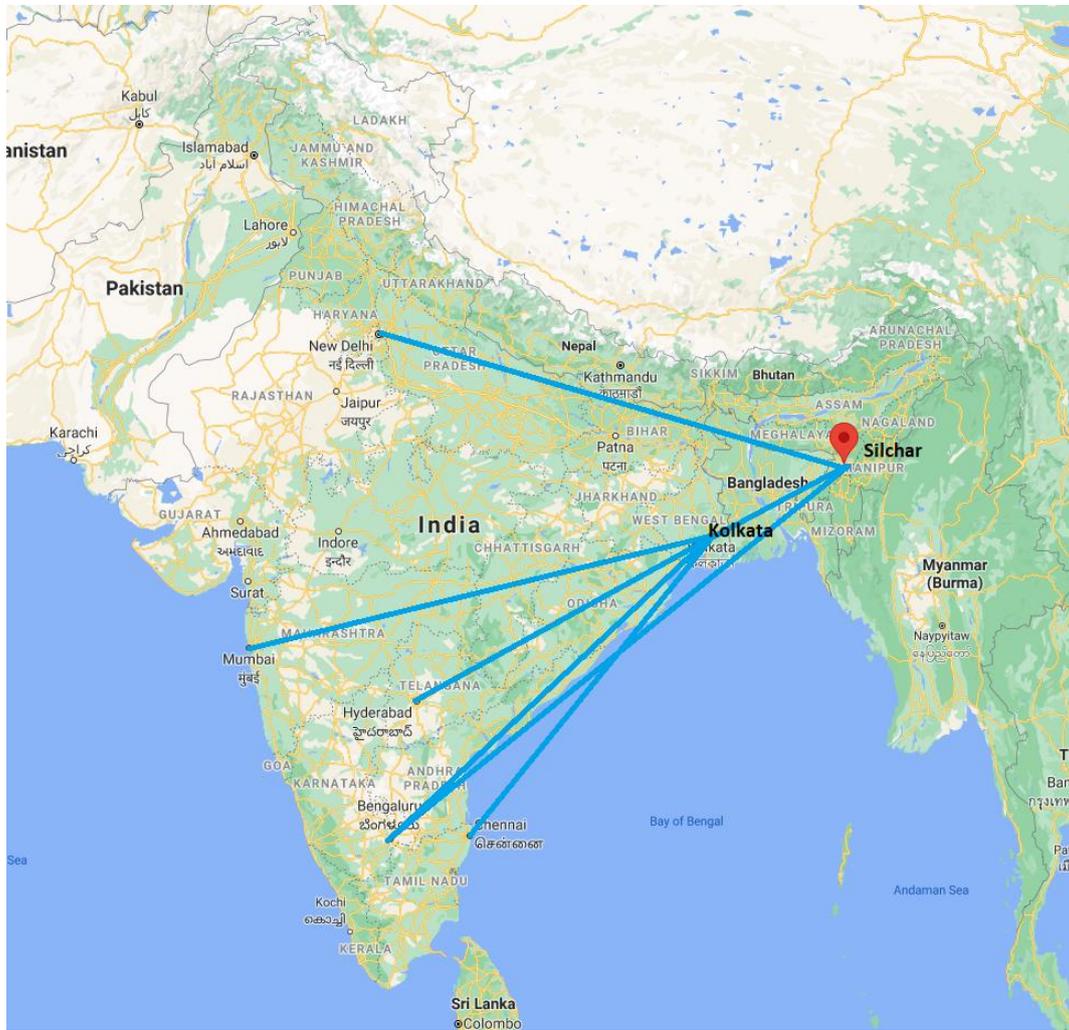
The campus area has been organized into three functional sectors:

- 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.



Reaching NIT Silchar



NIT, Silchar, located on the Silchar-Hailakandi road, is just 8 kms away from the southern outskirts of Silchar town. To reach NIT, Silchar campus, one has to first reach Silchar town which is in the Cachar district of Assam and is well connected to the rest of the country by all three prime medium of travel and transport i.e. road, rail and air.

By Air

There are daily direct flights to Silchar from cities like Guwahati, Kolkata, Delhi and Bangalore. Air India, Indigo and Spicejet Airways operates through these routes. From airport, the Institute campus is approximately 35 Kms. Hired private taxi service is available from the airport. Full taxi hire charge is approximately Rs. 650/- to 700/-.

Airlines	Connected Cities by direct flight
Indigo; Spicejet	Guwahati
Air India; Indigo; Spicejet	Kolkata
Indigo	Bangalore (every alternative days)
Spicejet	Delhi

By Train

Silchar has a daily train services that run between the major cities like Guwahati, Agartala, Kolkata, Delhi, Chennai and Bangalore. The campus is around 10 Kms from the railway station. Preferred mode of transportation is auto-rickshaw (fare approx. Rs. 200/-).

Train Name	Connected cities
Guwahati-Silchar Express	Guwahati
Kanchanjunga Express	Kolkata
Poorvottar Sampark Kranti Express	Delhi
Thiruvananthapuram–Silchar Superfast Express	Thiruvananthapuram
Humsafar Express	Bangalore
Agartala-Silchar special express	Agartala

By Road

Silchar is well connected with various cities through road. A 340 km long National Highway directly connects Silchar with Guwahati. A large number of day/night buses ply between Guwahati and Silchar in the morning and evening everyday. Bus will drop the passengers at ISBT, Silchar. Approximate fare for an auto-rickshaw from Silchar ISBT to NIT Campus is Rs. 250/-).

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 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 6th semester in any reputed industry, research organization, IIT's, and other reputed institutions which are assessed in the 7th 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.

- d) A student is permitted to register for a few DD graded courses if the CPI of the student falls below 6.0 for improvement.
- e) If a student fails to clear a subject in the end semester examination, then he/she is permitted to clear the same in the re-examination normally conducted within the first 15 days of the next semester. No reduction in grade is invoked if a student clears the subject in the re-examination.

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 50% marks or a CPI of 5.5 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 50% marks or 5.5 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
- ❖ Renewable Energy

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

- ❖ Microelectronics & VLSI Design
- ❖ Communication & Signal Processing Engg

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

- ❖ Computer Science & Engineering
- ❖ Artificial Intelligence

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

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)

Foreign students admitted in 2019-20

B.Tech

Name of country	Category	CE	ME	EE	ECE	CSE	E&I	Total
Bangladesh	OP	1	4	1	3	7	--	16
Nepal	--	--	--	1	--	2	--	3
Oman	--	--	--	--	--	1	--	1
Kenya	--	--	--	--	1	--	--	1
Grand Total		1	4	2	4	10	0	21

M.Tech

Sl. No.	Courses (M.Tech)	Admitted
1.	Civil Engineering	1
2.	Mechanical Engineering	1
3.	Electrical Engineering	--
4.	Electronics & Communication Engineering	--
5.	Computer Sc. & Engineering	1
6.	Electronics & Instrumentation Engineering	--
Total		3

PhD

Sl. No.	Courses (PhD)	Admitted
1.	Civil Engineering	--
2.	Mechanical Engineering	1 (Ethiopia)
3.	Electrical Engineering	4 (Ethiopia)
4.	Electronics & Communication Engineering	--
5.	Computer Sc. & Engineering	1 (Ethiopia)
6.	Electronics & Instrumentation Engineering	--
Total		6

Foreign students admitted in 2020-21

B.Tech

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

M.Tech

Sl. No.	Courses (M.Tech)	Admitted
1.	Civil Engineering	--
2.	Mechanical Engineering	--
3.	Electrical Engineering	2 (Bangladesh)
4.	Electronics & Communication Engineering	--
5.	Computer Sc. & Engineering	1 (Bhutan)
6.	Electronics & Instrumentation Engineering	--
Total		3

OUR ESTEEMED RECRUITERS





Summary of Current Placement Statistics (2020-2021) as on 10 June 2021

- ❖ Highest Package: B. Tech. 41.86 LPA, M. Tech. 13.3 LPA and MBA 8.46 LPA.
- ❖ Average Package: B. Tech. 8.68 LPA, M. Tech. 7.09 LPA and MBA 5.96 LPA.
- ❖ Median Package: B. Tech. 7.1 LPA

L PA- Lakhs per Annum

DEPARTMENTS

Name of the Department:

Civil Engineering



The Department at a glance	
Year of Establishment: 1977	
Academic Programmes Offered:	
<ul style="list-style-type: none"> • Bachelor of Technology (B.Tech) • Master of Technology (M.Tech) • Doctor of Philosophy (Ph.D) 	
Total Faculty Strength: 33	
<ul style="list-style-type: none"> • Professor: 8 • Associate Professor: 2 • Assistant Professor: 22 • Trainee Teacher: 1 	
Total Student Strength: 745	
<ul style="list-style-type: none"> • B.Tech: 475 • M.Tech: 169 • Ph.D: 101 	
New Students Joined in 2019-2020: 246	
<ul style="list-style-type: none"> • B.Tech: 150 • M.Tech: 80 • Ph.D: 16 	

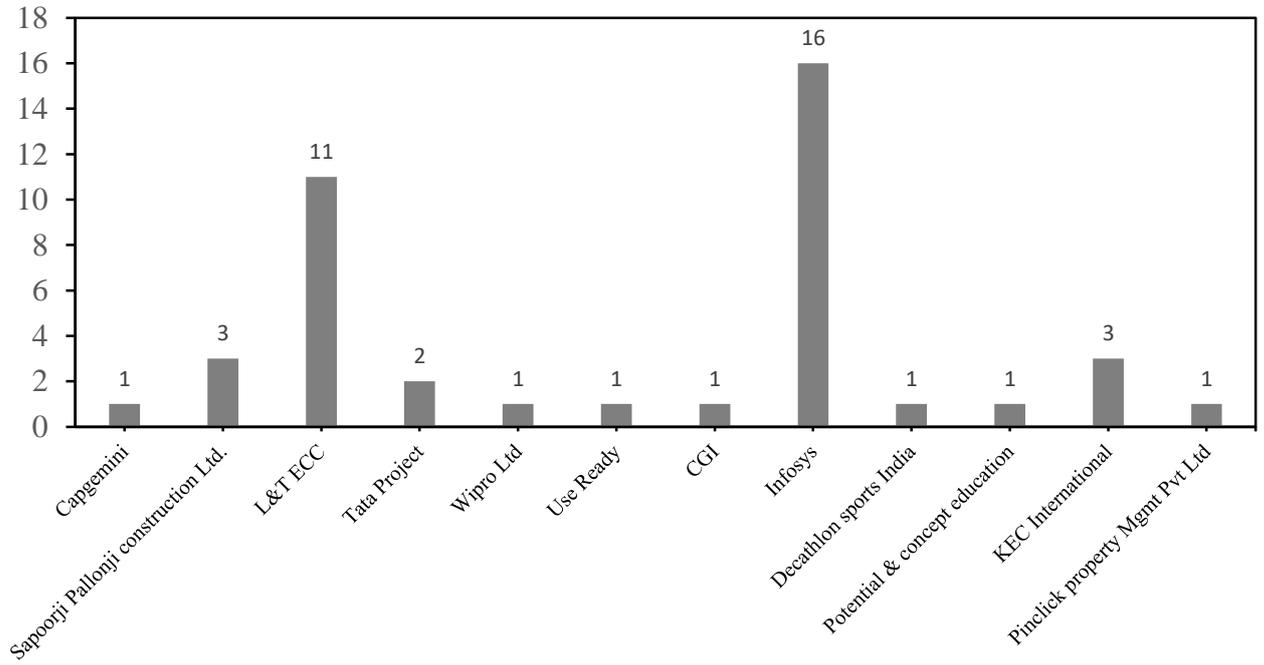


Fig: Placement statistics of the students in the Civil Engineering Department during 2019-2020

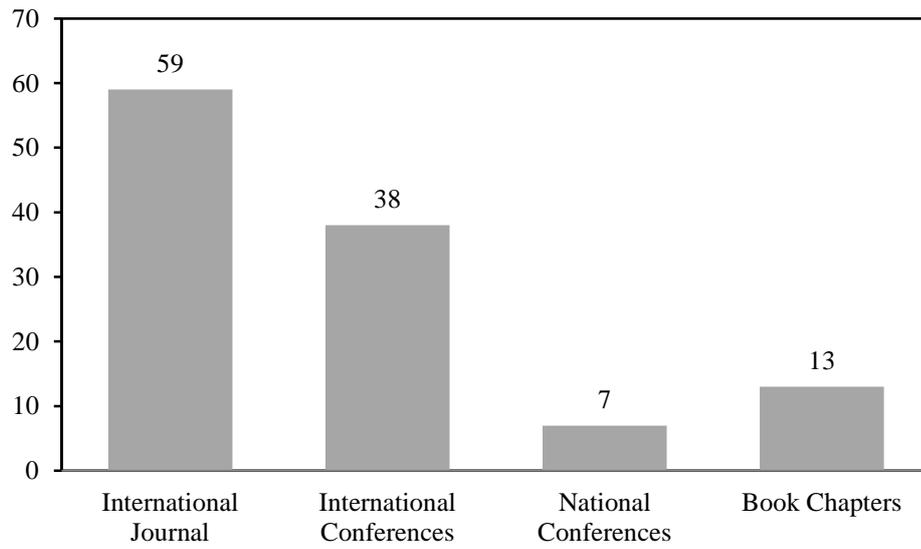


Fig: Publication details of Civil Engineering Department during 2019-2020

Name of the Department:

Mechanical Engineering



The Department at a glance	
Year of Establishment: 1977	
Academic Programmes Offered:	
<ul style="list-style-type: none"> • Bachelor of Technology (B.Tech) • Master of Technology (M.Tech) • Doctor of Philosophy (Ph.D.) 	
Total Faculty Strength: 32	
<ul style="list-style-type: none"> • Professor: 5 • Associate Professor: 3 • Assistant Professor: 24 	
Total Student Strength: 713	
<ul style="list-style-type: none"> • B.Tech: 508 • M.Tech: 81 • Ph.D.: 124 	
New Students Joined in 2019-2020: 218	
<ul style="list-style-type: none"> • B.Tech: 157 • M.Tech: 36 • Ph.D.: 25 	

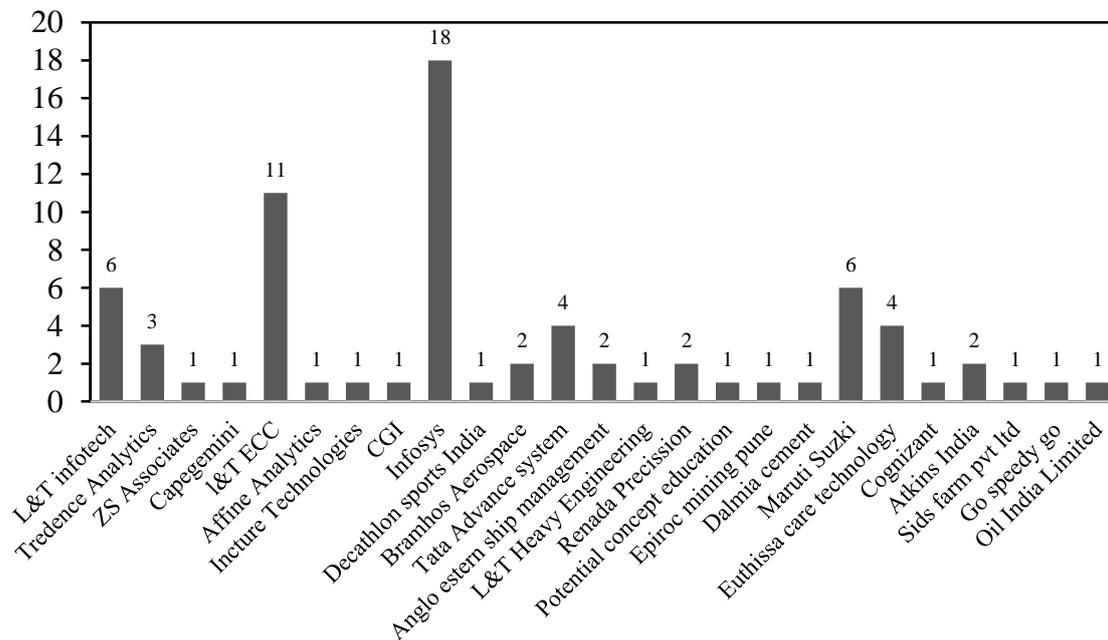


Fig: Placement statistics of student in the Mechanical Engineering Department during 2019-2020

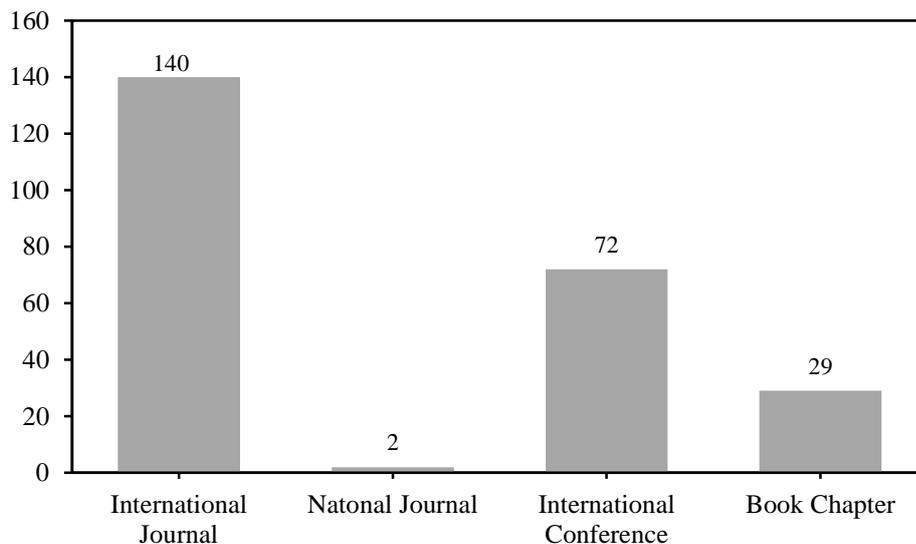


Fig: Publications details of Mechanical Department during 2019-2020.

Name of the Department:

Electrical Engineering



The Department at a glance	
Year of Establishment: 1977	
Academic Programmes Offered:	
<ul style="list-style-type: none"> • Bachelor of Technology (B.Tech) • Master of Technology (M.Tech) • Doctor of Philosophy (Ph.D.) 	
Total Faculty Strength: 27	
<ul style="list-style-type: none"> • Professor: 4 • Associate Professor: 3 • Assistant Professor: 20 	
Total Student Strength: 626	
<ul style="list-style-type: none"> • B.Tech: 479 • M.Tech: 55 • Ph.D.: 92 	
New Students Joined in 2019-2020: 211	
<ul style="list-style-type: none"> • B.Tech: 157 • M.Tech: 29 • Ph.D.: 25 	

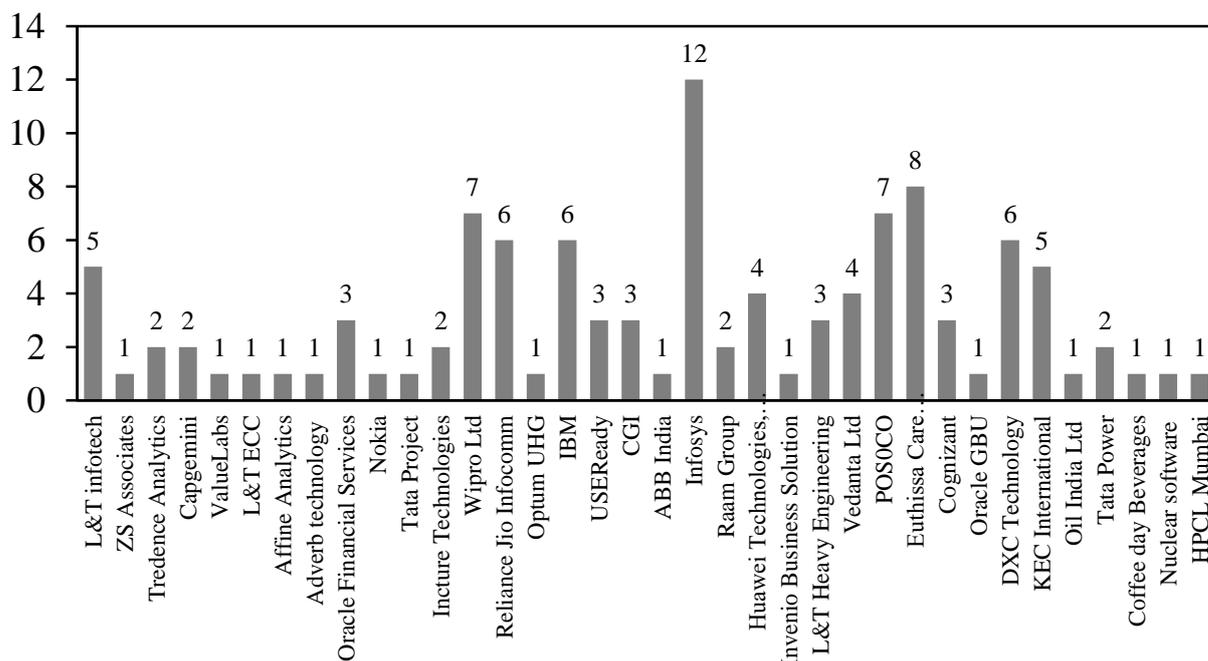


Fig: Placement statistics of students in the Electrical Engineering Department during 2019-2020

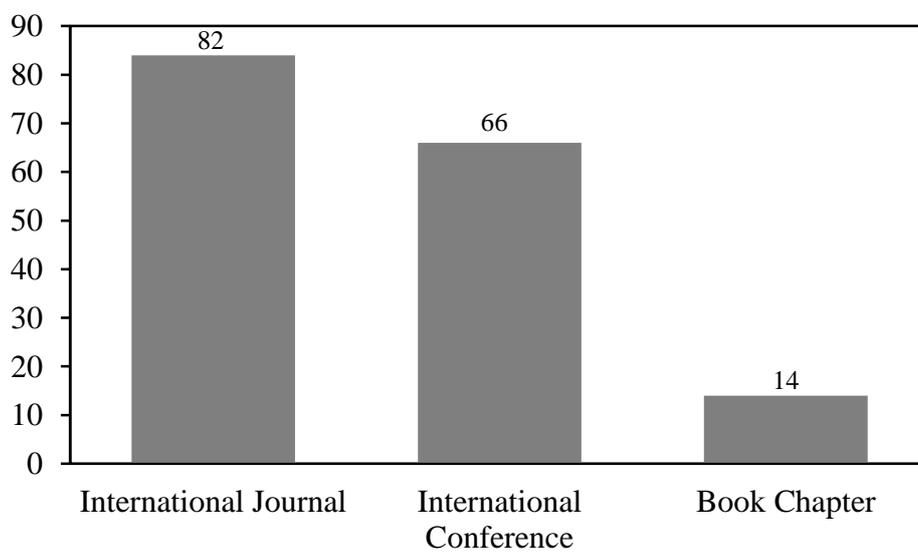
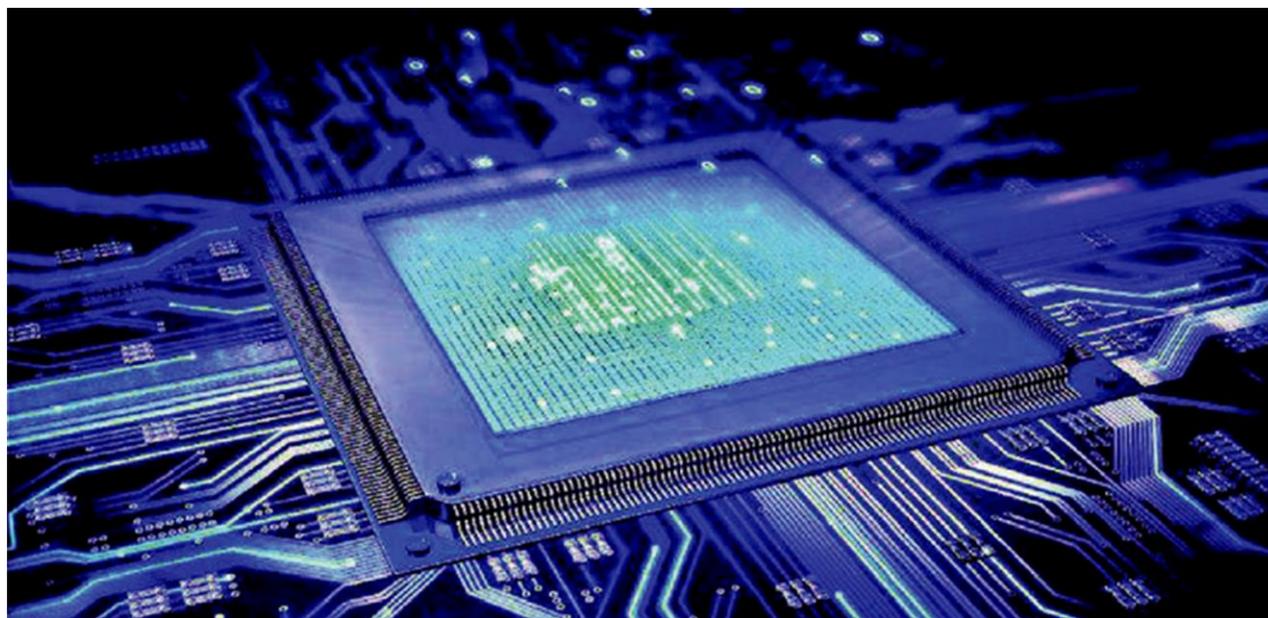


Fig: Publication details of Electrical Engineering Department during 2019-2020

Name of the Department:

Electronics & Communication Engineering



The Department at a glance	
Year of Establishment: 1983	
Academic Programmes Offered:	
<ul style="list-style-type: none"> • Bachelor of Technology (B.Tech) • Master of Technology (M.Tech) • Doctor of Philosophy (Ph.D.) 	
Total Faculty Strength: 31	
<ul style="list-style-type: none"> • Professor: 2 • Associate Professor: 6 • Assistant Professor: 22 • Trainee Teacher: 1 	
Total Student Strength: 661	
<ul style="list-style-type: none"> • B.Tech: 515 • M.Tech: 51 • Ph.D.: 95 	
New Students Joined in 2019-2020: 215	
<ul style="list-style-type: none"> • B.Tech: 161 • M.Tech: 31 • Ph.D.: 23 	

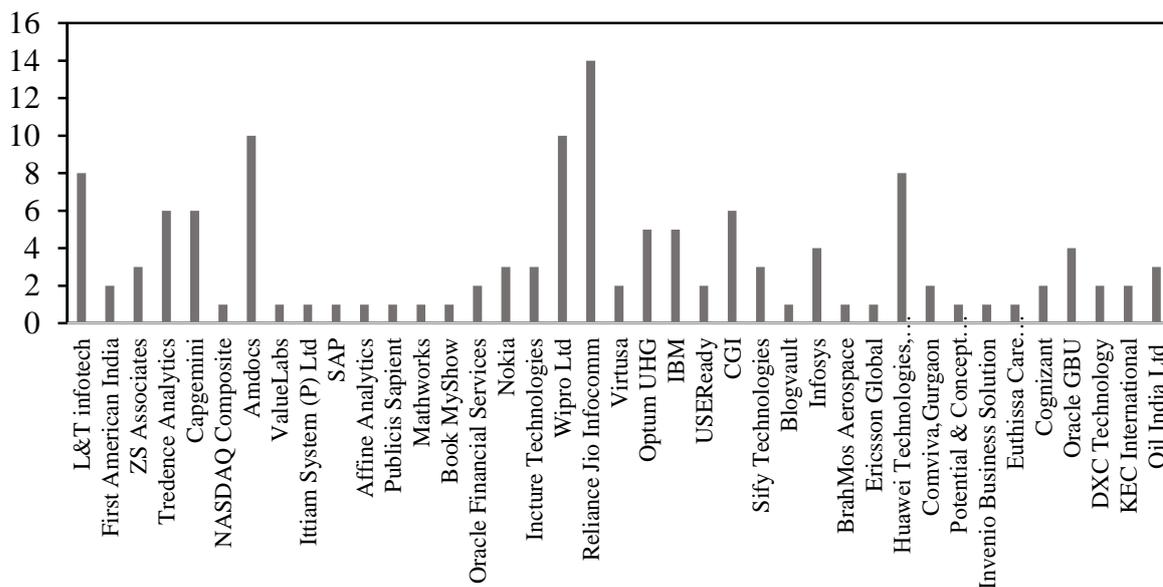


Fig: Placement statistics of students in the ECE Department during 2019-2020.

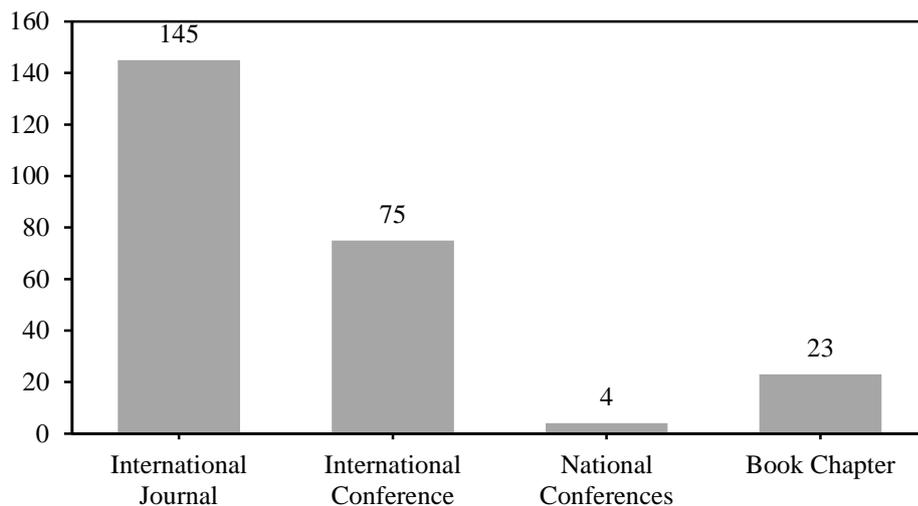


Fig: Publication details of ECE Department during 2019-2020.

Name of the Department:

Computer Science and Engineering



The Department at a glance	
Year of Establishment: 1987	
Academic Programmes Offered:	
<ul style="list-style-type: none"> • Bachelor of Technology (B.Tech) • Master of Technology (M.Tech) • Doctor of Philosophy (Ph.D.) 	
Total Faculty Strength: 24	
<ul style="list-style-type: none"> • Professor: 1 • Associate Professor: 1 • Assistant Professor: 22 	
Total Student Strength: 600	
<ul style="list-style-type: none"> • B.Tech: 487 • M.Tech: 36 • Ph.D.: 77 	
New Students Joined in 2019-2020: 200	
<ul style="list-style-type: none"> • B.Tech: 165 • M.Tech: 21 • Ph.D.: 14 	

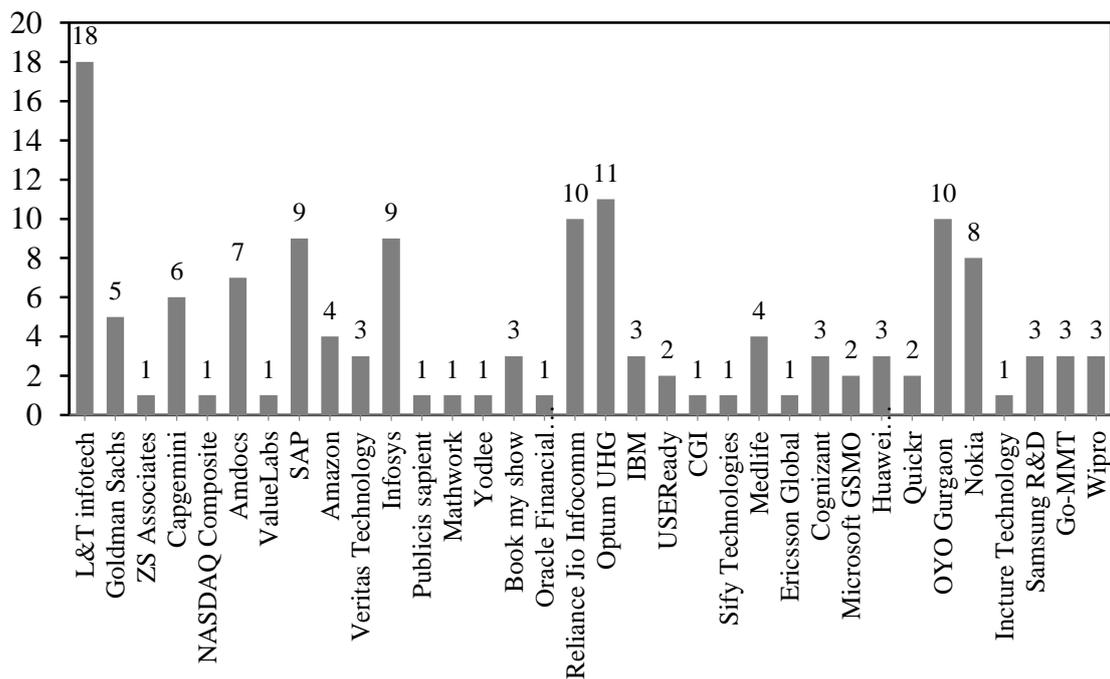


Fig: Placement statistics of the student in the CSE Department during 2019-2020.

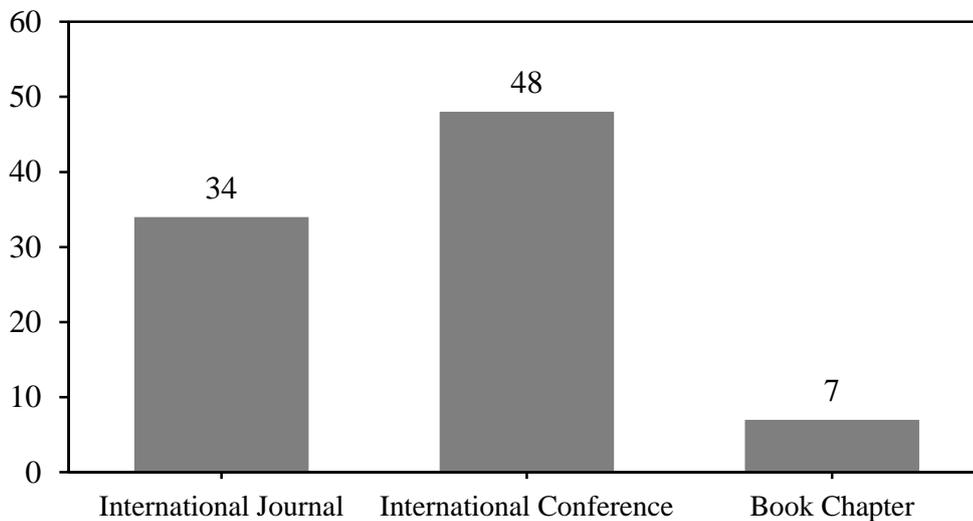


Fig: Publication details of CSE Departement during 2019-2020.

Name of the Department:

Electronics and Instrumentation Engineering



The Department at a glance	
Year of Establishment: 2008	
Academic Programmes Offered:	
<ul style="list-style-type: none"> • Bachelor of Technology (B.Tech) • Master of Technology (M.Tech) • Doctor of Philosophy (Ph.D.) 	
Total Faculty Strength: 15	
<ul style="list-style-type: none"> • Professor: 0 • Associate Professor: 1 • Assistant Professor: 14 	
Total Student Strength: 284	
<ul style="list-style-type: none"> • B.Tech: 234 • M.Tech: 12 • Ph.D.: 38 	
New Students Joined in 2019-2020: 91	
<ul style="list-style-type: none"> • B.Tech: 78 • M.Tech: 07 • Ph.D.: 06 	

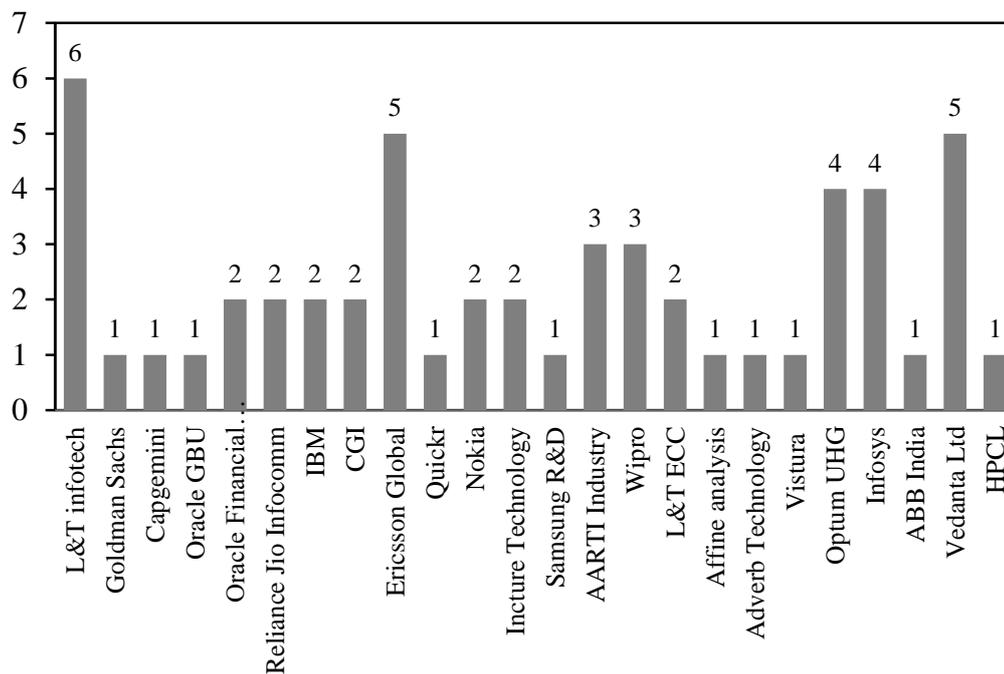


Fig: Placement statistics of the student in the E&I Department during 2019-2020.

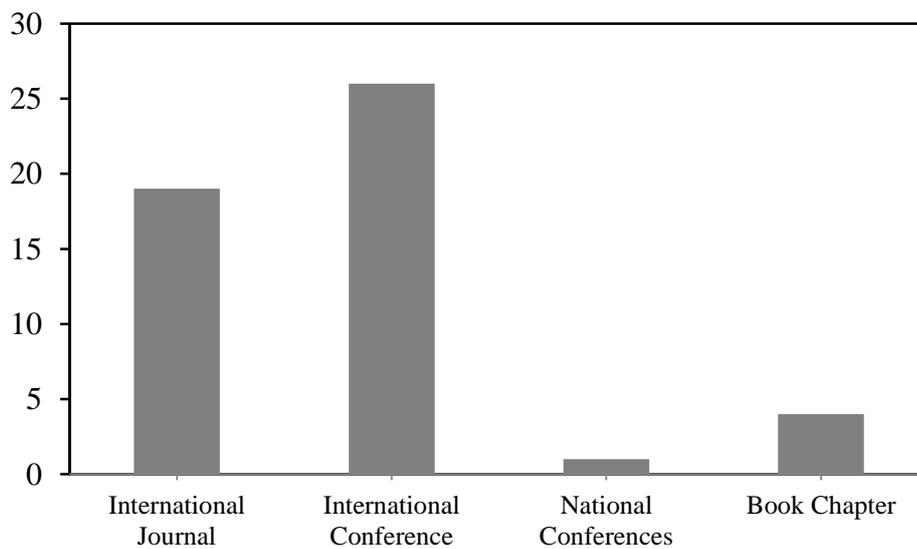


Fig: Publication details of E&I Department 2019-2020

1. Name of the Department:

Mathematics

The Department at a glance	
Year of Establishment: 1977	
Academic Programmes Offered:	
<ul style="list-style-type: none"> • Master of Science (M.Sc.) • Doctor of Philosophy (Ph.D.) 	
Total Faculty Strength: 12	
<ul style="list-style-type: none"> • Professor: 0 • Associate Professor: 04 • Assistant Professor: 08 	
Total Student Strength: 56	
<ul style="list-style-type: none"> • M.Sc.:25 • Ph.D.: 31 	
New Students Joined in 2019-2020: 25	
<ul style="list-style-type: none"> • M.Sc.:17 • Ph.D.: 08 	

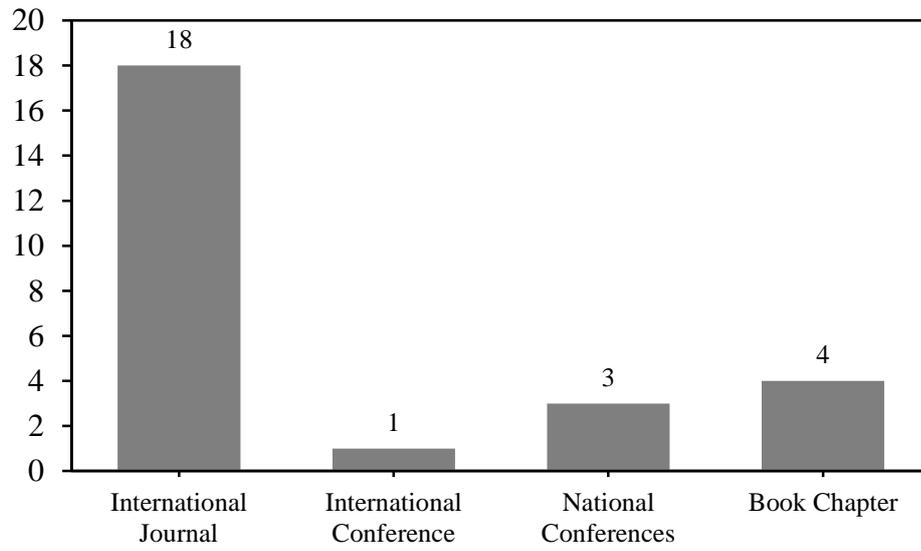
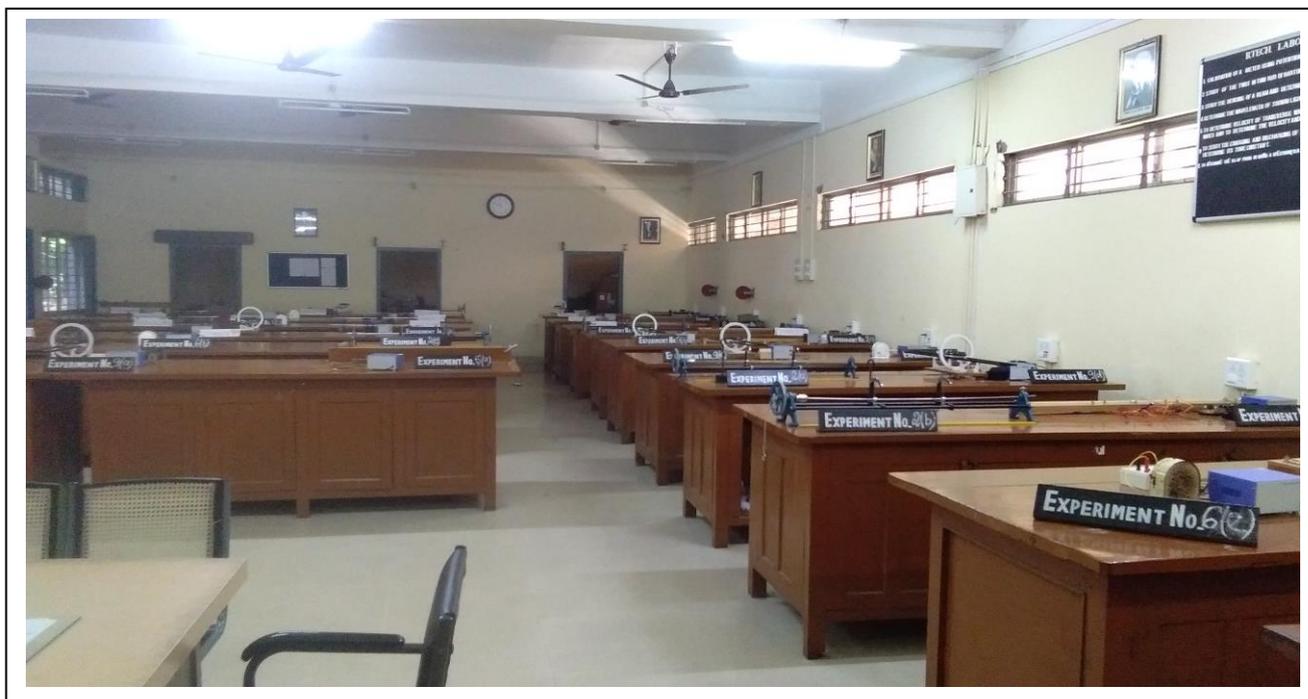


Fig: Publication details of the Maths Department in 2019-2020

1. Name of the Department:

Physics

The Department at a glance	
Year of Establishment:	1977
Academic Programmes Offered:	<ul style="list-style-type: none"> • Master of Science (M.Sc.) • Doctor of Philosophy (Ph.D.)
Total Faculty Strength:	08
	<ul style="list-style-type: none"> • Professor: 01 • Associate Professor: 0 • Assistant Professor: 07
Total Student Strength:	37
	<ul style="list-style-type: none"> • M.Sc.: 22 • Ph.D.: 15
New Students Joined in 2019-2020:	15
	<ul style="list-style-type: none"> • M.Sc.: 12 • Ph.D.: 03

Chemistry



The Department at a glance	
Year of Establishment: 1977	
Academic Programmes Offered:	
<ul style="list-style-type: none"> • Master of Science (M.Sc.) • Doctor of Philosophy (Ph.D.) 	
Total Faculty Strength: 08	
<ul style="list-style-type: none"> • Professor: 0 • Associate Professor: 03 • Assistant Professor: 05 	
Total Student Strength: 58	
<ul style="list-style-type: none"> • M.Sc.: 29 • Ph.D.: 29 	
New Students Joined in 2019-2020: 25	
<ul style="list-style-type: none"> • MSc: 17 • Ph.D.: 08 	

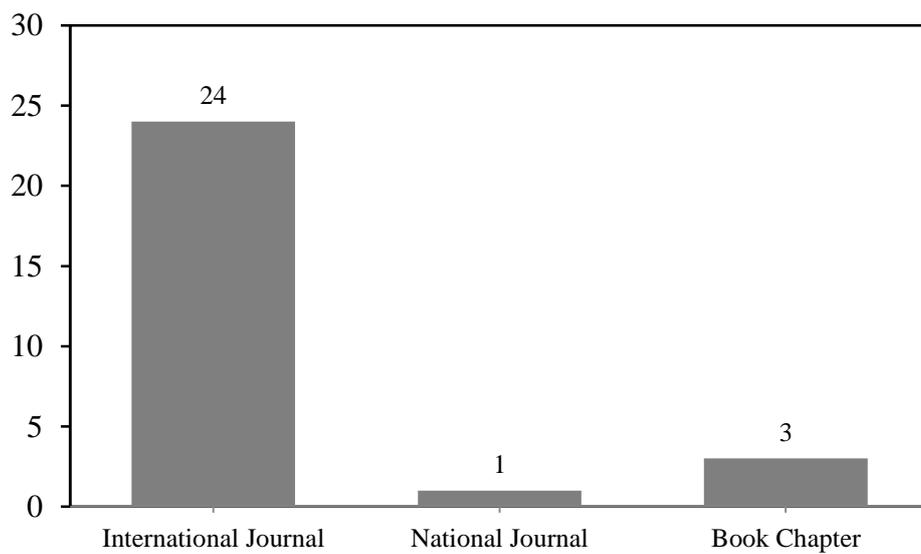


Fig: Publication details of chemistry Department in 2019-2020

1. Name of the Department:

Humanities & Social Sciences



The Department at a glance	
Year of Establishment: 1977	
Academic Programmes Offered:	
<ul style="list-style-type: none"> • Doctor of Philosophy (Ph.D.) 	
Total Faculty Strength: 04	
<ul style="list-style-type: none"> • Professor: 01 • Associate Professor: 02 • Assistant Professor: 01 	
Total Student Strength: 33	
<ul style="list-style-type: none"> • Ph.D.: 33 	
New Students Joined in 2019-2020: 12	
<ul style="list-style-type: none"> • Ph.D.: 12 	

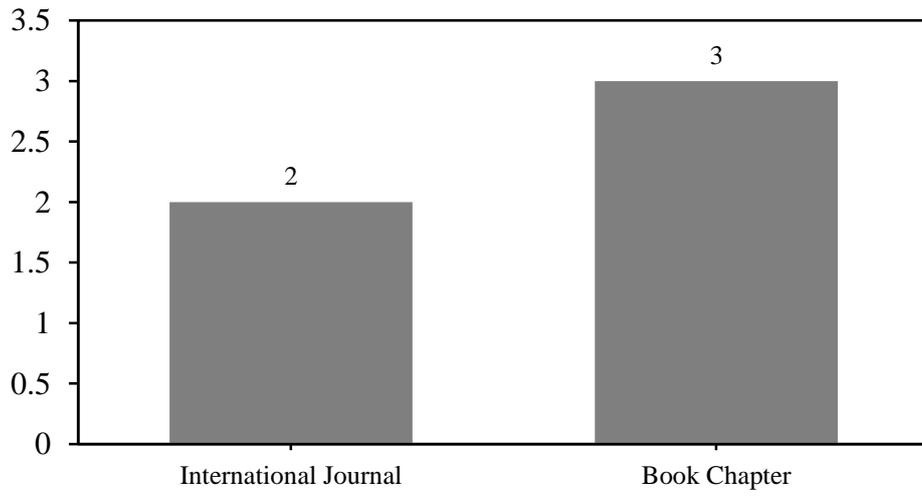


Fig: Publication details of the Humanities Department in 2019-2020.

NAME OF THE DEPARTMENT:

Management Studies



The Department at a glance	
Year of Establishment: 2012	
Academic Programmes Offered:	
<ul style="list-style-type: none"> • Master of Business Administration (MBA) • Doctor of Philosophy (Ph.D.) 	
Total Faculty Strength: 06	
<ul style="list-style-type: none"> • Professor: 0 • Associate Professor: 0 • Assistant Professor: 06 	
Total Student Strength: 107	
<ul style="list-style-type: none"> • MBA: 91 • Ph.D.: 16 	
New Students Joined in 2019-2020: 56	
<ul style="list-style-type: none"> • MBA: 48 • Ph.D.: 08 	

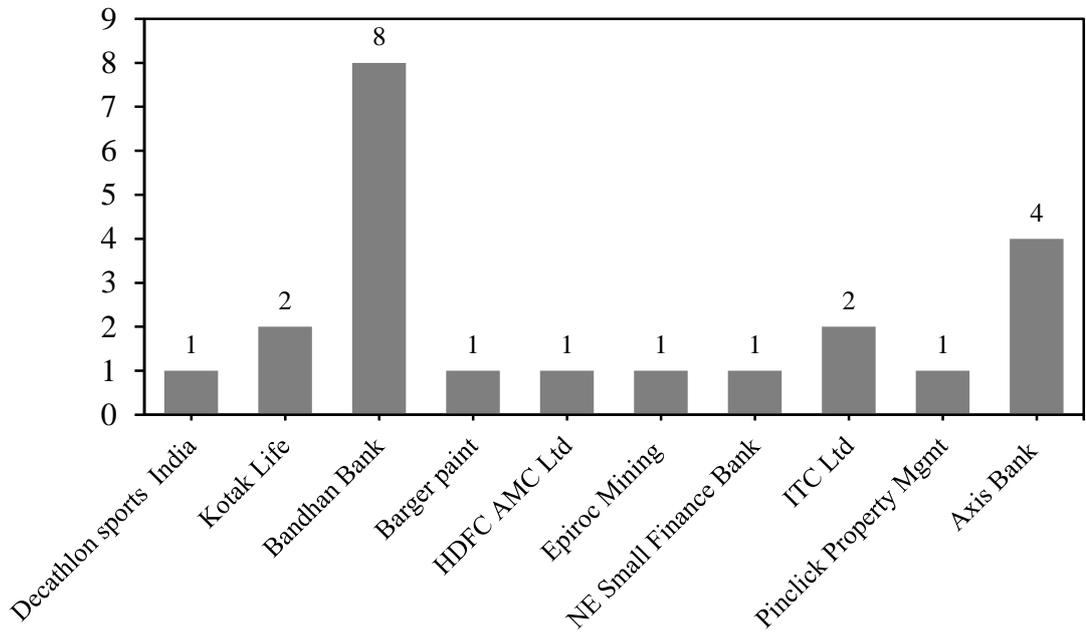


Fig: Placement statistics of MBA Department in 2019-2020

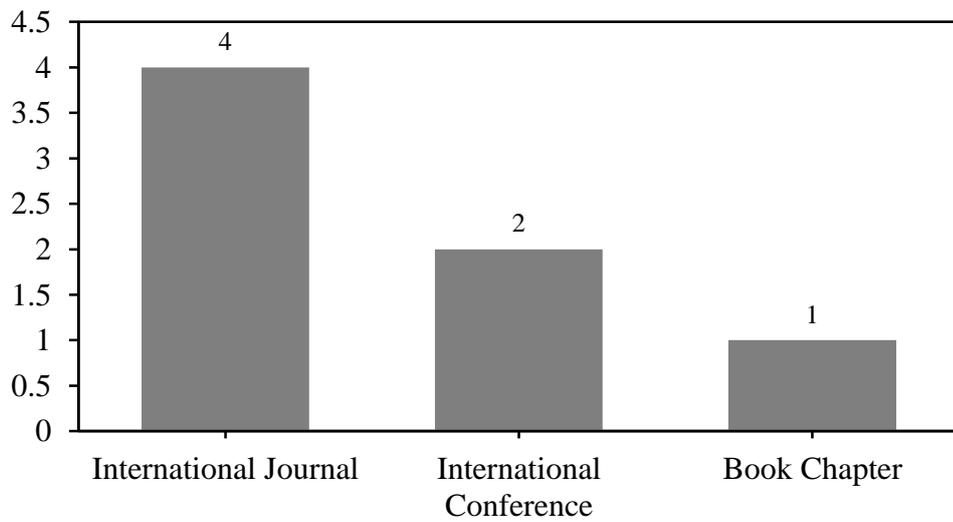


Fig: Publication details of the MBA Department in 2019-2020.

ACADEMIC CENTRES & CELLS

CENTRAL COMPUTER CENTRE



1. A Brief Introduction and Activities of CCC:

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

The state-of-art IT Infrastructure is 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, 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 to Switches located in different academic departments, students' hostels 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 three different internet service providers:

1. 1 GBPS high-speed PGCIL line caters to admin, academic, and quarters.
2. 1 GBPS high-speed NKN line caters to all student hostels.
3. 16 Mbps leased line from Bharat Sanchar Nigam Ltd. (BSNL), dedicated to DNS service and for backup purposes/

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 the departments. Network expansion still continues and work is going on for making the campus Wi-Fi by deploying more access points. 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.

2. Facilities provided by the Central Computer Centre :

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

2. Institution mail 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.
3. Hardware maintenance/ support: On the required basis, rectifying computer hardware issues over academic areas.
4. UPS maintenance/ support: Based on the requirement, providing UPS backup to active network components.
5. Institution web portal: The institute website is hosted in one of the servers of the central computer center and the center has to maintain the hosting server.
6. Video conferencing: CCC is equipped with the arrangement for supporting video conferences with MHRD, Rastrapati Bhawan, and live lecture series with other institutions, virtual sessions.
7. 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) such as conferences, workshops, GIAN courses, seminars, defense examination, etc.
8. Computer lab facility: Two labs are operated and maintained under the center
 - A) Training and Placement (T&P) Cell's activities,
 - B) Lab for common online examinations.
9. Supporting surveillance camera: Providing support on network and configurations for IP Cameras around the campus.
10. The center manages all the online meetings and provides Google to meet solutions to all the faculties and staff to run online classes/meetings smoothly.

CENTRAL LIBRARY



1. INTRODUCTION

The Central Library is an integral part of the 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 provides 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. During the year 2019-20, as a new development in the Dr. A P J Abdul Kalam Learning Resource Centre, Conference Room and Language Lab has been made ready for the users

2. Collection Development

Collection building is one of the important functions of the library, which supports the academic and research activities of the students, faculty, staff, and other users. Collections of the central library are 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 2019-20.

The total collection of the library as on 31st March 2020 stands as follows:

Sl.No.	Name of Resources	As on 31 st March 2016	As on 31 st March 2017	As on 31st March 2018	As on 31st March 2019	As on 31 st March 2020
1	Books	94319	96683	98959	1,05,883	1,09,990
2	Print Journals & Magazines	99	114	105	92	94
3	Bound Volumes	5468	5468	5468	5468	5768
4	CD-ROMs	4274	4297	4393	4612	4711
5	Databases	17	14	21	17	17
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	8180	8336	8336	8617
10	IRC Codes	152	152	152	152	152
11	Thesis	70	92	123	202	258
12	Project & Dissertation	365	425	474	699	1057
13	Reports/Annual Reports	399	423	449	488	500

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

Printed Journals / Magazines

During the year Library reviewed the printed journals/ magazines and stopped subscribing 7 printed journals that were not utilized by the users and are now available on open access. All total of 94 printed journals & magazines were subscribed during the year 2019-20.

Digital Resources: E-resource/database and e-book

Apart from the 13 databases provided by E-ShodhSindhu, NIT Silchar has renewed 17 databases/e-journals like ASTM, ACI, BIS Standard, IEEE/ IEL level 2, EBSCO-Business Source Elite, Emerald, Elsevier Science Direct (7 subjects collection), Indiatat.com, LNCS, Royal Society of Chemistry, SIAM (17 e-journals), Sage-EMS, Springer, Taylor & Francis and Wiley Engineering collection, and also has added IOP and EPW Research Foundation as new resources.

Further, NIT Silchar also procured the Research tools like Scopus and also purchased similarity check software like Turn-it-in.

In addition to the database/e-journals, Library also gets access to e-books from the major publishers like Elsevier, Springer, Pearson, Oxford University Press, Tata McGraw Hill, and Cambridge, purchased by NIT Silchar, World eBook library provided by NDL and South Asia Archive provided by e-ShodhSindhu. In 2019-20, Library has also purchased e-books from Sage E-Vidya and Sage Business cases for Management Department.

Usage Statistics of Electronic Resources

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

Uses Statistics from 2016 to 2019

Sl. No.	Source	Year-wise download statistics			
		2016	2017	2018	2019
1.	ACM	2090	1362	1678	4198
2.	AIP		3403	3178	3088
3.	ASCE	5902	11400	14617	3536
4.	ASME	2762	2104	2162	1567
5.	AMS	2230	2838	3740	1603
6.	APS	455	1026	990	1299
7.	Elsevier Science Direct	143521	179704	180469	214016
8.	Emerald	3022	3888	5985	7571
9.	IEEE- IEL level 2	40,314	94487	91306	55070
10.	LNCS	12752	30400	32673	41,034
11.	SIAM	229	280	317	348
12.	Springer Link	17477	22142	22524	29548
13.	Taylor & Francis	5714	7634	7828	11898
14.	Wiley Journals	5424	5517	9361	9483

3. LIBRARY SERVICES

Circulation service

The book circulation service is kept open for 48 hours a week. The Library issued 25845 numbers of books during the year 2019-20.

Resource Sharing

The library maintains excellent relations with libraries like the Central Library of Assam University, and other local college libraries in Southern Assam and also with DELNET for the 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. The library has a 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. The book bank mainly consists of the prescribed textbooks for undergraduate courses and loans up to 5 to 7 books each to these students for a full semester and sometimes more depending on availability. During 2019-20, around 500 students availed this facility and borrowed 4850 books from this collection.

Lib 2.0 SERVICES

Library users can get the latest updates/happenings in the library through our library blog at <http://library-nitsilchar.blogspot.com/> and get connected through our Facebook page at <https://www.facebook.com/Bharat-Ratna-Dr-A-P-J-Abdul-Kalam-Learning-Resource-Centre-NIT-Silchar-104491118036811> . 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 computer terminals from the library of institute website or the URL is: <http://10.30.30.66:8001>

INSTITUTE INNOVATION COUNCIL (IIC)

Under the MHRD Innovation Cell (MIC) Institute Innovation Council (IIC) is established with the purpose of systematically fostering the culture of Innovation and support entrepreneurial activities among the students of the institute.

Major focus of IIC

- To create a vibrant innovation ecosystem in the institute.
- To create a Start-up supporting Mechanism within the academic framework.
- Prepare institute for Atal-Ranking of Institutions on Innovation Achievements Framework.
- Establish an inclusive Ecosystem for Scouting Ideas and Pre-incubation of Ideas.
- Develop better Cognitive Ability for Technology Students.

Functions of IICs

- *To conduct various innovation and entrepreneurship-related activities prescribed by Central MIC in a time-bound fashion.*
- *Identify and reward innovations and share success stories.*
- *Organize periodic workshops/ seminars/ interactions with entrepreneurs, investors, professionals, and create a mentor pool for student innovators.*
- *Network with peers and national entrepreneurship development organizations.*
- *Create an Institution's Innovation portal to highlight innovative projects carried out by the institution's faculty and students.*
- *Organize Hackathons, idea competition, mini-challenges, etc. with the involvement of industries.*

Under the IIC there are a) Start-Up Centre, b) E-Cell, c) Innovation Lab

Startup Centre

NIT Silchar has established a Startup Centre to provide an inclusive platform to the young student entrepreneurs with state of art infrastructure facilities to culture their idea and grow. The centre hosts some early student startups and provides them with required facilities such as the Internet, Electricity, Seminar Hall, Desk for thinking, and developing their products. The laboratory and other technical resources available in various departments are made available to the startups according to their requirement. Presently there are 04 student startups and 02 local entrepreneurs working under the startup centre. There are few early startups who are offered co-space in the startup centre.

E-Cell

Entrepreneurship Cell (E-Cell) NIT Silchar is established with an aim to act as a link between the students and their entrepreneurial aspirations. It functions to bridge the gap which comes in the path of success for a budding entrepreneur by equipping him/her with the relevant skill-set required to excel in the market.

E-Cell NIT Silchar has organized numerous events, competitions, real-time pitching simulations, Business-plan models, and market-trade analysis scenarios to name a few. E-Cell focuses to create the right eco-system of entrepreneurial activities in the institute. As part of the activities, E-cell promotes peer collaboration with other E Cells from IITs/NITs/Universities and Incubation Centres.

UNDERGRADUATE RESEARCH COUNCIL (UGRC)

UGRC is constituted with one member from each Department (Dr. Arup Goswami, Dr. Ranjay Hazra, Dr. Koushik Guha, Dr. Malaya Dutta Borah, Dr. Susmita Ghosh, Dr. Sukumar Pati) and Coordinated by Dr. Brinda Bhowmick. The advisor of the Committee is Padmasree Ajay Ray and Chairperson is Director of NIT Silchar.

This council basically considers the attendance issues of the undergraduate students, counseling of students who got backlogs, Summer Internship calls at NIT Silchar, and call for proposal of the Research projects. UGRC helps to motivate the UG students to solve real-world problems and to pursue research activities. This year 43 undergraduate research proposals were received from the UG students and approved to get financial support of maximum Twenty five thousand rupees. The broad area of the research proposals was decided by UGRC members and are listed below:

1. Crop disease solution
2. Lithium ION battery
3. Solar cell
4. Landslide detection
5. Medical image processing
6. Analysis of Impurity of water
7. Tea leaf processing etc.

These project proposals were presented in front of External experts during Anveshan.

UGRC has called for Satyendra Nath Bose Summer Internship Programme at NIT Silchar for the very first time during May to June 2020. During the COVID period many Internal and external students are performing online Summer Internship projects under the faculties of various Departments.

INDOVATION

Activities Promoted Through Indovation Lab

1. Participation in BAJA competition SAE India 2020.

Title: Design and Development of All Terrain vehicle for BAJA SAE 2020

Mentor: Dr. Bipul Das, Assistant Professor, Department of Mechanical Engineering.

Student Members: Soumyadeep Paul, Vikas Lamba, Saikat Sutradhar, Nishant Kumar Gupta, Rohan Chiring, Dupal Jit Das, Tanaz Ahmed, Priyam Bharadwaj, Vivek Seal, Sanju Paul, Amit Kumar, Prachi Triptahi, Gyan Prakash, Atanu Paul, Shivang Pandey, Arpit Kumar, Giturej Saikia, Ashutosh Shukla, Shubham Joshi, Rituraj Choudhury, Abhimanyu Pratap Singh, Hrishav Dey, Nihal Surolia, Vishwash Singh.

A four-wheeler ATV was fabricated by team members consisting of 3rd and 4th-year students of various departments. The event was organized in the month of January 2020 at Indore. In the competition, more than 50 teams have participated in the track events of SAE Baja 2020. A virtual round was also conducted at Chitkara University at Indore. The team secured a rank of 27th position.

2. **One Day Awareness Program “On Intellectual Property Rights for Innovators”** was organized on 7th March 2020. The program has been coordinated by Dr. Yogesh Singh and Dr. Bipul Das, Assistant Professor, Department of Mechanical Engineering. The invited outside speaker was Mr. Sandeep Aggarwal, Director, and Cofounder, Adastra IP, New Delhi. In the Awareness Program a total of 42 in-house participants have participated.
3. **Outreach Programme “Assam Start-Up” to promote entrepreneurship awareness** in NIT Silchar District Industries & Commerce Centre, Cachar, Silchar, was organized in March-April 19 at Start-Up Centre, NIT Silchar. Chief Operating Officer Mr. Pranjal Konwarhad delivered an expert talk on this activity. The event was Co-ordinated by Dr. Wasim Arif Assistant Professor, Department ECE.
4. **“My Story”** event was held on dt 25.09.2019 at 3.00 PM at Start-Up Centre, NIT Silchar, in association with IEDC and IEEE ComSoc. The event is a part of innovation and Entrepreneurship activities in the institute under institute innovation Cell (IIC-2.0).

Mr. Supatim Roy Choudhary, Founder of Pratyaksha Agrotech Pvt. Ltd and is a local innovator cum Entrepreneur who shared his success story. The event was Co-ordinated by Dr. Wasim Arif Assistant Professor, Department ECE, and Dr. Ashish Deoghare Assistant Professor, Department of Mechanical Engineering.

5. A machine learning model for psychological stress indication

Team Members: Sunny Ujlan, Dr. Ashish B. Deoghare, ME Deptt. NIT Silchar

A model based on the concepts of machine learning and heart rate variability, data of which was collected from the electrocardiogram, is developed to indicate the stress plot of individuals on the electrocardiogram plot when a person sits on a chair stationary during the data collection. This will help in the early identification and intervention of mental disorders developed due to being in a continued state of stress.

6. Mechanical characterization of silicon, boron and nitrogen-doped graphene with single vacancy defects

Team Members: Dhrumil Purohit, Dr. Ashish B. Deoghare, ME Deptt. NIT Silchar

Graphene has a wide range of applications in nanocomposites, nano transistors, nano sensors, nano electronics and Micro/Nano electromechanical systems (M/NEMS) due to its unique properties. The dopant atoms namely silicon, boron, and nitrogen are proved to be efficient in improving the semiconducting and electrical properties of graphene and thus its performance in nanoelectronics and nanodevices. But these dopant atoms also disrupt the ideal carbon atoms sp² hybridization in graphene that can deteriorate its extraordinary mechanical properties. Along with these dopant atoms, there are inherent unavoidable defects generated in graphene that may majorly affect its mechanical properties. Therefore in the present work, Molecular dynamics simulations have been used to study the effects of different dopants atoms with varying doping and defect concentrations, on the mechanical properties of a monolayer graphene.

7. Modeling of Differential Electromagnetic Transducer of Implantable Middle Ear Hearing Devices

Team Members: Chayad Barbhuiya, Dr. Ashish B. Deoghare, ME Deptt. NIT Silchar

Modeling of Differential Electromagnetic Transducer (DET) used in implantable middle ear hearing devices with similar frequency characteristics of those of a normal middle ear is done. The electromagnetic force and torque to be induced on passing current are determined using finite element analysis. In addition, to find the frequency vibration characteristics of the membrane and various stresses induced in the membrane, a dynamic analysis simulation is performed.

8. Fabrication of Aluminum-based hybrid metal matrix composite and their Tribological study for brake disc application

Team Members: V. S. S. Venkatesh, Dr. Ashish B. Deoghare, ME Deptt. NIT Silchar

Automobile brake discs are repeatedly undergone wear when it is exposed to adverse conditions like high-temperature environments and snow areas. Present brake discs are made up of High chromium steel and Cast iron which are undergone cracks during its functionality. The present study investigates the suitability of Aluminium Hybrid Matrix Composites reinforced with ceramic particles like Silicon carbide, Aluminium oxide, and Boron carbide, and kaoline clay which improves the Tribological performance of the brake disc against the commercially available brake pad material at different loads and sliding distances. Pin on disc wear test is to be performed to analyze the wear loss and wear volume. SEM and wear track surface morphology to be done to identify the wear mechanism on the interface surfaces. The results which are comparing with existing material to find the improved life of the brake disc material.

9. Publication details

International Journal: 05

International Conference:07

STUDENTS' ACTIVITIES

Scholarship/Assistantship Awarded to the students during 2019-20:

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 under review no. of students received scholarship/stipend from various sources.

Sl. No.	NAME OF THE SCHOLARSHIP	Name of the State	Amount of Scholarship awarded in 2019-20 (RS)	No. of students received the Scholarship	Remarks
1	Govt. Of Andhra Pradesh&Telengana	Andhra Pradesh	143140.00	02	
2	Govt. Of Bihar	Bihar	455000.00	7	
3	Govt. of Madhya Pradesh	Madhyapradesh	56666.00	2	
4	Central Sector Scholarship	Govt. of India	1844500.00	58	
5	Maharashtra	Maharashtra	78740.00	01	
6	Swami Dayanand	All India	32500.00	02	
Total- 2610546.00				72	

Apart from the aforesaid Scholarships, there are many scholarship schemes which follow 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 the 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 the Dean (SW) Office.

NIT Silchar encourages its students for sports and other activities as well. 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”

STUDENTS' GYMKHANA

In pursuit of excellence and giving life a meaningful direction, the Students' Union body “**Gymkhana**” of NIT Silchar works towards profound personality development of NIT students by infusing in them a spirit of constructive co-operation, leadership qualities, and organizational capabilities. This is being achieved by involving them in a wide spectrum of Sports & Games as well as Social & Cultural and Technological activities throughout the year.

The year 2019-2020 was also full of activities and achievements and students have made the Institute proud by maintaining high standards of organizational and leadership qualities.

Information regarding the students' activities (Gymkhana) under Office of the Dean (SW) during 2019-20 Session

i. GYMKHANA HELP DESK

At the start of the academic year 2019-20, a help desk was set up by the Gymkhana Union Body to assist the new students and their accompanying parents with the admission procedure and hostel allotment.

ii. ORIENTATION PROGRAM

An orientation programme for the newly admitted UG, PG, and Ph.D. students was held on Wednesday, 24th July, The new students were acquainted with the Administration, the HoDs of various departments, and with the Gymkhana Students' Union Body.

iii. HINDI DIWAS

14th September 2019 saw the celebration of Hindi Diwas in accordance with MHRD guidelines. A cultural program and literary competitions were held in the presence of distinguished guests and personalities associated with the Hindi Language.

iv. ALUMNI MEET

The 10th Alumni Meet was held on the Institute campus on the 9th and 10th of November, 2019 for the batch of 1990-94. Various interaction sessions and get-togethers were organized for the students to meet and learn from the alumni that were present. A cultural program and dinner concluded what was a brilliant event.

v. INDEPENDENCE DAY 2019

On 15th August 2019, NIT Silchar celebrated the 73rd Independence Day of India. It started with the hoisting of the Indian National Flag along with a rendition of the National Anthem. It was followed by the Inter-Hostel Parade competition and cultural programs that showcased themes of Patriotism and Unity.

vi. RABINDRANATH TAGORE MEMORIAL DAY

On 7th August 2019, NIT Silchar celebrated Rabindranath Tagore Memorial Day in honor of the great poet. There was a cultural program by the students of NIT Silchar and literary competitions such as poetry writing, elocution, etc were held to encourage the spirit of literature.

vii. GENERAL FRESHMEN WELCOME PROGRAM

On 7th September 2019, The Gymkhana Students' Union Body held a Freshmen Social event for the new batches of UG and PG respectively. The program consisted of various dances, musical performances, dramas, and the very popular Mr. & Ms. Freshers' competitions.

viii. TECNOESIS 20

1st to 3rd February 2020 saw the celebration of Tecnoesis, the annual techno-management fest of NIT Silchar. The theme of this year's edition was "A Saga of Intergalactic Ventures". The event had many modules that were organized by the students themselves. Many distinguished guests and personalities in the field of technology and innovation made their presence felt and interacted with the students. Last but not the least, a cultural program then constituted the conclusion of the fest.

ix. EKTA DAUD

There were three Ekta Daud marathons held last year on 31st October, 15th August 2019, and on 26th January 2020, on the occasion of the 73rd Independence Day of India, Rashtriya Ekta Diwas; annual commemoration of the birthday of the Iron Man of India – Sardar Vallabhai Patel and the 71st Republic Day of India, respectively.

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.

x. **REPUBLIC DAY '20**

On 26th January 2020, NIT Silchar celebrated the 71st Republic Day of India. The day started with the hoisting of the tricolour along with a rendition of the National Anthem. What followed was a cultural jhanki with themes of harmony and unity, and the Inter-Hostel parade competitions which saw students representing their hostels with great enthusiasm.

xi. **BLOOD DONATION CAMP**

Blood donation camps were held on 15th August 2019 and 26th January 2020 after the Independence Day and Republic Day event celebrations respectively. The students and faculties donated blood to the SMC blood bank with the novel thought that it will save lives whenever needed. The Institute has received 8th position in the category of voluntary Blood Donation in Assam for the year 2018-19 on World AIDS day 2019 along with a prize money of Rs.10000.00.

Ek Bharat Sreshtha Bharat

As per the Govt. of India campaign Ek Bharath Sresshtha Bharat (EBSB), NIT Silchar constituted the EBSB club comprising of students and faculty members in the month of January 2020 and a month-wise activity calendar has been designed. Based on the activity calendar many events were organized between January 2020 to March 2020, a few of the events are listed below:

1. 02 songs have been identified from the paired state Rajasthan, viz. **Dharti Dhoranri** and **Baisara Beera**, sang by the eminent Assamese Singers Mr. Papon and Ms Kalpana Patowary have been circulated among the stakeholders of NIT Silchar. The weblink of the songs has also been uploaded in the official website of the Institute.
2. Friendly Football match between students of Assam and paired state Rajasthan.
3. Debate and Easy writing Competition etc.
4. Swachhata Pledge in Rajasthani language along with Hindi & English.
5. Fashion Show portraying the Assamese- Rajasthani culture.
6. Eminent Folk Singer Mr. Mame Khan was invited to present a cultural evening showcasing the rich cultural heritage of the state of Rajasthan on 16th February 2020 during the annual cultural festival of NIT Silchar, Incandescence 2020. His mesmerizing performance was immensely enjoyed by the students, teaching and non-teaching staff of the Institute.

xii. **INCANDESCENCE '20**

13th to 16th February 2020 hosted Incandescence 2020 in NIT Silchar. The premier cultural fest of the region had a multitude of events ranging from quizzes and debates to full-blown rock concerts. Many distinguished guests and artists from around the world came here to entertain the crowds.

xiii. **JANMASHTAMI**

On 24th of August 2019, NIT Silchar celebrated Janmashtami with the pomp and joy of Lord Krishna's birthday. A dahihandi competition between the various hostels was also organized.

xiv. **DURGA PUJA**

On Friday, 4 October Tuesday, 8 October 2019, NIT Silchar celebrated Durga Puja. The festivities centered around the campus Pandal which saw a huge footfall from the faculty and student communities.

xv. **DIWALI**

On Sunday, 27 October 2019, NIT Silchar celebrated Diwali in its various hostels which hosted pandals and puja ceremonies. In the evening, people gathered in the football field to burst crackers and enjoy the spirit of Diwali.

xvi. Swachhta Pakhwada

23rd January 2020 saw the organization of Swachhta Pakhwada in the college. It consisted of a cleanliness drive, a pledge taking ceremony, a visit to a nearby school, and a small cultural program in the evening

xvii. Self Defence Workshop for Women

On 9th - 10th November 2019, a self-defense workshop was hosted for the women of the institute. They were instructed on basic self-defense tactics by a renowned martial-arts practitioner.

xviii. AIINIT

National Institute of Technology, Silchar bagged the opportunity to organise the ALL INDIA INTER NIT SPORTS TOURNAMENT, for Table Tennis and Yoga, for the academic year 2019-20. The Tournament was scheduled from 11th of October'19 to 13th of October'19

xix. Srijan 1.0

NIT Silchar organised the first-ever E-summit with the name "SRIJAN" (meaning Creation/Innovation). From the 8th-10th of November 2019.

xx. Spicmacay

NIT Silchar was blessed to get an opportunity to organise "SPICMACAY" from the 4th – 6th of November 2019.

Apart from all the above-mentioned programmes NIT Silchar also celebrated many other events, e.g. World Environment Day 2019, International Day of Yoga 2019, etc.

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 has an 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) : | Departmentally |
| (b) Housekeeping of the Hostels: | Out sourced |
| (c) Security Management of the campus: | Out sourced |
| (d) Maintenance of Civil & Electrical: | Departmentally |

HOSTELS

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 a 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. The available capacity of boys' hostels all together (UG/PG) is approximately 4000, the available capacity of girls' hostel (UG/PG) is approximately 650 and the available capacity of Married Scholar Hostel is 106 flats.

Following are the list of facilities available in the Hostels:

1. Chair, Table, Bed, Wardrobe, and Fan provided in each room
2. 24- Hour Reading Room facility.
3. Guest room and Seek room in each hostel.
4. Round the clock water supply and power supply.
5. Water cooler cum Purifier.
6. Solar panels are installed in all hostels for hot water.
7. Diesel generator (centrally) available in case failure of power supply.
8. LAN/ Internet
9. Wi-Fi connection
10. Inverter.
11. TV Hall with LED TV & DTH Cable connection facility in each hostel.
12. Newspaper and Magazine.
13. Photocopier (Xerox) in each hostel.
14. Ambulance service round the clock.
15. The coffee house was provided.
16. An indoor game like Table Tennis, carom, chess provided.
17. Hygienic kitchen with modern cooking Equipment provided.
18. Hygienic Dining hall with dining Table/chair provided
19. Fire Extinguisher provided.
20. Family accommodation and self-cooking facility in Married scholar hostel and foreign students hostel
21. Separate vehicle parking facility in a married scholar hostel.
22. Bi-cycle stand provided in most of the hostels
23. Badminton court with lighting arrangement available (Only BH-1 & GH- 2).

Following are the list of services available in the hostels:

1. Security service
2. CCTV Surveillance
3. Cleaning / House Keeping service
4. Food & catering service
5. Laundry services
6. Maintenance of civil, electrical, plumbing & sanitary services.
7. Maintenance of Aqua guard & cooling cum purifier service.
8. Managerial service provided for general maintenance
9. 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. Srimanta Baishya, ECE 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; Miss. Abida Sultana; 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



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.



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.

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 Dumbbells 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 Prabhakar Prabhu 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
53	43	651

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
2	The Third Generation's Inheritance of the	Dr. Avishek Ray, Department of	Rs. 2,00,000/-	29-03-2017	Indian Council of Social

Sl. NO.	Name of the Project	Project Coordinator	Total Amount Sanctioned in Rupees	Date of Sanctioning the grant	Name of the Funding Agency
	Memory of Partition(1947): A Comparative Study Across Spatial Axes	Humanities & Social Sciences			Science Research
3	Fabrication and Testing of Tandem Layered Quantum Dot Sensitized Solar Cell with Elevated Absorption	Dr. Ranjith G. Nair, Department of Physics	Rs. 25,13,390/-	08-12-2016	Science and Engineering Research Board
4	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
5	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
6	Effect of metal-doped TiO ₂ 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
7	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
8	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
9	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
10	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

Sl. NO.	Name of the Project	Project Coordinator	Total Amount Sanctioned in Rupees	Date of Sanctioning the grant	Name of the Funding Agency
11	Nano Structured Metal Oxides Immobilized Ionic Liquids as Green Catalysts for selective Organic Transformations	Dr. S. S. Dhar, Department of Chemistry	Rs. 28,64,430/-	12-03-2018	Science and Engineering Research Board
12	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
13	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
14	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
15	Experimental and Computational Analysis of Heat Sink Application for optimal performance by developing low cost natural filler reinforced composite material	Dr. Sumit Bhowmik, Department of Mechanical Engineering	Rs. 22,63,000/-	04-08-2017	Central Power Research Institute
16	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 oh Himalayan Studies
17	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
18	Development of National Disaster Spectrum (NDS) and Disaster Communication Backbone Architecture (DiCoBA) with Prototype Development	Prof. S. Baishya, Department of Electronics & Communication Engineering	Rs. 11,00,000/-	30-09-2015	DeitY
19	Development of EBG Structured Printed Antennas for Ultrawide Band Communication and Futuristic Modelling for prediction of	Dr. Taimoor Khan, Department of Electronics & Communication Engineering	Rs. 16,27,560/-	27-12-2016	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
	performance Parameters using Computational Techniques				
20	Design of Reconfigurable Defected Ground Structure Resonator for Wireless Application	Dr. Arnab Nandi, Department of Electronics & Communication Engineering	Rs. 23,40,000/-	08-07-2015	Science and Engineering Research Board
21	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
22	An Application of Textual Entailment and Semantic Textual Similarity in Scientific Document Retrieval System	Dr. Partha Pakray, Department of Computer Science & Engineering	Rs. 10,59,448/-	01-11-2018	Science and Engineering Research Board
23	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
24	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
25	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
26	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.	Rs. 35,53,777/-	20-03-2019	DST-INRIA / CNRS

Sl. NO.	Name of the Project	Project Coordinator	Total Amount Sanctioned in Rupees	Date of Sanctioning the grant	Name of the Funding Agency
		Thierry Artieres, Dept. EcoleCentrale Marseille, Aix-Marseille University, France.			
27	Digital Expression of the Self (ie): Photographic Performativity in Contemporary India. Project Code: P405	Indian PI: Dr. Avishek Ray, National Institute of 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.	Rs. 59,88,555/-	18-03-2019	SPARC
28	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
29	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. Antar (Queen's University) International Co-Pi: Prof. Al P. Freundorfer (Queen's University)	Rs. 49,58,775/-	18-03-2019	SPARC
30	Investigation and development of robust control strayegy for nonlinear bilateral teleoperation system with delayed communication: An experimental	Indian PI: Dr. Rajeeb Dey, NIT Silchar. Indian Co-PI: Dr. Nabanita Adhikary, NIT Silchar. International PI: Prof. Jason Gu (Dalhousie University)	Rs. 67,12,451/-	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
	validation for rehabilitation of stroke patients Project Code: P1087.	International Co-PI: Prof. Mo E1 Hawary (Dalhousie University)			
31	Topology Optimization of Complex Structures and Architected Metamaterials :: computational Design considering Uncertainties (TOCSAM)	Dr. Subhrajit Dutta, Department of Civil Engineering	Rs. 100000/-	17-07-2019	Department of Science & Technology (International Bilateral Cooperation Division)
32	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
33	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
34	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
35	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
36	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
37	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

Sl. NO.	Name of the Project	Project Coordinator	Total Amount Sanctioned in Rupees	Date of Sanctioning the grant	Name of the Funding Agency
38	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. Tripathy, Department of Electronics & Communication Engineering	Rs. 3194000/-	10-09-2019	ASEAN
39	Feasible Coordinated Controlled Grid-connected Photovoltaic Sourced DC based Fast Charging Infrastructure for Electric Vehicle Design, Development and Experimental Validation	Dr. Amrithesh Kumar, Department of Electrical Engineering	Rs. 18945180/-	27-12-2019	SERB IMPRINT-2
40	JalAbhyaranya Campaign for Water Security in IHR	Dr. Sudipta Halder, Department of Mechanical Engineering	Rs. 1362400/-	23-08-2019	National Mission on Himalayan Studies
41	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
42	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
43	Optimal Solution Evaluation	Dr. Anupam Biswas, Department of Computer Science and Engineering	Rs. 2336500/-	29-10-2019	Science and Engineering Research Board
44	Design and development of soft interconnect for DC Microgrids using power electronics interface for improved reliability of power supply	Dr. Amrithesh Kumar, Department of Electrical Engineering	Rs. 2908400/-	23-12-2019	Science and Engineering Research Board
45	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
46	Design and	Dr. Yogesh Singh,	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
	Development of a High-Speed Three Dimensional Pinter with a Large Range of Micro Motion using Scanning Stereolithography Technique	Department of Mechanical Engineering			
47	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
48	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)
49	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, NIT Silchar	Rs. 15,17,400/-	20-03-2019	Indian Council of Social Science Research
50	Utilizing hazardous heavy metal (HM) sludge through fired brick production	Co-PI: Dr. Ajay Bhatt, Department of Civil Engineering	Rs. 18,28,000/-	18-06-2019	National Project Implementation Unit

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	Dr. Ashim Kumar Das, Department of	Rs. 13,30,000/-	10-03-2016	Department of Science &

	Development Centre (IEDC) at NIT Silchar	Management Studies			Technology
4.	Unnat Bharat Abhiyan	Dr. Arup Kumar Goswami, Department of Electrical Engineering	Rs. 1,75,000/-	22-09-2015	MHRD

AWARDS AND ACHIEVEMENTS

- NIT Silchar has secured 46th position amongst all the engineering universities in India as per NIRF 2019 data. It is also the 9th amongst all the NITs as per the same ranking, with a score of 48.66.
- NIT Silchar has secured 16th position in Top T-Schools (Overall) India Survey 2020 and secured 3rd position in East zone.
- NIT Silchar has secured 26th position in India Today-MDRA Best College ranking (2020) and secured 5th position in the East zone.
- NIT Silchar has secured 32nd position in THE WEEK Best Engineering Colleges India 2020.
- NIT Silchar has secured rank in the band of 11-25 in Atal Ranking of Institutions on Innovation Achievements (ARIIA) 2020 (Category ‘Institute of National Importance, Central Universities and CFTIs’).
- NIT Silchar has been ranked at 750 in US News Ranking 2020.
- NIT Silchar has secured 275th Position in UI GreenMetric World University Ranking 2020.
- NIT Silchar has been ranked in the rank band 801-1000 in the THE World University Ranking 2021; 601-800 for THE Engineering World University Ranking 2021; 601-800 for THE Physical science World University Ranking 2021; 251-300 for THE Emerging Economics University 2021.
- NIT Silchar has been ranked in the rank band 201-250 in THE Asia University Ranking 2021.
- NIT Silchar has secured 11th position in Top T-Schools (Overall) India Survey 2021 and secured 2nd position in East zone.

Below is a comprehensive list of the awards and achievements of the NITS student fraternity, 2019-20.

Achievement of Students of NIT Silchar in Sports, Cultural and Technical activities during 2019-20.

Sl No.	Name of the Students with Branch	Name of the Event	Position	Date & Place
1.	a. Ridon Prasad Kakoti (CE) b. Golam Zoheb Hasan (ECE)	All India Inter NIT Tournament (Table Tennis Doubles)	2 nd Position	11 th -13 th Oct.2019 at NIT Silchar
2.	a) Lamnganbi Khuman (EE) b) Akanksha Kedia (EE) c) Roseleen Borah d) Vartika Varshney (CSE)	All India Inter NIT Tournament (Table Tennis)	2 nd Position	11 th -13 th Oct.2019 at NIT Silchar

3.	a) Lamnganbi Khuman (EE) b) Akanksha Kedia (EE)	All India Inter NIT Tournament (Table Tennis Doubles)	2 nd Position	11 th -13 th Oct.2019 at NIT Silchar
4.	a. Khumcham Sonam Devi (CSE) b. Akta Singh (MSc Physics) c. Ashapriya Borgohain (EE) d. Purobi Sorong (EE) e. Kangkana Moran (EE)	All India Inter NIT Tournament (Yoga)	3 rd Position	11 th -13 th Oct.2019 at NIT Silchar
5.	a. Priya Nath (EE) b. Debanjana Purkayastha (ME) c. Radhika Malik (MSc Maths) d. Anupama Deb (EIE)	All India Inter NIT Tournament (Chess)	3 rd Position	17 th – 19 th Oct. 2019 at MNIT Jaipur
6.	a. Aditya Soni (CSE) b. Koustobh Ronveer Borah (CE) c. Snehal Nayan (ECE) d. Palash Jyoti Borah (MBA)	All India Inter NIT Tournament (Lawn Tennis)	2 nd Position	17 th – 19 th Oct. 2019 at MNIT Jaipur
7.	a. Sagar Talukdar (CE)	All India Inter NIT Tournament (Body Building)	1 st Position (55-60 KG)	17 th – 19 th Oct. 2019 at MNIT Jaipur
8.	a. Sangepuleelasaikiran (ME)	All India Inter NIT Tournament (Body Building)	3 rd Position (65-70 KG)	17 th – 19 th Oct. 2019 at MNIT Jaipur
9.	a. Ayushi Johari (CSE) b. Jishnu K. Hazarika (CE) c. Deepjoy Dey (CSE)	Model United Nations	Best Delegate High Commendation High Commendation	31 st Oct – 2 nd Nov 2019 at St. Anthony's College, Shillong
10.	a. Arnab Das (CSE) b. Jishnu Kashyap Hazarika (CE)	North-Eastern Regional Inter College Invitation Quiz(NERICIQ)	2 nd Prize	9 th Nov – 10 th Nov 2019, RajibBhavan, Silchar.
11.	a. Yash Sarwaswa	Impromptu- Spring Fest 2020	2 nd Prize	24 th January – 26 th January 2020 IIT Kharagpur

GLIMPSES OF ANNUAL ACTIVITIES



Honourable Education Minister Shir Ramesh Pokhriyal Nishank Inaugurating Solar Power Plant and Girls Hostel 2020



Republic Day Celebration 2020



BigDML 2019 Event



Institute Library



Conference proceedings of BigDML 2019



Technical Session conducted by Foreign Faculty



Entrance of NIT Silchar



Inter-Hostel Volleyball Tournament



Cycle Rally during Swachhata Hi Seva Celebration



Convocation 2019



Bihu Celebration in NIT Silchar



Guest House of NIT Silchar



International Day of Yoga 2019



Induction Program 2019



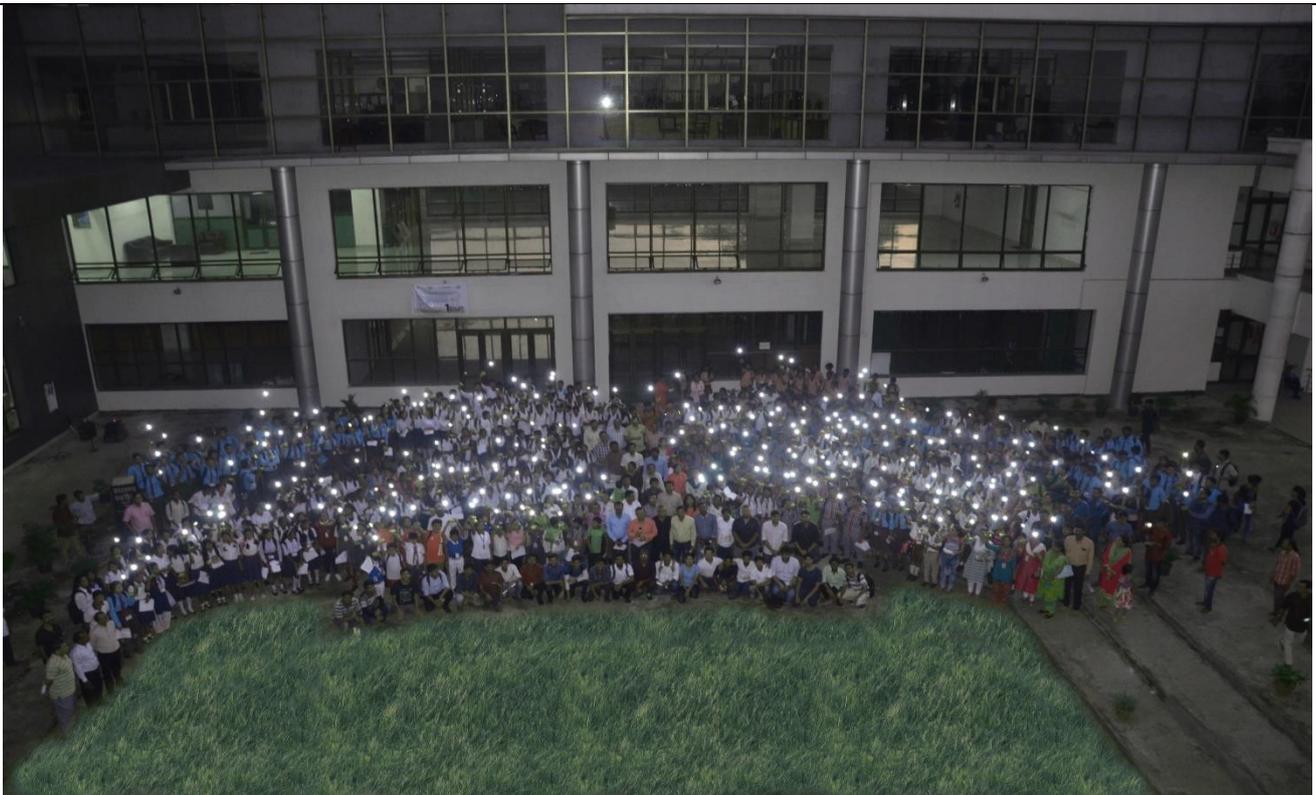
Fit India Movement 2019



Independence day 2019



Inside view of Guest house Auditorium



Gandhi Global Solar Yatra (GGSY) 2019



Inauguration of Cloth Donation Programme 2019



Swachhta Pakhwada 2019



Cloth Donation



All India Inter NIT Tournament 2019



All India Inter NIT Tournament

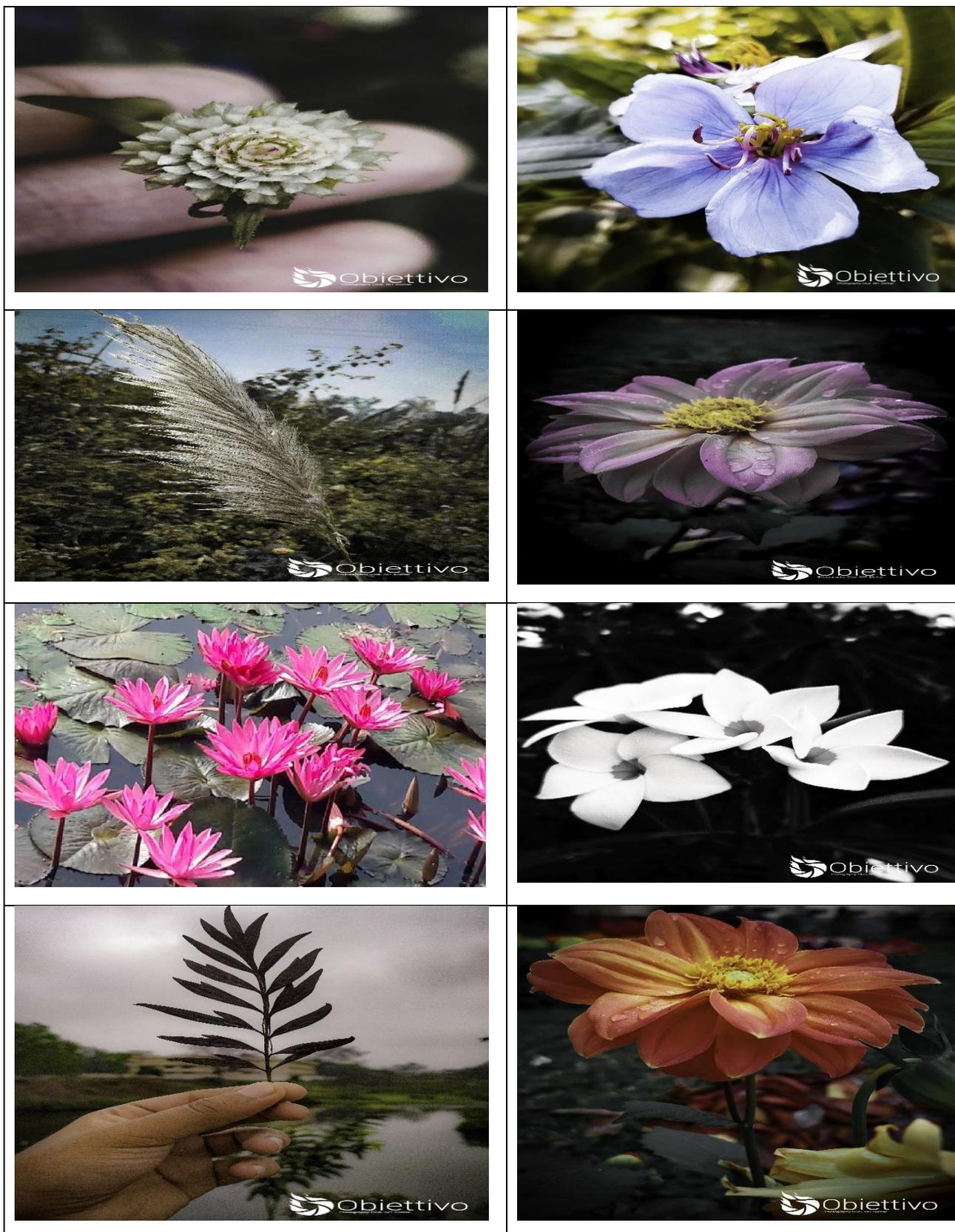


Anveshan 2.0 (2020)



Anveshan 2.0 (2020)

Flowers in the Campus



Birds in the Campus

