

राष्ट्रीय प्रौद्योगिकी संस्थान अगरतला
NATIONAL INSTITUTE OF TECHNOLOGY AGARTALA



ANNUAL REPORT
2018-2019

National Institute of Technology Agartala
Barjala, Jirania, Tripura, India - 799046
Website: www.nita.ac.in

REPORTS/ PAPERS TO BE LAID ON THE TABLE OF LOK SABHA/ RAJYA SABHA

**ANNUAL REPORT AND ANNUAL ACCOUNTS
2018-2019**

(AUTHENTICATED)

MINISTER OF STATE IN THE
MINISTRY OF HUMAN RESOURCE DEVELOPMENT

NEW DELHI
DATED:



NATIONAL INSTITUTE OF TECHNOLOGY AGARTALA

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ANNUAL REPORT

2018 – 2019



**NATIONAL INSTITUTE OF TECHNOLOGY
AGARTALA**

1.0 INTRODUCTION

National Institute of Technology Agartala, a Centrally Funded Institution is one of the thirty one National Level Technical Institutes in India. The Institute's vision is "to help to improve the economic development of the country particularly of the Institutes of the North-Eastern States, through the pursuit of excellence in technical education, research, consultancy and training". The Institute has marked an important footprint in this short span of time after its conversion from the erstwhile Tripura Engineering College to NIT Agartala in the year 2006. Situated in the lap of nature, NIT Agartala has embarked on a journey to make its presence felt in the map of Technical education and innovation in the country. Presently at the Under Graduate Level, B. Tech Degree Courses are offered in Civil Engineering, Mechanical Engineering, Electrical Engineering, Computer Science & Engineering, Electronics & Communication Engineering, Production Engineering, Chemical Engineering, Electronics & Instrumentation Engineering and Bio Engineering, out of which seven branches also offer Post-Graduate courses. The Institute also offers courses of higher study in computer applications, science subjects and management programmes. To promote fundamental research, it also offers Ph.D along with Post-Doctoral Fellowship programs in various specializations of Engineering, Science, Management, Humanities & Social Sciences. The School of Management of NIT Agartala produces management professionals skilled with analytical and administrative ability.

The Institute has a dedicated Center for Career Development for organizing on campus placements process, Industrial Training, Study Tours, and Apprenticeship Training for the final year students. The Institute has several highly sophisticated laboratories empowered with the latest technical equipments that aim at catering the state of the art research. The Institute has a well-equipped workshop that provides centralized facilities for conducting classes at the undergraduate level and also meets the requirements of any state of the art project work and consultancy initiatives. The Library of the Institute is equipped with the latest RFID systems and dedicated digital section with online access to numerous international journals of repute and e-books from different online portals and subjects to quench the needs of our students and researchers.

The Institute has both Boys' and Girls' Hostel facilities. Students are accommodated in five Boys' Hostels and one Girls' Hostel. The institute looks forward to accommodate students into another hostel complex with boarding capacity of 500 students before the start of the new academic session. The students take active part in all sorts of activities held in cultural and technical festivals in and outside the campus. The NITA Student Gymkhana is a very active student organization that acts as a link between the students and the administration. The Gymkhana Club promotes the objectives of fostering extra-curricular activities and works for the welfare of students. Every year the students of NIT Agartala organize the Annual Technical Fest Aayam and Cultural fest called Moksha that witnesses spontaneous participation of students. Different Clubs such as Robotic Club, Soft Skills Development Club, Electronic Club, Music Club, Drama Club, Photographic Club, Art & Culture Club have been formed for encouraging the students to take part and develop themselves in various fields.

The entire NIT Agartala is sprawled over 365 acres of lush green land in nature's lap. Massive construction works are going on with a rapid pace to equip it fully with the entire infrastructure. Virtual class room through 4 Mbps High definition

video conferencing has been established under the second phase of the Pilot project launched by NICSI, New Delhi to connect IITs, IISc, TIFR and NITs through NKN and, a Multimedia centre has been developed to cater to the needs of the CDAC curricula. Having regard to the concern for the environment, Solar panels have been installed with a 90% subsidy by MNRE for street lights and other Emergency loads like Hospital, Guest House, Girls' Hostel etc. The entire campus of NIT Agartala is a Wi-Fi campus where internet facilities can be accessed from anywhere at any point of time. NIT Agartala is the first NIT to have started Kendriya Vidyalaya within its campus to provide education to the local people as well as the children of the faculty members and other staff members staying within the campus. NIT Agartala looks forward to work for a future that would empower our young generation with a quality technical education that will help them take greater responsibility to take our country forward.

1.1 Objectives:

The National Institute of Technology Agartala is an Institution of National Importance set up by Govt. of India. The mission of the Institution is:

- To develop professional attitude.
- To make good human beings possessing professional ethics.
- To make responsible citizens with social commitment.
- To develop entrepreneurial spirit among young professionals.
- To foster research and attitude for development.
- To ensure all round growth, fostering and developing better commitment in terms of both technological advancement and development.

1.2 Goal:

Institutional Goal – Short term and Long term

The target of the Institute is to achieve Short Term Goals within 5 years and the Long Term Goals within 10 years.

Short term goals:

- To complete the construction of Students' Hostels.
- To construct roads & other amenities as proposed in the master plan.
- To procure adequate laboratory equipment and machineries for UG and PG classes.
- To develop modern laboratories for Central Research Facilities and consultancy activities.
- Upgradation of existing campus to the wide network to provide continuous high broadband internet connectivity.
- Upgradation of existing library with modern facilities namely RFID, digital library, library management system, connectivity to e-journals and e-books of reputed publications.
- Creation of all infrastructural and other facilities such as all weather internal roads with footpath and well planned campus to be developed keeping in view the architectural landscaping and beautification.
- Entrepreneurship development aided with Technology Incubation.

Long Term Goals:

- To make it one of the leading technological Institutions not only in India, but also in the world map of technical Institutes.
- To attract large number of foreign students.
- To produce high quality research scholars in all professional areas.
- To attract high quality experienced faculty members of national and international standards.
- To strengthen Industry Institute partnership linkages.
- To extend facilities in terms of technology transfer for developing infrastructural facilities of the Region.
- To establish community development centres for nurturing and motivating the local talents and resources.
- To establish different Schools / Centres in the emerging Science, Technology and other related professional areas.
- To establish itself as an Educational Hub in the North-East Region.

1.3 Education System:

The National Institute of Technology Agartala offers B. Tech, MCA, MBA, M. Tech., M. Sc. (courses in Physics, Chemistry and Mathematics), BS-MS (in Physics, Chemistry and Mathematics), BT-MT (in Engineering Physics) and Ph.D. courses in Engineering, Technology, Sciences, Management, Humanities & Social Sciences.

The Institute has introduced a new curriculum in the line of IITs where more number of elective subjects are offered to make the system flexible. The Institute follows a credit based system for academic evaluation. It offers Industrial training and projects as a part of the education system and students are also encouraged to take part in various activities through NSS, NCC, Sports and other co-curricular activities for their social and personality development.

1.4 New Initiatives:

The PG programmes have been aimed to fulfil the requirement of Tripura and North East as a whole. The campus has been partially made residential with four boys' hostels and one girls' hostel. A fully residential campus will be developed with modern facilities for overall requirement of the Institute within 3 years.

The Institute gets a 33 KV dedicated power supply through Tripura State Electricity Corporation Limited for uninterrupted supply in the campus. Some other initiatives taken up for augmenting the Institute with more infrastructure facilities are as follows:

- (1) Up-gradation of the internal main road with both side footpath including side drain, electric post, bus stop, sitting arrangements at certain intervals & conduit from main gate – 1 to auxiliary gate -2 via housing and boys' hostel & auxiliary gate -2 to main gate -1 and auditorium to existing play ground (old) at NIT Agartala.
- (2) Revamping of lakes, water harvesting and beautification of water bodies in NIT Agartala.
- (3) CCTV Surveillance System, LAN networking and telephone/ intercom system in Central Library at NIT Agartala.
- (4) HVAC System in Central Library at NIT Agartala.

- (5) Internet Connection in Transportation Engineering Laboratory & Water Resource Engineering Laboratory of Civil Engineering Department (New Workshop).
- (6) Area Development works in and around Central Plaza, Academic Zone, NIT Agartala in progress.
- (7) Construction of Laboratory to conduct the experiment of Geotechnical Engineers for Ph. D. Scholars at NIT Agartala.

2.0 AN OVERVIEW

2.1 Historical Background:

National Institute of Technology Agartala, a Centrally Funded Institution was set up to impart quality technical education into various levels of higher learning. It may be mentioned here that the 23rd February 2006 is a Red Letter Day in the history of Tripura Engineering College as well as in the State of Tripura as the Union Cabinet approved the proposal of the State Government for conversion of Tripura Engineering College to National Institute of Technology, a fully Central Government funded Institution with Deemed to be University status.

The Institute (i.e. erstwhile Tripura Engineering College) was established in 1965 with the three traditional branches of Civil, Electrical and Mechanical Engineering. It was initially affiliated to Calcutta University and had the same curriculum structure and examination system at par with Bengal Engineering College (presently Bengal Engineering and Science University, Shibpur). After the establishment of Tripura University, the Institute was then affiliated to Tripura University w.e.f. 1987.

2.2 Location:

The Institute is located on a site, 20 km. away from the capital city of Agartala and 4 km. away from National Highway (NH-44) connecting Agartala to Shillong. Agartala is linked to the rest of the country by road and rail-link via Silchar and Guwahati. It has got direct air link to New Delhi, Kolkata, Guwahati, Silchar, Imphal, Mumbai, Bangalore and Chennai. NIT Agartala is situated at 91°21'22.681" E (E 339387.823 m.) longitudes and 23°50'26.906" N (N 2637495.384 m.) latitude at a height of 43.786 metres above the sea level. The climate in the institute campus is moderate. The temperature varies from a minimum 6°C in the winter season to a maximum of 35°C in the summer season. The area has an approximate annual rainfall of 2200 mm.

The Institute is connected to the National Highway with all weather-metalled roads. Regular bus and jeep services are available from Agartala city to College Chowmuhani (NH 44 junction) near the Institute. Auto-rickshaw services are also available on the route from College Chowmuhani to the Institute and back. Direct regular bus service from Agartala (Nagerjola) to NIT Campus via Ranirbazar is now available. The nearest railway station at Jirania is about 2.5 km. from the Institute. The Institute also has its own bus service for campus dwellers.

2.3 Campus and Common Facilities:

The campus of the Institute is spread over an area of 365 acres, set amidst a sprawling landscape of natural quietness. It presents a spectacle of harmony in modern architecture, natural beauty aided with picturesque surroundings.

A well-equipped Medical Unit with four Medical Officers, two Pharmacists and other supporting staff is available in the campus for rendering medical care to the students, staff and other inmates of the campus. In case of emergency, arrangements are made for transferring the patients to the Jirania Primary Health Centre which is 4 km. away from the campus or to the State Hospital in Agartala. An ambulance service is also provided for students and staff.

A full-fledged Branch of State Bank of India named SBI NIT Agartala Branch is functioning in the Institute campus with the Core Banking facility since 28th March 2008. The SBI has opened an ATM counter in the Institute campus. Teachers, staff, students and local inhabitants are getting benefit out of it. With the introduction of nationalized Banking facility in the campus, a long pending demand of the students and staff of the Institute has been fulfilled. Two ATM counters one by CANARA Bank and the other by Punjab National Bank have also been operating in the campus. CANARA Bank opened their branch in the Institute's premises.

The Tripura Gramin Bank has a branch operating from the Institute campus named as NIT Agartala Branch. The campus also has a Sub-Post Office by the name "NIT Agartala" having PIN: 799 046.

2.4 Placements:

The Institute has a Centre for Career Development (CCD) under the Chairmanship of Dr. Tara Sen with supporting staff. The CCD helps the students to get proper placements in various Public and Private Sector Organizations by arranging the campus interviews. Study Tours and Industrial Trainings are also organized by this Cell.

2.5 Games and Sports:

The students actively participate in all co-curricular activities like Games and Sports, Debates, Cultural-Functions, Essay Competitions, Drama Competitions, Rallies on various themes, NSS programmes, etc. being sponsored by the State Government and Central Government and other statutory bodies and also by the institute authority. N.S.S. or N.C.C. is a compulsory subject for all the students of first year.

3.0 ADMINISTRATION

3.1 Introduction:

Recognizing the growing need of quality technical education in the North Eastern Region, the Union Cabinet approved the proposal of the State Government for the conversion of the erstwhile Tripura Engineering College to National Institute of Technology, to a fully Central Government funded Institution with Deemed to be University status on 23rd February, 2006. The Ministry of Human Resource Development, Government of India issued the official notification No. F. 26-20/2004/TS-III dated 10.03.2006 that marked the emergence of National Institute of Technology Agartala with effect from 01.04.2006.

National Institute of Technology Agartala (NITA) is an autonomous statutory organization set up by NIT ACT. NIT Act and first Statutes framed under the ACT have provision for 4 Authorities. Board of Governors (BOG) is the highest authority, responsible for overall administration and control of the Institution. Under the supervision of BOG, three (3) other authorities work in different areas for proper supervision, maintenance and implementation of decisions and policies of the Institution. The other authorities are (1) Finance Committee, (2) Building & Works Committee and (3) Senate. The functions, responsibilities, powers of BOG, Finance Committee, Building & Works Committee and Senate are provided in the NIT ACT and Statutes.

Members of the Board of Governors (BOG)

<u>Sl. No.</u>	<u>Name and Designation of the Members</u>
1	Prof. H. K. Sharma, Director, NIT Agartala, Tripura.
2	The Special Secretary/ Additional Secretary/ Joint Secretary dealing with Technical Education, Department of Higher Education, Ministry of Human Resource Development, Govt. of India.
3	The Financial Adviser, Department of Higher Education, Ministry of Human Resource Development, Govt. of India.
4	The Principal Secretary to the Govt. of Tripura, Dept. of Higher Education, Tripura.
5	Prof. Vijayalakshmi Ravindranath, Indian Institute of Science, Bangalore.
6	Prof. Sanghamitra Bandyopadhyay, Director, Indian Statistical Institute, Kolkata.
7	Prof. A. Srinivasan, Dean of Faculty Affairs, IIT Guwahati, Assam.
8	Shri Alok Roy Choudhury, Additional Chief Engineer, PWD, Govt. of Tripura, Agartala, Tripura.
9	Dr. S. C. Saha, Professor, Mechanical Engineering Department, NIT Agartala.
10	Dr. Shubhadeep Bhattacharjee, Assistant Professor, Department of Electrical Engineering, NIT, Agartala.
11	Dr. Govind Bhargava, Registrar, Secretary of BOG.

Members of the Finance Committee

<u>Sl. No.</u>	<u>Name and Designation of the Members</u>
1	Prof. H. K. Sharma, Director, NIT Agartala, Tripura.
2	The Joint Secretary dealing with NITs or his nominee, Department of Higher Education, Ministry of Human Resource Development, Govt. of India.
3	The Financial Advisor or his nominee, Department of Higher Education, Ministry of Human Resource Development, Govt. of India.
4	Dr. S. C. Saha, Professor, Mechanical Engineering Department, NIT Agartala.
5	Dr. Shubhadeep Bhattacharjee, Assistant Professor, Department of Electrical Engineering, NIT, Agartala.
6	Dr. Govind Bhargava, Registrar, Member Secretary of FC.

Members of the Building and Works Committee

<u>Sl. No.</u>	<u>Name and Designation of the Members</u>
1	Prof. H. K. Sharma, Director, NIT Agartala, Tripura.
2	The Director or Dy. Secretary or his nominee dealing with NITs, Department of Higher Education, Ministry of Human Resource Development, Govt. of India.
3	The Director or Dy. Secretary or his nominee dealing with Finance of NITs, Ministry of Human Resource Development, Govt. of India.
4	The Dean (P&D), NIT Agartala.
5	Mrs. S. Das, Chief Engineer, PWD (Building), Govt. of Tripura
6	Shri Kajal Banik, Executive Engineer, Electrical Inspectorate, Govt. of Tripura.
7	Dr. S. C. Saha, Professor, Mechanical Engineering Department, NIT Agartala.
8	Dr. Govind Bhargava, Registrar, Member Secretary of BWC.

Members of the Senate meeting

<u>Sl. No.</u>	<u>Name and Designation of the Members</u>
1	Prof. H. K. Sharma, Director, NIT Agartala, Tripura, Chairman of the Senate.
2	Prof. Rajeev Tripathi, MNNIT Allahabad.
3	Prof. Minati Baral, NIT Kurukshetra, Haryana.
4	Prof. Kapil Deo Mishra, Vice Chancellor, Rani Durgavati Vishwavidyalaya.
5	Prof. Subhas Chandra Saha, Professor, NIT Agartala.
6	Prof. Umesh Mishra, Professor, NIT Agartala.
7	Prof. R. P. Sharma, Civil Engineering Department, NIT Agartala (Tripura).
8	Dr. Govind Bhargava, Registrar, Member Secretary of the Senate.

3.2 Number of Meetings of the Authorities:

During the period under report, the number of meetings held by various authorities are mentioned below:

A.	Board of Governors	: 3 Nos.
B.	Finance Committee Meeting	: 2 Nos.
C.	Building & Works Committee Meeting	: 2 Nos.
D.	Senate	: 3 Nos.

3.3 Staff Position:

3.3.1 Name of Director, Registrar, Deans and HoDs

DIRECTOR : Prof. H. K. Sharma
 REGISTRAR : Dr. Govind Bhargava

Deans:

Name of the Deans

1) Dean (Academic)	: Dr. Ajoy Kumar Das
2) Dean (Faculty Welfare)	: Dr. S. K. Pal
3) Dean (Planning & Development)	: Dr. A. K. Chakraborty
4) Dean (Student Welfare)-I	: Dr. R. S. Panua
5) Dean (Student Welfare)-II	: Dr. R. N. Rai
6) Dean (Research & Consultancy)	: Dr. Ardhendu Saha

Heads of the Departments/Schools

Name of the HODs

1) Civil Engineering	: Dr. Manish Pal
2) Electrical Engineering	: Dr. Priyanath Das
3) Mechanical Engineering	: Dr. Swapan Bhaumik
4) Computer Science & Engineering	: Dr. Debasish Bhattacharya
5) Electronics & Communication Engineering	: Dr. Atanu Chowdhury
6) Production Engineering	: Dr. Uttam Kr. Mandal
7) Physics	: Dr. (Mrs.) Aparna Nath
8) Chemistry	: Dr. Tarun Kr. Mishra
9) Mathematics	: Dr. Paritosh Bhattacharya
10) Humanities & Social Sciences	: Dr. Gyanabati Khurajam
11) Chemical Engineering	: Dr. Srimanta Ray
12) Electronics & Instrumentation Engineering	: Dr. Jayanta Kumar Rakshit
13) Bio Engineering	: Dr. T. K. Bandopadhyaya
14) School of Management	: Dr. Anirban Dutta

Head of Central Services, Facilities and Sections:

Chairman (AA & IR)	: Dr. Prasun Chakrabarti
Medical Officer	: (i) Dr. Parimal Chakraborty. (ii) Dr. Soumen Purkayastha (iii) Dr. Supriti Tripura.
Chairman, CCD	: Dr. Tara Sen
Chairman (Library)	: Dr. Partha Pratim Sarkar
Chief Warden	: Mr. R. K. Bhogendra Meitei
Faculty In-charge (Workshop)	: Dr. Barnik Saha Roy
C-DAC Co-ordinator	: Sri Nirmalya Kar
Centre Co-ordinator of QIP	: Dr. R. S. Panua
Centre Co-ordinator of TEQIP	: Dr. Ardhendu Saha

Engineering Unit:

Estate Engineer (Civil)	: Sri Sunil Das
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3.3.2 List of Faculty Members:

3.3.2.1 Regular faculty members

Sl. No	Faculty Name	Position	Department	Remarks
1	Prof. Harish Kumar Sharma	Director		03-12-2017
Professor				
1	Prof. S. C. Saha	Professor	M. E.	01-04-2006
2	Prof. Richi Prasad Sharma	Professor	C. E	01-04-2006
3	Prof. Umesh Mishra	Professor	C. E.	03-10-2008
Associate Professor				
1	Dr. Swapan Bhowmik	Associate Prof.	M.E.	01-04-2006
2	Dr. Prasun Chakrabarti	Associate Prof.	M.E.	01-04-2006
3	Dr. Ajoy kumar Das	Associate Prof.	M.E.	01-04-2006
4	Dr. Rajsekhar Panua	Associate Prof.	M.E	24-05-2010
5	Dr. G.Ravi Kiran Sastry	Associate Prof.	M.E.	24-04-2012
6	Dr. Manish Pal	Associate Prof.	C. E.	01-04-2006
7	Dr. Ratul Das	Associate Prof.	C.E.	01-04-2006
8	Dr. Rama Deb Barma	Associate Prof.	C.E.	01-04-2006
9	Dr. Sujit Kumar Pal	Associate Prof.	C.E.	01-04-2006
10	Dr. Ardhendu Saha	Associate Prof.	E.E	01-04-2006
11	Dr. Rupnarayan Roy	Associate Prof.	E.E	01-04-2006
12	Dr. Priyanath Das	Associate Prof.	E.E	01-04-2006
13	Dr. Ajoy kumar Chakraborty	Associate Prof.	E.E	15-07-2010
14	Dr. Diptendu Bhattacharya	Associate Prof	C.S.E	01-04-2006
15	Dr. Dibyendu Ghoshal	Associate Prof.	E.C.E	29-04-2010
16	Dr. Ram Naresh Rai	Associate Prof.	P.E	25-06-2010
17	Dr. Aparna Nath	Associate Prof.	Physics	01-04-2006
18	Dr. Saroj kumar Das	Associate Prof.	Chemistry	01-04-2006
19	Dr.Tarun Kumar Mishra	Associate Prof.	Chemistry	09-04-2012
20	Dr. Uttam Kumar Bera	Associate Prof.	Maths	01-04-2010
21	Dr. Paritosh Bhattacharjee	Associate Prof.	Math.	27-03-2012
22	Dr. Debasish Bhattacharya	Associate Prof.	Math.	01-04-2006
23	Dr. Debasis Neogi	Associate Prof.	HSS	22-08-2008
24	Dr. John Deb Barma	Associate Prof.	M.E.	01-04-2006
25	Dr. Mrinal Kanti Debbarma	Associate Prof.	CSE	01-04-2006
26	Dr. Pritam Das	Associate Prof.	M.E.	01-04-2006
27	Dr. Sima Ghosh	Associate Prof.	C.E.	01-04-2006
28	Dr. Rajib Saha	Associate Prof.	C.E.	01-04-2006
29	Dr. Apu kumar Saha	Associate Prof.	Math.	01-04-2006
30	Dr. Debdulal Tripura	Associate Prof.	C.E.	01-04-2006
31	Dr. Partha Pratim Sarkar	Associate Prof.	C.E.	08-09-2008
32	Dr. Baby Bhattacharya	Associate Prof.	Math	06-02-2009
33	Dr.Subhadeep Bhattacharjee	Associate Prof.	E.E.	13-04-2010
34	Dr. Mitali Saha	Associate Prof.	Chemistry	12-04-2010
35	Dr. Sambhu Nath Pradhan	Associate Prof.	ECE	28-05-2010
36	Dr. Keisham Surjit Singh	Associate Prof.	Chemistry	26-07-2010
37	Dr. Munesh Chandra	Associate Prof.	CSE	01-04-2019
38	Dr. Manish Bhargava	Associate Prof.	M.E.	03-04-2019
39	Dr. Arvind Kumar Jain	Associate Prof.	E.E.	29-04-2019

Asstt. Professor (Grade-I)				
1	Dr. Sumita Deb	Asstt. Prof. (Gr-I)	EE	01-04-2006
2	Dr. Atanu Chowdhury	Asstt. Prof. (Gr-I)	ECE	22-09-2008
3	Dr. Kishan Choudhuri	Asstt. Prof. (Gr-I)	PE	18-09-2008
4	Dr. Barnik Saha Roy	Asstt. Prof. (Gr-I)	M.E.	01-04-2006
5	Dr. Dipankar Sarkar	Asstt. Prof. (Gr-I)	C.E.	01-04-2006
6	Dr. Swarup Paul	Asstt. Prof. (Gr.I)	P.E.	20-02-2009
7	Dr. Madhujit Deb	Asstt. Prof. (Gr.I)	M.E.	01-04-2006
8	Dr. Jayanta Pal	Asstt. Prof. (Gr-I)	C.E.	01-04-2006
9	Dr. Rahul Banerjee	Asstt. Prof. (Gr-I)	M.E.	12-04-2010
10	Dr. (Mrs.) Tara Sen	Asstt. Prof. (Gr-I)	C.E.	12-04-2010
11	Dr. Gyanabati Khuraijam	Asstt. Prof. (Gr-I)	HSS	07-05-2010
12	Dr. Pankaj kumar Das	Asstt. Prof. (Gr-I)	M.E.	01-04-2006
13	Dr. (Mrs.) Soma Nag	Asstt. Prof. (Gr.I)	C.E.	14-06-2010
14	Dr. Swapan Deb Barma	Asstt. Prof. (Gr-I)	CSE	01-04-2006
15	Dr. Jayanta Kr. Rakshit	Asstt. Prof. (Gr-I)	EIE	23-08-2010
16	Dr. Tarun Kanti Bandyopadhyay	Asstt. Prof. (Gr-I)	Ch.E.	04-05-2012
17	Dr. Srimanta Ray	Asstt. Prof. (Gr-I)	Ch.E.	04-05-2012
18	Dr. Kalyan Gayen	Asstt. Prof. (Gr-I)	Ch.E.	04-05-2012
19	Dr. Surajit Das	Asstt. Prof. (Gr.I)	C.E.	16-05-2012
20	Dr. Vidyut Dey	Asstt. Prof. (Gr.I)	P.E.	01-06-2012
21	Dr. Sanjay Paul	Asstt. Prof. (Gr-I)	C.E.	24-05-2012
22	Dr. Subrata Kr. Ghosh	Asstt. Prof. (Gr-I)	M.E.	07-06-2012
23	Dr. Uttam Kumar Mandal	Asstt. Prof. (Gr-I)	P.E.	28-05-2012
24	Dr. Animesh Debnath	Asstt. Prof. (Gr-I)	C.E.	21-06-2012
25	Dr. Sushant Kr. Biswal	Asstt. Prof. (Gr-I)	C.E.	21-06-2012
26	Dr. Tamasi Moyra (Panua)	Asstt. Prof. (Gr.I)	ECE	13-06-2012
27	Dr. Ajoy Biswas	Asstt. Prof. (Gr.I)	M.E.	23-07-2012
28	Dr. Ashim Saha	Asstt. Prof. (Gr-I)	CSE	23-07-2012
29	Dr. Suvra Prakash Mondal	Asstt. Prof. (Gr-I)	Physics	01-11-2012
30	Dr. Anirban Dutta	Asstt. Prof. (Gr-I)	SoM	06-11-2012
31	Dr. Mrinmoy Majumder	Asstt. Prof. (Gr-I)	C.E.	17-11-2012
32	Dr. Ajay kumar Manna	Asstt. Prof. (Gr-I)	C.E.	17-12-2012
33	Dr. Biswajit Saha	Asstt. Prof. (Gr.I)	Physics	30-11-2012
34	Dr. Jawahar Paulraj	Asstt. Prof. (Gr.I)	M.E.	13-03-2019
Asstt. Professor (Grade-II)				
1	Smt Anindita Jamatia	Asstt. Prof. (Gr-II)	E.E.	01-04-2006
2	Sri Abaniswar Chakraborti	Asstt. Prof. (Gr.II)	E.E.	01-04-2006
3	Sri Prabir Ranjan Kasari	Asstt. Prof. (Gr.II)	E.E.	01-04-2006
4	Smt Minakshi Deb Barma	Asstt. Prof. (Gr-II)	E.E.	01-04-2006
5	Sri Bikram Das	Asstt. Prof. (Gr.II)	E.E.	01-04-2006
6	Sri Prasenjit Debnath	Asstt. Prof. (Gr.II)	E.E.	30-07-2010
7	Sri Nikhil Deb Barma	Asstt. Prof. (Gr-II)	CSE	01-04-2006
8	Sri Kunal Chakma	Asstt. Prof. (Gr.II)	CSE	01-04-2006
9	Miss. Smita Das	Asstt. Prof. (Gr.II)	CSE	01-04-2006
10	Sri Dwijen Rudra Pal	Asstt. Prof. (Gr-II)	CSE	01-04-2006
11	Sri Suman Deb	Asstt. Prof. (Gr.II)	CSE	01-04-2006
12	Sri Anupam Jamatia	Asstt. Prof. (Gr.II)	CSE	01-04-2006
13	Sri Tribid Deb Barma	Asstt. Prof. (Gr-II)	CSE	01-04-2006
14	Sri Nirmalya Kar	Asstt. Prof. (Gr.II)	CSE	29-07-2010

15	Sri Kamalesh Debnath	Asstt. Prof. (Gr-II)	ECE	12-04-2010
16	Sri Anirban Bhattacharya	Asstt. Prof. (Gr-II)	ECE	21-05-2012
17	Sri Mitra Barun Sarkar	Asstt. Prof. (Gr-II)	ECE	15-06-2012
18	Sri Somnath Roy Choudhury	Asstt. Prof. (Gr-II)	ECE	21-05-2012
19	Sri Prasenjit Datta	Asstt. Prof. (Gr-II)	PE	01-04-2006
20	Sri Abhik Majumder	Asstt. Prof. (Gr-II)	M.E.	01-04-2006
21	Sri Gopinanday Dey	Asstt. Prof. (Gr-II)	C.E.	01-04-2006
22	Sri Manik Bhowmik	Asstt. Prof. (Gr-II)	ECE	01-04-2006
23	Dr. Ankuran Saha	Asstt. Prof. (Gr-II)	M.E.	21-05-2012
24	Mrs. Madhuparna Chakraborty	Asstt. Prof. (Gr-II)	ECE	22-06-2012
25	Smt. Lipika Halder	Asstt. Prof. (Gr-II)	C.E.	01-04-2006
26	Mr. Nilotpal Debbarma	Asstt. Prof. (Gr-II)	C.E.	01-04-2006
27	Mr. Biman Debbarma	Asstt. Prof. (Gr-II)	ECE	01-04-2006
28	Mr. Arindam Majumder	Asstt. Prof. (Gr-II)	M.E.	20-04-2010
29	Mrs. Seena P	Asstt. Prof. (Gr-II)	P.E.	13-05-2010
30	Mr. R.K. Bogendra Meiti	Asstt. Prof. (Gr-II)	M.E.	29-06-2012
31	Dr. Joyshree Das	Asstt. Prof. (Gr-II)	E.E.	11-10-2012
32	Dr. Aniruddha Bhattacharya	Asstt. Prof. (Gr-II)	E.E.	12-12-2012
33	Dr. Biman Kr. Saha Roy	Asstt. Prof. (Gr-II)	E.E.	28-02-2013

3.3.2.2 Contractual faculty members.

Sl. No.	Name	Designation	Department	Date of Joining
1.	Ms. Moumita Majumder	Asstt. Prof.	CSE	18-08-2010
2.	Ms. Lalita Kumari	Asstt. Prof.	CSE	18-08-2010
3.	Ms. Priyanka Sarkar	Asstt. Prof.	CSE	01-04-2013
4.	Sri Dhruvajyoti Bhowmik,	Asstt. Prof.	CSE	01-04-2013
5.	Sri Parthasarathi De	Asstt. Prof.	CSE	08-04-2013
6.	Sri Kishore Kr. Dhar	Asstt. Prof.	CSE	10-07-2014
7.	Sri Prashant Bhardwaj	Asstt. Prof.	CSE	10-07-2014
8.	Ms. Tannistha Pal	Asstt. Prof.	CSE	10-07-2014
9.	Sri Subhajit Deb	Asstt. Prof.	CE	06-08-2010
10.	Ms. Tillotama Chakraborty	Asstt. Prof.	CE	30-08-2011
11.	Ms. Nabanita Bhowmik	Asstt. Prof.	CE	06-12-2012
12.	Ms. Subhra Das	Asstt. Prof.	CE	12-12-2012
13.	Ms. Sadria Begam	Asstt. Prof.	CE	14-07-2014
14.	Ms. Dipika Debnath	Asstt. Prof.	CE	14-07-2014
15.	Sri Chirabrata Debnath	Asstt. Prof.	CE	10-10-2014
16.	Mrs. Parmita Majumder	Asstt. Prof.	CE	22-03-2016
17.	Ms. Nabina Khanam	Asstt. Prof.	CE	21-01-2015
18.	Sri Ratnadeep Modak	Asstt. Prof.	CE	22-01-2015
19.	Sri Debashish Karmakar	Asstt. Prof.	CE	07-07-2015
20.	Sri Sajal Rudra Paul	Asstt. Prof.	CE	01-09-2016
21.	Sri Bibhab Kr. Lodh	Asstt. Prof.	Ch.E	05-08-2011
22.	Dr. Abhijit Mandal	Asstt. Prof.	Ch.E	21-01-2013
23.	Dr. Mriganka Sekhar Manna	Asstt. Prof.	Ch.E	17-07-2014
24.	Dr. Swarup Biswas	Asstt. Prof.	Ch.E	22-08-2016
25.	Dr. Abhijit Baidya	Asstt. Prof.	Maths.	23-08-2010
26.	Dr. Susmita Roy	Asstt. Prof.	Maths.	01-08-2011
27.	Dr. Jayanta Debnath	Asstt. Prof.	Maths.	01-08-2011
28.	Dr. Pinki Majumder	Asstt. Prof.	Maths.	01-08-2011

29.	Dr. Jayasree Chakraborty	Asstt. Prof.	Maths.	05-09-2012
30.	Dr. Mantu Das	Asstt. Prof.	Maths.	17-07-2014
31.	Ms. Sudipa Choudhury	Teaching Asstt.	Maths.	29-07-2015
32.	Dr. Sayanta Chakraborty	Asstt. Professor	Maths.	19-08-2016
33.	Dr. Kalyani Debnath	Asstt. Prof.	Maths.	19-08-2016
34.	Dr. Piyali Debnath	Asstt. Prof.	Maths.	04-09-2017
35.	Sri Subharaj Paul	Teaching Asstt.	Physics	01-08-2012
36.	Dr. Manash Kr. Paul	Asstt. Prof.	Physics	16-07-2010 17-10-2012
37.	Dr. Sanjay Kr. Mandal	Asstt. Prof.	Physics	05-11-2012
38.	Dr. Thingujam Kiranmala Devi	Asstt. Prof.	Physics	21-07-2014
39.	Dr. Nandini Roy	Asstt. Prof.	Physics	23-07-2014
40.	Dr. Biswajit Paul	Asstt. Prof.	Physics	20-07-2015
41.	Dr. Santanu Chakraborty	Asstt. Prof.	Physics	13-07-2015
42.	Dr. Chakradhar Behra	Asstt. Prof.	Physics	16-08-2016
43.	Dr. Ngangbam Ishwarchandra	Asstt. Prof.	Physics	11-08-2016
44.	Ms. Saswati Roy	Teaching Asstt.	Physics	16-08-2016
45.	Dr. Debanjan Bhattacharjee	Teaching Asstt.	Physics	14-03-2017
46.	Dr. Saroj Kumar Parida	Asstt. Prof.	Physics	13-02-2017
47.	Sri Durbadal Debroy	Asstt. Prof.	ME	03-08-2011
48.	Dr. Ashis Acharjee	Asstt. Prof.	ME	11-07-2014
49.	Sri Arindam Sinha	Asstt. Prof.	ME	14-07-2014
50.	Ms. Moutoshi Singha Roy	Asstt. Prof.	ME	29-07-2015
51.	Dr. Sagnik Pal	Asstt. Prof.	ME	30-07-2015
52.	Sri Dipak Ch. Das	Asstt. Prof.	ME	30-07-2015
53.	Dr. Joydeep Roy	Asstt. Prof.	ME	07-03-2016
54.	Sri Krishanu Gupta	Asstt. Prof.	ME	07-03-2016
55.	Dr. Pinku Debnath	Asstt. Prof.	ME	14-09-2016
56.	Ms. Sharmistha Sharma	Asstt. Prof.	EE	12-08-2009
57.	Sri Diptanu Das	Asstt. Prof.	EE	08-08-2011
58.	Dr. Bidyut Kr. Bhattacharya	Professor	EE	17-01-2013
59.	Ms. Nivedita Laskar	Asstt. Prof.	EE	15-11-2012
60.	Sri Diptanu Dey	Asstt. Prof.	EE	14-07-2014
61.	Dr. Arup Ratan Bhowmik	Asstt. Prof.	EE	11-07-2014
62.	Dr. Nabamita Goswami	Asstt. Prof.	EE	11-07-2014
63.	Sri Bishop Debbarma	Asstt. Prof.	PE	24-08-2010
64.	Sri Sujay Chakraborty	Asstt. Prof.	PE	01-08-2011
65.	Ms. Pushparenu Bhattacharjee	Asstt. Prof.	PE	08-08-2013
66.	Sri Nabarun Biswas	Asstt. Prof.	PE	11-07-2014
67.	Sri Debashis Podder	Asstt. Prof.	PE	18-07-2014
68.	Sri Shiladitya Chakraborty	Teaching Asstt.	ECE	25-07-2008
69.	Sri Suvojit Acharjee	Asstt. Prof.	ECE	14-07-2014
70.	Dr. Priyanka Chowdhury	Asstt. Prof.	ECE	13-08-2014
71.	Sri Apangshu Das	Asstt. Prof.	ECE	10-08-2012
72.	Sri Abhishek Nag	Asstt. Prof.	ECE	13-07-2015
73.	Sri Partha Kr. Deb	Asstt. Prof.	ECE	02-07-2015
74.	Ms. Smita Banik	Asstt. Prof.	ECE	22-08-2016
75.	Dr. Apurba Chakraborty	Asstt. Prof.	ECE	22-08-2016
76.	Dr. Subhojit Das	Asstt. Prof.	Chemistry	24-07-2014
77.	Dr. Manojit Roy	Asstt. Prof.	Chemistry	07-08-2014
78.	Dr. Jhinuk De	Teaching Asstt.	Chemistry	12-01-2015

79.	Dr. Chitraniva Datta	Asstt. Prof.	Chemistry	03-08-2015
80.	Dr. Sajal Kundu	Asstt. Prof.	Chemistry	29-07-2015
81.	Dr. Manas Roy	Asstt. Prof.	Chemistry	26-08-2016
82.	Dr. Susanta Ghanta	Asstt. Prof.	Chemistry	22-08-2016
83.	Dr. Chanchal Bhowmik	Asstt. Prof.	Chemistry	22-08-2016
84.	Sri Bidhyasagar Debnath	Teaching Asstt.	HSS	04-08-2008
85.	Dr. Kaju Nath	Asstt. Prof.	HSS	24-07-2014
86.	Sri Nabendu Debnath	Teaching Asstt.	HSS	01-09-2014
87.	Dr. Anuradha Nongmaithem	Asstt. Prof.	HSS	25-07-2014
88.	Dr. Amit Bikram Chowdhury	Asstt. Prof.	HSS	22.08.2016
89.	Mr. Jayasree Tripura	Teaching Asstt.	HSS	07-07-2017
90.	Ms. Priyanka Dey	Asstt. Prof.	EIE	13-08-2012
91.	Ms. Priyanka Roy Goswami	Asstt. Prof.	EIE	06-02-2012
92.	Sri Rupam Gupta Roy	Asstt. Prof.	EIE	11-07-2014
93.	Ms. Aparupa Kar	Asstt. Prof.	EIE	11-07-2014
94.	Dr. Dijendra Nath Roy	Asstt. Prof.	Bio-Engg.	28-01-2013
95.	Dr. Biswanath Bhunia	Asstt. Prof.	Bio-Engg.	04-03-2013
96.	Dr. Tridib Kr. Bhowmik	Asstt. Prof.	Bio-Engg.	13-06-2013
97.	Dr. Deeplina Das	Asstt. Prof.	Bio-Engg.	21-07-2014
98.	Dr. Abhijit Chatterjee	Asstt. Prof.	Bio-Engg.	14-07-2015
99.	Ms. Hrijuta Datta	Asstt. Prof.	Bio-Engg.	10-07-2015
100.	Dr. Muthusivarampandian M	Asstt. Prof.	Bio-Engg.	10-07-2015
101.	Dr. Rajib Mallik	Asstt. Prof.	SOM	22-05-2013
102.	Dr. Sonit Dutta	Asstt. Prof.	SOM	23-05-2013
103.	Dr. Amlanbrata Chakraborty	Asstt. Prof.	SOM	21-07-2014

3.3.3 List of employees - other than faculty members

3.3.3.1 Regular non-teaching staff of the institute

Sl. No.	Name	Designation	Department	Date of Joining
1.	Dr. Govind Bhargava	Registrar	Administration	05-05-2017
2.	Mr. Tanmoy Ghosal	Asstt. Registrar and Dy. Registrar (Admn) (I/C)	Administration	07-09-2012
3.	Sri Suman Kamakar	Technical Assistant	Electrical Engg. Deptt	01-04-2006
4.	Sri Subhankar Chakma	Technical Assistant	Civil Engg. Dept.	01-04-2006
5.	Sri Jyoti Lal Debbarma	Stenographer (SG-II)	O/o the Director	01-04-2006
6.	Sri Sanjoy Deb Rupini	Sr. Assistant	Establishment Section	01-04-2006
7.	Sri Tarun Debbarma	Sr. Assistant	Stipend & Scholarship	01-04-2006
8.	Smt. Bakul Debbarma	Sr. Assistant	Estt. Section	01-04-2006
9.	Sri Pradip Kr. Majumder	Jr. Assistant	Academic Section	01-04-2006
10.	Sri Sukhen Saha	Jr. Assistant	Accounts Section	01-04-2006
11.	Sri Dharendra Debnath	Jr. Assistant	Library	01-04-2006
12.	Sri Dhruamani Dey	Jr. Assistant	Stipend Section	24-09-2018
13.	Sri Biroj Bhowmik	Technician	HSSM	05-09-2018
14.	Sri Sukhendu Debbarma	Sr. Technician	Elect. Engg.	01-04-2006
15.	Sri Bijan ch Debnath	Group – C	Civil Engg.	22-09-1980
16.	Sri Ratan Debnath	Group – C	Directors' Office	22-09-1980
17.	Sri Dhanu Rn. Saha	Group – C	Medical Unit	05-12-1980
18.	Sri Manik Chakraborty	Group – C	Civil Engg.	26-06-1982

19.	Sri Ratan Modi	Group – C	CSE Dept.	04-02-1981
20.	Sri Niranjan Ghosh	Group – C	Mech. Engg.	08-12-1980
21.	Sri Jahar Debnath	Group – C	Dean (P&D)	15-09-1987
22.	Smt. Brihalata Debbarma	Group – C	Civil Engg.	06-07-1992
23.	Smt. Uma Saha	Group – C	Exam. Sec.	31-07-1996
24.	Sri Dilip Debbarma	Group – C	Estt. Sec.	22-12-1990
25.	Smt. Sonalaxmi Debbarma	Group – C	Estt. Sec.	04-05-1998
26.	Sri Nepal Debnath	Group – C	Acad. Sec.	14-08-1997
27.	Sri Bishu Debbarma	Group – C	Prod. Engg.	17-05-1999
28.	Smt. Urmila Debbarma	Group – C	Estt. Sec.	18-01-2003

3.3.3.2 List of contractual non-teaching staff of the institute

Sl. No.	Name	Designation	Department	Date of Joining
1.	Sri Gopal Sil Sharma	PS	O/o the Director	14-01-2019
2.	Sri Bidyut Kr. Ghosh	Jr. Assistant	O/o the Director	12-12-2008
3.	Smt. Shampa Pal (Bhowmik)	Jr. Assistant	O/o the Director	02-02-2010
4.	Sri Tanumoy Paul	Jr. Assistant	O/o the Registrar	19-06-2006
5.	Sri Sanjib Debbarma	Helper	O/o the Registrar	15-07-2009
6.	Mrs. Kaninika Banik	Receptionist	O/o the Registrar	11-11-2011
7.	Sri Parimal Mahajan	Legal Advisor		11-02-2019
8.	Sri Jagat jyoti Roy	AR.(Finance)	Accounts Section	07-01-204
9.	Sri Rajesh Kn. Majumder	Accountant	Accounts Section	21-11-2007
10.	Ms Aparna Nath	Accountant	Accounts Section	18-08-2010
11.	Sri Akhil Debbarma	Accountant	Accounts Section	03-10-2016
12.	Sri Karna Kr. Sarkar	Office Asstt.	Accounts Section	18-08-2016
13.	Sri Manish Dey	Accountant	Accounts Section	03-02-2014
14.	Smt. Sumitra Roy	Jr. Assistant	Accounts Section	12-12-2008
15.	Sri Parimal Paul	Accountant	Accounts Section	20-06-2018
16.	Sri Ashim Banik	Accountant	Accounts Section	20-06-2018
17.	Sri Haradhan Roy	Sr. Assistant	Accounts Section	20-06-2018
18.	Sri Shyamal Purakayastha	Audit Officer	Audit Section	07-01-2014
19.	Sri Subrata Chakraborty	Audit officer	Accounts Section	05-12-2011
20.	Sri Kritisundar Saha	Office Assistant	Estt. Section	01-08-2013
21.	Sri Benimadav Bhowmik	Sr. Asstt.	Estt. Section	03-10-2006
22.	Sri Tapan Debnath	Technician	Estt. Section	10-06-2015
23.	Sri kajal Bhattacharjee	Section Officer	Estt. Section	18-08-2016
24.	Sri Pradip Datta	Office Asstt.	Estt. Section	18-08-2016
25.	Mr. Kusum Debnath	Sr. Asstt.	Estt. Sec.	20-06-2018
26.	Sri Milan Ch. Sarkar	Asstt. Reg.	Academic Sec.	03-08-2009
27.	Sri Kabir Deb	Jr. Assistant	Academic Sec.	04-06-2007
28.	Ms. Krishna Rani Deb	Jr. Assistant	Academic Sec.	21-06-2011
29.	Ms. Trishita Choudhury	P.R. Asstt.	Academic Sec.	26-10-2016
30.	Sri Sukdeb Chakraborty	Superintendent	Exam. Sec.	01-06-2007
31.	Ms. Payel Sarkar	Sr. Assistant	Exam. Sec.	05-07-2011
32.	Sri Sourav Mahajan	Jr. Assistant	Exam. Sec.	12-12-2008
33.	Sri Himangshu Paul	Section Officer(Pur)	Purchase Sec.	26-09-2011
34.	Sri Nabin Chandra	Lib. Asstt.	Purchase Sec.	01-04-2010

	Kundu			
35.	Sri Partha Biswas	Estate Manager	Estate Section	12-12-2008
36.	Sri Jitendra Debnath	Sr. Assistant	Estate Section	03-03-2015
37.	Sri Ajit Saha	Attendant	Estate Section	04-12-2015
38.	Sri Rajesh Kr. Modak	Jr. Engineer	Estate Section	16-09-2011
39.	Sri Nakul Ch. Debnath	Plumber	Estate Section	01-05-2008
40.	Sri Sankar Debbarma	Work Asstt.	Estate Section	11-07-2009
41.	Sri Sanjib Chakraborty	Opt (Auditorium)	Estate Section	27-06-2011
42.	Sri Rakesh Tripura	Mason	Estate Section	10-12-2012
43.	Sri Pradip Sutradhar	Carpenter	Estate Section	10-12-2012
44.	Sri Biswajit Das	Helper	Estate Section	10-12-2012
45.	Sri Sanjib Sarkar	Helper	Estate Section	10-12-2012
46.	Sri Milan Karmakar	Helper	Estate Section	10-12-2012
47.	Sri Manik Bhowmik	J.E.	Estate Section	23-06-2014
48.	Sri Bapan Debroy	A.E.E.	Estate Section	20-06-2014
49.	Sri Debu Debnath	Work Assistant	Estate Section	13-06-2014
50.	Sri Rajesh Sarkar	J.E.	Estate Section	16-12-2014
51.	Sri Bimal Krishna Debnath	A.E.E.	Estate Section	02/09/2010
52.	Sri Sumit Debnath	J.E.	Estate Section	05-09-2014
53.	Sri Ranjit Sharma	Helper	Estate Section	09-11-2010
54.	Sri Rajib Chakraborty	Helper	Estate Section	09-11-2010
55.	Sri Chanki Paul	Helper	Estate Section	09-11-2010
56.	Sri Pradip Das	Electrician	Estate Section	01-12-2011
57.	Sri Arabinda Das	Electrician	Estate Section	01-12-2011
58.	Sri Sujit Debnath	Lineman	Estate Section	01-12-2011
59.	Sri Subir Namasudra	Helper	Estate Section	01-12-2011
60.	Sri Pabitra Shil	Electrician	Estate Section	08-08-2012
61.	Sri Krishan Debnath	Lineman	Estate Section	02-08-2012
62.	Sri Krishna Ch. Saha	Lineman	Estate Section	03-08-2012
63.	Sri Uttam Kr. Debnath	Lineman	Estate Section	07-08-2012
64.	Sri Parimal Debnath	Helper	Estate Section	03-08-2012
65.	Sri Biswajit Debbarma	Helper	Estate Section	03-08-2012
66.	Sri Rajib Deb	Helper	Estate Section	16-06-2014
67.	Sri Matilal Tanti	Operator	Estate Section	16-06-2014
68.	Sri Manitosh Sarkar	Operator	Estate Section	16-06-2014
69.	Sri Sadhan Debnath	Operator	Estate Section	31-08-2016
70.	Sri Amit Debbarma	Electrician	Estate Section	01-09-2016
71.	Sri Litan Sarkar	Jr. Assistant	TPO	16-07-2010
72.	Ms. Jhuma Das	P.R. Asstt.	TPO	15-09-2016
73.	Sri Dyanojyoti Kar	Accountant	TPO	15-09-2015
74.	Sri Sukanta Goswami	Jr. Assistant	Dean (FW)	19-12-2008
75.	Sri Anirban Sharma Roy	Lib. Asstt.	Library	30-01-2012
76.	Sri Dipankar Das	Jr. Assistant	Library	18-12-2008
77.	Ms. Atrayee Podder	Library Asstt.	Library	30-01-2012
78.	Sri Bidyut Choudhuri	Library Asstt.	Library	14-09-2015
79.	Ms. Purnima Singha	Library Asstt.	Library	14-09-2015
80.	Sri Kshitish Chakraborty	Office Asstt.	Library	16-08-2016
81.	Ms. Rupa Debnath	Library Asstt.	Library	24-09-2015
82.	Mrs. Tulshi Singha	P.R. Asstt.	Library	21-02-2017
83.	Sri Anupam Pal	Sports Officer	Dean (SW)	16-08-2007
84.	Sri Sukanta Ghoswami	Phy. Edu. Off.	Dean (SW)	16-08-2007
85.	Ms. Rumita Saha	Hostel Supervisor	Dean (SW)	01-08-2012

86.	Ms. Mahuya Biswas	Hostel Supervisor	Dean (SW)	10-02-2010
87.	Sri Ajoy Bhowmik	Hostel Supervisor	Dean (SW)	16-02-2010
88.	Sri Rabindra Das	Hostel Supervisor	Dean (SW)	10-02-2010
89.	Sri Sukrit Prasad Dutta	Hostel Supervisor	Dean (SW)	30-07-2012
90.	Sri Satyajit Das	Hostel Supervisor	Dean (SW)	30-07-2012
91.	Sri Prasanta Rn. Deb	Hostel Supervisor	Dean (SW)	08-07-2015
92.	Sri Debashish Biswas	Foreman	Workshop	04-08-2008
93.	Sri Manojit Das	Foreman/Instruct or	Workshop	18-09-2008
94.	Sri Koushik Debroy	Foreman	Workshop	01-01-2009
95.	Sri Arup taru Roy	Instructor	Workshop	19-08-2009
96.	Sri Ranju Kr. Singh	Instructor	Workshop	19-08-2009
97.	Sri Biswajit Debnath	Instructor	Workshop	19-08-2009
98.	Sri Basudeb Banik	Tech.	Workshop	22-12-2008
99.	Sri Sujit Kumar Bhowmik	Skilled Asstt.	Workshop	18-09-2008
100.	Sri Shubendu Debbarma	Jr. Tech.	Workshop	19-08-2009
101.	Sri Kishore Das	Lab. Asstt.	Mech. Engg.	25-08-2010
102.	Sri Pinku Saha	Lab. Asstt.	Mech. Engg.	26-08-2010
103.	Sri Bishnupada Das	Driver	Workshop	19-11-2008
104.	Sri Babul Ch. Deb	Driver	Workshop	16-07-2009
105.	Sri Gopal Ch. Das	Driver	Workshop	16-07-2009
106.	Sri Sajal Saha	Driver	Workshop	01-02-2011
107.	Sri Gautam Acharjee	Technician	Mech. Engg.	28-07-2015
108.	Sri Subrajit Sen	Technical Asstt.	Mech. Engg.	27-07-2015
109.	Sri Prasenjit Majumder	Technical Asstt.	Mech. Engg.	28-07-2015
110.	Sri Mrinmoy Chakraborty	Jr. Assistant	Dean (SW)	07-03-2019
111.	Sri Pabitra Acharjee	Technician	Mech. Engg.	08-09-2016
112.	Sri Sudip Debnath	Technical Asstt.	Mech. Engg.	26-08-2016
113.	Sri Hillol Mutsuddy	Technical Asstt.	Mech. Engg.	26-08-2016
114.	Sri Pulak Kr. De	Office Asstt.	Mech. Engg.	18-08-2016
115.	Sri Abhijit Giri	Technical Asstt	Civil Engg.	13-08-2010
116.	Sri Suman Nandi	Lab. Asstt.	Civil Engg.	10-08-2010
117.	Ms Manisha Deb	Lab. Asstt.	Civil Engg.	13-08-2010
118.	Sri Prasenjit Dutta	Technical Asstt	Civil Engg.	06-12-2012
119.	Sri Sankar Paul	Technical Asstt	Civil Engg.	13-12-2012
120.	Sri Uddhab Ch.Nath	Technical Asstt	Civil Engg.	28-07-2015
121.	Sri Riman Bhowmik	Technician	Civil Engg.	28-07-2015
122.	Sri Sukumar Sarkar	Office Asstt.	Civil Engg.	18-08-2016
123.	Sri Pramod Pal	Instructor	Production Engg.	04-09-2009
124.	Sri Biswanath Karmakar	Jr. Tech	Production Engg.	04-09-2009
125.	Sri Sukanta Das	Technical Asstt.	Production Engg.	08-09-2014
126.	Sri Prasenjit Debnath	Technician	Production Engg.	08-09-2014
127.	Sri Subhan Ch. Deb	Attendant	Production Engg.	15-02-2016
128.	Ms. Puspoham Hrangkhawl	P.R. Asstt.	Production Engg.	21-02-2017
129.	Smt. Sima Das	Sr. Ins.	Elect. Engg.	19-08-2009
130.	Smt. Tapa Saha	Tech.Supp. Staff	Elect. Engg.	25-07-2008
131.	Sri Kabir Bhowmik	Sr. Ins.	Elect. Engg.	19-08-2009
132.	Sri Ajit Deb	Lab. Tech	Elect. Engg.	19-08-2009
133.	Sri Debabrata Bhattacharya	Technical Asstt	Elect. Engg.	09-08-2010
134.	Sri Jayanta Chowdhury	Technical Asstt	Elect. Engg.	10-07-2012
135.	Sri Pranab Majumder	Technical Asstt	Elect. Engg.	16-07-2012

136.	Ms. Sudipa Aine	Technical Asstt.	Elect. Engg.	30-07-2015
137.	Sri Subal Das	Technical Asstt.	Elect. Engg.	31-07-2015
138.	Sri Balaram Das	Technical Asstt.	Elect. Engg.	30-07-2015
139.	Sri Rajkishore Ghosh	Attendant	Elect. Engg.	01-08-2016
140.	Ms. Ankita Pal	P.R. Asstt	Elect. Engg.	23-12-2016
141.	Sri Kamal Kn. Pal	System Admin.	CSE Deptt.	15-12-2008
142.	Sri Partha Sarathi Bhattacharjee	Network Admin.	CSE Deptt.	15-09-2011
143.	Mr. Rajib Debnath	Technician (N/W)	Networking	28-09-2016
144.	Mr. Pramatha Acharjee	Technician (N/W)	Networking	28-09-2016
145.	Sri Suman Saha	Lab / Tech Assistant	CSE Deptt..	09-08-2010
146.	Sri Viki Datta	Lab / Tech Assistant	CSE Deptt.	14-09-2011
147.	Sri Malay Paul	Lab / Tech Assistant	CSE Deptt.	13-03-2012
148.	Sri Saikat Bhattacharjee	Lab / Tech Asstt	CSE Deptt.	29-07-2015
149.	Sri Dhurjati Chakraborty	Lab / Tech Assistant	CSE Deptt.	29-07-2015
150.	Sri Joydip Deb	Lab / Tech Assistant	CSE Deptt.	29-07-2015
151.	Sri Dilip Goswami	Office Asstt.	CSE Deptt.	18-08-2016
152.	Sri Ardhendu Gupta	Technical Asstt	CSE Deptt.	23-08-2016
153.	Sri Susanta Pal	Technical Asstt	CSE Deptt.	23-08-2016
154.	Ms. Mandira Bhowmik	Technical Asstt	CSE Deptt..	22-09-2016
155.	Sri Dhruba Narayan Das	Technical Asstt	Chemical Engg.	09-08-2010
156.	Sri Dipankar Goswami	Technical Asstt	Chemical Engg.	06-09-2011
157.	Sri Kaushik Das	Technical Asstt.	Chemical Engg.	28-07-2015
158.	Sri Mrinmoy Sarma	Technical Asstt.	Chemical Engg.	28-07-2015
159.	Mr. Samir Debbarma	Technician	Chemical Engg.	28-07-2015
160.	Mr. Biswajit Debbarma	Lab. Technician	Chemical Engg.	11-10-2017
161.	Khorshed Aalam	Lab. Technician	Chemical Engg.	17-10-2017
162.	Ms. Sangita Patari	Lab. Asstt	Physics	22-09-2011
163.	Mrs. Madhuri Debnath	Lab. Asstt.	Physics	17-07-2013
164.	Mr. Krishna Deb	Lab. Asstt.	Physics	17-07-2013
165.	Sri Sarit Chakraborty	Lab. Asstt	Physics	29-07-2015
166.	Sri Satyajit Ghosh	Lab,Asstt.	Chemistry	07-09-2012
167.	Sri Sudip Paul	Lab,Asstt.	Chemistry	31-07-2015
168.	Sri Himadri Paul	Lab,Asstt.	Chemistry	29-07-2015
169.	Sri Nitish Ranjan Nath	Lab. Asstt.	Chemistry	22-08-2016
170.	Mrs. Sarbani Das (Bhattacharjee)	Lab. Asstt.	Math.	20-07-2017
171.	Ms. Poulami Ghosh	Tech. Asstt.	ECE	09-12-2011
172.	Sri Dipesh Debnath	Technician	ECE	02-01-2012
173.	Sri Abhijit Chakraborty	Tech. Asstt.	ECE	10-08-2010
174.	Sri Badal Debnath	Technical Asstt,	ECE	27-07-2015
175.	Mrs. Poulomi Dey	Technical Asstt,	ECE	27-07-2015
176.	Sri Raju Majumder	Technical Asstt,	ECE	27-07-2015
177.	Sri Sanjib Das	Technician,	ECE	27-07-2015
178.	Sri Nirmal Sarkar	Technician	ECE	27-07-2015
179.	Sri Alvin Debbarma	Technical Asstt.	ECE	27-07-2015
180.	Sri Hriday Ranjan Lodh	Technical Asstt.	ECE	22-08-2016
181.	Sri Susovan Ghosh	Technical Asstt	ECE	23-08-2016

182.	Sri Prasenjit Paul	Technician	ECE	22-08-2016
183.	Sri Anjan Das	Technical Asstt.	EIE	06-02-2012
184.	Sri Samir Rajuyar	Technician	EIE	28-07-2015
185.	Sri Dilip Biswasarma	Technical Asstt.	EIE	22-08-2016
186.	Sri Suraj Das	Technical Asstt.	EIE	03-07-2017
187.	Sri Kailash Pratim Phukan	Technical Asstt.	EIE	04-07-2017
188.	Dr. Tapan Kr. Datta	Medical Off.	Medical Unit	22-01-2009
189.	Dr. Parimal Chakraborty	Medical Off.	Medical Unit	01-02-2012
190.	Dr. Soumen Purkayastha	Medical Officer	Medical Unit	
191.	Dr. Supriti Tripura	Medical Off.	Medical Unit	23-01-2018
192.	Sri Rajesh Karmakar	Pharmacist	Medical Unit	17-04-2008
193.	Ms. Supriya Das	Pharmacist	Medical Unit	27-09-2012
194.	Sri Dipen Majumder	Technician	Medical Unit	22-12-2008
195.	Mr. Rajat Saha	GDA cum Dresser	Medical Unit	04-03-2015
196.	Ms. Chayanika Das	Lab. Technician	Medical Unit	06-01-2014
197.	Sri Subrata Das	Staff Nurse (M)	Medical Unit	07-12-2016
198.	Smt. Mousami Das	Staff Nurse	Medical Unit	08-03-2019
199.	Sri Sanjit Debbarma	Helper	Guest House	15-07-2009
200.	Sri Sanjoy Ghosh	Supervisor	Guest House	05-09-2014
201.	Smt. Sulekha Sarkar	Cook	Transit House	06-05-2011
202.	Mrs. Sanju Debnath	Draftsman	Dean (P&D)	12-12-2008
203.	Sri Suman Rudra Pal	Off. Asstt.	Dean (P&D)	19-08-2008
204.	Sri Bappi Das	Helper/Cook	Transit camp	01-02-2011
205.	Ms. Subhra Chowdhury	Technical Asstt.	Bio-Engg.	24-12-2012
206.	Ms. Malabita Sarkar	Technical Asstt.	Bio Engg.	17-10-2017
207.	Sri Anojit Debbarma	Technician	Bio-Engg.	23-08-016
208.	Sri V.C. Mathai	Technical Asst.	MHRD	12-11-2009
209.	Sri Sourabh Roy	Tech. Asstt.	Virtual Class Room	14-03-2014
210.	Sri Pramathesh Banik	Asst. Programmer (Technician)	MIS Section	03-11-2014
211.	Sri Sandanlal Saha	Cook-cum-Caretaker	Director's resi.	15-03-2016
212.	Sri Nirmal Debbarma	Security Guard	Director's office	02-02-2017

3.3.3.3 List of Faculty/ Officers/ Staff on Long Leave

Sl. No.	Name	Designation	Department	Duration	Nature of Leave
1	Dr. G.Ravi Kiran Sastry	Assoc. Prof.	Mech. Engg.	1 year 4 months	On lien
2	Dr. Aniruddha Bhattacharya	Asstt. Professor	Elect. Engg.	1 year	On lien
3	Dr. Biman Kr. Saha Roy	Asstt. Professor	Elect. Engg.	1 year	On lien

3.3.3.4 List of Retired/ Expired Faculty/ Staff Members

Sl. No.	Name of Retired employees	Designation	Place of posting	Date of retirement/expired
1	Sri Sajal Kr. Dey	Sr. Assistant	Accounts Section	30-09-2018

3.4 RTI and Vigilance Cell:

The Institute has an RTI Cell under the Appellate Authority of the Director, NIT Agartala. Dr. Rajib Saha, Associate Professor is the Central Public Information Officer. Dr. Paritosh Bhattacharya is CVO (Chief Vigilance Officer) of the Institute.

4.0 ACADEMIC PROGRAMMES AND AWARD OF DEGREES

4.1 Introduction:

- a.** Tripura Engineering College (a State Govt. Institution) was established in 1965 with three branches (Civil, Electrical and Mechanical Engineering) at UG level. It was initially affiliated to University of Calcutta and had the same curriculum structure and examination system of Bengal Engineering College (presently Indian Institute of Engineering, Science and Technology, Shibpur, West Bengal). In the year 2006, Tripura Engineering College was converted into National Institute of Technology (NIT) Agartala. In spite of locational disadvantage in the North-Eastern Region where the connectivity is very poor, NIT, Agartala has excellent campus having 394 acres of land with the facilities of 8 Academic Buildings, 1 Library Building (known as Knowledge Centre), 1 Auditorium, 1 Multistoried Administrative Building, 1 Building for Student's Activities, 250 Staff Quarters, 2 Banks, 1 Post Office, 1 Market Complex, Sports Complex and 1 Kendriya Vidyalaya in the campus.
- b.** There are 4 boys' hostels having the capacity to accommodate nearly 3000 male students in the campus. Another hostel to accommodate 1500 male students is fully operational and the same is already functional. There is one girls' hostel which can accommodate 500 students in the campus.
- c.** Intake of NITA per year has increased by three-fold to 1329 in comparison to annual intake till 2006. Presently, NITA has 9 B.Tech. programmes, 20 M.Tech. programmes, MBA programme, MCA programme, 3 BS-MS & BT-MT programmes, 3 M.Sc. Programmes and Ph.D in relevant departments.
- d.** NITA has 219 qualified faculty members, nearly 240 supporting staff and 3608 students. The Library has 68436 hard copy books, 956 E-Journals through "E-Shodh Sindhu", more than 2500 E-books through "South Asia Archive" and more than 52 lakhs E-Books under "World E-Book Library".
- e.** Total publication: 276 papers in reputed journals including SCI, SCOPUS and IEEE Transactions etc. Total 6 papers have been published in IEEE Transactions during the last 3 years, which is very significant achievement.
- f.** During the last Convocation held in 10th November, 2018, 19 Ph .D. students received degrees. At present, there are 299 Ph.D. students carrying out research activities in the Institute.
- g.** A new Centre for Career Development (CCD) has been set up for placement activities and 80% students were placed for various jobs during last year.
- h.** On 9th March, 2016, C-DAC Param Supercomputer was installed at NITA, which has been developed in joint collaboration by C-DAC, Pune and the Union Ministry of Communication and IT.
- i.** The supercomputer is equipped with the latest processing techniques and accelerator from leading IT Organizations like M/s Intel and M/s Nvidia. Supercomputer can be used as a tool for carrying out modeling, simulation

and data analysis. After IIT, Guwahati, NITA is 2nd such institute in NE Region to have such facility.

- j. Total 6 patents have been filed by Faculty Members, during the year 2018-19 and one Faculty Member is a Fellow of IEEE.
- k. NIT Agartala has successfully implemented the verification of Academic Records of Students through National Academic Depository (NAD) system of GoI. Among all the NITs of North Eastern states, NIT Agartala was first to achieve this.

4.2 Admission Procedure:

- a. Admission in the undergraduate programme is made on the basis of allotment of seats in the (9) branches of Engineering along with dual degree programme in Engineering and Science (BS-MS & BT-MT) through Central Seat Allocation Board (CSAB) based on the performance of the candidates in Joint Entrance Examination JEE-(Main).
- b. Students are admitted in undergraduate under Home State and All India quota. In M.Tech candidates are admitted as per allotment of seats under common counseling (CCMT) on the basis of result in GATE Examination. Candidates are also admitted in M.Tech against the vacant seats on the basis of a test conducted by the Institute.
- c. In MCA candidates are admitted as per allotment of seats by NIMCET based on the performance of the candidates in the NIMCET Examination conducted for the purpose.
- d. In M.Sc in Physics, Chemistry and Mathematics eligible candidates are admitted as per allotment of seats by CCMN based on the performance of the candidate in the CCMN examination conducted for the purpose of selection.
- e. Candidates are admitted in MBA programme as per selection made by the Institute on the basis of performance of the candidates in the qualifying examination like CAT, CMAT etc.
- f. Candidates of Ph.D are admitted based on their performance in the test (written and/or oral) conducted by the Institute for selection.

4.3. Admission 2018-2019:

Table 1 – Fresh Admission (2018-19)

Sl No	Department	B. Tech.	BSMS	BTMT	M. Tech.	MCA	MBA	M.Sc	Ph.D	Total
1.	Civil Engineering (CE)	186	-	-	82	-	-	-	03	271
2.	Mechanical Engineering (ME)	98	-	-	38	-	-	-	12	148
3.	Electrical Engineering (EE)	87	-	-	43	-	-	-	06	136
4.	Electronics & Communication Engineering (ECE)	87	-	-	11	-	-	-	05	103
5.	Computer Sc. & Engineering	89	-	-	11	17	-	-	05	122

	(CSE)									
6.	Production Engineering (PE)	70	-	-	08	-	-	-	03	81
7.	Chemical Engineering (Che)	58	-	-	05	-	-	-	05	68
8.	Electronics & Instrumentation Engineering (EIE)	59	-	-	00	-	-	-	02	61
9.	Bio Engineering (BE)	23	-	-	00	-	-	-	02	25
10	BS-MS(Physics, Chemistry, Mathematics)	-	49	-	-	-	-	-		49
11	BT-MT (Engg. Physic)	-	-	17		-	-	-		17
12	School of Management	-	-	-	-	-	18	-	02	20
13	Humanities & Social Science	-	-	-	-	-	-	-	02	2
14	Physics	-	-	-	-	-	-	10	01	11
15	Chemistry	-	-	-	-	-	-	09	02	11
16	Mathematics	-	-	-		-	-	07	02	9
Total		757	49	17	198	17	18	26	52	0

Total No. of students admitted during the year includes the following (2018-19):

Scheduled Castes	35(PG), 137(UG)	Q.I.P.	M. Tech.	00
Scheduled Tribes	13(PG), 132(UG)		Ph. D.	00
Physically Handicapped	02(PG), 9(UG)	Sponsored	M. Tech.	00
		Project	Ph. D.	02
		External Registration	Ph. D.	00

4.4 Course-wise enrollment with Sex and Caste break-up:

Table 2 – Admitted students in B. Tech, 1st Semester (2018-19)

		CE	ME	EE	ECE	CSE	PE	EIE	CHE	BE	
From the State of Tripura:											
OP	Boys	29	21	14	17	15	14	10	10	5	
	Girls	12	4	7	6	7	6	6	6	3	
	Total	41	25	21	23	22	20	16	16	8	
OPPH	Boys	0	0	0	0	0	0	0	0	0	
	Girls	0	0	0	0	0	0	0	0	0	
	Total	0	0	0	0	0	0	0	0	0	
OBC	Boys	0	0	0	0	0	0	0	0	0	
	Girls	0	0	0	0	0	0	0	0	0	
	Total	0	0	0	0	0	0	0	0	0	
OBCPH	Boys	0	0	0	0	0	0	0	0	0	
	Girls	0	0	0	0	0	0	0	0	0	
	Total	0	0	0	0	0	0	0	0	0	
SC	Boys	8	6	4	4	5	4	3	2	2	
	Girls	10	3	4	4	3	3	2	2	1	
	Total	18	9	8	8	8	7	5	5	3	
SCPH	Boys	0	0	0	0	0	0	0	0	0	

	Girls	0	0	0	0	0	0	0	0	0	
	Total	0	0	0	0	0	0	0	0	0	
ST	Boys	15	7	8	7	8	0	1	1	0	
	Girls	15	0	6	2	4	0	1	0	0	
	Total	30	7	14	9	12	0	2	1	0	
STPH	Boys	0	0	0	0	0	0	0	0	0	
	Girls	0	0	0	0	0	0	0	0	0	
	Total	0	0	0	0	0	0	0	0	0	
From various part of the country except the State of Tripura											
OP	Boys	36	21	16	17	21	18	11	10	5	
	Girls	1	2	1	3	1	2	1	2	1	
	Total	37	23	17	20	22	20	12	12	6	
OPPH	Boys	2	1	1	0	1	0	0	1	0	
	Girls	0	0	0	1	0	0	0	0	0	
	Total	2	1	1	1	1	0	0	1	0	
OBC	Boys	36	12	16	14	11	13	11	9	2	
	Girls	2	2	1	0	1	2	0	1	2	
	Total	38	14	17	14	12	15	11	10	4	
OBCPH	Boys	0	0	0	0	1	0	0	0	0	
	Girls	0	0	0	0	0	0	0	0	0	
	Total	0	0	0	0	0	0	0	0	0	
SC	Boys	14	7	6	6	6	6	4	4	2	
	Girls	0	0	0	1	0	0	0	0	0	
	Total	14	7	6	7	6	6	4	4	2	
SCPH	Boys	0	0	0	0	0	0	0	0	0	
	Girls	0	0	0	0	0	0	0	0	0	
	Total	0	0	0	0	0	0	0	0	0	
ST	Boys	6	10	3	6	4	2	9	8	0	
	Girls	0	2	0	0	0	0	0	1	0	
	Total	6	12	3	6	4	2	9	9	0	
STPH	Boys	0	0	0	0	0	0	0	0	0	
	Girls	0	0	0	0	0	0	0	0	0	
	Total	00	00	00	00	00	00	00	00	00	
Total intake capacity		184	100	90	92	90	90	61	60	30	
Total admitted		184	99	87	87	89	70	59	59	23	
Total vacant		00	01	03	05	01	20	02	01	07	

Table 3 – Admitted students in M. Tech 1st Semester (2018-19)

		CE	ME	EE	CSE	EC	EIE	PE	CHE	BE
From the state of Tripura										
OP	Boys	04	04	04	00	00	00	01	00	00
	Girls	02	00	01	00	01	00	00	01	00
	Total	06	04	05	00	00	00	01	01	00
OPPH	Boys	01	00	00	00	00	00	00	00	00
	Girls	00	00	00	00	00	00	00	00	00
	Total	01	00	00	00	00	00	00	00	00
OBC	Boys	07	01	00	00	00	00	00	02	00
	Girls	01	00	01	02	00	00	00	00	00
	Total	08	01	01	02	00	00	00	02	00
OBCPH	Boys	00	00	00	00	00	00	00	00	00
	Girls	00	00	00	00	00	00	00	00	00
	Total	00	00	00	00	00	00	00	00	00

SC	Boys	07	00	01	01	00	00	00	00	00
	Girls	03	00	00	00	00	00	00	00	00
	Total	10	00	01	01	00	00	00	00	00
SCPH	Boys	00	00	00	00	00	00	00	00	00
	Girls	00	00	00	00	00	00	00	00	00
	Total	00	00	00	00	00	00	00	00	00
ST	Boys	00	01	00	00	00	00	00	00	00
	Girls	03	00	01	01	00	00	00	00	00
	Total	03	01	01	01	00	00	00	00	00
STPH	Boys	00	00	00	00	00	00	00	00	00
	Girls	00	00	00	00	00	00	00	00	00
	Total	00	00	00	00	00	00	00	00	00
		CE	ME	EE	CSE	EC	EIE	PE	CHE	BE
From the various part of the country except the state of Tripura										
OP	Boys	25	15	16	02	04	00	06	01	00
	Girls	06	01	01	03	01	00	00	01	00
	Total	31	16	17	05	05	00	06	02	00
OPPH	Boys	00	00	00	00	00	00	00	00	00
	Girls	00	00	00	00	00	00	00	00	00
	Total	00	00	00	00	00	00	00	00	00
OBC	Boys	17	12	14	00	04	00	00	00	00
	Girls	01	01	01	02	00	00	00	00	00
	Total	18	13	15	02	04	00	00	00	00
OBCPH	Boys	00	00	00	00	00	00	00	00	00
	Girls	00	00	00	00	00	00	00	00	00
	Total	00	00	00	00	00	00	00	00	00
SC	Boys	03	03	02	00	01	00	01	00	00
	Girls	00	00	00	02	00	00	00	00	00
	Total	03	03	02	02	01	00	01	00	00
SCPH	Boys	00	00	00	00	00	00	00	00	00
	Girls	00	00	00	00	00	00	00	00	00
	Total	00	00	00	00	00	00	00	00	00
ST	Boys	01	00	01	00	00	00	00	00	00
	Girls	01	00	00	00	00	00	00	00	00
	Total	02	00	01	00	00	00	00	00	00
STPH	Boys	00	00	00	00	00	00	00	00	00
	Girls	00	00	00	00	00	00	00	00	00
	Total	00	00	00	00	00	00	00	00	00
Total intake capacity		89	44	52	15	30	00	15	07	00
Total admitted		82	38	43	11	11	00	08	05	00
Total vacant		07	06	09	04	19	00	07	02	00

Table 4 – Admitted students in BSMS, BTMT 1st Semester (2018-19)

		BSMS	BTMT
From the State of Tripura:			
OP	Boys	7	4
	Girls	8	1
	Total	15	5
OPPH	Boys	1	0
	Girls	0	0

	Total	1	0
OBC	Boys	0	0
	Girls	0	0
	Total	0	0
OBCPH	Boys	0	0
	Girls	0	0
	Total	0	0
SC	Boys	4	2
	Girls	1	0
	Total	5	2
SCPH	Boys	0	0
	Girls	0	0
	Total	0	0
ST	Boys	2	0
	Girls	4	0
	Total	6	0
STPH	Boys	0	0
	Girls	0	0
	Total	0	0
From various part of the country except the State of Tripura			
OP	Boys	4	4
	Girls	1	1
	Total	5	5
OPPH	Boys	0	0
	Girls	0	0
	Total	0	0
OBC	Boys	2	4
	Girls	0	0
	Total	2	4
OBCPH	Boys	0	0
	Girls	0	0
	Total	0	0
SC	Boys	0	1
	Girls	0	0
	Total	0	1
SCPH	Boys	0	0
	Girls	0	0
	Total	0	0
ST	Boys	0	0
	Girls	0	0
	Total	0	0
STPH	Boys	0	0
	Girls	0	0
	Total	0	0
Total intake capacity		60	40
Total admitted		34	17
Total vacant		16	23

Table 4A – Admitted students in M. Sc, MCA and MBA 1st Semester (2018-19)

		M. Sc. (Phy.)	M. Sc. (Chem.)	M. Sc. (Math.)	MCA	MBA
From the state of Tripura						
OP	Boys	01	01	02	00	05
	Girls	00	00	02	00	06
	Total	01	01	04	00	11
OPPH	Boys	00	00	00	00	00
	Girls	00	00	00	00	00
	Total	00	00	00	00	00
OBC	Boys	01	00	01	00	02
	Girls	01	00	00	00	01
	Total	02	00	01	00	03
OBCPH	Boys	00	00	00	00	00
	Girls	00	00	00	00	00
	Total	00	00	00	00	00
SC	Boys	01	00	00	00	01
	Girls	00	00	01	00	00
	Total	01	00	01	00	01
SCPH	Boys	00	00	00	00	00
	Girls	00	00	00	00	00
	Total	00	00	00	00	00
ST	Boys	00	00	00	00	00
	Girls	00	00	00	00	00
	Total	00	00	00	00	00
STPH	Boys	00	00	00	00	00
	Girls	00	00	00	00	00
	Total	00	00	00	00	00
From the various part of the country except the state of Tripura						
OP	Boys	04	00	00	05	01
	Girls	00	02	00	01	01
	Total	04	02	00	06	02
OPPH	Boys	00	00	00	00	00
	Girls	00	00	00	00	00
	Total	00	00	00	00	00
OBC	Boys	00	02	00	06	00
	Girls	02	02	00	02	00
	Total	02	04	00	08	00
OBCPH	Boys	00	00	00	00	00
	Girls	00	00	00	00	00
	Total	00	00	00	00	00
SC	Boys	00	00	00	02	01
	Girls	00	01	00	01	00
	Total	00	01	00	03	01
SCPH	Boys	00	00	00	00	00
	Girls	00	00	00	00	00
	Total	00	00	00	00	00
ST	Boys	00	01	01	00	00
	Girls	00	00	00	00	00
	Total	00	01	01	00	00
STPH	Boys	00	00	00	00	00
	Girls	00	00	00	00	00
	Total	00	00	00	00	00
Total intake		10	10	10	40	30

capacity					
Total admitted	10	09	07	17	18
Total vacant	00	01	03	23	12

Table 5 – Admission statistics: UG Programme: Course-wise (2018-19)

Sl No	Name of the state	CE	ME	EE	CSE	ECE	EIE	CHE	PE	BIO	BS-MS (CHEM)	BS-MS (PHY)	BS-MS (MATH)	BT-MT (PHY)	TOTAL
1	AIL	0	0	0	0	0	00	1	0	0	0	0	0	0	1
2	AP	8	9	6	9	20	6	5	6	3	1	1	1	0	75
3	ARP	0	0	0	0	0	1	0	0	0	0	0	0	0	1
4	AS	0	1	1	0	0	2	3	0	0	0	1	0	0	8
5	BH	36	8	9	7	5	11	10	14	2	1	0	2	0	105
6	CNG	0	1	0	0	0	0	0	0	0	0	0	0	0	1
7	CG	1	2	0	2	0	2	1	0	0	1	0	0	0	9
8	DL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	GJ	0	0	1	0	0	0	0	0	0	0	0	0	0	1
10	HR	0	0	0	0	0	0	0	1	0	0	0	0	0	1
11	JR	3	0	2	1	0	1	1	2	0	1	0	1	1	13
12	J&K	1	0	0	0	0	0	0	0	0	0	0	0	0	1
13	KR	0	0	0	2	0	0	0	0	0	0	0	0	0	2
14	KL	0	2	0	2	1	0	0	1	1	1	2	0	1	11
15	MN	0	0	0	0	0	1	0	0	0	0	0	0	0	1
16	MH	2	0	1	2	1	1	2	1	0	0	1	0	2	13
17	MP	3	1	1	1	2	0	0	1	0	0	0	0	0	9
18	MG	0	0	1	0	0	0	0	0	0	0	0	0	0	1
19	NG	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	OD	0	3	0	2	0	1	0	1	1	0	1	0	1	10
21	PB	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	RJ	7	3	1	2	2	0	0	5	1	0	0	0	1	22
23	TN	0	0	0	1	0	0	1	0	0	0	0	0	2	4
24	TE	9	9	6	6	11	2	3	2	1	1	0	1	0	51
25	TR	89	41	43	42	40	23	22	27	11	10	8	9	7	373
26	UP	24	17	13	10	4	7	8	8	3	1	1	1	1	98
27	UR	0	0	0	0	1	0	0	0	0	0	0	0	0	1
28	WB	3	1	2	0	0	1	1	1	0	0	0	1	1	11
Grand Total		179	87	87	89	90	51	52	67	22	14	14	14	17	823

AP=ANDHRAPRADESH, ARP=ARUNACHAL PRADESH, AS=ASSAM,
 BH=BIHAR, CNG=CHANDIGARH, CG=CHHATTISGARH, DL=DELHI, GJ=GUJARAT,
 HR=HARYANA, JR=JHARKHAND, J&K=JAMMU & KASHMIR, KT=KARNATAK, KL=KERLA,
 MN=MANIPUR, PB=PUNJAB, MH=MAHARASHTRA, MP=MADHYA PRADESH,
 MG=MEGHALAYA, NG=NAGALAND, RJ=RAJASTHAN, SK=SIKKIM, TN=TAMIL NADU, TE=TELANGANA, TR=TRIPURA, UP=UTTAR PRADESH, WB=WEST BENGAL
 UR=UTTARAKHAND, OD=ODISHA

4.5 Students/ Scholars Enrolment:

The total numbers of students on roll in various programmes of the Institute in the academic year 2018-19 are given below:

TABLE 6 – Students on roll

Sl.	Department	B. Tech	BS-MS	BT-MT	MCA	M. Tech.	M. Sc.	MBA	Ph. D
-----	------------	---------	-------	-------	-----	----------	--------	-----	-------

No.									
1.	Civil Engineering	644				153			51
2.	Mechanical Engineering	363				72			45
3.	Electrical Engineering	307				65			30
4.	Electronics & Communication Engineering	325				29			25
5.	Computer Sc. & Engineering	367			49	23			28
6.	Production Engineering	225				16			16
7.	Chemical Engineering	184				06			06
8	Electronics & Instrumentation Engineering	177				00			03
9	Bio Engineering	68				00			01
10	BS-MS		134						
11	BT-MT			50					
12	School of Management							30	03
13	Humanities & Social Science								10
14	Physics						16		19
15	Chemistry						17		10
16	Mathematics						12		16
	Total	2660	134	50	49	364	45	30	

The above total includes the following

DASA (Indian origin)	6 (UG)	QIP	M. Tech.	00
Scheduled Castes	94 (PG), 507(UG)		Ph. D.	00
Scheduled Tribes	33 (PG), 494(UG)	Sponsored	M. Tech.	00
Physically Handicapped	3 (PG), 31(UG)	Project	Ph. D.	02
Woman Students	195 (PG), 541(UG)	External Registration	Ph. D.	
		Part Time Programme (M. Tech.)		

SC/ ST/ OBC/ OPPH Students on roll as on 31-03-2018:

Sl. No.	Programme	SC	ST	OBC	OPPH
1.	B. Tech.	471	470	721	31
2.	BS-MS	30	21	34	00
3.	BT-MT	6	3	20	00
4.	MCA	04	00	21	00
5.	M. Tech.	47	12	126	03 (2 OBPH + 1 OOPPH)
6.	M. Sc.	06	02	17	00
7.	MBA	05	00	05	00
8.	Ph. D.	32	19	60	00

The branch/ discipline-wise and year-wise details of students in B. Tech. and M. Tech. programmes are given below:

TABLE 7 – Students on roll at Bachelors Degree level

Sl. No.	Branch	2018	2017	2016	2015	Others
1	Civil Engineering	644	635	649	672	00
2	Mechanical Engineering	363	349	353	369	00
3	Electrical Engineering	307	327	325	338	00
4	Computer Sc. & Engg.	367	347	336	332	00
5	Electronics & Comm. Engineering	325	339	329	327	00
7	Production Engineering	225	224	219	233	00
8	Electronics & Inst. Engg.	177	164	169	181	00
9	Chemical Engineering	184	174	166	171	00
10	Bio Engineering	68	63	63	76	00
11	Physics(BS-MS)	47	42	30	23	00
12	Chemistry(BS-MS)	40	52	34	31	00
13	Math(BS-MS)	47	65	43	32	00
14	Engineering Physics(BT-MT)	50	59	44	35	00
Total		2844	2840	2760	2820	00

TABLE 8 – Students on roll at Masters Degree level

Sl. No.	Department	Specialization	2018	2017	Total
01.	Civil Engineering Department	Geotechnical Engineering	26	27	53
		Structural Engineering	29	26	55
		Environmental Engineering	27	30	57
		Transportation Engineering	27	25	52
		Water Resources Engineering	10	10	20
		Seismic Science & Engineering	11	15	26
		Hydro Informatics Engineering	18	20	38
02.	Mechanical Engineering Department	Thermal Science & Engineering	29	25	54
		Manufacturing Technology	27	26	53
		Machine Design	14	10	24
		Automotive Engineering	12	11	23
03.	Electrical Engineering	Power Electronics & Drives	25	21	46
		Power System Engineering	22	18	40
		Instrumentation Engineering	18	18	36
		Integrated Energy System	8	8	16
04.	Electronics & Communication Engineering	VLSI & Nano Technology	24	18	42
		Communication Engineering	21	11	32
05.	Computer Sc. & Engineering	Computer Sc. & Engineering	19	23	42
06.	Production Engineering	Computer Integrated Manufacturing	15	16	31
07.	Chemical Engineering	Chemical Engineering	02	06	08

08.	M.Sc	Physics	14	16	30
		Chemistry	18	17	35
		Mathematics	12	12	24
09.	School of Management	MBA	44	30	74
10.	Master of Computer Application	MCA	53	49	102

4.6 Examination & Evaluation:

- Evaluation of the performance of the students is regarded as the most important academic activity in any educational institution. Evaluation of the students is made by both written examination and viva-voce test.
- Apart from this the performance of the students is also evaluated through internal assessment. In every semester one Mid-Term and End-Term examination are conducted. This apart, class tests and viva-voce test for all subjects are also taken.
- Marks are awarded to the students in each subject and on the basis of that Semester Performance Index (SPI) is calculated. Taking the result of both Mid-Term and End-Term Examination Cumulative Performance Index (CPI/CGPA) is calculated.
- In brief the performance of a student is evaluated through written examination, class test, viva-voce test, practical examination, attendance and above all the behavior of the students.

4.7 Course Offered:

TABLE 9 – No. of Courses offered (UG)

Sl. No.	Programme	Department
1.	B.Tech	Civil Engineering (CE)
		Mechanical Engineering (ME)
		Electrical Engineering (EE)
		Electronics & Communication Engineering (ECE)
		Electronics & Instrumentation Engineering (EIE)
		Computer Sc. & Engineering (CSE)
		Production Engineering (PE)
		Chemical Engineering (CHE)
		BIO Engineering (BE)
2.	BS-MS	Physics
		Chemistry
		Mathematics
3.	BT-MT	Engineering Physics

Courses offered (PG)

Sl. No.	Department	No. of Courses
1	Civil Engineering (CE)	07
2	Mechanical Engineering (ME)	04
3	Electrical Engineering (EE)	04
4	Electronics & Communication Engineering (ECE)	02
5	Computer Sc. & Engineering (CSE)	02

6	Production Engineering (PE)	01
7	Chemical Engineering (CHE)	01
8	School of Management	01
9	Basic Science	03

4.8 Convocation:

The National Institute of Technology Agartala organizes its 11th Convocation on 10th November 2018. Shri Biplab Kumar Deb, Hon'ble Chief Minister of Tripura, adorn the 11th Convocation Ceremony as a Chief Guest.

In the 11th Convocation, Institute awarded B. Tech. Degree to a total number of 660 students.

Branch wise results are given as under:-

Civil Engineering: 26 students passed with Distinction, 115 passed with First class and 16 with Second class.

Mechanical Engineering: 37 students passed with Distinction, 50 students passed with First class.

Electrical Engineering: 21 students passed with Distinction, 57 students passed with First class and 09 students with Second class.

Computer Science & Engineering: 15 students passed with Distinction, 63 students passed with First class and 07 students with second class.

Electronics and Communication Engineering: 17 students passed with Distinction, 68 students passed with First class and 08 students with Second class.

Electronics and Instrumentation Engineering: 02 students passed with Distinction, 33 students passed with First class and 04 students with Second class.

Production Engineering: 03 students passed with Distinction, 53 students passed with First class and 03 students passed with Second class.

Chemical Engineering: 09 students passed with Distinction, 30 students passed with First class 02 student passed with Second class.

Bio Engineering: 03 students passed with Distinction, 08 students passed with First class and 01 student with second class.

BS & BT Degree was awarded to a total number of 42 students in the 11th convocation.

Branch wise results are given as under:-

BS Physics : 01 students passed with First Class and Distinction, 03 students passed with First class 01 student passed with Second class.

BS Chemistry: 01 students passed with First Class and Distinction, 10 students passed with First class 02 students passed with Second class.

BS Mathematics : 02 student passed with First class and Distinction 11 students passed with First class and 02 students passed with Second class.

BT Physics : 01 student passed with First class and Distinction, 05 students passed with First class and 01 student passed with Second class.

BS-MS & BT-MT Degree was awarded to a total number of 23 students in the 11th convocation.

BS-MS Physics	:	01 student passed
BS-MS Chemistry	:	06 students passed
BS-MS Mathematics	:	09 students passed
BT-MT Physics	:	07 students passed

M. Tech Degree was awarded to a total number of 170 students in the 11th convocation.

Branch wise results are given as under:-

Civil Engineering	:	59 students passed.
Mechanical Engineering	:	39 students passed.
Electrical Engineering	:	37 students passed.
Computer Sc. & Engineering	:	05 students passed.
Electronics & Communication Engineering	:	24 students passed.
Production Engineering	:	06 students passed.

M. Sc Degree was awarded to a total number of 20 students in the 11th convocation.

Subject wise results are given as under:-

Physics	:	06 students passed.
Chemistry	:	07 students passed.
Mathematics	:	07 students passed.

MCA Degree was awarded to a total number of 15 students.

MBA Degree was awarded to a total number of 23 students.

Institute awarded 19 scholars for Ph.D Degree - 15 in Engineering, 4 in Science in the 11th Convocation.

4.8.1 Introduction

TABLE 10 – Degree awarded

Sl.No.	Department	B.Tech	BSMS	MCA	BTMT	M.Tech	M.Sc.	MBA	Ph.D
1	CIVIL	157	--	--	--	59	--	--	3
2	MECHANICAL	87	--	--	--	39	--	--	3
3	ELECTRICAL	87	--	--	--	37	--	--	1
4	COMPUTER SC.	85	--	--	--	05	--	--	--
5	ELECTRONICS & COMM.	93	--	--	--	24	--	--	7
6	ELECTRONICS & INST.	39	--	--	--	--	--	--	--
7	PRODUCTION	59	--	--	--	06	--	--	1

8	CHEMICAL	41	--	--	--	--	--	--	--
9	BIO	12	--	--	--	--	--	--	--
10	CHEMISTRY	--	6	--	--	--	7	--	--
11	MATHEMATICS	--	9	--	--	--	7	--	2
12	PHYSICS	--	1	--	7	--	6	--	2
13	MCA	--	--	15	--	--	--	--	--
14	MBA	--	--	--	--	--	--	23	--

With this convocation, the total number of degrees awarded so far by the Institute is **970**, the details of which are given below:

Sl. No.	Programme	No. of Students
01	Ph.D	19
02	M.Tech	170
03	B.Tech	660
04	BS	33
05	BT	09
06	BSMS	14
07	BTMT	07
08	MCA	15
09	M.SC	20
10	MBA	23

4.8.2 Convocation Prizes:

The following are the details of Prizes awarded to the students at the 11th Convocation:

Name of the Prize	Name of Student	Branch Name
Gold Medal for Institute Topper (UNDER GRADUATE)	ANCHITA DEY	ELECTRICAL ENGG.
Gold Plated Silver Medal to Branch Toppers (UNDER GRADUATE)	ABHISHEK PAUL	CIVIL ENGG.
	SOUVIK BHOWMIK	MECHANICAL ENGG.
	SONALIKA PAUL	COMPUTER SCIENCE & ENGG.
	SHILPA RANI	ELECTRONICS & COMMUNICATION ENGG.
	BIPASA CHATTERJEE	ELECTRONICS & INSTRUMENTATION ENGG.
	ASHISH KUMAR RAJ	PRODUCTION ENGG.
	SHIVANGI JAISWAL	CHEMICAL ENGG.
	BINDUSMITA PAUL	BIO ENGG.

Programme	Name of the Prize	Name of Students	Branch Name
M.Tech	Gold Medal for Institute Topper(Post-Graduate)	CHAIDUL HAQUE CHAUDHURI	CIVIL ENGG.
	Gold Plated Silver Medal to Branch Toppers (Post-Graduate)	SMRITY CHOUDHURY	MECHANICAL ENGG.
		RITURAJ BHATTACHARJEE	ELECTRICAL ENGG.
		NITI VISHWAS	COMPUTER SCIENCE & ENGG.
		ANNESHA BARUAH	ELECTRONICS & COMMUNICATION ENGG.
		DEBTANAY DAS	PRODUCTION ENGG.
		SHILPI BISWAS	CHEMICAL ENGG.
MCA	Gold Plated Silver Medal to Branch Topper	RAHUL RAJ	COMPUTER APPLICATION
MBA	Gold Plated Silver Medal to Branch Topper	TAMLADIPTA SEN	BUSINESS MANAGEMENT
M.Sc	Gold Plated Silver Medal to Branch Topper	AJOY DEBNATH	PHYSICS
		TANAYA DUTTA	CHEMISTRY
		PABITA MAHATO	MATHEMATICS

Name of the Prize	Name of Student	Branch Name
Gold Medal for Institute Topper (UNDER GRADUATE)	GANAPATHIRAJU SREE ANUSHA	BS-MS-Mathematics
Gold Plated Silver Medal to Branch Toppers (UNDER GRADUATE)	V.AJEETH SURYASH	BS-MS-Physics
	MOHD SUFIYAN KHAN	BS-MS-Chemistry
	SUPRATIM ROY	BT-MT-Physics

4.8.4. Other Prizes:

Sl. No.	Donor	Department	Name of the Student
B. Tech.			
1.	Mautushi Kar Memorial Scholarship , Donor -	Civil Engineering	ALAKANANDA GHOSH (16UCE023)

5.0 BIO ENGINEERING DEPARTMENT

5.1 Introduction:

The department of Bio Engineering was started in the academic year of 2012-13 with sanctioned intake capacity of 30 (Thirty) students in the undergraduate level i.e. 4 years Bachelor of Technology (B. Tech Programme) in Bio Engineering to contribute the fascinating and emerging area of biological sciences. In the academic year 2019-20, total number of sanctioned seats in the department has been increased to 40 and necessary SENATE approval has been accorded in the academic year 2018-19. The department has excellent facilities in terms of class rooms and UG laboratories. Within a few years, the department has set up some important laboratory courses viz., Biochemistry lab, Microbiology lab, Immunology Lab, Genetics Lab and Bioinformatics Lab. The PhD programme of the Bioengineering department has started in academic year 2018-2019. The M.Tech programme in the name of "Biotechnology and Biochemical Engineering" has also been approved with total seat no. of 06. The course name has been changed from B.Tech in Bioengineering to B.tech in Biotechnology and Biochemical engineering and it will be implemented from July 2019. The department is committed to excellence in teaching, research and service to the Nation. Presently, Dr. Tarun Kanti Bandyopadhyay (Head, Bio Engineering) is supervising all the activities to ensure the progress of this department. The academic staff of this department has different backgrounds in engineering. This is a reflection of the multidisciplinary and integrative approach in Bio Engineering research and education. The Department has framed the course curriculum based on the need of today's industries. The course includes Molecular Biology, Biochemical Engineering, Biosensors, Bio-Fluid Mechanics, Bioinformatics and Computational Biology, Tissue Engineering and Regenerative Medicine, Therapeutic Delivery Systems, Biomedical Imaging and Instrumentation, Drug Design and Development, Nano-Biotechnology, Bioprocess Engineering, Metabolic Engineering, Biomechanics, etc. The undergraduate programme provides strong fundamental knowledge and practical based learning methodology in engineering and life sciences. It imparts training for students to make them competent, motivated engineers and scientists. This course offers huge scope to the next generation students for their better career in India and abroad as well.

5.2 Academic Programme:

The department offers courses in Under Graduate programme leading to B. Tech degree under Bio Engineering (4 years) from July 2012.

The department offers courses in Post Graduate programme leading to M. Tech degree under Biotechnology and Biochemical Engineering (2 years) from July 2019.

The department offers Ph.D programme under Bio Engineering from July 2018.

5.3 Faculty and their Activities:**Short-Term Courses/ Workshops/ Seminar/ Symposia/ Conferences organized by the faculty members:**

Sl. No.	Co-ordinators	Title	Period
Short Term Courses			
1.	Dr. Dijendra Nath Roy Dr. Tridib Kumar Bhowmick	Development of M.Tech Course curriculum in Biotechnology and Biochemical Engineering	26 th May, 2018 (one day)
2.	Dr. Dijendra Nath Roy Dr. Tridib Kumar Bhowmick Dr. Abhijit Chatterjee	Development of B.Tech Course curriculum in Biotechnology and Biochemical Engineering	28 th August, 2018
3	Dr. Tridib Kumar Bhowmick Dr. Sreerup Banerjee Mrs. Hrijuta Datta	Sustainable Bio-resource Utilization – Prospect of North-East India	11-13th April 2018
4	Dr. Tridib Kumar Bhowmick	Seminar by Dr. Ramdas Chatterjee (President, K K Chatterjee Memorial Association & Former Head, Dept. of Tumor Virology, Chittaranjan National Cancer institute) on "general awareness of good health".	5th November, 2018
5	Tridib Kumar Bhowmick Sreerup Banerjee Deeplina Das Muthusivaramapandian M Abhijit Chatterjee Hrijuta Datta	Summer training 2018	21 st May-29 th June'2018
6	Tridib Kumar Bhowmick Deeplina Das Muthusivaramapandian M Abhijit Chatterjee	Winter training 2018	20 th Dec to 1 st January, 2019

Short-Term Courses/ Workshops/ Seminars/ Symposia/ Conferences/ Training attended by the Faculty in Academic Institutions and Public Sector Undertakings:

Sl. No.	Name of Faculty	Title	Period
Workshop:			
1.	Dr. Tridib Kumar Bhowmick	NER Twinning Programme cum Foldscope Seminar held at CSIR-CFTRI, Mysore.	19 th February, 2019
2.	Dr. Tridib Kumar Bhowmick	DBT Foldscope Orientation Workshop organized by the Department of Biotechnology (DBT), Government of India at International Centre for Genetic Engineering and Biotechnology (ICGEB), New Delhi.	16 th April, 2018

Fellowships of Academics and Professional Societies:

Sl. No.	Name of Faculty	Level	Year
ISTE/ CSI and others			
1.	Dr. Dijendra Nath Roy	Corporate Life Member of Institute of Engineers (India)	Year of Inclusion 2015
2.	Dr. Dijendra Nath Roy	Life Member of Indian Science Congress Association	Year Inclusion 2012
3.	Dr. Deeplina Das	Life Member LIFE MEMBER-(LM 1309), Biotech Research Society, India-(BRSI).	From 2013
4.	Dr. Deeplina Das	LIFE MEMBER-(LM 3228), Society of Biological Chemists India-(SBC).	From 2013
5.	Dr. Deeplina Das	Corporate Life Member of Institute of Engineers (India)-(IEI)	From 2014
6.	Dr. Tridib Kumar Bhowmick	Member of Institute of Engineers (India)-(IEI)	From 2015
7.	Dr. Biswanath Bhunia	Associate Member , Indian Institute of Chemical Engineers (IICChE)	Life member
8.	Dr. Biswanath Bhunia	Member, The Institution of Engineers (India)	Life member
9.	Dr. Biswanath Bhunia	Chartered Engineer (India), The Institution of Engineers (India)	Life member
10.	Dr. Tarun Kanti Bandyopadhyay	Member , Indian Institute of Chemical Engineers (IICChE)	Life member

5.4 Design and Development Activities :

Brief and specific details of Process/ Instruments/ Equipment/ Software Designed and developed:

A fermenter has been purchased and installed. A lyophilizer has been purchased and installed.

5.5 Research and Consultancy:**Sponsored Research Projects:**

Sl. No.	Title	Period	Funding Agency	Amount (in lakhs)	Co-ordinators
1.	Development of Biofilm inhibitor	June 2016 to May 2019	DST, Govt of India	18.15 Lakhs	Dr. Dijendra Nath Roy

2	On field application of Foldscope for rapid collection of microalgae samples	March 2018 to April 2019	Department of Biotechnology, Govt. of India	8	Dr. Tridib Kumar Bhowmick
3.	Enhancing the productivity of phycobiliproteins (C-PCs) and cyanocobalamin (Vitamin B12) in selected cyanobacteria for valorization and development of functional foods	28th September, 2018 to 27th September, 2021	DBT –NER Project	Rs. 85.41,988 Lakh	PI: Dr. Tarun Kanti Bandyopadhyay Co-PI: Dr. Biswanath Bhunia & Dr. Abhijit Mondal
4	Development of Bessel Beam based Fiber Optic Biosensor for Early Detection of Breast Cancer	19th March, 2018 to 18th March, 2021	DST –EMR Project	Rs. 63.90535 lakh	Dr. Biswanath Bhunia (Co-PI)

Research Publications:

Total No. of papers published in Refereed International Journals : 10
Total No. of Books published : 01

In Refereed International Journals:

1. Soma Nag, Abhijit Mondal, Dijendra Nath Roy, Nirjhar Bar, Sudip Kumar Das; "Environmental Technology & Innovation"; 26 April 2018, 11, 83-104, (2018).
2. Saumya kanti Khanra Gopinath Halder O.N.Tiwari Kalyan Gayen, Tridib Kumar Bhowmick; "Food and Bioproducts Processing"; 2018, 110,60-84.
3. Ashmita Ghosh, Saumyakanti Khanra, Gopinath Haldar, Tridib Kumar Bhowmick, Kalyan Gayen; "Current Biochemical Engineering", August, 2018; Online (issue- 5).
4. Muthusivaramapandian Muthuraj, Baskar Selvaraj, Basavaraj Palabhanvi, Vikram Kumar, Debasish Das; "Korean Journal of Chemical Engineering"; 2019/1/1, 1/36/63-70.
5. Saumya Ahlawat, Mehak Kaushal, Basavaraj Palabhanvi, Muthusivaramapandian Muthuraj, Gargi Goswami, Debasish Das; "Biotechnology progress"; 2018/12/28; e2771.
6. Sudhansu Sandhibigraha, Sagnik Chakraborty, Tarun Kanti Bandyopadhyay and Biswanath Bhunia; " Environmental Engineering Research"; 14th March, 2019; Published.

7. Onkar NathTiwari, Biswanath Bhunia, Sagnik Chakraborty, Saswata Goswami and Indrama Devi; "Biochemical Engineering Journal"; 18th February 2019; NA/145/ 153-161.
8. Onkar NathTiwari, Biswanath Bhunia, Abhijit Mondal, Konga Gopikrishna and Indrama Devi; "Journal of Cleaner Production"; 21st November 2018; NA/211/70-82.
9. Uma Shankar Prasad Uday, Saswata Goswami, Konga Gopikrishna, Tarun Kanti Bandyopadhyay and Biswanath Bhunia; "3Biotech"; 24th July 2018, 8/8/337-345.
10. Kranthi Raj K, Usha R.Sardara, Indrama Devi, Biswanath Bhunia, Onkar NathTiwari;" Carbohydrate Polymers"; 18th July 2018, NA/199/353-364.

Books Published:

Name of the Authors published	Title of the Books	Date of publication of the Book	Issue/ Volume No./ Page No.
Dr. Dijendra Nath Roy	Terpenoid Against Human Diseases	27 th March 2019 (ISBN: 9780815370666)	1 st Edition (252 Pages)

Distinguished Visitors to the Departments:

Sl. No.	Name of the Visitors and Designation	Date of Visit	Purpose of Visit
1.	Dr. O.N. Tiwari, Senior Scientist, Centre for Conservation and Utilisation of Blue Green Algae (CCUBGA), Division of Microbiology, ICAR-Indian Agricultural Research Institute (IARI), New Delhi-110012	11.02.2019	A group interaction meeting of DBT Project
2.	Dr. Ramdas Chatterjee (President, K K Chatterjee Memorial Association & Former Head, Dept. of Tumor Virology, Chittaranjan National Cancer institute)	5th November, 2018	Discussion on DBT foldscope project

5.6 Institute – Industry Collaboration:

Fifty students have visited Pran Beverages India Pvt. Ltd. (Industrial Growth Center, Bodhjunnagar, Agartala, Tripura), on 29th September, 2018.

5.7 Other Activities:

Four students from the department cleared GATE 2019 from 2015-2019, 21 percentage of the students cleared GATE 2019 whereas 69 percentage are placed in different companies through institution placement.

Dr. Biswanath Bhunia- Visiting Faculty, Department of Biotechnology & Bioinformatics at North Eastern Hill University, Shillong

Invited Lectures by Dr. Abhijit Chatterjee:

Date	Title of the talk	Host Institution
08.08.18	Technical aspects of pineapple processing and waste recovery	The Associated Chambers of Commerce and Industry of India (ASSOCHAM)

Invited Lectures by Dr. Tridib Kumar Bhowmick:

Date	Title of the talk	Host Institution
19.02.19	Promising future of microalgae: Use of Foldscope as a tool in research	CSIR-CFTRI, Mysore on 19th February, 2019

External Examiner (Dr. Tridib Kumar Bhowmick):

Date	Details	Institution
18.05.18	External examiner of the M Sc. 4 th Semester course,	Tripura University

Co-opted member of technical committee, MRU, AGMC and GBP hospital (Ms Hrijuta Datta)

Date	Details	Institution
01.09.18	Technical evaluation for the procurement of equipment for MRU, AGMC	Agartala Govt. Medical College
27.07.18	Technical evaluation for the procurement of equipment for MRU, AGMC	Agartala Govt. Medical College

Photographs: Different activities (2018-2019)



Biochemistry Laboratory: 2018



Immunology Laboratory: 2018



Aayam 2018:

Students showing foldscope at
Dept. of Bioengineering Stall



Dr. Ramdas Chatterjee presenting his talk
on 5th Nov. 2018.



Department of Bio-Engineering, NIT Agartala organized National Seminar on "Sustainable Bio-resource Utilization – Prospect of North-East India" under TEQIP-III from 11-13th April 2018.



Students, faculties staffs from Department of Bio-Engineering, NIT Agartala are visiting Pran Beverages India Pvt. Ltd. on 29 September, 2018

6.0 CIVIL ENGINEERING DEPARTMENT

6.1 Introduction:

The Department of Civil Engineering was started since the inception of the institute in 1965. Initially the institute was affiliated to University of Calcutta and thereafter re-affiliated to Tripura University in 1987. The Institute is approved by AICTE, New Delhi. Presently this department is offering M.Tech. Courses in Structural Engineering, Geotechnical Engineering, Transportation Engineering, Water Resources Engineering, Environmental Engineering, Seismic Science & Engineering and Hydro Informatics Engineering. The Civil Engineering Department of the Institute has produced many technocrats who are serving the country successfully. The Department has 21 (twenty one) regular faculty members and 12 (Twelve) visiting faculty members. Almost all the faculty members are involved with different consultancy, research and developmental works along with administrative activities of the Institute.

The department has been involved with many research works and produced some excellent outcome. The department also offers Ph.D programme and the main areas of research include Geotechnical Engineering, Structural Engineering, Water Resources Engineering, Environmental Engineering, Transportation Engineering,



Hydro Informatics and Seismic Science & Engineering. The department is also involved in consultancy works and projects with the State & Central Government organizations.

6.2 Academic Programme:

B. Tech (Civil Engineering), M. Tech. (Structural Engineering, Geotechnical Engineering, Transportation Engineering, Environmental Engineering, Water Resources Engineering, Seismic Science & Engineering and Hydro Informatics Engineering) and Ph. D.

6.3 Faculty and other Activities:

Short-Term Courses / Workshops / Seminar / Symposia / Conferences / Training attended by the Faculty in Academic Institutions and Public Sector Undertakings:

Sl. No.	Name of the Faculty	Title	Period
Workshop Organized: 1			
1	Dr. Umesh Mishra & Dr. Sushant Kumar Biswal	Recent Advances on Water and Environment	20 th -24 th November, 2018
Conference organized : 1			
1	Dr. S.K. Pal, Dr. Sima Ghosh, Dr. Rajib Saha and Dr. Sanjay Paul	Geo Hazards& Future Development of Civil Engineering	2 nd -3 rd November, 2018
Short term Course: 1			
1	Dr. Rajib Saha	Dynamics of Foundation	3 rd to 7 th June, 2019

Visits Abroad by Faculty:

Sl. No.	Name of Faculty	Country Visited	Date	Purpose of Visit
1	Dr. Umesh Mishra	Thavorn Palm Beach Resort, Karon, Phuket	24 – 26 October 2018	Oral Presentation

Honours and Awards obtained:

Sl. No.	Name of Faculty	Name of Award	Awarded by	Award For	Date
1	Dr. S. K. Pal	best paper award	ICGGE	Best Paper	1 st -2 nd March 2019

2	Miss. Saxena Nupur, Mr. Rahul Ghosh and Dr. Rama Debbarma	best paper award	Int. Conf. on Sustainable Materials and structure for civil infrastructure	Best Paper	14-15 th March, 2019
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Fellowships of Academics and Professional Societies:

Sl. No.	Name of Faculty	Level	Year
ISTE/ CSI and others			
1	Dr. Umesh Mishra	<ul style="list-style-type: none"> A life member of Indian society for Technical Education with No LM 18347 A senior member of IACSIT –No 80336897 Fellow of Institution of Members –No F-113657-3 Question setter/Examiner/moderator to BPUT Rourkel, OUAT Bhubaneswar, KIIT Deemed university, Bhubaneswar VSSUT Burla and TPSC, Agartala Member nominated by S & T Dept. To central Govt for of State Level Environment Impact Assessment Authority 2009 Consulting member to urban Development Dept Govt of ORISSA for the verification of Bids for JNNURM- 2005 & many other Water supply projects Member in the Tripura Science Congress Agartala 	
2	Dr. Richi Prasad Sharma	<ul style="list-style-type: none"> The Institution of Engineers (India),(Fellow) The Indian Society for Technical Education(Life Member) ASCE(Member) Indian Building Congress(Life Member) 	
3	Dr. Sujit Kumar Pal	<ul style="list-style-type: none"> FIE (India), Institution of Engineers (India) (F-017838-8) MIE (India), Institution of Engineers (India) (M-061672-3) Membership of International Society for Soil Mechanics and Geotechnical Engineering Life membership of Indian Building Congress (ML-5008) Life membership of Indian Geotechnical Society (LM-2809) Life membership of Indian Society for Technical Education (LM-19358) Chartered Engineer (Civil Engineering), Institution of Engineers (India) Student Chapter membership of Institution of Engineers (India) during UG Course in KREC, Surathkal (Presently, NITK, 	<p>Since 31-03-2011</p> <p>29-11-2000 to 30-03-2011</p> <p>2010- 2013</p> <p>Since 2010</p> <p>Since 2009</p> <p>Since 1994</p> <p>Since 28-01-1997</p> <p>1983-1986</p>

		Surathkal) <ul style="list-style-type: none"> Executive Committee member, Agartala Local Centre (Presently, Tripura State Centre) 	1999-2001
4	Dr. Manish Pal	<ul style="list-style-type: none"> Life membership of IRC since 2008 Life membership of IBC since 2010 	
5	Dr. Ratul Das	<ul style="list-style-type: none"> Member of American Society of Civil Engineers (ASCE), USA Life Member of Indian Water Resources Society (IWRS), INDIA Life Member of Indian Society for Earthquake Technology (ISET), INDIA Life member of Indian Buildings Congress (IBC), INDIA FIE, INDIA 	
6	Dr. Rama Debbarma	<ul style="list-style-type: none"> Member of American Society of Civil Engineers (ASCE), USA FIE, India 	
7	Dr. Sima Ghosh	<ul style="list-style-type: none"> The Institution of Engineers (India) (Associate member) Indian Geotechnical Society (Member) American Society of Civil Engineers (Affiliated member) 	
8	Dr. Rajib Saha	<ul style="list-style-type: none"> Associate Member, Institution of Engineers India Life Member, Indian Geotechnical Society Member, ISSMGE Society Coordinator, State Resource Institute Earthquake Training for Engineers Faculty Advisor (Students Chapter), Institution of Engineers India 	
9	Dr. Sanjay Paul	<ul style="list-style-type: none"> Member, Indian Geotechnical Society Member, Institute of Engineers (India) 	
10	Mrs. Lipika halder	<ul style="list-style-type: none"> Associate Member of IEI, Membership No. AM/093049/3 IEI 	
11	Dr. Gopinandan Dey	<ul style="list-style-type: none"> Life membership of IBC since 2010 Life membership of ICI since 2009 	
12	Dr. Joyanta Pal	<ul style="list-style-type: none"> Life membership of IBC since 2010 Life membership of ICI since 2009 	
13	Dr. Debdulal Tripura	<ul style="list-style-type: none"> Indian Society for Technical Education (ISTE), India, Life Member American Society of Civil Engineer (ASCE), USA American Society for Testing & Materials (ASTM), USA Structural Engineering Institute (SEI), USA American Concrete Institute (ACI), USA Earthquake Engineering Research Institute (EERI), USA Architectural Engineering Institute (AEI), USA National Information Centre of Earthquake Engineering (NICEE), India 	

14	Dr. Partha Pratim Sarkar	<ul style="list-style-type: none"> Life membership of IRC since 2009 The Institution of Engineers (India) 	
15	Dr. Dipankar Sarkar	<ul style="list-style-type: none"> Life membership of Indian Road Congress Life member of ISTE 	From 2008 From 2010
16	Dr. Tara Sen	<ul style="list-style-type: none"> The Institution of Engineers (India) 	
17	Dr. Susant Kumar Biswal	<ul style="list-style-type: none"> ISH NFMFP 	
18	Mr. Nilotpal Debbarma	<ul style="list-style-type: none"> ISH IWRS 	

6.4 Design and development Activities:

- In the structural Analysis laboratory, a setup for the casting of pre-stressed concrete beams has been developed.
- Existing ITS setup of Transportation Engineering Lab. Is modified to test the resilient modulus of bituminous concrete.
- A setup is prepared in Transportation Engineering Lab. To check the rate of infiltration through bituminous concrete.
- A temperature control chamber is prepared in Transportation Engineering Lab.

6.5 Research and Consultancy:

The department is engaged in performing various testing related to the Railway Department, PWD, NCCL, PMGSY projects, NBCC, CPWD, Airport Authority of India, Agricultural Department, BRO and many more. Faculties are engaged in research works and publishing research papers in different national and international reputed journals.

Sponsored Research Projects: (New/Contining)

Sl. No.	Title	Year of commencement	Funding agency	Amount (in lakhs)	Co-ordinators
1	Evaluation of a strengthening scheme for hollow compressed earth block wall using fibres, bamboo and steel bars"	2017	DST	33.4	Dr. Deb Dulal Tripura
2	Geo-scientific studies geodetic, geological, geomorphological and geotechnical of active landslide.	2017	DST	23.50	Dr. S. K. Pal & Dr. Sanjay Paul
3	Hydraulic model study of flow dynamics & bed morphology evolution of the Gomati river of	2017	DST	31.42	Dr. S. K. Biswal

	Tripura at the Titra-Ganj confluence.				
4	Development of organometallic nano-composites and scientific investigation on their functionalization towards improved adsorptive removal of toxic dyes for application in industrial wastewater treatment.	2018	CSIR	16.5	Dr. Animesh Debnath
5	Mitigating scarcity of stone aggregates in pavement construction using locally available materials & stabilization techniques.	2018	DST	24.85	Dr. Partha Pratim Sarkar & Dr. Diankar Sarkar
6	Reliability based Seismic Design of Structures incorporating Soil Structure Interaction	2016	DST	26.51	Dr. Rajib Saha

Industrial Consultancy:

A. Consultancy:

Sl. No.	Name of the faculty	Title	Industry	Amount (Rs.)
1	Dr.S K Pal, Dr. Gopinandan Dey, Dr.Sima Ghosh, Dr.Rajib Saha, Dr.Manish Pal, Dr. Sanjay Paul	To conduct Rebound Hammer Test	TCA	37760.00
2	Dr.Dipankar Sarkar, Dr.Gopinandan Dey, Dr. Partha Pratim Sarkar, Dr. Rama Debbarma, Dr. Rajib Saha, Dr. Sima Ghosh, Dr. S K Pal, Dr. Joyanta Pal	Mixed Design for M-25 Grade of Concrete	PWD	29500.00
3	Dr. Gopinandan Dey, Dr. Manish Pal, Dr. Partha Pratim Sarkar, Dr. Rama Debbarma, Dr.Rajib Saha, Dr. Sima Ghosh, Dr. S K Pal, Dr. Joyanta Pal	Mixed Design for M-30 Grade of Concrete	SIPMIU	59000.00
4	Dr. Dipankar Sarkar, Dr. Gopinandan Dey, Dr. Manish Pal, Dr. Partha Pratim Sarkar, Dr. Rama Debbarma, Dr. Rajib Saha, Dr. S K Pal, Dr. Joyanta Pal	Mixed Design for M-30 Grade of Concrete	CPWD	39766.00

5	Dr. Dipankar Sarkar, Dr. Gopinandan Dey, Dr. Partha Pratim Sarkar, Dr. Rajib Saha, Dr.S K Pal, Dr. Joyanta Pal	Mixed Design for M-25 Grade of Concrete	PWD	29500.00
6	Dr. Dipankar Sarkar, Dr. Gopinandan Dey, Dr. Partha Pratim Sarkar, Dr. Rajib Saha, Dr. Manish Pal, Dr. S K Pal, Dr. Joyanta Pal	Mixed Design for M-30 Grade of Concrete	AAI	29500.00
7	Dr. Gopinandan Dey, Dr. Rama Debbarma, Dr. Rajib Saha, Dr. Sima Ghosh, Dr. S K Pal, Dr. Joyanta Pal	Mixed Design for M-25 Grade of Concrete	PWD	29500.00
8	Dr. Gopinandan Dey, Dr. Manish Pal, Dr. Rama Debbarma, Dr. Sima Ghosh, Dr. S K Pal	Mixed Design for M-25 Grade of Concrete	IOCL	88500.00
9	Dr. Rajib Saha., Dr. Gopinandan Dey, Dr. Rama Debbarma	Mixed Design for M-25 Grade of Concrete	CPWD	29500.00
10	Dr. Gopinandan Dey, Dr. Manish Pal, Dr. Partha Pratim Sarkar, Dr. Rama Debbarma, Dr. Rajib Saha, Dr. Sima Ghosh, Dr. S K Pal	Mixed Design for M-25 Grade of Concrete	CPWD	29500.00
11	Dr. Dipankar Sarkar, Dr. Gopinandan Dey, Dr. Joyanta Pal, Dr. Partha Pratim Sarkar, Dr. Rajib Saha, Dr. S K Pal	Vetting: Sekerkote	Agartha Project	59000.00
12	Dr. Gopinandan Dey, Dr. Joyanta Pal, Dr. Manish Pal, Dr. Partha Pratim Sarkar, Dr. Rama Debbarma, Dr. Rajib Saha, Dr. S K Pal	Mixed Design for M-25 & M-30 Grade of Concrete	Sunit Das	59000.00
13	Dr. S K Pal, Dr. Debdulal Tripura, Dr. Rajib Saha, Dr. Gopinandan Dey, Dr. Manish Pal	Mixed Design for M-25 Grade of Concrete	Debasis Bhattacharya	29500.00
14	Dr. Gopinandan Dey, Dr. Debdulal Dr. Tripura, Manish Pal, Dr. Rama Debbarma, Dr. Rajib Saha, Dr. S K Pal, Dr. Sima Ghosh	Mixed Design for M-25 Grade of Concrete	Jahar Lal Sarkar	29500.00
15	Dr. Gopinandan Dey, Dr. Partha Pratim Sarkar, Dr. S K Pal, Dr. Manish Pal, Dr. Joyanta Pal	Mixed Design for M-35 Grade of Concrete	Tapes Chandra Debnath	59000.00
Total				638026.00

B. Testing:

Sl. No.	Departmental faculty	Title	Industry	Amount (Rs.)
1	Dr.S K Pal, Dr.Rama Debbarma, Dr.Gopinandan Dey, Dr.Sima Ghosh, Dr.Rajib Saha, Dr.Manish Pal, Dr.Sanjay Paul, Dr.Dipankar Sarkar, Dr.P. P. Sarkar, Dr.Debdulal Tripura, Dr.Joyanta Pal, Dr.Animesh Debnath	Routine testing of different construction materials, soil etc.	AAI, PWD, RD, Railway, Agriculture, Power Grid and many more	10,50,496.00

Total Consultancy and testing FY 2018-19 (A+B) = Rs. 16,88,522.00

Research Publications:

Total No. of papers published in Refereed International Journals	: 22
Total No. Of papers presented in National Conference	: 13
Total No. Of papers presented in International Conferences	: 11
Total No. of Book Published	: 02

In Refereed International Journals:

1. Tanaya Deb and Sujit Kumar Pal , "Study on the Uplift Behaviour and Failure Pattern of Single Belled Anchor with 3D and 2D Models in Cohesionless Soil Bed," Iranian Journal of Science and Technology, SCI Expanded, 327-343, 2364-1843, 6/8/2018.
2. Saha, A., Nama, S. and Ghosh, S. (2019) "Application of HSOS algorithm on pseudo-dynamic bearing capacity of shallow strip footing along with numerical analysis" International journal of Geotechnical Engineering, Doi: 10.1080/19386362.2019.1598015.
3. Debnath, L. and Ghosh, S. (2019), "Pseudo-static bearing capacity analysis of shallow strip footing over two-layered soil considering punching shear failure", Geotechnical and Geological Engineer, doi-10.1007/s10706-019-00866-5.
4. Das, S., Ghosh, S. & Kayal, J.R. (2018). "Liquefaction Potential of Agartala City in North East India Using GIS Platform". Bull Eng Geol Environ (2018). <https://doi.org/10.1007/s10064-018-1287-5>.
5. Arijit Saha, Apu Kumar Saha, and Sima Ghosh (2018). "Pseudodynamic Bearing Capacity Analysis of Shallow Strip Footing Using the Advanced Optimization Technique "Hybrid Symbiosis Organisms Search Algorithm" with Numerical Validation," Advances in Civil Engineering, vol. 2018, Article ID 3729360.
6. Soumya Ghosh, Mrinmoy Majumder, Manish Pal, "Application of metaheuristic algorithm to identify priority parameters for the selection of feasible location having optimum wave energy potential", Energy and Environment, 2018-05-10 | journal-article | Scopus, SSCI DOI: journals.sagepub.com/doi/abs/10.1177/0958305X17737341.
7. Priyanka Majumder ,Mrinmoy Majumder, Apu Kumar Saha," Climate Change and Urbanization Impact on Hydropower Plant by Neural Network-Based Decision-Making Methods: Identification of the Most Significant Parameter," Water Conservation Science and Engineering, 2018-05-10 | journal-article DOI: 10.1007/s41101-018-0048-4Part of ISSN: 2366-3340.
8. Amaresh Sarkar ,Mrinmoy Majumder "Determination of substrate suitability index for prioritizing substrates for crop production under protected culture",

- International Journal of Vegetable Science, 2018-08 | journal-article | Scopus DOI: 10.1080/19315260.2018.1510458 Part of ISSN: 1931-5260.
9. Soumya Ghosh, Mrinmoy Majumder, Manish Pal, "Recognising the Risk Factors of Water Treatment Plants Using a Hybrid MCDM Method", Environmental Policy and Law 2018-04-02 | journal-article DOI: 10.3233/epl-180051 Part of ISSN: 0378-777X.
 10. Chanda, D., Saha, R. and Haldar S. (2019). "Influence of Inherent Soil Variability on Seismic Response of Structure Supported on Pile Foundation", Arabian Journal for Science and Engineering, Springer, (<https://doi.org/10.1007/s13369-018-03699-1>).
 11. Acharya, V., Bashir, K., and Saha, R. (2018) "Assessment of Seismic Local Hazard of Agartala town based on Nonlinear Site Response Analysis", Journal of Disaster Advances, 11(1): 1-24 (<https://worldresearchjournals.com/disascurreissue/1.pdf>).
 12. Tripura; S. Raj; S. Mohammad and R. Das (2018). "Suitability of Recycled Aggregate as a Replacement for Natural Aggregate in Construction." American Concrete Institute (ACI) -Special Publication, SP326, 37.1-37.10.
 13. Paul, A., Chanda, N., Ghosh, S. Pal, M. "Seismic Stability of Slope Considering Rayleigh Wave," Journal of Earthquake Engineering Volume 23, Issue 1, 2 January 2019, Pages 141-159.
 14. Zachariah, J.P., Sarkar, P.P., Debnath, B., Pal, M. , "Effect of polypropylene fibres on bituminous concrete with brick as aggregate," Construction and Building Materials, Volume 168, 20 April 2018, Pages 867-876.
 15. Debnath, B., Sarkar, P.P. , "Pervious concrete as an alternative pavement strategy: a state-of-the-art review," International Journal of Pavement Engineering, 2018, ISSN: 10298436, DOI: 10.1080/10298436.2018.1554217.
 16. Anirban Brik, T.K. Bandyopadhyay and S.K. Biswal , "Computational Fluid Dynamics (CFD) Simulation of Cross-flow Mode Operation of Membrane for Downstream Processing" Recent Patents on Biotechnology, 13 (1), Scopus, 57-68, Jan-19.
 17. A. Banik, S. Dutta, T.K. Bandyopadhyay and S. K. Biswal, "Prediction of maximum permeate flux (%) of disc membrane using response surface methodology", Canadian journal of Civil Engg, 46 (4), SCI, 299-307, Apr-19.
 18. KL Bhowmik, K Deb, A Bera, A Debnath, "Interaction of anionic dyes with polyaniline implanted cellulose: Organic π -conjugated macromolecules", environmental applications Journal of Molecular Liquids, 261, SCI , 189-198, 0167-7322, July 2018.
 19. Mahashweta Bhowmik, Animesh Debnath, Biswajit Saha , ' Fabrication of mixed phase calcium ferrite and zirconia nanocomposite for abatement of methyl orange dye from aqua matrix: Optimization of process parameters'" Applied Organometallic Chemistry, 32, SCI Expanded, e4607, p 0268-2605, December 2018.
 20. Kamanashis Sarkar, Krishna Deb, Ajit Debnath, Arun Bera, Animesh Debnath, Biswajit Saha "Polaron localization in polyaniline through methylene blue dye interaction for tuned charge transport and optical properties" Colloid and Polymer Science, 296, SCI Expanded, 1927-1934, 0303-402X, December 2018.
 21. Tilottama Chakraborty, Mrinmoy Mjaumder and Ankit Khare, "Application of AHP-VIKOR and GMDH framework to develop an indicator to identify utilization potential of wave energy converter with respect to location", Int. J. Spatio-Temporal Data Science, p 98-113, February, 2019.

22. Tilotttama Chakraborty and Mrinmoy Mjaumder," Impact of extreme events on conversion efficiency of wave energy converter", Energy Science & Engineering, SCI Expanded, p 98-114, September,2019.

In Refereed National Conference:

1. Gautam, U. and Ghosh, S. (2019). "Seismic Stability Analysis of Concrete Gravity Dam", ICGGE 2019, 1-2 March 2019, MNNIT Allahabad.
2. Debnath, L. and Ghosh, S. (2018), "Seismic response of shallow strip footing with Log-spiral failure mechanism using Limit analysis", IGC 2018, 13-15 Dec 2018, IISC Bengaluru, India.
3. Hazari, S., Ghosh, S. and Sharma, R. P. (2018), "A Comparative Study of Soil Slope stability under Seismic Loading Condition", IGC 2018, 13-15 Dec 2018, IISC Bengaluru, India.
4. Deb, S., Rai, H. and Ghosh, S (2018), "Sliding Stability of Water-front Retaining wall", Geo-Hazards and Future Developments in Civil Engineering, 2-3 Nov 2018, NIT Agartala.
5. Rungta, M., Gautam, U. V. and Ghosh, G. (2018), "Liquefaction Studies of Agartala City", Geo-Hazards and Future Developments in Civil Engineering, 2-3 Nov 2018, NIT Agartala.
6. Bhoi, N., Kumar, A. and Ghosh, G (2018), "Analysis of Earthquake Catalog for Seismic Hazard Analysis Of Rajkot City Gujarat, India", Geo-Hazards and Future Developments in Civil Engineering, 2-3 Nov 2018, NIT Agartala.
7. Hazari, S., Ghosh, S. and Sharma, R. P. (2018), "Experimental and Numerical Study on Reinforced soil slope", Geo-Hazards and Future Developments in Civil Engineering, 2-3 Nov 2018, NIT Agartala.
8. Debnath, L. and Ghosh, S. (2018), "Seismic response of shallow strip footing embedded in slope with log spiral failure mechanism using limit analysis", Geo-Hazards and Future Developments in Civil Engineering, 2-3 Nov 2018, NIT Agartala.
9. Chanda, D., Saha, R., and Haldar, S. (2018). "Experimental Investigation of Piled Raft Foundation under Combined Vertical, Lateral and Moment Loads," Proceedings of the Indian Geotechnical Conference, IISC Bangalore 13 to 15 Dec., 2018.
10. Bhowmik, P. and Saha, R. (2018). "Seismic Vulnerability Assessment of Pile Foundation in Liquefied Soil Incorporating Ground motion uncertainty," Proceedings of the Indian Geotechnical Conference, IISC Bangalore 13 to 15 Dec., Page | 6 2018.
11. Kunwar, A., Roy, SD and Saha, R. (2018). "1g Shake Table Study on Seismic Behaviour of Model Structure Supported by Pile Foundation in Liquefiable Soil," Proceedings of the Indian Geotechnical Conference, IISC Bangalore 13 to 15 Dec., 2018.
12. Debnath, R. and Saha, R. (2018) "Dynamic Characteristics of Subsoil Deposit of Tripura by Nakamura Method," Proceedings of the Indian Geotechnical Conference, IISC Bangalore 13 to 15 Dec., 2018.
13. Prabhakar, S. Sangma and Tripura (2019). "Analytical behaviour of rammed earth building using SAP200." UKIERI Concrete Congress 2019, NIT Jalandhar, March 05-08, 2019.

In Refereed International Conference:

1. Tripura; S. Raj; S. Mohammad and R. Das (2018). "Suitability of Recycled Aggregate as a Replacement for Natural Aggregate in Construction." 2nd International Workshop on Durability and Sustainability of Concrete Structures. 6-7 June 2018, Izmailovo Congress Centre, Moscow, Russia. Organized by Italy ACI Chapter.
2. Ghosh, R, Debbarma, R and Chakraborty, S. (2018), "Improvement of seismic performance of open ground storey building by simple modifications", Structural Engineering Convention (SEC-2018), 19-21 December 2018, Jadavpur University.
3. Chowdhury, S. and Debbarma, R. (2018), "Seismic Response Control of Torsionally Coupled Base Isolated Structure under Near-Fault Earthquakes", 16th Symposium on Earthquake Engineering, 20-22 December 2018, IIT Roorkee, India.
4. Majumda, K. and Debbarma, R. (2018), "Vibration Control of torsionally coupled structure using Multiple Tuned Mass Dampers under real earthquake excitations", 16th Symposium on Earthquake Engineering, 20-22 December 2018, IIT Roorkee, India.
5. Chowdhury, S. and Debbarma, R. (2018), "Seismic response control of torsionally coupled structures using base isolation system", Structural Engineering Convention (SEC-2018), 19-21 December 2018, Jadavpur University.
6. Majumda, K. and Debbarma, R. (2018), "Response mitigation of Structures Using Tuned Mass Friction Dampers Under Real Earthquake Excitations", Structural Engineering Convention (SEC-2018), 19-21 December 2018, Jadavpur University.
7. Saxena Nupur, Ghosh, Rahul and Debbarma, Rama (2019), "Analysis of seismic separation gap between two adjacent reinforced concrete buildings", Int. Conf. on Sustainable Materials and structure for civil infrastructure, 14-15th March'2019, Dept. civil Engineering, UIT-RGPV, Bhopal.
8. Kayastha, Nipan Bhandar and Debbarma, Rama (2019), "seismic performance of reinforced concrete building with flat slab", Int. Conf. on Sustainable Materials and structure for civil infrastructure, 14-15th March'2019, Dept. civil Engineering, UIT-RGPV, Bhopal.
9. Saxena Nupur, and Debbarma, Rama (2019), "Non-linear Analysis of seismic separation gap between two adjacent reinforced concrete buildings", 7th Int. Conf. on contemporary Engineering and Technology ((ICCET-2019), 9-10th March' 2019.
10. Kayastha, Nipan Bhandar and Debbarma, Rama (2019), "Seismic performance of reinforced concrete building with flat slab on sloping ground", 7th Int. Conf. on contemporary Engineering and Technology ((ICCET-2019), 9-10th March' 2019.
11. Tilottama Chakraborty and Mrinmoy Mjaumder, "Indicator Based Method to select Feasible Locations for Wave Energy Converters", 7th International Conference on Advancement in Engineering, March, 2019.

Books Published:

Name of the Authors published	Title of the Books	Date of publication of the Book	Issue/ Volume No./ Page No.
U. Brahma., K. Bashir, and Rajib Saha,	Advances in Concrete, Structural, & Geotechnical Engineering Chapter 156: Dynamic Response of Soil in Light weight EPS Container with Absorbing Boundaries: An Experimental Study	2018	pg 815-819, ISBN: 978-93-87471-69-6 Bloomsbury Publishing
Rajib Saha., A. Pandey and R. P. Sharma.	Soil Dynamics and Earthquake Geotechnical Engineering Chapter : An experimental study on seismic soil-pile foundation-structure interaction in soft clay	2019	pg. 149-157, ISBN: 978- 981-13-0562-7, Under Springer

Distinguished Visitors to the Departments:

Sl. No.	Name of the Visitors and Designation	Date of Visit	Purpose of Visit
1	Dr. Anil Kumar Sharma, Professor, MANIT Bhopal	26 th -29 th April 2018	As an external examiner of M.tech vive voce and thesis evaluation (Environmental Engg.)
2	Prof. (Dr.) G. L. SivakumarBabu, Professor, IISc Bangalore	30 th April - 1 st May 2018	As an external examiner of M.tech vive voce and thesis evaluation (Geotechnical Engg.)
3	Prof. (Dr.) BhargabMaitra, Professor, IIT Kharagpur	1 st May 2018	As an external examiner of M.tech vive voce and thesis evaluation (Transportation Engg.)
4	Prof. (Dr.) Venkappayya R. Desai, Professor, IIT Kharagpur	2 nd - 3 rd May 2018	As an external examiner of M.tech vive voce and thesis evaluation (Water Resources Engg.)
5	Prof. (Dr.) Sriman Kumar Bhattacharyya, Professor, IIT Kharagpur	8 th May 2018	As an external examiner of M.tech vive voce and thesis evaluation (Structural Engg.)

Sl. No.	Name of the Visitors and Designation	Date of Visit	Purpose of Visit
6	Prof. (Dr.) Sudip Kumar Das, Professor, Calcutta University	13 th July 2018	PhD Defense Viva of Mr.Soumya Ghosh
7	Prof. (Dr.) K. K. Chattopadhyay, Professor , IIST Shibpur	3 rd Aug 2018	PhD Defense Viva of Mr. Arpan Laskar
8	Prof. (Dr.) D. K. Baidya, Professor, IIT Kharagpur	28 th Aug 2018	PhD Defense Viva of Mrs.NipaChanda
9	Prof. J. R. Kayal, Retd. Professor, Retd. Deputy Director General, Jadavpur University.	10 th -14 th Aug 2018	To take classes Seismic Science and Engineering
10	Prof. Deepankar Choudhury, Professor, IIT Bombay	2 nd - 3 rd November, 2018	Keynote Speaker for 2 days Conference
11	Prof. D. K. Baidya, Professor, IIT Khargpur	2 nd -3 rd . November, 2018	Keynote Speaker for 2 days Conference
12	Prof. Ambarish Ghosh, Professor, IIST Shibpur	2 nd -3 rd . November, 2018	Keynote Speaker for 2 days Conference
13	Prof. ManasBandyopadhyay Ex-HOD, CE, IIT KGP (Retd.)	20 th -24 th November, 2018	External Experts for 5 days workshop.
14	Prof. Ashok Deshpande, University of California, Berkeley, USA (Retd).	20 th -24 th November, 2018	External Experts for 5 days workshop.
15	Prof. Subashisa Dutta, IIT Guwahati	20 th -24 th November, 2018	External Experts for 5 days workshop.
16	Prof. Pranab Mohapatra, IIT Gandhinagar	20 th -24 th November, 2018	External Experts for 5 days workshop.

6.6 Institute –Industry Collaboration:

The department is engaged in R&D activities in collaboration with different eminent industrial houses. Both the undergraduate and postgraduate students are actively participating in these collaborative activities.

6.7 Industrial Consultancy and Sponsored Research:

Sponsored research and industrial consultancy works are being taken up by the department to find out innovative strategies to mitigate natural disasters and also for the upliftment of the society at large.

6.8 Other Activities:

- I. This department is acting as State Referral Institute (SRI) of the Disaster Management Programme.
- II. STA, Tripura in PMGSY works.
- III. Department is acting as Expert department of Water Action Plan for the state.

7.0 CHEMICAL ENGINEERING DEPARTMENT

7.1 Introduction:

The Chemical Engineering Department started its journey in the academic year of 2009-10 with sanctioned intake capacity of sixty students in undergraduate level, B.Tech in Chemical Engineering. Subsequently, the department started offering Ph.D. in Chemical Engineering from July, 2012 and M. Tech in Chemical Engineering from July 2013. Presently, the department has a student strength of 214, of which 195 are undergraduates, 09 are masters and 10 are Ph.D. research scholars.

The department presently has dynamic team of 09 faculty members. Other than teaching, the faculty members are engaged in research in various dimensions of chemical engineering which include Biofuels, Renewable energy, Nanotechnology, Environmental Engineering, Waste treatment, Catalysis and reaction engineering, Fluid dynamics and numerical simulations and many other emerging and pressing areas of chemical engineering.

In last year alone the department has published 15 research papers in international journals, 01 edited book, 02 book chapters and 08 conference proceedings. The faculties of the department received sponsored research grant worth 41.79 lakhs in last one year. The students of the department have received fellowships for research internship in India and abroad. All the students registering for placement are successful in securing in reputed companies, which include Reliance Industries, Vedanta Group, etc. The graduate students of the department have joined higher studies in reputed institutions in India.

Research laboratories are being developed according to the research interest of faculty members aiming cutting edge research activities. In addition, the department has elaborate laboratory facilities for undergraduate laboratory courses.

7.2 Faculty and their activities

Short-term Courses/Workshops/Seminar/Symposia/Conferences organized by faculty member:

Sl .No	Co-Ordinators	Title	Period
Short Term Courses			
01	Dr. Soma Nag (Nandi)	Sustainable Bio-resource Utilization- prospect of North-East India	April 11th - 13th 2018
02	Dr. Kalyan Gayen	Optimization in Engineering, NIT Agartala, India	12 th -16 th March 2018,

Short-term courses/ Workshops/ Seminar/Symposia/ Conferences/ Training attended by the faculty in Academic Institutions and Public sector Undertakings:

Sl .No	Name of Faculty	Title	Period
Workshop:			
1.	Dr. Kalyan Gayen	Industry-Academia Interaction to	5 th -6 th Sep

		meet the challenges in Process Industry for Sustainable Development, , Department of Chemical Engineering, NIT Agartala	2018
2.	Dr. Kalyan Gayen	Engineering Biology for Quantification of Biological Processes, 3-day National Seminar on Sustainable Bio-resource Utilization – Prospect of North-East India, NIT Agartala, India	11 th -13 th April 2018,
3.	Dr. Bibhab Kumar Lodh	" Optimization in Engineering "- NIT Agartala	12 th -16 th March, 2018
4.	Dr. Bibhab Kumar Lodh	" Industry-Academia Interaction to meet the challenges in Process Industries for Sustainable Development"- NIT Agartala	05 th -06 th Sep, 2018
Conference:			
1	Srimanta Ray	"An Overview of the Recent Trends in Manufacturing of Green Composites–Considerations and Challenges"	16 th -18 th March 2018
2	Srimanta Ray	"Stable carbon obtained from waste biomass for various applications – A sustainable management approach"	16 th -18 th Sep 2018
3	Srimanta Ray	"Study on bioelectricity production in microbial fuel cell - a perspective on separator materials"	22 nd -25 th Nov 2018
4	Srimanta Ray	"Energy recovery from biomass - a perspective on biomass characteristics and Pretreatment"	22 nd -25 th Nov 2018
5	Srimanta Ray	"Valorization of waste cooking oil for utilization as diesel blends in C.I. engine– performance and emission studies"	6 th -8 th Dec 2018
6	Srimanta Ray	"Effect of various pre-treatments on energy densification of waste biomass"	6 th -8 th Dec 2018
7	Srimanta Ray	"Reliability and Economic Evaluation of Autonomous Hybrid Off-Grid Power System (AHOPS)"	Dec 2018
8	Srimanta Ray	"Evaluation of Performance and Fuel Economy of Various Diesel Blends in a Compression Ignition Engine"	22 nd -24 th Feb 2019
9	Srimanta Ray	"Characterization and Evaluation of Various Biomass Residues through Ultimate & Proximate Analysis and Heating value"	22 nd -24 th Feb 2019
10	Srimanta Ray	"Comparison of Physical and Emission Properties of Blends of	22 nd -24 th Feb 2019

		Waste Vegetable Oil and Waste Vegetable oil Biodiesel with Diesel"	
11	Srimanta Ray	"Removal of Pharmaceuticals by Advanced Oxidation Processes"	22 nd -24 th Feb 2019
12	Srimanta Ray	"Adsorption of nitrogenous agro-pollutants using vegetable waste"	22 nd -24 th Feb 2019
13	Srimanta Ray	"Pretreatment of biomass for utilization in biofuel production"	22 nd -24 th Feb 2019
14	Dr. Soma Nag	"Potential study of Colocasia esculenta root for waste water treatment"	25 th -29 th June, 2018
15	Dr. Soma Nag	"Studies on potential of Artocarpus heterophyllus leaf for bioremediation of Cr(VI) and Cd(II) from aqueous solution"	27 th -29 th March, 2018
Training:			
1	Dr. Tarun Kanti Bandyopadhyay	Summer Training Program on active Learning at IIT Roorkee	28 th May -1 st June, 2018
2	Dr. Ajay Kumar Manna	Summer Training Program on active Learning at IIT Roorkee	28 th May -1 st June, 2018
3	Dr. Srimanta Ray	Professional Development Training at IIM Kashipur	21 st -25 th May, 2018
4	Dr. Kalyan Gayen	Professional Development Training, IIM Kozhikode, Kerala, India	9 th -13 th July, 2018,

7.3 Research and Consultancy:

Sponsored Research Projects:

Sl no	Title	Period	Funding Agency	Amount (in lakhs)	Co-ordinators
1	Technology development for the production of natural colorant (chlorophyll) from isolated microalgae	(2019-2022)	Science and Engineering Research Board (SERB), Department of Science and Technology (DST), India	32.23	Dr. Kalyan Gayen Asst. Professor, NIT Agartala Dr. Mriganka Sekhar Manna, Asst. Professor, NIT Agartala Dr. Tridip Kumar Bhowmick, Asst. Professor, NIT Agartala
2	Removal of methylene blue dye from aqueous medium by biochar adsorbent prepared from bio-sludge of Indian Standard Natural Rubber plant in Tripura	2019 - 2021	Department of Biotechnology (DBT)	9.46	Dr. Chandan Das, Professor, IIT Guwahati (Co-PI) Dr. Ajay Kumar Manna, Assistant Professor, NIT Agartala

Industrial Consultancy:

SI no	Name of the Faculty	Title	Industry	Amount
1	Dr. Srimanta Ray	Inspection of water quality for well operation.	ONGC, Tripura Estate	11,800.00 (Including Tax)

Research Publications

Total No. of papers published in refereed International journals:	15
Total No. of papers presented in National Conference:	06
Total No. of papers presented in International Conference:	08
Total No of Books Published :	01

In refereed international Conference:

- i. Pritam Dey, Rupak Roy, Arabinda Mukherjee, Ponnaganti Sai Krishna, Radhagovinda Koijam Srimanta Ray* Stable carbon obtained from waste biomass for various applications – A sustainable management approach 2nd World Congress on Microscopy (WCM-2018).
- ii. Ishita Kumar, Shweta Singh, Srimanta Ray* Study on bioelectricity production in microbial fuel cell - a perspective on separator materials International Conference on Biotechnological Research and Innovation for Sustainable Development (BioSD-2018).
- iii. Rupak Roy, Srimanta Ray* Energy recovery from biomass - a perspective on biomass characteristics and pretreatment International Conference on Biotechnological Research and Innovation for Sustainable Development (BioSD-2018) 203 2018
- iv. Pritam Dey*, Srimanta Ray Valorization of waste cooking oil for utilization as diesel blends in C.I. engine– performance and emission studies International Conference on Advances and Challenges for Sustainable Eco System (ICACSE-2018) 32 2018
- v. Rupak Roy*, Srimanta Ray Effect of various pre-treatments on energy densification of waste biomass International Conference on Advances and Challenges for Sustainable Eco System (ICACSE-2018) 32-33 2018.
- vi. Debika Debnath*, Srimanta Ray, Ajoy Kumar Chakraborty Reliability and Economic Evaluation of Autonomous Hybrid Off-Grid Power System (AHOPS) International Conference on Computational Intelligence & Internet of Things (ICCIIoT-2018) 2018.
- vii. Shilpi Biswas, Abhijit Mondal and Soma Nag, "Potential study of Colocasia esculenta root for waste water treatment", International Conference on Environmental Science and Technology, 25th -29th June 2018; Houston, Texas, USA.
- viii. Soma Nag and Abhijit Mondal, "Studies on potential of Artocarpus heterophyllus leaf for bioremediation of Cr(VI) and Cd(II) from aqueous solution", Annual Conference in Engineering and Information Technology; 27th -29th March, 2018 Kyoto, Japan.

In proceeding of national conference:

- i. Pritam Dey*, Srimanta Ray, Evaluation of Performance and Fuel Economy of Various Diesel Blends in a Compression Ignition Engine National Conference on Sustainable Infrastructure Development and Management (SIDM-2019)
- ii. Rupak Roy*, Srimanta Ray Characterization and Evaluation of Various Biomass Residues through Ultimate & Proximate Analysis and Heating value National Conference on Sustainable Infrastructure Development and Management (SIDM-2019).
- iii. Abhishek Newar, Pritam Dey*, Srimanta Ray Comparison of Physical and Emission Properties of Blends of Waste Vegetable Oil and Waste Vegetable oil Biodiesel with Diesel National Conference on Sustainable Infrastructure Development and Management (SIDM-2019).
- iv. Nimrica Marak*, Srimanta Ray Removal of Pharmaceuticals by Advanced Oxidation Processes National Conference on Sustainable Infrastructure Development and Management (SIDM-2019).
- v. Vikas Vyas*, Srimanta Ray Adsorption of nitrogenous agro-pollutants using vegetable waste National Conference on Sustainable Infrastructure Development and Management (SIDM-2019).
- vi. Aishwarya Mukhopadhyay*, Srimanta Ray Pretreatment of biomass for utilization in biofuel production National Conference on Sustainable Infrastructure Development and Management (SIDM-2019).

In proceeding of international Journals:

- i. Edward J Perkins, Kalyan Gayen, Jason E Shoemaker, Philipp Antczak, Lyle Burgoon, Francesco Falciani, Steve Gutsell, Geoff Hodges, Aude Kienzler, Dries Knapen, Mary McBride, Catherine Willett, Francis J Doyle III, Natàlia Garcia-Reyero. "Chemical hazard prediction and hypothesis testing using quantitative adverse outcome pathways", ALTEX-Alternatives to animal experimentation, 36, pages 91-102, 2019/1/8
- ii. Debika Choudhury, Kalyan Gayen, Supreet Saini, "Dynamic control of arabinose and xylose utilization in E. coli", The Canadian Journal of Chemical Engineering, 96, Pages 1881-1887, 2018/9
- iii. Dibyajyoti Halder, Kalyan Gayen, Dwaipayan Sen, "Enumeration of monosugars' inhibition characteristics on the kinetics of enzymatic hydrolysis of cellulose", 72, Pages 130-136, 2018/9/1
- iv. Saumyakanti Khanra, Madhumanti Mondal, Gopinath Halder, ON Tiwari, Kalyan Gayen, Tridib Kumar Bhowmick, "Downstream processing of microalgae for pigments, protein and carbohydrate in industrial application: A review", Food and bioproducts processing, 110, Pages 60-84, 2018/7/1
- v. Dibyajyoti Halder, Dwaipayan Sen, Kalyan Gayen, "Enzymatic hydrolysis of banana stems (Musa acuminata): Optimization of process parameters and inhibition characterization", International journal of green energy, 15, pages 406-413, 2018/5/3
- vi. Sudip Kumar Das, Soma Nag, Nirjhar Bar, "Sustainable bioremediation of Cd(II) in fixed bed column using green adsorbents: Application of Kinetic models and GA-ANN technique", Environmental Technology & Innovation, 13, Pages 130-145, 2019
- vii. Sudip Kumar Das, Soma Nag, Abhijit Mondal, D.N.Roy, Nirjhar Bar, "Sustainable bioremediation of Cd(II) from aqueous solution using natural waste materials: Kinetics, equilibrium, thermodynamics, toxicity studies and

- GA-ANN hybrid modelling", Environmental Technology & Innovation, 11, Pages 83-104, August 2018
- viii. Payel Choudhury, Rup Narayan Ray, Tarun Kanti Bandyopadhyay, "To study the effect of glucose feeding rate for sustainable voltage generation from microbial fuel cell containing wastewaters", International Journal of Renewable Energy Technology, 9, Pages 191-197, 2018
- ix. Anirban Banik, Sushant Kumar Biswal, Mrinmoy Majumder, Tarun Kanti Bandyopadhyay, "Development of an adaptive non-parametric model for estimating maximum efficiency of disc membrane", International Journal of Convergence Computing, 3, Pages 3-19, 2018
- x. Uma Shankar Prasad Uday, Saswata Goswami, Konga Gopikrishna, Tarun Kanti Bandyopadhyay, Biswanath Bhunia, "Identification of markers at various stages of batch fermentation and improved production of xylanase using *Aspergillus niger* (KP874102.1)", 3 Biotech, 8, Pages 337, 2018/8/1
- xi. Suman Debnath, Anirban Banik, Tarun K Bandyopadhyay, Apu Kumar Saha, "CFD and Optimization Study of Frictional Pressure Drop Through Bends", Recent patents on biotechnology, 13, Pages 74-86, 2019/3/1
- xii. Anirban Banik, Tarun K Bandyopadhyay, Sushant Kumar Biswal, "Computational Fluid Dynamics (CFD) Simulation of Cross-flow Mode Operation of Membrane for Downstream Processing", Recent patents on biotechnology, 13, Pages 57-68, 2019/3/1
- xiii. Tania Paul, Abhijit Mondal, Tarun K Bandyopadhyay, "Isolation, Purification, Characterisation and Application of L-ASNase: A Review", Recent patents on biotechnology, 13, Pages 33-44, 2019/3/1
- xiv. Sudhansu Sandhibigraha, Sagnik Chakraborty, Tarunkanti Bandyopadhyay, Biswanath Bhunia, "A kinetic study of 4-chlorophenol biodegradation by the novel isolated *Bacillus subtilis* in batch shake flask", Environmental Engineering Research, 25(1), pages 62-70, 2019/3/14
- xv. Onkar Nath Tiwari, Biswanath Bhunia, Abhijit Mondal, Konga Gopikrishna, Thingujam Indrama, "System metabolic engineering of exopolysaccharide-producing cyanobacteria in soil rehabilitation by inducing the formation of biological soil crusts: A review", Journal of cleaner production, 211, , Pages 70-82, 20/02/2019

Books Published:

<i>Name of the authors published</i>	<i>Title of the Books</i>	<i>Date of Publication of the book</i>	<i>Issue/Volume No/ Page No</i>
Kalyan Gayen, Tridib Kumar Bhowmick, Sunil Kumar Maity	Sustainable Downstream Processing of Microalgae for Industrial Application	5/9/2019	-

Distinguished Visitors to the Department:

Sl No	Name of the Visitors and Designation	Date of Visit	Purpose of Visit
01	Dr. Bhim Chandra Meikap Professor, Dept. Of Chemical Engg, IIT Kharagpur	09th -10th May 2018	To discuss regarding the M.Tech related

			matters
02	Dr. Arunava Chowdhury Chief Engineer(Production) ONGC Tripura Asset.	23rd 2018	For taking grand viva of B. Tech final year students
03	Dr. Bhim Chandra Meikap Professor, deptt. Of Chemical Engg, IIT Kharagpur	09th -10th Oct 2018	Syllabus review for B.Tech program
04	Prof. V.S Moholkar Professor of Chemical Engineering, IIT Guwahati	09th -10th Oct 2018	Syllabus review for B.Tech program

7.4 Institute – Industry Collaboration:

Internship organized for students in various industries including ONGC, IOCL, etc.

7.5 Other Activities:

- i) Department organized a Farewell ceremony for the outgoing final year UG and PG students.
- ii) Curriculum of the UG program thoroughly revised including structure and contents of several theory and laboratory courses
- iii) Started a course named Extra-academic activity to promote development of employability skills and students.
- iv) Conducting a course on Entrepreneurship Management at UG and PG level to promote Entrepreneurship among students.

8.0 CHEMISTRY DEPARTMENT

8.1 Introduction:

The Department of Chemistry was started since the inception of the Institute. Over the years, the Department has developed good infrastructure to run the under-graduate and post-graduate courses, viz., 1-year Chemistry course for BTech, 5-year dual BS-MS, and 2-year MSc. The Department believes in and supports the study, teaching and understanding of chemical principles across a wide spectrum of areas: inorganic, organic, physical, nanotechnology. Dedicated to excellence in graduate and undergraduate education, the chemistry faculty teaches all lab sections and evaluates and grades all assignments. The course curriculum and syllabus was formulated with the help of eminent Professors from reputed institutions of our country like IISc. Bangalore, IIT Kharagpur, IIT Guwahati, Jadvpur University, Saha Institute of Nuclear Physics, Kolkata, etc. The Department also offers PhD program in Chemistry. The faculty members are actively engaged in research in various frontier areas of chemical sciences including natural product chemistry, organic synthesis, organometallic chemistry, coordination chemistry, green chemistry, bioinorganic, nanotechnology and so on. The Department has published 05 papers in reputed international journals under the publishers such as RSC, Springer, Wiley, Elsevier, etc. The Department has got a project of approx. 30 lakhs from DAE-BRNS, Mumbai.





8.2 Academic Programme

The Department of Chemistry carry out B.Tech, 5-year BS-MS Dual degree, 2 years M.Sc. courses as well as PhD in Chemistry. The Department offers Engineering Chemistry for first and second semester students of various engineering branches run in our institute. The 2 yrs. M.Sc and Ph.D programme started in the year 2010, while 5 year integrated BS-MS dual degree programme started from 2013 academic session. At present, the Department has intake capacity of 10 students per session for M.Sc programme and 20 students per session for dual BS-MS programme. Department has also enrolled for Ph.D. programme in Chemistry every year depending on the availability of seats. In terms of human resource, the Department has at present a total of 12 faculty members, 12 research scholars, 19 MSc students (1st and 2nd year), 56 BS-MS students (1st - 5th year).

8.3 Faculty and their Activities:

Short-Term Courses/ Workshops/ Seminar/ Symposia/ Conferences organized by the faculty members:

Sl. No.	Co-ordinators	Title	Period
1.	Dr. Keisham Surjit Singh and Dr. Mitali Saha	Computational Study: Applications in Frontier Chemistry	26-27 September 2018

Fellowships of Academics and Professional Societies:

Sl. No.	Name of Faculty	ISTE/ CSI and others	Level	Year
1.	Dr. Saroj Kr.Das	Indian Chemical Society	Life Member	1995
2.	Dr. Tarun K. Misra	Indian Science Congress Association; Indian Chemical Society	Life Member	2013 2014
3.	Dr. K. S. Singh	Indian Science Congress Association Indian Chemical Society	Life Member Life Member	2007 2016
4.	Dr. Mitali Saha	Indian Carbon Society Indian Chemical Society	Life member Life member	2011 2016

8.4 Design and Development Activities:

The Department has set-up the Molecular Modelling Laboratory for undergraduate and postgraduate students of different courses to introduce in a simple way, the hierarchy of computational modelling methods used now a days.

8.5 Research and Consultancy:

Sponsored Research Projects:

Sl. No.	Title	Period	Funding Agency	Amount (in lakhs)	Co-ordinators
1.	Spatial distribution of uranium and associated water quality parameters of West Tripura, Sipahijala Districts of Tripura.	2019-2021	DAE-BRNS	30 lakhs	Dr. Tarun Kumar Misra

Research Publications:

Total No. of papers published in Referred International Journals: 05

In Refereed International Journals:

1. M. Majumdar, S. C. Biswas, R. Choudhury, P. Upadhyay, A. Adhikary, D. N. Roy, and T. K. Misra, Synthesis of Gold Nanoparticles Using Citrus macroptera Fruit Extract: Anti-Biofilm and Anticancer Activity, Chemistry select, 4, 5714-5723, (2019).

2. R. Choudhury, M. Majumdar, P. Biswas, S. Khan, T. K. Misra, Kinetic study of functionalization of citrate stabilized silver nanoparticles with catechol and its anti-biofilm activity, *Nano-Structures & Nano-Objects*, 19, 100325(1-8), 2019.
3. R. Choudhury, M. Majumdar, T. K. Misra, Spectroscopic investigation of aggregation kinetics and catalytic activity of gluconate and N-(1-naphthyl)ethylenediammonium stabilized silver nanoparticles, *Nano-Structures & Nano-Objects*, 19, 100346 (1-9), 2019.
4. P. Mandal, M. Saha, Low-temperature synthesis of graphene derivatives: mechanism and characterization, *Chemical Papers*, 73(8), 1997-2006, 2019.
5. J. Debbarma, M.J.P. Naik, M. Saha, From Agrowaste to Graphene Nanosheets: Chemistry and Synthesis, *Fullerenes, Nanotubes and Carbon Nanostructures*, 27(6), 482-485, 2019.

Distinguished Visitors to the Departments:

Sl. No	Name of the Visitors and Designation	Date of Visit	Purpose of Visit
1.	Prof. P.K.Chattaraj, IIT Kharagpur	26-27 September 2018	Invited Speakers of Theoretical and Computational Chemistry
2.	Prof. B.K.Kanungo, SLIET, Punjab	26-27 September 2018	Invited Speakers of Computational Chemistry
3.	Prof. Ayan Datta, IACS, Kolkata	26-27 September 2018	Invited Speakers of Computational Chemistry

9.0 COMPUTER SCIENCE AND ENGINEERING DEPARTMENT

9.1 Introduction:

The Department of Computer Science and Engineering of National Institute of Technology Agartala offers undergraduate and postgraduate programme & PhD Programme in Computer Science and Engineering where students are encouraged to acquire knowledge with an integrated thinking on education, research & development, application and training. The students are provided knowledge to understand the fundamental of basic sciences and humanities, knowledge in inter-disciplinary areas, innovation, problem solving abilities, intellectual, honest and professional ethics and capacity for team work in national and international environment. The first undergraduate batch rolled out in the year 2003. Since its inception in 1999, the department has always been recognized for excellence.



9.2 Academic Programme :

This Institute offers courses of study and facilities for research leading to B.Tech, M.Tech, MCA and Ph.D under Computer Science & Engineering.

The department currently offers the following programmes:-

Under Graduate Programmes:

- B.Tech in Computer Science & Engineering (Total 8 Semesters / 4 years).

Post Graduate Programmes:

- M.Tech in Computer Science & Engineering (Total 4 Semesters / 2 years)
- MCA (Total 6 Semesters / 3 years)
- Ph.D

9.3 Faculty and their Activities:

Short-Term Courses/ Workshops/ Seminar/ Symposia/ Conferences organized by the faculty members:

Sl. No.	Co-ordinators	Title	Period
Workshop/FDP/Conference			
1.	Nirmalya Kar	5 days National Workshop on Cyber Security	July 16-20, 2018
2.	Nirmalya Kar, Suman Deb	5 days Workshop on Emerging Technologies, Innovation Incubation and Entrepreneurship Development	March 11-15, 2019
3	Suman Deb	Five Days AICTE Sponsored Workshop On "Artificial Intelligence"	22nd Feb- 26th Feb 2019
		International Conference on Computational Intelligence & IoT (ICCIoT), ELSEVIER ,	14-15 December 2018.
		"5 DAYS NATIONAL WORKSHOP ON HUMAN COMPUTER INTERACTION" at NIT Agartala under the aegis of TEQIP-III.	April 23-27, 2018
		"5 DAYS NATIONAL WORKSHOP ON CYBER SECURITY" at NIT Agartala under the aegis of TEQIP-III	June 16-20, 2018
4	Nirmalya Kar, Suman Deb, Dr. Ashim Saha	5 Days FDP on High Performance Computing	Sep 29 – Oct 02, 2018

Short-Term Courses/ Workshops/ Seminars/ Symposia/ Conferences/ Training attended by the Faculty in Academic Institutions and Public Sector Undertakings:

Sl. No.	Name of Faculty	Title	Period
Workshop:			
1.	Dr. Mrinal Kanti Deb Barma	One day regional workshop on Good Governance at GUIST, Jalukbari, Guwahati, India.	29th January 2019
2	Dr. Ashim Saha	FDP on "Data Analytics Techniques with Python"	4 -8 Sep 2018

3.	Priyanka Sarkar	Emerging Technologies, Innovation, Incubation and Entrepreneurship Development	11.03.2019-15.03.2019
4.	Priyanka Sarkar, Kishore Kr. Dhar	AICTE Training and Learning(ATAL) Academy Workshop on “Artificial Intelligence (AI)”	22.02.2019-26.02.2019
5	Tannistha Pal, Kishore Kr. Dhar	Workshop on Human Computer Interaction	23 rd -27 th April, 2018
		Workshop on Cyber Security	16 th - 20 th July, 2018
Conference:			
1.	Suman Deb	ICIIOT 2018 International Conference on Computational Intelligence & IoT (ICCIIoT) 2018	14-15 December 2018.
2.		ICCIDS 2018 International Conference on Computational Intelligence and Data Science 7	7-8th April, 2018
3	Tannistha Pal	9th IEEE International Conference on Computing, Communication and Networking Technologies (ICCCNT), IISc Bangalore	10 th - 12 th July, 2018
Training:			
1.	Smita Das, Anupam Jamatia, Tribid Debbarma, Nikhil Debbarma	TEQIP – III sponsored “Summer Training Program on Active Learning” at IIT Roorkee, Uttarakhand, India.	28 th May - 01 st June, 2018
2.	Nirmalya Kar, Suman Deb	FDP on "Data Analytics Techniques with Python"	4 th Sep-8 th Sep, 2018
3	Suman Deb	National conference on “Smart and Sustainable City Infrastructure” ,	29 th Nov 2018
Short term Course:			
1	Tannistha Pal	Faculty Development Program on High Performance Computing	Oct 29 th - Nov 2 nd , 2018

Honours and Awards obtained:

Sl. No.	Name of Faculty	Name of Award	Awarded by	Award for	Date
1.	Suman Deb	Designer of IIIT Agartala Logo, for which rewarded Cash Prize and appreciation letter.			
2		Designer of NIT Agartala Logo. Awarded best oral presenter during Current Trends in Scientific research observed on Research Scholars Day 2018 at NIT Agartala.	NIT Agartala		2018

Fellowships of Academics and Professional Societies:

Sl. No.	Name of Faculty	Level	Year
ISTE/ CSI and others			
1	Dr Mrinal Kanti Debbarma	IEEE-94847677 IEI-M-156579-0 SCIEI-20140822001 IISRO-2013-1198 IEANG-111147	
2	Mr.Suman Deb	IEEE-922312 CSI Life Member- I1503211 ACM-1814890 IEI(Institute of Engineers India)- Member M-1561345 ISTE(Indian Society for Technical Education) -Life Member LM 113552 (IAENG) International Association of Engineers - 126721 IACSIT (International Association of Computer Science and Information Technology)- 80351280	
3	Mr.Tribid Debbarma	IEEE (92352638) ACM (8767872)	
4	Mr.Dwijen Rudra Pal	IEI(India)-AM136412-2 IACSIT-80480345203 UACEE-AM1003930	
5	Mr.Kunal Chakma	ACM Professional Member (9695269)	
6	Mr.Nirmalya Kar	IEEE-80445678 ACM-6617833	
8	Mr.Tannistha Pal	IEEE-93521960 IEI(Institute of Engineers India)- Member AM1600853) (IAENG) International Association of Engineers - 156638	

9.4 Research and Consultancy:

Computer Science and Engineering Department is rich in both Industrial Consultancy and Sponsored Research project. Presently Department is engaged in 1(one) DST sponsored research project (Coordinator-Dr. Ashim Saha) and 4(four) AICTE, TEQIP and Tripura Govt (Faculty in charge- Mr. Suman Deb), based Industrial Consultancy Programme.

Sponsored Research Projects:

Sl. No.	Title	Period	Funding Agency	Amount (in lakhs)	Co-ordinators
1	"IoT based Traffic Monitoring System for hilly roads of North-East India"	2 Years	DST	10.17 Lakh on initial grant	Dr. Ashim Saha

Industrial Consultancy:

Sl. No.	Name of the Faculty	Title	Industry	Amount
1	Mr.Suman Deb	2018: Gram Panchayet Development Plan(GPDP)android based mobile data collection application.		2,50,000/-
2		AICTE sponsored National Workshop		1,62,000/-
3		AICTE sponsored National Workshop Grant		1,84,000/-
4		TEQIP sponsored National workshop		1,24,000/-

Research Publications:

Total No. of papers published in Refereed International Journals :20
 Total No. of papers presented in International Conferences :16
 Total No. of Books published :04

In Refereed International Journals:

1. Smita Das & Dr. Mrinal Kanti DebBarma, Computational geometry based coverage hole-detection and hole-area estimation in wireless sensor network, Journal of High Speed Networks, 1875-8940, Vol- 24, Issue 04, 281-296, October 2018.
2. Smita Das & Dr. Mrinal Kanti DebBarma, Node Position Estimation for Efficient Coverage Hole- Detection in Wireless Sensor Network, Computación y Sistemas, 1405-5546, Vol-23, Issue 01, Pp 185 – 195, March 2019.
3. Arindam Deb Nath, M. K Deb Barma, Energy efficient Dynamic and Self-optimized Routing In Wireless Sensor Network Based on Ant colony Optimization, International Journal of Networking and Virtual Organisations, 1741-5225, Vol. 20, No.2, 184-194, January 2019.
4. Jamatia, A., Das, A., Gambäck, B." Deep learning-based language identification in English-Hindi-Bengali code-mixed social media corpora" Journal of Intelligent Systems, Volume 28, Issue 3, Pages 399–408, ISSN (Online) 2191-026X, ISSN (Print) 0334-1860, DOI: <https://doi.org/10.1515/jisys-2017-0440>. Published Online: 2018-03-13 Published in Print: 2019-07-26
5. Dwijen Rudrapal, Amitava Das, Semantic Role Labeling of English Tweets Through Sentence Boundary Detection, International Journal of Intelligent Information and Database Systems, 1751-5866, Vol.11 No.4, 225-235, December 2018.
6. Dwijen Rudrapal, Amitava Das, Semantic Role Labeling of English Tweets, Computación y Sistemas, 1405-5546, Vol-22, No-3, 739-746, December 2018
7. Dwijen Rudrapal, Amitava Das, Baby Bhattacharya, Recognition of Partial Textual Entailment for Indian Social Media Text, Computación y Sistemas, 1405-5546, Vol-23, No-1, 143-152, April 2019.
8. Abhrajyoti Das, TanuSatija, ShradhaZilpe, JanagamaKavya and Nirmalya Kar A Study of Threat Model on Mobile Wallet Based Payment System.

- Elsevier SSRNJournal of Computational Intelligence &IoT, 1556-5068 Vol- 2 Issue 04 Pp 760-765March 2019
9. Sourit Chakraborty and Nirmalya Kar, An Approach Towards Linguistic Steganography, Elsevier SRNJournal of Computational Intelligence &IoT, 1556-5068, Vol- 2, Issue 04, Pp 766-770, March 2019.
 10. Deb, Suman and Sharan, Alpna and Chaturvedi, Shivangi and Arun, Ankit and Gupta, Aayush, Interactive Dance Lessons through Human Body Pose Estimation and Skeletal Topographies Matching (2018). International Journal of Computational Intelligence & IoT, Vol. 2, No. 4, 2018. Available at SSRN: <https://ssrn.com/abstract=3361142>
 11. Deb, Suman and Saha, Nisha, Designing a BYOD Supported Platform for Formative Learning of Student and Predictive Analysis of Their Performance in Classroom Environment (2018). International Journal of Computational Intelligence & IoT, Vol. 2, No. 4, 2018. Available at SSRN: <https://ssrn.com/abstract=3361139>
 12. Saha, Subham and Saha, Sandipan and Deb, Suman, Designing a Mobile based Non-Verbal Classroom Interaction System (2018). International Journal of Computational Intelligence & IoT, Vol. 2, No. 3, 2018. Available at SSRN: <https://ssrn.com/abstract=3361038>
 13. Deb, Suman and Nama, Tutan and Saha, Sandipan, Designing a Tangible User Interface(TUI) Using Leap Motion for Elementary Math Learning (2018). International Journal of Computational Intelligence & IoT, Vol. 2, No. 4, 2018. Available at SSRN: <https://ssrn.com/abstract=3361137>
 14. Debnath, Baibhab and Ghosh, Arunabha and Deb, Suman, Optical Quick Response As an IoT Trigger for Device Interaction and Access Mechanism (2018). International Journal of Computational Intelligence & IoT, Vol. 2, No. 3, 2018. Available at SSRN: <https://ssrn.com/abstract=3361045>
 15. Rahul Raj, Suman Deb, Paritosh Bhattacharya, Brain Computer Interfaced Single Key Omni Directional Pointing and Command System: a Screen Pointing Interface for Differently-abled Person, Procedia Computer Science, Volume 133, 2018, Pages 161-168, ISSN 1877-0509, <https://doi.org/10.1016/j.procs.2018.07.020>. (<http://www.sciencedirect.com/science/article/pii/S1877050918309645>)
 16. Suman Deb, Himanshu Singh, Behara Lakshmi Rohini, Dheeraj Mishra, Rohit Kumar Meena, Paritosh Bhattacharya, "BYOD Supported Crowd Interaction System", Procedia Computer Science, Volume 132, 2018, Pages 1586-1591, ISSN 1877-0509, <https://doi.org/10.1016/j.procs.2018.05.123>. (<https://www.sciencedirect.com/science/article/pii/S187705091830855X>)
 17. Suman Deb, Suraksha, Paritosh Bhattacharya, "Augmented Sign Language Modeling (ASLM) with interaction design on smartphone - an assistive learning and communication tool for inclusive classroom", Procedia Computer Science, Elsevier, Volume 125, 2018, Pages 492-500 DOI: <https://doi.org/10.1016/j.procs.2017.12.064>—Available online: 9 January 2018— Indexed in SCOPUS.
 18. T. Pal, "A fast method for defogging of outdoor visual images", International Journal of Recent Advances in Computer Science and Communications', 2019. Doi:10.2174/2213275912666190819105422
 19. Kunal Chakma, Amitava Das and Swapan Debbarma, Deep Semantic Role Labeling for Tweets using 5W1H: Who, What, When, Where, Why and How in Computación y Sistemas, Vol. 23, No. 3, 2019, pp. 751-763, DOI: 10.13053/CyS-23-3-3253, ISSN 2007-9737

20. Kunal Chakma and Amitava Das, A 5W1H Based Annotation Scheme for Semantic Role Labeling of English Tweets in *Computación y Sistemas*, Vol. 22, No. 3, 2018, pp. 747–755, DOI: 10.13053/CyS-22-3-3016, ISSN 2007-9737

In Proceedings of International Conference:

1. Smita Das & Dr. Mrinal Kanti DebBarma, Hole Detection in Wireless Sensor Network: A Review 5th Springer International Conference on Advance Computing, Networking and Informatics (ICACNI 2017) NIT Goa, India, AISC Series, Vol – 708, 87-96, June 01st to June 03rd 2017, November 2018.
2. Arindam Deb Nath, Vaibhav K. Kushwaha, Mrinal. Kanti DebBarma Dynamic Routing Protocol based on Ant Colony Optimisation in VANET International Conference on Computational Intelligence and Internet of Things” NIT Agartala Vol. 1 No. 2--14-15 December, 2018, Mar, 2019.
3. Rajib Chowdhuri, Mrinal Kanti Deb Barma Investigating Performance of Routing Protocols for Wireless Sensor Networks International Conference on Computational Intelligence and Internet of Things” 14-15 December, 2018 NIT Agartala Vol. 1 No. 2---14-15 December, 2018, Mar, 2019
4. Sharmistha Majumder, Mrinal Kanti DebBarma Deep Learning Based Sleep Detector Sensor Prototype for Avoiding Road Traffic Accident International Conference on Computational Intelligence and Internet of Things” 14-15 December, 2018 NIT Agartala Vol. 1 No. 2--14-15 December, 2018, Mar, 2019
5. Habila Basumatary, Mrinal Kanti DebBarma, Analysis of Mobile Sink Based Routing Protocols in Wireless Sensor Networks International Conference on Computational Intelligence and Internet of Things” 14-15 December, 2018 NIT Agartala Vol. 1 No. 2--14-15 December, 2018, Mar, 2019
6. T.Pal and M.K. Bhowmik, "Visibility Enhancement of Fog Degraded Image Sequences on SAMEER TU Dataset using Dark Channel Strategy" 9th IEEE International Conference on Computing, Communication and Networking Technologies (ICCCNT), IISc Bangalore, ISBN No. 978-1-5386-4430-0, 10th -12th July 2018.
7. T.Pal and M.K. Bhowmik, "Quality Enhancement of Foggy Images Comprising of Large Sky Region on SAMEER TU Dataset" 9th IEEE International Conference on Computing, Communication and Networking Technologies (ICCCNT), IISc Bangalore, ISBN No. 978-1-5386-4430-0, 10th -12th July 2018.
8. T.Pal, A. Datta, T. Das, I.Das, D. Chakma, "A Review on Image Defogging Techniques based on Dark Channel Prior", Springer CCIS Series, 2nd Int. Conf. On Computational Intelligence, Communications and Business Analytics, pp. 321- 332, Kalyani Govt. Engg. College, 27th -28th July, 2018.
9. T. Pal, A. Deb, A. Roy and P. DebBarma, "Recent Research Trends and Methods used in Moving Object Detection", Proc. Springer (AISC Series), 3rd Int. Conf. on Intelligent Communication, Control and Devices, pp. 265-273, UPES University, 21st –22nd December 2018 .
10. Anurag De, Dr. Ashim Saha, Mamia Saha, Role of Open Hardware and IOT in implementing Home Automation using a case study, International

- Conference on Computational Intelligence and IoT (ICCIIoT) December 14-15, 2018, NIT Agartala
11. Akanksha Sharma, Dr. Ashim Saha, A Comparative Study of Different Approaches Used For Sentiment Analysis from Customer Reviews, International Conference on Computational Intelligence and IoT (ICCIIoT) 2018, December 14-15, 2018, NIT Agartala
 12. Jyoti Raj, Amirul Hoque, Dr. Ashim Saha, Various Methodologies for Micro-Video Recommendation System: A Survey, International Conference on Computational Intelligence and IoT (ICCIIoT), December 14-15, 2018, NIT Agartala
 13. Tribid Debbarma and K Chandrasekaran. A Review on Mobile Cloud Computing Interoperability Issues and Challenges. International Conference on Inventive Communication and Computational Technologies (ICICCT 2019), at Gnanamani College of Technology, Namakkal, Tamil Nadu, 29-30, April 2019 (Springer)
 14. Tribid Debbarma and K Chandrasekaran. Middleware Frameworks for Mobile Cloud Computing, Internet of Things and Cloud of Things: A Review. 4th International Conference on Recent Advancements in Computer Communication and Computational Sciences at ACERC, Ajmer, Rajasthan, 16-17 August 2019. (Springer).
 15. Kunal Chakma, Rohit Chakraborty and Shubhanshu Kumar Singh, Finding Correlation Between Twitter Influence Metrics and Centrality Measures for Detection of Influential Users in the 5th International Conference on Computational Intelligence in Data Mining (ICCIDM – 2018) December 15-16, 2018, Burla, Odisha, India. Published in Computational Intelligence in Data Mining, Springer, Vol: 990, pages:51-62
 16. Tribid Debbarma, K Chandrasekaran, Sustainable Software Development with a Shared Repository, Recent Findings in Intelligent Computing Techniques, Advances in Recent Findings in Computing Proceedings of the 5th ICACNI 2017, Volume 3, pages 321-331, eBook ISBN :978-981-10-8633-5, December-2018, Springer

Books Published:

Name of the Authors published	Title of the Books	Date publication of the Book	Issue/ Volume No./ Page No.
Mr. Suman Deb Bhattacharya P.	Enhancing Personalized Learning with Interactive Note Taking on Video Lectures—An Analysis of Effective HCI Design on Learning Outcome.	2018	Communications in Computer and Information Science, vol 827. DOI https://doi.org/10.1007/978-981-10-8657-1_42 Print ISBN 978-981-10-8656-4 Online ISBN 978-981-10-8657-1 Publisher Name Springer, Singapore. https://www.springerprofessional.de/en/enhancing-personalized-learning-with-interactive-note-taking-on-/15832976

Distinguished Visitors to the Departments:

Sl. No.	Name of the Visitors and Designation	Date of Visit	Purpose of Visit
1	Prof. Jayanta Mukhopadhyay, Professor, IIT Kharagpur	09/11/2018	B.Tech syllabus review
2	Prof. Kaoru Sakatani, Professor, Nihon University, Japan	14-15 Dec 2018	International Conference on Computation Intelligence & IoT

9.5 Institute-Industry Collaboration:

Institute has a MoU with C-DAC. Mr Nirmalya Kar of Dept. of CSE is the Coordinator of C-DAC centre in NIT Agartala. The high-end career oriented IT training programmes designed and developed by the Advanced Computing School of C-DAC will assist the students in moulding their skills based on the requirements of the IT industry thereby providing an advantage in placements and in their career path. The syllabi of the programmes are designed based on industry inputs and the IT training programmes have been developed taking the latest technologies in consideration.

Industrial Consultancy and Sponsored Research

Computer Science and Engineering Department is rich in both Industrial Consultancy and Sponsored Research project. Presently Department is engaged in 1(one) DST sponsored research project (Coordinator-Dr. Ashim Saha) and 4(four) AICTE, TEQIP and Tripura Govt (Faculty in charge- Mr Suman Deb), based Industrial Consultancy Programme.

9.6 Other Activities:

In UG(CSE) 100% placement is recorded in 2018-19.

Sl No	Academic Year	Programme	Total Students registered	Total eligible students	Placement percentage as per registered students	Placement percentage as per eligible students	Minimum (LPA)	Maximum (LPA)
1	2018-19	UG(CSE)	79	79	100%	100%	3	26

*As per CCD record

10.0 ELECTRICAL ENGINEERING DEPARTMENT

10.1 Introduction:

Department of Electrical Engineering is one of the enriched and primogenital branches of engineering of the National Institute of Technology (NIT), Agartala. This Department has been fulfilling the need of the state of Tripura as well as the nation by developing technical manpower in Electrical Engineering field since its inception in 1965. In this long 53 years of its journey, being a pivotal branch of the then Tripura Engineering College, this department has witnessed many ups and downs. Still, it has produced a great number of capable electrical engineers who in turn spread their talent around various parts of the globe thereby enhancing the image of the institute in general and branch in particular.

The Electrical Engineering Department started with an annual intake of 20 seats in 1965 and consecutively increased to 40 in 1981. After conversion of the Tripura Engineering College into National Institute of Technology in 2006, not only the intake has been increased to 90 but also this conversion has given a golden opportunity to the department to be flourished in all the probable ways in order to boost up the teaching learning process.

10.2 Academic Programme:

Electrical Engineering Department has progressed noticeably with annual intake of 90 for 4 years (8 semesters) B.Tech program and annual intake of 64 for 2 years (4 semesters) M. Tech. programme. Apart from B.Tech. and M. Tech. Electrical Engineering department started Ph.D programme from 2008 academic session. The first batch of M.Tech in Electrical Engineering has been started in 2008 with specialization in Power Electronics & Drives. Considering the aspiration of the students and keeping in view the present trend of employment opportunity in Power & Industrial sector and also faculty necessity in academic field, two more specializations, namely (a) Power System and (b) Instrumentation have also been introduced in M.Tech curriculum of Electrical Engineering from the academic session 2010-2011. The first batch of students of both the specializations has successfully completed their course. Therefore presently the department is offering M.Tech in the following specializations viz. (a) Power System, (b) Instrumentation (c) Power Electronics & Drives and (d) Integrated Energy Systems. Similarly, an excellent response has been obtained for Ph.D programme. Several candidates from academic arena and industry have shown their interests for pursuing their Ph.D work in the Department of Electrical Engineering and enrolled their names in the programme. At present 28 nos. (Part time & Full time) candidates are carrying out their Ph.D work in the department. It is worth to be mentioned here that the opportunity of this higher learning has opened up an avenue for the in-house faculties and staff to obtain higher degrees for their professional development without any need to go outside the state. Some seats are reserved for institutional candidates in this regard. The department has awarded 07 (seven) Ph.D degree in this academic year.

Academic Programme Goals:

The Electrical Engineering Department has goals for undergraduate, graduate as well as Ph.D programmes. In the 2018-19 session 5 students got enrolled in PhD Programme .

The undergraduate programme *goal* is to develop specialized proficiencies in the concepts, methods, and tools required for entry level positions in Electrical Engineering (EE) and for graduate and professional studies.

The master's programme goal is to develop specialized proficiencies in the concepts, methods, and tools required for intermediate level positions in Electrical Engineering and other professions and for PhD studies. Students may carry out their thesis work, under the guidance of renowned and experienced faculty members from other reputed technical institutes.

The doctoral programme *goal* is to develop specialized proficiencies in the concepts, methods, and tools required for high level positions and leadership in Electrical Engineering and other professions. Coursework and teaching experience are considered to be a significant part of graduate education.



10.3 Faculty and their activities:

Short-Term Courses/ Workshops/ Seminar/ Symposia/ Conferences organized by the faculty members:

Sl. No.	Co- ordinators	Title	Period
Short Term Courses			
1.	Dr. Ajoy Kumar Chakraborty & Dr. Arup Ratan Bhowmik	Smart Grid & Energy Market	Aug, 2018
2.	Dr. Priyanath Das	34 th National Convention of Electrical Engineers & National Seminar on Advancement in High Voltage Direct Current (HVDC) Transmission	Nov, 2018

Short-Term Courses/ Workshops/ Seminars/ Symposia/ Conferences/ Training attended by the Faculty in Academic Institutions and Public Sector Undertakings:

Sl. No.	Name of Faculty	Title	Period
Training attended			
1.	Dr. Ajoy Kumar Chakraborty	AICTE Training and Learning (ATAL) Workshop on "Artificial Intelligence (AI)"	22.02.2019 to 26.02.2019
2.	Dr. Arup Ratan Bhowmik	AICTE Training and Learning Academic Workshop on Artificial Intelligence	22.02.2019- 26.02.2019

Fellowships of Academics and Professional Societies:

Sl. No.	Name of Faculty	Level	Year
ISTE/ CSI and others			
1.	Dr. Ardhendu Saha	IEEE Member(92497107)	2018
		OSA Life Fellow member	2018
2.	Dr. Ajoy Chakraborty	IEEE Member	2018
3.	Ms. Anindita Jamatia	IEEE IAS IEEE Industrial Electronics Society Member	2018
4.	Dr. Subhadeep Bhattacharjee	Fellow of ISLE Fellow of IEI	2019

10.4 Research and Consultancy:***Sponsored Research Projects:***

Sl. No	Title	Period	Funding Agency	Amount (in lakhs)	Co-ordinators
1	"Development of Bessel Beam based Fiber Optic Biosensor for Early Detection of Breast Cancer (EMR/2016/006319)"	March 2018. Duration: 3 Years	DST	63.90	PI: Dr. Ardhendu Saha Co-PI: Dr. Biswanath Bhunia
2	Developing of an off-grid hybrid power system for remote communities of North Eastern India	2012-2019	AICTE	17.00	PI: Dr. Ajoy Kumar Chakraborty , Co-PI: Dr. Srimanta Ray
3	Non-contact Multidirectional Vibration Sensor using 2D Position Sensitive Detector	2016-2018	ISRO	33.89	Co-Investigator : Dr. Subhadeep Bhattacharjee,
4	A Study On Developing A Sustainable Bio-Electrochemical System For Conversion Of Waste To Electricity	2017-2019	Dept. Of Biotechnology (DBT), Ministry Of Science And Technology, Govt. Of India	59.34	Dr. A.K. Chakraborty & Dr. S. Ray

Research Publications:

Total No. of papers published in Refereed National Journals	:	01
Total No. of papers published in Refereed International Journals	:	30
Total No. of papers presented in National Conference	:	02
Total No. of papers presented in International Conferences	:	14

JOURNAL

1. Smita Banik, Ardhendu Saha and Sumita Deb, "Non-linear Reflection Engineered Enhanced Broadband SHG in a Hyperbolic Profiled GaAs slab using TIR-QPM," Optik - International Journal for Light and Electron Optics, Vol. 179 October 2018, pp. 750-760.
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3. Chittaranjan Nayak, Ardhendu Saha, Alireza Aghajamali, "Periodic multilayer magnetized cold plasma containing a doped semiconductor," Indian Journal of Physics, Vol. 92, Issue 7, July 2018, pp. 911-917.
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29. Bishwajit Dey, Biplab Bhattacharyya and Sharmistha Sharma (2018), "Robust Economic Dispatch of Microgrid With Highly Penetrated Renewables and Energy Storage System", *International Journal of Energy Optimization and Engineering*, vol. 8, no. 1, October 2018, pp. 67-87 (Web of Science indexed journal).
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2. Ardhendu Saha, Sharbari Deb, Asim Asrar "A Proposal of Electro-optically Tunable Nonlinear Phase Shift in Bulk KTN crystal by Cascaded χ^2 : χ^2 Optical Process" *International Conference on Fiber Optics and Photonics IIT Delhi, New Delhi-110016, India 12th – 15th December, 2018.*
3. A Chakrabarti, A Saha, SK Biswas "A Technique for Eliminating Common Mode Currents in Open End Induction Motor Drives" *2018 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES), IIT Madras 18th -21st Dec, 2018.*

4. Aparupa Kar, Nabamita Goswami, Ardhendu Saha "Long Range Surface Plasmon Resonance induced Tunable Optical Bistability using Silver Nano-Layer at 1550 nm" International Conference on Optical and Wireless Technologies (OWT 2019), Malaviya National Institute of Technology Jaipur, 16th -17th March, 2019.
5. Anulekha Saha, Aniruddha Bhattacharya, Priyanath Das, and Ajoy Kumar Chakraborty. "CDO-A New Metaheuristic Algorithm Towards the Solution of Transient Stability Constrained Optimal Power Flow." In *2018 International Electrical Engineering Congress (iEECON)*, pp. 1-4. IEEE, 2018.
6. Kaushik Sit and Ajoy Kumar Chakraborty. "Real time measurement and analysis of non-linearity injected by computer loads in LT distribution system using LabVIEW." In *2018 IEEE Applied Signal Processing Conference (ASPCON)*, pp. 326-331. IEEE, 2018.
7. R. Bhattacharjee and S. Bhattacharjee, 'Computational intelligence for efficient solar heliostat design', *Proceedings of International Conference on Computational Intelligence and Internet of Things (Special session: Computational Intelligence for Smart power System and Energy Management) (Elsevier)* (ISSN: 1556-5068), pp. 123-129, December 14-15, 2018, NIT-Agartala.
8. A. Ghosh and S. Bhattacharjee, 'Integrating PV-fuel cell for efficient energy management', *Proceedings of International Conference on Computational Intelligence and Internet of Things (Special session: Computational Intelligence for Smart power System and Energy Management), (Elsevier)* (ISSN: 1556-5068), pp. 160-164, December 14-15, 2018, NIT-Agartala.
9. R. Nath and S. Bhattacharjee, 'Computational intelligence for numerical analysis of wind energy conversion system', *Proceedings of International Conference on Computational Intelligence and Internet of Things (Special session: Computational Intelligence for Smart power System and Energy Management), (Elsevier)* (ISSN: 1556-5068), pp.130-136, December 14-15, 2018, NIT-Agartala.
10. Manish Mishra, Sumita Deb "Generation of optical delay through chirped fiber bragg grating inscribed in a polymer optical fiber", 3rd International Conference on Communication and Electronics Systems ICCES, 2018; PPG Institute of Technology, Coimbatore, Tamil Nadu, 2018, 15-16 October 2018.
11. A.K. Jain et al., "Structural and Morphological Study of Pure and Nano ZnO Doped PVK Samples for Separator in Lithium-ion Batteries," International Conference on Advances in Nano materials and Devices for Energy and Environment, 27-29 January 2019 (ICAN-2019), Indian Institute of Information Technology and Management (ABV-IIITM), Gwalior.
12. A.K. Jain et al., "Synthesis and Characterization of Pure and Nano-ZnO Doped PMMA Films for Lithium-ion Batteries," International Conference on Advances in Nanomaterials and Devices for Energy and Environment, 27-29 January 2019 (ICAN-2019), Indian Institute of Information Technology and Management (ABV-IIITM), Gwalior.
13. Dey, Prasenjit, Aniruddha Bhattacharya, and Priyanath Das. "Tuning of Power System Stabilizers in Multi-Machine Power Systems Using Moth Flame Optimization." In *2018 International Electrical Engineering Congress (iEECON)*, pp. 1-4. IEEE, 2018.
14. Attended National Conference on Smart and Sustainable city infrastructure 29th Nov.2018.
15. IEEE Conference on Energy audit and conservation in an educational

Institution :A case study,Dec.2018

16. Amit Chakraborty ; Diptanu Dey ; Priyanath Das, 'Solar cell efficiency enhancement using embedded surface plasmonic nano particals in various medium " International Conference on Smart Systems and Inventive Technology (ICSSIT) 2019.

Book Published:

Name of the Authors published	Title of the Books	Date of publication	Issue/ Volume No./ Page No
R.N. Ray, P.N. Das, and S. Bhattacharjee (Edited)	'Recent Advancement in High Voltage Direct Current (HVDC) Transmission' Published by the Institution of Engineers (India)	November 2018	ISBN: 978-81-938404-3-6

Distinguished Visitors to the Departments:

Sl No	Name of the Visitors & Designation	Date of visit	Purpose of visit
1.	Dr.Chandan Kumar Chanda, ,EE Dept., IEST, Shibpur	26.04.2018-28.04.2018	Expert Lecture
2.	Dr. Kishore Chatterjee,E E Dept IIT Bombay, Powai	02.05.2018-03.05.2018	Expert Lecture
3	Dr. Siddhartha Sen, EE Dept. IIT Kharagpur	23.04.2018-25.04.2018	Expert Lecture
4.	Dr. P.K. Dutta, Professor, EE Dept. IIT Kharagpur West Bengal	01.05.2018-02.05.2018	Expert Lecture
5.	Dr. C. K. Chanda, ,EE Dept., IEST, Shibpur	09.05.2018-11.05.2018	Expert Lecture

11.0 ELECTRONICS AND COMMUNICATION ENGINEERING DEPARTMENT

11.1 Introduction:

The Department of Electronics & Communication Engineering (E.C.E) was established in 2007 and Mr. Manik Bhowmik was the first H.O.D. of the then Electrical and Electronics Engineering (E.E.E). Since its inception the Department is growing in multidimensional direction in context to UG & PG teaching aspects. The department offers a wide range of courses which address almost the entire arena covering VLSI, Nano-electronics, Modern era of Communication, Fabrication and Characterization of Nano Scaled Devices, Image Processing, Advance Microwave Electronics, Bio-Signal Processing, Non-Linear System Science to mention a few. The department aims to create competent Electronic and Communication Engineers to serve the needs of modern advance technology and the nation as a whole. The department always updates the entire course curriculum on a regular basis after discussion with academicians from institute of national repute and technologists from various renowned organizations by which our students can compete with the best with respect to knowledge and ability in the business and face the modern challenges of today's Electronics and allied industries and institutions where change is the norm. Among all branches of Engineering Sciences, Electronics and Communication Engineering changes at extreme fast pace, so fast that which is brand new product for today becomes obsolete in the very next day with respect to science and engineering of this branch. Considering all the said aspects, the department possesses a qualified and experienced team of faculty members to carry out its legacy. The major thrust areas of the department are VLSI and Nano-Technology, Nano-Electronics, Microwave, Image Processing, Optoelectronics, Control Engineering and Communication Systems. The Department is deeply involved in multidimensional aspects of teaching and research under the able leadership of Dr. Atanu Chowdhury, the present H.O.D. The Department offers Ph.D courses in Nano-electronics, Microwave, VLSI, and Image Processing, to name a few. The students of this branch have been placed in various reputed R&D organizations and eminent companies in India and abroad.



Fig 1: Basic Electronics Laboratory



Fig 2: MSDC Laboratory



Fig 3: Microwave Laboratory



Fig 4: Nano Electronics Laboratory



Fig 5: Vector Network Analyzer in Communication Lab. Fig 6: VLSI Design Laboratory

11.2 Academic Programme:

The department of Electronics & Communication Engineering currently offers the following programs:-

Under Graduate programme: B.Tech in Electronics & Communication Engineering (4 Years).

Post Graduate programmes: M.Tech (2 years) in two specializations-

- (i) VLSI Design
- (ii) Communication Engineering.

The Department also offers Ph.D courses in Nano-electronics, Microwave, VLSI, Image Processing, Bio-Signal Processing, to name a few.

11.3 Faculty and their Activities:

Fellowships of Academics and Professional Societies:

<i>Sl. No.</i>	<i>Name of Faculty</i>	<i>Level</i>	<i>Year</i>
ISTE/ CSI and others			
ISTE	Dr. Atanu Chowdhury	Member	Life time
ISI	Dr. Atanu Chowdhury	Member	Life time
IEI	Dr. Atanu Chowdhury	Associate Member	Life time
ISTE	Mr. Manik Bhowmik	Member	Life time
IEI	Dr. Tamasi Moyra	Member	Life time
IEEE	Dr. Tamasi Moyra	Member, IEEE	Upto 31 st December 2019

11.4 Design and Development Activities:

Brief and specific details of Process/ Instruments/ Equipment/ Software Designed and developed:

<i>SL NO.</i>	<i>LABORATORY</i>	<i>MAJOR DEVELOPMENT</i>
1.	Communication Lab	Vector Network Analyzer (VNA, Rohde & Schwarz, ZNB 20) is installed in the communication laboratory. It is a vital instrument for RF design laboratories as well as many manufacturing and service areas. The primary use of a VNA is to determine the S-parameters of passive components, including cables, filters, switches, diplexers, duplexers, couplers, bridges, transformers, power splitters, combiners, circulators, isolators, attenuators, antennas etc. In addition, VNAs can also characterize active devices such as transistors and amplifiers using S-parameters, as long as they are operating in their linear mode of operation.
2.	Microelectronics & Nanoelectron ICS LAB	Source Measurement Unit (SMU) instrument has been consolidated in the Nano and microelectronics laboratory which has strengthened the device (up to few nano-meter scale) characterization facility of the department.

11.5 Research and Consultancy:

Sponsored Research Projects:

<i>Sl. No.</i>	<i>Title</i>	<i>Period</i>	<i>Funding Agency</i>	<i>Amount (in lakhs)</i>	<i>Co-ordinators</i>
1	SMDP-C2SD	5 YEARS	Ministry of Electronics and Information technology, Govt. of India	18.01 (Received in April 2018)	Sambhu Nath Pradhan

Research Publications:

Total No. of papers published in Refereed International Journals	: 27
Total No. of papers presented in National Conference	: 03
Total No. of papers presented in International Conferences	: 08
Total No. of patents	: 02

In Refereed International Journals:

1. Sarbani Sen, Tamasi Moyra, Dwipjoy Sarkar; "Modelling and validation of microwave LPF using modified rectangular split ring resonators (SRR) and defected structures"; International Journal of Electronics and Communication (AEÜ); Vol. 88; Pp. 1-10; 2018.
2. Ankita Kumari, Priyansha Bhowmik, Tamasi Moyra; "Design and Validation of Miniaturize Rat Race Coupler Based Microstrip Balun"; International Journal of Electronics and Communication (AEÜ); Vol. 95; pp. 155-161, 2018.
3. Sarbani Sen, Tamasi Moyra; "Interdigital Capacitor Based Compact Microstrip Bandpass Filter with Wide Stopband"; IETE Journal of Research (Taylor & Francis); DOI: 10.1080/03772063.2018.1531068; 2018.
4. Priyansha Bhowmik, Tamasi Moyra; "A Low-Cost Compact Planar Dual-Band 3 dB Branch Line Coupler Using an Unbalanced CRLH"; Iranian Journal of Science and Technology - Transactions of Electrical Engineering; Vol. 43; No. 3, Pp. 397-404; 2018.
5. Priyansha Bhowmik, Tamasi Moyra; "A Low-Cost Compact Filtering Power Divider with Wide Upper Stopband"; Iranian Journal of Science and Technology - Transactions of Electrical Engineering; Vol. 43, No. 1, pp. 573-579, 2019.
6. Sarbani Sen, Tamasi Moyra; "A Compact Lowpass Filter Using Interdigital Line Resonator with Wide Stopband"; Iranian Journal of Science and Technology - Transactions of Electrical Engineering; Vol. 43; No. 3, pp. 469-478; 2019.
7. Sarbani Sen, Tamasi Moyra; "A Low-Cost Compact Low-Pass Filtering Power Divider Based on Elliptic Function with Wide Attenuation Band"; IETE Journal of Research (Taylor & Francis); doi.org/10.1080/03772063.2019.1587321; 2019.
8. A. Majumder, Monalisa Das, Suraj Kumar Saw, Abir J. Mondal, and Bidyut K. Bhattacharyya; "Variation Aware Design of 50-Gbit/s, 5.027-fJ/bit Serializer Using Latency Combined Mux-Dual Latch for Inter-Chip Communication"; IEEE Transactions on Circuits and Systems I: Regular Papers; Vol. 66; No. 3, Pp. 1231-1244; 2018.
9. Alak Majumder, Alak, Bipasha Nath, Monalisa Das, and Bidyut K. Bhattacharyya; "A variation tolerant current mode low swing signaling approach for gigascale on-chip interface circuit"; AEU-International Journal of Electronics and Communications; Vol. 93; Pp.140-149; 2018.
10. S. Bhowmik, S. N. Pradhan, and B. K. Bhattacharyya; "Power Supply Noise Reduction of Multi Core CPU by Staggering Current and Variable Clock Frequency"; IEEE Transactions on Components, Packaging, and Manufacturing Technology, Vol. 8; No. 5, PP. 875-882; 2018.

11. Aditya S. Sengupta, Ajoy K. Chakraborty, and Bidyut K. Bhattacharyya; "Supercapacitor Module Solely Powering DC-DC Buck Converter for Hand-Held Applications", IETE Journal of Research; Vol., No. 5, Pp. 1-9; 2018.
12. Aditya Sankar Sengupta, Saraju P. Mohanty, and Bidyut K. Bhattacharyya; "DC-DC buck converter solely powered by supercapacitors for efficiently powering the hand-held devices"; IET Power Electronics; Vol.11; no. 12, PP. 1946-1954, 2018.
13. Sambit Satpathy, Sushmita Ghosh, Sanchali Das, Swapan Debbarma, and Bidyut K Bhattacharyya; "Study of Dynamic Response of DC-DC Buck Converter Based on PID Controller", International Journal of Computational Intelligence & IoT 2; no. 4, 2018.
14. Abir J. Mondal, Paromita Bhattacharjee, Pinaki Chakraborty, and Bidyut K. Bhattacharyya; "MOS Amplifier Design Methodology for Optimum Performance"; IETE Journal of Research; pp.1-13; 2018.
15. Tanmoy Majumder, Saurab Dhar, Pinak Chakraborty, Kamalesh Debnath and Suvra Prakash Mondal; "S, N Co-Doped Graphene Quantum Dots Decorated C-Doped ZnO Nanotaper Photoanodes for Solar Cells Applications"; NANO: Brief Reports and Reviews, World Scientific Publishing Company; Vol. 14, Pp. 1950012-1; 2019.
16. Pinak Chakraborty, Saurab Dhar, Kamalesh Debnath, Tanmoy Majumder, Suvra Prakash Mondal; "Non-enzymatic and non-invasive glucose detection using Au nanoparticle decorated CuO nanorods"; Sensors and Actuators B: Chemical; Vol. 283; Pp. 776-785; 2019.
17. Pinak Chakraborty, Saurab Dhar, Kamalesh Debnath, Suvra Prakash Mondal; "Glucose and hydrogen peroxide dual-mode electrochemical sensing using hydrothermally grown CuO nanorods"; Journal of Electroanalytical Chemistry; Vol. 833; Pp. 213-220; 2019.
18. Sarkar, Mitra Barun; Choudhuri, B; Bhattacharya, P; Barman, RN; Ghosh, A; Dwivedi, SMM; Chakraborty, S; Mondal, A; "Improved UV Photodetection by Indium Doped TiO₂ Thin Film Based Photodetector"; Journal of Nanoscience and Nanotechnology; Vol.: 18; No. 5, pp. 4898-4903; 2018.
19. A. Nag and S. N. Pradhan; "A CLB Priority based Power Gating Technique in Field Programmable Gate Arrays"; International Journal of Image, Graphics and Signal Processing; Vol.: 10; No. 05, Pp. 15-23; 2018.
20. S. Bhowmik, S. N. Pradhan and B. K. Bhattacharyya; "Self-Correcting the Clock Jitter inside the PLL for prevention of Functional Failure inside the IC chip"; IEEE VLSI Circuits and Systems Letter; Vol. 4; No. 2, Pp.12-17; 2018.
21. A. Das, A. Debnath and S. N. Pradhan; "Reduced Ordered Binary Decision Diagram based Combinational Circuit Synthesis for Optimizing Area, Power and Temperature"; International Journal of Nanoparticles; Vol. 11; No. 2, Pp. 94-112, 2019.
22. A. Das and S. N. Pradhan; "Thermal-aware Output Polarity Selection Based on And-Inverter Graph Manipulation"; Recent Advances in Electrical & Electronics Engineering (RAEEE); Vol. 12; No. 1, Pp. 30 – 39, 2019.
23. A. Das and S. N. Pradhan; "Area-Power-Temperature Aware AND-XOR Network Synthesis Based on Shared Mixed Polarity Reed-Muller Expansion"; I.J. Intelligent Systems and Applications; Vol. 10, No. 12, Pp. 35 – 46, 2018.
24. D. Nath, S. N. Pradhan; "Low Dropout Based Noise Minimization of Active Mode Power Gated Circuit"; International Journal of Engineering (IJE), IJE TRANSACTIONS C Aspects; Vol. 31, No. 9, Pp. 1546-1552; 2018.
25. A. Saha and S. N. Pradhan; "Facial Expression Recognition based on Eigenspaces and Principle Component Analysis"; International Journal of

- Computational Vision and Robotics, Inderscience Publishers; Vol. 8, No. 2, Pp. 190-200, 2018.
26. Apurba Chakraborty, Prem deep Verma and Dhrubesh Biswas; "AlGa_N barrier thickness dependent surface and interface trapping characteristics of AlGa_N/Ga_N heterostructures"; Chinese Journal of Physics, 56, 5; 56, 2365-2370, 2018.
 27. Rinku rani das, santanu Maity, Atanu choudhury, Apurba Chakraborty, C.T. Bhunia and Partha P. Sahu; "Temperature dependent short channel parameters of FinFETs"; Journal of Computational Electronics; 17, 1001-1012, 2018.

In Proceedings of National Conference:

1. Sushmita Ghosh, Sambit Satpathy, Sanchali Das, Swapan Debbarma, and Bidyut K. Bhattacharyya; "Different Controlling Method of Closed Loop DC-DC Buck Converter: A review"; International Conference on Smart Systems and Inventive Technology (ICSSIT), IEEE; Tamil Nadu; pp. 29-33; Dec 12-14, 2018.
2. Yadav, Vinit; Yadav, Vinod; Raman, Rahul; Sarkar, MitraBarun; "Investigation of Band Gap Tailoring Phenomenon in In NP and TiO₂ NW Heterostructure"; International Conference on Emergent Research in Mathematics and Engineering - (ICERME-2019); NIT Agartala, 1, 70 (1-4), 17th & 18th May, 2019.
3. Yadav, Vinod Kumar; Yadav, Vinit Kumar; Nath, A; Raman, R; Choudhury P; Sarkar, M. B; "GLAD Assisted In₂O₃ NW-TiO₂ NW Heterostructure for Enhanced UV-Vis Absorption"; Microelectronics, Computing & Communication Systems (MCCS-2019); ARTTC Ranchi; 1, 131 (1-5); 11th -12th May-2019.

In Proceedings of International Conference:

1. S. R. Choudhury, P. S. Srinivas and S. N. Pradhan; "MMaSA – a Modified Matrix Synthesis Approach for Thermal Aware Gate Array Placement"; International Conference on Microelectronics, Computing & Communication Systems (MCCS-2019); Ranchi, 11-12th May-2019.
2. A. Nag, K. R. Reddy, N. Majumder, E. Debbarma and S. N. Pradhan; "A Novel NOR Gate based dynamic Power gating Technique in SRAM"; International Conference on Microelectronics, Computing & Communication Systems (MCCS-2019); Ranchi, 11-12th May-2019.
3. B. Debbarma, S. N. Pradhan and A. Ghosh; "LP-SLIDER: A low power deflection router for 2D NoC"; International Conference in Recent Trends on Electronics & Computer Science (ICRTECS-2019); NIT Silchar; 18-19th March, 2019.
4. Arpita Mandal, Sarbani Sen and Tamasi Moyra; "Design of Coplanar Waveguide LPFs using Open Stub and Defected Ground Structure (DGS)"; ICCIIoT 2018, NIT Agartala (CSE Department); 14th Dec, 2018.
5. Sarbani Sen and Tamasi Moyra; "A Low Cost Compact Ultra-Wide Band Bandpass Filter Using Defected Ground Structure and Short-Circuited Stub"; ICCIIoT 2018; NIT Agartala (CSE Department); 15th Dec, 2018.
6. Priyansha Bhowmik and Tamasi Moyra; "Design of Dual-band Microstrip Balun from the concept of Rat-Race Coupler"; ICCIIoT 2018, NIT Agartala (CSE Department), 15th Dec, 2018.

7. Purna Sindhuja Krovvidi, Tamasi Moyra and Priyansha Bhowmik; "A Miniaturized 3dB Branch Line Coupler using Coupled Line Section with Harmonic Suppression"; ICCIIoT 2018; NIT Agartala (CSE Department); 15th Dec, 2018.
8. Partha Kumar Deb, Tamasi Moyra; "Miniaturization of Microstrip Patch Antenna using Fractal Antenna Design"; ICCIIoT 2018; NIT Agartala (CSE Department).

Patent Published:

<i>Inventor Name</i>	<i>Year</i>	<i>Title</i>	<i>Patent application No.</i>
Dr. Mitra Barun Sarkar, Ankita Rupam, Abriti Roy	2019	System For Agronomy Monitoring And Enhancing An Irrigation Efficiency	201931029993
Dr. Mitra Barun Sarkar, Mr. Sabyasachi Mukhopadhyay, Dr. Paritosh Bhattacharya	2019	Waste Monitoring System	201931040157

Distinguished Visitors to the Departments:

<i>Sl. No.</i>	<i>Name of the Visitors and Designation</i>	<i>Date of Visit</i>	<i>Purpose of Visit</i>
1	Prof. Prabin K. Bora	15/05/2019	M.Tech Viva-Voce
2	Prof. Harshal B. Nemade	17/5/2019	M.Tech Viva Voce
3	Prof. Ratnajit Bhattacharjee	10/12/2018-11/12/2018	Syllabus review
4	Prof. Swades Das	10/12/2018-11/12/2018	Syllabus review
5	Prof. Subir Kumar Sarkar	02/11/2018	PhD. Thesis Evaluation

12.0 ELECTRONICS AND INSTRUMENTATION ENGINEERING DEPARTMENT

12.1 Introduction:

The department of Electronics and Instrumentation engineering (EIE) has been in existence since July 2009 with its first batch graduating in May 2013. The undergraduate course provides a dynamic foundation to the students in EIE. The department aims to create competent electronic and instrumentation engineers to serve the needs of modern advanced technology and the nation as a whole. The department is supported by various well-equipped laboratories to meet the requirement of the undergraduate students. The department offers a wide range of courses which address almost the entire arena covering advanced control system, nano-electronics, modern era of instrumentation, signal processing to mention a few. The department has six(6) qualified and experienced faculty members and five(5) staff members to develop highly competing young engineers, scientists and management professionals of international standard. Best endeavor is always being put forward for the recruitment of qualified and competent faculty members from all over the country to achieve all round growth at par with any other famous institute. The students of this branch have been placed in various reputed R&D organizations and eminent companies in India and abroad.



Fig.: Department of Electronics and Instrumentation Engineering

12.2 Academic Programme:

The department currently offers the following programs:

1. Under Graduate Programme (B.Tech) in Electronics and Instrumentation Engineering for 4 Years.
2. PhD in Electronics and Instrumentation Engineering.



Fig: Some photos of laboratory equipments.

12.3 Research and Consultancy :

Sponsored Research Projects:

Sl. No.	Title	Period	Funding Agency	Amount (in lakhs)	Co-ordinators
1.	"Polarization conversion and rotation using micro-ring resonator and its application to design binary and multi-valued logic circuit in optical domain"	Three (3) years	Science and Engineering Research Board, Department of Science and Technology (SERB-DST), Government of India	Rs. 26,39,086.00	Dr. Jayanta Kumar Rakshit

Research Publications:

Total No. of papers published in Refereed International Journals : 4
 Total No. of papers presented in International Conferences : 5

In Refereed International Journals:

1. Gaurav Kumar Bharti, Jayanta Kumar Rakshit; "Optoelectronics and Advanced Materials-Rapid communications"; February 2019; 13 (1-2), 10-19.
2. Gaurav Kumar Bharti, Jayanta Kumar Rakshit, Soumya Sanghamitra Pal; "Microsystem Technologies"; January 2019; 25, 295-306.
3. P Ghorai, S Majhi, Venkata Ramana Kashi and S Pandey; "IEEE Transactions on Circuits And Systems II"; 16 October 2018; Volume: 66, Issue: 7, July 2019).
4. S Pandey, S Majhi, and P Ghorai; "IFAC Journal of Systems and Control"; 30 December 2018; Volume 6, Pages 43-52.

In Proceedings of International Conference:

1. Madan Pal Singh, Gaurav Kumar Bharti, Jayanta Kumar Rakshit; "International conference in Recent Trends on Electronics & Computer Science (ICRTECS 2019)"; NIT Silchar; 18-19 March 2019.
2. Debarati Nath, P. Dey, Debajit Deb, and J. N. Roy; "International Conference on Fiber Optics and Photonics (Photonics-2018)"; New Delhi; December 12-15, 2018.
3. Soumya Sanghamitra Pal, Gaurav Kumar Bharti, Jayanta Kumar Rakshit, Uttara Biswas; "3rd International Conference for Convergence in Technology (I2CT)"; Pune; 6th April-8th April 2018.
4. Aparupa Kar, Nabamita Goswami, Ardhendu Saha; "International Conference on Optical and Wireless Technologies (OWT 2019), Malaviya National Institute of Technology"; Jaipur; 16-17 March, 2019.
5. P Ghorai, S Majhi, and S Pandey; "2019 5TH Indian Control Council(ICC)"; New Delhi, India; 9-11 Jan. 2019.

Distinguished Visitors to the Departments:

Sl. No.	Name of the Visitors and Designation	Date of Visit	Purpose of Visit
1.	Prof. Somanath Majhi , Professor, EEE, IIT Guahat	November 2018	For review and modification of academic syllabus
2.	Prof. Bidyadhar Subudhi Professor, Dept. of Electrical Engg., National Institute of Technology, Rourkela-769008, India.	November 2018	For review and modification of academic syllabus
3.	Mrs. Mousumi Das Roy Dy.S.E.(Instrumentation) Surface Team, Agartala, Tripura Asset, ONGC	November 2018	For review and modification of academic syllabus
4.	Mrs. Elizabeth Thomas-Toby , SE 'E', EA to Asset Manager, ONGC Agartala, Tripura, 799014	May, 2018	To conduct B.Tech Grand Viva examination

13.0 DEPARTMENT HUMANITIES & SOCIAL SCIENCES

13.1 Introduction:

The ultimate objective of any education system is to produce human capital who will be responsible citizen, besides excelling in his/her own domain. To produce a complete technocrat, only technical knowledge seldom serves the purpose. He/She has to be socially aware with a compassionate human faculty. The Department of Humanities & Social Sciences was established with an objective of making an engineer enlightened with adequate knowledge of his/ her surroundings. The approach of the Department has always been interdisciplinary.

The Department of Humanities and Social Sciences has a language communication skills and multimedia lab which is developed in collaboration with CACM, IIT Kharagpur. The lab which functions on a carefully designed software ISILS WIRELESS interconnects all the students in the classroom into an integrated and active mode of learning facilitating spontaneous interaction among the students themselves along with the instructor. The lab concerns to bypass the traditional lecture-based mode of learning and aims at rendering an interactive classroom atmosphere with technological support to help students come to terms with the anxiety of second language learning and channelize their latent linguistic competence into developing communication skills.



Language LAB

13.2 Academic Programme:

The Department offers undergraduate courses to B.Tech students in Economics, Costing, Management Principles, Management, Business Communication and Communicative Skill Development and full time graduate programme in Management. Besides that, it encourages the students to actively take up research in various fields of Humanities, Social Sciences and Management. The Ph.D programme of the Department in Economics, Literature and Management has introduced to serve that very purpose. Along with these diverse academic departments, the Department is home to a wide variety of interdisciplinary collaborations, path-breaking research projects, and unique areas of study. The ultimate objective of any education system is to produce human capital who will be responsible citizen, besides excelling in his/her own domain. To produce a complete technocrat, only technical knowledge seldom serves the purpose. He/She has to be socially aware with a compassionate human faculty.

13.3 Research and Consultancy:

Research Publications:

Total No. of papers published in Refereed National Journals	: 04
Total No. of papers published in Refereed International Journals	: 13
Total No. of papers presented in National Conference	: 05
Total No. of papers presented in International Conferences	: 02

In Refereed National Journals:

- 1) A. Nongmaithem 'Change of Mind –A Study of The Taste of an Hilsa and Other Stories, Akademi Award-Winning Manipuri Short Stories', Language in India: Strength for Today and Bright Hope for tomorrow. 18, 28- 32, (2018).
- 2) A. Nongmaithem 'Oppression, Sexuality And Identity: A Study Of Margaret Atwood's Handmaid's Tale', Journal of English Language and Literature, 5, 210-214, (2018).
- 3) A. Nongmaithem "A Study of Thangjam Ibopishak's 'I want to be killed by an Indian Bullet'", Research Journal Of English (RJOE) 3, 8-32 (2018).
- 4) A. Nongmaithem "Analysis of Irom Sharmila's Poetry Collection Waiting For My Victory & other poems' , Journal of Emerging Technologies and Innovative Research 6, 1021-1027, (2019).

In Refereed International Journals:

1. S. Paul and D. Neogi, 'Analyzing Determinants for Convergence/Divergence of Economies in a Regional Bloc: What Happened in SAARC', International Journal of Research in Social Sciences, 8, 2249-2496, (2018).
2. P.K. Chakravarty and D. Neogi, 'Do Self-Help Groups force changes in Occupational Pattern among the Participants? A Study from Select Areas of Tripura in the North-East India', International Journal of Reviews and Research in Social Sciences, 6, 2347-5145, (2018).
3. P. K. Chakravarty and D. Neogi, 'Generating Self-Employment Opportunities in North-East India: Challenges Faced by the Self-Help Groups', Asian Review of Social Sciences, 7, 12-18, (2018).
4. P.K. Chakravarty and D. Neogi, 'Women in Urban Areas of North-East India and their Work Participation in Self Help Groups: Do Organizational Characteristics and Trade-Based Training Matter?', Research in Humanities, Arts and Social Sciences, 22, 186-198, (2018).
5. P.K. Chakravarty and D. Neogi, 'Does Women Employment in Group Activities ensure Improved Social Status? A Study with Select Indicators on some Urban Areas of the North-East India', Research Journal of Humanities and Social Sciences, 9, 356-374, (2018).
6. P.K. Chakravarty and D. Neogi, 'Do Self-Employment Opportunities through Group Activities Impact Standard of Living in Developing Economies? A Study on Select Urban Areas of North-East India', International Journal of Research in Social Sciences, 8, 1-35, (2018).
7. G. Khuraijam and A. Gope, 'Quest for Space by Virmati in Manju Kapur's Difficult Daughter', Spectrum, 6, 28-36, (2018).
8. G. Khuraijam and A. Gope, 'Discourse of Indianness and Global Hybridity in Manju Kapur's The Immigrant', IJELLH, 6, 403 – 416, (2018).

9. J. Tripura and G. Khuraijam, 'Tracing Multiculturalism in Amitav Ghosh's Novel The Shadow Lines', International Journal of Creative Research Thoughts, 6, 818-823, (2018).
10. J. Tripura and G Khuraijam, 'Tracing Multiculturalism in Amitav Ghosh's Novel The Shadow Lines', International Journal of Creative Research Thoughts ISSN: 2320-2882, Volume 6 Issue 2, 818-823,(April 2018).
11. A. Nongmaithem 'What Makes a Teacher Great?: Students' Perspective', SSRG International Journal of Humanities and Social Science ,5 , 10-12, (2018).
12. A. Nongmaithem 'English For Employability: A Challenge For English Trainer', International Journal of Linguistics and Literature,7 ,10-14, (2018).
13. A. Nongmaithem 'A Study of Alice Munro's 'The Bear Came over the Mountain'', SSRG International Journal of Humanities and Social Sciences (SSRG-IJHSS) 6, 63-66, (2019).

14.0 MECHANICAL ENGINEERING DEPARTMENT

14.1 Introduction

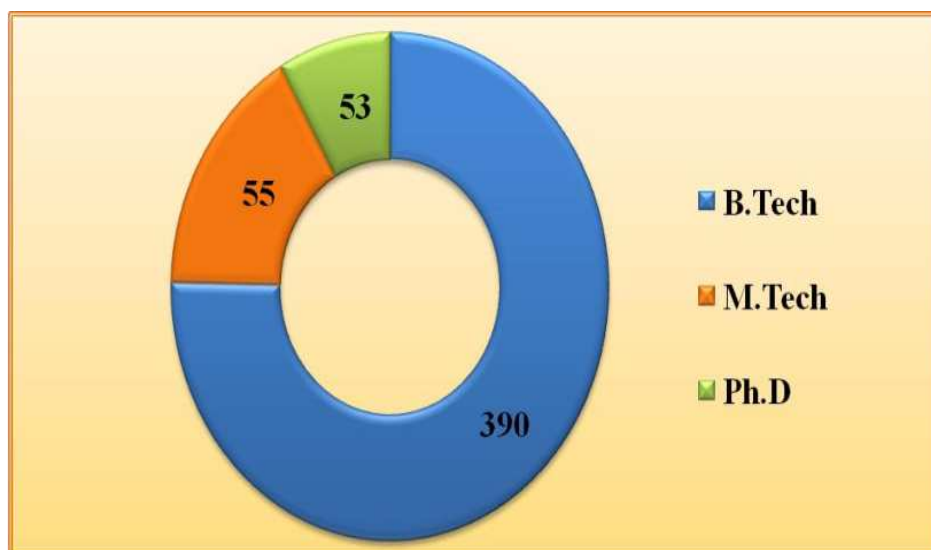
The Department of Mechanical Engineering was formed in 1965, when the institute started as a State Engineering College by the name of Tripura Engineering College. Currently, the department has more than 354 students in the B. Tech. programme, 55 students in the M.Tech. programme and 53 Scholars in the Ph.D. programme, which are supported by 28 faculty members and 19 staff.

The Mechanical Engineering Department is privileged to be commemorating a distinguished legacy of half a century of devotion pledged to the cause of higher education in our Nation from its inception in 1965 along with the foundation of the erstwhile Tripura Engineering College itself. Starting out with a modest beginning, it now boasts of a large fraternity whose continuous and indefatigable efforts to this day has earned itself numerous coveted and prestigious achievements. The department disseminates its academic scope through its B.Tech. and M.Tech. curriculum through the specialization of Thermal Science and Engineering, Automotive Engineering, Manufacturing Technology and Machine Design supported by 16 State-of-the-Art research laboratories catering to the various facets of research interests, the department envisages the importance and relevance of live industrial problems in its PhD curriculum. Such a perspective to the necessities to be adaptive to the contemporary needs of global engineering interests have resulted in unprecedented recognition of its research potential evident from its research publications in eminent peer reviewed journals, patent filings and several ongoing sponsored research projects and consultancy endorsements from various Govt. and non-Govt. concerns.

Our Nation's transition to a knowledge-based economy is requiring a new generation of educated and skilled workforce for innovation and sustainable growth. Its competitive edge is being determined by our ability to create, share, and use knowledge effectively. The frontiers of a higher education system are increasingly being challenged to remain contemporary to the needs of the global requirements. Rapidly changing global technological requirements with ever decreasing timescales of deployment, liberalization of our nation's industry along with increased social and environmental obligations are challenging the very framework of our contemporary technical education system to provide an industry ready taskforce. To be proactive rather than being reactive to the demands of the present and future requirements, the Mechanical Engineering Department of NIT Agartala envisage a plan of action that is multi-faceted and is delivering its objectives through contemporary and innovative models of education using the best of all forms of technology, relevant and appropriate to regional expectations and preferences. Extensive use of ICT based efforts are being put in place to augment and enhance such training that will focus on identifying, developing, promoting, honing and sustaining the inherent skills of our budding engineering and technical professionals. It is through such initiatives that we endeavor to prepare our students both at the Under-graduate and Post-graduate level to be industry ready in the present era of emerging multidisciplinary career opportunities. The Mechanical Engineering Department realizes its pivotal role in providing a firm foundation in mathematical, scientific and engineering fundamentals to its students which is essential to comprehend, analyze, design and create innovative and novel solutions to real life engineering problems that they are destined to encounter in their professional career. It has also been our fundamental aspiration to inculcate the values of professionalism and ethics in our

students coupled with effective communication and multidisciplinary skills to empower them with a strategic advantage on the platform of lifelong learning and innovation. Furthermore, our societal responsibilities have been continuously increasing. To meet these expectations, team effort and a dynamic work culture is the need of the hour. The department realizes enthusiasm, diligence and commitment as the virtues that will guide our students to adapt to these continuously changing expectations and help them embark on a road of sustained excellence. Committed with a vision to produce high quality Mechanical Engineers with techno-managerial ability to contribute in Industry and Research areas maintaining professional ethics and values, the Mechanical Engineering Department envisages a mission to create knowledge through research in the science and technology of mechanical engineering by developing an effective platform to share knowledge through educational programs and the dissemination of new discoveries. The Mechanical Engineering Department of NIT Agartala envisions to develop the professional potential of faculty, staff, and students by offering an inviting, nurturing, and challenging environment. This is responsive to the intellectual, social, and cultural needs of a diverse learning community. The Department advocates a research portfolio encompassing traditional areas of mechanical engineering, as well as emerging and interdisciplinary ones in order to foster creativity and critical thinking skills through innovative research and design experiences. Awarded with the coveted and prestigious NBA (National Board of Accreditation) accreditation for 5 years for Under-graduate Courses, the Mechanical Engineering Department with such a depth of its vision and mission, seeks to achieve its cherished goals of creating an edifice of excellence in research and consultancy and to harmonize the values of social upliftment through ethical and conscientious pursuance of the commitments of engineering and technical education.

The major research areas include advanced / non-traditional machining processes, aerodynamics, bearing design, CAD/CAM, combustion, composites, computational contact impact analysis, computational fluid mechanics, computational mechanics, convection, refrigeration systems, energy conservation fatigue, wear and failure analysis, finite element methods, fracture mechanics, heat transfer, internal combustion engines, materials processing and characterization, metal casting, metal forming, multi-phase flows, nano-fluids, propulsion, renewable energy, robotics, rotor dynamics, soft computing in design and manufacturing, welding, tribology, turbo machines, turbulence, vibration etc.



Vision of the Department

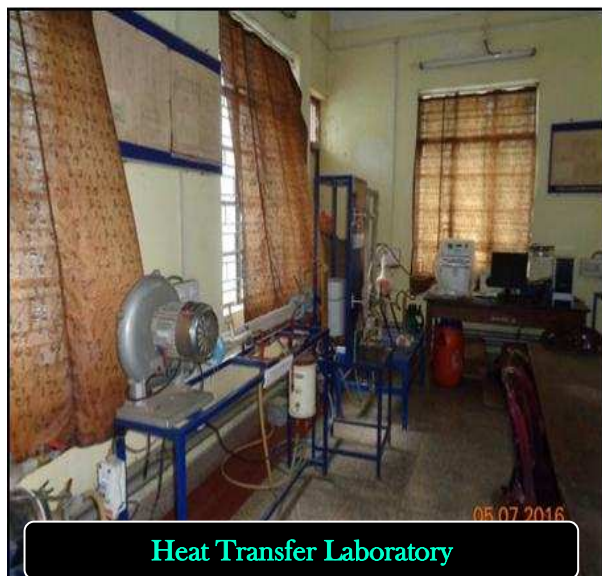
To produce the bright young Professionals of Mechanical Engineering Sciences by providing excellent Teaching Learning Facilities with entrepreneurial skills for meeting the societal needs.

Mission of the Department

- i. To develop professional attitude so that the students may develop and sustain their skills as Mechanical Engineer.
- ii. To provide Mechanical Engineering Expertise to Industry, government and society.
- iii. To make good human beings possessing Professional Ethics.
- iv. To make responsible citizens with social commitment to foster Research and attitude for development.
- v. To participate in all round development of the region.







Heat Transfer Laboratory



Wind Tunnel Laboratory

14.2 Faculty and their Activities:

Short-Term Courses/ Workshops/ Seminar/ Symposia/ Conferences organized by the faculty members:

Sl.No.	Co-ordinators	Title	Period (Dd-Dd) Month Year
Short Term Course			
1	Dr. Swapan Bhaumik	GIAN program on "Sustainable Cooling Technologies".	2 nd – 13 th July, 2018
Conference			
1	Dr. Swapan Bhaumik	National Conference on "Smart and Sustainable City Infrastructure"	29 th November, 2018

Visits Abroad by Faculty:

Sl. No.	Name of Faculty	Country Visited	Date	Purpose of Visit
01	Dr. Swapan Bhaumik	Bangladesh	March, 2019	IEI guest 34 th National convention of Institution of Engineers, Bangladesh (IEB), Dhaka

Honours and Awards obtained:

Sl. No.	Name of Faculty	Name of Award	Awarded by	Award for	Date
01	Dr. Swapan Bhaumik	Engineer of the year	Institution of Engineers, India Tripura State Centre (TSC)	Eminent contribution in the field of Academic and Social activity in the Tripura State	Aug, 2018

Fellowships of Academics and Professional Societies:

Sl. No.	Name of Faculty	Level	Year
01	Dr. Swapan Bhaumik	Elected as Vice- President, Institution of Engineers, India (IEI)	2019

14.3 Research and Consultancy:**Research Publications:**

Total No. of papers published in Refereed International Journals : **26**

Total No. of papers presented in International Conferences : **09**

Total No. of Books (chapter) published : **02**

In Refereed International Journals:

1. Amitav Chakraborty, Sumit Roy, Rahul Banerjee; "Characterization of performance-emission indices of a diesel engine using ANFIS operating in dual-fuel mode with LPG", 'Heat and Mass Transfer (Springer Berlin Heidelberg); 1stSeptember 2018, Volume 54, Issue 9, pp 2725–2742.
2. U.Acharya, B.S Roy, S.C.Saha; "A study of tool wear and its effect on the mechanical properties of friction stir welded AA6092/17.5 SiCp composite material joint", Materials Today: Proceedings; 2018; Volume 5, Issue 9, Part 3, Pages 20371-20379.
3. Medhi.T, Saha Roy B., Saha S.C; "A comprehensive review of microstructure evolution during friction stir welding of aluminium to copper", International Journal of Materials and Product Technology; 2018, Vol.57, Nos. 1/2/3.
4. Bhogendro Meitei R.K., PabitraMaji, AshutoshSamadhiya, Subrata Kumar Ghosh, BarnikSaha Roy, Alok Kumar Das, Subhash Chandra Saha; "A study on induction welding of mild steel and copper with flux under applied load condition", Journal of Manufacturing Processes; 2018, Volume 34, Part A, Pages 435-441.
5. Dipak Chandra Das, Koushik Ghosh and Dipankar Sanyal; "Forced convection film boiling heat transfer model for a sphere by scaling analysis", "Journal of the Brazilian Society of Mechanical Sciences and Engineering"; 01.06.2018, 40/293/1-9.
6. Sushovan Chatterjee, Krishanu Gupta; "A comparative analysis on two gear tooth materials for low speed and high torque transmission"; September 2018, 3/73/79-83.
7. Arindam Majumder, Dipak Laha, and P. N. Suganthan; "A hybrid cuckoo search algorithm in parallel batch processing machines with unequal job ready times." Computers & Industrial Engineering; October 2018, Vol. 124, pp. 65-76, 2018.
8. Bhogendro Meitei R.K.,Pabitra Maji, Ashutosh Samadhiya, Subrata Kumar Ghosh, Barnik Saha Roy, Alok Kumar Das, Subhash Chandra Saha; "A study

- on induction welding of mild steel and copper with flux under applied load condition"; August 2018; 34:435-441.
9. Joydeep Roy, Ram Naresh Rai, Subhash Chandra Saha; "Effect of TiO₂ enriched fluxes on the bead geometry, grain size and hardness in submerged arc welds", *Int. J. Materials and Product Technology*; 2018, Vol. 56, No. 4.
 10. K. Vamsi Krishna, G.R.K. Sastry, M.V.S. Murali Krishna, John Deb Barma; "Investigation On Performance and Emission Characteristics of EGR, Coupled Semi Adiabatic Diesel Engine Fuelled By Dee Blended Rubber Seed Biodiesel"; 2018, Vol – 21, 122–129.
 11. Aparesh Datta, Vivek Sharma, Dipankar Sanyal, Pritam Das; "A conjugate heat transfer analysis of performance for rectangular microchannel with trapezoidal cavities and ribs/ *International Journal of Thermal Science*"; December, 2018 (Accepted).
 12. Mr. Durbadal Debroy, Mr. Subrata Bhowmik, Dr. Rajsekhar Panua, Dr.Subrata Kumar Ghosh, Dr. Abhishek Paul; "Prediction of performance and exhaust emissions of diesel engine fuelled with adulterated diesel: An artificial neural network assisted fuzzy-based topology optimization", "Energy & Environment" , *SAGE*; December 1st, 2018; issue: 8, Volume: 29 , page(s): 1413-1437, <https://doi.org/10.1177/0958305X18779576>.
 13. Mr.Durbadal Debroy, Mr. Subrata Bhowmik, Dr. Rajsekhar Panua, Dr. Subrata Kumar Ghosh, Dr. Abhishek Paul; "Performance-exhaust emission prediction of diesosenol fueled diesel engine: An ANN coupled MORSM based optimization.", "Energy", *Elsevier*; 15th June 2018; Volume:153, Pages 212-222, <https://doi.org/10.1016/j.energy.2018.04.053>.
 14. Mr. Durbadal Debroy, Mr. Subrata Bhowmik, Dr. Rajsekhar Panua, Dr. Abhishek Paul; "Artificial Neural Network-Based Prediction of Performances-Exhaust Emissions of Diesohol Piloted Dual Fuel Diesel Engine Under Varying Compressed Natural Gas Flowrates", "Journal of Energy Resources Technology"*ASME*; 12th June 2018; issue: 11, Volume: 140 , 9 pages <https://doi.org/10.1115/1.4040380>.
 15. Ruma Sen, Bikash Choudhuri, John Deb Barma, Prasun Chakraborti; "Experimental investigation and optimisation of WEDM process for machiningmaraging steel using neural network based Java algorithm", *JournalInternational Journal of Machining and Machinability of Materials*; 16 September 2018, 4/20/387-399.
 16. Dipankar Kakati, Sumit Roy, Rahul Banerjee; "Development of an artificial neural network based virtual sensing platform for the simultaneous prediction of emission-performance-stability parameters of a diesel engine operating in dual fuel mode with port injected methanol", *Energy Conversion and Management (Pergamon)*; 15 March 2019, Volume 184, Pages 488-509.
 17. Chiranjit Bhowmik, Prasun Chakraborti, "Study of Dynamics Characteristics of Composite Transmission Tower Using Carbon Fiber Epoxy (Thermoset) as Structural Material", 2019, 1/74/22-26.
 18. Uttam Acharya, BarnikSaha Roy, Subhash Chandra Saha; "Torque and force perspectives on particle size and its effect on mechanical property of friction stir welded AA6092/17.5SiCp-T6 composite joints", *Journal of Manufacturing Processes*; 2019; Volume 38, Pages 113-121.
 19. Tinu P Saju; R. Ganesh Narayanan, BarnikSaha Roy; "Effect of pinless tool shoulder diameter on dieless friction stir extrusion joining of 5052-H32 and 6061-T6 Aluminium alloy sheets", *Journal of Mechanical Science & Technology*; 2019; Paper Id:18-00847.

20. V Kumar, S S Gajghate, U Nath, A Pal, S Bhaumik, S. Das; "Experimental studies on nucleate pool boiling heat transfer enhancement for composite nano-structure coated copper heating surface and Journal of Physics: Conference Series"; 22ndFeb, 2019; 1240 (2019), pp: 012055.
21. G Patel, S S Gajghate, U Nath, A Pal, S Bhaumik, S. Das; "Experimental investigation on nucleate pool boiling heat transfer enhancement for nano-structured copper oxide coated heating surface and Journal of Physics: Conference Series"; 22ndFeb, 2019; 1240 (2019), pp: 012093.
22. Arindam Majumder, Ponnuthurai N Suganthan, Dipak Laha; "Bacterial foraging optimization algorithm in robotic cells with sequence-dependent setup times." Knowledge-Based Systems", 26 February 2019; Vol. 172, pp 104–122.
23. Abhijit Banik, John Deb Barma, Subhash C. Saha; "Effect of Threaded Pin Tool for Friction Stir Welding of AA6061-T6 at Varying Traverse Speeds: Torque and Force Analysis"; March, 2019; <https://doi.org/10.1007/s40997-019-00289-w>.
24. Mr.Durbadal Debroy, Mr.Subrata Bhowmik, Dr.RajsekharPanua, Dr.Subrata Kumar Ghosh, Dr.Abhishek Paul; "Artificial intelligence based gene expression programming (GEP) model prediction of Diesel engine performances and exhaust emissions under Diesosenol fuel strategies", "Fuel", Elsevier; 1st January 2019; Volume 235, Pages 317-325, <https://doi.org/10.1016/j.fuel.2018.07.116>.
25. Chiranjit Bhowmik, Prasun Chakraborti; "Study of Dynamics Characteristics of Composite Transmission Tower Using Carbon Fiber Epoxy (Thermoset) as Structural Material, Advances in Modelling and Analysis C; March 2019; 1/74/22-26.
26. Shankar S. Das, Prasun Chakraborti, "Stress Analysis of Hip and Knee Prostheses Using a Novel Biomaterial, Advances in Modelling and Analysis C; March 2019, 1/74/27-32.

In Proceedings of International Conference:

1. Nikhil Joshi, AbhikMajumder and Prasanta Kumar Das; "American Institute of Chemical Engineers (AIChE)2018; Annual Meeting"; October 28 – November 2, 2018.
2. Sameer Gajghate, Anil Acharya, Swapan Bhaumik; "Int. conference on Recent Innovations and Developments in Mechanical Engineering"; NIT Meghalaya, Shillong, India; 8th– 10thNovember, 2018.
3. Kiran Kumar Billa, Dr. G. R. K Sastry and Dr.Madhujit Deb; "8th International Conference on Sustainable Waste Management"; Guntur, AP; November 22-24, 2018.
4. Aparesh Datta, Saumya Ranjan Nayak, Dipankar Sanyal, Pritam Das, Ajoy Kr. Das; "FMFP conference", I I T Mumbai; December 10 – 12. 2018.
5. Kiran Kumar Billa, GRK Sastry, Madhujit Deb, Gupta Mitulkumar; "International Conference on Computational Intelligence & IoT (ICCIIoT)"; NIT Agartala; 14-15 December 2018.
6. G. Patel, S. S. Gajghate, A. Pal, U. Nath, S. Bhaumik, S. Das; "2nd Int. Conference on New frontiers in Engineering, Science & Technology"; NIT Kurukshetra, India; 18th – 22ndFebruary, 2019.
7. Kumar, S. S. Gajghate, U. Nath, A. Pal, S. Bhaumik, S. Das; "2nd Int. Conference on New frontiers in Engineering, Science & Technology", NIT Kurukshetra, India; 18th – 22nd February, 2019.

8. Ranit Karmakar* and Subrata Kumar Ghosh; "ICIME (International Conference on Materials and Energy)"; Hyderabad, India, 2019.
9. Abhijit Banik, John Deb Barma, Ram Singh, Subhash C.Saha; ".FLAME-2018"; Amity University, Noida, 3rd – 5th October, 2018.

Book chapter Published:

Sl. No.	Name of the Authors published	Title of the Book Chapter	Date of publication of the Book chapter	Issue/ Volume No./ Page No.
1	Amitav Chakraborty Sumit Roy Dr. Rahul Banerjee	Performance Emission Characterization of a LPG-Diesel Dual Fuel Operation: A Gene Expression Programming Approach	First Online: 24 August 2018	HARMONY SEARCH AND NATURE INSPIRED ALGORITHM SPRINGER ONLINE ISBN: 978-981-13-0761-4 VOL-741 Pages 405-414
2	Dipak Chandra Das, Koushik Ghosh and Dipankar Sanyal	"A Comprehensive Parametric Modelling for Mixed Convection Film Boiling Analysis on a Vertical Flat Plate", Two-Phase Flow for Automotive and Power Generation Sectors. Energy, Environment, and Sustainability. Springer, Singapore.	04.11.2018	363-380. https://doi.org/10.1007/978-981-13-3256-2_14

Distinguished Visitors to the Departments:

Sl. No.	Name of the Visitors and Designation	Date of visit	Purpose of visit
1	Dr. Bijan Kumar Mondal Professor Mechanical Engineering Department IIEST Shibpur	8 th May, 2018	Examiner M.Tech Thesis

2	Dr. Goutam Majumdar Professor Mechanical Engineering Department Jadavpur University	8 th May, 2018	Examiner M.Tech Thesis
3	Dr. Dipankar Sanyal Professor Mechanical Engineering Department Jadavpur University	8 th May, 2018	Examiner M.Tech Thesis
4	Dr. Debabrata Chakroborty Professor Mechanical Engineering Department IIT, Guwhati	9 th May, 2018	Examiner M.Tech Thesis
5	Dr. Uday Shanker Dixit Professor Mechanical Engineering Department IIT, Guwhati	9 th May, 2018	Examiner M.Tech Thesis
6	Dr. T Raja CSIR – NCL Pune	11 th September, 2018	Educational Tour
7	Dr. Bidyut Baran Saha Professor Mechanical Engineering Department Kyusho University Japan	13 th July, 2018	Gian Program
8	Dr. Goutam Sutradhar Director NIT, Manipur	16 th October, 2018	Syllabus Review
9	Dr. Debabrata Chakroborty Professor Mechanical Engineering Department IIT, Guwhati	26 th October, 2018	Syllabus Review
10	Smaran Choudhury MD, Maschnen Fabric (India Pvt Ltd Kolkata)	26 th October, 2018	Syllabus Review
11	Pradip Kumar Biswas Ex GM, IDBI Bank Kolkata	14 th January , 2019	Alumni Meet
12	B. Roy GM, ONGC	14 th January , 2019	Alumni Meet
13	Abhijit Das Chief Manager(E & M), Coal India Ltd	14 th January , 2019	Alumni Meet

15.0 MATHEMATICS DEPARTMENT

15.1 Introduction:

Department of Mathematics is one of the premiere departments of NIT, Agartala and it was initialized in 2006. Both UG and PG (BS-MS Mathematics, BS-MS Mathematics & Computing and M.Sc. in Mathematics) level courses are taught in this Department. The Department has highly qualified faculty members consisting of five (05) Associate Professors, Ten (10) Assistant Professors (Contractual), one (01) Teaching Assistant and one (01) Lab Assistant.

15.2 Academic Programme:

For imparting quality education, both PG and UG level courses (M.Sc. in Mathematics, BSMS in Mathematics and BSMS in Mathematics & Computing) are taught in Mathematics Department. Admission in the two years (4 Semester) M.Sc. Degree and five years (10 Semesters) BSMS Courses are made through merit basis with an initial intake capacity of 10 and 20 students (respectively). Both of these M.Sc. and Dual Degree Programmes encourage and persuade the students to grasp in depth knowledge and also widen their career opportunities. Also the Department offers Ph.D. Degree in Mathematics.

15.3 Faculty and their Activities:

The Department has highly qualified faculty members consisting of five Associate Professors, ten Assistant Professors (Contractual) and one Teaching Assistant. In their pursuit of research, the faculty members are doing an extensive study in vast and diverse fields relating to Topology, Mathematical Biology, Inventory management (Operations Research), Bi-topology, MCDM, Fuzzy control system, Fuzzy optimization, Computational Fluid dynamics, Inventory control, Graph theory, ODE & PDE, Super-symmetric Quantum Mechanics, Water wave mechanics, Heat transfer, Convection, Numerical methods, Neural network, Wireless network, Image processing etc.

Short-Term Courses/ Workshops/ Seminar/ Symposia/ Conferences organized by the faculty members:

Sl. No.	Co-ordinators	Title	Period (Dd th – Dd th Month, Year)
Workshop: 02			
1.	Dr. Paritosh Bhattacharya and Dr. Uttam Kumar Bera	National Workshop on “Soft Computing and its applications in real life problems” at NIT Agartala	9 th – 13 th April, 2018
2.	Dr. Uttam Kumar Bera	National Workshop on “Vedic Mathematics” at NIT Agartala	22 nd – 26 th January, 2019

**Short-Term Courses/ Workshops/ Seminars/ Symposia/ Conferences/
Training attended by the Faculty in Academic Institutions and Public
Sector Undertakings:**

Sl. No.	Name of Faculty	Title	Period
Workshop:			
1.	Dr. Debasish Bhattacharya	National Workshop on Soft Computing and Its Application in Real Life Problems	9 th -13 th April , 2018
2.	Dr. Debasish Bhattacharya	Workshop on Geometry and Topology for Lecturers	16 th -25 th June, 2018
3.	Dr. Susmita Roy	National Workshop on "Soft Computing and its applications in real life problems"	9 th – 13 th April, 2018
4.	Dr. Pinki Majumder	National Workshop on "Soft Computing and its applications in real life problems"	9 th – 13 th April, 2018
5.	Dr. Abhijit Baidya	National Workshop on "Soft Computing and its applications in real life problems"	9 th – 13 th April, 2018
6.	Dr. Mantu Das	National Workshop on "Soft Computing and its applications in real life problems"	9 th – 13 th April, 2018
7.	Dr. Jayasree Chakraborty	National Workshop on "Soft Computing and its applications in real life problems"	9 th – 13 th April, 2018
8.	Dr. Jayanta Debnath	National Workshop on "Soft Computing and its applications in real life problems"	9 th – 13 th April, 2018
9.	Dr. Kalyani Debnath	National Workshop on "Soft Computing and its applications in real life problems"	9 th – 13 th April, 2018
10.	Dr. Sayanta Chakraborty	National Workshop on "Soft Computing and its applications in real life problems"	9 th – 13 th April, 2018
11.	Dr. Piyali Debnath	National Workshop on "Soft Computing and its applications in real life problems"	9 th – 13 th April, 2018
12.	Mrs. Sudipa Choudhury	National Workshop on "Soft Computing and its applications in real life problems"	9 th – 13 th April, 2018
13.	Dr. Susmita Roy	National Workshop on "Vedic Mathematics"	22 nd – 26 th January, 2019
14.	Dr. Pinki Majumder	National Workshop on "Vedic Mathematics"	22 nd – 26 th January, 2019
15.	Dr. Abhijit Baidya	National Workshop on "Vedic	22 nd – 26 th

		Mathematics"	January, 2019
16.	Dr. Mantu Das	National Workshop on "Vedic Mathematics"	22 nd – 26 th January, 2019
17.	Dr. Jayasree Chakraborty	National Workshop on "Vedic Mathematics"	22 nd – 26 th January, 2019
18.	Dr. Jayanta Debnath	National Workshop on "Vedic Mathematics"	22 nd – 26 th January, 2019
19.	Dr. Kalyani Debnath	National Workshop on "Vedic Mathematics"	22 nd – 26 th January, 2019
20.	Dr. Sayanta Chakraborty	National Workshop on "Vedic Mathematics"	22 nd – 26 th January, 2019
21.	Dr. Piyali Debnath	National Workshop on "Vedic Mathematics"	22 nd – 26 th January, 2019
22.	Mrs. Sudipa Choudhury	National Workshop on "Vedic Mathematics"	22 nd – 26 th January, 2019
Conference:			
1.	Dr. Debasish Bhattacharya	International Conference on Materials, Applied Physics and Engineering (ICMAE-2018)	3 rd -4 th June, 2018
2.	Dr. Apu Kumar Saha	3rd International Conference on Advanced Computing and Intelligent Engineering (ICACIE-2018)	22 th -24 th December, 2018.
3.	Dr. Apu Kumar Saha	International Conference on Applied and Computational Mathematics (ICACM-2018)	23 th -25 th November, 2018
4.	Dr. Apu Kumar Saha	National Conference on Ancient and Modern Mathematics, MBB University,	23 th -24 th February, 2019
Training:			
1.	Dr. Baby Bhattacharya	2 nd Faculty Development Program at IIM Kashipur	21 st - 25 th May, 2018

Fellowships of Academics and Professional Societies:

Sl. No.	Name of Faculty	Level	Year
ISTE/ CSI and others			
1.	Dr. Paritosh Bhattacharya	Fellow	2019

15.4 Design and Development Activities:

Design Development & Demonstration of Solar Dryer Suitable for Drying Natural Rubber Sheets in North East India. This sponsored research project is going on jointly at CSIR CMSCRI Bhavnagar and NIT Agartala.

15.5 Research and Consultancy:

Sponsored Research Projects:

Sl. No.	Title	Period	Funding Agency	Amount (in lakhs)	Co-ordinators
1.	Design Development & Demonstration of Solar Dryer Suitable for Drying Natural Rubber Sheets in North East India.	2017-2020	Ministry of New and Renewable Energy (MNRE)	21.40	Dr. Paritosh Bhattacharya (Joint PI)
2.	Online Monitoring and Time Series Analysis of Soil Radon Concentration at a Seismic Site For Studying Earthquake Precursory Process	2019-2022	Board Of Research in Nuclear Sciences (BRNS), Mumbai	Rs.27.312 Lakh	Dr. Paritosh Bhattacharya (PI)
3.	DST – FIST Program (From 18 th September 2017 – till date) (No. SR/FST/MSI – 102/2015 (C) dated 20 th May 2016)	2016-2021	Department of Science and Technology (DST)	Rs. 49.00 Lakh	Dr. Paritosh Bhattacharya (PI/ PC)
4.	Spatial distribution of uranium and associated water quality parameters of all districts of Tripura	2018-2020	BRNS	26,30,650.00	Dr. Uttam Kumar Bera (CoPI)

Research Publications:

Total No. of papers published in Refereed International Journals : 50

Total No. of papers presented in National Conference : 02

Total No. of papers presented in International Conferences : 17

In Refereed International Journals:

1. M. Dhar, S. Samaddar, P. Bhattacharya, R. K. Upadhyay "Viral Dynamic Model with Cellular Immune Response: A case study of HIV-1 Infected Humanized Mice" in *Physica A*, Volume 524, 15 June 2019, Pages 1-14.
2. M. Dhar, P. Bhattacharya, "Analysis of SIR epidemic model with different basic reproduction numbers and validation with HIV and TSWV data" in *Iranian Journal of Science and Technology Transactions A: Science*, (<https://doi.org/10.1007/s40995-019-00701-9>).
3. A. Biswas ,P. Bhattacharya, and S.P. Maity "A Smart System of 3D Liver Tumor Segmentation" in *International Journal of Product Development – InderScience Publisher* Vol. 23, No. 2/3, 2019.
4. M. Dhar and P. Bhattacharya, 'Comparison of the logistic and the Gompertz curve under different constraints', *Journal of Statistics and Management Systems*, 21 (7), 1189-1210, (2018).
5. M. B. Sarkar, B. Choudhuri, P. Bhattacharya, R.N. Barman, A. Ghosh, S.M.M Dwivedi, S. Chakraborty and A. Mondal, 'Improved UV Photodetection by Indium Doped TiO₂ Thin Film Based Photodetector', *Journal of nanoscience and nanotechnology* 18 (7), 4898-4903,(2018).
6. A. Paul, P. Bhattacharya, S.P. Maity and B.K. Bhattacharyya, 'Plateau limit-based tri-histogram equalisation for image enhancement', *IET Image Processing* 12 (9), 1617-1625,(2018).
7. S.Choudhury & A.K.Saha,'Prediction of operation efficiency of water treatment plant with the help of multi-criteria decision-making', *Water Conservation Science and Engineering*, 3(2), 79-90, (2018).
8. S. Choudhury, P.Howladar, M. Majumder and A.K. Saha, 'Application of Novel MCDM for Location Selection of Surface Water Treatment Plant', *IEEE Transactions on Engineering Management*, (2019).
9. S. Choudhury, A.K. Saha, and M. Majumder, 'Optimal location selection for installation of surface water treatment plant by Gini coefficient-based analytical hierarchy process', *Environment Development and Sustainability*", (2019).
10. S.Choudhury and A.K.Saha,, 'Location selection for Installation of Surface Water Treatment Plant by Applying a New Sinusoidal Analytical Hierarchy Process: Application of new MCDM in Location Detection', *International Journal of Energy Optimization and Engineering (IJEOE)*", 8(3), 20-42, (2019).
11. S. Choudhury, A. K. Saha and M. Majumder, 'Recognising the risk factors of water treatment plants using a hybrid mcdm method', *Environmental Policy and Law*, 48(1), 74-79, (2018).
12. D. Bhattacharya and S. Chakraborty, 'Solution of the general multi-objective De-Novo Programming Problem using compensatory operator under fuzzy environment', *IOP: Journal of Physics*, doi: 10.1088/1742-6596/1039/1/012012, July, (2018).
13. S. Banik and D.Bhattacharya , ' One-Step Approach for Solving General Multi-Objective De Novo Programming Problem Involving Fuzzy Parameters', *Hacettepe Journal of Mathematics & Statistics*,(2019).
14. S. Sharma and A. K. Saha, 'm-MBOA: a novel butterfly optimization algorithm enhanced with mutualism scheme', *Soft Computing*, (2019).
15. P. Majumder, M. Majumder and A.K. Saha, 'Real Time Monitoring of Power Production in Modular Hydro Power Plant: Most Significant Parameter Approach' *Environment, Development and Sustainability*, <https://doi.org/10.1007/s10668-019-00369-6>, (2019).

16. S. Debnath, A.K. Saha, B.S. Mazumder and A.K. Roy, 'Transport of a reactive solute in a pulsatile non-Newtonian liquid flowing through an annular pipe', *Journal of Engineering Mathematics*, (2019).
17. A.K. Roy, A.K. Saha, S. Debnath, 'Hydrodynamic dispersion of solute under homogeneous and heterogeneous reactions', *International Journal of Heat and Technology*, 37(2), 387 – 397, (2019).
18. J. L. Sarkar, C.R. Panigrahi, B. Pati, A.K. Saha, A. Majumder, "MAAS: A mobile cloud assisted architecture for handling emergency situations", *International Journal of Communication Systems*, <https://doi.org/10.1002/dac.3950> (2019).
19. S. Debnath, A. K. Saha, P. G. Siddheshwar and A. K. Roy, 'On dispersion of a reactive solute in a pulsatile flow of a two-fluid model', *Journal of Applied Fluid Mechanics*, 12(3), 987-1000, (2019).
20. S. Choudhury and A. K. Saha, "Location selection for Installation of Surface Water Treatment Plant by Applying a New Sinusoidal Analytical Hierarchy Process: Application of new MCDM in Location Detection", *International Journal of Energy Optimization and Engineering*, 8(3), 20-42, (2019).
21. P. Majumder and A. K. Saha, 'Ranking of indicators for estimation of Plant Efficiency in Hydropower plants by A bootstrap MCDM approach', *International Journal of Energy Optimization and Engineering*, 8(3), 69-92, (2019).
22. P. Majumder and A. K. Saha, 'Identification of Most Significant Parameter of Impact of Climate Change and Urbanization on Operational Efficiency of Hydropower Plant', *International Journal of Energy Optimization and Engineering*, 8(3), 43-68, (2019).
23. P. Majumder, M. Majumder, A.K. Saha, S. Koushani and S. Nath, 'Real time reliability monitoring of hydro-power plant by combined cognitive decision-making technique', *International Journal of Energy Research*, <https://doi.org/10.1002/er.4530> , (2019).
24. P. Majumder, M. Majumder, A.K. Saha and S. Nath, 'Selection of features for analysis of reliability of performance in hydropower plants: a multi-criteria decision making approach', *Environment, Development and Sustainability*, 1-27, (2019).
25. S. Nama and A. K. Saha, 'A novel hybrid backtracking search optimization algorithm for continuous function optimization', *Decision Science Letters* 8(2),163-174, (2019). Scopus.
26. S. Debnath, A.Banik, T. K. Bandyopadhyay, and A. K.Saha, 'CFD and Optimization Study of Frictional Pressure Drop Through Bends', *Recent Patents on Biotechnology* 12, 1-13, (2018).
27. P. Majumder, A.K. Saha and M. Majumder, 'A Mathematical Approach of Exploration Towards Extreme Risk Factor in Cancer of Optimal Condition', *International Journal of Pharmaceutical Sciences and Research* 9(9), 1000-11, (2018).
28. P. Majumder, M. Majumder and A.K. Saha, 'Climate Change and Urbanization Impact on Hydropower Plant by Neural Network-Based Decision-Making Methods: Identification of the Most Significant Parameter', *Water Conservation Science and Engineering*, 1-11, (2018).
29. A. K. Roy, A. K. Saha and S. Debnath, 'Unsteady Convective Diffusion with Interphase Mass Transfer in Casson Liquid', *Periodica Polytechnica Chemical Engineering*, 62(2), 215-223, (2018).

30. S. Nama, A. K. Saha and S. Ghosh, 'An Ensemble Symbiosis Organisms Search Algorithm and Its Application to Real World Problems', *Decision Science Letters*, 7(2), 103–118, (2018).
31. P. Majumder and A.K. Saha, 'Efficiency Assignment of Hydropower Plants by DEMATEL-MAPPAC Approach', *Water Conservation Science and Engineering*, 3(2), 91-97, (2018).
32. P. Majumder, A. K. Saha and M. Majumder, 'Application of DEMATEL-TOPSIS Method to Analyze Operational Efficiency of Hydropower Plants', *Journal of Civil and Construction Engineering*, 2(1, 2, 3) ,(2018).
33. S. Nama and A. K. Saha, 'A new hybrid differential evolution algorithm with self-adaptation for function optimization', *Applied Intelligence*, 48(7), 1657–1671 (2018).
34. D. Sarma, U. K. Bera and A. Das, 'A mathematical model for resource allocation in emergency situations with the co-operation of NGOs under uncertainty', *Computers & Industrial Engineering*, v.137, (2019).
35. D. Sarma, A. Das and U.K.Bera, 'An optimal redistribution plan considering aftermath disruption in disaster management', *Soft Computing*, (2019)
36. D. Sarma, A. Das, I. M. Hezam and U. K. Bera, 'Redistribution for cost minimization in disaster management under uncertainty with trapezoidal neutrosophic number', *Computer in Industry*, v.109, pp. 226 – 238, (2019).
37. D.Sengupta, A. Das, A. Data and U. K. Bera, 'A carbon emission optimization model with reduction method of type-2 zigzag uncertain variable', *Neural Computing and Applications*, doi:10.1007/s00521-018-3811-8, (2019).
38. A. Das, U.K.Bera and M.Maiti, 'A Solid Transportation Problem in Uncertain Environment Involving Type-2 Fuzzy Variable', *Neural Computing and Applications*, doi.org/10.1007/s00521-018-03988-8, (2019).
39. A. Das, U.K.Bera and M.Maiti, 'Defuzzification and application of trapezoidal type-2 fuzzy variables to green solid transportation problem', *Soft Computing*, v.22(7), pp. 2275–2297, (2018).
40. D. Sengupta, A. Das and U.K.Bera, 'A gamma type-2 defuzzification method for solving a solid transportation problem considering carbon emission', *Applied Intelligence*, (2018).
41. A. Baidya and U.K.Bera, 'New model for addressing supply chain and transport safety for disaster relief operations', *Annals of Operations Research*, (2018).
42. R. Datta, B. Bhattacharya and A. Chakrabarti, 'On improved delay-range – dependent stability condition for systems with time-varying delay via Wirtinger inequality'', *International Journal of Dynamics and Control*, 6(4), 1745-1754, (2018).
43. R. Datta, R. Dey and B. Bhattacharya, 'Further Improved Stability Condition for T-S Fuzzy Time-Varying Delay Systems via Generalized Inequality', *International Journal of Advanced Intelligence Paradigms* , (2019).
44. J. Chakraborty, B. Bhattacharya and A. Paul, 'Generalized Fuzzy Closed Sets in Generalized Fuzzy Topological Spaces', *Songklanakrin Journal of Science and Technology* ,41(1), (2019).
45. A. Paul, B. Bhattacharya and J. Chakraborty, 'On γ -Locally Closed Sets in Fuzzy Bitopological Spaces'', *Songklanakrin Journal of Science and Technology*, 40(5), (2018).
46. D. Rudrapal, A. Das and B. Bhattacharya, 'Ranking of Event-focused English Tweets Based on Relevance and Informativeness', *Computacion Sistemas* , 23 (2), 491-500, (2019).

47. D. Rudrapal, A. Das and B. Bhattacharya, 'Recognition of Partial Textual Entailment for Indian Social Media Text', *Computacion Sistemas*, 23 (1), 143-152,(2019).
48. B.K. Debnath, P. Majumder and U.K. Bera, 'Multi-objective Sustainable Fuzzy Economic Production Quantity (SFEPQ) Model with Demand as Type-2 Fuzzy Number: A Fuzzy Differential Equation Approach', *Hacettepe Journal of Mathematics and Statistics*, 48(1), 112-139,(2019).
49. P. Majumder, U.K. Bera and M. Maiti, "An EPQ model of deteriorating substitute items under trade credit policy", *International Journal of Operational Research* , 34 (2), 161-212, (2019).
50. B. Das and B. Bhattacharya, 'A New Approach to Fuzzy Bitopological Space via γ -Open Sets', *International Journal of Engineering Research in Computer Science and Engineering*, 5(2), (2018).

In Proceedings of National Conference:

14. M. Das, S. Choudhury, A. K. Saha; "National Conference on Ancient and Modern Mathematics", MBB University, 23th-24th February, 2019.
15. A. K. Saha; "National Conference on Ancient and Modern Mathematics"; MBB University; 23th -24th February, 2019.

In Proceedings of International Conference:

1. Gayatri Paul, Birojit Das, Baby Bhattacharya; "International Conference on Computational Intelligence & IoT (ICCIIoT-2018)", NIT Agartala, 14th -15th December 2018.
2. Gayatri Paul, Birojit Das, Baby Bhattacharya, "International Conference on Information Technology and Applied Mathematics"; HIT, West Bengal, 07th-09th March 2019.
3. Abhay S., A. K. Saha, R. S. Kumar; "International Conference on Emergent Research in Mathematics and Engineering (ICERME-2019)"; NIT, Agartala, 17th-18th May, 2019.
4. S. Sharma, A. K. Saha, Pankaj Chauhan; "International Conference on Emergent Research in Mathematics and Engineering (ICERME-2019)"; NIT, Agartala; 17th-18th May, 2019.
5. S. Sharma, A. K. Saha, J. L. Sarkar, C. R. Panigrahi; "3rd International Conference on Advanced Computing and Intelligent Engineering (ICACIE-2018)", Siksha 'O' Anusandhan; 22th -24th December, 2018.
6. Abhay S., R. S. Kumar, A. K. Saha; "International Conference on Applied and Computational Mathematics (ICACM-2018)"; IIT-KGP; 23th -25th November, 2018.
7. S. Debnath, A. K. Saha, B. S. Mazumder, A.K. Roy; "International Conference on Applied and Computational Mathematics (ICACM-2018)"; IIT-KGP, 23th - 25th November, 2018.
8. A.K. Roy, A. K. Saha, S. Debnath; "International Conference on Recent Trends in Mathematical Sciences (ICRTMS)"; Maharaja Bir Bikram University, Tripura, India; 24th -25th March, 2018.
9. A. K. Saha, S. Nama; "International Conference on Recent Trends in Mathematical Sciences (ICRTMS)"; Maharaja Bir Bikram University, Tripura, India; 24th -25th March, 2018.

10. S. Sharma, A. K. Saha, S. Nama, S. Roy; "International Conference on Recent Trends in Mathematical Sciences (ICRTMS)"; Maharaja Bir Bikram University, Tripura, India; 24th -25th March, 2018.
11. S. Choudhury, A. K. Saha, M. Majumder;" International Conference on Recent Trends in Mathematical Sciences (ICRTMS)"; Maharaja Bir Bikram University, Tripura, India; 24th -25th March, 2018.
12. J. Pal, A. K. Saha, P. Dutta; "International Conference on Recent Trends in Mathematical Sciences (ICRTMS)"; Maharaja Bir Bikram University, Tripura, India; 24th -25th March, 2018.
13. D. Bhowmik, P. Dutta, A. K. Saha; "International Conference on Recent Trends in Mathematical Sciences (ICRTMS)", Maharaja Bir Bikram University, Tripura, India; 24th -25th March, 2018.
14. K. Debnath, P. Baidya, A. K. Saha; "International Conference on Recent Trends in Mathematical Sciences (ICRTMS)"; Maharaja Bir Bikram University, Tripura, India; 24th -25th March, 2018.
15. S. Debnath, A. K. Saha, A.K. Roy; "International Conference on Recent Trends in Mathematical Sciences (ICRTMS)"; Maharaja Bir Bikram University, Tripura, India; 24th -25th March, 2018.
16. M. Kumar , R.S. Kumar, A. K. Saha; "International Conference on Recent Trends in Mathematical Sciences (ICRTMS)"; Maharaja Bir Bikram University, Tripura, India; 24th -25th March, 2018.
17. A. Biswas, P. Bhattacharya and S.P. Maity; "4th International Conference on Computing Communication and Automation"; 2018

Distinguished visitors to the Departments:

<i>Sl. No.</i>	<i>Name of the Visitors and Designation</i>	<i>Date of Visit</i>	<i>Purpose of Visit</i>
1.	<i>Dr. Arindam Singh Professor</i>	<i>8-9 November, 2018</i>	<i>Syllabus Revision</i>
2.	<i>Dr. Ranjit Upadhyay Professor</i>	<i>8-9 November, 2018</i>	<i>Syllabus Revision</i>
3.	<i>Dr. R.K.Guha Professor</i>	<i>8-9 November, 2018</i>	<i>Syllabus Revision</i>
4.	<i>Dr. Sankar Pal Professor</i>	<i>9th – 13th April, 2018</i>	<i>Delivered lectures on National Workshop</i>
5.	<i>Dr. Jaya Sil Professor</i>	<i>9th – 13th April, 2018</i>	<i>Delivered lectures on National Workshop</i>
6.	<i>Dr. Ujjwal Maulik Professor</i>	<i>9th – 13th April, 2018</i>	<i>Delivered lectures on National Workshop</i>
7.	<i>Dr. Ashish Ghosh Professor</i>	<i>9th – 13th April, 2018</i>	<i>Delivered lectures on National Workshop</i>
8.	<i>Dr. Susmita Ghosh Professor</i>	<i>9th – 13th April, 2018</i>	<i>Delivered lectures on National Workshop</i>
9.	<i>Dr. Sanjay Deshpande Professor</i>	<i>22nd – 26th January, 2019</i>	<i>Delivered lectures on National Workshop</i>

15.6 Other Activities:

- a. Two (02) Students of M.Sc. (Mathematics) qualified NET-2018 and 19.
- b. The Department of Mathematics organized one syllabus revision workshop (for BSMS Mathematics and M.Sc. Mathematics both) in November, 2018.

16.0 PHYSICS DEPARTMENT

16.1 Introduction:

From the inception of the institute, the mandate of the Physics Department has been the conduction of teaching courses for students of Science and Engineering disciplines as well as to conduct interdisciplinary studies. Over the years the department has evolved into State's and region's premier Engineering Physics teaching institution with sufficient infrastructure to run various undergraduate and postgraduate courses. Presently, the department runs 5-year dual BS-MS course and 2-year M.Sc. course in Physics along with the flagship program of 5-year dual BT-MT course in Engineering Physics. In addition the department teaches two semester long Engineering Physics course for B.Tech students of all Engineering branches. All of these courses are aimed to encourage the Science and Engineering students to acquire knowledge along with integrated thinking about education and high level research in Physics.

The faculty members are engaged in rendering the Science and Engineering undergraduate students with the fundamental knowledge of Physics and problem solving skills, requisite for a bright career, and striving tirelessly to improve the education further. The course structure of the four semester Master's Degree program (M.Sc.) in Physics has been designed with the specializations in Condensed Matter Physics, Physics of Plasmas, Thin Film and Nanotechnology, and Gravitation and Cosmology etc to blend all best in these areas of contemporary and applied Physics to create the post-graduates who are equally comfortable with science and technology. The department currently has a total of 123 students in Five year Dual degree programme, 14 students in M.Sc Programme, about 850 students in its roll which includes the B.Tech programme, and 16 Ph.D. scholars. The department is well equipped with laboratory facilities required to facilitate the need of undergraduate, post graduate students and the research activities. The department has faculty strength of 15 from all quarters of Physics.

A number of students from the Physics department secured high scores in prestigious NET and GATE examination and joined in various IITs and IISc to pursue further advanced research. One student has been qualified in JEST to pursue research in national level research Institutes. Students graduated from Physics department got opportunity to pursue better research career in universities abroad and also secured job as Scientist in Bhaba Atomic Research Centre (BARC), a place of national pride.

The department has a vibrant research programme in various frontline areas of research including various projects sponsored by SERB-DST and CSIR which are currently going on. Physics department has received FIST project from Department of Science and Technology, Government of India. The faculty members ensure the best possible research work for the research scholars engaged in respective fields of research in the major thrust areas of Thin Film and Nano-Science, Liquid Crystals, Plasma Physics and Theoretical High Energy Physics. The faculty members have also established collaborative research with various national and international institutes of repute.



16.2 Faculty and their Activities:

Short-Term Courses/ Workshops/ Seminars/ Symposia/ Conferences/ Training attended by the Faculty in Academic Institutions and Public Sector Undertakings:

Sl. No.	Name of Faculty	Title	Period
Workshop:			
1.	Dr. Thingujam Kiranmala Devi	Two days National workshop on Computational Study: Applications in Frontier Chemistry	26 th Sept.to 27 th Sept.2018

16.3 Research and Consultancy:***Sponsored Research Projects:***

Sl. No.	Title	Period	Funding Agency	Amount (in lakhs)	Co-ordinators
1	Development of organometallic nano-composites and scientific investigation on their functionalization towards improved adsorptive removal of toxic dyes for application in industrial wastewater treatment	2018-2021	CSIR	16.0	Dr. Biswajit Saha (PI) Dr. Animesh Debnath (Co- PI)
2	Development of a Low Cost Highly Sensitive and Selective Nitric Oxide (NO) Sensor for Asthma Diagnosis,	2019-2022	DST	Rs. 55,18,832.00/-	Dr S. P. Mondal

Research Publications:

Total No. of papers published in Refereed International Journals	:	19
Total No. of papers presented in International Conferences	:	1
Total No. of Books published	:	1

In Refereed National Journals:

1. Vanshree Parey, M.V. Jyothirmmai, E. Mathan Kumar, Biswajit Saha, N.K. Gaur, Ranjit Thapa 'Homonuclear B2/B3 doped carbon allotropes as a universal gas sensor: Possibility of CO oxidation and CO₂ hydrogenation, Carbon, 143, 38-50, (2019).
2. S. Chakraborty, B. Saha, S. K. Mandal , 'Investigation of electrical transport and magnetoelectric coupling of codoped ferrite-PbZr_{0.58}Ti_{0.42}O₃ nanocomposites' International Journal of Modern Physics B, 33, 1950022, (2019).
3. Nilamoni Barman, Biswajit Saha, Rakesh Roy, S.S. Kundu, Arup Borgohain, P.L.N. Raju, 'Investigation of curvature effect of Ångström exponent to classify the aerosol types over the region of interest (88°-98° E and 20°-30° N)' Atmospheric Pollution Research, 10, 363-373, (2019).

4. Biswajit Paul, Himangshu Dhar, Mangobinda Chowdhury, Biswajit Saha, 'Treating Ostrogradski instability for Galilean invariant Chern-Simon's model via PT symmetry', *Physical Review D*, 99, 065018 (2019).
5. Kamanashis Sarkar, Krishna Deb, Ajit Debnath, Arun Bera, Animesh Debnath, Biswajit Saha, 'Polaron localization in polyaniline through Methylene blue dye interaction for tuned charge transport and optical properties' *Colloid and Polymer Science*, 296, 1927-1934.
6. Krishna Deb, Kamanashis Sarkar, Arun Bera, Ajit Debnath, Biswajit Saha, 'Coupled Polaron-Electron Charge Transport in Graphite Functionalized Polyaniline on Cellulose: Metal Free Flexible p-type Semiconductor' *Synthetic metals*, 245, 96-101 (2018).
7. Mahashweta Bhowmik, Animesh Debnath, Biswajit Saha, 'Fabrication of mixed phase calcium ferrite and zirconia nanocomposite for abatement of methyl orange dye from aqua matrix: optimization of process parameters' *Applied Organometallic Chemistry*, 32, e4607(2018).
8. Kartick L. Bhowmik, Krishna Deb, Arun Bera, Animesh Debnath, Biswajit Saha 'Interaction of anionic dyes with polyaniline implanted cellulose: Organic π -conjugated macromolecules in environmental applications' *Journal of Molecular Liquids*, 261, 189-198, (2018).
9. S.K. Mandal, Sarit Chakraborty, P. Dey, B. Saha, T.K. Nath 'Zn doped NiFe₂O₄-Pb (Zr_{0.58}Ti_{0.42}) O₃ multiferroic nanocomposites: Magnetoelectric coupling, dielectric and electrical transport' *Journal of Alloy and Compounds*, 747. 834-845 (2018).
10. S. Pareek, D. Jain, D. Behera, R. Shrivastava, S. Hussain, A. Biswas, Saroj K. Parida, H. Kisan, H. Lgaz Ill-Min Chung 'A new insight into corrosion inhibition mechanism of copper in aerated 3.5 wt.% NaCl solution by eco-friendly Imidazopyrimidine Dye: experimental and theoretical approach', *Chemical Engineering Journal*. Volume 358, Pages 752-742 Year 2019
11. Saroj K. Parida, S. Sahu, ' A density functional study of second-row dicarbides C₂X (X = Na-Cl) with carbon monosulfide molecule: molecular structure and bonding mechanism', *Journal Materials Research Express* Volume 5, Pages 055604, Year2018
12. Saroj K. Parida, C. Behera, S, Sahu, 'Density functional theory study of the structural and bonding mechanism of molecular oxygen (O₂) with C₃SiJournal', *Physica E: Low-dimensional systems and Nanostructures*, Volume 101, Pages 294-298Year2018
13. P Chakraborty, S Dhar, N Deka, K Debnath, S.P. Mondal, "Non-enzymatic salivary glucose detection using porous CuO nanostructures" *Sensors and Actuators B: Chemical*, 2019, (In Press)

14. T. Majumder and S. P. Mondal, "Graphene quantum dots as a green photosensitizer with carbon-doped ZnO nanorods for quantum-dot-sensitized solar cell applications", *Bulletin of Materials Science*, 42, p.65 (2019).
15. P. Chakraborty, S. Dhar, K. Debnath, T. Majumder and S. P. Mondal, "Non-enzymatic and non-invasive glucose detection using Au nanoparticle decorated CuO nanorods", *Sensors and Actuators B*, 15, 776-785 (2019).
16. P. Chakraborty, S. Dhar, K. Debnath, S. P. Mondal, "Glucose and hydrogen peroxide dual-mode electrochemical sensing using hydrothermally grown CuO nanorods", *Journal of Electroanalytical Chemistry*. 833, 213-220, (2019).
17. S. Dhar, P. Chakraborty, T. Majumder, and S. P. Mondal "Acid Treated PEDOT:PSS Polymer and TiO₂ Nanorods Schottky Junction Ultraviolet Photodetectors with Ultrahigh External Quantum Efficiency, Detectivity and Responsivity", *ACS Appl. Mater. Interfaces*, 2018, 10 (48), pp 41618–41626.
18. T. Majumder, S. Dhar, P. Chakraborty, K. Debnath, S. P. Mondal, "S, N co-doped Graphene Quantum Dots Decorated C doped ZnO Nanotaper Photoanodes for Solar Cells Application", *NANO: Brief Reports and Reviews*, 14(2), 1950012(2019).
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In Proceedings of International Conference:

1. S. P Mondal, "TiO₂ Nanorods/Conducting Polymer Schottky Junction for Ultraviolet Photodetector Application", *Proc. International Conference on "Current Trends in Materials Science and Engineering (CTMSE 2019)"*, IEM, Kolkata and SN Bose Centre for Basic Sciences, Kolkata, 10th-20th July, 2019.

Books Published:

Name of the Authors published	Title of the Books	Date of publication of the Book	Issue/ Volume No./ Page No.
Dr. S. P. Mondal, S. Dhar, and T. Majumder	<i>Physical Chemistry for Chemists and Chemical Engineers: Multidisciplinary Research Perspectives Chapter 5: ZnO Nanostructure/Polymer Dielectric Films for Electronic and Optoelectronic Device Applications</i>	September, 2018,	Apple Academic Press, CRC Press Taylor & Francis Group, ISBN: 9781771886550.

Distinguished Visitors to the Departments:

Sl. No.	Name of the Visitors and Designation	Date of Visit	Purpose of Visit
1.	Prof. Tapan Kumar Nath, IIT Kharagpur	25/10/2018	Expert for Ph.D. Defense

17.0 PRODUCTIONENGINEERING DEPARTMENT

17.1 Introduction

Production Engineering Department was established in the year of 2005 while it was Tripura Engineering College (Presently National Institute of Technology) and is approved by AICTE. Presently department is offering Bachelor of Technology in Production Engineering and M.Tech in Computer Integrated Manufacturing and Doctoral Programme where students are encouraged to acquire knowledge facilities with an integrated thinking about education research & development, production and training. The students are provided knowledge to understand the fundamental of basic sciences and humanities, inter disciplinary knowledge, innovation, creative and problem solving abilities, intellectual honesty and professional ethics, capacity for team work in inter disciplinary, national and international environment. It also helps the students to understand society, culture and global processes. The department helps to induce entrepreneurship interest in students. Also to align and educate our students from Production Engineering Department to improve their fundamental knowledge to bring innovative technology and to build products either by themselves or by working with various industries to boost economic condition of our county and also North-East part of India.

The Department has seven numbers of permanent faculty and five numbers of contractual faculty members. All faculties are deeply involved in academic, research and administrative responsibilities of the Institute.

The Production Engineering Department is having Metallographic, Non Traditional Machining, CNC automation & Robotics, Ergonomics & Condition Monitoring, CAD/CAM, Metal Forming and Metal Casting, Mechanics of Machine laboratory, Mechatronics Laboratory and Quality Engineering Laboratories.

PICTURES OF EXISTING LABS



Pictures of Non Traditional Machining Laboratory



Pictures of CNC, Automation and Robotics Laboratory



Picture of Metallography Laboratory Picture of CAD/CAM Laboratory



Picture of Metal Casting and Forming Laboratory



Picture of Strength of Material Laboratory

17.2 Academic Programme

Presently department is offering B.Tech, M.Tech & Ph.D programme.

17.3 Faculty and their Activities**Short-Term Courses/ Workshops/ Seminars/ Symposia/ Conferences organized by the faculty members:**

Sl. No.	Coordinators	Title	Period
Workshop			
1.	Dr. Uttam Kumar Mandal	"Academia & Industry Interaction"	25 th -29 th June, 2018
2.	Dr. R.N. Rai & Dr. Sujoy Chakraborty	"Technical Education: Role of Languages"	24 th August, 2018

Short-Term Courses/ Workshops/ Seminars/ Symposia/ Conferences/ Training attended by the Faculty in Academic Institutions and Public Sector Undertakings:

Sl. No	Name of the Faculty	Title	Period
Workshop:			
1.	Dr. Sujoy Chakraborty, Dr. Bishop Debbarma, Ms. Pushparenu Bhattacharjee, Dr. Nabarun Biswas, Mr. Debashis Podder	"Academia & Industry Interaction"	25 th -29 th June, 2018
2.	Dr. U.K. Mandal, Dr. Kishan Choudhury, Dr. Swarup Paul, Dr. Vidyut Dey, Dr. Bishop Debbarma, Ms. Pushparenu Bhattacharjee, Dr. Nabarun Biswas, Mr. Debashis Podder	"Technical Education: Role of Languages"	24 th August, 2018
Conference:			
1.	Dr. U.K. Mandal	"7 th International & 28 All India Manufacturing Technology, Design and Research Conference (AIMTDR) "	13 th -15 th December, 2018
2.	Dr. U.K. Mandal	"International Conference on Advances in Dynamics, Vibration and Control (ICADVC)"	6 th – 8 th June, 2018
3.	Dr. Kishan Choudhuri & Dr. Swarup Paul	"An International Conference on Tribology, TRIBOINDIA-2018"	13 th to 15 th December 2018

Fellowships of Academics and Professional Societies:

Sl. No.	Name of Faculty	Level	Year
ISTE/CSI and others			
1.	Mr. Prasenjit Dutta	Member (IEI)	2015
2.	Dr. Kishan Choudhuri	i. Associate Member (IEI) ii. Member (ISTE) iii. Member (FOSET)	2000 2004 2009
3.	Dr. Swarup Paul	i. Associate Member (IEI) ii. Member (ORSI) iii. Member (ISTE) iv. Member (TSI) v. Member (SAE) vi. Member (FOSET)	2001 2008 2009 2011 2009 2010
4.	Dr. U.K Mandal	Member (IEI)	2014
5.	Dr. Bishop Debbarma	Associate Member (IEI)	2014
6.	Dr. Sujoy Chakraborty	Associate Member (IEI)	2010
7.	Dr. Nabarun Biswas	Associate Member (IEI)	2010
8.	Ms.Pushparenu Bhattacharjee	Associate Member (IEI)	2014
9.	Mr. Debashis Podder	Associate Member (IEI)	2015

*IEI- The Institution of Engineers (India), *ISTE- The Indian Society for Technical Education, *FOSET- Forum of Science Engineering and Technology, *ORSI- Operational Research Society of India, *TSI- Tribology Society of India, *SAE- Society of Automotive Engineering.

17.4 Design and Development Activities:

The Department of Production Engineering is equipped with some advanced laboratories with modern equipment's. The details are given below:

1) CNC Wire Cut EDM 2) Electric Discharge Machine 3) Five Axis Robot 4) CNC Vertical Milling 5) Rockwell Hardness Testing Machines 6) Vickers's Hardness Testing Machines 7) Direct Reading Ferro Graph & Analytical Ferro Graph 8) Muffle Furnace 9) Induction Furnace 10) Hydraulic Press 11) Pneumatic Hammer 12) Image Analyzer 13) CAD Software- CATIA, PRO-E, DELMIA 14) 3D Surface Profilometer.

17.5 Research and Consultancy:**Research Publications:**

Total No. of papers published in Refereed International Journals: 14 (Fourteen)
Total No. of papers presented in International Conferences: 08 (Eight)

In Refereed International Journals:

1. Das, S., Paul, S., & Doloi, B. (2019). Application of CFD and vapor bubble dynamics for an efficient electro-thermal simulation of EDM: an integrated approach. The International Journal of Advanced Manufacturing Technology, 102(5-8), 1787-1800.

2. B. Bhattacharjee, P. Chakraborti, K. Choudhuri, "Evaluation of the performance characteristics of double-layered porous micropolar fluid lubricated journal bearing." *Tribology International*, (2019), Vol. 138, pp. 415–423.
3. B. Bhattacharjee, P. Chakraborti, K. Choudhuri, "Theoretical analysis of single-layered porous short journal bearing under the lubrication of micropolar fluid." *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, (2019), Vol. 41, pp. 365 (1-9).
4. Das, S., Paul, S., & Doloi, B. (2019). An experimental and computational study on the feasibility of bio-dielectrics for sustainable electrical discharge machining. *Journal of Manufacturing Processes*, 41, 284-296.
5. Sankar Prasad Mondal, Syed Abou Iltaf Hussain, Binayak Sen, Uttam Kumar Mondal, "Fuzzy Multi-criteria Decision-Making Using Neutrosophic Sets" *Linear and Non-linear Neutrosophic Numbers*, DOI: 10.1007/978-3-030-00045-5-4, November 2018.
6. Syed Abou Iltaf Hussain, Debasish Baruah, Bapi Dutta, Uttam Kumar Mandal, Sankar Prasad Mondal, Thuleswar Nath, "Evaluating the impact of service quality on the dynamics of customer satisfaction in the telecommunication industry of Jorhat, Assam", *Telecommunication Systems*, vol. 71, no. 1, October 2018.
7. Syed Abou Iltaf Hussain, Uttam Kumar Mandal, Sankar Prasad Mondal, "Decision maker priority index and degree of vagueness coupled decision making method: A synergistic approach", *International Journal of Fuzzy Systems*, vol. 20, no. 5, June 2018.
8. Syed Abou Iltaf Hussain, Syeda Shamim Shabnam, Uttam Kumar Mandal, Sankar Prasad Mondal, "AHP coupled multi-criteria decision making approach for selection of carbon nanotube applied in mechanical engineering under grey-environment", *Int. J. Materials and Structural Integrity*, vol. 12, no. 1-3, August 2018.
9. Syed Abou Iltaf Hussain, Uttam Kumar Mandal, Sankar Prasad Mondal, "Developing a Decision-Making Model Using Interval-Valued Intuitionistic Fuzzy Number", *Harmony Search and Nature Inspired Optimization Algorithms*, vol. 741, no. 1, August 2018.
10. Jibitesh Kumar Panda, Gadepalli Ravi Kiran Sastry, Ram Naresh Rai, "Experimental analysis of performance and emission on DI diesel engine fueled with diesel-palm kernel methyl ester-triacetin blends: a Taguchi fuzzy-based optimization", *Environmental Science and Pollution Research*, Volume 25, Issue 22, pp 22035–22051, August 2018.
11. Ram Singh, and R. N. Rai, "Characterization of B4C-composite-reinforced aluminum alloy composites", *American Institute of Physics*, ISSN No: 1551-7616, April 2018.
12. Ram Singh, Bateshwar Prasad, R.N. Rai, "Effect of parameters involved in Arc welded mild steel plates", *Materials Science and Engineering*, ISSN No: 1757-8981, 2018.
13. S Debnath, G R K Sastry, R Naresh Rai, "Multi-Objective Decision Making Optimization for Electro Discharge Machining Process of Al-4.5Cu-SiC Composite Using Fuzzy-Topsis", *Journal of Scientific & Industrial Research*, Vol-27, Feb. 2019, PP. 86-90.
14. Rabisankar Debnath, Gadepalli Ravi Kiran Sastry, Ram Naresh Rai, "An experimental investigation of performance and emission of thumba biodiesel using butanol as an additive in an IDI CI engine and analysis of results using

multi-objective fuzzy-based genetic”, Environmental Science and Pollution Research, 26(3) 2019, pp. 2281-2296.

In Proceedings of International Conference

1. B. Bhattacharjee, P. Chakraborti, K. Choudhuri, “Influence of the Gas Lubrication on Double Layered Porous Journal Bearing” An International Conference on Tribology, TRIBOINDIA-2018, 13th to 15th December 2018, VJTI-Mumbai, India.
2. Das, S., Paul, S., & Doloi, B. (2018), “Performance Evaluation of Si-Cu-Hybrid Dust as a Powder Additive of EDM Dielectrics to Machine Ti6Al4V with Copper Electrode”, Springer Proceeding, AIMTDR, 13th to 15th December 2018.
3. Mohanty Suwendu and Paul Swarup, “Importance of Tribological study for Internal Combustion Engines using Biofuel, Proceedings of TRIBOINDIA-2018, An International Conference on Tribology, 13th to 15th December 2018, VJTI-Mumbai, India.
4. Syed Abou Iltaf Hussain, Dr. Uttam Kumar Mandal, Surajit Sen, “Multi-Criteria Decision making on Carbon Nanotubes in Mechanical and Manufacturing applications by using various Mathematical models”, ISTE NAC 2018: 47th ISTE National Annual Convention 2018, Saintgits College of Engineering, Kottayam, Kerala.
5. Arvind Kumar and R. N. Rai, “Fabrication, Microstructure and Mechanical Properties of Boron Carbide (B₄Cp) Reinforced Aluminum Metal Matrix Composite-A Review”, IOP Conference Series: Materials Science and Engineering, ISSN No: 1757-8981, Vol. 377, 2018.
6. Ram Singh, Malik Shadab, R.N. Rai, “Optimization of machining process parameters in conventional turning operation of Al5083/B₄C composite under dry condition”, Materials Today, Proceeding, Vol. 5 , PP. 19000–19010, 2018.
7. Binayak Sen, Uttam Kumar Mandal, “Development and Validation of Gene Expression Programming Meta Model to Forecast The Machining Performance Parameters of Inconel-690”, Springer Proceeding, AIMTDR, 13th to 15th December 2018.
8. Rajesh Chakraborty, Uttam Kumar Mandal, Rabindra Nath Barman, “Experimental and Numerical Study of Fluid Flow Parameters of Different Bends in a Pipe using k- ϵ Modelling”, International Conference on Advances in Dynamics, Vibration and Control (ICADV) 6th – 8th June, 2018.

Book Chapter:

SL No.	Authors	Title of the Paper	Book Title	DOI	Date of publishing
1.	Syed Abou Iltaf Hussain, Uttam Kumar Mandal, Sankar Prasad Mondal	A holistic-based multi-criterion decision-making approach for solving engineering sciences problem under imprecise environment.	Handbook of Research on Modeling, Analysis, and Application of Nature-Inspired Metaheuristic Algorithms	DOI: 10.4018/978-1-5225-2857-9.ch015	2018

2.	Syed Abou Iltaf Hussain, Uttam Kumar Mandal, Sankar Prasad Mondal	VIKOR Method for Decision Making Problems in Interval Valued Neutrosophic Environment	Fuzzy Multi-criteria Decision-Making Using Neutrosophic Sets	DOI: https://doi.org/10.1007/978-3-030-00045-5_22	4 th November, 2018
3.	Sankar Prasad Mondal, Syed Abou Iltaf Hussain, Binayak Sen, Uttam Kumar Mondal	Linear and Non-linear Neutrosophic Numbers	Fuzzy Multi-criteria Decision-Making Using Neutrosophic Sets	DOI: 10.1007/978-3-030-00045-5_4	4 th November, 2018

Distinguished Visitors to the Departments:

Sl.No.	Name of the Visitors and Designation	Date of Visit	Purpose of Visit
1.	Prof. Sadhan Ghosh, Professor, Jadavpur	8 th May, 2018	External Examiner
2.	Prof. Sudarsan Ghosh, Professor, IIT Delhi	5 th December, 2018	Syllabus Review
3.	<i>Prof. Dhiman Chatterjee, Professor, IIT Madras</i>	5 th December, 2018	Syllabus Review & Expert Speaker
4.	Prof. Partha Saha, Professor, IIT Kharagpur	8 th March, 2019	Syllabus Review
5.	Prof. M. Shyamanta Hazarika, Professor IIT Guwahati	8 th March, 2019	Syllabus Review
6.	Prof. Suman Chakraborty, Professor, IIT Kharagpur	28/06/2018	Expert Speaker
8.	Dr. Kamallesh Mandal, Steel Dynamics, AIST	25/06/2018	Expert Speaker

18.0 SCHOOL OF MANAGEMENT

18.1 Introduction:

The School of Management has started its operation by offering PG course (MBA) since July 2012 with 14 students having background from varied disciplines with a motto to develop professionals skilled with analytical and administrative ability. Looking at the economic potential of the North-Eastern states, a management school was a logical extension to National Institute of Technology, Agartala.

Masters of Business Administration (MBA) programme (full time) was started with the purpose of administering quality management education to aspiring managers to mould them as competent professionals and good human beings equipped with social ethics.

The department has 05 (five) nos. of dedicated faculty members along with faculty members from allied departments. Faculty Members and Experts are invited from other reputed institutions and corporate to bring professionalism among the students by blending academic knowledge with corporate skills.

The Department has a Computer Laboratory. In this Lab, students perform practical works in various subjects like IT and Business Skills, Finance, marketing and so on. Students also perform research work in this computer lab. The Lab is also equipped with a web camera and internet facility for interview purposes.



18.2 Academic Programme:

Currently, School of Management is offering two year (four semesters) full time MBA programme. This Programme is providing an in-depth understanding to students in technical, human and conceptual skills necessary for a successful manager with specialization in different areas like Finance, Marketing, Human Resource and System. The teaching strategy for this program oriented towards the application of knowledge with live cases and teaching aids. The School of Management is also offering Ph.D programme in Management since January 2017 session.

In the year 2018-19, the total student strength of the department in MBA programme is 27 (Twenty Seven) for odd semester, consisting 14 in 1st semester and 13 in 3rd semester and also the student strength is same for even semester. In the department, there are 04 (four) Ph.D. scholars and pursuing their research work.

There is a six weeks Summer Internship Programme (SIP) for students, after completion of first year course to develop business acumen. The Department facilitates students to undergo paid internships in various reputed government and private organizations viz. RBI, NEDFi, SBI, NABARD, ONGC, HDFC, ITC, Senrysa Technologies Pvt. Ltd. etc.

The students are placed in various reputed private organizations like Nestle India Ltd, Anchor India, Trawelltag Covermore, AXIS Bank, Kiwikijobs Handyman Services, HDFC Bank, Bandhan Bank, Mobisoft, Jaro Education, Stratecent Consulting, Epic Research Pvt. Ltd, Ways2Capital, Bharti Axa Life Insurance, XL Dynamics, Capital Via Global Research Ltd, Karvy Stocks, Shriram Finance, Future Groups etc. In the year, 2018-19, the placement percentage of registered eligible students for MBA program is 100%.

18.3 Faculty and their Activities:

Short-Term Courses/ Workshops/ Seminars/ Symposia/ Conferences/ Training attended by the Faculty in Academic Institutions and Public Sector Undertakings:

Sl. No.	Name of Faculty	Title	Period
Workshop:			
1.	Dr. Anirban Dutta	"Introduction to Research Methodology and Statistical Analysis"	24 th to 28 th Oct'2018

18.4 Research and Consultancy:

Research Publications:

Total No. of papers published in Refereed International Journals	:	01
Total No. of papers presented in International Conferences	:	01
Total No. of Books published	:	01

In Refereed International Journals:

S. Saha, A. Dutta (2019), "Analytical Perspective of Service Gap and Factors of Service Quality in Indian Life Insurance Industry". International Journal of Banking, Risk and Insurance, 2019, Vol. 7(1), Pg 1-12. UGC Listed Journal.

In Proceedings of International Conference:

Mallik, Rajib (2018), 'Management Structure of Agricultural Regulated Markets in Tripura', XVII International Conference on Business Management, Technology and Behavioral Sciences (ICBMTBS-18), Society of Technical and Management Professionals (STMP), Haridwar, Uttarakhand, pp- 253-265, on 14-15 July, 2018.

Books Published:

Name of the Authors published	Title of the Books	Date of publication of the Book	Issue/ Volume No./ Page No.
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Mallik, Rajib and Sarkar, Sukanta (2018)	Tax Reforms, Demonetization and Cashless Economy – A strategy Economic Development of India.	Year- 2018 KALPAZ Publications, New Delhi. ISBN 978-93-86397-99-7.	<i>Pages-1-178</i>
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Distinguished Visitors to the Departments:

Sl. No.	Name of the Visitors and Designation	Date of Visit	Purpose of Visit
01	Mr. Manmohan Mahapatra , Cluster Head- North East HDFC Asset Management Company .	30/08/2018	Guest Speaker in Corporate Lecture Series.

18.5 Institute – Industry Collaboration :

One day industrial visit was arranged for the students(MBA) on 16th February, 2019 at ONGC Tripura Power Company (*OTPC*), Palatana, Udaipur in the Gomoti district of Tripura to get insight of the various managerial and operational activities of this thermal power plant .

18.6 Other Activities :

All dedicated faculty members of the department are deeply involved in academic, research and administrative responsibilities of the Institute.

19.0 CENTRAL LIBRARY

19.1 Introduction:

NIT Agartala Central Library inherited some of its resources from the then Tripura Engineering College, controlled and managed by Dept. of Higher education, Govt. of Tripura in 2006. In the year 2010 the Central Library shifted to a building with a carpet area of 727.18 SqM. Since then it has grown in size and content to take a notable shape. In January 2018 the library has been shifted to its newly constructed sophisticated building with all modern amenities for library readers. At present the ground floor with 2282.00 sqm. and the first floor with 2282.00 sqm. of the new building is being utilized by the library. Since the new building has large floor area the collections have been arranged and separated department wise for easy searching of books. It has separate non-book section, reserved section and foreign books section. A separate non-book section is opened for the benefit of the PG and PhD scholars and faculty members of the institute. The library is at present equipped with facilities and resources in the forms of books, e-journals, dissertation, thesis, CD ROM, back volumes journals etc. Purified water facility, ample lit space for reading with adequate sitting capacity are provided in both the floors for making an aesthetic appeal to the library users. It has a separate conference room with 20 seating capacity. The Bio-metric attendance of library staff has already been introduced. The library is also covered with CCTV surveillance.

The library is equipped with fully functional RFID system to ensure the facility like security, automated check-in and check-out system, tracking of library materials and self check-in & check-out facility of the tagged materials under this system. 30000 selected volumes of books have been 'RFID tagged'. Process is going on for tagging entire collection of the library under the RFID systems. Library is now functioning to attain the goal of creating knowledgeable persons in the society as well as to provide modern library facilities to its readers.

19.2 Library Information Services Statistics:

Item	2017-2018	2018-2019	Remarks
A. Collections:			
Books	85336(As per Accession register)	85452(As per Accession register)	Current physical book as per accession register 69538 . As because 15914 nos of books fall under damaged, written off, missing, Accession dropped, torned etc. categories though officially may did not declare.
Ph. D. Theses	86	107	21 nos of PhD thesis added during this period
Book Bank (General)	Nil	116	In 2018-19, 116 nos of books added by gifts
Book Bank (Weaker Section)	956	NA	
Current Periodicals by Subscription	9	8	

Current Periodicals by Exchange/ Gift	174	302	
C.D	662	662	
Total			
B. Membership:			
Staff	10	1	
Faculty	4	5	
Students	1052	1081	
Total			
C. Services : Circulation			
Number of Readers visited	28239	17818	
Number of Books/ Journals issued	14205	15426	
Number of Books issued Book Bank (Weaker Section)	3598	NA	
D. Reservation of Books			
Registered	55	10	
Fulfilled	51	8	
E. Loans			
Permanent Loan issued	65	Nil	
F. Literature Search			
CD-ROM search by users	5	8	
G. Expenditure on			
Books Printed	Rs.4,39,930	Nil	
Printed Journals	Rs.23,892	Nil	
E-books	Nil	Nil	e-resources has been made available through ESS only.
E-journals	Nil	Nil	
H. New Journals Added	585	2856	e-journals added through ESS
I. Any other material, if any:	Yes	Yes	Furniture, water purifier cum cooler, conference table & chair, biometric attendance machine.

19.3 Binding Facilities:

At present NITA library has no binding section. Torn books are bound by the library staff. There is a plan to start a binding section in NITA Central Library in future.

19.4 New Facilities/ Equipments added:

Data entries of books have been completed for 69295 volumes to enrich the OPAC system (LAN) in the library for searching the repositories in the library mainly under three approaches - Authors, Titles and subjects. Non-book section is opened recently in the library. Some reading tables (ten) 10 nos, water purifier and cooler- 2 nos, 20 seater conference table and chairs and a biometric attendance machine have been added in the library. NITA Central Library is covered with the CCTV surveillance.

19.5 Future Plan:

- (i) RFID tagging of entire collection of the library.
- (ii) Complete automation of NITA Central library.
- (iii) Starting documentation work and services on different subjects specially in Science and Engineering.
- (iv) Providing resource sharing and inter-library loan facilities.
- (v) Launching user-education programme.
- (vi) Online question paper facilities to be provided for different PG & UG previous years examinations.
- (vii) 24 x 7 library facilities will be provided along with starting a children corner for the wards of staff and faculty members of NITA who are residing in the NITA campus.
- (viii) Building repository of institute.

19.6 Other activities:

Library staff has also participated in the online training cum workshop on library software.

20.0 STUDENT AMENITIES AND ACTIVITY

20.1 Hostels:

The Institute has both Boys' and Girls' Hostel facilities. Students are accommodated in 4 Boys' Hostels and 1 Girls' Hostel. Present status of the Hostels is given below:

Name of the Hostel/ Unit	Name of the Warden	Hostel Seat Capacity	Seat Occupied
Aryabhatta Hostel	Dr. P Jawahar Dr. Susanta Ghanta Dr. Tridib Bhowmik Mr. Prashant Bharadwaj	944	850
Dhalai & Gomati Hostel	Dr. Subrata Kumar Ghosh Dr. Muthusivaramapandian	208	67
RNT	Dr. Mitra Barun Sarkar Dr. Dijendranath Roy Dr. Apurba Chakraborty Dr. Chakradhar Behera	1554 (Single)	1084
Gargi (Girls Hostel)	Mrs. Smita Das Dr. Nabamita Goswami Dr. Nandini Roy	436	405

20.2 Medical Facilities:

A well equipped Medical Unit with Four Medical Officers, Two Pharmacists, Two Nurse and other supporting staff is available in the campus for rendering medical care to the students, staff and other inmates of the campus. Presently we have two Ambulances in our Medical Unit. In case of emergency, arrangements are made for taking the patients to the Jirania Rural Hospital (Primary Health Centre) which is 4 K.M. away from the campus or to the State Hospital in Agartala.

20.3 NCC:

NIT Agartala has started the NCC unit of 100 cadets for Boys and Girls.

20.4 Gymkhana:

The NITA Student Gymkhana is a very active student organization that acts as a link between the students and the administration. The Gymkhana promotes the objectives of fostering extra-curricular and co-curricular activities and welfare of students. The Gymkhana is managed by the students, for the students, under the guidance and active participation of the faculty and staff members. It comprises of four committee viz. Cultural committee, Sports and games committee, Technical and Alumni committee. In the hierarchy, individual secretaries of clubs and committees follow general secretaries. All the members of the Students' Gymkhana are selected by the Gymkhana Committee members.

20.5 ACTIVITY OF SPORTS, CULTURAL, TECHNICAL & NSS:

S. N O	EVENTS CONDUCTED	ACHIEVEMENTS	DATE
1.	BASKETBALL STATE MEET	CHAMPIONS(MEN'S TEAM)	15th AUGUST,2018
2.	SWACHHATA ABHIYAAN	Successfully Organized	26th SEPTEMBER,2018
3.	INTER-NIT NAGPUR (BADMINTON,YOGA,TT)	YOGA TEAM -4th Position TT TEAM -Semi-Finals	29th SEPT- 1st OCT, 2018
4.	INTER-YEAR (KHO-KHO,KABADDI,FOOTBALL)	Successfully Organized	29th OCT-3rd NOV,2018
5.	INTER YEAR CRICKET	Successfully Organized	11th NOV-23rd NOV,2018
6.	BASKETBALL STATE MEET(M&W)	Participated	11th JAN-13th JAN,2019
7.	ANNUAL ATHLETICS MEET	Successfully Organized	19th JAN-20th JAN,2019
8.	INTER-NIT ROURKELA (KHO-KHO,KABADDI, FOOTBALL)	Participated	25th JAN-27th JAN,2019
9.	OPEN CHESS TOURNAMENT	Successfully Organized	26th JAN,2019
10.	INTER-NIT AGARTALA (HANDBALL,HOCKEY,CHESS)	Successfully Organized All India Inter NIT Meet HANDBALL(W)-Champions HOCKEY(M) -2nd Runners Up CHESS (M) - 4th Position HANDBALL (W) - Best Player	8th MARCH-10th MARCH,2019
11.	OPEN BADMINTON TOURNAMENT	Successfully Organized	16th MARCH-17th MARCH,2019
12.	INTER YEAR TABLE TENNIS	Successfully Organized	21st MARCH-24th MARCH,2019
13.	INTER NIT WARANGAL, ATHLETICS MEET	SILVER MEDALS - 3 BRONZE MEDAL -1	22nd MARCH-24th MARCH,2019
14.	BLOOD DONATION CAMP	140+ Donors	29th MARCH,2019

15 .	INTER YEAR VOLLEYBALL	Successfully Organized	30th MARCH-31st MARCH,2019
16 .	INTER BRANCH CRICKET	Successfully Organized	30th MARCH-6th APRIL,2019
17 .	INTER DEPARTMENT BASKETBALL	Successfully Organized	30th MARCH-2nd APRIL,2019
18 .	WORLD'S HEALTH DAY	Successfully Organized	07th APRIL,2019
19 .	PRIZE DISTRIBUTION CEREMONY	Successfully Organized	3rd MAY,2019
20 .	NSS Special Camp	Successfully Organized	08.12.2018 to 13.12.2018
21 .	CELEBRATION OF INTERNATIONAL DAY OF YOGA	Successfully Organized	21ST JUNE 2018
22 .	CELEBRATION OF INDEPENDENCE DAY	Successfully Organized	15TH AUGUST 2018
23 .	CELEBRATION OF REPUBLIC DAY	Successfully Organized	26TH JANUARY 2019
24 .	AAYAM 6.0	Successfully Organized	2ND NOVEMBER TO 4TH NOVEMBER 2018
25 .	MOKSHA 6.0	Successfully Organized	14TH FEBRUARY TO 16TH FEBRUARY 2019
26 .	EK BHARAT SHRESTHA BHARAT	Successfully Organized	6TH TO 8TH APRIL 2018 AT NIT MIZORAM
27 .	CHIEF MINISTER VISIT		23RD APRIL 2018

20.6 Other Activities:

The students of NIT Agartala participate in the national level Technical Fest organized by different IITS and NITS. They are also actively engaged in different technical and cultural clubs like - Music, Photographic, Dance, Robotics, Magazine, Fine Art, Drama Club, and Soft Skill development, Programming, Meditation, Science and Trekking Clubs. The students also take part in 'Engineers Day' different activity organized by IEI.

21.0 CENTER FOR CAREER DEVELOPMENT

The institute has a dedicated Centre for Career Development for organizing industrial training, study tours, Apprenticeship Training and Placement for all the students. The placements have benefited the institute with proud statistics from the past year with an outstanding percentage of almost 84.54% of total eligible students being placed in organizations of high repute. Last year, total 350 offers (Total eligible students of B.Tech is 414) have been received from different companies and organizations like Synopsis, Yodlee, Amdocs, Capgemini, L&T Heavy, Wipro, L&T Construction, Oracle GBU, Allstate, Maruti Suzuki, Medlife, MAQ Software, Topper.com, KPIT, Infosys, Oracle Finance, Deloitte, Avanti Learning Centre, Vedanta, ADP, Reliance Industries, Tata Projects etc.

In this academic year too, since July 2019, the turn out of various organizations and companies of repute have been very high in our institute. Because of the immense efforts by the entire Placement team of the institute, the institute has recorded sky high turn out of companies in a short span of time. Companies which have already visited us in this short span of time are organizations like TVS Motors, Mechmocha, Lntinfotech, First American, Tredence Analytics, Samsung R&D (Bangalore) and Samsung R&D (Delhi), Capgemini, Reliance IT, Amdocs, Nokia, Jungle Works, Tata Steel, Delhivery, Alstom, Saggeza, Wipro, Accenture, Addverb, Samsung R&D Delhi, Addverb, Byju's, Oracle Finance, Reliance Jio, Value Lab, Virtusa, IBM, Tata Projects and Optum. Till now, the placement team has fetched the institute a total number of 213 (overall) job offers as on 17th October, 2019. The student's community should act as our brand ambassadors in the companies in which they are placed and ensure that their respective organizations participate in the placement drive of our institute in order to achieve better institutional development, and thus participate in the entire process of nation building.

For the academic year 2018-19, students are placed in these organizations like Yodlee-4, Amdocs-6, Capgemini-15, L&T Heavy-5, Wipro-39, L&T Construction-29, Oracle GBU-2, Allstate-5, Maruti Suzuki-4, Medlife-1, MAQ Software- 2, Topper.com-11, KPIT- 14, ABCI Infrastructure- 5, Infosys- 5, Oracle Finance-13, Deloitte-3, Avanti Learning Centre-1, Vedanta-16, ADP- 5, Reliance Industries-17, Ashok Leyland-8, Virtusa-1, Reliance IT-4, Accenture- 7, Research.in-23, Reliance Jio-2, ETS-3, Medici Tripara-11, Tata Projects-2, sYCone- 3, KEC International-1, Samsung R&D- 5, DXC- 6, Raam Group-1, Rao iit-3, ICICI Prudential-9, Bitmapper-3, Amazon-1, HDFC Life-8, Aarti Industries-1, Gammon-1, Siemens-1, Mechmocha-2, M.Tatva-3, Lntinfotech-3, Vedanta Oil & Gas-2, Epic Research-12, HMEL-5, Build Supply-2, Capital Aim-5, Allen Career Institute- 4, Edgistry-1, Byjus-5.

CCD also provides training and internship to 2nd year and pre-final year UG and PG students during the summer and winter vacations in different organizations like Airports Authority of India, ONGC Ltd., SAIL, IOCL, Tripura State Pollution Control Board, L&T Construction, CPWD, Tata Steel Ltd., Reliance Industries Ltd., NIC, Wipro, BSNL, Hindustan Aeronautics Ltd., Diesel Locomotive Works, NEEPCO, CSIR-IMMT, Bhubaneswar, Power Grid Corporation of India Ltd., BHEL, HPCL, BPCL, NTPC, Kota Thermal Power Plant, TSECL, OTPC, Central Tool Room & Training Centre (CTTC), Bhubaneswar, TATA Motors, Fiat India, CSIR-Central

Mechanical Engineering Research Institute, Oil India Ltd., TVS Sundaram Clayton, AMP Motors, Indian Railways, Tata Steel, Coca-Cola, TATA HITACHI, Indian Immunological Ltd., IIT Kharagpur, IIT Madras, IIT Guwahati, IIT Gandhinagar etc. In the last academic year (2018-19) out of 1375 (Including UG and PG) students of 2nd year and pre-final year, 1270 (Based on MIS and offline application), have participated in the above mentioned organizations which includes both winter and summer training & internship.

Sl. No	Branch	Name of the Company/ Industry	Bachelors Degree level	Masters Degree level (Visited only for UG)	Ph.D	Total
1	Civil Engg.	Capgemini	UG	-	NA	45
		L&T Construction				
		Topper.com				
		ABCI				
		Infrastructure				
		Infosys				
		Research.in				
		ETS				
		Tata Projects				
		sYCone				
		KEC International				
		Rao iit				
		HDFC Life				
		Gammon				
		Epic Research				
		Allen Career Institute				
2	Mechanical Engg.	Capgemini	UG	-	NA	51
		L&T Heavy				
		Wipro it				
		L&T Construction				
		Maruti Suzuki				
		Topper.com				
		ABCI				
		Infrastructure				
		Oracle Finance				
		Vedanta				
		Reliance Industries				
		Ashok Leyland				
		Research.in				
		Raam Group				
		ICICI Prudential				
		Vedanta Oil & Gas				
				-		

3	Electrical Engg.	Capgemini			NA	47
		All State				
		L&T Heavy				
		L&T Construction				
		KPIT				
		Topper.com				
		Wipro	UG			
		Infosys				
		Vedanta				
		Reliance Industries				
		Research.in				
		Reliance Jio				
		Mediciti				
		DXC core				
		Rao IIT				
		ICICI Prudential				
		HDFC Life				
		Epic Research				
		HMEL core				
		Allen				
4	Electronics and Communication Engg.	Capgemini	UG	-	NA	53
		Amdocs				
		All State				
		KPIT				
		Topper.com				
		Wipro				
		Oracle Finance				
		Delloite				
		ADP				
		Reliance IT				
		Accenture				
		Research.in				
		Mediciti				
		Samsung R&D				
		DXC				
		ICICI Prudential				
		HDFC Life				
		Bitmapper				
		M.Tatva				
		Epic Research				
		Byjus				
		Capital aim				
5	Electrical and Instrumentation Engg.	Oracle GBU , DXC, Aarti Industries	UG	-	NA	18
		KPIT, Epic Research, Byjus				
		Wipro				
		Infosys				
		Vedanta				
		Reliance Industries				
		Mediciti				

6	Chemical Engineering	Capgemini	UG		NA	23
		Infosys				
		Vedanta		-		
		Reliance Industries				
		Research.in				
		Epic Research				
		HMEL				
		Capital Aim				
		Allen				
		Byjus				
7	Production Engg.	Topper.com	UG	-	NA	22
		Oracle Finance				
		Delloite				
		Vedanta				
		Research.in				
		Ashok Leyland				
		Rao IIT				
		ICICI Prudential				
		HDFC Life				
		Epic Research				
		Capital Aim				
		Edgistify				
		Byjus				
8	Computer Science and Engg.	Capgemini	UG	-	NA	81
		Amdocs				
		Yodlee				
		Oracle GBU				
		Medlife				
		All State				
		MAQ Software				
		Wipro				
		Oracle Finance				
		Delloite				
		Avanti Learning Centre				
		Vedanta				
		ADP				
		Virtusa				
		Reliance IT				
		Accenture				
		Research.in				
		Reliance Jio				
		Samsung R&D				
		DXC				
		Bitmapper				
		Siemens				
		Mechmocha				
		M.Tatva				
		Lntinfotech				
		BuildSupply				
		Amazon				

9	Bio Engg.		UG	NA	9	
		Topper.com				
		Research.in				
		ICICI Prudential				
		HDFC Life				
		Capital Aim				

22.0. CAMPUS AMENITIES AND INFRASTRUCTURE DEVELOPMENT INITIATIVES

22.1 Introduction:

The Institute has gone through a rapid growth in its Infrastructure Development as commitment in its strategic plan, a journey towards excellence. Converting an existing State Level Engineering Institute (viz TEC) having infrastructure and logistic inadequacies into an institute of National excellence is a formidable challenge. But the growth process which has taken place at NIT Agartala is an indication of growth oriented programmes and realistic planning in the right direction.

22.2 Major Works:

The institute is spread over an area of 365 acres of land. The following works have been completed.

Sl. No.	Name of the Works	Rupees in Lakhs
1.	Construction of Boys and Girls Hostels, Dining and Common Rooms	11566.44
2.	Construct of Market Complex (G+1)	672.00
3.	Internal Road Development	1441.94
4.	Construction of Laboratories cum Canteen Building, Workshop and Academic Building, Construction of G+6 Academic Building	5178.16
5.	Construction of Staff Housing, Guest House, Director's Residence.	6046.49
6.	Construction of Central School	2395.00
7.	Construction of Administration Block I & II and Seminar Hall	4765.86
8.	Construction of School of Management Block	3722.41
9.	Construction of Computer Center and Central Library	7983.9
10.	Construction of New Housing (H4B two blocks consisting of 48 flats).	2698.54
11.	Construction duplex housing (10 nos)	1148.29
12.	Additional Floor of Central School	995.85
13.	Construction of Sports Complex at NIT, Agartala	6312.19
14.	Area development works in and around Central Plaza, Academic Zone at NIT Agartala	229.732
15.	Construction of 1500 Capacity Boys Hostel	15243.00
16.	Up-gradation of the internal main road with both side footpath including side drain, electric post, bus stop, sitting arrangement at a certain interval & conduit from main gate-1 to auxiliary gate-2 via housing and boys hostel & auxiliary gate-2 to main gate-1 and auditorium to existing play ground (old) at NIT Agartala.	1216.37

Work in progress:

The following works are in progress and will be completed very soon.

Sl. No.	Name of the Works	Rupees in Lakhs
3.	Supply, installation, testing & commissioning of 14 (fourteen) lifts in Administrative Building 1 & 2, School of Management, International Guest House, Academic Block (ECE Deptt. & DoNER) and Central Library at NIT Agartala	417.13

22.3 Housing Facilities:

As regards residential buildings, staff housing units, the institute has twenty four apartments in each of H3A, H3B, H4A, H4B, H5 type housing and twelve apartments in each of H2A, H2B type housing. The Director's Bungalow has also been completed and is presently occupied by the Director. New H4B2 and H4B3 type housing having 24 apartments each are completed and are now functional. Construction work of 10 (ten) number of Duplex Housing is also completed and functional.

22.4 Guest House:

There is one Old Guest House at NIT Agartala having 13 nos. of double-bed living rooms. There is also a Transit House in Agartala having two Single bed rooms, one double-bed room and conference hall. A new International Guest House having 33 (thirty three) single bed rooms, 10 (ten) suites and 05 (five) VVIP Suites has been constructed and presently is in functional.

22.5 Hostel:

Three numbers of old boys' hostel having capacity of 346 students, one number of 1000 capacity boys' hostel and one number of 500 capacity Girls' hostel are already functional. The mega project (1500 capacity boys' hostel) has been launched to meet the accommodation requirement of students in the campus. The work was started in February 2014 and expected to be completed by Dec, 2018.

22.6 Bank: State Bank of India, Canara Bank, Tripura Gramin Bank are operating their branches in the NITA Campus.

22.7 Post Office: There is a sub-post office in the NITA campus, viz NIT Agartala Post Office.

23.0 CENTRE FOR INDUSTRIAL CONSULTANCY AND SPONSORED RESEARCH

23.1 Introduction :

Our campus is witnessing an exponential growth in R&D activities. Apart from a large consultancy work undertaken by our engineering departments, academic research gains its momentum day by day. Papers have been published by our faculty members and research scholars in different referred journals of international and national repute. Research papers have been presented in various conferences, seminars and symposia held at national and international levels. Seminars, conferences and symposia at national level were organized by various departments of our institute. Apart from academic activities, our faculty members are also engaged with various consultancy works.

Our Institute has signed MOUs with industries and institutions in and abroad to promote collaborative research and consultancies. Our faculty members have obtained major projects funded by DST, CSIR, DBT, FIST, ICSSR, ICMR and ISRO etc.

Faculties and students are actively involved in various research activities. Our institute received Rs.317.34 Lakhs in the financial year 2016-17, Rs.149.44 Lakhs in the financial year 2017-18 and Rs.449.40 Lakhs in the financial year 2018-19 from various funding agency. The faculty members of our Institute also published 196 numbers of SCI and 78 numbers of SCOPUS Journals and organized 01 International conference and 01 International and 13 National workshops organized in the year of 2019. 01 (One) patent has been published and almost 95 papers have been published in various International and 25 national conferences in the year of 2018-2019.

23.2 Sponsored Research:

Sl No.	Sponsoring Agency	Project Title	Name of the Chief Project Investigator/Project Investigator	Sanctioned Value (Rs. In Lakh)
1	SERB	Polarization conversion and rotation using micro-ring resonator and its application to design binary and multi-valued logic circuits in optical domain.	PI: Dr. Jayanta Kumar Rakshit, Asstt. Prof in Electronics & Instrumentation Engineering Dept.	26.39086 Lakhs (23 rd July 2018)
2	SERB	Evaluation of a strengthening scheme for hollow compressed earth block wall using fibres, bamboo and steel bars.	PI: Dr. Deb Dulal Tripura, Assoc. Prof. in Civil Engg. Dept	33.4 Lakhs (4 th Sep 2018)

3	BRNS	Spatial distribution of uranium and associated water quality parameters of all districts of Tripura.	PI: Dr. T.K. Mishra , Associate Prof. of Chemistry Department.	26.3065 Lakhs (5 th Dec 2018)
4	DST	Geospatial technologies under Natural Resources Data Management System (NRDMS) Programme of Department of Science and Technology	PI: Prof. Umesh Mishra, Civil Engg. Dept.	10.00 Lakhs (3 rd Jan 2019)
5	DBT	Enhancing the productivity of phycobiliproteins (C-PCs) and Cyanocobalamin(Vitamin B ₁₂) in selected cyanobacteria for valorization and development of functional foods	PI: Dr.Tarun Kanti Bandypadhyay, Assistant Prof. of Bio Engg. Dept. Co-PI: Dr.Biswanath Bhunia, Assistant Prof. of Bio Engg. Dept. Co-PI: Dr. Radha Prasanna ,Division of Microbiology Indian Agriculture Research Institute ,New Delhi. Co-PI: Dr. Abhijit Mondal , Assist. Prof. Chemical Engg. Dept.	51.29996 Lakhs (28 th Sep 2018)
6	DBT	Sustainable production of algal biomass for production of biofuels :A holistic approval with bioremediation & economical harvesting technique .	PI: Prof. Umesh Mishra, Civil Engg. Dept. Co-PI: Dr. Muthusivaramadian, Asst. Prof. of Bio Engg , Dr. Biswanath Bhunia, Asst. Prof. of Bio Engg , Dr.Selvaraju N, Asst. Prof of Bio Engg IIT Guwahati .	15.916 Lakhs (29 th April 2019)
7	DST	Mitigating scarcity of stone aggregates in pavement construction using locally available materials & stabilization techniques.	PI: Dr. Partha Pratim Sarkar, Associate Prof. Civil Engg. Dept.	9.975 Lakhs (1 st year sanctioned amount) (8 th March 2019)
8	ICSSR	Developing a methodology for Self-cleansing of urban storm water drainage system a	PI: Dr. Ratul Das , Associate Prof. of Civil Engg. Dept.	4.00 Lakhs (11 th July 2019)

		scientific approach for greening smart city		
9	SERB	Technology development for the production of natural colorant (chlorophyll) from isolated microalgae.	PI: Dr. Kalyan Gayen, Assistant Prof. Of Chemical Engg Dept., Co-PI Dr. Miraganka Sekhar Manna, Assistant Prof. of Chemical Engg Dept., Dr. Tridib Kumar Bhowmick, Assistant Prof. Of Bio Engg Dept.,	32.2272 Lakhs (26 th March 2019)
10	ICMR	Multi-drug delivery with nano-sized carrier particles for combination therapy in tuberculosis.	PI: Dr. Tridib Kumar Bhowmick, Asstt. Prof in Bio Engineering Dept	15.24 Lakhs (20 th March 2019)
11	DST	IoT based Traffic Monitoring System for hilly roads of North-East India .	PI: Dr. Ashim Saha Assistant Prof. CSE Dept.	10.172 Lakhs (26 th Feb 2019)
12	SERB	Development of a Low Cost Highly Sensitive and Selective Nitric Oxide (NO) Sensor for Asthma Diagnosis .	PI: Dr. Suvra Prakash Mondal Assistant Prof. of Physics Dept.	55.18832 Lakhs (14 th May 2019)
13	ICSSR	Skill Development in Tripura: Analysis on problems, challenges and opportunities .	PI: Dr. Anirban Dutta, Assistant Prof. SOM & H&SS Dept. Co-PI : Dr. Mili Kar , Assistant Prof. SOM & H&SS Dept.	04.5 Lakhs (8 th July 2019)

23.3 Consultancy Programmes:

Institute actively engaged in performing various consultancies and testing works. Department of Civil Engineering, Mechanical Engineering and Humanities & Social Science performing various Consultancy Project related to the PMGSY project associated with MGNREGA, ERM India Pvt. LTD, DDU-GKY and Directorate of School Education. Institute has earns Rs. 20.9478 Lakhs in Consultancy Projects from the financial year 2018-19. Institute has also earns Rs. 16.88522 Lakhs in Consultancy & Testing Work from the financial year 2018-19.

23.4 Industrial Associateship Scheme:

An Industrial Advisory Committee (IAC) is constituted with leading experts from the Industry associations to provide professional and technical input into curriculum and activities of the students. Experienced person from Industry frequently visit to the institute as examiner, resource person in seminar/workshop, for syllabus review meeting etc.

23.5 MoUs Agreements signed:

NIT Agartala signed MOUs with industries and various institutions to promote collaborative research and consultancies. Our Institute has signed MoUs with Visvesvaraya NIT, Nagpur, Maharashtra, Indian Institute of Technology, Madras, National Environmental Engineering Research Institute, Nagpur, Indian Institute of Science Education and Research, Kolkata, West Bengal State, Central Manufacturing Technology Institute, Bangalore, Dr. B.R. Ambedkar National Institute of Technology Jalandhar, Punjab, IIT Guwahati, Sonoma State University (SSU), California, USA in the year of 2018-2019.

23.6 Patents:

Sl. No	Title of the Invention	Inventor(s)	Department	Patent version no.	Date of filling of application
1.	DFG INDUCED OPTICAL PHASE CONJUGATION FOR EFFICIENT DISPERSION COMPENSATED OPTICAL AMPLIFIER	Dr. Ardhendu Saha, Associate Prof., EE Dept., Priyanka Dey, Assistant Prof. ECE Dept.	Electrical Engineering	201731 029278	18.08.2018
2	IOT COUPLED VLC BASED SMART DOOR LOCK SYSTEM	Dr. Apurba Chakraborty, Assistant Prof. ECE Dept. Divya Trivedi, Ajeeth Suryash, Smran Sinha, Madhvi Nandalaya, Veamsi Krishna .	Electronics And Communication Engineering	201841 030042	08.10.2018
3	METHOD TO MITIGATE CRACKING CONCRETE AND CEMENT SAND PLASTER	Prof. Richi Prashad Sharma, Civil Engg Dept., Maurya Shubham Ajay Kumar	Civil Engineering	201831 017456 A	09.05.2018
4	SMART AGRONOMY MONITORING AND ENHANCING AN IRRIGATION EFFICIENCY	Dr. Mitra Barun Sarkar, Assistant Prof., ECE Dept. Ankit Rupam, Abriti Roy	Electronics And Communication Engineering	201931 029993	25.07.2019
5	SMART	Dr. Mitra Barun	Electronics	201931	04.10.2019

	GARBAGE MONITORING DEVICES	Sarkar, Assistant Prof., ECE Dept. Mr. Sabyasachi Mukhopadhyay, Dr. Paritosh Bhattacharya	And Communication Engineering	040157	
6	NOVEL POLYMERIC BLEND FOR MAKING BIOLOGICAL JOINT PROSTHESIS AND METHOD OF MAKING THE SAME	Dr. Prasun Chakraborti, Associate Prof. of ME Dept. Shankar Swarup Das	Mechanical Engineering	201931 042737	22.10.2019

23.7 Other Information:

One MoU has been signed between NIT Agartala and **Indian Space Research Organization** on 17th September 2018 to provide Innovative Project ideas with fund support. Total 08 numbers of Technology Development Project (TDP) proposals have been evaluated & approved. Regarding this an amount of Rs. 39,55,782/- being 30% of the total budget amount for these 08 projects had been provided by the ISRO.

24.0. TEQIP - III

24.1 Introduction:

The Technical Education Quality Improvement Programme (TEQIP) launched by the Government of India with the World Bank assistance to scale-up and support ongoing efforts to improve quality of Technical Education and enhance existing capacities of the institution to become dynamic, demand-driven, quality conscious, efficient and forward looking, responsive to rapid economic and technological developments occurring both at National and International levels. TEQIP is a long term Programme of 10-12 years duration planned to be implemented in 2-3 phases. The first phase of the TEQIP commenced in March 2003 and ended in March 2009. TEQIP phases two has been introduced in National Institute of Technology Agartala on 3rd August 2011 and closed on 2017 and now NIT Agartala got TEQIP-III and it will be continue upto March 2020. In TEQIP-III, NIT Agartala will get Rs. 1500.00 lakh. Our expenditure from 01.4.2018 to 31.03.2019 is Rs. 267 lakh. From TEQIP-III, fund can be provided for procurement of equipments, Research Assistantships for PhD Scholars and for attending & conducting workshops, conferences, trainings etc.

- This year student Induction Programme for 1st Year UG students has been done at NIT Agartala under TEQIP-III
- GATE training was conducted for final year B.Tech students under TEQIP-III.
- Total 3 (three) nos. of workshops, conferences etc. are conducted at NIT Agartala by the various department under TEQIP-III.

24.2 Conference, workshop etc. attended by Faculty and Students:

Report of attended workshop, conference and training etc. by the Faculties under TEQIP-III from 01-04-2018 to 31.03.2019

Total	Conference	Workshop	FDP and other Training	Training at IIM	GIAN
97	28	12	21	4	32

Report of attended workshop, conference and training etc. by the Students under TEQIP from 01-04-2018 to 31.03.2019

Total	Conference	Workshop	Experimental Work	GIAN	Induction Program	MITACS
146	71	19	16	32	3	3

24.3 Report of attended workshop, conference and training etc. by the Staffs under TEQIP-III from

TOTAL	Training
10	10

- Financial assistance has been sanctioned from TEQIP-III for filling 3 numbers of Patents during F.Y. 2018-19.

25.0. FINANCE & ACCOUNTS

25.1 Grants from MHRD:

(Rs. in Lakhs)

Head	2018-19	2017-18
Income		
Grant from MHRD		
Object Head-31	3748.00	1467.00
Object Head-36	4043.00	6449.50
Object Head-35	1023.00	2999.50
Total	8814.00	10916.00
Expenditure		
Object Head-31	3845.49	3388.86
Object Head-36	3307.11	3953.61
Object Head-35	1575.47	4597.23
Total	8728.07	11939.70

25.1.1 Expenditure Statement:

(Rs. in Lakhs)

Particulars	OH-31	OH-36	OH-35	Total
Opening Balance	378.78	2496.29	3129.00	6004.07
Grant received from MHRD	3748.00	4043.00	1023.00	8814.00
Total Available	4126.78	6539.29	4152.00	14818.07
Total Utilized	3845.49	3307.11	1575.47	8728.07
Unspent Balance as on 31.03.19	281.29	3232.18	2576.53	6090.00
Income from Other Sources	2650.38			

25.1.2 Details Expenditure Statement:

Particulars	Amount (Rs. in lakhs)
<u>Object Head-31</u>	
31-1- Retirement Benefit	----
31-2- Scholarships/Fellowships	867.25
31-3- Foreign/Domestic Travels	11.52
31-4- Security/Housekeeping	802.64
31-5- Exp. on Contractual Employees (Teaching & Non-Teaching)	1514.44
31-6- Other Expenses	649.64
Total- OH-31	3845.49
<u>Object Head-36</u>	
36-1- Expenditure on Salary of Regular Faculty	1942.37

36-2- Expenditure on Salary of Regular Non-Faculty	268.51
36-3- Medical Expenses	5.81
36-4- Leave Encashment	8.43
36-5- LTC	34.72
36-6- CPDA	1.45
36-7- Retirement Benefits	900.00
36-8- Other Expenses	145.82
Total- OH-36	3307.11
<u>Object Head-35</u>	
35-1- Buildings	1278.59
35-2- Equipments	239.25
35-3- Library	4.19
35-4- Furniture	53.44
Total- OH-35	1575.47
Grand Total (31+36+35)	8728.07

Audit Report & Annual Accounts 2018 -2019

1192/A-CPD/19
20-11-19

ARCPD
PI 24/11/19
19-11-19

राष्ट्रीय प्रौद्योगिकी संस्थान अगरतला National Institute of Technology Agartala O/o the Registrar	
RECEIPT	
Sl. No. : 1722	Date : 19/11/19

BY SPEED POST/FAX/E-MAIL

No. CCS/FAA&AB/SAR/NIT/2018-19/1180
Dated: 07.11.2019



लोकहितार्थसत्यनिष्ठा

Dedicated to Truth in Public Interest.

महालेखाकार (लेखापरीक्षा) का कार्यालय,
त्रिपुरा, अगरतला,
OFFICE OF THE ACCOUNTANT GENERAL (AUDIT),
TRIPURA, AGARTALA
पिन/ PIN – 799006

फ़ोन / Phone : 235-5494/235-0063
फैक्स/ Fax – 0381-2350158/ 235-0423
ईमेल/ Email: agautripura@cag.gov.in

To
The Registrar,
National Institute of Technology, Agartala,
Barjala, Jirania,
West Tripura-799046.

Subject: Separate Audit Report on the accounts of National Institute of Technology,
Agartala for the year 2018-19

Sir,

I am to send herewith the Separate Audit Report (SAR) on the accounts of National Institute of Technology, Agartala for the year 2018-19 along with a Management letter for further action at your end.

Encl: As stated.

Yours faithfully,

(Dr. Sanjay Kamini)
Deputy Accountant General (Audit)

Discussed.
A RKM Note
20.11.19

SEPARATE AUDIT REPORT OF THE COMPTROLLER AND AUDITOR GENERAL OF INDIA ON THE ANNUAL ACCOUNTS OF THE NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA FOR THE YEAR ENDED 31 MARCH 2019

We have audited the attached Balance Sheet of the National Institute of Technology Agartala, Tripura as on 31 March 2019, the Income and Expenditure Account and Receipts and Payments Account, for the year ended on that date under Section 19(2) of the Comptroller and Auditor General's (Duties, Powers & Conditions of Service) Act, 1971. These financial statements are the responsibility of the management of the National Institute of Technology Agartala, Tripura. Our responsibility is to express an opinion on these financial statements based on our audit.

2. This Separate Audit Report contains the comments of the Comptroller and Auditor General (C&AG) of India on the accounting treatment only with regard to classification, conformity with the best accounting practices, accounting standards and disclosure norms, etc. Audit observations on financial transactions with regard to compliance with the Law, Rules and Regulations (Propriety and Regularity) and efficiency-cum-performance aspects etc., if any, are reported through Inspection Reports/C&AG's Audit Reports separately.

3. We have conducted our audit in accordance with auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements. An audit includes examining, on a test basis, evidences supporting the amounts and disclosure in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.

4. Based on our audit, we report that:

i) We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of our audit.

ii) The Balance Sheet, Income and Expenditure Account/ Receipt and Payment Account dealt with by this report have been drawn up in the format prescribed by the Ministry of Human Resources Development (MHRD), the Government of India vide order No. 29-4/2012-FD dated 17 April 2015 except as stated in B.1 and B.2.

iii) In our opinion, proper books of accounts and other relevant records have been maintained by the National Institute of Technology Agartala, Tripura as far as it appears from our examination of such books.

iv) We further report that:

A. Balance Sheet

Assets

Loans and Advances – Plan Fund

Details of Advance to Parties (Schedule 2A)- Rs.500.08 lakh

A.1 The following advances included above are lying unadjusted even though the respective work is complete and the Institution is using the same asset:

- i) Adv. for Iron Removal Plant – Rs.15.60 lakh.
- ii) Adv. for Water Supply- Rs.26.95 lakh.

The assets of '10,000 GPH capacity DTW scheme' was handed over by the DWS Department to NIT, Agartala on 27.12.2018 for usage. As the assets are ready and handed over to the Institution, Plan Fund assets (Iron Removal Plant and Water Supply) are understated by Rs 42.55 lakh (Rs 15.60 lakh + Rs 26.95 lakh) with corresponding overstatement of Advance to Parties (Plan Fund) by an equal amount.

B. General

B.1 Format of Accounts

Schedule 23 : Significant accounting policies Sl.No.1 para 3 states that the Institute has prepared the Annual Accounts 2018-19 as per the format provided by the Ministry of HRD with the approval of the Comptroller and Auditor General of India. However, the following instances were noticed where the Institute did not follow the prescribed format:

Sl.No.	Name of Schedule	Nature of non-compliance
1.	Balance Sheet	i. As per the prescribed format, the "Sources of funds" and "Application of funds" were not mentioned on the face of the Balance Sheet. ii. The "Fixed assets" were not classified as "Tangible assets", "Intangible assets" and "Capital works in progress" on the face of the Balance Sheet.
2	Schedule 3 Current Liabilities and provision	A. Current Liabilities : (Sl.No.3) Sundry creditors have not been bifurcated into "for goods and services" and "others".
3.	Schedule 3(a) Sponsored	No schedule is included in the accounts detailing scheme wise sponsored projects.

	Projects	
4.	Schedule 9	As per format, "academic receipts" are to be classified as tuition fee, admission fee, enrolment fee, etc. However, the Institute did not show these sub-heads under "academic collection".
5.	Schedules 15	As per format, staff payments and benefits should be classified separately for teaching and non-teaching staff. However, this classification was not done in the schedule.
6.	Schedule 17	The administrative and general expenses were not shown under the broad heads A. Infrastructure, B.Communication and C. Others.
7.	Schedule 18	The transportation expenses were not classified under the broad heads 1.Vehicles (owned by the Institution), 2.Vehicles taken on rent/lease and 3. Vehicle (Taxi) hiring expenses.

B.2 NIT, Agartala has received in total Rs.88.14 crore as grant from the Ministry of HRD, GoI during 2018-19. Rs.10.23 crore under capital head, Rs.37.48 under recurring head and Rs.40.43 crore under salary head. Schedule 10 to the accounts depicts only recurring and salary head grant value. However, no utilisation has been shown as per the format in Schedule - 10. Rs.10.23 crore received under Capital head should have been shown under Schedule 10. The Schedule 3(C) has also not prepared and unutilised grant not shown in the books of accounts.

B.3

1. The Institute during its formation has taken over net assets of Rs.16.08 crore from erstwhile Tripura Engineering College. However, the Institute is yet to incorporate these assets and liabilities into its accounts even though it is in possession of the same.
2. The Institute has not adopted actuarial valuation for determining retirement benefit obligations of its employees as required by AS-15.
3. The Institute has accounted for interest on fixed deposits on actual basis and have not computed the accrued interest on fixed deposits as on 31.03.2019 (Schedule 8).
4. As per the format and instructions of MHRD, the interest income should be shown at gross figures (Schedule 12) and tax deducted at source on interest income is to be stated separately as Receivables in the Balance Sheet, where the income of the Institute is exempt from Income Tax. The Institute has not shown the TDS of Rs. 48.91 lakh, as Receivables, deducted by the banks on interest income during the year 2018-19 (TGB: Rs 6,89,623; Canara Bank: Rs 6,87,519; SBI: 35,13,885).

B.4 The electromechanical work in the swimming pool of sports complex at NIT, Agartala is unfinished as on 31.03.2019. In 43rd Building and Works Committee Meeting dated 21.06.2019, it has been decided to invite Expression of Interest (EOI) for the balance work at an estimated cost of Rs.4.47 crore. Accordingly, the asset value of swimming pool (aquatic centre) included in the capitalised value of Rs.64.40 crore under Sport Complex in 2018-19 should be reversed to CWIP until the swimming pool is ready for use.

C. Grant-in-aid


During the financial year 2018-19, the Institute received Rs.88.14 crore as grant-in-aid from Government of India (Rs.10.23 cr. for capital asset, Rs.37.48 cr. for recurring and Rs.40.43 cr. for salary). Opening unspent grant balance as on 01.04.2018 was Rs.60.04 cr. (Rs.31.29 cr. under capital asset, Rs.3.78 cr. under recurring and Rs.24.96 cr under salary). The internal income of the Institute for the year 2018-19 was Rs.26.07 cr. Against the total available fund of Rs. 174.25 cr, the institute could utilise 113.35 cr. (Rs.87.28 cr grant fund and Rs.26.07 cr own fund) leaving an unspent grant fund balance of Rs.60.90 cr as on 31.03.2019.

v) Subject to our observation in the preceding paragraphs, we report that the Balance Sheet and Income and Expenditure Account and Receipts and Payments Account dealt with by this report are in agreement with the books of Accounts.

vi) In our opinion and to the best of our information and according to the explanations given to us, the said financial statements read with the Accounting Policies and Notes on Accounts, and subject to the Significant matters stated above and other matters mentioned in Annexure to this Audit Report, give a true and fair view in conformity with accounting principles generally accepted in India:

- a. In so far it relates to the Balance Sheet of the state of affairs of the National Institute of Technology, Agartala as on 31.03.2019,
- b. In so far as it relates to Income and Expenditure Account of the deficit for the year ended on that date.

For and on behalf of the
Comptroller & Auditor General of India


(Manish Kumar)

Accountant General (Audit), Tripura

Date : 07.11.2019

Place: Agartala

Annexure

Audit evaluation of internal control and internal audit system is summarised as under:

1. Adequacy of Internal Control System:

- (i) The Institute does not have an accounting manual.
- (ii) The Institute does not have a purchase and procurement manual. However, provisions of GFR, 2017 and its amendment and relevant orders issued by Govt. of India from time to time are being followed in respect of purchase of goods and services.

2. Adequacy of Internal Audit System:

- (i) Due to shortage of manpower, Internal Audit wing is not functioning. However, two Audit Officers have been engaged who are entrusted with the work of pre-audit of all payments, scrutiny of purchase related issues, etc.
- (ii) The Institute has entrusted the Internal Audit and Compilation of Accounts job for the year 2018-19 to the same Chartered Accountant firm. For control and internal check, it may be ensured that the above two work are not entrusted to same person.

3. System of Physical Verification of Fixed Assets and Inventory- please indicate the status

4. Payment of Statutory dues- status please.



No. CCS/FAA/AB/SAR/NIT/2018-19/1181

भारतीय लेखा परीक्षा और लेखा विभाग,
INDIAN AUDIT AND ACCOUNTS DEPARTMENT
महालेखाकार (लेखापरीक्षा) का कार्यालय, त्रिपुरा, अगरतला
OFFICE OF THE ACCOUNTANT GENERAL (AUDIT), TRIPURA,
AGARTALA

पिन/ PIN – 799006 फैक्स/ Fax – 0381-2350158

ईमेल/ email: agautripura@cag.gov.in

Date:- 07 November , 2019

To
The Registrar
National Institute of Technology (NIT)
Barjala, Jirania
West Tripura
Pin- 799046

Subject: Management Letter on the annual accounts of the National Institute of Technology, Agartala for the year ended 31st March 2019.

Sir,

Certification audit on the annual accounts of National Institute of Technology (NIT), Agartala for the year ended 31st March 2019 was taken up by this office under Section 19 (2) of the Comptroller and Auditor General's (Duties, Power & Conditions of Service) Act, 1971. A Separate Audit Report (SAR) incorporating final comments of the C&AG is issued along with this letter. Apart from the audit comments issued in SAR, audit has noticed 11 points which required management's action to ensure compliance to the instructions of MHRD with respect to preparation of annual accounts.

Enclosed: As stated.

Yours faithfully,

(Dr. Sanjay Kaminehi)
Deputy Accountant General (Audit)

Annexure to Management Letter

1. As per the Significant Accounting Policies (Schedule 23, Sl. No. 7), the Institute has provided depreciation on fixed assets on straight line method as per the rates specified in the guidelines and format of MHRD. However, the following deviations in the rates applied by the Institute were noticed during audit:

- a. Sports equipments (Plan) valuing Rs 11.57 lakh (gross block) were depreciated at 5 per cent instead of 7.5 per cent. This resulted in understatement of depreciation and deficit of income over expenditure for the year 2018-19 by Rs 28,930 respectively.
- b. Iron Removal Plant (Plan) valuing Rs 5.50 lakh (gross block) was depreciated on the written down value of the asset (Rs 4.90 lakh) at 7.5 per cent, while it should have been depreciated on the gross value at 5 per cent (plant and machinery). This has resulted in overstatement of depreciation and deficit of income over expenditure for the year 2018-19 by Rs 9225 respectively.
- c. 500 KVA Substation (Plan) valuing Rs 58.68 lakh (gross block) was depreciated at 2 per cent instead of 5 per cent as stipulated for electrical installations. This has resulted in understatement of depreciation and deficit of income over expenditure by Rs 1.76 lakh respectively for the year 2018-19.
- d. Water purifier (Non-plan) valuing Rs 1.26 lakh (gross block) was depreciated at 5 per cent instead of 7.5 per cent as stipulated for office equipment. This has resulted in understatement of depreciation and deficit of income over expenditure by Rs 1,413 respectively for the year 2018-19.
- e. Sports goods and equipments (Non-plan) valuing Rs 16.10 lakh (gross block) was depreciated at 5 per cent instead of 7.5 per cent stipulated for equipments. This has resulted in understatement of depreciation and deficit of income over expenditure by Rs 23,868 respectively for the year 2018-19.

Thus, due to the above, depreciation was understated by Rs 2.21 lakh (Net) with a corresponding understatement of deficit of income over expenditure by an equal amount.

2. The MHRD format states that “where an asset is fully depreciated, it will be carried at a residual value of Re 1 in the Balance Sheet and will not be further depreciated”. However, it was seen that the Institute had depreciated certain fixed assets fully (machinery and equipments, library books, generator, etc.) and were showing those assets at “nil” value in the Balance Sheet.
3. The Institute has charged depreciation on fixed assets for the whole year as per MHRD instructions and the phrase in Schedule 23 “pro-rata basis” may be corrected.
4. Advance to RD Deptt of Rs20.00 lakh is lying unadjusted for last two years. As per management, the respective work was completed in 2017-18. As the amount lies unadjusted, this has resulted in over-statement of Advances to RD Deptt. by Rs.20.00 lakh with corresponding under-statement of expenditure head repair & maintenance (prior period).

5. The gardening expenses(Schedule-17)of Rs.0.56 crore (June 2018 to March 2019)has been recorded under the head Sweeping and Cleaning expenses, which needs to be rectified.
6. As per Schedule 9 of the format of accounts, the Fees collected from students are to be shown under broad head of (i) Academic; (ii) Examination; (iii) Other Fees; (iv) Sale of Publications and (v) Other Academic Receipts. Again, under the above mentioned broad heading, collection towards various sub-headings are to be shown. The Institute has not shown the above break-up of student fees collected during the year of Rs.20.51 crore. Scrutiny revealed the Institute is collecting 14 numbers of fees from each B. Tech student per semester. However, recording of such fee collection is being done under a single head i.e. Tuition Fee.
7. Loan from DHE (Staff Salaries) of Rs.0.56 crore is being shown in the accounts since last three years. As it relates to staff salary for which the Institute is receiving grant regularly, the same may be settled at the earliest.
8. Current Liabilities and Provisions (Schedule – 3) Rs. 96.42 crore under Corpus/Capital Fund and Liabilities do not include liability for various expenditure of Rs 0.29 crore pertaining to the period 2018-19. The payments for the above expenditures were made during April-May 2019. This has resulted in understatement of “Current Liabilities and Provisions” by Rs. 0.29 crore and understatement of Deficit of Income over expenditure by the same amount.
9. General Accounts (Schedule 7A) – Rs 15.49 crore under Bank Balance – On Deposit Account / Current Assets (Schedule 7) is understated by Rs 3000 as one Fixed Deposit of Canara Bank (Certificate No. 4121401000103/49) valuing Rs 95,28,739 was booked with a value of Rs 95,25,739.This has also resulted in overstatement of the Canara Bank Savings Account by an equal amount.
10. The Institute is having a current account with Canara Bank (A/c no-2348201000876) with balance of Rs.448955 as on 31.03.2019. The account had same balance as on 31.03.2017. The need to keep the dormant account may please be assessed.
11. Moutoshi Kar Memorial Scholarship is an endowment fund valuing Rs 30,000 and interest earned on the fund during the year 2018-19 is Rs 1,950 (@ 6.5% p.a). As per the format and instructions of MHRD, the corpus of the endowment cannot be used for the expenditure and only the income from investment of the relevant fund can be used for the purpose. However, expenditure of Rs.2500/- was incurred from the above fund during 2018-19 resulting in excess spending to the tune of Rs 550.


Sr. Audit Officer/HQ-I



S.A. MAJUMDER & ASSOCIATES
Chartered Accountants

Office: Thakurpally Road,
Krishna Nagar, Agartala
Tripura (West)- 799001
casyamal@yahoo.co.in
Ph: 0381 2325276

NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA
Internal Audit Report for the period from 01.04.2018 to 31.03.2019

With reference to the letter No. NITA.4 (10-Accounts)/2007/Vol-3/2098 dated 4th June 2019, we have conducted the Internal Audit of NIT Agartala for the period from 01.04.2018 to 31.03.2019 and our observations in this respect are as follows:

1. **GRANT-IN-AID:**

- Grant received by NIT Agartala from MHRD, New Delhi during the financial year 2018-19 as follows:

For Object Head - 31:

Sl. No	Sanction Memo	Date of sanction	Amount in lakhs
1	F.36-4/2018-TS-III	04.05.2018	200.00
2	F.36-4/2018-TS-III	04.06.2018	99.00
3	F.36-4/2018-TS-III	16.08.2018	200.00
4	F.36-4/2018-TS-III	05.09.2018	100.00
5	F.36-4/2018-TS-III	08.11.2018	425.00
6	F.36-4/2018-TS-III	04.12.2018	425.00
7	F.36-4/2018-TS-III	26.12.2018	250.00
8	F.36-4/2018-TS-III	15.02.2019	1500.00
9	F.36-4/2018-TS-III	19.03.2019	549.00
Total			3748.00

For Object Head - 36:

Sl. No	Sanction Memo	Date of sanction	Amount in lakhs
1	F.36-4/2018-TS-III	04.05.2018	1064.00
2	F.36-4/2018-TS-III	04.06.2018	528.00
3	F.36-4/2018-TS-III	15.02.2019	2000.00
4	F.36-4/2018-TS-III	19.03.2019	451.00
Total			4043.00





S.A. MAJUMDER & ASSOCIATES
Chartered Accountants

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Krishna Nagar, Agartala
Tripura (West)- 799001
casymal@yahoo.co.in
Ph: 0381 2325276

For Object Head - 35:

Sl. No	Sanction Memo	Date of sanction	Amount in lakhs
1	F.36-4/2018-TS-III	04.05.2018	682.00
2	F.36-4/2018-TS-III	04.06.2018	341.00
	Total		1023.00

- The status of Grant-in-aid during the financial year 2018-19 is as follows:

(Rupees in lakhs)

Object Head	Unspent balance as on 01.04.18	Grant-in-aid	Total Fund	Utilized	Unspent balance as on 31.03.19
OH-31	378.78	3748.00	4126.78	3845.49	281.29
OH-36	2496.29	4043.00	6539.29	3307.11	3232.18
OH-35	3129.00	1023.00	4152.00	1575.47	2576.53
Total	6004.07	8814.00	14818.07	8728.07	6090.00

2. CASH BOOK:

OBSERVATIONS:

- Cash Books have been properly maintained and closed on daily basis.
- We made test check of the Cash Book, Bank vouchers related to the Month of May2018, August2018, December2018, January2019 and March2019 and found to be in order.
- Bank statements have been obtained from SBI, NIT, Agartala Branch on monthly basis and monthly balance is confirmed through reconciliation. Closing Bank Balance as on 31.03.2019 are as follows:

Sl. No	Name of Bank, Branch	A/c No	Balance as on 31.03.2019 (Rs)
1	SBI, NIT Agartala Br	30358199684	45,02,01,744/-
2	Canara Bank, NIT Agartala Br	4121101001663	11,71,141/-
3	SBI, NIT Agartala Br	30369892838	2,30,65,821/-
4	Canara Bank, NIT Agartala Br	876	4,48,955/-

COMMENTS:

- Maintenance of Cash Books and other related books and records is satisfactory





S.A. MAJUMDER & ASSOCIATES
Chartered Accountants

Office: Thakurpally Road,
Krishna Nagar, Agartala
Tripura (West)- 799001
casyamal@yahoo.co.in
Ph: 0381 2325276

3. ADVANCES:

OBSERVATIONS:

- NIT Agartala has maintained common Advance Register.
- Temporary advances lying unadjusted as on 31.03.2019 amounting Rs. 6,46,936. Efforts to be made for adjustment of those at the earliest.
- LTC advances lying unadjusted as on 31.03.2019 amounting Rs. 3,50,000.
- Medical advances lying unadjusted as on 31.03.2019 amounting Rs. 5,00,000.
- Unadjusted advances given to third parties as on 31.03.2019 under Recurring items is as follows:

Sl. No	Name of Party/Agency	Amount of Advance as on 31.03.2019 (Rs)	Remarks
1	RD Deptt-Agartala	20,00,000/-	
	Total	20,00,000/-	

- Unadjusted advances given to third parties as on 31.03.2019 under Non-Recurring items are as follows:

Sl. No	Name of Party/Agency	Amount of Advance as on 31.03.2018 (Rs)	Remarks
1	BSNL-Agartala	1,72,764/-	
2	PHE-Agartala	15,60,100/-	
3	THB-Agartala	76,40,420/-	
4	DWS Deptt-Agartala	26,95,300/-	
5	EPIL	1,02,00,000/-	
6	CPWD-Agartala	2,77,39,471/-	
	Total	5,00,08,055/-	

4. FIXED ASSETS:

- Computerized Fixed Assets Register has been maintained by NIT Agartala.
- Depreciation has been charged in Straight Line Method.
- No insurance coverage for any Fixed Assets is taken.





S.A. MAJUMDER & ASSOCIATES
Chartered Accountants

Office: Thakurpally Road,
Krishna Nagar, Agartala
Tripura (West)- 799001
casymal@yahoo.co.in
Ph: 0381 2325276

5. TENDER ALLOTMENT:

The Control system related to tender allotment seemed to be appropriate. Our review to the system of tender allotment revealed that the system comprised of the following:

1. Advertisement in newspaper and website of the Institute.
2. Distribution of tender forms from NIT Agartala and also displayed Institute Website.
3. Submission of Tender Bids by the bidders in Tender Box within the specific time and date.
4. Opening of the tenders in front of the Committee formed by the Institute.
5. Preparation of comparative statement.
6. Selection of the lowest bid.

COMMENTS:

- The tender processing is found to be satisfactory.

We thankfully acknowledge the Co-operation extended by the Officers/officials of NIT Agartala in conducting the Internal Audit.

For,

S.A. MAJUMDAR & ASSOCIATES
(Chartered Accountants)

Date: 19.06.2019
Place: Agartala

(CA S. Majumdar)
Chartered Accountant



FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)			
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA			
BALANCE SHEET AS AT 31.03.2019			
CORPUS / CAPITAL FUND AND LIABILITIES	Schedule	Current year 2018-2019	Amount Rs Previous year 2017-2018
CORPUS / CAPITAL FUND			
DESIGNATED / EARMARKED/ ENDOWMENT FUNDS	1	8126328544	7925222642
CURRENT LIABILITIES & PROVISION	2	127311624	442370256
	3	964209460	464647125
TOTAL		9217849628	8832240023
ASSETS			
FIXED ASSETS	4	7635418292	7518782175
INVESTMENTS - FROM EARMARKED / ENDOWMENT FUNDS	5	0	0
INVESTMENTS OTHERS	6	0	0
CURRENT ASSETS	7	1519355738	1052227530
LOANS & ADVANCES-PLAN FUND	2(ii)	50008055	257311772
LOANS, ADVANCES & DEPOSITS	8	13067543	3918546
TOTAL		9217849628	8832240023
SIGNIFICANT ACCOUNTING POLICIES	23		
CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS	24		
Asstt. Registrar (Finance) (Jagatiyoti Roy) Asstt. Registrar (Finance) National Institute of Technology, Agartala. For	Registrar DR. GOVIND BHARGAVA Registrar, NIT, Agartala.	Director (Prof. Harish Kr. Sharma) Director, NIT Agartala.	
S.A. MAJUMDAR & ASSOCIATES (Chartered Accountants) 19/10/19 (CA S. Majumdar) Chartered Accountant			



FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)				
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA				
INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD / YEAR ENDED ON 31.03.2019				
Particulars	Schedule	Current year 2018-2019	Previous year 2017-2018	
INCOME				
Academic Receipts	9	205199475	220619037	
Grants & Donations				
Non Plan Fund	10	779100000	791650000	
Plan Fund- Revenue Purpose	2	0	0	
Income from Investments	11	0	0	
Interest Earned	12	46879805	20149239	
Other Income	13	8649341	10447	
Prior Period Income	14	0	0	
TOTAL (A)		1039828621	1032428723	
EXPENDITURE				
Staff Payment & Benefits	15	365518360	376343155	
Academic Expenses	16	96615261	99277370	
Administrative & General Expenses	17	122311772	164169394	
Transportation Expenses	18	1689952	1880063	
Repairs & Maintenance	19	12535388	16508980	
Finance Cost	20	14934	50617	
Other Expenses	21	0	0	
Prior Period Expenses	22	0	0	
Expenses of Plan Fund	2(iii)	0	0	
Depreciation	4	255393184	149581593	
Exp. on Moutoshi Kar Memorial Scholarship		2500	0	
Grant to KV, NIT Agartala		12000000	23000000	
Contribution to				
Retirement Benefit Fund		90000000	81100000	
Corpus Fund		300000000	8925000	
TOTAL (B)		1256081351	920836172	
Balance being Excess/Deficit of Income over Expenditure (A - B)		(216252730)	111592551	
Transferred to Capital Fund				
Significant Accounting policies	23			
Contingent liabilities and notes on Accounts	24			
Asstt. Registrar(Finance) (Atijoti Roy)				
Asstt. Registrar (Finance)				
For National Institute of Technology, Agartala				
S.A. MAJUMDAR & ASSOCIATES				
(Chartered Accountants)				
(CA S. Majumdar)				
Chartered Accountant				
Registrar				
DR. GOVIND BHARGAVA				
Registrar,				
NIT, Agartala.				
Director				
(Prof. Harish Kr. Sharma)				
Director, NIT Agartala.				





FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)						
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA						
RECEIPTS AND PAYMENTS FOR THE PERIOD/ YEAR ENDED ON 31.03.2019						
RECEIPTS	(Amount - Rs.) Current Year 2018-2019	(Amount - Rs.) Previous Year 2017-2018	PAYMENTS	(Amount - Rs.) Current Year 2018-2019	(Amount - Rs.) Previous Year 2017-2018	
I). Opening Balance: In Savings Plus A/c (Non-Plan) Bank (SBI, NIT Agt Br) Bank (Canara Bank Agt Br) Cash	448955 116983594 269838	448955 20589569 888136	Non-Plan Expenditure: I) EXPENSES: a) Staff Payment & Benefit b) Administrative & Gen. Expenses c) Academic Expenses d) Transportation Expenses e) Repair & Maintenance f) Finance Cost	362152619 131256704 96615261 1737551 13215658 14934	370602003 160486946 99277370 1890932 16431546 50617	
Opening Balance: (Plan) Bank- SBI, NITA Br. Bank (Canara Bank Agt Br) Cash	1131032 406567100 191812	101000000 406943102 0	II) Expenditure on Fixed Assets & Capital Working progress :- Fixed Assets: Plan Non-Plan	604992727 164725584 0	648739414 400502555 0	
III). GRANTS RECEIPTS: From MHRD (Govt. Of India) a) Object Head-35 b) Object Head-31 c) Object Head-36	102300000 374800000 404300000	299950000 146700000 644950000	III) Other Payments: a) Stipend/Scholarship Otherstate-Stipend Moutoshi Kar Memorial	13091379 2500	10157465 0	
III) Interest Received a) Plan Fund b) Non-Plan Fund	31098823 8667204	11857257 311014	IV) Advances a) Plan b) Non-Plan	0 0	27739471 0	
IV) Any other received a) Academic Collection b) Miscellaneous Receipts c) Library Caution Money d) CCB & CCMT Fees	205199475 8649341 5428000 3433423	226623561 10447 0 1565688	Corpus Fund Exp. for CCB & CCMT Retirement Benefit Fund Library Caution Money Grant to KV, NIT Agartala Loan to Other Project	300000000 5451389 90000000 4511200 12000000 8835607	8925000 3485501 81100000 4161950 23000000 35735000	
Temporary Advance Received LTC Advance Received	370110 0	359442 0	LTC Advance to Faculty & Staff Medical Advance EMD & Security	3032778 500000 102000	3321417 0 0	
Otherstate-Stipend Received	12295429	10262933	Fixed Deposit V) Closing Balance a) In Savings Plus A/c (Non-Plan) Bank-Canara Bank, AGT Br Bank-SBI, NITA Br Cash	448955 23065821 0	448955 116983594 269838	
			b) In Savings Plus A/c (Plan) Bank-Canara Bank, Agt Br SBI, NITA Br. Cash	1171141 450201744 1311	1131032 406567100 191812	
TOTAL	1682134136	1872460104	TOTAL	1682134136	1872460104	

(Jagatiyoti Roy)

Asstt. Registrar (Finance)
National Institute of Technology, Agartala.

DR. GOVIND BHARGAVA

Registrar,
NIT, Agartala.

(Prof. Harish Kr. Sharma)

Director, NIT Agartala.

Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA FUND ACCOUNT FOR THE PERIOD / YEAR ENDED ON 31.03.2019			
Particulars	Schedule	Current year 2018-2019	Previous year 2017-2018
INCOME			
1. Opening Bank Balance(S.B. A/c)		1179116	1234956
2. Income from Sales / Services-			
3. Fees / Subscriptions		767351	139729
4. Interest Earned		53948	45645
TOTAL		2000415	1420330
EXPENDITURE			
Bank Charges		178236	241214
Closing Bank Balance (S.B. A/c)	7	0	0
		1822179	1179116
TOTAL		2000415	1420330
RETIREMENT BENEFIT FUND			
Particulars	Schedule	Current year 2018-2019	Previous year 2017-2018
INCOME			
1. Opening Balance:			
S.B. A/c		18129723	8212175
Fixed Deposit		128578831	92191594
2. Income from Sales / Services-			
3. Fees / Subscriptions		0	0
4. Fees / Subscriptions-FD		156176537	46824618
5. Interest Earned-S.B.Accounts		0	0
6. Interest Earned-F.D.Accounts		2760362	695597
		7805711	6387237
TOTAL		313451164	154311221
EXPENDITURE(Pension/Gratuity)			
Bank Charges		17242000	7602063
Fixed Deposit		0	604
Bank Balance (S.B. A/c)	7	236384542	128578831
	7	59824622	18129723
TOTAL		313451164	154311221
For			
S.A. MAJUMDAR & ASSOCIATES			
(Chartered Accountant)			
(CA S. Majumdar)			
Chartered Accountant			
(Jagatjit Roy)			
Asstt. Registrar (Finance)			
National Institute of Technology, Agartala.			
DR. GOVIND BHARGAVA (Prof. Harish Kr. Sharma)			
Registrar,			
NIT, Agartala.			
Director, NIT Agartala.			



DR. GOVIND BHARGAVA (Prof. Harish Kr. Sharma)
Registrar,
NIT, Agartala.
Director, NIT Agartala.

DR. GOVIND BHARGAVA (Prof. Harish Kr. Sharma)
Registrar,
NIT, Agartala.

(Jagatjit Roy)
Asstt. Registrar (Finance)
National Institute of Technology, Agartala.

(CA S. Majumdar)
Chartered Accountant

For

S.A. MAJUMDAR & ASSOCIATES

(Chartered Accountant)

(CA S. Majumdar)

Chartered Accountant

(Jagatjit Roy)

Asstt. Registrar (Finance)

National Institute of Technology, Agartala.

DR. GOVIND BHARGAVA (Prof. Harish Kr. Sharma)

Registrar,




NIT, Agartala.

Director, NIT Agartala.




Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA FUND ACCOUNT FOR THE PERIOD / YEAR ENDED ON 31.03.2019				
Particulars	Schedule	Current year 2018-2019	Previous year 2017-2018	
INCOME				
1. Opening Balance: S.B. A/c		2964694	4696391	
Fixed Deposit		84723598	70110640	
2. Income from Sales / Services-		0	0	
3. Fees / Subscriptions		309990283	8172238	
4. Interest Earned-S.B.Accounts		457204	96065	
5. Interest Earned-F.D.Accounts		5344551	4612958	
TOTAL		403480330	87688292	
Expenditure		0	0	
Fixed Deposit	7	390068149	84723598	
Bank Balance (S.B. A/c)	7	13412181	2964694	
TOTAL		403480330	87688292	
INCOME				
1. Opening Balance: S.B. A/c		164098	89293	
2. Income from Sales / Services-		0	0	
3. Fees / Subscriptions		100548	70168	
4. Interest Earned-S.B.Accounts		6768	4637	
TOTAL		271414	164098	
Bank Balance (S.B. A/c)	7	271414	164098	
TOTAL		271414	164098	
For				
S.A. MAJUMDAR & ASSOCIATES (Chartered Accountants)				
(CA S. Majumdar)				
Chartered Accountant				
(Jagajyoti Roy) Asstt. Registrar (Finance) National Institute of Technology, Agartala.				
DR. GOVIND BHARGAVA (Prof. Harish Kr. Sharma) Registrar, NIT, Agartala.				

Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA FUND ACCOUNT FOR THE PERIOD / YEAR ENDED ON 31.03.2019			
Particulars	Schedule	Current year 2018-2019	PROJECT FUND Previous year 2017-2018
INCOME			
1. Opening Bank Balance (S.B. A/c)		7279550	6431127
1. Income from Sales / Services-		0	0
2. Fees / Subscriptions		3001558	6149508
3. Fees / Subscriptions-Tr. From College A/c		0	0
4. Interest Accrued-S.B..Accounts		248192	225790
TOTAL (A)		10529300	12806425
EXPENDITURE:			
Refund to Parties		0	0
Exp. & Distribution to Faculties & Staffs		5622313	5526271
Bank Charges		0	604
Fixed Deposit		0	0
Closing Bank Balance (S.B. A/c)	7	4906987	7279550
TOTAL (B)		10529300	12806425
DEPARTMENTAL PROMOTIONAL FUND (CIVIL)			
INCOME			
1. Opening Balance: S.B. A/c		2296924	2302901
2. Income from Sales / Services-		0	0
3. Fees / Subscriptions		1082904	863890
4. Interest Earned-S.B.Accounts		91556	81395
TOTAL		3471384	3248186
EXPENDITURE			
Bank Charges		0	951262
Bank Balance (S.B. A/c)	7	3471384	2296924
TOTAL		3471384	3248186
For S.A. MAJUMDAR & ASSOCIATES (Chartered Accountants)	(Jagatiyoti Roy) Asstt. Registrar (Finance) National Institute of Technology, Agartala.	DR. GOVIND BHARGAVA Registrar, NIT, Agartala.	(Prof. Harish Kr. Sharma) Director, NIT Agartala.

Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA FUND ACCOUNT FOR THE PERIOD / YEAR ENDED ON 31.03.2019				
Particulars	Schedule	Current year 2018-2019	NSS UNIT Previous Year 2017-2018	
INCOME				
1. Opening Balance: S.B. A/c		39806		43195
2. Income from Sales / Services-		0		0
3. Fees / Subscriptions		52350		11050
4. Interest Earned-S.B.Accounts		2161		1611
TOTAL		94317		55856
EXPENDITURE				
Fund Tr. To NIT IRG A/c (A/c Closed)		24620		16050
Bank Balance (S.B. A/c)	7	69697		0
		0		39806
TOTAL		94317		55856
EMD & SECURITY DEPOSIT				
Particulars	Schedule	Current year 2018-2019	Previous Year 2017-2018	
INCOME				
1. Opening Balance: S.B. A/c		2909307		4788591
Fixed Deposit		20826370		19586060
2. Income from Sales / Services-		0		0
3. Fees / Subscriptions		22807632		8122554
4. Interest Earned-S.B.Accounts		378421		289267
5. Interest Earned-F.D.Accounts		1051710		1240310
TOTAL		47973440		34026782
EXPENDITURE				
EMD & Security Released		12349996		10289866
Bank Charges		708		1239
Loan to Non-Plan Fund		0		0
Fixed Deposit	7	21878080		20826370
Bank Balance (S.B. A/c)	7	13744656		2909307
TOTAL		47973440		34026782
For S.A. MAJUMDAR & ASSOCIATES (Chartered Accountants)	(Jagatiyoti Roy) Asstt. Registrar (Finance) National Institute of Technology, Agartala.			
(CA S. Majumdar)	DR. GOVIND BHARGAVA (Prof. Harish Kr. Sharma) Registrar, NIT, Agartala.			
Chartered Accountant				

Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA FUND ACCOUNT FOR THE PERIOD / YEAR ENDED ON 31.03.2019			
Particulars	Schedule	Current year 2018-2019	Previous year 2017-2018
INCOME			
1. Opening Balance: S.B. A/c		865673	832233
Fixed Deposit		7803102	7786004
2. Income from Sales / Services-		0	0
3. Fees / Subscriptions		0	0
4. Interest Earned-S.B. Accounts		32767	33440
5. Interest Earned-F.D. Accounts		2247912	17098
TOTAL		10949454	8668775
Expenditure		0	0
Fixed Deposit	7	7819835	7803102
Bank Balance (S.B. A/c)	7	3129619	865673
TOTAL		10949454	8668775
DIRECTOR'S RELIEF FUND			
INCOME			
1. Opening Balance: S.B. A/c		377053	363513
2. Income from Sales / Services-		0	0
3. Fees / Subscriptions		0	0
4. Interest Earned-S.B. Accounts		13521	13540
TOTAL		390574	377053
Fund transfer to NITA Corpus Fund (Closure A/c)		390574	0
Bank Charges		0	0
Bank Balance (S.B. A/c)	7	0	377053
TOTAL		390574	377053
For S.A. MAJUMDAR & ASSOCIATES (Chartered Accountants)			
  (Jagatiyoti Roy) Asstt. Registrar (Finance) National Institute of Technology, Agartala			
 DR. GOVIND BHARGAVA (Prof. Harish Kr. Sharma) Registrar, NIT, Agartala.			
Chartered Accountant (CA S. Majumdar)			

Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA FUND ACCOUNT FOR THE PERIOD / YEAR ENDED ON 31.03.2019			
SPONSORED PROJECT FUND			
Particulars	Schedule	Current year 2018-2019	Previous year 2017-2018
INCOME			
1. Opening Balance: S.B. A/c		7682183	10675583
Fixed Deposit		93252295	87019720
2. Income from Sales / Services-		0	0
3. Fees / Subscriptions		44939671	14944154
4. Other Income		0	0
4. Interest Earned-S.B.Accounts		1306878	203308
5. Interest Earned- F.D. A/c		8317227	6232575
TOTAL		155498254	119075340
EXPENDITURE			
Bank Charges		21684492	18140862
Loan to Non-Plan Fund		2744	0
Fixed Deposit	7	101569522	93252295
Bank Balance (S.B. A/c)	7	32241496	7682183
TOTAL		155498254	119075340
<p>For S.A. MAJUMDAR & ASSOCIATES (Chartered Accountants)</p> <p><i>[Signature]</i> 19/06/19 (CA S. Majumdar) Chartered Accountant</p> <p><i>[Stamp: MAJUMDAR & ASSOCIATES AGARTALA MIN-50476 FRN-312032E Chartered Accountants]</i></p>			
<p><i>[Signature]</i> (Jagatiyoti Roy) Asstt. Registrar (Finance) National Institute of Technology, Agartala.</p> <p><i>[Signature]</i> DR. GOVIND BHARGAVA Registrar, NIT, Agartala.</p> <p><i>[Signature]</i> (Prof. Harish Kr. Sharma) Director, NIT Agartala.</p>			

Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA FUND ACCOUNT FOR THE PERIOD / YEAR ENDED ON 31.03.2019			
SCHOOL OF CONTINUING EDUCATION			
Particulars	Schedule	Current year 2018-2019	Previous year 2017-2018
INCOME			
1. Opening Balance: S.B. A/c		37083	35752
2. Income from Sales / Services-		0	0
3. Fees / Subscriptions		0	0
4. Interest Earned-S.B.Accounts		1330	1331
TOTAL		38413	37083
Fund Tr. To NITA Corpus Fund		38413	0
Bank Balance (S.B. A/c)	7	0	37083
TOTAL		38413	37083
GUEST HOUSE FUND			
INCOME			
1. Opening Balance: S.B. A/c		4570101	3468874
2. Income from Sales / Services-		0	0
3. Fees / Subscriptions		1367968	953910
4. Interest Earned-S.B.Accounts		187530	147317
TOTAL		6125599	4570101
EXPENDITURE		0	0
Bank Charges		0	0
Bank Balance (S.B. A/c)	7	6125599	4570101
TOTAL		6125599	4570101
For			
S.A. MAJUMDAR & ASSOCIATES (Chartered Accountants)			
			
(CA S. Majumdar) Chartered Accountant			
(Jagatiyoti Roy) Asstt. Registrar (Finance) National Institute of Technology, Agartala.			
			
DR. GOVIND BHARGAVA (Prof. Harish Kr. Sharma) Registrar, NIT, Agartala.			
			
Director, NIT Agartala.			

Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA FUND ACCOUNT FOR THE PERIOD / YEAR ENDED ON 31.03.2019			
NIT TRANSIT HOUSE FUND			
Particulars	Schedule	Current year 2018-2019	Previous year 2017-2018
INCOME			
1. Opening Balance: S.B. A/c		310434	299287
2. Income from Sales / Services-		0	0
3. Fees / Subscriptions		0	0
4. Interest Earned-S.B.Accounts		11009	11147
TOTAL		321443	310434
EXPENDITURE			
Bank Charges		0	0
Bank Balance (S.B. A/c)	7	321443	310434
TOTAL		321443	310434
TEQIP FUND			
INCOME			
1. Opening Balance: S.B. A/c		566882	12862697
2. Grant from MHRD		0	0
3. Fees / Subscriptions		0	383531
4. Interest Earned-S.B.Accounts		7838	106566
TOTAL		574720	13352794
Fund Tr. To NPIU		574720	12785912
Bank Charges		0	0
Bank Balance (S.B. A/c)		0	566882
TOTAL		574720	13352794
For			
S.A. MAJUMDAR & ASSOCIATES (Chartered Accountants)			
(CA/S. Majumdar)			
Chartered Accountant			
(Jagadjiyoti Roy)			
Assett. Registrar (Finance)			
National Institute of Technology, Agartala.			
DR. GOVIND BHARGAVA (Prof. Harish Kr. Sharma)			
Registrar,			
NIT, Agartala.			

(Jagatiyoti Roy)
Asstt. Registrar (Finance)
National Institute of Technology, Agartala.

FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2019

SCHEDULE 2- DESIGNATED / EARMARKED FUNDS	FUND- WISE BRAKE UP		TOTALS
	Current Year 2017-2018	Previous Year	
a) Opening Balance of the Funds	345377553	0	345377553
b) Additions to the Funds:			0
I) Donations / Grants From AICTE			0
Fund for Capital Assets(tr to Balance Sheet)	102300000	8699216472	8801516472
Less: Tr. To Corpus/Capital Fund	417358632	8256846216	8674204848
Net Fund for Capital Assets(tr to Balance Sheet)	(31,50,58,632)	442370256	127311624
II) Income from Investments made on account of funds			0
III) Other additions (specify nature)			0
a) Fund from DHE, Govt of Tripura(DONER Project)	0	112637000	112637000
b) Bank Interest (S.B. A/C)(Forming part of Sch.12)	0	46491645	46491645
IV) Others Income	0	0	0
V) Fund for Virtual Class Room	0	1195524	1195524
TOTAL (a+b)	30318921	602694425	633013346
c) Utilisation / Expenditure towards objectives of funds			
I) Capital Expenditure			
-Fixed Assets			
Vehicle		1686081	1686081
Electric Instalations	287141	36941839	37228980
Hostel Building, quarters etc		24896321	24896321
Const. of Ladies Toilets		115284	115284
Furniture & Fittings	10587898	160233837	170821735
Equipment & Machinery-Grass Cutter		40000	40000
Computer & Accessories	791555	77513738	78305293
Plant & Machinery		385000	385000
Generator		51000	51000
Machinery & Equipments-Air Conditioner		4961678	4961678
Equipment & Machinery	18985593	669676322	688661915
EPBX Machine		409937	409937
Library Books	478236	3230563	3708799
Type II & III Quarters		33822852	33822852
Boundary Wall		66416946	66416946
Admn Building & Class Room	560651	18621297	19181948
Academic, Library Building		136098725	136098725
Networking(Equipments)		63103243	63103243
Sports Equipments	590604	566576	1157180

(Prof. Harish Kr. Sharma)
Director, NIT Agartala.


DR. GOVIND BHARGAVA
Registrar,
NIT, Agartala.


(Jagatjyoti Roy)
Asstt. Registrar (Finance)
National Institute of Technology, Agartala.



Workshop	23580479	23580479	23580479
Boys & Girls Hostel	1214183366	1214183366	1214183366
Internal Road	330428191	192830778	330428191
33 KV Sub Station	40800000	40800000	40800000
Main Gate & Auxilary Gate	9906684	9906684	9906684
Basket Ball	1215736	1215736	1215736
Central Stores	8614183	8614183	8614183
Housing & Guest House	609580501	609580501	609580501
School of Management	397632958	397632958	397632958
Admn. Block & Seminar Hall	473117263	473117263	473117263
Watch Tower & Security Barrack	5698969	5698969	6951529
Auditorium Building	23151901	23151901	23598101
Iron Removal Plant	550000	550000	550000
500KVA Sub-Station	5868452	5868452	5868452
Central School	361054872	361054872	361054872
Computer Center	372575151	372575151	372575151
Workshop, Lab cum canteen	444800000	444800000	444800000
Market Complex	80109997	0	80109997
Sports Complex	644029061	0	644029061
Central Library	424408526	0	424408526
Duplex Building	113282817	0	113282817
Central Plaza	22800000	0	22800000
H4B Building	276576301	0	276576301
Const of Internal Road	(61678006)	61678006	0
Const of Market Complex	(3,25,93,877)	32593877	0
Const of Sewerage Treatment Plant (STP)	10447478	10447478	10447478
Const of Sports Complex	644029061	644029061	0
Const of Central Library	287572907	287572907	0
Const of H4B Building	229821209	229821209	0
Const of 1500 Bedded Boys Hostel	5,63,22,956	1390717329	1447040285
Const of Duplex Building	(9,32,53,817)	93253817	0
Const of Central Plaza	(2,28,00,000)	22800000	0
TOTAL	417358632	8256846216	8674204848
Less: Tr. to Fixed Assets (Schedule 4)	417358632	8256846216	8674204848
TOTAL (2i)	0	0	0
Others			
Advance to Parties (Schedule 2A)	0	4632808927	4632808927
Less: Adjustment Tr. to Fixed Assets	207303717	4375497155	4582800872
Security Deposit to TSECL	(20,73,03,717)	257311772	50008055
	0	5100	5100
TOTAL (2ii)	(20,73,03,717)	257316872	50013155
GRNAD TOTAL (2i+2ii)	(20,73,03,717)	25,73,16,872	5,00,13,155
Un-Spent Grant (Plan Fund)	237622638	345377553	

(Jagajyoti Roy)
Asstt. Registrar (Finance)
National Institute of Technology, Agartala.

DR. GOVIND BHARGAVA
Registrar,
(Prof. Harish Kr. Sharma)
Director, NIT Agartala.



FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA
SCHEDULES FORMING PART OF SCHEDULE 2 AS AT 31.03.2019

SCHEDULE 2 A- DETAILS OF ADVANCE TO PARTIES	Current Year	Previous Year	Adjustment	TOTAL
	2018-19		tr to Fixed Assets	
	(1)	(2)	(3)	(1+2-3)
Advance to:				
B.S.N.L.(Call User Group-CUG)		172764		172764
P.H.E(Iron Removal Plant)		1560100		1560100
Tripura Housing Board(Academic Building, Library)		7640420		7640420
DWS Deptt (Water Supply)		2695300		2695300
EPIL(Const of Workshop)		10200000		10200000
CPWD		94523563	66784092	27739471
Bridge & Roof Co.(Const of Central Computer Centre & CSE Deptt)		136519625	136519625	0
R.D. Deptt (Const of Market Complex)		4000000	4000000	0
TOTAL	0	257311772	207303717	50008055

(Jagajyoti Roy)
 Asstt. Registrar (Finance)
 National Institute of Technology, Agartala.

DR. GOVIND BHARGAVA
 Registrar,
 NIT, Agartala.

(Prof. Harish Kr. Sharma)
 Director, NIT Agartala.



FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)				
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA				
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2019				
SCHEDULE 3- CURRENT LIABILITIES AND PROVISIONS			(Amount - Rs.)	
A) CURRENT LIABILITIES			Current Year 2018-19	Previous Year 2017-2018
1) Acceptances			0	
2) Sundry Creditors				
For Plan Fund			1675461	1675461
For Non-Plan Fund			0	8097130
Outstanding Liabilities:				
a) Repair & Maintenance-Computer			0	680270
b) Fuel Charges			0	47599
c) Internal Audit Fees			0	35400
d) Salaries & Wages			28553272	28036809
e) Electricity & Power			1648090	2460492
TOTAL (3A)			31876823	41033161
PROVISION:				
a) Statutory Audit Fees-AG			300000	300000
b) CCB, CCMT & Other Fees			4347253	6365219
c) Counselling Fees-Payable to Students			100000	100000
TOTAL (3B)			4747253	6765219
3) Advances Received			0	0
4) Interest accrued but not due on:			0	0
a) Secured Loans/ borrowings.			0	0
b) Unsecured Loans/ borrowings-			0	0
TOTAL (3C)			0	0
5) Statutory Liabilities:				
a) Overdue				
b) Others				
Project Fund			4906987	7279550
New Pension Scheme-Tier-I Fund			0	169323
Retirement Benefit Fund			296209164	146708554
Student Welfare Fund			1822179	1179116
Staff Development Fund			120379	120379
NITA Corpus Fund			403480330	87688292
EMD & Security Deposit			35622736	23735677
Infrastructural Development Fund			10949454	8668775



(Prof. Harish Kr. Sharma)
Director, NIT Agartala.

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Registrar,
NIT, Agartala.

(Jagatiyoti Roy)
Asstt. Registrar (Finance)
National Institute of Technology, Agartala.

Sponsored Project Fund	133811018	100934478
Staff Welfare Fund	271414	164098
Departmental Promotional Fund(Civil)	3471384	2296924
NSS Unit	0	39806
Staff Benefit Trust	0	1547773
Director's Relief Fund	0	377053
School of Continuing Education	0	37083
Guest House Fund	6125599	4570101
NIT Transit House Fund	321443	310434
TEQIP Fund	0	566882
NSS Unit Prog.	13182	13182
Stipend Payable to Students(Forming Part of Schedule 13A)	131255	927205
Fund from ST Welfare Deptt(Books)	817500	817500
Fund from SC Welfare Deptt(Books)	27817	27817
Fund for Rubber Processing	156250	156250
Fund for Virtual Class Room (Plan Fund)	1195524	1195524
TOTAL (3D)	899453615	389531776
6) Other current Liabilities		
i) Library Caution Money	21572399	20525349
Opening Balance	5428000	5209000
Add: This year	27000399	25734349
Less: Payment this year	4511200	4161950
TOTAL (3E)	22489199	21572399
i) Loan from DHE(Staff Salaries)	5629954	5629954
ii) Earnest Money Deposit	12616	114616
iii) Other Income -Plan Fund	0	0
iv) Govt. Grant-DoNER Project	0	0
TOTAL (3F)	5642570	5744570
TOTAL (I)	964209460	464647125
B. PROVISIONS		
1) For taxation	0	0
2) Gratuity	0	0
3) Superannuation / pension	0	0
4) Accumulated Leave Encashment	0	0
5) Trade Warranties / Claims	0	0
6) Others (Specify)	0	0
TOTAL (II)	0	0
TOTAL (I+II)	964209460	464647125

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FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS) Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2019											
SCHEDULE 4 FIXED ASSETS	Rate of Depn	GROSS BLOCK			DEPRECIATION			(Amount - Rs.) NET BLOCK			
		Cost/ valuation As at beginning of the year	Additions during the year	Deductions during the year	Cost/valuation at the year-end	As at the beginning of the year	On Additions during the year	Arrear Depreciatio n	Total up to the year-end	As at the Current year- end	As at the Previous year- end
TANGIBLE ASSETS											
PLAN FUND											
LAND											
Freehold		0									
Leasehold		0									
Building		24896321			24896321	16539864	497926		17037790	7858531	8356457
Ladies Toilet	2%	115284			115284	84156	2306		86462	28822	31128
Furniture & Fittings	2%	160233837			170821735	67443082	12693377		80136459	90685276	92790755
Machinery & Equipments	7.5%	669676322			688661915	330823218	33103336		363926554	324735361	338853104
Machinery & Equipments(Grass Cut	5%	40000			40000	40000	0		40000	0	0
EPBX Machine	5%	409937			409937	389818	20119		409937	0	20119
Library Books	10%	3032073			3510309	3032073	47824		3079897	430412	0
Machinery & Equipments(Air Condi	5%	4961678			4961678	3775529	212487		3988016	973662	1186149
Generator	5%	51000			51000	51000	0		51000	0	0
Computer & Accessories	20%	77513738			78305293	76317595	743767		77061362	1243931	1196143
Plant & Machinery(Tractor)	10%	385000			385000	385000	0		385000	0	0
Vehicle	10%	1686081			1686081	1519446	62207		1581653	104428	166635
ELECTRIC INSTALLATIONS	5%	36941839			37228980	18394457	1861449		20255906	16973074	18547382
Type II & III Quarters(Buildings)	2%	33822852			33822852	11166376	676458		21980018	22656476	0
Boundary Wall	2%	66416946			66416946	3898827	1328339		5227166	61189780	62518119
Admin Building & Class Room	2%	18621297			19181948	10800354	428491		11228845	7953103	7820943
Academic, Library Building	2%	136098725			136098725	51199150	2721975		53921125	82177600	84899575
Networking(Equipments)	7.5%	63103243			63103243	31849106	4732744		36581850	26521393	31254137
Sports Equipments	5.0%	566576			1157180	69315	57859		127174	1030006	497261
Workshop	2.0%	23580479			23580479	1404394	467609		1872003	21708476	22176085
Boys & Girls Hostel	2.0%	1214183366			1214183366	133560171	24283667		157843838	1056339528	1080623195
Internal Road	2.0%	192830778			330428191	21211386	6608564		27819950	302608241	171619392
33 KV Sub Station	5.0%	40800000			40800000	7140000	2040000		9180000	31620000	33660000
Main Gate & Auxiliary Gate	2.0%	9906684			9906684	1107745	198134		1305879	8600805	8798939
Basket Ball	2.0%	1215736			1215736	130790	24315		155105	1060631	1084946
Central Stores	2.0%	8614183			8614183	689135	172284		861419	7752764	7925048
Housing & Guest House	2.0%	609580501			609580501	18287415	12191610		30479025	579101476	591293086
School of Management	2.0%	397632958			397632958	11928989	7952659		377751310	385703969	385703969
Admin. Block & Seminar Hall	2.0%	473117263			473117263	14193518	9462345		23655863	449461400	458923745
Watch Tower & Security Barrack	2.0%	5698969			6951529	170969	239235		410204	6541325	5528000
Auditorium Building	2.0%	23151901			23598101	694557	471962		1166519	22431582	22457344
Iron Removal Plant	2.0%	550000			550000	60328	36725		97053	452947	489672
500 KVA Substation	7.5%	5868452			5868452	176054	117369		293423	5575029	5692398
Central School	2.0%	361054872			361054872	10831646	7221097		18052743	343002129	350223226
Computer Centre	2.0%	372575151			372575151	11177255	7451503		18628758	353946393	361397896
Workshop, Lab cum Canteen	2.0%	444800000			444800000	13344000	8896000		22240000	422560000	431456000
Market Complex	2.0%	0			80109997	0	4806600		4806600	75303397	0

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FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2019

	(Amount - Rs.)	
	Current Year 2018-2019	Previous Year 2017-2018
SCHEDULE 5- INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS:		
1) In Govt securities	0	0
2) Other approved Securities	0	0
3) Shares	0	0
4) Deventures & Bonds	0	0
5) Subsidiaries & Joint Ventures	0	0
6) Others (to be specified)	0	0
TOTAL:	0	0

	(Amount - Rs.)	
	Current Year 2018-2019	Previous Year 2017-2018
SCHEDULE 6- INVESTMENTS - OTHERS		
1) In Govt securities		
a) F.D. with Canara Bank, Agartala Br.	0	0
b) F.D. with S.B.I., NIT Agartala Br.	0	0
2) Other approved Securities		
3) Shares		
4) Deventures & Bonds		
5) Subsidiaries & Joint Ventures		
6) Others (to be specified)		
TOTAL:	0	0



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(Jagatiyoti Roy)
 Asstt. Registrar (Finance)
 National Institute of Technology, Agartala.

FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)			
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA			
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2019			
SCHEDULE 7 CURRENT ASSETS	Current Year 2018-2019	Previous Year 2017-2018	
Current Assets:			
1) Inventories:			
a) Stores and Spares			
Stock in Transit			
NON-PLAN FUND			
PLAN FUND			
Machinery & Equipments	0		0
b) Loose Tools			
c) Stock in Trade			
Finish Goods			
Work in progress			
Raw materials			
2) Sundry Debtors:			
a) Debts Outstanding for a period exceeding six months			
b) Others			
Security Deposit with TSECL	5100		5100
3) Cash balance in hand(including cheques / Drafts and Imprest			
Closing Cash Balance- Non Plan	0	269838	
Closing Cash Balance- Plan	1311	191812	461650
4) Bank Balances:			
a) With Scheduled Banks			
.- On Savings Account			
Canara Bank- Non Plan A/c No- 876	448955	448955	
.- On Savings Accounts			
SBI, NITA Br.-Non Plan(A/c-30369892838)	23065821	116983594	
SBI, NITA Br.-Plan(A/c-30358199684)	450201744	406567100	
Canara Bank, Agt Br.- Plan (A/c-4121101001663)	1171141	1131032	
SBI, NITA Br.-N. P. S. Fund(A/c-30471674447)	0	169323	



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SBI, NITA Br.-Project Fund(A/c-30533908751)	4906987			7279550	
SBI, NITA Br.-R. B. Fund(A/c-30693303036)	59824622			18129723	
SBI, NITA Br.-Student Welfare Fund(A/c-30534089717)	1822179			1179116	
SBI, NITA Br.-NITA Corpus Fund(A/c-30534091012)	13412181			2964694	
SBI, NITA Br.-EMD & Security Deposit(A/c-30936141729)	13744656			2909307	
TGB, NITA Br.-Inf. Dev Fund(A/c-8026010030064)	3129619			865673	
SBI, NITA Br.-SDP Fund(A/c-30773081908)	32241496			7682183	
SBI, NITA Br.-Staff Welfare Fund(A/c-30534092027)	271414			164098	
SBI, NITA Br.-DPF(Civil)(A/c-30534090278)	3471384			2296924	
SBI, NITA Br.-NSS Unit(A/c-30786417404)	0			39806	
SBI, NITA Br.-Staff Benefit Trust(A/c-31509918149)	0			1547773	
SBI, NITA Br.-Director's Relief Fund(A/c-31536875510)	0			377053	
SBI, NITA Br.-School of Cont. Edu.(A/c-30939795485)	0			37083	
SBI, NITA Br.-Guest House Fund(A/c-31664487420)	6125599			4570101	
SBI, NITA Br.-NIT Transit House Fund(A/c-31092166195)	321443		614159241	310434	
SBI, NITA Br.-TEQIP Fund(A/c-32067844633)	0			566882	576220404
b) With Non Sheduled banks					
- On Deposit Account(Including Margine Money)					
Fixed Deposit with SBI Agt Br.-General A/c	3994963			3730800	
Fixed Deposit with Canara Bank, Agt. Br.-General A/c	143444995			136595380	
Fixed Deposit with SBI Agt Br.-RBF Fund	236384542			128578831	
Fixed Deposit with TGB NITA Br.-Inf. Dev Fund	7819835			7803102	
Fixed Deposit with TGB NITA Br.-SDP Fund	101569522			93252295	
Fixed Deposit with SBI Agt Br.-Moutoshi Kar Memorial	30000			30000	
Fixed Deposit with SBI Agt Br.-EMD & Security Deposit	21878080			20826370	
Fixed Deposit with TGB NITA Br.-NITA Corpus Fund	390068149		905190086	84723598	475540376
- On Current Account					
- On Deposit Account					
- On Savings Accounts					
5) Post office Savings Accounts:					
TOTAL				1519355738	1052227530



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FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA

SCHEDULE 7A: DETAILS OF FIXED DEPOSIT ACCOUNTS						
Sl. No.	Date of Deposit	Certificate /Account No	Amount(Rs)	Maturity date	Maturity Value(Rs)	Name of Bank
i) General Accounts						
1	31.03.2019	30268531331	3941735	30.05.2020	4420050	SBI Agt Br.
2	31.03.2019	30772128735	53228	30.05.2020	59752	SBI Agt Br.
3	15.03.2018	2348401000863/5	9922173	15.03.2020	11221379	Canara Bank, Agt Br
4	31.03.2019	3248401000647/5	5829677	31.03.2020	6248592	Canara Bank, Agt Br
5	31.03.2019	3248401000647/6	5908421	31.03.2020	6332995	Canara Bank, Agt Br
6	26.03.2018	3248401000648/1	9685006	26.03.2020	10953958	Canara Bank, Agt Br
7	01.10.2018	4121401000103/49	9525739	01.04.2019	9833678	Canara Bank, NIT Agt Br
8	01.10.2018	4121401000103/50	9528739	01.04.2019	9833678	Canara Bank, NIT Agt Br
9	01.10.2018	4121401000103/51	9528739	01.04.2019	9833678	Canara Bank, NIT Agt Br
10	01.10.2018	4121401000103/52	9528739	01.04.2019	9833678	Canara Bank, NIT Agt Br
11	01.10.2018	4121401000103/53	9528739	01.04.2019	9833678	Canara Bank, NIT Agt Br
12	01.10.2018	4121401000103/54	9528725	01.04.2019	9833664	Canara Bank, NIT Agt Br
13	01.10.2018	4121401000103/55	9528725	01.04.2019	9833664	Canara Bank, NIT Agt Br
14	01.10.2018	4121401000103/56	9528725	01.04.2019	9833664	Canara Bank, NIT Agt Br
15	01.10.2018	4121401000103/57	9528725	01.04.2019	9833664	Canara Bank, NIT Agt Br
16	01.10.2018	4121401000103/58	9528725	01.04.2019	9833664	Canara Bank, NIT Agt Br
17	01.10.2018	4121401000103/59	9528725	01.04.2019	9833664	Canara Bank, NIT Agt Br
18	01.10.2018	4121401000103/60	7286673	01.04.2019	7519861	Canara Bank, NIT Agt Br
TOTAL			147439958		154926961	
ii) Retirement Benefit Fund						
1	02.04.2017	30359168928	2496068	02.04.2020	2953299	SBI, NITA Br
2	21.01.2019	8026141600503	4565277	21.01.2020	4895738	TGB NITA Br.
3	21.01.2019	8026141600504	4565274	21.01.2020	4895735	TGB NITA Br.
4	21.01.2019	8026141600505	3652217	21.01.2020	3916586	TGB NITA Br.
5	21.01.2019	8026141600506	2739166	21.01.2020	2937443	TGB NITA Br.
6	21.01.2019	8026141600507	1826108	21.01.2020	1958292	TGB NITA Br.
7	21.01.2019	8026141600508	913071	21.01.2020	979164	TGB NITA Br.
8	06.02.2019	33642380099	3646351	06.02.2020	3900698	SBI, NITA Br.
9	06.02.2019	33642380191	2187808	06.02.2020	2340416	SBI, NITA Br.
10	06.02.2019	33642380351	2187808	06.02.2020	2340416	SBI, NITA Br.
11	06.02.2019	33642380500	2187808	06.02.2020	2340416	SBI, NITA Br.
12	06.02.2019	33642380634	2187808	06.02.2020	2340416	SBI, NITA Br.
13	06.02.2019	33642380736	2187808	06.02.2020	2340416	SBI, NITA Br.
14	06.02.2019	33642380872	2187808	06.02.2020	2340416	SBI, NITA Br.
15	06.02.2019	33642381004	2187808	06.02.2020	2340416	SBI, NITA Br.
16	06.02.2019	33642379708	2187808	06.02.2020	2340416	SBI, NITA Br.

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17	06.02.2019	33642379822	2187808	06.02.2020	2340416 SBI, NITA Br.
18	06.02.2019	33642379866	2187808	06.02.2020	2340416 SBI, NITA Br.
19	06.02.2019	33642379968	2187808	06.02.2020	2340416 SBI, NITA Br.
20	12.03.2019	34783448095	1296816	12.03.2020	1387274 SBI NITA Br.
21	12.03.2019	34783447976	1296816	12.03.2020	1387274 SBI NITA Br.
22	12.03.2019	34788447885	1296816	12.03.2020	1387274 SBI NITA Br.
23	12.03.2019	34783447772	1296816	12.03.2020	1387274 SBI NITA Br.
24	12.03.2019	34783447727	1296816	12.03.2020	1387274 SBI NITA Br.
25	12.03.2019	34783447705	1296816	12.03.2020	1387274 SBI NITA Br.
26	12.03.2019	34783447568	1296816	12.03.2020	1387274 SBI NITA Br.
27	12.03.2019	34783447477	1296816	12.03.2020	1387274 SBI NITA Br.
28	12.03.2019	34783447400	1296816	12.03.2020	1387274 SBI NITA Br.
29	12.03.2019	34783447295	1296816	12.03.2020	1387274 SBI NITA Br.
30	25.02.2019	8026142103587	667318	25.02.2020	715559 TGB NITA Br.
31	31.03.2019	35665978111	6009682	31.03.2020	6428880 SBI NITA Br.
32	31.03.2019	35665977821	6009701	31.03.2020	6428900 SBI NITA Br.
33	31.03.2019	35665977355	6009701	31.03.2020	6428900 SBI NITA Br.
34	31.03.2019	35665976930	6009701	31.03.2020	6428900 SBI NITA Br.
35	31.03.2019	35665976500	6009701	31.03.2020	6428900 SBI NITA Br.
36	31.03.2019	35665976124	6009701	31.03.2020	6428900 SBI NITA Br.
37	31.03.2019	35665975868	6009701	31.03.2020	6428900 SBI NITA Br.
38	03.04.2018	36734493697	5318626	03.04.2019	5667275 SBI NITA Br.
39	03.04.2018	36734493711	5318626	03.04.2019	5667275 SBI NITA Br.
40	03.04.2018	36734493788	5318626	03.04.2019	5667275 SBI NITA Br.
41	03.04.2018	36734493857	5318626	03.04.2019	5667275 SBI NITA Br.
42	03.04.2018	36734493971	5618626	03.04.2019	5667275 SBI NITA Br.
43	03.04.2018	36734523883	5318626	03.04.2019	5667275 SBI NITA Br.
44	30.03.2019	38361800540	50000000	30.03.2020	53435113 SBI NITA Br.
45	30.03.2019	38361789604	50000000	30.03.2020	53435113 SBI NITA Br.
		TOTAL	236384542		252645986
iii) Sponsored Project Fund					
1	21.01.2019	8026141600459	2948333	21.01.2020	3161751 TGB NITA Br.
2	21.01.2019	8026141600460	3931870	21.01.2020	4216482 TGB NITA Br.
3	21.01.2019	8026141600461	5897807	21.01.2020	6324725 TGB NITA Br.
4	21.01.2019	8026141600462	4914838	21.01.2020	5270603 TGB NITA Br.
5	21.01.2019	8026141600463	1965933	21.01.2020	2108239 TGB NITA Br.
6	22.01.2019	8026141600476	2949355	22.01.2020	3162847 TGB NITA Br.
7	22.01.2019	8026141600477	2752732	22.01.2020	2951991 TGB NITA Br.
8	22.01.2019	8026141600478	2556106	22.01.2020	2741132 TGB NITA Br.
9	22.01.2019	8026141600479	2359482	22.01.2020	2530275 TGB NITA Br.
10	22.01.2019	8026141600480	2162857	22.01.2020	2319417 TGB NITA Br.
11	22.01.2019	8026141600481	2162858	22.01.2020	2319418 TGB NITA Br.



lnk.

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Asstt. Registrar (Finance)
National Institute of Technology, Agartala.

DR. GOVIND BHARGAVA
Registrar,
NIT, Agartala.

(Prof. Harish Kr. Sharma)
Director, NIT Agartala.

lnk.

lnk.

12	22.01.2019	8026141600482	2162858	22.01.2020	2319418	TGB NITA Br.
13	22.01.2019	8026141600483	2162858	22.01.2020	2319418	TGB NITA Br.
14	22.01.2019	8026141600484	2162858	22.01.2020	2319418	TGB NITA Br.
15	22.01.2019	8026141600485	2162858	22.01.2020	2319418	TGB NITA Br.
16	22.01.2019	8026141600486	1966235	22.01.2020	2108563	TGB NITA Br.
17	22.01.2019	8026141600487	1572990	22.01.2020	1686852	TGB NITA Br.
18	22.01.2019	8026141600488	1179765	22.01.2020	1265163	TGB NITA Br.
19	22.01.2019	8026141600489	786509	22.01.2020	843441	TGB NITA Br.
20	22.01.2019	8026141600490	393266	22.01.2020	421733	TGB NITA Br.
21	22.01.2019	8026142100058	8222607	22.01.2020	8817807	TGB NITA Br.
22	22.01.2019	8026142100067	8342640	22.01.2020	8946529	TGB NITA Br.
23	22.01.2019	8026142100076	8342644	22.01.2020	8946533	TGB NITA Br.
24	22.01.2019	8026142100085	6674115	22.01.2020	7157226	TGB NITA Br.
25	22.01.2019	8026142100094	8342644	22.01.2020	5367920	TGB NITA Br.
26	22.01.2019	8026142100100	5005586	22.01.2020	3578611	TGB NITA Br.
27	22.01.2019	8026142100119	3337055	22.01.2020	1789306	TGB NITA Br.
28	22.01.2019	8026142100128	1668528	22.01.2020	2660712	TGB NITA Br.
29	25.02.2019	8026142103578	2481335	25.02.2020		
TOTAL			101569522		108921481	
iv) Infrastructural Development Fund						
1	31.03.2015	466	1506539	08.06.2020	2294150	TGB NITA Br.
2	31.03.2015	467	1506539	08.06.2020	2294150	TGB NITA Br.
3	31.03.2015	468	753269	08.06.2020	1147074	TGB NITA Br.
4	31.03.2015	469	753269	08.06.2020	1147074	TGB NITA Br.
5	31.03.2015	470	753269	08.06.2020	1147074	TGB NITA Br.
6	31.03.2015	471	753269	08.06.2020	1147074	TGB NITA Br.
7	31.03.2015	472	602660	08.06.2020	917728	TGB NITA Br.
8	31.03.2015	473	452012	08.06.2020	688322	TGB NITA Br.
9	31.03.2015	474	301342	08.06.2020	458882	TGB NITA Br.
10	31.03.2015	475	152036	08.06.2020	231520	TGB NITA Br.
11	25.02.2019	8026142103602	285631	25.02.2020	306307	TGB NITA Br.
TOTAL			7819835		11779355	
v) NITA Corpus Fund (Institute Development Fund)						
1	21.01.2019	8026141600509	5478329	21.01.2020	5874882	TGB NITA Br.
2	21.01.2019	8026141600510	4565274	21.01.2020	4895735	TGB NITA Br.
3	21.01.2019	8026141600511	4565714	21.01.2020	4896207	TGB NITA Br.
4	21.01.2019	8026141600512	3652217	21.01.2020	3916586	TGB NITA Br.
5	21.01.2019	8026141600513	2739166	21.01.2020	2937443	TGB NITA Br.
6	21.01.2019	8026141600514	1826108	21.01.2020	1958292	TGB NITA Br.
7	21.01.2019	8026141600515	913071	21.01.2020	979164	TGB NITA Br.
8	06.02.2019	33642377597	2185870	06.02.2020	2338343	SBI NITA Br.
TOTAL			2185870			

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(Jagatiyaji Roy)
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National Institute of Technology, Agartala.



9	06.02.2019	33642378738	2187808	06.02.2020	2340416	SBI NITA Br.
10	12.03.2019	34783371607	6484094	12.03.2020	6936384	SBI, NITA Br.
11	12.03.2019	34783371562	6484094	12.03.2020	6936384	SBI, NITA Br.
12	12.03.2019	34783371459	6484094	12.03.2020	6936384	SBI, NITA Br.
13	12.03.2019	34783371051	6484094	12.03.2020	6936384	SBI, NITA Br.
14	12.03.2019	34783369621	6484094	12.03.2020	6936384	SBI, NITA Br.
15	25.02.2019	8026142103596	867767	25.02.2020	930581	TGB NITA Br.
16	31.03.2019	35665970393	6009701	31.03.2020	6428900	SBI, NITA Br.
17	31.03.2019	35665969151	6009701	31.03.2020	6428900	SBI, NITA Br.
18	31.03.2019	35665968884	6009701	31.03.2020	6428900	SBI, NITA Br.
19	03.04.2018	36734493631	5318626	03.04.2019	5667275	SBI, NITA Br.
20	03.04.2018	36734493653	5318626	03.04.2019	5667275	SBI, NITA Br.
21	30.03.2019	38361787890	75000000	30.03.2020	80152669	SBI, NITA Br.
22	30.03.2019	38361786557	75000000	30.03.2020	80152669	SBI, NITA Br.
23	30.03.2019	38361785292	75000000	30.03.2020	80152669	SBI, NITA Br.
24	30.03.2019	38361753598	75000000	30.03.2020	80152669	SBI, NITA Br.
		TOTAL	390068149		416981495	
vi) EMD & Security Deposit Fund						
1	06.02.2019	33642378772	2187808	06.02.2020	2340416	SBI NITA Br.
2	06.02.2019	33642378909	2187808	06.02.2020	2340416	SBI NITA Br.
3	06.02.2019	33642378976	2187808	06.02.2020	2340416	SBI NITA Br.
4	06.02.2019	33642379038	2187808	06.02.2020	2340416	SBI NITA Br.
5	06.02.2019	33642379107	2187808	06.02.2020	2340416	SBI NITA Br.
6	06.02.2019	33642379232	2187808	06.02.2020	2340416	SBI NITA Br.
7	06.02.2019	33642379301	2187808	06.02.2020	2340416	SBI NITA Br.
8	06.02.2019	33642379436	2187808	06.02.2020	2340416	SBI NITA Br.
9	06.02.2019	33642379538	2187808	06.02.2020	2340416	SBI NITA Br.
10	06.02.2019	33642379606	2187808	06.02.2020	2340416	SBI NITA Br.
		TOTAL	21878080		23404160	
vii) Moutoshi Kar Memorial						
1	07.11.2016	34732977775	30000	14.09.2017	31694	SBI NITA Br.
		GRAND TOTAL	905190086		968691132	



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National Institute of Technology, Agartala.

FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)			
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA			
SHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2019			
	Current Year 2018-2019		Previous Year 2017-2018
SCHEDULE 8 LOAN,ADVANCES & DEPOSITS			
1. Advance to employees: (Non-interest bearing)			
a) Salary	0		
b) Festival	0		
c) Medical Advance	0		
d) Other (to be specified)	0	0	
2. Long Term Advances to employees: (Interest bearing)			
a) Vehicle loan			
b) Home loan			
c) Other (to be specified)			
i) Loan to Startup Project		735000	735000
ii) Loan to TEQIP III Fund		8835607	0
3) Advances and other amounts recoverable in cash or in kind or for value to be received.			
a) On Capital account.			
Advance to:			
RD Deptt(Hostel Repair & Maints)	2000000		2000000
RD Deptt(Electrification)	0		0
RD Deptt(Const of Security Barrack)	0		0
RD Deptt(Const of Market Complex)	0	2000000	2000000
b) Prepaid Expenses			
Loan to NIMCET Fund		0	0
c) Others			
Temporary Advance to Sundry Parties		646936	1017046
LTC Advance to Employees		350000	166500
Medical Advances		500000	
4) INCOME ACCRUED			
a) On Investment - Others.			
i) Interest on Fixed Deposit-General A/c	0		0
ii) Interest on Fixed Deposit-SDP Fund	0	0	0
5) CLAIMS RECEIVABLE			
TOTAL		13067543	3918546



(Jagajyoti Roy)
Asstt. Registrar (Finance)
National Institute of Technology, Agartala.

DR. GOVIND BHARGAVA
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NIT, Agartala.

(Prof. Harish Kr. Sharma)
Director, NIT Agartala.

FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)		
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA		
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/ YEAR ENDED 31.03.2019		
SCHEDULE 9 - ACADEMIC RECEIPTS	(Amount - Rs.)	
	Current Year 2018-2019	Previous Year 2017-2018
1) Academic Collection	205199475	220619037
2) Annual Fees / Subscription		
3) Seminar / program Fees		
4) Consultancy Fees	0	0
5) Others (Specify)-		
TOTAL	205199475	220619037
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>(Jagatiyoti Róy) Asstt. Registrar (Finance) National Institute of Technology, Agartala.</p> </div> <div style="width: 45%;"> <p>DR. GOVIND BHARGAVA Registrar, NIT, Agartala.</p> </div> </div>		



FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)		
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA		
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD / YEAR ENDED 31.03.2019		
SCHEDULE 10 - GRANTS / SUBSIDIES	Current Year 2018-2019	Previous Year 2017-2018
(Amount - Rs.)		
(Irrevocable Grants & Subsidies received)		
1) Central Govt.		
a) From MHRD- Non Plan	0	0
i) Object Head-31	374800000	146700000
ii) Object Head-36	404300000	644950000
b) From AICTE	0	0
c) Central Counselling Fees-MHRD	0	0
2) State Govt.		
3) Govt. Agencies		
4) Institution / Welfare bodies		0
5) International Organisations		0
6) others (Specify)		0
TOTAL	779100000	791650000

FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)		
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA		
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD / YEAR ENDED 31.03.2019		
SCHEDULE 11 - INCOME FROM INVESTMENTS	Current Year 2018-2019	Previous Year 2017-2018
(Amount - Rs.)		
1) On Term Deposits:		
a) With scheduled Banks- Non-Plan Fund		0
State Bank of India, NIT Agartala Br.	0	0
Canara Bank, Agartala Br	0	0
b) With Non scheduled Banks		
c) With Institutions		
d) Others		
2) On Loans:		
a) Employees / Staff		
b) Others		
3) Interest on Debtors and Other Receivables		0
TOTAL	0	0



(Prof. Harish Kr. Sharma)
Director, NIT Agartala.

DR. GOVIND BHARGAVA
Registrar,
NIT, Agartala.

(Jagatiyoti Roy)
Asstt. Registrar (Finance)
National Institute of Technology, Agartala.

FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)				
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA				
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/ YEAR ENDED 31.03.2019				
SCHEDULE 12 - INTEREST EARNED	Current Year 2018-2019	(Amount - Rs.) Previous Year 2017-2018		
1) On Term Deposits:				
a) With scheduled Banks- Non-Plan Fund				
State Bank of India, NIT Agartala Br.	264163	0		
Canara Bank, Agartala Br	6849615	7980968		
b) With Non scheduled Banks				
c) With Institutions				
d) Others				
2) On Savings Accounts:				
a) With scheduled Banks				
Non-Plan Fund:				
Canara Bank, Agartala Br	0	0		
State Bank of India, NIT Agartala Br.	8667204	311014		
Plan Fund:				
Canara Bank, Agartala Br	0	0		
State Bank of India, NIT Agartala Br.	31098823	11857257		
b) With Non scheduled Banks	0	0		
c) Post office savings Accounts				
d) Others				
3) On Loans:				
a) Employees / Staff				
b) Others				
i) Intt on Mobilization Advance(NCCL)	0	842036		
4) Interest on Debtors and Other Receivables		0		
TOTAL	46879805	20991275		
(Jagatiyoti Roy) Asstt. Registrar (Finance) National Institute of Technology, Agartala.			(Prof. Harish Kr. Sharma) Director, NIT Agartala.	
DR. GOVIND BHARGAVA Registrar, NIT, Agartala.			Lsh.	






FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)			
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA			
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/ YEAR ENDED 31.03.2019			
	Current Year 2018-2019	Previous Year 2017-2018	(Amount - Rs.)
SCHEDULE 13 - OTHER INCOME			
A. Income from Land & Building		0	
B. Sale of Institute's Publications			
C. Income from holding events			
D. Others (Specify)-			
a) Misc Income	8649341		10447
b) Misc. Income -Plan Fund	0		0
c) Sale of Tender Form	0		0
TOTAL	8649341		10447
SCHEDULE 14 - PRIOR PERIOD INCOME			
1. Academic Receipts			
2. Income from Investments			
3. Interest earned			
4. Others (Specify)-			
TOTAL	0		0



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Director, NIT Agartala.

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(Jagatiyoti Roy)
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National Institute of Technology, Agartala.

FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)		
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA		
SCHEDULES FORMING PART OF BALANCE SHEET FOR THE PERIOD / YEAR ENDED 31.03.2019		
		(Amount - Rs.)
SCHEDULE 13A - STIPEND FUND	Current Year	Previous Year
RECEIPTS	2018-2019	2017-2018
Opening Balance	927205	821737
1) State Govt.fund for Stipend		
a) SC & OBC Welfare Deptt	0	0
b) SC Welfare Deptt-SC Stipend	0	0
c) SDM-ST Stipend	0	0
d) DHE- NEC Stipend	0	0
e) Post Madhyamik & OBC	0	0
f) ST Welfare Society	0	0
2) Govt. Agencies		
a) NEC-Shillong-National Scholarship		
b) NEC-Shillong-Stipend	0	0
3) Institution / Welfare bodies		
4) Stipend-Other State	12295429	10262933
TOTAL (i)	13222634	11084670
EXPENDITURE:		
NEC-Stipend	0	0
Post Madhyamik Stipend	0	0
Otherstate-Stipend	13091379	10157465
Post Matric Scholarship-SC & OBC	0	0
Post Matric Scholarship-ST	0	0
LIG-Stipend	0	0
Post Matric Scholarship-OBC	0	0
Refund to SDM(ST Stipend)	0	0
TOTAL (ii)	13091379	10157465
Net Amount (Tr. to Schedule 3)	131255	927205
<div style="display: flex; justify-content: space-between;"> <div>  (Jagatiyoti Roy) Asstt. Registrar (Finance) National Institute of Technology, Agartala, </div> <div>  Dr. Govind BHARGAVA Registrar, NIT, Agartala, </div> <div>  (Prof. Harish Kr. Sharma) Director, NIT Agartala. </div> </div>		



FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/ YEAR ENDED 31.03.2019

SCHEDULE 15 - STAFF PAYMENT & BENEFIT		(Amount - Rs.)	
	Current Year	Previous Year	
	2018-2019	2017-2018	
a) Salaries and Wages			
i) Regular Faculty & Staffs	214254394	211726010	
ii) Contractual Faculty & Staffs	136418540	143840751	
b) Allowances and Bonus	0	0	
c) Contribution to Provident fund			
d) Contribution to other funds (Specify)			
e) New Pension Scheme Fund-Tier-I			
f) Staff Welfare Expenses	7975872	10543926	
g) Expenses on Employees Retirement and Terminal benefits			
h) LTC Facility	3338553	2413014	
i) Medical Facility	367633	23346	
j) Children Education Allowance	2824895	272392	
k) Other (Specify)			
1) Telephone Re-imbursement	58236	283911	
2) CPDA	280237	7239805	
TOTAL	365518360	376343155	

SCHEDULE 16 - ACADEMIC EXPENSES		(Amount - Rs.)	
	Current Year	Previous Year	
	2018-2019	2017-2018	
a) Laboratory Expenses	4133852	4097186	
b) Honorarium to Visiting Examiner & others	3329411	4081150	
c) Expenses on Workshop	513919	821583	
d) Convocation Expenses	2282370	2561018	
e) Scholarship-Institute	86355709	84582474	
f) Others (specify)			
1) Contingency to PhD/M.Tech		3133959	
2) Expenses for Research Affairs			
TOTAL	96615261	99277370	



(Signature)
DR. GOVIND BHARGAVA
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 NIT, Agartala.

(Signature)
(Prof. Harish Kr. Sharma)
 Director, NIT Agartala.

(Signature)
(Jagatiyoti Roy)
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FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/ YEAR ENDED 31.03.2019

SCHEDULE 17 - ADMINISTRATIVE & GENERAL EXPENSES		(Amount - Rs.)	
	Current Year	Previous Year	
	2018-2019	2017-2018	
a) Electricity and Power	24481354	27199657	
b) Water Charges		90000	
c) Postage	100000	1266003	
d) Printing & Stationery	2866318	2029236	
e) Travelling & Conveyance Expenses	1273242	10278298	
f) TDS Demand		240439	
g) Hospitality Expenses	593210	2205832	
h) Advertisement and publicity	1516388	27751	
i) Newspaper & Periodical	27048	332137	
j) Telephone & Communication	279022		
k) Others (Specify)			
1) Miscellaneous Expenses	74900	9821107	
2) Medicine Expenses	1416785	1102458	
3) Institution Membership Exp			
4) Recruitment expenses	1282382	163268	
5) NSS Programme	39200		
6) Security Services	41104621	58062875	
7) Gardening Expenses	391706	8571301	
8) Sweeping & Cleaning	31054890	33782716	
9) Lawyer Fees	1795319	836145	
10) Networking Expenses	8902160	445733	
11) Games, Sports & Cultural Activity	3710337	6063575	
12) Internal Audit Fees	38940	203809	
13) Statutory Audit Fees-A.G.			
14) Rent to PWD-Agartala Transit House	1112300	1168734	
15) BOG Meeting Expenses	1650	28320	
16) Cable Charges	250000	250000	
17) Rent to NIT Transit House, Delhi			
TOTAL	122311772	164169394	

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FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/ YEAR ENDED 31.03.2019

SCHEDULE 18 - TRANSPORTATION EXPENSES	(Amount - Rs.)	
	Current Year 2018-2019	Previous Year 2017-2018
a) Registration, Insurance etc. for Vehicle	201780	203000
b) Transportation Expenses	210993	129563
c) Vehicle Repair & Maintenance	413808	285684
d) Fuel Charges	863371	1261816
e) Others (Specify)		
TOTAL	1689952	1880063

SCHEDULE 19 - REPAIRS & MAINTENANCE	(Amount - Rs.)	
	Current Year 2018-2019	Previous Year 2017-2018
a) Repair & Maintenance	1250860	3842874
b) Repairs & Maints-Electricals	2263101	1833711
c) Repair & Maintenance - Building	4929638	6615346
d) Repair & Maintenance - Computer & Accessories	4091789	3894841
e) Repair & Maintenance - Internal Road		94500
f) Repair & Maintenance - Equipment & Machinery		227708
g) Others (Specify)		0
TOTAL	12535388	16508980



hsh
(Prof. Harish Kr. Sharma)
Director, NIT Agartala.

Govind Bhargava
DR. GOVIND BHARGAVA
Registrar,
NIT, Agartala.

Jagatiyoti Roy
(Jagatiyoti Roy)
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SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/ YEAR ENDED 31.03.2019

SCHEDULE 20 - FINANCE COSTS		(Amount - Rs.)	
	Current Year	Previous Year	
	2018-2019	2017-2018	
a) Interest on Fixed Loans	0	0	0
b) Interest on Other Loans	0	0	0
c) Bank Commission	14934	50617	50617
d) Others (Specify)	0	0	0
TOTAL	14934	50617	

SCHEDULE 21 - OTHER EXPENSES		(Amount - Rs.)	
	Current Year	Previous Year	
	2018-2019	2017-2018	
a) Provision for Bad and Doughtful Debts	0	0	0
b) Irrecoverable Balance Written off	0	0	0
c) Others (Specify)	0	0	0
TOTAL	0	0	

SCHEDULE 22 - PRIOR PERIOD EXPENSES		(Amount - Rs.)	
	Current Year	Previous Year	
	2018-2019	2017-2018	
1. Establishment Expenses	0	0	0
2. Academic Expenses	0	0	0
3. Administrative Expenses	0	0	0
4. Transportation Expenses	0	0	0
5. Repairs & Maintenance	0	0	0
6. Others (Specify)	0	0	0
TOTAL	0	0	


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(Prof. Harish Kr. Sharma)
 Director, NIT Agartala.



SCHEDULE-23**SIGNIFICANT ACCOUNTING POLICIES****1. INTRODUCTORY:**

The National Institute of Technology, Agartala is one among the Institutions of National Importance setup under the National Institutes of Technology Act, 2007 (No.29 of 2007) and supplemented by the first Statute prepared and declared by Government of India, Ministry of HRD, New Delhi Vide Gazette of India Part II Section 3 Sub Section (i) dated 23.04.2009.

The Government of India, Ministry of HRD, New Delhi releases funds to the Institute for both Plan and Non-Plan Expenses.

The Institute has prepared the Annual Accounts 2018-19 as per the format provided by the Ministry of HRD with the approval of the Comptroller and Auditor General of India and communicated to all NITs Vide Letter No. F.29-4/2012-IFD dated 17.04.2015.

2. ACCOUNTING CONVENTION:

The Financial Statements are prepared on the basis of Historical cost Convention unless otherwise stated and on the Accrual method of Accounting.

3. REVENUE RECOGNITION:

Tuition fee payable by students is accounted for on cash basis. Interest on term deposits is accounted on actual basis. Sale of application/ tender forms and other Misc Income are accounted on cash basis.

4. INVENTORY VALUATION:

The Institute is booking expenditure on spare parts, laboratory chemicals, consumables and other stores on cash basis as and when purchased and hence no closing stock for the same shown in the balance sheet.


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Director, NIT Agartala.



5. INVESTMENT:

No Investment except Fixed Deposit was made during the year under audit. Investments are valued at cost.

6. FIXED ASSETS:

Fixed Assets like equipment, furniture etc., are stated at cost of acquisition inclusive of inward freight, duties and taxes and incidental and direct expenses related to acquisition. The cost of building is taken on the basis of Completion Report. Cost of purchase of Library books, e-books are treated as fixed assets.

7. DEPRECIATION:

Depreciation is provided on straight line Method as per rates specified in the guidelines and format of Ministry of HRD, Government of India in respect of following Assets.

(i) Building- 2%, (ii) Electrical Installation- 5%, (iii) Plant and Machinery- 5%, (iv) Lab Equipment- 8%, (v) Office Equipment- 7.5%, (vi) Computer & Accessories- 20%, (vii) Furniture & Fittings- 7.5%, (viii) Vehicle- 10%, (ix) Library Books- 10% and (x) e-Books/e-Journal- 40%. However, depreciation has been charged on pro-rata basis.

8. GOVERNMENT GRANT/SUBSIDIES:

- i) Government Capital grants for setting up Projects are treated as Capital Receipts (the said grants are shown under the Head Earmarked/Endowment Fund)
- ii) Fixed Assets acquired out of specific grants are shown at their full value of acquisition.

9. RETIREMENT BENEFIT:

Provision towards Retirement Benefits payable has been made as per accrual basis for the year 2018-19.

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10. NEW PENSION SCHEME (NPS):

Employees' contribution to NPS along with matching contribution of the Institution has been deposited in a separate Bank Account and the NPS contributions are remitted to CRA (NSDL) on monthly basis regularly.

11. NIT Agartala is maintaining the following fund accounts separately:

Sl. No	Name of Fund	Name of Bank, Branch	Account No
1	New Pension Scheme	SBI, NIT Agartala Br.	30471674447
2	Project Fund	-do-	30533908751
3	Retirement Benefit Fund	-do-	30693303036
4	Student Welfare Fund	-do-	30534089717
5	Institute Development Fund	-do-	30534091012
6	EMD & Security Fund	-do-	30936141729
7	Sponsored Project Fund	-do-	30773081908
8	Staff Welfare Fund	-do-	30534092027
9	Departmental Promotional Fund(Civil)	-do-	30534090278
10	NSS Fund	-do-	30786417404
11	Staff Benefit Trust Fund	-do-	31509918149
12	Directors' Relief Fund	-do-	31536875510
13	School of Continuation Education	-do-	30939795485
14	Guest House Fund	-do-	31664487420
15	TEQIP Fund	-do-	32067844633
16	NIT Transit House Fund	SBI, Kunjaban Br	31092166195
17	Infrastructure Development Fund	TGB, NIT Agartala Br	8026010030064

12. CAPITAL COMMITMENTS:

All major construction works are being executed by CPWD functioning in the campus on deposit work basis. Certain construction works are also executed through process of tender.

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SCHEDULE -24 CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS**1. CONTINGENT LIABILITIES:**

NIL

2. CURRENT ASSETS, LOANS AND ADVANCES:

In the opinion of the Management, the current assets, loans and advances have a value on realization in the ordinary courses of business, equal at least to the aggregate amount shown in the Balance Sheet.

3. TAXATION:

The Income of the Institute is exempted from Income tax under section 10(23C) of the Income Tax Act 1961. Hence no provision has been made for Income tax.

4. FOREIGN CURRENCY TRANSACTION:

Expenditure is recorded at the prevailing rate on the date of the transaction based on demands raised by State Bank of India, Agartala Branch.

5. Corresponding Figures for the previous year have been regrouped/rearranged wherever necessary.

6. Schedules 1 to 23 are annexed to and form and integral part of the Balance Sheet as at 31.03.2019 and Income and Expenditure and Receipts and Payment Accounts for the year ended on that date.


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Director, NIT Agartala.



FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA
CASH FLOW STATEMENT FOR THE PERIOD/ YEAR ENDED 31.03.2019

Particulars	Current Year 2018-19	Previous Year 2017-18
A. CASH FLOW FROM OPERATING ACTIVITIES		
Susplus/(deficit) for the year	(21,62,52,730)	11,15,92,551
Less: Expenditure on other Fund (NMEICT)	-	-
Adjustments for the Non-operating Incomes/Expenses		
Depreciation	25,53,93,184	14,95,81,593
Write offs	-	-
Interest expenses on Loans	-	-
(Increase)/Decrease in Current Asstes	3,91,40,454	26,11,74,144
Increase/(Decrease) in Current Liabilities	(1,62,62,775) (1,11,55,454)	(2,61,73,498) (2,88,35,013)
Net Cash Flow from Operating Activities	1,17,22,225	20,61,65,633
B. CASH FLOW FROM INVESTING ACTIVITIES		
(Purchase)/Sale of Fixed Asstes	(16,47,25,584)	(40,03,04,065)
(Purchase)/Sale of Fixed Investments	-	(11,00,88,999)
Interest received	-	(51,03,93,064)
Net Cash Flow from Investing Activities	(16,47,25,584)	(51,03,93,064)
C. CASH FLOW FROM FINANCING ACTIVITIES		
Additions to General Fund during the year	-	-
Grants/funds in nature of founders/promoters contribution	-	-
Endowment fund(principal sum)	10,23,00,000	29,99,50,000
Interest paid on Loans	10,23,00,000	29,99,50,000
Net Increase in Cash Equivalents (A+B+C)	(5,07,03,359)	(42,77,431)
Cash and cash Equivelants as at the beginning of F.Y.	52,55,92,331	52,98,69,762
Cash and Cash Equivelant at the end of the period	47,48,88,972	52,55,92,331



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FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA
Balance Sheet as at 31.03.2019
STAFF BENEFIT TRUST (GPF)

Liabilities	Current Year 2018-19		Previous Year 2017-18		Assets	Current Year 2018-19		Previous Year 2017-18	
GPF									
Opening Balance	51746354		43512810		Investment (Opn. Bal)	50233471	43360278		
Add: Subscription during the year	8787816		7983851		Add: Current year	7216000	6623500		
Add: Interest Credited	3990771		249693		Add: Interest Accrued	3990771	249693		
	64524941		51746354		Less: Withdrawal	61440242	50233471		
Less: Advance/withdrawal	1854470		0			1854470	0		
Closing Balance		62670471		51746354				50233471	50233471
Interest Reserve:					Bank Balance				
Opening Balance	34890		0		Bank (SBI, NIT Agt Br)				1547773
Add: Excess of Income over Expenditure	77599		34890						
Closing Balance		112489		34890					
TOTAL		62782960		51781244	TOTAL		62782960		51781244

Asstt. Registrar (Finance)
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 National Institute of Technology, Agartala.



S.A. MAJUMDAR & ASSOCIATES
 (Chartered Accountants)
 (CA S. Majumdar)
 Chartered Accountant

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		(Amount - Rs.)			
Expenditure	Current Year 2018-2019	Previous Year 2017-2018	Income	Current Year 2018-2019	Previous Year 2017-2018
Bank Charges	0	259	Interest Earned	77599	35149
Excess of Income over Expenditure	77599	34890	Other Receipts	0	
TOTAL	77599	35149	TOTAL	77599	35149

Asstt. Registrar (Finance)
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National Institute of Technology, Agartala.
For

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FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA
RECEIPTS AND PAYMENTS FOR THE PERIOD/ YEAR ENDED ON 31.03.2019
STAFF BENEFIT TRUST (GPF)

RECEIPTS	(Amount - Rs.)		PAYMENTS		(Amount - Rs.)	
	Current Year	Previous Year			Current Year	Previous Year
	2018-2019	2017-2018			2018-2019	2017-2018
I) Opening Balance: In Savings A/c Bank (SBI, NIT Agt Br)	1547773		I) EXPENSES: Remittance Bank Charges GPF Final payment disbursed to employee		7216000	6623500 259 0
II) SUBSCRIPTION: Monthly Subscription GPF Withdrawal	8787816 1854470	7983851	II) In Savings A/c Bank (SBI, NIT Agt Br)		1854470	
III) Interest Received	77599	35149			3197188	1547773
TOTAL	12267658	8171532	TOTAL		12267658	8171532

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19/06/19
(CA S. Majumdar)
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FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA
Balance Sheet as at 31.03.2019
NPS Tier I

Liabilities	Current Year 2018-19	Previous Year 2017-18	Assets	(Amount - Rs.)	
				Current Year 2018-19	Previous Year 2017-18
NPS Tier I					
Opening Balance	79024	69420119	Investment	0	63876540
Add: Subscription during the year	20521374	17109259	Add: Interest	0	5464557
Add: Interest Credited	0	0	Less: Maturity	0	69341097
Less: Transferred to NSDL Closing Balance	20600398 18972614	86529378 86450354	Bank Balance Bank (SBI, NIT Agt Br)	1815568	169323
	1627784				
Interest Reserve:					
Opening Balance	90299	0			
Add: Excess of Income over Expenditure	97485	90299			
Closing Balance	187784				
TOTAL	1815568	169323	TOTAL	1815568	169323

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FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA
INCOME & EXPENDITURE FOR THE PERIOD/ YEAR ENDED ON 31.03.2019
NPS TIER I

	Expenditure	Current Year 2018-2019	Previous Year 2017-2018	Income	Current Year 2018-2019	Previous Year 2017-2018
	Intt credited to Subscribers A/c Bank Charges			Interest Earned	97485	90299
	Excess of Income over Expenditure	97485	90299	Other Receipts	0	
	TOTAL	97485	90299	TOTAL	97485	90299

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FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA
RECEIPTS AND PAYMENTS FOR THE PERIOD/ YEAR ENDED ON 31.03.2019
NPS TIER I

RECEIPTS	(Amount - Rs.)		(Amount - Rs.)		PAYMENTS		(Amount - Rs.)	
	Current Year	2018-2019	Previous Year	2017-2018	Current Year	2018-2019	Previous Year	2017-2018
I) Opening Balance: In Savings A/c Bank (SBI, NIT Agt Br)		169323		79024	I) EXPENSES: Fund tr. To NSDL Bank Charges	18972614	86450356	0
II) SUBSCRIPTION: Own Subscription Institute Contribution Fixed Deposit Maturity		10260687 10260687 0		8554629 8554630 69341097	II) In Savings A/c Bank (SBI, NIT Agt Br)	1815568	169323	
III) Interest Received Intt on Savings A/c		97485		90299				
TOTAL		20788182		86619679	TOTAL	20788182	86619679	

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