



ANNUAL REPORT

2017-2018



NATIONAL INSTITUTE OF TECHNOLOGY AGARTALA

Barjala, Jirania, Tripura, India - 799046

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ANNUAL REPORT

2017 – 2018



*NATIONAL INSTITUTE OF
TECHNOLOGY AGARTALA*

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

**ANNUAL REPORT AND ANNUAL ACCOUNTS
2017-2018**

(AUTHENTICATED)

MINISTER OF STATE IN THE
MINISTRY OF HUMAN RESOURCE DEVELOPMENT

NEW DELHI
DATED:



NATIONAL INSTITUTE OF TECHNOLOGY AGARTALA

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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, MCA, M. Sc., MBA. To promote fundamental research, it also has Ph.D along with Post-Doctoral Fellowship programs in various fields of specializations of Engineering, Science and Humanities & Social Sciences. The School of Management has also been started to produce 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 four Boy's Hostels and 1 Girls' Hostel. The institute looks forward to accommodate students into another Boy's hostel complex with boarding capacity of 1500 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 Techno-Cultural fest called 'Advaitam' 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 and Staff Quarters.
- Installation and commissioning of sub-station for reliable and quality power supply in the campus.
- 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 IPR centre and IIPC.
- 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), BSMS (in Physics, Chemistry and Mathematics), BT-MT (in Engineering Physics) and Ph.D. courses in Engineering, Technology, Sciences, 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 for augmenting the Institute with more infrastructure facilities are the construction of the following:

- (1) Up-gradation of the internal main road with both side footpath including side drain, electric post, bus stop, sitting arrangement 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 Cental 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 Initiatives for Research & Development:

NIT Agartala has performed well in culturing of academic and research environment within its wide area of specialization offered by faculty members of different departments. The following four MOUs have been signed with NIT Agartala.

- a. The 1st MOU has been exchanged on 16th November 2016 in between Prof. (Dr.) Gopal Mugeraya, Director, NIT Agartala and Mr. S. C. Soni, Executive Director and Asset Manager of ONGC, Tripura. The MOU is aimed to promote knowledge of excellence in the area of engineering through research, training, workshop and work association. The MOU will be valid for 5 (five) years in the sector of knowledge updating, collaborative research in oil sectors, imparting training, conducting short term courses etc. As the matter stated, this particular MOU with ONGC, Tripura Asset will be a beginning of a new era in the research and development in specific of Tripura and North East for the benefit of the society.
- b. The 2nd MOU was signed with Mr. A. G West, Kharkongor, CMD, NEEPCO. NEEPCO is performing for the development of the region in hydro, thermal and solar power for quite a long time. They have agreed to develop collaboration that addresses to important problems of National interest. They will also encourage and support students to take part in internship training, joint collaborative research to mitigate and solve industrial problems and also support joint guidance of the students in UG and PG level thesis. The validity of the MOU is also stated for 5 (five) years but with the mutual concern it can run for further time.
- c. For building the career of the students, soft skill development for the students of NIT Agartala is very much essential. In this endeavour, entrepreneurship development is necessarily felt. In this connection, iBuild exchanged an MOU with NIT Agartala through its Director Ms. K. R. Alekhya. The MOU includes matter within the sector of entrepreneurship development by providing support of incubation, mentoring, funding etc. iBuild also help to develop business models based on feasible innovation at NIT Agartala as a part of internship and skill development program. In the modern era of technology, in the IT and advance technologies like cyber security, data analysis -- NIT Agartala and iBuild will jointly work for developing the business skill support of new entrepreneurs, update and ventilate Intellectual Property Right, financial and business modelling which will support the probable new type venture for survival in the greater run.

- d. MOU with IIT Madras, Chennai, India (date of signing 27-01-2017). Pursuant to the agreement for academic exchange, National Institute of Technology, Agartala and Indian Institute of Technology Madras, Chennai will exchange students according to the detailed terms laid out. It is desired by both parties that there will be significant flow of students in both directions. Faculty from both Institutions will collaborate in the supervision of exchange students and in joint research in disciplines of mutual interest. Admission of top 10% of the students of NITA direct PhD Admission at IITM. NITA and IITM agree to facilitate top 10% of the students (at the end of 6th semester) of NITA to seek admission to direct PhD programme of IITM, and enable successful candidates to pursue their 7th and 8th semester of their B.Tech programme at IITM, according to the terms laid out in details.

2.5 Placements:

The Institute has a Centre for Career Development (CCD) under the Chairmanship of Prof. U. Mishra 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.

2.6 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	Shri Asit Bhaumik, Addl. Chief Engineer, PWD, 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. Subhas Chandra Saha, Professor, NIT Agartala.
3	Prof. Umesh Mishra, Professor, NIT Agartala.
4	Prof. R. P. Sharma, Civil Engineering Department, NIT Agartala (Tripura).
5	Dr. Govind Bhargava, Registrar, Member Secretary of the Senate.

3.2 Number of Meetings of the Authorities:

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

A.	Board of Governors	: 4 Nos.
B.	Finance Committee Meeting	: 1 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. A. K. Ray (w.e.f. 30-07-17 to 02-12-17)
	Prof. H. K. Sharma (w.e.f 03-12-2017)
REGISTRAR	: Dr. Govind Bhargava

Deans:

- 1) Dean (Academic)
- 2) Dean (Faculty Welfare)
- 3) Dean (Planning & Development)
- 4) Dean (Allumni)
- 5) Dean (Student Affairs)
- 6) Dean (Research & Consultancy)

Name of the Deans

- : Dr. Ajoy Kumar Das
- : Dr. Ardhendu Saha
- : Dr. A. K. Chakraborty
- : Dr. Prasun Chakraborti
- : Dr. R. S. Panua
- : Dr. Ratul Das

Heads of the Departments/Schools

- 1) Civil Engineering
- 2) Electrical Engineering
- 3) Mechanical Engineering
- 4) Computer Science & Engineering
- 5) Electronics & Communication Engg.
- 6) Production Engineering
- 7) Physics
- 8) Chemistry
- 1) Mathematics
- 9) Humanities & Social Science
- 10) Chemical Engineering
- 11) Electronics & Instrumentation Engg.
- 12) Bio Engineering
- 13) School of Management

Name of the HODs

- : Dr. Manish Pal
- : Dr. Priyanath Das
- : Dr. Swapan Bhounik
- : Dr. Rup Narayan Roy
- : Mr. Atanu Choudhury
- : Mr. Uttam Kr. Mondal
- : Dr. (Mrs.) Aparna Nath
- : Dr. Tarun Kr. Misra
- : Dr. Paritosh Bhattacharya
- : Dr. (Mrs.) Gyanabati Khuraijam
- : Dr. Srimanta Ray
- : Dr. Jayanta Kumar Rakshit
- : Dr. Tarun Kanti Bandyopadhyaya
- : Dr. Anirban Dutta

Head of Central Services, Facilities and Sections:

Medical Officer	: (i) Dr. Tapan Kr. Datta. (ii) Dr. Amal Kr. Sinha. (iii) Dr. Parimal Chakraborty. (iv) Dr. Supriti Tripura.
Chairman, CCD	: Prof. Tara Sen
Senior Librarian	: Mr. Kanu Ranjan Roy
Chief Warden	: Mr. R. K. Bhogendra Meitei
Faculty In-charge (Workshop)	: Dr. Subrata Kr. Ghosh
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 P. C. Das
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3.3.2 List of Faculty Members:

3.3.2.1 Regular faculty members

Sl. No.	Name	Designation	Department	Date of Joining
1.	Prof. Harish Kumar Sharma	Director		03-12-2017
2.	Dr. S. C. Saha	Professor	Mech. Engg.	01-04-2006
3.	Dr. Umesh Mishra	Professor	Civil Engg.	03-10-2008
4.	Prof. Richi Prasad Sharma	Professor	Civil Engg.	01-04-2006
5.	Dr. Swapan Bhowmik	Assoc. Prof.	Mech. Engg.	01-04-2006
6.	Dr. Prasun Chakrabarti	Assoc. Prof.	Mech. Engg.	01-04-2006
7.	Dr. Ajoy kumar Das	Assoc. Prof.	Mech. Engg.	01-04-2006
8.	Dr. Rajsekhar Panua	Assoc. Prof.	Mech. Engg.	24-05-2010
9.	Dr. G.Ravi Kiran Sastry	Assoc. Prof.	Mech. Engg.	24-04-2012
10.	Dr. Sujit Kumar Pal	Assoc. Prof.	Civil Engg.	01-04-2006
11.	Dr. Manish Pal	Assoc. Prof.	Civil Engg.	01-04-2006
12.	Dr. Ratul Das	Assoc. Prof.	Civil Engg.	01-04-2006
13.	Dr.(Mrs.) Rama Deb Barma	Assoc. Prof.	Civil Engg.	01-04-2006
14.	Dr. Rup Narayan Roy	Assoc. Prof.	Elect. Engg.	01-04-2006
15.	Dr. Ardhendu Saha	Assoc. Prof.	Elect. Engg.	01-04-2006
16.	Dr. Priyanath Das	Assoc. Prof.	Elect. Engg.	01-04-2006
17.	Dr. Ajoy Kr. Chakraborty	Assoc. Prof.	Elect. Engg.	15-07-2010
18.	Dr. Diptendu Bhattacharya	Assoc. Prof.	Com. Sc. & Engg.	01-04-2006
19.	Dr. Ram Naresh Rai	Assoc. Prof.	Prod. Engg.	25-06-2010
20.	Dr. Dibyendu Ghoshal	Assoc. Prof.	Electronics & Commu.Engg.	29-04-2010
21.	Dr. Debasish Bhattacharya	Assoc. Prof.	Mathematics	01-04-2006
22.	Dr. Uttam Kr.Bera	Assoc. Prof.	Mathematics	01-09-2010
23.	Dr. Paritosh Bhattacharya	Assoc. Prof.	Mathematics	27-03-2012
24.	Dr. Aparna Nath	Assoc. Prof.	Physics	01-04-2006
25.	Dr. Saroj kumar Das	Assoc. Prof.	Chemistry	01-04-2006
26.	Dr. Tarun Kumar Mishra	Assoc. Prof.	Chemistry	09-04-2012
27.	Dr. Debasish Neogi	Assoc. Prof.	Hum. & So. Sc.	22-08-2008
28.	Dr. John Deb Barma	Asst. Prof.	Mech. Engg.	01-04-2006
29.	Dr. Prittam Das	Asst. Prof.	Mech. Engg.	01-04-2006
30.	Sri Abhik Majumder	Asst. Prof.	Mech. Engg.	01-04-2006
31.	Dr. Madhujit Deb	Asst. Prof.	Mech. Engg.	01-04-2006
32.	Sri Barnik Saha Roy	Asst. Prof.	Mech. Engg.	01-04-2006
33.	Sri Pankaj kumar Das	Asst. Prof.	Mech. Engg.	01-04-2006
34.	Sri Arindam Majumder	Asst. Prof.	Mech. Engg.	20-04-2010
35.	Dr. Rahul Banerjee	Asst. Prof.	Mech. Engg.	12-04-2010
36.	Sri Ankuran Saha	Asst. Prof.	Mech. Engg.	21-05-2012
37.	Sri R.K. Bhogendra Meiti	Asst. Prof.	Mech. Engg.	29-06-2012
38.	Dr. Ajoy Biswas	Asst. Prof.	Mech. Engg.	01-07-2007 23-07-2012
39.	Dr. (Mrs.) Tara Sen	Asst. Prof.	Mech. Engg.	12-04-2010
40.	Dr. Subrata kumar Ghosh	Asst. Prof.	Mech. Engg.	07-06-2012
41.	Smt. Lipika Halder	Asst. Prof.	Civil Engg.	01-04-2006
42.	Dr. (Mrs) Sima Ghosh	Asst. Prof.	Civil Engg.	01-04-2006
43.	Dr. Rajib Saha	Asst. Prof.	Civil Engg.	01-04-2006
44.	Sri Gopinandan Dey	Asst. Prof.	Civil Engg.	01-04-2006
45.	Dr. Jayanta Pal	Asst. Prof.	Civil Engg.	01-04-2006
46.	Sri Nilotpal Deb Barma	Asst. Prof.	Civil Engg.	01-04-2006

47.	Dr. Sanjay Paul	Asst. Prof.	Civil Engg.	24-05-2012
48.	Dr. Animesh Debnath	Asst. Prof.	Civil Engg.	21-06-2012
49.	Dr. Sushant Kr. Biswal	Asst. Prof.	Civil Engg.	21-06-2012
50.	Dr. Surajit Das	Asst. Prof.	Civil Engg.	16-05-2012
51.	Sri Dipankar Sarkar	Asst. Prof.	Civil Engg.	01-04-2006
52.	Dr. Debdulal Tripura	Asst. Prof.	Civil Engg.	01-04-2006
53.	Dr. Partha Pratim Sarkar	Asst. Prof.	Civil Engg.	08-09-2008
54.	Smt Anindita Jamatia	Asst. Prof.	Elect. Engg.	01-04-2006
55.	Sri Abanishwar Chakraborti	Asst. Prof.	Elect. Engg.	01-04-2006
56.	Dr. (Mrs.) Sumita Deb	Asst. Prof.	Elect. Engg.	01-04-2006
57.	Sri Prabir Ranjan Kasari	Asst. Prof.	Elect. Engg.	01-04-2006
58.	Smt Minakshi Deb Barma	Asst. Prof.	Elect. Engg.	01-04-2006
59.	Sri Bikram Das	Asst. Prof.	Elect. Engg.	01-04-2006
60.	Dr. Subhadeep Bhattacharjee	Asst. Prof.	Elect. Engg.	13-04-2010
61.	Sri Prasenjit Debnath	Asst. Prof.	Elect. Engg.	30-07-2010
62.	Ms. Joyshree Das	Asst. Prof.	Elect. Engg.	11-10-2012
63.	Dr. Aniruddha Bhattacharya	Asst. Prof.	Elect. Engg.	12-12-2012
64.	Dr. Biman Kumar Saha Roy	Asst. Prof.	Elect. Engg.	28-02-2013
65.	Dr. Mrinal Knt. Debbarma	Asst. Prof.	Com. Sc. & Engg.	01-04-2006
66.	Dr. Swapan Deb Barma	Asst. Prof.	Com. Sc. & Engg.	01-04-2006
67.	Sri Nikhil Deb Barma	Asst. Prof.	Com. Sc. & Engg.	01-04-2006
68.	Sri Kunal Chakma	Asst. Prof.	Com. Sc. & Engg.	01-04-2006
69.	Smt Smita Das	Asst. Prof.	Com. Sc. & Engg.	01-04-2006
70.	Sri Dwijen Rudra Pal	Asst. Prof.	Com. Sc. & Engg.	01-04-2006
71.	Sri Suman Deb	Asst. Prof.	Com. Sc. & Engg.	01-04-2006
72.	Sri Anupam Jamatia	Asst. Prof.	Comp. Sc. & Engg.	01-04-2006
73.	Sri Tribid Deb Barma	Asst. Prof.	Comp. Sc. & Engg.	01-04-2006
74.	Sri Nirmalya Kar	Asst. Prof.	Comp. Sc. & Engg.	29-07-2010
75.	Dr. Ashim Saha	Asst. Prof.	Comp. Sc. & Engg.	12-10-2012
76.	Sri Manik Bhowmik	Asst. Prof.	Electro. & Com. Eng	01-04-2006
77.	Sri Biman Deb Barma	Asst. Prof.	Electro. & Com. Eng	01-04-2006
78.	Sri. Kamalesh Debnath	Asst. Prof.	Electro. & Com. Eng	12-04-2010
79.	Dr. Sambhu Nath Pradhan	Asst. Prof.	Electro. & Com. Eng	28-05-2010
80.	Sri Anirban Bhattacharya	Asst. Prof.	Electro. & Com. Eng	21-05-2012
81.	Sri Somnath Roy Choudhury	Asst. Prof.	Electro. & Com. Eng	21-05-2012
82.	Dr.(Mrs.) Tamasi Moyra (Panua)	Asst. Prof.	Electro. & Com. Eng	13-06-2012
83.	Ms.MadhuparnaChakraborty	Asst. Prof.	Electro. & Com. Eng.	22-06-2012
84.	Sri Mitra Barun Sarkar	Asst. Prof.	Electro. & Com. Eng	15-06-2012
85.	Sri Atanu Chowdhury	Asst. Prof.	Electro. & Com. Eng	22-09-2008
86.	Dr. Jayanta Kr. Rakshit	Asst. Prof.	Electronics & Inst. Engg.	23-08-2010
87.	Sri Prasenjit Datta	Asst. Prof.	Prod. Engg.	01-04-2006
88.	Sri Kishan Choudhuri	Asst. Prof.	Prod. Engg.	18-09-2008
89.	Sri Swarup Paul	Asst. Prof.	Prod. Engg.	20-02-2009
90.	Ms. Seenaa P.	Asst. Prof.	Prod. Engg.	13-05-2010
91.	Dr. Vidyut Dey	Asst. Prof.	Prod. Engg.	01-06-2012
92.	Dr. Uttam Kumar Mandal	Asst. Prof.	Prod. Engg.	28-05-2012
93.	Mrs. Soma Nag	Asst. Prof.	Chemical Engg.	14-06-2010
94.	Dr. Tarun Knt. Bandyopadhyay	Asst. Prof.	Chemical Engg.	04-05-2012
95.	Dr. Srimanta Ray	Asst. Prof.	Chemical Engg.	04-05-2012

96.	Dr. Kalyan Gayen	Asst. Prof.	Chemical Engg.	04-05-2012
97.	Dr. Ajay kumar Manna	Asst. Prof.	Chemical Engg.	17-12-2012
98.	Dr. Apu kumar Saha	Asst. Prof.	Mathematics	01-04-2006
99.	Dr. (Mrs) Baby Bhattacharya	Asst. Prof.	Mathematics	06-02-2009
100.	Dr. Suvra Prakash Mondal	Asst. Prof.	Physics	01-11-2012
101.	Dr. Biswajit Saha	Asst. Prof.	Physics	30-11-2012
102.	Dr. (Mrs.) Mitali Saha	Asst. Prof.	Chemistry	12-04-2010
103.	Dr. Keisham Surjit Singh	Asst. Prof.	Chemistry	26-07-2010
104.	Dr. Gyanabati Khuraijam	Asst. Prof.	Hum. & Sco. Sc.	07-05-2010
105.	Dr. Anirban Dutta	Asst. Prof.	School of Management	06-11-2012
106.	Dr. Mrinmoy Majumder	Asst. Prof.	School of Hydro. Info. Engg.	17-11-2012

3.3.2.2 Contractual faculty members.

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

32.	Ms. Sudipa Choudhury	Teaching Asstt.	Maths. Dept.	29-07-2015
33.	Dr. Sayanta Chakraborty	Asstt. Professor	Maths. Dept.	19-08-2016
34.	Dr. Kalyani Debnath	Asstt. Prof.	Maths. Dept.	19-08-2016
35.	Dr. Piyali Debnath	Asstt. Prof.	Maths. Dept.	04-09-2017
36.	Dr. Debaroti Das	Asstt. Prof.	Maths. Dept.	04-09-2017
37.	Sri Subharaj Paul	Teaching Asstt.	Physics Dept.	01-08-2012
38.	Dr. Manash Kr. Paul	Asstt. Prof.	Physics Dept.	16-07-2010 17-10-2012
39.	Dr. Sanjay Kr. Mandal	Asstt. Prof.	Physics Dept.	05-11-2012
40.	Dr. Thingujam Kiranmala Devi	Asstt. Prof.	Physics Dept.	21-07-2014
41.	Dr. Nandini Roy	Asstt. Prof.	Physics Dept.	23-07-2014
42.	Dr. Biswajit Paul	Asstt. Prof.	Physics Dept.	20-07-2015
43.	Dr. Santanu Chakraborty	Asstt. Prof.	Physics Dept.	13-07-2015
44.	Dr. Chakradhar Behra	Asstt. Prof.	Physics Dept.	16-08-2016
45.	Dr. Ngangbam Ishwarchandra	Asstt. Prof.	Physics Dept.	11-08-2016
46.	Ms. Saswati Roy	Teaching Asstt.	Physics Dept.	16-08/2016
47.	Mr. Debanjan Bhattacharjee	Teaching Asstt.	Physics Dept.	14-03-2017
48.	Dr. Saroj Kumar Parida	Asstt. Prof.	Physics Dept.	13-02-2017
49.	Sri Durbadal Debroy	Asstt. Prof.	Mech. Engg.	03-08-2011
50.	Sri Aparesh Datta	Asstt. Prof.	Mech. Engg.	03-08-2011
51.	Dr. Ashis Acharjee	Asstt. Prof.	Mech. Engg.	11-07-2014
52.	Sri Arindam Sinha	Asstt. Prof.	Mech. Engg.	14-07-2014
53.	Ms. Moutoshi Singha Roy	Asstt. Prof.	Mech. Engg.	29-07-2015
54.	Dr. Sagnik Pal	Asstt. Prof.	Mech. Engg.	30-07-2015
55.	Sri Dipak Ch. Das	Asstt. Prof.	Mech. Engg.	30-07-2015
56.	Dr. Joydeep Roy	Asstt. Prof.	Mech. Engg.	07-03-2016
57.	Sri Krishanu Gupta	Asstt. Prof.	Mech. Engg.	07-03-2016
58.	Dr. Pinku Debnath	Asstt. Prof.	Mech. Engg.	14-09-2016
59.	Ms. Sharmistha Sharma	Asstt. Prof.	Elect. Engg.	12-08-2009
60.	Sri Diptanu Das	Asstt. Prof.	Elect. Engg.	08-08-2011
61.	Dr. Bidyut Kr. Bhattacharya	Professor	Elect. Engg.	17-01-2013
62.	Ms. Saheli Roy	Asstt. Prof.	Elect. Engg.	12-08-2009
63.	Ms. Nivedita Laskar	Asstt. Prof.	Elect. Engg.	15-11-2012
64.	Sri Diptanu Dey	Asstt. Prof.	Elect. Engg.	14-07-2014
65.	Sri Saptadip Saha	Asstt. Prof.	Elect. Engg.	11-07-2014
66.	Dr. Arup Ratan Bhowmik	Asstt. Prof.	Elect. Engg.	11-07-2014
67.	Dr. Nabamita Goswami	Asstt. Prof.	Elect. Engg.	11-07-2014
68.	Sri Bishop Debbarma	Asstt. Prof.	Prod. Engg.	24-08-2010
69.	Sri Sujay Chakraborty	Asstt. Prof.	Prod. Engg.	01-08-2011
70.	Ms. Pushparenu Bhattacharjee	Asstt. Prof.	Prod. Engg.	08-08-2013
71.	Sri Nabarun Biswas	Asstt. Prof.	Prod. Engg.	11-07-2014
72.	Sri Debashis Podder	Asstt. Prof.	Prod. Engg.	18-07-2014
73.	Sri Shiladitya Chakraborty	Teaching Asstt.	Electro. & Comm. Engg.	25-07-2008

74.	Sri Suvojit Acharjee	Asstt. Prof.	Electro. & Comm. Engg.	14-07-2014
75.	Dr. Priyanka Chowdhury	Asstt. Prof.	Electro. & Comm. Engg.	13-08-2014
76.	Ms. Anindita Goswami	Asstt. Prof.	Electro. & Comm. Engg.	20-08-2014
77.	Sri Apangshu Das	Asstt. Prof.	Electro. & Comm. Engg.	10-08-2012
78.	Sri Abhishek Nag	Asstt. Prof.	Electro. & Comm. Engg.	13-07-2015
79.	Sri Partha Kr. Deb	Asstt. Prof.	Electro. & Comm. Engg.	02-07-2015
80.	Ms. Smita Banik	Asstt. Prof.	Electro. & Comm. Engg.	22-08-2016
81.	Dr. Apurba Chakraborty	Asstt. Prof.	Electro. & Comm. Engg.	22-08-2016
82.	Mr. Debajyoti Datta	Asstt. Prof.	Electro. & Comm. Engg.	22-08-2016
83.	Dr. Subhojit Das	Asstt. Prof.	Chemistry Dept.	24-07-2014
84.	Dr. Manojit Roy	Asstt. Prof.	Chemistry Dept.	07-08-2014
85.	Dr. Jhinuk De	Teaching Asstt.	Chemistry Dept.	12-01-2015
86.	Dr. Chitraniva Datta	Asstt. Prof.	Chemistry Dept.	03-08-2015
87.	Dr. Sajal Kundu	Asstt. Prof.	Chemistry Dept.	29-07-2015
88.	Dr. Manas Roy	Asstt. Prof.	Chemistry Dept.	26-08-2016
89.	Dr. Susanta Ghanta	Asstt. Prof.	Chemistry Dept.	22-08-2016
90.	Dr. Chanchal Bhowmik	Asstt. Prof.	Chemistry Dept.	22-08-2016
91.	Sri Bidhyasagar Debnath	Teaching Asstt.	Hum. & So. Sc.	04-08-2008
92.	Dr. Kaju Nath	Asstt. Prof.	Hum. & So. Sc.	24-07-2014
93.	Sri Nabendu Debnath	Teaching Asstt.	Hum. & So. Sc.	01-09-2014
94.	Dr. Anuradha Nongmaithem	Asstt. Prof.	Hum. & So. Sc.	25-07-2014
95.	Dr. Amit Bikram Chowdhury	Asstt. Prof.	Hum. & So. Sc.	22.08.2016
96.	Mr. Jayasree Tripura	Teaching Asstt.	Hum. & So. Sc.	07-07-2017
97.	Sri Prasenjit Ghorai	Asstt. Prof.	Electro. & Inst. Engg.	08-08-2011
98.	Ms. Priyanka Dey	Asstt. Prof.	Electro. & Inst. Engg.	13-08-2012
99.	Ms. Priyanka Roy Goswami	Asstt. Prof.	Electro. & Inst. Engg.	06-02-2012
100.	Sri Rupam Gupta Roy	Asstt. Prof.	Electro. & Inst. Engg.	11-07-2014
101.	Ms. Aparupa Kar	Asstt. Prof.	Electro. & Inst. Engg.	11-07-2014
102.	Dr. Dijendra Nath Roy	Asstt. Prof.	Bio-Engg.	28-01-2013
103.	Dr. Biswanath Bhunia	Asstt. Prof.	Bio-Engg.	04-03-2013
104.	Dr. Tridib Kr. Bhowmik	Asstt. Prof.	Bio-Engg.	13-06-2013
105.	Dr. Sreerup Banerjee	Asstt. Prof.	Bio-Engg.	21-07-2014
106.	Dr. Deeplina Das	Asstt. Prof.	Bio-Engg.	21-07-2014
107.	Dr. Abhijit Chatterjee	Asstt. Prof.	Bio-Engg.	14-07-2015
108.	Ms. Hrijuta Datta	Asstt. Prof.	Bio-Engg.	10-07-2015
109.	Dr. Muthusivarampandian M	Asstt. Prof.	Bio-Engg.	10-07-2015
110.	Dr. Rajib Mallik	Asstt. Prof.	School of Management	22-05-2013
111.	Dr. Sonit Dutta	Asstt. Prof.	School of Management	23-05-2013
112.	Dr. Mili Kar	Asstt. Prof.	School of Management	07-08-2013
113.	Dr. Amlanbrata Chakraborty	Asstt. Prof.	School of Management	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/ Section	Date of Joining
1.	Dr. Govind Bhargava	Registrar	Administration	05-05-2017
2.	Mr. Tanmoy Ghosal	Assistant Registrar	Administration	07-09-2012
3.	Sri Suman Karmakar	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 Sajal Kr. Dey	Sr. Assistant	Cash Section	01-04-2006
10.	Sri Pradip Kr. Majumder	Jr. Assistant	Academic Section	01-04-2006
11.	Sri Sukhen Saha	Jr. Assistant	Accounts Section	01-04-2006
12.	Sri Dharendra Debnath	Jr. Assistant	Library	01-04-2006
13.	Sri Sukhendu Debbarma	Sr. Technician	Elect. Engg.	01-04-2006
14.	Sri Bijan Ch Debnath	Group - C	Civil Engg.	22-09-1980
15.	Sri Ratan Debnath	Group - C	Directors' Office	22-09-1980
16.	Sri Dhanu Rn. Saha	Group - C	Medical Unit	05-12-1980
17.	Sri Manik Chakraborty	Group - C	Civil Engg.	26-06-1982
18.	Sri Ratan Modi	Group - C	CSE Dept.	04-02-1981
19.	Sri Niranjana Ghosh	Group - C	Mech. Engg.	08-12-1980
20.	Sri Jahar Debnath	Group - C	Dean (P&D)	15-09-1987
21.	Smt. Brihalata Debbarma	Group - C	Civil Engg.	06-07-1992
22.	Smt. Uma Saha	Group - C	Exam. Sec.	31-07-1996
23.	Sri Dilip Debbarma	Group - C	Estt. Sec.	22-12-1990
24.	Smt. Sonalaxmi Debbarma	Group - C	Estt. Sec.	04-05-1998
25.	Sri Nepal Debnath	Group - C	Acad. Sec.	14-08-1997
26.	Sri Bishu Debbarma	Group - C	Prod. Engg.	17-05-1999
27.	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/ Section	Date of Joining
1.	Sri Sajal Kr. Ganguly	P.S	O/o the Director	02-06-2008
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 Nabendra Nath Mukherjee	Admn. Officer	O/o the Registrar	12-03-2010
5.	Sri Tanumoy Paul	Jr. Assistant	O/o the Registrar	19-06-2006
6.	Sri Sanjib Debbarma	Helper	O/o the Registrar	15-07-2009
7.	Mrs. Kaninika Banik	Receptionist	O/o the Registrar	11-11-2011

8.	Ms. Mamata Reang	P.R. Asstt.	O/o the OSD	19-09-2016
9.	Sri Jagat jyoti Roy	AR.(Finance)	Accounts Section	07-01-204
10.	Sri Rajesh Kn. Majumder	Accountant	Accounts Section	21-11-2007
11.	Sri Dhruba Lal Banik	Accountant	Accounts Section	05-08-2011
12.	Ms Aparna Nath	Accountant	Accounts Section	18-08-2010
13.	Sri Akhil Debbarma	Accountant	Accounts Section	03-10-2016
14.	Sri Karna Kr. Sarkar	Office Asstt.	Accounts Section	18-08-2016
15.	Sri Manish Dey	Accountant	Accounts Section	03-02-2014
16.	Smt. Sumitra Roy	Jr. Assistant	O/o the Registrar	12-12-2008
17.	Sri Shyamal Purakayastha	Audit Officer	Accounts Section	07-01-2014
18.	Sri Subrata Chakraborty	Audit officer	Accounts Section	05-12-2011
19.	Sri Kritisundar Saha	Office Assistant	Estt. Section	01-08-2013
20.	Sri Benimadav Bhowmik	Sr. Asstt.	Estt. Section	03-10-2006
21.	Sri Tapan Debnath	Technician	Estt. Section	10-06-2015
22.	Sri Pradip Rn. Deb	Sr. Assistant	Estt. Section	15-09-2015
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	Superintenden t	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 Kundu	Lib. Asstt.	Purchase Sec.	01-04-2010
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 Deep Majumder	J.E.	Estate Section	08-09-2014
54.	Sri Ranjit Sharma	Helper	Estate Section	09-11-2010
55.	Sri Rajib Chakraborty	Helper	Estate Section	09-11-2010
56.	Sri Chanki Paul	Helper	Estate Section	09-11-2010
57.	Sri Pradip Das	Electrician	Estate Section	01-12-2011
58.	Sri Arabinda Das	Electrician	Estate Section	01-12-2011
59.	Sri Sujit Debnath	Lineman	Estate Section	01-12-2011
60.	Sri Amar Krishna Saha	Helper	Estate Section	01-12-2011
61.	Sri Subir Namasudra	Helper	Estate Section	01-12-2011
62.	Sri Pabitra Shil	Electrician	Estate Section	08-08-2012
63.	Sri Krishan Debnath	Lineman	Estate Section	02-08-2012
64.	Sri Krishna Ch. Saha	Lineman	Estate Section	03-08-2012
65.	Sri Uttam Kr. Debnath	Lineman	Estate Section	07-08-2012
66.	Sri Parimal Debnath	Helper	Estate Section	03-08-2012
67.	Sri Biswajit Debbarma	Helper	Estate Section	03-08-2012
68.	Sri Rajib Deb	Helper	Estate Section	16-06-2014
69.	Sri Kamal Charan Debnath	Supervisor	Estate Section	16-06-2014
70.	Sri Matilal Tanti	Operator	Estate Section	16-06-2014
71.	Sri Manitosh Sarkar	Operator	Estate Section	16-06-2014
72.	Sri Sadhan Debnath	Operator	Estate Section	31-08-2016
73.	Sri Amit Debbarma	Electrician	Estate Section	01-09-2016
74.	Sri Litan Sarkar	Jr. Assistant	TPO	16-07-2010
75.	Ms. Jhuma Das	P.R. Asstt.	TPO	15-09-2016
76.	Sri Dyanojyoti Kar	Accountant	TPO	15-09-2015
77.	Sri Sukanta Goswami	Jr. Assistant	Dean (FW)	19-12-2008
78.	Sri Kanu Ranjan Roy	Sr. Librarian.	Library	01-09-2009
79.	Sri Anirban Sharma Roy	Lib. Asstt.	Library	30-01-2012
80.	Sri Dipankar Das	Jr. Assistant	Library	18-12-2008
81.	Ms. Atrayee Podder	Library Asstt.	Library	30-01-2012
82.	Sri Bidyut Choudhuri	Library Asstt.	Library	14-09-2015
83.	Ms. Purnima Singha	Library Asstt.	Library	14-09-2015
84.	Sri Kshitish Chakraborty	Office Asstt.	Library	16-08-2016
85.	Ms. Rupa Debnath	Library Asstt.	Library	24-09-2015
86.	Mrs. Tulshi Singha	P.R. Asstt.	Library	21-02-2017
87.	Sri Anupam Pal	Sports Officer	Dean (SW)	16-08-2007
88.	Sri Sukanta Ghoswami	Phy. Edu. Off.	Dean (SW)	16-08-2007
89.	Ms. Rumita Saha	Hostel Supervisor	Dean (SW)	01-08-2012
90.	Ms. Mahuya Biswas	Hostel Supervisor	Dean (SW)	10-02-2010
91.	Sri Ajoy Bhowmik	Hostel Supervisor	Dean (SW)	16-02-2010
92.	Sri Rabindra Das	Hostel Supervisor	Dean (SW)	10-02-2010
93.	Sri Sukrit Prasad Dutta	Hostel Supervisor	Dean (SW)	30-07-2012
94.	Sri Satyajit Das	Hostel	Dean (SW)	30-07-2012

		Supervisor		
95.	Sri Prasanta Rn. Deb	Hostel Supervisor	Dean (SW)	08-07-2015
96.	Sri Kanu Kanta Deb	Office Asstt.	Dean (SW)	19-08-2016
97.	Sri Debashish Biswas	Foreman	Workshop	04-08-2008
98.	Sri Manojit Das	Foreman/ Instructor	Workshop	18-09-2008
99.	Sri Koushik Debroy	Foreman	Workshop	01-01-2009
100.	Sri Arup taru Roy	Instructor	Workshop	19-08-2009
101.	Sri Ranju Kr. Singh	Instructor	Workshop	19-08-2009
102.	Sri Biswajit Debnath	Instructor	Workshop	19-08-2009
103.	Sri Jiban Chandra	Sr. Engine Operator	Workshop	19-03-2012
104.	Sri Basudeb Banik	Tech.	Workshop	22-12-2008
105.	Sri Sujit Kumar Bhowmik	Skilled Asstt.	Workshop	18-09-2008
106.	Sri Shubendu Debbarma	Jr. Tech.	Workshop	19-08-2009
107.	Sri Kishore Das	Lab. Asstt.	Mech. Engg.	25-08-2010
108.	Sri Pinku Saha	Lab. Asstt.	Mech. Engg.	26-08-2010
109.	Sri Bishnupada Das	Driver	Workshop	19-11-2008
110.	Sri Babul Ch. Deb	Driver	Workshop	16-07-2009
111.	Sri Gopal Ch. Das	Driver	Workshop	16-07-2009
112.	Sri Sajal Saha	Driver	Workshop	01-02-2011
113.	Sri Sachindra Ch. Das	Gr. D	Mech. Engg.	01-02-2009
114.	Sri Gautam Acharjee	Technician	Mech. Engg.	28-07-2015
115.	Sri Subrajit Sen	Technical Asstt.	Mech. Engg.	27-07-2015
116.	Sri Prasenjit Majumder	Technical Asstt.	Mech. Engg.	28-07-2015
117.	Sri Pabitra Acharjee	Technician	Mech. Engg.	08-09-2016
118.	Sri Sudip Debnath	Technical Asstt.	Mech. Engg.	26-08-2016
119.	Sri Hillol Mutsuddy	Technical Asstt.	Mech. Engg.	26-08-2016
120.	Sri Pulak Kr. De	Office Asstt.	Mech. Engg.	18-08-2016
121.	Sri Abhijit Giri	Technical Asstt	Civil Engg.	13-08-2010
122.	Sri Suman Nandi	Lab. Asstt.	Civil Engg.	10-08-2010
123.	Ms Manisha Deb	Lab. Asstt.	Civil Engg.	13-08-2010
124.	Sri Prasenjit Dutta	Technical Asstt	Civil Engg.	06-12-2012
125.	Sri Sankar Banik	Technical Asstt	Civil Engg.	13-12-2012
126.	Sri Uddhab Ch.Nath	Technical Asstt	Civil Engg.	28-07-2015
127.	Sri Riman Bhowmik	Technician	Civil Engg.	28-07-2015
128.	Sri Sukumar Sarkar	Office Asstt.	Civil Engg.	18-08-2016
129.	Sri Pramod Pal	Instructor	Production Engg.	04-09-2009
130.	Sri Biswanath Karmakar	Jr. Tech	Production Engg.	04-09-2009
131.	Sri Sukanta Das	Technical Asstt.	Production Engg.	08-09-2014
132.	Sri Vishal Paul	Technician	Production Engg.	08-09-2014

133.	Sri Prasenjit Debnath	Technician	Production Engg.	08-09-2014
134.	Sri Subhan Ch. Deb	Attendant	Production Engg.	15-02-2016
135.	Ms. Puspoham Hrangkhawl	P.R. Asstt.	Production Engg.	21-02-2017
136.	Smt. Sima Das	Sr. Ins.	Elect. Engg.	19-08-2009
137.	Smt. Tapa Saha	Tech.Supp. Staff	Elect. Engg.	25-07-2008
138.	Sri Kabir Bhowmik	Sr. Ins.	Elect. Engg.	19-08-2009
139.	Sri Ajit Deb	Lab. Tech	Elect. Engg.	19-08-2009
140.	Sri Debabrata Bhattacharya	Technical Asstt	Elect. Engg.	09-08-2010
141.	Sri Jayanta Chowdhury	Technical Asstt	Elect. Engg.	10-07-2012
142.	Sri Pranab Majumder	Technical Asstt	Elect. Engg.	16-07-2012
143.	Ms. Sudipa Aine	Technical Asstt.	Elect. Engg.	30-07-2015
144.	Sri Subal Das	Technical Asstt.	Elect. Engg.	31-07-2015
145.	Sri Balaram Das	Technical Asstt.	Elect. Engg.	30-07-2015
146.	Sri Rajkishore Ghosh	Attendant	Elect. Engg.	01-08-2016
147.	Ms. Ankita Pal	P.R. Asstt	Elect. Engg.	23-12-2016
148.	Sri Kamal Kn. Pal	System Admin.	CSE Deptt.	15-12-2008
149.	Sri Partha Sarathi Bhattacharjee	Network Admin.	CSE Deptt.	15-09-2011
150.	Mr. Rajib Debnath	Technician (N/W)	Networking	28-09-2016
151.	Mr. Pramatha Acharjee	Technician (N/W)	Networking	28-09-2016
152.	Sri Suman Saha	Lab / Tech Assistant	CSE Deptt..	09-08-2010
153.	Sri Viki Datta	Lab / Tech Assistant	CSE Deptt.	14-09-2011
154.	Sri Malay Paul	Lab / Tech Assistant	CSE Deptt.	13-03-2012
155.	Sri Saikat Bhattacharjee	Lab / Tech Asstt	CSE Deptt.	29-07-2015
156.	Sri Dhurjati Chakraborty	Lab / Tech Assistant	CSE Deptt.	29-07-2015
157.	Sri Joydip Deb	Lab / Tech Assistant	CSE Deptt.	29-07-2015
158.	Sri Rabindra Ch. Das	Gr. D	CSE Deptt.	20-04-2009
159.	Sri Dilip Goswami	Office Asstt.	CSE Deptt.	18-08-2016
160.	Sri Ardhendu Gupta	Technical Asstt	CSE Deptt.	23-08-2016
161.	Sri Susanta Pal	Technical Asstt	CSE Deptt.	23-08-2016
162.	Ms. Mandira Bhowmik	Technical Asstt	CSE Deptt..	22-09-2016
163.	Sri Dhruba Narayan Das	Technical Asstt	Chemical Engg.	09-08-2010
164.	Sri Dipankar Goswami	Technical Asstt	Chemical Engg.	06-09-2011
165.	Sri Kaushik Das	Technical Asstt.	Chemical Engg.	28-07-2015
166.	Sri Mrinmoy Sarma	Technical Asstt.	Chemical Engg.	28-07-2015
167.	Mr. Samir Debbarma	Technician	Chemical Engg.	28-07-2015

168.	Mr. Biswajit Debbarma	Lab. Technician	Chemical Engg.	11-10-2017
169.	Khorshed Aalam	Lab. Technician	Chemical Engg.	17-10-2017
170.	Ms. Sangita Patari	Lab. Asstt	Physics	22-09-2011
171.	Mrs. Madhuri Debnath	Lab. Asstt.	Physics	17-07-2013
172.	Mr. Krishna Deb	Lab. Asstt.	Physics	17-07-2013
173.	Sri Sarit Chakraborty	Lab. Asstt	Physics	29-07-2015
174.	Sri Rajesh Debnath	Lab. Asstt	Physics	29-07-2015
175.	Sri Dulal Chakraborty	Group – D	Chemistry	01-01-2011
176.	Sri Satyajit Ghosh	Lab,Asstt.	Chemistry	07-09-2012
177.	Sri Sudip Paul	Lab,Asstt.	Chemistry	31-07-2015
178.	Sri Himadri Paul	Lab,Asstt.	Chemistry	29-07-2015
179.	Sri Nitish Ranjan Nath	Lab. Asstt.	Chemistry	22-08-2016
180.	Mrs. Sarbani Das (Bhattacharjee)	Lab. Asstt.	Math.	20-07-2017
181.	Ms. Poulami Ghosh	Tech. Asstt.	ECE	09-12-2011
182.	Sri Dipesh Debnath	Technician	ECE	02-01-2012
183.	Sri Abhijit Chakraborty	Tech. Asstt.	ECE	10-08-2010
184.	Sri Jagadish Ch. Bhowmik	Technician	ECE	25-07-2014
185.	Sri Badal Debnath	Technical Asstt,	ECE	27-07-2015
186.	Mrs. Poulomi Dey	Technical Asstt,	ECE	27-07-2015
187.	Sri Raju Majumder	Technical Asstt,	ECE	27-07-2015
188.	Sri Sanjib Das	Technician,	ECE	27-07-2015
189.	Sri Nirmal Sarkar	Technician	ECE	27-07-2015
190.	Sri Alvin Debbarma	Technical Asstt.	ECE	27-07-2015
191.	Sri Hriday Ranjan Lodh	Technical Asstt.	ECE	22-08-2016
192.	Sri Susovan Ghosh	Technical Asstt	ECE	23-08-2016
193.	Sri Prasenjit Paul	Technician	ECE	22-08-2016
194.	Sri Anjan Das	Technical Asstt.	EIE	06-02-2012
195.	Sri Samir Rajuyar	Technician	EIE	28-07-2015
196.	Sri Dilip Biswasarma	Technical Asstt.	EIE	22-08-2016
197.	Sri Suraj Das	Technical Asstt.	EIE	03-07-2017
198.	Sri Kailash Pratim Phukan	Technical Asstt.	EIE	04-07-2017
199.	Dr. Tapan Kr. Datta	Medical Off.	Medical Unit	22-01-2009
200.	Dr. Parimal Chakraborty	Medical Off.	Medical Unit	01-02-2012
201.	Dr. Amal Kumar Sinha	Medical Off.	Medical Unit	12-12-2013
202.	Dr. Supriti Tripura	Medical Off.	Medical Unit	23-01-2018
203.	Sri Rajesh Karmakar	Pharmacist	Medical Unit	17-04-2008
204.	Ms.Supriya Das	Pharmacist	Medical Unit	27-09-2012
205.	Sri Dipen Majumder	Technician	Medical Unit	22-12-2008
206.	Mr.Rajat Saha	GDA cum	Medical Unit	04-03-2015

		Dresser		
207.	Ms.Chayanika Das	Lab.Technician	Medical Unit	06-01-2014
208.	Sri Subrata Das	Staff Nurse (M)	Medical Unit	07-12-2016
209.	Ms. Satabdi Das	Nurse (Female)	Medical Unit	14-06-2017
210.	Sri Sanjit Debbarma	Helper	Guest House	15-07-2009
211.	Sri Sanjoy Ghosh	Supervisor	Guest House	05-09-2014
212.	Smt. Sulekha Sarkar	Cook	Transit House	06-05-2011
213.	Mrs. Sanju Debnath	Draftsman	Dean (P&D)	12-12-2008
214.	Sri Suman Rudra Pal	Off. Asstt.	Dean (P&D)	19-08-2008
215.	Sri Bappi Das	Helper/Cook	Transit camp	01-02-2011
216.	Ms.Subhra Chowdhury	Technical Asstt.	Bio-Engg.	24-12-2012
217.	Ms. Pinki Pal	Technical Asstt.	Bio Engg.	13-10-2017
218.	Ms. Malabita Sarkar	Technical Asstt.	Bio Engg.	17-10-2017
219.	Sri Anojit Debbarma	Technician	Bio-Engg.	23-08-016
220.	Sri V.C.Mathai	Technical Asst.	MHRD	12-11-2009
221.	Sri Sourabh Roy	Tech. Asstt.	Virtual Class Room	14-03-2014
222.	Sri Ratan Majumder	Accounts Asst. (TEQIP)	TEQIP	10-12-2012
223.	Ms.Baishakhi Saha	Tech. Support Staff	MIS Opt.	20-05-2013
224.	Sri Sujoy Dey	Office Assistant	TEQIP	16-06-2014
225.	Sri Pramathesh Banik	Asst. Programmer (Technician)	MIS Section	03-11-2014
226.	Sri Sandanlal Saha	Cook-cum-Caretaker	Director's resi.	15-03-2016
227.	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.	Mr. Sumanta Chakrabarti	Dy. Registrar	Administration	2 years	On lien
2.	Dr. R. K. Yadav	Asst. Prof.	Physics Dept	2 years	On lien

3.3.3.4 List of Retired/ Expired Faculty/ Staff Members

Sl. No.	Name	Designation	Date of Expire/ retire
1.	Shri Dilip Kr. Ghosh	Sr. Technician	30-09-2017
2.	Shri Nirmal Kr. Saha	Sr. Cook	31-03-2018

3.4 RTI and Vigilance Cell:

The Institute has an RTI Cell under the Appellate Authority of the Director, NIT Agartala. Dr. Rajib Saha, Assistant 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 and 1 Kendriya Vidyalaya in the campus.
- b. There are 4 boys' hostel having the capacity to accommodate nearly 3000 male students in the campus. Another hostel to accommodate 1500 male students is under construction 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 1280 in comparison to annual intake till 2006. Presently, NITA has 9 B.Tech. programmes, 22 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 233 qualified faculty members, nearly 280 supporting staff and 3629 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 and IEEE Transactions. 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 11th November, 2017, 31 Ph .D. students received degrees. At present, there are 234 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 65.14% 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 15 patents have been filed by Faculty Members, during the last 3 years and one Faculty Member is a Fellow of IEEE.

4.2 Admission Procedure:

- 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).
- 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.
- 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.
- 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.
- 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.
- Candidates of Ph.D are admitted based on their performance in the test (written or oral) conducted by the Institute for selection.

4.3. Admission 2017-2018:

Table 1 – Fresh Admission (2017-18)

Sl. No.	Department	B. Tech.	BSMS	BTMT	M. Tech.	MCA	MBA	M. Sc.	Ph. D.	Total
1.	Civil Engineering(CE)	179			79				11	
2.	Mechanical Engineering(ME)	87			38				03	
3.	Electrical Engineering(EE)	87			31				02	
4.	Electronics & Communication Engineering(ECE)	90			21				11	
5.	Computer Sc. & Engineering(CSE)	89			10	24			07	
6.	Production Engineering(PE)	67			09				00	
7.	Chemical Engineering(Che)	52			01				00	
8.	Electronics & Instrumentation	51							00	

	Engineering(EIE)									
9.	Bio Engineering(BE)	22							00	
10	BS-MS(Physics, Chemistry, Mathematics)		42							
11	BT-MT(Engg. Physic)			17						
12	School of Management						17		00	
13	Humanities & Social Science								00	
14	Physics							07	01	
15	Chemistry							09	01	
16	Mathematics							07	04	

Total No. of students admitted during the year includes the following (2017-18):

Scheduled Castes	35(PG), 134(UG)	Q.I.P.	M. Tech.	00
Scheduled Tribes	09(PG) 120(UG)		Ph. D.	00
Physically Handicapped	02(PG) 09(UG)	Sponsored	M. Tech.	00
		Project	Ph. D.	00
		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 (2017-18)

		CE	ME	EE	ECE	CSE	PE	EIE	CHE	BE	
From the State of Tripura:											
OP	Boys	32	20	19	17	15	15	10	11	03	
	Girls	14	02	04	07	07	07	06	05	04	
	Total	46	22	23	24	22	22	16	16	07	
OPPH	Boys	00	00	00	00	01	00	00	00	00	
	Girls	00	00	00	00	00	00	00	00	00	
	Total	00	00	00	00	01	00	00	00	00	
OBC	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	
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	08	06	04	05	06	05	03	03	02	
	Girls	07	02	03	03	01	03	02	02	01	
	Total	15	08	07	08	07	08	05	05	03	
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	21	11	07	05	07	00	00	01	00	
	Girls	07	00	06	02	06	00	00	01	00	
	Total	28	11	13	07	13	00	00	02	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	
From various part of the country except the State of Tripura											
OP	Boys	42	20	21	20	23	18	12	09	05	
	Girls	02	00	01	02	01	02	01	03	01	
	Total	44	20	22	22	24	20	13	12	06	
OPPH	Boys	02	02	00	00	00	00	00	01	00	
	Girls	00	00	00	01	00	00	00	00	00	
	Total	02	02	00	01	00	00	00	01	00	
OBC	Boys	23	12	11	11	10	08	07	07	02	
	Girls	01	00	01	00	01	02	00	00	02	
	Total	24	12	12	11	11	10	07	07	04	
OBCPH	Boys	00	00	00	01	01	00	00	00	00	
	Girls	00	00	00	00	00	00	00	00	00	
	Total	00	00	00	01	01	00	00	00	00	
SC	Boys	13	07	06	06	06	06	04	03	02	
	Girls	00	00	00	01	01	00	00	00	00	
	Total	13	07	06	07	07	06	04	03	02	
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	07	05	04	09	03	01	06	05	00	
	Girls	00	00	00	00	00	00	00	01	00	
	Total	07	05	04	09	03	01	06	06	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		184	90	90	92	90	90	61	60	30	
Total admitted		179	87	87	90	89	67	51	52	22	
Total vacant		05	03	03	02	01	23	10	08	08	

Table 3 – Admitted students in M. Tech 1st Semester (2017-18)

		CE	ME	EE	ECE	CSE	PE	CHE
From various part of the country								
OP	Boys	33	20	14	06	02	06	00
	Girls	7	00	04	05	01	00	01
	Total	40	20	18	11	03	06	01
OPPH	Boys	02	00	00	00	00	00	00
	Girls	01	00	00	00	00	00	00
	Total	02	00	00	00	00	00	00
OBC	Boys	18	12	08	03	03	02	00
	Girls	03	00	00	02	02	00	00
	Total	21	12	08	05	05	02	00
OBCPH	Boys	00	00	00	00	00	00	00
	Girls	00	00	00	00	00	00	00
	Total	00	00	00	00	00	00	00
SC	Boys	11	01	00	03	01	00	00
	Girls	01	00	00	00	00	00	00
	Total	12	01	00	03	01	00	00
SCPH	Boys	00	00	00	00	00	00	00
	Girls	00	00	00	00	00	00	00

	Total	00	00	00	00	00	00	00
ST	Boys	02	01	01	00	01	01	00
	Girls	02	00	00	00	00	00	00
	Total	04	01	01	00	01	01	00
STPH	Boys	00	00	00	00	00	00	00
	Girls	00	00	00	00	00	00	00
	Total	00	00	00	00	00	00	00
Total intake capacity		89	44	52	30	15	15	07
Total admitted		79	38	31	21	10	09	01
Total vacant		10	06	21	09	05	06	06

Table 4 – Admitted students in BSMS, BTMT 1st Semester (2017-18)

		BSMS	BTMT
From the State of Tripura:			
OP	Boys	11	03
	Girls	04	02
	Total	15	05
OPPH	Boys	00	00
	Girls	00	00
	Total	00	00
OBC	Boys	00	00
	Girls	00	00
	Total	00	00
OBCPH	Boys	00	00
	Girls	00	00
	Total	00	00
SC	Boys	05	02
	Girls	01	00
	Total	06	02
SCPH	Boys	00	00
	Girls	00	00
	Total	00	00
ST	Boys	02	00
	Girls	03	00
	Total	05	00
STPH	Boys	00	00
	Girls	00	00
	Total	00	00
From various part of the country except the State of Tripura			
OP	Boys	07	05
	Girls	03	00
	Total	10	05
OPPH	Boys	00	00
	Girls	00	00
	Total	00	00
OBC	Boys	03	03
	Girls	00	00
	Total	03	03
OBCPH	Boys	00	00
	Girls	00	00
	Total	00	00

SC	Boys	03	02
	Girls	00	00
	Total	03	02
SCPH	Boys	00	00
	Girls	00	00
	Total	00	00
ST	Boys	00	00
	Girls	00	00
	Total	00	00
STPH	Boys	00	00
	Girls	00	00
	Total	00	00
Total intake capacity		60	20
Total admitted		42	17
Total vacant		18	03

Table 4A – Admitted students in M. Sc, MCA and MBA 1st Semester (2017-18)

		M. Sc. (Phy.)	M. Sc. (Chem.)	M. Sc. (Math.)	MCA	MBA
From various part of the country						
OP	Boys	04	04	01	11	08
	Girls	00	02	01	02	03
	Total	04	06	02	12	11
OPPH	Boys	00	00	00	00	00
	Girls	00	00	00	00	00
	Total	00	00	00	00	00
OBC	Boys	01	01	03	05	01
	Girls	01	01	01	04	01
	Total	02	02	04	09	02
OBCPH	Boys	00	00	00	00	00
	Girls	00	00	00	00	00
	Total	00	00	00	00	00
SC	Boys	01	00	00	01	02
	Girls	00	01	01	01	02
	Total	01	01	01	02	04
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
Total intake capacity		10	10	10	40	30
Total admitted		07	09	07	24	17
Total vacant		03	01	03	16	13

Table 5 – Admission statistics: UG Programme: Course-wise (2017-18)

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)
1	AP	8	3	1	7	17	4	1	4	2	0	0	0	0
2	ARP	2	0	0	0	0	0	1	0	0	0	0	0	0
3	AS	0	1	1	0	1	0	4	0	2	1	0	1	0
4	BH	27	12	9	8	7	11	7	14	1	1	2	0	3
5	CG	0	1	1	2	0	1	1	0	0	0	0	0	0
6	DL	0	0	0	0	0	0	0	1	0	0	0	0	1
7	GJ	0	0	0	0	0	0	0	0	0	0	0	0	0
8	HR	0	0	0	1	0	0	0	0	0	0	0	0	0
9	JR	6	0	4	0	0	1	1	3	0	0	0	0	1
10	J&K	0	0	0	0	0	0	0	0	0	0	0	0	0
11	KL	0	0	0	0	0	0	0	0	0	0	0	0	0
12	MN	1	0	1	0	0	0	0	0	0	0	0	0	0
13	MH	1	2	0	2	0	0	0	0	0	0	0	0	1
14	MP	1	1	1	1	1	0	0	0	0	0	0	0	2
15	MG	1	0	0	0	0	0	0	0	0	0	0	0	0
16	NG	0	0	0	0	0	0	0	0	0	0	0	0	0
17	OD	0	2	3	1	0	0	0	0	0	0	0	0	0
18	PB	0	0	0	0	0	0	0	0	0	0	0	0	0
19	RJ	14	6	10	8	4	2	2	2	1	0	0	0	0
20	TN	1	1	0	1	0	0	0	2	0	0	1	1	0
21	TE	2	5	3	2	11	2	1	0	0	1	1	1	0
22	TR	89	41	43	43	39	21	23	30	10	9	8	9	7
23	UP	25	12	8	12	10	8	9	10	4	2	2	2	2
24	UR	0	0	1	1	0	0	0	0	0	0	0	0	0
25	WB	1	0	1	0	0	1	2	1	2	0	0	0	0
Grand Total		179	87	87	89	90	51	52	67	22	14	14	14	17
AP=ANDHRAPRADESH, ARP=ARUNACHAL PRADESH, AS=ASSAM, BH=BIHAR, CG=CHHATTISGARH, DL=DELHI, GJ=GUJARAT, HR=HARYANA, JR=JHARKHAND, J&K=JAMMU & KASHMIR, 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 2017-18 are given below:

TABLE 6 – Students on roll

Sl. No.	Department	B. Tech	BS-MS	BT-MT	MCA	M. Tech	M. Sc	MBA	Ph. D
1.	Civil Engineering	635				148			56
2.	Mechanical Engineering	349				82			43
3.	Electrical Engineering	327				73			34
4.	Electronics & Communication Engineering	339				45			29
5.	Computer Sc. &	347			53	19			19

	Engineering								
6.	Production Engineering	224				15			16
7.	Chemical Engineering	174				02			08
8	Electronics & Instrumentation Engineering	164							01
9	Bio Engineering	63							
10	BS-MS		159						
11	BT-MT			59					
12	School of Management							44	02
13	Humanities & Social Science								09
14	Physics						14		19
15	Chemistry						18		12
16	Mathematics						12		16
	Total	2622	159	59	53	384	44	44	264

The above total includes the following

DASA (Indian origin)	01(PG) 05(UG)	QIP	M. Tech.	00
Scheduled Castes	100(PG) 499(UG)		Ph. D.	00
Scheduled Tribes	30(PG) 468(UG)	Sponsored	M. Tech.	14
Physically Handicapped	07(PG) 34(UG)	Project	Ph. D.	00
		External Registration	Ph. D.	01
		Part Time Programme (M. Tech.)		00

SC/ ST/ OBC/ OPPH Students on roll as on 31-03-2017:

Sl. No.	Programme	SC	ST	OBC	OPPH
1.	B. Tech.	457	440	708	12
2.	BS-MS	33	25	41	01
3.	BT-MT	09	03	22	00
4.	MCA	06	02	18	00
5.	M. Tech.	81	27	135	07
6.	M. Sc.	05	00	12	00
7.	MBA	08	01	09	00
8.	Ph. D.	33	19	60	01
	Total	632	517	1005	21

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	2017	2016	2015	2014	2013	2012	others
1	Civil Engineering	635	649	672	715	683	513	00
2	Mechanical Engineering	349	353	369	370	359	285	00

3	Electrical Engineering	327	325	338	358	334	226	00
4	Computer Sc. & Engg.	347	336	332	306	285	236	00
5	Electronics & Comm. Engineering	339	329	327	324	314	284	00
7	Production Engineering	224	219	233	239	165	115	00
8	Electronics & Inst.Engg.	164	169	181	184	198	100	00
9	Chemical Engineering	174	166	171	167	139	71	00
10	Bio Engineering	63	63	76	64	42	22	00
11	Physics(BS-MS)	42	30	23	16	5	00	00
12	Chemistry(BS-MS)	52	34	31	23	8	00	00
13	Math(BS-MS)	65	43	32	24	10	00	00
14	Engineering Physics(BT-MT)	59	44	35	29	14	00	00
Total		2840	2760	2820	2819	2556	1852	00

TABLE 8 – Students on roll at Masters Degree level

Sl. No.	Department	Specialization	2017	2016	Total
01.	Civil Engineering Department	Geotechnical Engineering	26	18	44
		Structural Engineering	29	29	58
		Environmental Engineering	27	16	43
		Transportation Engineering	27	23	50
		Water Resources Engineering	10	08	18
		Seismic Science & Engineering	11	08	19
		Hydro Informatics Engineering	18	14	32
02.	Mechanical Engineering Department	Thermal Science & Engineering	29	29	58
		Manufacturing Technology	27	27	54
		Machine Design	14	12	26
		Automotive Engineering	12	14	26
03.	Electrical Engineering	Power Electronics & Drives	25	22	47
		Power System Engineering	22	22	44
		Instrumentation Engineering	18	17	35
		Integrated Energy System	08	09	17
04.	Electronics & Communication Engineering	VLSI & Nano Technology	24	22	46
		Communication Engineering	21	25	46
05.	Computer Sc. & Engineering	Computer Sc. & Engineering	19	18	37
06.	Production Engineering	Computer Integrated Manufacturing	15	12	27
07	Chemical Engineering	Chemical Engineering	02	01	3

08.	M.Sc	Physics	14	15	29
		Chemistry	18	17	35
		Mathematics	12	10	22
09.	School of Management	Busines Management	44	33	77
10.	Master of Computer Application	Computer Aplicaion	53	61	114
TOTAL			525	482	1007

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 in 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	Basic Science	03

Sl. No.	School	No. of Courses
1	School of Management (SOM)	01

4.8 Convocation:

The National Institute of Technology Agartala organizes its 10th Convocation on 11th November 2017. Prof. Surendra Prasad, Chairman NIRF, NBA & Former Director IIT Delhi, adorn the 10th Convocation Ceremony as a Chief Guest.

In the 10th Convocation, Institute awarded B. Tech. Degree to a total number of 658 students.

Branch wise results are given as under:-

Civil Engineering: 28 students passed with Distinction, 115 passed with First class and 33 with Second class.

Mechanical Engineering: 37 students passed with Distinction, 53 students passed with First class and 03 with second class.

Electrical Engineering: 15 students passed with Distinction, 47 students passed with First class and 12 with Second class.

Computer Science & Engineering: 15 students passed with Distinction, 59 students passed with First class and 08 with second class.

Electronics and Communication Engineering: 16 students passed with Distinction, 56 students passed with First class and 04 with Second class.

Electronics and Instrumentation Engineering: 06 students passed with Distinction, and rest 33 students passed with First class and 07 with Second class.

Production Engineering: 03 students passed with Distinction, 42 students passed with First class and 10 students passed with Second class.

Chemical Engineering: 08 students passed with Distinction, 30 students passed with First class 02 student passed with Second class.

Bio Engineering: 03 students passed with Distinction, 13 students passed with First.

BS & BT Degree was awarded to a total number of 29 students in the 10th convocation.

Branch wise results are given as under:-

BS Physics : 03 Students passed with First Class,

BS Chemistry: 02 students passed with First class and Distinction, 04 students passed with First Class.

BS Mathematics : 01 student passed with First class and Distinction 05 students passed with First class and 02 students passed with Second class.

BT Physics : 02 students passed with First class and Distinction 08 students passed with First class and 02 students passed with Second class.

M. Tech Degree was awarded to a total number of 156 students in the 10th convocation.

Branch wise results are given as under:-

Civil Engineering: 54 students passed. Mechanical Engineering: 39 students passed. Electrical Engineering: 26 students passed. Computer Sc. & Engineering: 9 students passed. Electronics & Communication Engineering: 22 students passed. Production Engineering: 06 students

M. Sc Degree was awarded to a total number of 22 students in the 10th convocation.

Subject wise results are given as under:-

Physics: 07 students passed. Chemistry: 09 students passed. Mathematics: 06 students passed.

MCA Degree was awarded to a total number of 31 students.

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

Institute awarded 26 scholars for Ph.D Degree - 18 in Engineering, 8 in Science and 2 in Arts in the 8th Convocation

4.8.1 Introduction:

TABLE 10 – Degree awarded

Sl. No.	Department	B. Tech	BS	BT	M. Tech.	MCA	M. Sc.	MBA	Ph. D.
1	CE	176			54				02
2	ME	93			39				05
3	EE	74			26				04
4	ECE	76			22				05
5	CSE	82			09	31			00
6	PE	55			06				01
7	CHE	40			00				01
8	EIE	46			00				00
9	BE	16			00				00
10	BS	00	17		00				00
11	BT	00		12	00				00
12	SOM	00			00			23	00
13	HSS	00			00				00
14	Physics	00			00		07		02
15	Chemistry	00			00		09		04
16	Mathematics	00			00		06		02

With this convocation, the total number of degrees awarded so far by the Institute is 945, the details of which are given below:

Sl. No.	Programme	No. of Students
01.	Ph. D.	26
02.	M. Tech.	156
03.	B. Tech.	658
04.	BS	17
05.	BT	12
06.	MCA	31
07.	M. Sc.	22
06.	MBA	23

4.8.2 Convocation Prizes:

The following are the details of Prizes awarded to the students at the 10th Convocation:

Name of the Prize	Name of Student	Branch Name
Gold Medal for Institute Topper (UNDER GRADUATE)	B HARIKIRAN REDDY	ELECTRICAL ENGINEERING
Gold Plated Silver Medal to Branch Toppers (UNDER GRADUATE)	BANHISIKHA DEBNATH	CIVIL ENGINEERING
	SAGARDEEP BHAKTA	MECHANICAL ENGINEERING
	DEEPSHIKHA	COMPUTER SC & ENGINEERING
	ARPITA GHOSH	ELECTRONICS & COMMUNICATION

		ENGINEERING
	V.ABHIJITH BHARADWAJ	ELECTRONICS & INSTRUMENTATION ENGINEERING
	MOUTRISHA SAHA	PRODUCTION ENGINEERING
	SHOBHIT SINGH	CHEMICAL ENGINEERING
	PAYEL ROY	BIO ENGINEERING

Programme	Name of the Prize	Name of Students	Branch Name	Specialization
M.Tech	Gold Medal for Institute Topper (Post-graduate)	ROSHNI ANNA JACOB	ELECTRICAL ENGINEERING	POWER SYSTEM
	Gold Plated Silver Medal to Branch Toppers (Post-Graduate)	SUMIT NANDI	CIVIL ENGINEERING	TRANSPORTATION ENGINEERING
		CHHATBAR JAY HARSHADRAI	MECHANICAL ENGINEERING	AUTOMOTIVE ENGINEERING.
		SURAKSHA DEVI	COMPUTER SC AND ENGINEERING	COMPUTER SC AND ENGINEERING
		THOTA PAVAN KUMAR	ELECTRONICS & COMMUNICATION ENGINEERING	VLSI & NANO TECHNOLOGY
		MAYANK KUMAR	PRODUCTION ENGINEERING	COMPUTER INTEGRATED MANUFACTURING
MCA	Gold Plated Silver Medal to Branch Topper	EYERIN BANERJEE	Computer Application	
MBA	Gold Plated Silver Medal to Branch Topper	PRIYANKA CHANDA	Business Management	
M.Sc	Gold Plated Silver Medal to Branch Topper	SUTAPA ROY	CHEMISTRY	
		SUKANYA MAITY	PHYSICS	
		NAYAN SAHA	MATHEMATICS	

4.8.3. Other Prizes:

Sl. No.	Donor	Department	Name of the Student
B. Tech.			
1.	Mautushi Kar Memorial Scholarship, Donor	Civil Engg.	JAHNABI BASU(15UCE015)

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. 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 department has excellent facilities in terms of class rooms and UG laboratories. Within a few years, the department has set up some important laboratory course viz., Biochemistry lab, Microbiology lab, Immunology Lab, Genetics Lab and Bioinformatics Lab. The Phd program of the department has already been approved and the necessary admission protocol has been initiated for July 2018. The department also completed the preliminary work for initiation of M.Tech program from July 2019. The academic staffs of this department have various 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, and 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 a huge scope to the next generation students for their better career in India and abroad as well.



Biochemistry Lab



Students performing Immunology Lab



Students performing Biochemistry Lab



Students performing Biochemistry Lab

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.

5.3 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.	Tridib Kumar Bhowmick	In search of microalgal strain from north east India for sustainable industrial application" in a workshop "Future Perspective of Bioresource Utilization" organized by IIT Guwahati,	1st – 4th February, 2018 at IIT Guwahati.
Conference:			
1.	Dr. Muthusivaramapandian M	" Bioprocessing India 2017" organized by IIT Guwahati,	9 th -11 th December , 2017 at IIT Guwahati.

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 (IChE)	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 (IChE)	Life member

5.4 Design and Development Activities:

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

- PCR and cooling circulating water bath are successfully installed in genetics Laboratory
- The thirty numbers of computers (i5-7th generation) were procured and installed in Bioinformatics and Computational Biology Lab.

5.5 Research and Consultancy :

Sponsored Research Projects:

Sl. No.	Title	Period	Funding Agency	Amount (in lakhs)	Co-ordinators
1.	The role of endocrine disrupting chemicals (EDCs) on estrogen receptors (Ers) using molecular docking	3 years	DST	17	Dr. Biswanath Bhunia, PI
2	Development of Biofilm Inhibitor	3yrs (2016-2019)	DST, Govt of India	18.15 Lakh	Dr. Dijendra Nath Roy (Principal Investigator)

Research Publications:

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

In Refereed International Journals:

1. Uday USP, Majumdar R, Tiwari ON, Mishra U, Mondal A, Bandyopadhyay TK, Bhunia B. International Journal of Biological Macromolecules, 12th July, 2017, 1/105/401-409 .
2. Biswanath Bhunia , Uma Shankar Prasad Uday, GunapatiOinam , Abhijit Mondal, Tarun Kanti Bandyopadhyay, Onkar Nath Tiwari. Carbohydrate Polymers, 28th September, 2017, 179: 228-243.
3. Choudhury P, Uday US, Mahata N, Tiwari ON, Ray RN, Bandyopadhyay TK, Bhunia B. Renewable and Sustainable Energy Reviews, 23rd May, 2017, 79, 372-389.
4. Subhasish Dutta, Bikram, Basak, Biswanath Bhunia, Ankan Sinha, Apurba Dey, World Journal of Microbiology and Biotechnology, 07th April, 2017, 33, 90-102.
5. Choudhury P, Uday US, Ray, RN, Bandyopadhyay TK, Bhunia B. Bioengineered, 28 Apr, 2017, 3/8(5):471- 487.
6. Ashmita Ghosh, Saumyakanti Khanra, Madhumanti Mondal, Thingujam Indrama Devi, Gopinath Halder, O N Tiwari, Tridib Kumar Bhowmick, Kalyan Gayen, Asia-Pacific Journal of Chemical Engineering, 29th June, 2017, 12 (5), 745-754.
7. Dijendra Nath Roy, Ritobrata Goswami, Ayantika Pal, Xenobiotica; 47(7)2017: 632-643 .
8. Dijendra Nath Roy, Ritobrata Goswami, Ayantika Pal, Environmental Toxicology and Pharmacology, 50(2017), 91-102.
9. Ayantika Pal & Dijendra Nath Roy, Current Hepatology Report, 16(2017), 271-275.
10. Soma Nag, Abhijit Mondal, Dijendra Nath Roy, Nirjhar Bar, Sudip Kumar Das, Environmental Technology & Innovation, 11(2018), 83-104.

5.6 Industrial Consultancy and Sponsored Research:

1. Dr. Tarun Kanti Bandyopadhyay , HoD, Bio Engineering has taken an initiative to collaborate with Dr. Saswata Goswami, Scientist E, Center of Innovative and Applied Bioprocessing (CIAB), Mohali 160071, Punjab and CIAB, Mohali for several multiinstitute project.

5.7 Other Activities :

Dr. Biswanath Bhunia- Visiting Faculty, Department of Biotechnology & Bioinformatics at North Eastern Hill University, Shillong from 23.04.2017 to 26.04.2017

Invited Lectures by Dr. Abhijit Chatterjee:

Date	Title of the talk	Host Institution
28.11.17	Technical aspects of food processing: Challenges & Innovations	The Associated Chambers of Commerce and Industry of India (ASSOCHAM)
21.07.17	Technology in food Processing & Scope for innovations	The Federation of Indian Chambers of Commerce and Industry (FICCI)

Student Activities:

- IEI Student Chapter namely Agartala NIT Students' Chapter (Bio) was set up at the Bio Engineering Department. The students are actively engaged.
- Four students cleared GATE, 2018 from department of Bioengineering. Placement for bioengineering students- ~25% of the students (excluding GATE students) from the batch 2014-2018 were placed in various companies/organizations via on-campus placement process

Training:

The department has already taken initiative for training of the students in several Industries, Research Lab, IIT and NIT Etc.

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 there after 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) nos. regular faculty members and 12(Twelve) nos 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 PhD program and the main areas of research include Geotechnical Engineering, Structural Engineering, Water Resources Engineering, Environmental Engineering, Transportation Engineering, Hydro informatics and Seismic Science. The department also handles consultancy works and projects with the State & Central Government organizations.



Civil Engineering Department

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.	Dr. Manish Pal, Dr. Partha Pratim Sarkar, Dr. Dipankar Sarkar	"Emerging Trends in Pavement and Traffic Engineering"	5 days workshop, 5th-9th March, 2018, Funded by TEQIP-III.

Visits Abroad by Faculty:

Sl. No.	Name of Faculty	Country Visited	Date	Purpose of Visit
01.	Dr. Manish Pal	Thailand	29-30 Dec 2017	27 th International Conference on Research in Science & Technology
02.	Mr. Gopi Nanddan Dey			
03.	Dr. Dipankar Sarkar			
04.	Dr. Deb Dulal Tripura			
05.	Dr. Animesh Debnath			

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, Surathkal) • Executive Committee member, Agartala Local Centre (Presently, Tripura State Centre) 	Since 31-03-2011 29-11-2000 to 30-03-2011 2010-2013 Since 2010 Since 2009 Since 1994 Since 28-01-1997 1983-1986 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	Mr. 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. Nilotpall Debbarma	<ul style="list-style-type: none"> ISH IWRS 	

6.4 Design and development Activities:

- In the structural Analysis laboratory of 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:

Sl. No.	Title	Period	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	Geoscientific studies geodetic, geological, geomorphological and geotechnical of active landslide	2017	DST	23.50	Dr. S. K. Pal
3	Hydraulic model study of flow dynamics & bed morphology evolution of the Gomati river of Tripura at the Titra-Ganj confluence	22-08-17	SERB(DST)	31.42	Dr. S. K. Biswal

Industrial Consultancy:

Sl. No.	Name of the faculty	Title	Industry	Amount (Rs.)
1	Dr. S. K. Pal, Dr. M. Pal, Dr. R. Saha, Dr. P. P. Sarkar, Dr. J. Pal, Dr. S. Ghosh, Dr. D. D. Tripura	Vetting Work	Department of Agriculture, Tripura	2625000.00
2	Dr. R. P. Sharma, Dr. S. Ghosh, Dr. P. P. Sarkar	Time and Motion Studies	RD, Tripura	4443500.00
3	Manish Pal, Joyanta pal	Mix Design	THCB	28750.00
4	Sujit Kumar Pal, Joyanta pal, Partha Pratim sarkar	Mix Design	PWD	57500.00
5	Manish pal, Rama Debbarma, Dipankar Sarkar	Mix Design	AAI	29500.00
6	Partha Pratim Sarkar, Dipankar Sarkar	Mix Design	NF RAILWAY	47200.00
7	Partha Pratim Sarkar, Dipankar Sarkar	Mix Design	CPWD	115000.00
8	Partha Pratim Sarkar, Dipankar Sarkar	Mix Design	AAI	55430.00
9	Partha Pratim Sarkar, Dipankar Sarkar	Mix Design	AAI	17250.00
10	Partha Pratim Sarkar, Dipankar Sarkar	Mix Design	AAI	9200.00
11	Partha Pratim Sarkar, Joyanta Pal	Mix Design	SIPMIU	57500.00

12	Partha Pratim Sarkar, Sujit Kumar pal, Deb Dulal Tripura, Gopinandan Dey	Mix Design	CPWD	29500.00
13	Partha Pratim Sarkar, Rajib Saha, Deb Dulal Tripura	Mix Design	CPWD	43306.00
14	Partha Pratim Sarkar, Rajib Saha, Joyanta pal	Mix Design	ITDCEM	57500.00
15	Partha Pratim Sarkar, Joyanta pal, Debdulal Tripura, Sujit Kumar Pal	Mix Design	CPWD	28750.00
16	Rajib Saha, Joyanta pal	Mix Design	CSD-III	28750.00
17	Rajib Saha, Debdulal Tripura, Dipankar Sarkar	Mix Design	NCC	30090.00
18	Partha Pratim Sarkar, Dipankar Sarkar	Mix Design	POWERGRID	8625.00
19	Partha Pratim Sarkar, Dipankar Sarkar	Mix Design	SPML	345000.00
20	Manish Pal, Partha Pratim Sarkar, Dipankar Sarkar	Mix Design	AAI	241900.00
21	Partha Pratim Sarkar, Joyanta pal, Debdulal Tripura, Sujit Kumar Pal, Rama Debbarma, Rajib Saha	Mix Design	ITDCEM	59000.00
22	Partha Pratim Sarkar, Manish pal, Joyanta pal	Mix Design	L & T	11800.00
23	Partha Pratim Sarkar, Joyanta pal, Debdulal Tripura, Sujit Kumar Pal, Rama Debbarma, Rajib Saha	Mix Design	PWD	29500.00
24	Partha Pratim Sarkar, Sujit Kumar Pal, Rajib Saha, Dipankar Sarkar	Mix Design	N.F .RAILWAY	29500.00
25	Partha Pratim Sarkar,	Mix Design	AAI	59000.00
26	Partha Pratim Sarkar,	Mix Design	AAI	59000.00
27	Partha Pratim Sarkar, , Gopinandan Dey, Rama Debbarma, Rajib Saha, Dipankar Sarkar	Mix Design	PWD	29500.00
28	Partha Pratim Sarkar, Gopinandan Dey, Rama Debbarma, Rajib Saha, Dipankar Sarkar, Joyanta Pal, Sujit Kumar pal, Manish Pal	Mix Design	CPWD	39766.00
Total				8616317.00

Research Publications:

Total No. of papers published in Refereed National Journals	: 01
Total No. of papers published in Refereed International Journals	: 31
Total No. Of papers presented in National Conference	: 01
Total No. Of papers presented in International Conferences	: 15

In Refereed National Journal:

- Surajit Munshi and Richi Prasad Sharma, "Sulfate and carbonation reactivity in cement mortar incorporate with rice straw ash" Res. J. Chem. Environ. Vol. 21 (4))April ,2017

In Refereed International Journals:

1. Paulami De and Mrinmoy Majumder "Development of Real Time Monitoring System for Intake Water of Surface Water Treatment Plant with the help of Segmented Polynomial Neural Network" International Journal of Convergence Computing, Accepted on 4th October, 2017.
2. Tilottama Chakraborty and Mrinmoy Majumder, "Application of AHP-VIKOR and GMDH Framework to develop an indicator to identify utilization potential of Wave energy converter with respect to location", International Journal of Spatio-Temporal Data Science, Accepted on 10th October, 2017.
3. Soumya Ghosh and Mrinmoy Majumder, "Application of Metaheuristic Algorithm to Identify Priority Parameters for the Selection of Feasible Location Having Optimum Wave Energy POTENTIAL Energy and Environment NA DOI ,<https://doi.org/10.1177/0958305X17737341>,2017.
4. Ankit Khare and Mrinmoy Majumder, Identification and FMEA analysis of working fluid properties for OTEC Plants , Journal of Information and Optimization Sciences, NA, 1-12, DOI, <https://doi.org/10.1080/02522667.2017.1374729>, 2017.
5. Tilottama Chakraborty and Mrinmoy Majumder , "Application of statistical charts, multi-criteria decision making and polynomial neural networks in monitoring energy utilization of wave energy converters" Environment, Development and Sustainability, 90, 1-21, DOI <https://doi.org/10.1007/s10668-017-0030-x>, 2017.
6. Sainath Aher,Sambhaji Shinde Shantamoy Guha Mrinmoy Majumder, "Identification of drought in Dhalai river watershed using MCDM and ANN models," Journal of Earth System Science, 126, doi:10.1007/s12040-017-0795-1, 2017.

7. Tilottama Chakraborty and Mrinmoy Majumder, "Application of AHP-DEMATEL and GMDH Framework to Develop an Indicator to Identify Failure Probability of Wave Energy Converter" *Indian Journal of Science and Technology*, 10, DOI 10.17485/ijst/2017/v10i31/113883, 2017.
8. Tilottama Chakraborty and Mrinmoy Majumder, "Application of Non-Parametric and Cognitive Modelling for Development of Location Selection Indicator for Wave Energy Converters" *International Journal of Control Theory and Application*, 10, 109-118, 2017.
9. Ankit Khare, Asish Prabhat Singh, Uma Shankar Pande and Mrinmoy Majumder "Potentiality of Ocean Thermal Energy Conversion Systems and Enriched Evaluation of Selected Locations in Andaman and Nicobar Island"s, INDIA, *Indian Journal of Science and Technology*, 10, DOI: 10.17485/ijst/2017/v10i31/113895, 2017.
10. Ankit Khare and Mrinmoy Majumder, "Development of Location Suitability Index for Ocean Thermal Energy Conversion Systems", *International Journal of Control Theory and Application*, 10, 63-71, 2017.
11. Uma Shankar Pande, Ankit Khare and Mrinmoy Majumder, "Application of Literature and Expert based Delphi Analysis to identify Most Important Parameter in Selection of Location for Installation of Wind Energy Power Plant" *International Journal of Control Theory and Application*, 10, 191-198, 2017.
12. Satyabrata Saha, Mrinmoy Majumder and Manish Pal, "Identification of Fatigue Proximity in Wave Energy Converter using Statistical Control Process, AHP and Neural Network Model" *International Journal of Control Theory and Application*, 40, 285-290, 2017.
13. Ritabrata Roy and Mrinmoy Majumder, "Comparison of Surface Water Quality to Land Use: a Case Study from Tripura, India", *Desalination and Water Treatment*, August, 2017, 85, 147-153.
14. Paulami De and Mrinmoy Majumder, "Monitoring Water Input Quality: Early Screening and System Support through the application of an adapted Multiple Criteria Decision Making Method", *Desalination and Water Treatment*, 2017, 82, 44-56 doi:10.5004/dwt. July, 2017.20941.
15. Chanda, N., Paul, A., Ghosh, S. and Pal, M, "Seismic Stability of Slope Considering Rayleigh Wave" *Journal of Earthquake Engineering*, Sep'2017, <https://doi.org/10.1080/13632469.2017.1323049>.

16. Chanda, N., Ghosh, S. and Pal, M, Advances in Materials Science and Engineering, "Response of Slope Made Up of Soil and Other Waste Materials Under Sinusoidal Motion" Aug'2017, Volume 2017, <https://doi.org/10.1155/2017/2456724>.
17. Chanda, N., Ghosh, S. and Pal, M. (2017), "Seismic stability of slope using modified pseudo-dynamic method", International Journal of Geotechnical Engineering, <https://doi.org/10.1020/19386362.2017.1372056>.
18. Chanda, N., Ghosh, S. and Pal, M. (2017), "Analysis of slope using modified pseudo-dynamic method", International Journal of Geotechnical Engineering, DOI: 10.1080/19386362.2016.1277848.
19. Debnath, L. and Ghosh, S., "Pseudostatic Analysis of Shallow Strip Footing Resting on Two-Layered Soil", International Journal of Geomechanics, ASCE, Dec'2017, Volume 18 Issue 3,
20. J.P.Zachariah , P.P.Sarkar, B.Debnath, M.Pal, "Effect of polypropylene fibres on bituminous concrete with brick as aggregate", Consturction and Building materials, April' 2018, <http://doi.org/10.1016/j.conbuildmat/2018.02.16>.
21. Kartick Lal Bhowmik, Animesh Debnath, Ranendu Kumar Nathand, Biswajit Saha, "Synthesis of MnFe₂O₄ and Mn₃O₄ magnetic nano-composites with enhanced properties for adsorption of Cr(VI): artificial neural network modeling, Water Science and Technology, 2017 Dec;76(11-12):3368-3378. doi: 10.2166/wst.2017.501.
22. Bipul Sen and Sujit Kumar Pal , "Compaction sand consolidation characteristics of soils and correlations of parameters" International Journal of Engineering Technology Science and Research, Academic Sience, ISSN: 2394-3386, Vol.4, Issue 8, pp. 874–886, August 2017,
23. Tanaya Deb and Sujit Kumar Pal , "Study on uplift behaviour of single belled anchor piles in sand bed and multiple regression analyses" International Review of Civil Engineering, Praise worthy Prize, ISSN:2036-9913, Vol.8, Issue 3, pp.97–112, May 2017.<https://doi.org/10.15866/irece.v8i3.12001>.
24. Arpan Laskar and Sujit Kumar Pal "Investigation of the Effects of Anisotropic Flow of Pore Water and Multilayered Soils on Three-Dimensional Consolidation Characteristics", Advances in Materials Science and Engineering, Hindawi, ISSN: 1687-8434, Vol. 2017, doi: 10.1155/2017/8568953
25. Arpan Laskar and Sujit Kumar Pal, "The Effects of Different Surcharge Pressures on 3-D Consolidation of Soil" International Journal of Applied Engineering

Research, Research India Publications, ISSN 0973-4562 Vol. 12, Number 8 (2017) pp. 1610-1615

26. Akash Deba, M. Kanmania, Animesh Debnatha, Kartick Lal Bhowmikb, Biswajit Sahab, "Preparation and characterization of magnetic CaFe_2O_4 nanoparticles for efficient adsorption of toxic Congo Red dye from aqueous solution: predictive modeling by artificial neural network," Desalination and Water Treatment Received 27 April 2017; Accepted 25 August 2017, doi: 10.5004/dwt.2017.21361.
27. Nahakpam Hitler Singh ,Kethonulu Kezo , Animesh Debnath ,Biswajit Saha, "Enhanced adsorption performance of a novel Fe-Mn-Zr metal oxide nanocomposite adsorbent for anionic dyes from binary dye mix: Response surface optimization and neural network modeling", Applied Organometallic Chemistry, 17 November 2017, <https://doi.org/10.1002/aoc.4165>.
28. Mahashweta Bhowmik , Krishna Deb , Animesh Debnath , Biswajit Saha, "Mixed phase $\text{Fe}_2\text{O}_3/\text{Mn}_3\text{O}_4$ magnetic nanocomposite for enhanced adsorption of methyl orange dye: Neural network modeling and response surface methodology optimization", Applied Organometallic Chemistry , 11 December 2017, <https://doi.org/10.1002/aoc.4186>.
29. Uday USP¹, Majumdar R², Tiwari ON³, Mishra U², Mondal A¹, Bandyopadhyay TK¹, Bhunia B⁴." Isolation, screening and characterization of a novel extracellular xylanase from *Aspergillus niger* (KP874102.1) and its application in orange peel hydrolysis", International Journal of Biological Macromolecules, 2017 Dec;105(Pt 1):401-409. doi: 10.1016/j.ijbiomac.2017.07.066. Vol-105, Pg: 401-409.
30. J.P.Zachariah , P.P.Sarkar, B.Debnath, M.Pal Effect of polypropylene fibres on bituminous concrete with brick as aggregate. Constr.Build.Mater.(2018), <http://doi.org/10.1016/j.conbuildmat/2018.02.16>
31. PP Sarkar, C Mallikarjuna – Travel Behaviour and Society, 2017 Effect of perception and attitudinal variables on mode choice behavior: A case study of Indian city, Agartala. May 2017, DOI: 10.1016/j.tbs.2017.04.003.

In Refereed National Conference:

- Hazari, S, Ghosh, S. and Sharma, R. P.(2017), "Pseudo-Static Analysis of Slope considering Log Spiral Failure Mechanism", IGC 2017, 14-16 December 2017, IIT Guwahati, India.

In Refereed International Conference:

1. S. Sangma and D. Tripura (2018). "Effect of natural fiber on strength and failure pattern of cob earth blocks." International Conference on Advances in Construction Materials and Structures (ACMS – 2018), at IIT Roorkee, India, March 7- 8, 2018. (Accepted).
2. S. Sangma, L. Pohti and D. Tripura (2018). "Size effect of fiber on mechanical properties of earth blocks." International Conference on Environmental Geotechnology, Recycled Wasted Materials and Sustainable Engineering (EGRWSE – 2018), at NIT Jalandhar, March 29-31, 2018 – Published by Springer. (Accepted).
3. D. Tripura and S. Das (2017). "Shape and size effects on the compressive strength of cement stabilized rammed earth." Architectural Engineering Institute Conference (AEI-ASCE), Oklahoma City, University of Oklahoma, USA -April 11-13, 336-348. DOI: <http://dx.doi.org/10.1061/9780784480502.028>.
4. Surajit Munshi and Richi Prasad Sharma, "Utilization of Rice Straw Ash as A Mineral Admixture in Construction Work" 2nd International Conference on Emerging Materials: Characterization & Application, 2017.
5. Surajit Munshi and Richi Prasad Sharma, "Sulfate and carbonation reactivity in cement mortar incorporate with rice straw ash", Res. J. Chem. Environ. Vol. 21 (4) April (2017).
6. Girish, Kumar and Richi Prasad Sharma, "Application of Frequency Response Function Method for Detection of Damage in a Cantilever Beam Structure, International Journal of Advances in Mechanical and Civil Engineering, ISSN:2394-2827, 4(3),69-72,2017.
7. J.P.Zachariah , Partha Pratim Sarkar, Debojit Nandi, Manish Pal., "Open Graded Frictional Course Groined With Cement Slurry", presented at 4th Conference of Transportation Research Group of India (CTRG) 17-20 December 2017, Mumbai, India
8. J.P.Zachariah, Partha Pratim Sarkar, and Manish Pal., " Effect of polyethylene Fiber on Asphaltconcrete with brick Aggregates", ,2018, Presented at International Conference onAdvances in Construction Materials and Structures (ACMS-2018)IIT Roorkee, Roorkee, Uttarakhand, India, March 7-8, 2018
9. B.Debnath & P.P.Sarkar, " Characterization of Pervious Concrete Using

- marginal Aggregates”,2018, Presented at International Conference onAdvances in Construction Materials and Structures (ACMS-2018)IIT Roorkee, Roorkee, Uttarakhand, India, March 7-8, 2018
10. Dhritee diksha baroowa¹, Partha Pratim Sarkar ,Biswanath Bhunia , “A study on Microbial concrete forrigid pavement Design”,2018, Presented at International Conference onAdvances in Construction Materials and Structures (ACMS-2018)IIT Roorkee, Roorkee, Uttarakhand, India, March 7-8, 2018
 11. R.Saha & P.P.Sarkar , “ A Study on Structural Behaviour of Highpermeable concrete Block Pavement”,2018, Presented at International Conference on Advances in Construction Materials and Structures (ACMS-2018) IIT Roorkee, Roorkee, Uttarakhand, India, March 7-8, 2018
 12. S.Nandi, .P.Zachariah, Partha Pratim Sarkar, and Manish Pal, “Study of temperature-induced curling stress in concrete pavement constructed with brick aggregates,” 2017, presented at 4th Conference of Transportation Research Group of India (CTRG) 17-20 December 2017,Mumbai, India
 13. N.Choubey, A.Acharjee, P.P.sarkar,” Effects Of The Mixed Land Use On The Household Travel Behaviour: A Case Study Of Agartala, Tripura”, 2017, presented at 4th Conference of Transportation Research Group of India (CTRG) 17-20 December 2017,Mumbai, India.
 14. R.N.Bhowmik, J.Pal, P.P.Sarkar , “A study on bamboo reinforced concrete beam using numerical modeling and comparison with the experimental data,” IRES 2017, Bangkok.
 15. Bipul Sen and Sujit Kumar Pal, “Compaction sand consolidation characteristics of soils and correlations of parameters” 7th International Conference on Research Trends in Engineering, Applied Science and Management (ICRTESM – 2017), Conference Proceedings.

Distinguished Visitors to the Departments:

Sl. No.	Name of the Visitors and Designation	Date of Visit	Purpose of Visit
01.	Sri. Prabir Saha, Personal Development Coach, Entrepreneur & Investor, Melbourne, Australia	20/02/2018	Lecture on “Entrepreneurship Development”.

02.	Mr. Kripan Ayudh Roy, Industrial Expert, New Delhi	17/01/2018	Deliver a Lecture
03.	Dr. Anil Kumar Sharma, Professor, MANIT Bhopal	26-29 th April 2018	M.Tech viva voce and thesis evaluation Examination
04.	Prof. (Dr.) G. L. Sivakumar Babu, Professor, IISc Bangalore	30 th April to 1 st May 2018	M.Tech viva voce and thesis evaluation Examination
05.	Prof. (Dr.) Bhargab Maitra, Professor, IIT Kharagpur	01/05/2018	M.Tech viva voce and thesis evaluation Examination
06.	Prof. (Dr.) Venkappayya R. Desai, Professor, IIT Kharagpur	02/05/2018 to 03/05/2018	M.Tech viva voce and thesis evaluation Examination
07.	Prof. (Dr.) Sriman Kumar Bhattacharyya, Professor, IIT Kharagpur	08/05/2018	M.Tech viva voce and thesis evaluation Examination
08.	Prof. (Dr.) Sudip Kumar Das, Professor, Calcutta University	13/07/2018	PhD Defense Viva of Mr. Soumya Ghosh
09.	Prof. (Dr.) K. K. Chattopadhyay, Professor, IIST Shibpur	03/08/2018	PhD Defense Viva of Mr. Arpan Laskar
10.	Prof. (Dr.) D. K. Baidya, Professor, IIT Kharagpur	28/08/2018	PhD Defense Viva of Mrs. Nipa Chanda
11.	Prof. J. R. Kayal, Retd. Professor, Retd. Deputy Director General, Jadavpur University.	10/08/2018 to 14/08/2018	To take classes Seismic Science and Engineering

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.

7.0 CHEMICAL ENGINEERING DEPARTMENT

7.1 Introduction:

Being a part of the National Institute of Technology Agartala, this department starts 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 Engineering in Engineering from July, 2012 and M. Tech in Chemical Engineering from July 2013. Presently, the department has a student strength of 201, of which 186 are undergraduate, 07 are masters and 08 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, Environmental Engineering, Waste treatment, Catalysis, Membrane separation, 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 26 journals and 03 book chapters and research work is presented in several conferences. 01 faculty member of the department has been appreciated for securing highest sponsored research grant. Departmental faculties have have received sponsored research grant worth more than 1 crore in individual research projects from various funding agencies, and have filed 4 patents in last few years.

In the past year undergraduate students of the department have selected to represent the country in World Youth Festival in Russia, awarded MITACS scholarship for doing internship in Canada and selected for doing integrated Ph.D. at IIT Madras. Two doctoral student of the department have submitted their thesis in this year.

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.

The students of the department are placed in reputed companies like Brahmaputra Crackers, Vedanta, Wipro, Infosys. Also, several graduates of the department are pursuing higher studies in reputed institutions in India and abroad.

In this year, along with workshop and national seminar, the Department also organized a Sensitization program on Swachh Bharat to spread the awareness among the Chemical Engineering fraternity.

7.2 Faculty and their activities

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

SI No	Coordinators	Title	Period
01	With BIO ENGG	Sustainable Bio-resource Utilization-prospect of North-East India	April 11th -13th 2018
02.	With BIO ENGG	Optimization in Engineering	March 12-16, 2018

Honours and Awards Obtained:

Sl no	Name of Faculty	Name of Award	Awarded by	Award For	Date
01	Dr. Srimanta Ray	Institute Award for Securing Sponsored Research grant	NIT Agartala	Securing Sponsored Research grant	Feb,2018

7.3 Design and Development Activities

(Brief and Specific Details of Process /Instruments / Equipments/ Software Designed and Developed:

7.4 Research Publication:

1. Total No. of papers published in refereed International journals/book chapters: 26
2. Total No. of papers presented in National Conference: 02
3. Total No. of papers presented in International Conference: 03
4. Total No of Books Published : 02

In refereed international Conference:

1. A.Banik, T.K Bandyopadhyay, S.K. Biswal., Computational Fluid Dynamics (CFD) Simulation Of Vertical Helical Coil Membrane.

In proceeding of national conference:

1. Tridib Kumar Bhowmick, Ashmita Ghosh, Saumyakanti Khanra and Kalyan Gayen "In search of microalgal strain from north east India for sustainable industrial application", Indo-Japan Bilateral Symposium on "Future Perspective of Bio-resource Utilization", 01-04 February 2018, IIT Guwahati, India
2. Kalyan Gayen, Ashmita Ghosh and Tridib Kumar Bhowmick, "Exploration of Tripura: Promises of microalgae based bio-products towards industrial application", Bioprocessing India 2017, 09-11 December 2017, IIT Guwahati, India
3. Ajay Kumar Manna, 'Application of flash vaporization for arsenic removal from contaminated groundwater by solar driven advanced membrane separation", ICIRSTM 2017, Page no-26, Sept 16-17, 2017, National University Singapore, U-Town, Singapore.
4. Ajay Kumar Manna, "Heat and mass transfer in a flash vaporization solar-driven membrane distillation", CHEMCON 2017, December 27-30, 2017, Dept. of Chemical Engineering, Haldia Institute of Technology, Haldia, West Bengal.

In proceeding of international Journals and book chapters:

1. S. Nag, A. Mondal, N.Bar & S. K.Das, Biosorption of chromium(VI) from aqueous solutions and ANN modeling; Environmental Science and Pollution Research, August 2017, Volume 24, Issue 23, pp 18817–18835(2017)
2. Dibyajyoti Halder, Dwaipayan Sen, Kalyan Gayen," Development of spectrophotometric method for the analysis of multi-component carbohydrate mixture of different moieties", Vol-181, Issue-4, Page - 1416-1434, Springer US, 2017/4/1

3. Madhumanti Mondal, Shrayanti Goswami, Ashmita Ghosh, Gunapati Oinam, ON Tiwari, Papita Das, K Gayen, MK Mandal, GN Halder, "Production of biodiesel from microalgae through biological carbon capture: a review", Source: 3 Biotech, Issue-2, Vol-7, Page No-77, Springer Berlin Heidelberg, 2017/6/1
4. M Mondal, A Ghosh, ON Tiwari, K Gayen, P Das, "Influence of carbon sources and light intensity on biomass and lipid production of *Chlorella sorokiniana* BTA 9031 isolated from coalfield under various nutritional modes," - Energy Conversion and Management, 2017, Vol-145, Page No-247-254, Pergamon, 2017/8/1
5. Madhumanti Mondal, Ashmita Ghosh, Gunapati Oinam, ON Tiwari, K Gayen, GN Halder, "Biochemical responses to bicarbonate supplementation on biomass and lipid productivity of *Chlorella* Sp. BTA9031 isolated from Coalmine area", Vol-36, Issue -5, Page No-1498-1506, 2017/9
6. Ashmita Ghosh, Saumyakanti Khanra, Madhumanti Mondal, Thingujam Indrama Devi, Gopinath Halder, ON Tiwari, Tridib Kumar Bhowmick, Kalyan Gayen, "Biochemical characterization of microalgae collected from north east region of India advancing towards the algae-based commercial production", Vol-12, Issue-5, Page No-745-754, 2017/9
7. Ashmita Ghosh, Saumyakanti Khanra, Madhumanti Mondal, Gopinath Halder, ON Tiwari, Tridib Kumar Bhowmick, Kalyan Gayen, "Effect of macronutrient supplements on growth and biochemical compositions in photoautotrophic cultivation of isolated *Asterarcys* sp.(BTA9034)" Vol-149, Page 39-51, Pergamon, 2017/10/1
8. Madhumanti Mondal, Ashmita Ghosh, K Gayen, Gopinath Halder, ON Tiwari, "Carbon dioxide bio-fixation by *Chlorella* sp. BTA 9031 towards biomass and lipid production: Optimization using Central Composite Design approach" Vol-22, Page No-317-329, Elsevier, 2017/12/31
9. Kalyan Gayen, Supreet Saini, Tridib Kumar Bhowmick, Manish Kumar, "Current status and challenges in biobutanol production" Page No-273-298, CRC Press, 2018/1/2
10. Dibyajyoti Halder, Dwaipayan Sen, Kalyan Gayen, "Enzymatic hydrolysis of banana stems (*Musa acuminata*): Optimization of process parameters and inhibition characterization", Vol-15, Issue -6, page No-406-413, July 2018
11. Isolation, screening and characterization of a novel extracellular xylanase from *Aspergillus niger* (KP874102. 1) and its application in orange peel hydrolysis Uma Shankar Prasad Uday¹, Ria Majumdar², Onkar Nath Tiwari³, Umesh Mishra^{2A} Mondal, TK Bandyopadhyay, B Bhunia – 2017
12. Anirban Banik, Tarun Kanti Bandyopadhyay, Sushant Kumar Biswal, "COMPUTATIONAL FLUID DYNAMICS SIMULATION OF DISC MEMBRANE USED FOR IMPROVING THE QUALITY OF EFFLUENT PRODUCED BY THE RUBBER INDUSTRY" Vol -44, Issue -6, 2017
13. CFD Analysis for blood flow through Artery A Banik, T.K. Bandyopadhyay CHEMCON 2017
14. Uma Shankar Prasad Uday, Tarun Kanti Bandyopadhyay, Saswata Goswami, Biswanath Bhunia, "Optimization of physical and morphological regime for improved cellulase free xylanase production by fed batch fermentation using *Aspergillus niger* (KP874102. 1) and its

- application in bio-bleaching”, Vol-8, Issue-2, Page 137-146, Taylor & Francis, 2017/3/4
15. Ravindra Kumar, Shirsendu Banerjee, Anirban Banik, Tarun Kanti Bandyopadhyay, Tarun Kumar Naiya, Simulation of single phase non-Newtonian flow characteristics of heavy crude oil through horizontal pipelines, Vol-35, Issue-6, Page 615-624, Taylor & Francis, 2017/3/19
 16. S Debnath, TK Bandyopadhyay, AK Saha, “CFD Analysis for Non-Newtonian Pseudo Plastic Liquid Flow Through Small Diameter U-BEND”, Vol-10, Issue-3, 2017/5/1
 17. Suman Debnath, Tarun Kanti Bandyopadhyay, Apu Kumar Saha, CFD Analysis of Non-Newtonian Pseudo Plastic Liquid Flow through Bends, Vol-61, Issue -3, Page No-184-203 2017/6/29
 18. Biswanath Bhunia, Abhijit Mondal, Tarun Kanti Bandyopadhyay, Soumya Sasmal, Nibedita Mahata, Uma Shankar Prasad Uday, Dyes Contamination in the Environment: Ecotoxicological Effects, Health Hazards, and Biodegradation and Bioremediation Mechanisms for Environmental Cleanup, Page 127-176, 2017/7/6
 19. Payel Choudhury, Uma Shankar Prasad Uday, Tarun Kanti Bandyopadhyay, Rup Narayan Ray, Biswanath Bhunia, Performance improvement of microbial fuel cell (MFC) using suitable electrode and Bioengineered organisms: A review, Vol-8, Issue-5, Page :471-487, Taylor & Francis, 2017/9/3
 20. Biswanath Bhunia, Uma Shankar Prasad Uday, Gunapati Oinam, Abhijit Mondal, Tarun Kanti Bandyopadhyay, Onkar Nath Tiwari, Characterization, genetic regulation and production of cyanobacterial exopolysaccharides and its applicability for heavy metal removal, Volume 179, 1 January 2018, Pages 228-243
 21. Payel Choudhury, Uma Shankar Prasad Uday, Nibedita Mahata, Onkar Nath Tiwari, Rup Narayan Ray, Tarun Kanti Bandyopadhyay, Biswanath Bhunia, Performance improvement of microbial fuel cells for waste water treatment along with value addition: a review on past achievements and recent perspectives, Vol:79. Page No:372-389, Pergamon, 2017/11/1
 22. Uma Shankar Prasad Uday, Ria Majumdar, Onkar Nath Tiwari, Umesh Mishra, Abhijit Mondal, Tarun Kanti Bandyopadhyay, Biswanath Bhunia, Isolation, screening and characterization of a novel extracellular xylanase from *Aspergillus niger* (KP874102. 1) and its application in orange peel hydrolysis, Vol: 105, Page :401-409, Elsevier, 2017/12/1.
 23. 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, Vol: 9, Issue:1-2, Page:191-197, Inderscience Publishers (IEL), 2018
 24. Anirban Banik, Sushant Kumar Biswal, Mrinmoy Majumder, Tarun Kanti Bandyopadhyay, Development of an adaptive non-parametric model for estimating maximum efficiency of disc membrane, Vol: 3, Issue 1, Page:3-19, Inderscience Publishers, 2018
 25. 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), Vol: 8, Issue :8, Page No:337, Springer Berlin Heidelberg, 2018/8/1

26. Uttara Mahapatra, Ajay Kumar Manna, Abhijit Chatterjee, 'Review on tannery wastewater treatment by various fungal species', International Journal of Research In Science & Engineering, Page No:275-280, March 2018.
27. Dey, P., Ray, S (2018). An overview of the recent trends in manufacturing of green composites – Considerations and challenges. Mat. Today. Proc. 5, 9, 19783–19789.
28. Prakasam, V., Bagh, S.G.F., Ray, S., Fifield, M., Porter, L., Lalman, J.A (2018). The role of biocathodes in Microbial fuel cell: A bioelectrochemical system that converts waste to watts, Capital Publishing Company, India and Springer, Switzerland. ISBN: 9783319667928.
29. Peng, T., Zhang, J., Ray, S., Veeravalli, S. S., Arefi-Khonsari, F., Lalman, J.A. (2018). *The role of hydrothermal conditions in determining 1D TiO₂ nanomaterials bandgap energies and crystal phases*. Mat. Res. Bull. 105, Sept, 104-113.
30. Gupta, S., Menan Devi, L., Ray, S. (2017). Treatment of Pharmaceutical Wastewater: A Case Study on Degradation in Electrochemical Oxidation (Chapter 20) in Microscopy Applied to Materials Sciences and Life Sciences, Rane. A.V. et. al. (Eds). CRC Press Inc. (Taylor & Francis), NJ, USA. ISBN: 9781771886727

7.5 Distinguished Visitors to the Department:

Sl No	Name of the Visitors and Designation	Date of Visit	Purpose of Visit
01	Prof. Sharad Bhartiya , IIT Bombay	March 13-19,2018	Workshop on Optimization in Engineering
02.	Prof. Shamik Mishra, IIT Bombay	March 13-19,2018	Workshop on Optimization in Engineering
03	Prof. R. Gudi, IIT Bombay	March 13-19,2018	Workshop on Optimization in Engineering

8.0 CHEMISTRY DEPARTMENT

8.1 Introduction:

Motivation: Department consists of students, research scholars, teachers and staff. Students and research scholars are the backbone of the department. Success of our students and research scholars in national and international level is thus the motivation of teachers to guide them better and better. All faculties in the department are highly educated with all having PhD degree and good number of publications. We are strongly motivated to impart and enhance the advanced knowledge and skills of students and professionals to meet the global challenges, to address rural needs through research and to offer effective solutions to the industries through research and consultancies.

Aim: The Department of Chemistry aims to be the best provider of chemical education within the Northeast region and to be a leader in research, publications and scholastic excellence. We are committed to providing a stimulating learning environment for our students, courses that are relevant and an experience that is world-class whether judged by local or international standards. Our goal is to present the content of chemistry set in a current and relevant context for engineers. As this is a support course taken usually in the first year, we also have goals related to the improvement of skill levels pertaining to the use of technology and communication. We add to this a conscious effort to foster attitudes of lifelong learning and appreciation for chemistry as a core of knowledge.

Principle: The Chemistry department believes in and supports the study, teaching and understanding of chemical principles across a wide spectrum of areas: inorganic, organic, physical. Dedicated to excellence in graduate and undergraduate education, the chemistry faculty teaches all lab sections and evaluates and grades all assignments. Our department believes chemistry occupies a central position in the physical sciences. The faculty and staff of the Chemistry department complements their love of teaching and learning with a strong sense of community. Our department functions as an active community of educators and interacts closely with our students. Working collaboratively, we strive to develop better capabilities in science and a better understanding of the learning process. Most importantly; we sincerely hope our students acquire the skills and confidence to become lifelong learners.



8.2 Academic Programme:

Department of Chemistry has conducted B.Tech courses, 5-year integrated BS-MS, 2 years M.Sc. program in chemistry. Department has offered Engineering Chemistry for first and second semester students of various engineering branch run in our institute. Department also offered Advanced Engineering Chemistry for 4-semester Chemical Engineering department. Department has started 5 year integrated BS-MS dual program from 2013 academic session. The course curriculum and syllabus was formulated with the help of Professors from reputed institutions of our country like IISc. Bangalore, IIT Kharagpur etc. Department has intake capacity of 10 students per session for MSc. program and 20 students per session for dual BS-MS program. Department has also enrolled for Ph.D. program in chemistry every year depending on the availability of seats.

Department has developed infrastructure for carrying out the research work in various fields such as natural product chemistry, organic synthesis, organometallic chemistry, coordination chemistry, Green chemistry, bioinorganic and nanotechnology.

8.3 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
Conference:			
1.	Dr. T.K. Misra	1. International Conference on Advanced Nanomaterials and Nanotechnology, ICANN-2017, organized by Centre for Nanotechnology, IIT Guwahati, Assam.	18-21,12, 2017
2.	Dr. K. S. Singh	1. 3 rd International Conference on Global Trends in Pure and Applied Chemical Sciences (ICGTCS-2017),SRM University, NCR, Delhi. 2. One Day regional workshop on National Information System for Climate and Environmental Studies, NIT Agartala sponsored by ISRO, Bangalore.	08-09,12, 2017 05, 02, 2018

Fellowships of Academics and Professional Societies:

Sl. No.	Name of Faculty	ISTE/ CSI and others	Level	Year
1.	Dr. SarojKr.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	Life Member	2007
4.	Dr. MitaliSaha	Indian Carbon Society	Life member	2011

8.4 Research and Consultancy:**Sponsored Research Projects:**

Sl. No.	Title	Period	Funding Agency	Amount (in lakhs)	Co-ordinators
1.	Metal nanoparticle with a knack for anion/molecular recognition: Synthesis, water dispersion, sensing and bio-conjugation	2014-2017	Department of Science and Technology-Nanomission	40.73	Dr. TarunK.Misra
2.	Graphene and its composite as solar sponge for water-splitting	2014-2018	Department of Science and Technology-SERB	3.0	Dr. Manas Roy

Research Publications:

Total No. of papers published in Referred National Journals: 01
 Total No. of papers published in Referred International Journals: 11
 Total No. of papers presented in National Conference: Nil
 Total No. of papers presented in international Conference: 01
 Total No. of Books published: nil
 Total No. of patents: Nil

In Refereed National Journals:

1. D. Paria, S. Kundu, N.M. Devi, C.B. Singh, K.S. Singh, *Synthesis, characterization and antibacterial activity of some water soluble Zn(II) azide complexes with (E)-N-(thiophen-2-ylmethylene)anilines*, Journal of the Indian Chemical Society, 94, 1187-1194, (2017).

In Refereed International Journals:

1. D. Debnath, S. Roy, A. Purkayastha, A. Bauzá, R. Choudhury, R. Ganguly, A. Frontera, T. K. Misra, *'Synthesis and structure of 1,3-dimethyl-5-(p-sulfonamide-phenylazo)-6-aminouracil and its Ni(II) complex: Topological insights and investigation for noncovalent interactions'*, Journal of molecular structure, 1141, 225-236, (2017).
2. R. Choudhury and T. K. Misra, *'Gluconate stabilized silver nanoparticles as a colorimetric sensor for Pb²⁺*, Colloids and Surfaces A, 545, 179-187, (2018).
3. D. Debnath, A. Purkayastha, A. Kirillov, R. Ganguly, T. K. Misra, *'Study of an efficient conversion of 1,3-dimethyl-5-(Arylazo)-6-Amino-Uracils to 1,3-dimethyl-8-(Aryl)-Azapurin-2,6-Diones'*, Journal of Molecular Structure, 1150, 118-126, (2017).
4. A. Purkayastha, D. Debnath, R. Ganguly, T. K. Misra, *'Nickel(II) Square-Planar Complex of 1,3-Dimethyl-5-(p-Clphenylazo)-6-aminouracil: Crystal Structure, Dissociation Kinetics and Anion Interaction'*, Journal of Chemical Crystallography, 47 101-109, (2017).
5. R. Choudhury, A. Purkayastha, D. Debnath, T. K. Misra, *'Synthesis and study of aggregation kinetics of fluorescence active N-(1-Naphthyl)ethylenediammonium cations functionalized silver nanoparticles for a chemo-sensor probe'*, Journal of Molecular Liquids, 238, 96-105, (2017).
6. D. Debnath, S. Roy, A. Purkayastha, A. Bauz, R. Choudhury, R. Ganguly, A. Frontera, T. K. Misra, *'Synthesis and structure of 1,3-dimethyl-5-(p-sulfonamidephenylazo)-6-aminouracil and its Ni(II) complex: Topological insights and investigation for noncovalent interactions'*, Journal of Molecular Structure, 1141, 225-236, (2017).
7. P. Mandal, M. J. P. Naik, M. Saha, *'Room temperature synthesis of Graphene nanosheets'*, Crystal Research & Technology, 53 (2), 1700250-55, (2018).
8. M. Saha, *'Advances in Electrochemical Cholesterol Nanosensors'*, New Polymeric Composite Materials Materials, Research Forum LLC, USA, Chapter-9, 296-300, (2017).
9. J.P. Naik, P. Sutradhar, M. Saha, *'Molecular scale rapid synthesis of graphene quantum dots (GQDs)'*, Journal of Nanostructural Chemistry, 7, 85-89, (2017).
10. D. Paria, S. Kundu, K.K. Singh, S.S. Devi, K.S. Singh, *'Synthesis, characterization and anti-diabetic activity of some water soluble Zn(II) complexes with (E)-N-(thiophen-2-ylmethylene)anilines'*, Asian Journal of Chemistry, 30, 1115-1119 (2018).

11. A. Dubey, H. Jangir, M. Pandey, M. M. Dubey, S. Verma, M. Roy, S.K. Singh, D. Philip, S. Sarkar and M. Das, 'An eco-friendly, low-power charge storage device from bio-tolerable nano cerium oxide electrodes for bioelectrical and biomedical applications', Biomedical Physics & Engineering Express, 4, 025041, (2018).

Distinguished Visitors to the Departments:

Sl. No.	Name of the Visitors and Designation	Date of Visit	Purpose of Visit
1	Prof. R.N DattaPurkyastha, Tripura University (ACentral University)	13.05.2017	External Examiner of M.Sc (4 th sem.) Project Work
2	Prof. M.R. Maurya, IIT Roorkee	10.03.2017	External Examiner of PhD Viva-voce
3	Prof. Gopal Das, IIT Guwahati	16.10.2017	External Examiner of PhD Viva-voce
4	Prof. B.K Patel, IIT Guwahati	17.04.2017	External Examiner of PhD Viva-voce
5	Prof. Debasis Das, IIT Kharagpur	20.04.2017	External Examiner of PhD Viva-voce

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 (Dd th -Dd th Month, Year)
Short Term Courses			
1.	Dr. Ashim Saha	MHRD Sponsored GIAN Course: Designing Smart Cities based on Internet of Things (IoT)"	11 th – 15 th December 2017

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.	Tannistha Pal	GIAN Workshop on Contrast Enhancement in Poor Visibility held at Tripura University (A Central University)	5 th -9 th March, 2018
		GIAN Workshop on Designing Smart Cities based on Internet of Things (IoT)	11th Dec to 15th Dec, 2017
2.	Diptendu Bhattacharya	2017 IEEE CIS SummerSchool on Recent Advances in Computational Intelligence, at Indian Statistical Institute, Kolkata.	September 18-22, 2017
3.	Prashant Bhradwaj	GIAN Workshop on Designing Smart Cities based on Internet of Things (IoT)	11th Dec to 15th Dec, 2017
4.	Lalita Kumari	GIAN Workshop on Designing Smart Cities based on Internet of Things (IoT)	11th Dec to 15th Dec, 2017
5.	Purbani Kar	GIAN Workshop on Designing Smart Cities based on Internet of Things (IoT)	11th Dec to 15th Dec, 2017
Conference:			
1.	Kunal Chakma	19 th International Conference on Intelligent Text Processing and Computational Linguistics (CICLing 2018)	March 18-24, 2018
2.	Diptendu Bhattacharya	7 th International Conference of Pattern Recognition & Machine Intelligence	December 05-08, 2017

Visits Abroad by Faculty:

Sl. No.	Name of Faculty	Country Visited	Date	Purpose of Visit
1	Kunal Chakma	Vietnam	18 – 24 March, 2018	Presented a paper in International Conference
2	M. K. Deb Barma	Nanyang Technological University, Singapore	24 th to 27 th June, 2017	Presented a paper in ACM International Conference on Multimedia, Broadcasting and Network (ICMBN 2017),
3	M. K. Deb Barma	University of Macau, China	26 th to 28 th Feb, 2018,	Presented a paper in International Conference on Big Data Management (ICBDM 2018),

9.4 Research and Consultancy:**Research Publications:**

Total No. of papers published in Refereed International Journals :16

Total No. of papers presented in International Conferences :19

Total No. of Books published :06

In Refereed National Journals:**In Refereed International Journals:**

1. Dwijen Rudrapal, Amitava Das, and Baby Bhattacharya, "A Survey on Automatic Twitter Event Summarization," Journal of Information Processing Systems, vol. 14, no. 1, pp. 79~100, (2018).
2. Kent Johnson, Kumar Gourav, Gaurav, Dwijen Rudrapal & Sanjib Debnath, "OCR for Devanagari Numerals using Zonal Histogram of Angle, Journal of Statistics and Management Systems," volume 20, issue 4, pages 519-534, (2017).
3. Anupam Jamatia, Amitava Das and Björn Gambäck "Deep Learning-Based Language Identification in English-Hindi-Bengali Code-Mixed Social Media Corpora" Journal of Intelligent Systems, 20170440, ISSN (Online) 2191-026X, ISSN (Print) 0334-1860, DOI: <https://doi.org/10.1515/jisys-2017-0440.2018>
4. Sambit Satpathy, Swapn Debbarma, AdityaSankarSengupta, Bidyut K.Bhattacharyya "Development Of A Neuro Fuzzy Based FPGA, Smart System For Prediction Of Jaundice In Rural Area" Journal of Advanced Research in Dynamical and Control Systems(JARDCS) 2017 December
5. Sambit Satpathy, Swapn Debbarma, AdityaSankarSengupta, Bidyut K. Bhattacharyya "Forecasting Of Disease With An Emd- Based Fpga Ensemble Learning Paradigm" Journal of Advanced Research in Dynamical and Control Systems(JARDCS) 2017 December
6. Arindam Debnath, Mrinal Kanti Debbarma "Energy efficient-Dynamic and Self-optimized Routing In Wireless Sensor Network Based on Ant Colony Optimization"International Journal of Networking and Virtual Organisations(IJNVO), DOI: 10.1504/IJNVO.2019.10011635
7. 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 (In Press)
8. Diptendu Bhattacharya, Amit Konar, "Self-adaptive type-1/type-2 hybrid fuzzy reasoning techniquesfor two-factored stock index time-series prediction," Soft Computing,DOI 10.1007/s00500-017-2763-

- 8, METHODOLOGIES AND APPLICATION © Springer-Verlag GmbH Germany 2017 (Published Online: 29th August, 2017).
9. Nirmalya Kar, Kaushik Mandal, Baby Bhattacharya, Improved chaos-based video steganography using DNA alphabets, *ICT Express*, Volume 4, Issue 1, 2018, Pages 6-13, ISSN 2405-9595,
10. Ashim Saha, Arundhati Das, A Method For Tracking of Facial Action Points Using Pyramidal Lucas Kanade Algorithm for Expression Recognition *Journal of Multimedia Processing and Technologies*, Vol 8 (2018), No. 4.
11. 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>, 9 January 2018.
12. Ananda Bibek Ray, Suman Deb & Suraksha Devi "Creating an interaction interface to improve user engagement in virtual reality systems," *Journal of Statistics and Management Systems*, Taylor and Francis, Vol. 20 Issue 4: Machine Learning and Software Systems, Iss. 4, 2017 DOI: <https://doi.org/10.1080/09720510.2017.1395179>, Pages 593-600, 16 Nov 2017
13. Lalita Kumari, J. L. Raheja and Vidyut Dey, "A Three Layer Approach for overlaid and scene Text Extraction from Video Stream," *International Journal of Ambient Computing and Intelligence (IJACI)*
14. Lalita Kumari, J. L. Raheja and Vidyut Dey, "A Three-Layer Approach for Overlay Text Extraction in Video Stream" *Advances in Intelligent System and computing*, 2017.
15. Ramsagar Tripathi, Purbani Kar, "Image Based Steganographic & Cryptographic Process Of Hiding Data" *International Journal Of Innovative Research In Technology*, Volume 4 Issue 9 February 2018.
16. Tanusree Podder, Purbani Kar, Lalita Kumari "An approach to hide information using wavelet based method" *International Journal of Scientific Research in Computer Science, Engineering and Information Technology*, Volume 3, Issue 1, Jan-Feb 2018.

In Proceedings of International Conference:

1. Smita Das "Hole-Detection in Wireless Sensor Network: A Review" in 5th International Conference on Advance Computing, Networking and Informatics (ICACNI 2017), 1st June – 3rd June, 2017
2. Smita Das "A Survey on Coverage Problems in Wireless Sensor Network based on Monitored Region" in International Conference on Data and Information Sciences (ICDIS 2017), 3rd November – 4th November, 2017
3. Kunal Chakma and Amitava Das, *A 5W1H Based Annotation Scheme for Semantic Role Labelling of English Tweets* in 19th International Conference on Intelligent Text Processing and Computational Linguistics (CICLing 2018) March 18-24, 2018, Hanoi, Vietnam.
4. D. Rudrapal, and A. Das, "Semantic Role Labeling of English Tweets Through Sentence Boundary Detection," In the 19th International Conference on Computational Linguistics and Intelligent Text Processing (CICLING), Hanoi, Vietnam, March, 2018.
5. Rudrapal, Dwijen, Das, Amitava, Bhattacharya, B. "Quotology - Reading Between the Lines of Quotations," in: 22nd International Conference on

- Applications of Natural Language to Information Systems, NLDB 2017, Belgium, PP:292--296, June 21-23, 2017.
6. Dwijen Rudrapal, Amitava Das, "Measuring the Limit of Semantic Divergence for English Tweets," Proceedings of 11th Recent Advances in Natural Language Processing, pages 618–624, Varna, Bulgaria, Sep 4–6, 2017.
 7. Koustav Routh and Tannistha Pal "A survey on technological, business and societal aspects of Internet of Things" in 3rd IEEE International Conference on Internet of Things: Smart Innovation and Usages (IoT-SIU 2018), Birla Institute of Applied Sciences, Uttarakhand, India.(In Press), Feb 24-Feb 28, 2018
 8. Tushar Maheshwari, Aishwarya N. Reganti, Samiksha Gupta, Anupam Jamatia, Upendra Kumar, Björn Gambäck and Amitava Das "A societal sentiment analysis: Predicting the values and ethics of individuals by analysing social media content" 15th Conference of the European Chapter of the Association for Computational Linguistics (EACL) 2017.Valencia, Spain, 5-7 April 2017.
 9. Anupam Jamatia, Kanishka Joshi, Kundan Kumar, Shivam Kumar, Subrito Halder "Customer Feedback Analysis Using Machine Learning Techniques".19th International Conference on Intelligent Text Processing and Computational Linguistics (CICLing 2018).Hanoi, Vietnam, 17-24 March 2018.
 10. Tribid Debbarma and K Chandrasekaran, "Sustainable Software Development with a Shared Repository", 5th International Conference on. Advanced Computing, Networking, and Informatics, Springer, NIT Goa, Goa, India, 1-3 June 2017
 11. M. K. Deb Barma et al "Route Measurement Technique based on Entropy in Cluster Routing for Mobile Ad hoc Networks" International Conference on Big Data Management (ICBDM 2018), Feb 26th to 28th, 2018, at University of Macau, China (Scopus indexed, In press)
 12. M. K. Deb Barma et al. "A Survey on Coverage Problems in Wireless Sensor Network based on Monitored Region" International Conference on Data and Information Sciences (ICDIS-2017), held at Indira Gandhi National Tribal University, Amarkantak, M.P. , India during November 17-18, 2017. (Scopus indexed, In press)
 13. M. K. Deb Barma et al. "Hole-Detection in Wireless Sensor Network: A Reviews" 5th International Conference on Advanced Computing, Networking and Informatics (ICACNI 2017) was co-organized by Department of Computer Science & Engineering, National Institute of Technology, Goa(In press)
 14. M. K. Deb Barma et al. "Energy Efficient Weight Based Clustering in MANET" ACM International Conference on Multimedia, Broadcasting and Network (ICMBN 2017), held on June 24th to 27th, 2017, at Nanyang Technological University, Singapore. (Scopus), published in proceedings of ICGSP'17, PP 101-105, DOI: <http://dx.doi.org/10.1145/3121360.3121366>
 15. Pallabi Samanta, Diptendu Bhattacharya, Amiyangshu De, Lidia Ghosh, Amit Konar: Music-Induced Emotion Classification from the Prefrontal Hemodynamics. PReMI 2017: 289-295.
 16. Nirmalya Kar, Tamar Das, Ashim Saha, A Novel Cryptographic Technique based on Point Reflection Property, International Conference on Software

- Engineering, Information System and Applications (ICSEISA 2017), 30-31 July 2017, Seoul, Korea (south).
17. Tapajyoti Deb, Niti Vishwas, Dr. Ashim Saha "A Comparative Study on Different Approaches of Road Traffic Optimization Based on Big Data Analytics", , International Conference RECENT ADVANCES & APPLICATIONS IN COMPUTER ENGINEERING, Jaipur, India, November 23-25, 2017.
 18. Niti Vishwas, Tapajyoti Deb, Dr. Ashim Saha "Implementation of Collaborative Filtering for Product Recommendation in E-commerce", , International Conference RECENT ADVANCES & APPLICATIONS IN COMPUTER ENGINEERING, Jaipur, India, November 23-25, 2017.
 19. Dhrubajyoti Bhowmik, Paramartha Dutta, Apu Kumar Saha "Implementation and Optimization of design for Three-Input Complex Gate fabricated with majority gates and Inverter using QCA" International Conference on Recent Trends in Mathematical Sciences (ICRTMS 2018) , MBB University on 24-25th March 2018.

Books Published:

Name of the Authors published	Title of the Books	Date of publication	Issue/ Volume No./ Page No.
Amit Konar, Diptendu Bhattacharya	Time-Series Prediction and Applications - A Machine Intelligence Approach	23 rd April-2017	ISBN 978-3-319-54596-7, pp. 1-236
Somnath Banerjee, Kunal Chakma , Sudip Kumar Naskar, Amitava Das, Paolo Rosso, Sivaji Bandyopadhyay, Monojit Choudhury	Text Processing:	January 2018	DOI: 10.1007/978-3-319-73606-8, eBook ISBN: 978-3-319-73606-8
Suman Deb , Paritosh Bhattacharya	Enhancing personalized learning with interactive note taking on video lectures-an analysis of effective HCI design on learning outcome	2017	Smart and Innovative Trends in Next Generation Computing Technologies Communications in Computer and Information Science (CCIS) Series ISSN No: 1865-0929.
Suman Deb , Pal A., Bhattacharya P.	Design Considerations for Self Paced Interactive Notes on Video Lectures - A Learner's Perspective and Enhancements of Learning Outcome	Dec 2017	In: Horain P., Achard C., Mallem M. (eds). Lecture Notes in Computer Science(LNCS), vol 10688 pp 109-121. Springer, Cham DOI https://doi.org/10.1007/978-3-319-72038-8_9 ISBN Print: 978-3-319-72037-1 Online: ISBN 978-3-319-72038-8
Deb S. , Jagrati, Bhattacharya P.	A Framework to Enhance the Learning	Online Available	Volume 2, Progress in Advanced Computing and

	Outcome with Fuzzy Logic-Based ABLS (Adaptive Behavioral Learning System)	:22 December 2017.	Intelligent Engineering. Advances in Intelligent Systems and Computing, (AISC, volume 564) pp 3-11. Springer, Singapore. DOI https://doi.org/10.1007/978-981-10-6875-1_1 ISBN Print : 978-981-10-6874-4 Online :978-981-10-6875-1
Nandi S., Deb S. , Sinha M.	Augmented Use of Depth Vision for Interactive Applications	First Online: 22 December 2017.	Progress in Advanced Computing and Intelligent Engineering. Advances in Intelligent Systems and Computing, vol 564. Springer, Singapore Part of the Advances in Intelligent Systems and Computing book series (AISC, volume 564) pp 29-36 DOI https://doi.org/10.1007/978-981-10-6875-1_4 ISBN Online 978-981-10-6875-1 Print 978-981-10-6874-4 https://link.springer.com/chapter/10.1007/978-981-10-6875-1_4

Distinguished Visitors to the Departments:

Sl. No.	Name of the Visitors and Designation	Purpose of Visit	Date of Visit
2.	Prof. Sudipta Roy, CSE Dept. Triguna Sen School of Technology, Assam, University	External Examiner for Evaluation of B.tech 8 th Semester Project Presentation, 2017	24 th -25 th April 2017.
3.	Prof. K. Chandrashekharan,	Evaluation of M.tech 4 th Semester, 2017	11 th May 2017
4.	Dr. Indrajit Banerjee, IT Dept. IIST Shibpur	External examiner for B.tech 8th Sem Grand Viva, 2017	19 th -20 th April 2017
5.	Prof. Tokunbo Ogunfunmi, Professor, Santa Clara University, Santa Clara, USA and Visiting Professor, University of Texas, Stanford University	As a Resource Person of GIAN Workshop on Designing Smart Cities based on Internet of Things (IoT)	11th Dec to 15th Dec, 2017

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 (formerly Tripura Engineering College, Govt. of Tripura). This Department has been fulfilling the need of the state Tripura as well as the nation by developing technical manpower in Electrical Engineering field since its inception in 1965. In this long 52 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 (NIT) 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 67 for 2 years (4 semesters) M. Tech. programme. Apart from B.Tech. and M. Tech. Electrical Engineering department started Ph.D program 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 following specialization 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 program. 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 program. At present 31 nos. of 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 05 (five) Ph.D degree in this academic year.

Academic Program Goals:

The Electrical Engineering Department has goals for undergraduate, graduate as well as Ph.D programs. In the 2017-18 sessions 5 students get enrolled in PhD Programme.

The *undergraduate program 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 program 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 program 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. Subhadeep Bhattacharjee	Energy Production & Management	19 th – 23 rd March'2018
2.	Dr. Aniruddha Bhattacharya, Dr. Saheli ray	Modern Power System and its Challenges	19 th – 23 rd March'2018
3.	Dr. Priyanath Das Dr. Saptadip Saha	Emerging Trends in Renewable Energies	12 th -16 th March 2018
4.	Mr. Bikram Das, Mr. Abanishwar Chakrabarti, Mr. Prabir Ranjan Kassari and Dr. Aniruddha Bhattachayara	Power Electronics and its Scope of application in North East India	23 rd -25 th Aug'2017
5.	Dr. A.K.Chakraborty	ISTE STTP on Electric Power System	12 th -15 th July, 2017

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
Short term Course/ :			
1.	Mr. Diptanu Das	ISTE STTP on Electric Power System	12 th -15 th July, 2017
2.	Dr. Biman Kumar Saha Roy	STTP on Modern power system and its challenges	19 th – 23 March'2018
3.	Dr. Saptadip Saha	Gain course on "Integration of high penetration of Solar and wind power in power systems: Experiences & Challenges", MNNIT Allahabad	13 th -17 th Nov, 2017
4.	Dr.Priyanath Das	Gain course on "Integration of high penetration of Solar and wind power in power systems: Experiences & Challenges", MNNIT Allahabad	13 th -17 th Nov, 2017
5.	Dr. Sharmistha Sharma	ISTE STTP on "Electric Power System"	12 th - 15 th July, 2017
6.	Dr. A.R.Bhowmik	ISTE STTP on Electric Power System	12 th -15 th July, 2017
7.	Dr. A.R.Bhowmik	Emerging Trends in Renewable Energies	12-16 March, 2018
8.	Dr. A.R.Bhowmik	Modern Power System and its Challenges	19 th – 23 rd March, 2018
Symposia			
1.			
Conferences			

1.	Dr. Aniruddha Bhattacharya	6 th International Electrical Engineering Congress (iEECon-2018), at Thailand	7 th – 9 th March, 2018
2.	Dr. A.K.Chakraborty	International Conference on Power, Control, Signals and Instrumentation Engineering (ICPCSI-2017), Chennai, India	21 st -22 nd September, 2017
3.	Dr. A.K.Chakraborty	7th International Conference on Power Systems, 2017 (ICPS 2017), College of Engineering Pune (COEP), India	21 st - 23 rd December 2017
4.	Mr. Diptanu Das	6 th International Electrical Engineering Congress (iEECon-2018), at Thailand	7 th – 9 th March, 2018
5.	Dr. A.R.Bhowmik	International Conference on Computer, Electrical & Communication Engineering, Techno India University, SaltLake, Kolkata, India	22 nd -23 rd December, 2017.
Training attended			
1.	Dr. Aniruddha Bhattacharya	TEQIP-III Teachers Training Workshop on Induction Program for NER Institutes	13.10.2017 to 15.10.2017 at IIT Guwahati

Visits Abroad by Faculty:

Sl. No.	Name of Faculty	Country Visited	Date	Purpose of Visit
1.	Dr. Ardhendu Saha	Singapore	31 st July – 4 th August, 2017	CLEO-2017 Pacific Rim Conference
2	Dr. Aniruddha Bhattacharya	Thailand	7 th – 9 th March, 2018	To attend 6 th International Electrical Engineering Congress (iEECon-2018)
3	Mr. Diptanu Das	Thailand	7 th – 9 th March, 2018	To attend 6 th International Electrical Engineering Congress (iEECon-2018)

Fellowships of Academics and Professional Societies:

Sl. No.	Name of Faculty	Level	Year
ISTE/ CSI and others			
1.	Dr. Rup Narayan Ray	IE(I)-Member, ISTE – LM and INDIAN SCIENCE CONGRESS ASSOCIATION Member	1998 1992 1993
2.	Dr.Priyanath Das.	ISTE Member, FIE (I)	2009
3.	Dr. Ardhendu Saha	IEEE Member(92497107)	2018
		OSA Life Fellow member	2018

4.	Dr. Ajoy Chakroborty	MIET(UK),MISTE, FIE(1)	
5.	Anindita Jamatia	IEEE member	3 years
		IEEE Industrial Electronics Society Member	3 years
		IEI Associate member (AMIE)	10 years
		ISTE Member	Lifetime member
6.	Mr Abanishwar Chakraborty	ISTE Member	2009
7.	Dr. Sumita Deb.	ISTE, Life Member Institute of Engineers (India), Graduate G-547504-0	2009 2008.
8.	Mrs. Minakshi Deb Barma.	ISTE Life Member Institute of Engineers (India)	2009
9.	Mr Prabir Ranjan Kasari	ISTE, LM 62058,IEEE	2009
10.	Mr Bikram Das.	ISTE(LM/ 62063), IEEE(India) associate member(AM099384-3) , Solar Energy Society of India (LM/1459/2010)	2010
11.	Dr. Subhadeep Bhattacharjee	Fellow of IETE	2017
		Senior Member of IEEE	2017
12.	Dr. Aniruddha Bhattacharya	Member of IEEE	2015
13.	Mr. Diptanu Das	Associate Member Institute of Engineers(India)	2009
14.	Mr. Saptadip Saha	Associate Member (AMIE) Institute of Engineers (India)	2015

10.4 Research and Consultancy :

Sponsored Research Projects:

Sl. No	Title	Period	Funding Agency	Amount (in lakhs)	Co-ordinators
1.	Extension of project entitled "Non-Contact Multidirectional Vibration Sensor using 2D position Sensitive Detector (PSD)"	September 2017. Duration: 1 Year	ISRO	12.34	PI: Dr. Ardhendu Saha Co-PI: Dr. Subhadeep Bhattacharjee
2.	"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
3.	A Study On Developing A Sustainable Bio-Electrochemical System For	2017-2019	Dept. Of Biotechnology (DBT),	59.34	Dr. A.K.Chakraborty &

	Conversion Of Waste To Electricity		Ministry Of Science And Technology, GOI		Dr. S.Ray
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Research Publications:

Total No. of papers published in Refereed International Journals:27

Total No. of papers presented in National Conference: 01

Total No. of papers presented in International Conferences:39

In Refereed International Journals:

1. S.Das, A. Bhattacharya, A.K. Chakraborty; "Solution of short-term hydrothermal scheduling using sine cosine algorithm"; Soft Computing (Springer); pp. 1-19; Accepted for Publication; Article in Press.
2. S. Sharma, S.Bhattacharjee, A. Bhattacharya; "Probabilistic operation cost minimization of Micro-Grid"; Energy, Vol. 148, no. 1; pp. 1116-1139, 2018.
3. Anulekha Saha, A. K. Chakraborty, and Priyanath Das. "Quasi-Reflection Based Symbiotic Organisms Search Algorithm For Solving Static Optimal Power Flow Problem" Scientia Iranica, 2018, SCI.
4. Aditya S Sengupta,., Ajoy K. Chakraborty, and Bidyut K. Bhattacharyya, "Super capacitor Module Solely Powering Dc -Dc Buck Converter For Hand-Held Applications" Iete Journal Of Research, 2018,1-9.SCI
5. Aditya S. Sengupta, A. K. Chakraborty, Sambit Satpathy, and Bidyut K. Bhattacharya. "Controlled Dc-Dc Converter System With Boost Supercapacitor Backup Journal Of Advanced Research In Dynamical And Control Systems" 2017, 1722-1729. SCOPUS
6. Samima Akter, Saptadip Saha and Priyanath Das "Impact of Temperature on Performance of Photovoltaic System at NIT Agartala Camp -A Case Study" - International journal of control theory and applications, 10(6), 2017 SCOPUS.
7. Samima Akter, Saptadip saha and priyanath das, "Power improvement in PV panel under temperature variation fault using refrigeration mechanism and its implementation. Journal of Engineering Research . 2017, SCI
8. A.Saha, A.K. Chakraborty, P. Das, "Quasi-reflection based symbolic organisms research algorithm for solving static optimal power flow problem." Scientia Iranica, Scopus
9. G. Saha, K. Chakraborty and P .Das "A Direct Method for Voltage Stability Prediction on Power Networks using Supervised Learning Algorithm in Smart Grid Scenario." International Journal of Engineering & Technology IJET-IJENS, Vol.17, No.4, pp.1-8. Scopus.
10. Rup Narayan Roy , "Performance improvement of microbial fuel cell (MFC) using suitable electrode and Bioengineered organisms" BIOENGINEERED, Taylor & Francis, pp. 1-17, April, 2017
11. Rup Narayan Roy , "Performance improvement of microbial fuel cells for waste water treatment alongwith value addition", Renewable and Sustainable Energy Reviews, Elsevier, vol. 79, pp. 372-389, May, 2017

12. S. Bhattacharjee, et al. 'An investigational back surface cooling approach with different designs of heat absorbing pipe for PV/T system' *International Journal of Energy Research* (John Wiley & Sons), 2018,42(2018), pp. 1921-1933.
13. S. Bhattacharjee and S. Mohanta, 'An inclusive investigation on conceivable performance of rice straw incinerated electricity generation' *Journal of the Institution of Engineers (India) (Series-B)* (Springer), 2018, (DOI: 10.1007/s40031-018-0325-9).
14. A. Jamatia, V. Gautam and P. Sensarma, "Power Decoupling for Single-Phase PV System Using C'uk Derived Microinverter," in *IEEE Transactions on Industry Applications*, vol. 54, no. 4, pp. 3586-3595, July-Aug. 2018.
15. Sharmistha Sharma, Subhadeep Bhattacharjee, Aniruddha Bhattacharya, "Operation cost minimization of a Micro-Grid using Quasi-Optimizational Swine Influenza Model Based Optimization with Quarantine", *Ain Shams Engineering Journal*, Volume 9, Issue 1, March 2018, Pages 45-63.
16. Subhradeep Barman, Biman Kumar Saha Roy "Detection and Location of Faults in Large Transmission Networks using Minimum Number of Phasor Measurement Units" Accepted on 7th January 2018, *International Journal*, (IET Generation, Transmission, and Distribution), doi: 10.1049/iet-gtd.2017.1067, 2018.
17. Pronob Ghosh, Soumesh Chatterjee, B. K. Saha Roy "Optimal PMU Placement Solution: Graph Theory and MCDM based Approach" 11, 3371-3380, *IET, International Journal (Generation, Transmission, and Distribution)*, SCI- 2017.
18. Ardhendu Saha, Arijit Datta, and Surjit Kaman, "Ultrahigh-sensitive multimode interference-based fiber optic liquid-level sensor realized using illuminating zero-order Bessel-Gauss beam." *Optical Engineering*. 57 (2018), pp. 036118 (1-11), SCI.
19. Chittaranjan Nayak, Alireza Aghajamali, Tannaz Alamfard, Ardhendu Saha, "Tunable photonic band gaps in an extrinsic Octonacci magnetized cold plasma quasicrystal", *Physica B: Condensed Matter*. 525 (2017), pp. 41-45. SCI
20. Arijit Datta, Ardhendu Saha, Ashish Shukla "Investigation of Modal Interference Induced Fiber Optic Refractive index Sensor: Markedly Enhanced Sensitivity Realized by Shining Optical Vortex Beam." *Journal of the Optical Society of America A*, 34 (2017), pp. 2034-2045. SCI
21. Aparupa Kar, Nabamita Goswami, Ardhendu Saha, "Analysis of high-resolution electro-optical beam steering by long-range surface plasmon resonance using a ZnSe prism", *Applied Optics*, 56(2017), pp. 9656-9662. SCI
22. Minakshi DebBarma, Sumita Deb, Ardhendu Saha, "Total internal reflection quasiphasematching-based broadband second harmonic generation in a plane-parallel uniaxial crystal of lithium niobate." *Optical Engineering*. 57(2018), pp. 017106 (1-8), SCI
23. Chittaranjan Nayak, Ardhendu Saha, Alireza Aghajamali, "Periodic multilayer magnetized cold plasma containing a doped semiconductor." *Indian Journal of Physics*, Article in press (2018), doi:10.1007/s12648-018-1176-6. SCI.
24. Ardhendu Saha, Sampa Das, M. Suresh, V. Raj Kiran, Naiwrita Dey, "FPGA based self-vibration compensated two dimensional non-contact vibration measurement using 2D position sensitive detector with remote monitoring" *Measurement* (Elsevier), 111 (2017), pp. 71-278. SCI.

25. Bhaswati Medhi, Sumita Deb, "Analytical study of broadband second harmonic generation by total internal reflection-quasi phase matching using the concept of highly multimodal nonlinear guided wave approach in a tapered isotropic slab of Zinc telluride crystal." April, 2017. Optik, Elsevier. SCI. Vol. 135, p-426-433
26. Minakshi Deb Barma, Sumita Deb, Ardhendu Saha, "Total internal reflection quasiphasematching-based broadband second harmonic generation in a plane-parallel uniaxial crystal of lithium niobate", January, 2018. Optical Engineering, SPIE. SCI Vol. 57(1), 017106, doi: 10.1117/1.OE.57.1.017106
27. Puja Debnath, S. Deb, "Broadband second harmonic generation using total internal reflection-quasi phase matching in a multi-tapered isotropic semiconductor slab" July – August 2017, JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS, SCIE-Vol. 19, No. 7 - 8, p. 475 – 485

In International Conferences:

1. Anulekha Saha, Aniruddha Bhattacharya, Priyanath Das, Ajoy Kumar Chakraborty, "CDO - a new metaheuristic algorithm towards the solution of transient stability constrained optimal power flow", IEEE conference on "2018 International Electrical Engineering Congress (iEECON)", Krabi, Thailand, 7th - 9th March, 2018.
2. Prasenjit Dey, Aniruddha Bhattacharya, Priyanath Das, "Tuning of Power System Stabilizers in Multi-machine Power Systems using Moth Flame Optimization", IEEE conference on "2018 International Electrical Engineering Congress (iEECON)", Krabi, Thailand, 7th - 9th March, 2018.
3. Diptanu Das, Aniruddha Bhattacharya, Rup Narayan Ray, "Solution of Probabilistic Economic Dispatch in Presence of Solar Power", IEEE conference on "2018 International Electrical Engineering Congress (iEECON)", Krabi, Thailand, 7th - 9th March, 2018.
4. Sujoy Das, Aniruddha Bhattacharya, Ajoy Kumar Chakraborty, "Short-term hydro-thermal-wind scheduling using Salp Swarm Algorithm", IEEE conference on "2018 International Electrical Engineering Congress (iEECON)", Krabi, Thailand, 7th - 9th March, 2018.
5. Sujoy Das, Aniruddha Bhattacharya, Ajoy Kumar Chakraborty, Vibhav Pandey, "Fixed Head Short-term Hydrothermal Scheduling Using Whale Optimization Algorithm Considering the Uncertainty of Solar Power", 9th International Conference on Advanced Computing (ICoAC 2017)", Chennai, India, 14th - 16th December, 2017.
6. Arnab Pal, Ajoy Kumar Chakraborty, Arup Ratan Bhowmik, Bhaskar Bhattacharya, "New Algorithms for DG Allocation with Less Execution Time to Minimize the Power Loss" Proceedings of IEEE International Conference on Electrical, Electronics, Communication, Computer and Optimization Techniques (ICEECOT), IEEE International Conference on Electrical, Electronics, Communication, Computer and Optimization Techniques (ICEECOT). Mysore, 15th – 16th December, 2017. Pp. 495-500.
7. Arnab Pal, Ajoy Kumar Chakraborty, Arup Ratan Bhowmik, Bhaskar Bhattacharya, "Optimal Placement of DG Units in Distribution Network Using APCSA and OBOSA for Power Loss and Execution Time Minimization", Proceedings of IEEE International Conference on Computer, Electrical and Communication

Engineering (ICCECE-2017). IEEE International Conference on Computer, Electrical and Communication Engineering (ICCECE-2017), Kolkata, 22nd – 23rd December, 2017.

8. Arnab Pal, Ajoy Kumar Chakraborty, Arup Ratan Bhowmik, Bhaskar Bhattacharya, "Optimal DG Allocation for Minimizing Active Power Loss with Better Computational Speed and High Accuracy" Proceedings of IEEE International Conference on Recent Advances in Information Technology, IIT Dhanbad. IEEE International Conference on Recent Advances in Information Technology, IIT Dhanbad. IIT DHANBAD, 2018. Pp. 1-6.

9. Navonita Sharma, Ajoy Kumar Chakraborty, Abanishwar Chakraborti, "Smart meter design with incorporated dynamic control of grid connected 3 phase inverter" Proceedings of 7th International Conference on Power Systems (ICPS 2017), 7th International Conference on Power Systems (ICPS2017), College of Engineering, Pune, 2017. Pp. 677-683.

10. Bratati Ghosh, Ajoy Kumar Chakraborty, Arup Ratan Bhowmik, Aniruddha Bhattacharya "Krill Herd Algorithm Solution for the Economic Emission Load Dispatch in Power System Operations", Proceedings of 7th International Conference on Power Systems (ICPS 2017), 7th International Conference on Power Systems (ICPS2017), College of Engineering, Pune, 2017. Pp. 737-742.

10. Saha A, Bhattacharya A, Das P, Chakraborty AK "Water evaporation optimization technique for convergence of technology", 7-9 - 2017

11. Ankit Singh, Saptadip Saha,, Priyanath Das, Soumesh Chatterjee, Purvi Chandrakar, Sajal Debbarma "Power tracing in distribution network in deregulated power environment." 7th IEEE international conference, March 2018.

12 Sajal Debbarma, Saptadip Saha, Priyanath Das, Ankit Singh, Purvi Chandrakar,, "Design of a location based adaptive MPP tracker for PV system." 7th IEEE international conference. March 2018.

13. Purvi Chandrakar Saptadip Saha, Priyanath Das, Ankit Singh, Sajal Debbarma. "Grid integration of PV system Using syncroinverter." 7th IEEE international conference. March 2018

14. R. Bhattacharjee and S. Bhattacharjee, 'Performance analysis of the heliostat solar field for various sun position and radial spacing method, *1st International Conference on Energy and Environment: Global Challenges*, NIT-Calicut, 9-10 March, 2018.

15. Das D., Bhattacharya A., Ray R.N. "Quasi-oppositional grey wolf optimizer algorithm for economic dispatch", IJST, 2017 (Accepted).

16. Poluri Srimannarayana, Aniruddha Bhattacharya, Sharmistha Sharma, "Load Frequency Control of Microgrid Considering Renewable Source Uncertainties", 2018 International Conference On Computation Of Power, Energy, Information And Communication (ICCPEIC), Melmaruvathur, Tamil Nadu, 28th - 29th March, 2018.

17. Roshni Anna Jacob, Aniruddha Bhattacharya, Sharmistha Sharma, "Feasibility study and analysis of battery energy storage system and network reconfiguration in active distribution network", 2017 IEEE Region 10 Symposium (TENSYP), Cochin, India, 14-16 July 2017.

18. Pronob Ghosh, Soumesh Chatterjee, Biman Kumar Saha Roy "A Hybrid Approach to Solve OPF Problem Using Graph Theory and AHP" International Proceeding, ICPS-2017
19. Soumesh Chatterjee, Pronob Ghosh, Biman Kumar Saha Roy "Optimal Placement of PMU Considering Practical Costs in Wide Area Network" International Proceeding, INDICON 2017
20. Ardhendu Saha, Arijit Datta, "Multimode Interference Based High Sensitivity Refractive Index Sensor By Shining Zeroth Order Bessel-Gauss Beam". Proceedings of IEEE Explore (online), doi: 10.1109/CLEOPR.2017.8118877, CLEO-2017 Pacific Rim Conference, Marina Bay Sands Expo and Convention Centre, Singapore, 31st July – 4th August, 2017, page no.1-4
21. Ruma Debnath, Susheel Kumar Beda, Digvijay Singh Hada, Ardhendu Saha. "Electro-optically Induced Nonlinear Phase Shift In RTP Crystal By Cascaded Second-order Nonlinearity" Proceedings of IEEE Explore (online), doi: 10.1109/CLEOPR.2017.8118874, CLEO-2017 Pacific Rim Conference, Marina Bay Sands Expo and Convention Centre, Singapore, 31st July – 4th August, 2017, page no.1-3
22. Deepak Chaurasia, Nabamita Goswami, and Ardhendu Saha "With Enhanced Sensitivity Surface Plasmon Resonance Based Liquid Sensor Through Radially Polarized Light in Bimetallic Tapered Fiber with Ag and Au Nano Layers." Advanced Science Letters. 2nd International Conference on Recent Advance in Nanoscience and Nanotechnology, Spacial Centre for Nano Sciences, Jawaharlal Nehru University, New Delhi, India. 2018, page no. 821-823
23. Manas Patra, Mriganka Ghosh Majumder, Bikram Das, Abanishwar Chakraborti, Prabir Ranjan Kasari, "A New Modular Multilevel Converter Topology with Reduced Number of Power Electronic Components" 2017 International Conference on Innovations in Information, Embedded and Communication Systems (ICIIECS), 978-1-5090-3294-5 /17/\$31.00 ©2017 IEEE. Couimbatore , India. IEEE Conf.
24. Manas Patra, Mriganka Ghosh Majumder, Bikram Das, Abanishwar Chakraborti, Prabir Ranjan Kasari, "A New Series Connected Switched Sources Based Multilevel Inverter Topology with Reduced Device Count" i-PACT 2017. 978-1-5090-5682-8 /17/\$31.00 ©2017 IEEE, Vellore , India IEEE Conf. Scopus Indexed
25. A. Dinesh Kumar, Bikram Das, Prabir Ranjan Kasari and Abanishwar Chakraborti "Maximum Utilization of DC link voltage in Grid Connected Hybrid Modular Multi Level Converter" 2017, 9th International Conference on Information Technology and Electrical Engineering (ICITEE). 978-1-5090-6477-9/17/\$31.00 ©2017 IEEE . Phuket, Thailand, IEEE Conf. Scopus Indexed
26. Bikram Das, Aniruddha Bhattacharya, Debashis Chatterjee , Prabir Ranjan Kasari , "Development of Modified Cascaded Multilevel Inverter Configuration with Less Number of Switches" TENCON-2017, 978-1-5090-1134-6/17/\$31.00 ©2017 IEEE, P-1550-1555. Penang, Malaysia, IEEE Conf.
27. Prabir Ranjan Kasari, Manish Paul, Bikram Das, Abanishwar Chakraborti, "Analysis of D-STATCOM for Power Quality Enhancement in Distribution Network" TENCON-2017, 978-1-5090-1134-6/17/\$31.00 ©2017 IEEE. P-1421-2426, Penang, Malaysia, IEEE Conf.

28. Bikram Das, Debashis Chatterjee, Aniruddha Bhattacharya, "Pulse Width Modulated Cascaded Multi Level Topology" 6th International Electrical Engineering Congress 2018. Krabi, Thailand. IEEE Conf. Scopus Indexed
29. Vidyasagar Tummakuri, Bikram Das, Prabir Ranjan Kasari, Abanishwar Chakraborti "Grid Connected Five Level Cascaded H Bridge Inverter as Shunt Active Power Filter" NPEC-2017, 60-65, 2017. Pune, India. IEEE Conf.
30. V. Tummakuri, P. R. Kasari, B. Das and A. Chakraborti, "Performance Evaluation of Cascaded H-Bridge Inverter as Active Line Conditioner" IEEE conference on "2018 International Electrical Engineering Congress (iEECON)". Krabi, Thailand, 7th - 9th March, 2018, IEEE Conf.
31. Mriganka Ghosh Majumder, Manas Patra, Prabir Ranjan Kasari, Bikram Das, Abanishwar Chakraborti, "Photovoltaic array based Grid connected Cascaded Multilevel Inverter Using PR controller", i-PACT 2017. 978-1-5090-5682-8 /17/\$31.00 ©2017 IEEE, Vellore, India, IEEE Conf.
32. Amal C Sunny A. Sarkar, A. Chakraborti, B Das, P.R.Kasari, Aby Joseph, "A Noble Control Scheme for Grid Connected PV System Under Unbalanced Grid Condition" 2017 National Power Electronics Conference (NPEC). College of Engineering 2017, 978-1-5386-3236-9/17/\$31.00 ©2017 IEEE, Pune, India. IEEE Conf.
33. Apurva Verma, Abanishwar Chakraborti, Bikram Das, Prabir Ranjan Kasari, Manas Mishra and Souradeep Pal, "A New Topology for Hybrid Wind-Solar Generation system for Isolated Loads" 2018 International Conference on Power, Instrumentation, Control and Computing (PICC), 978-1-5386-2462-3/18/\$31.00©2018 IEEE. Trissur, India, IEEE Conf.
34. Vidyasagar Tummakuri, Prabir Ranjan Kasari, Bikram Das, Abanishwar Chakraborti, "D-STATCOM: A Study on The NPC Multilevel, Inverter and Control Strategies" 2018 International Conference on Power, Instrumentation, Control and Computing (PICC), 978-1-5386-2462-3/18/\$31.00 ©2018 IEEE, Trissur, India, P 1-6, 2018. IEEE Conf.
35. Mriganka Ghosh Majumder, Prabir Ranjan Kasari, Bikram Das, Abanishwar Chakraborti, "Solar Photovoltaic Array Based Multilevel Inverter for Power Conditioning In Four-Wire Distribution System", 3rd International Conference on Advances in Electrical, Electronics, Information, Communication and Bio-Informatics (AEEICB17) 978-1-5090-5434-3©2017IEEE, Chennai, India IEEE Conf.
36. R. Sahoo, P. R. Kasari, M. R. Mishra, A. Chakraborti, A. D. Kumar and B. Das, "A seven level cascaded H-bridge inverter topology with reduced sources" 2nd International Conference on Inventive Systems and Control (ICISC), Coimbatore, India, 19-20 Jan. 2018
37. R. Sahoo, P. R. Kasari, M. R. Mishra, A. Chakraborti, A. D. Kumar and B. Das, "Phase Shift PWM based Inverter with reduced dc source" International Conference on Electrical, Electronics, Computers, Communication, Mechanical and Computing (EECCMC) Chennai, India, 28-29 Jan 2018
38. P. R. Kasari, M. Chaudhury, B. Das, A. Chakraborti, A. Bhattacharya, and D. Chatterjee, "A new control approach of Grid Interfaced five level Cascaded Multilevel Inverter" IEEE conference on "2018 International Electrical Engineering Congress (iEECON Krabi, Thailand, 7th - 9th March, 2018).

39. BhaswatiMedhi and Sumita Deb, "An analysis on broadband SHG using TIR-QPM in a multi-tapered slab of ZnSe in mid IR region", 1-2 July 2017. IEEE International conference on Computer, Communications and Electronics, COMPTHELIX 2017, Electronic ISBN: 978-1-5090-4708-6 Print on Demand(PoD) ISBN: 978-1-5090-4709-3. DOI: 10.1109/COMPTHELIX.2017.8004008. Manipal University, Jaipur.

40. BhaswatiMedhi and Sumita Deb, "Broadband SHG based on TIR-QPM in a multi-tapered slab – a comparative study with two isotropic semiconductor materials" , 17 -19 August 2017.Elsevier Conference IConAMMA 2017, to be published in Materials Today: Proceedings (Scopus Indexed) (In Press) . Amrita Vishwa Vidyapeetham University, Bangalore

Book Published:

Name of the Authors published	Title of the Books	Date of publication	Issue/ Volume No./ Page No
J. Das	"An Introduction to HTS Hysteresis Motor and its simulation", Lambert Academic Publishing, 2018.	2018	ISBN: 978-620-2-06316-6,
Book Chapter			
Champa Nandi (Tripura University) and Ajay Kumar Chakraborty (NITA),	"Controlling STATCOM by Full Order State Feedback Controller for Stability Improvement", Handbook of Research on Power and Energy System Optimization, ,	2018	pp: -227-254.

Patent Published:

Inventor Name	Year	Title	Published Source	Patent version No	Patent Application no.
Dr. Ardhendu Saha Ms. Priyanka Dey	2018	Dfg Induced Optical Phase Conjugation For Efficient Dispersion Compensated Optical Amplifier	INDIAN PATENT	Indian Patent (submitted) (Application Number: 201731029278	201731029278
Dr. Priyanath Das Dr. Saptadip Saha	2018	A Multiple Power Source Based Electrical Drive	IP INDIA	201631005530	201631005530

Distinguished Visitors to the Departments:

SI No	Name of the Visitors & Designation	Date of visit	Purpose of visit
1.	Dr. Bikash Chandra Pal, Professor, Imperial College, London	27.12.2017	To Deliver Invited Talk On "Role of State Estimation in Cyber Physical Energy Systems"
2.	Dr. Subrata Paul, Professor, EE	19.03.2018,	To Deliver Lecture In The

	Deptt., Jadavpur University; Dr.Amitava Chatterjee, Professor, EE Deptt., Jadavpur University; Dr. Nilanjan Sen Roy, Professor, EE Deptt., IIT Delhi; Dr. Debapriya Das, Professor, EE Deptt., IIT Kgp.; Dr. Tapas Roy, Manager, CESC Ltd., Kolkata	20.03.2018, 21.03.2018, 22.03.2018, 23.03.2018	Workshop " <u>Modern Power System and its Challenges</u> "
3	Dr. Chandan Kumar Chanda, Department of Electrical Engineering, Indian Institute of Engineering Science and Technology, Shibpur,	26.04.2018- 28.04.2018	Invited as External Examiners For M.Tech (EE) final year Project And Thesis
4.	Dr. Kishore Chatterjee, Department of Electrical Engineering, IIT Bombay, Powai,	02.05.2018 - 03.05.2018	
5.	Dr. Siddhartha Sen, Electrical Engineering Department, IIT Kharagpur,	23.04.2018- 25.04.2018	

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 VVLSI, 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****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:

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
Short term Course:			
1.	Mitra Barun Sarkar	Development Of Microstructure And Nanostructure By Physical Vapour Deposition And Its Electrical, Optical Characterizations	22 nd -26 th January 2018
GIAN Course			
1.	Biman Debbarma	Scalable On-chip Interconnects For Many-Core Systems	24 th - 30 th May-2017

Visits Abroad by Faculty:

Sl. No	Name of Faculty	Country Visited	Date	Purpose of visits
1	Biman Debbarma	Spain	25-29 July, 2017	Oral presentation of paper in "19th International Conference on Researches in Science & Technology (ICRST), 27-28 July 2017, Barcelona, Spain "

Honours and Awards Obtained:

Sl. No	Name of Faculty	Name of Award	Awarded by	Award for	Date
1.	Tamasi Moyra	Outstanding reviewer	AEUE - International Journal of Electronics and Communications	Reviewing several papers	September , 2017

Fellowships of Academics and Professional Societies:

Sl. No.	Name of Faculty	Level	Year
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 (MIE)	Dr. Tamasi Moyra	Member	Life time
IEEE	Dr. Tamasi Moyra	Member, IEEE	Upto 31 st Dec. 2018

11.4 Research and Consultancy:**Sponsored Research Projects:**

Sl. No.	Title	Period	Funding Agency	Amount (in lakhs)	Co-ordinators
1.	SMDP-C2SD Project	2014-2019 (5 years)	MeitY	17.25 (Received in December 2017)	CI: Dr. S.N.Pradhan Co-CI: Mr. Biman Debbarma

Research Publications:

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

Total No. of papers presented in International Conferences :10

In Refereed International Journals:

1. S. Bhowmik, S. N. Pradhan, and B. K. Bhattacharyya, IEEE Transactions on Components, Packaging, and Manufacturing Technology,7(14), 1832-1841, (2017)
2. Apurba Chakraborty, Ankush Bag, Partha Mukhopadhyay Saptarsi Ghosh and Dhrubis Biswas, Semiconductor Science and Technology, 33(4), 1-9(2018)
3. Apurba Chakraborty, Saptarsi Ghosh, Partha Mukhopadhyay, Subhashis Das Ankush Bag and Dhrubis Biswas, Superlattices and Microstructures,113, 147-152,(2018)
4. Saptarsi Ghosh, Subhashis Das, Syed M Dinara, Ankush Bag, Apurba Chakraborty, Sanjay K Jana and Dhrubis Biswas, IEEE Transactions of Electron Devices,65,1333-1339,(2018)

5. Tanmoy Majumder, Saurab Dhar, Kamalesh Debnath, Suvra Prakash Mondal, Materials Research Bulletin,93,214–222, (2017)
6. Atanu Chowdhury, P. Singh ,T. K.Bera, D. Ghoshal & B.Chakraborty, Journal of Food Measurement and Characterization, Springer, DOI: 10.1007/s11694-017-9545-y,(2017)
7. Tanmoy Majumder, Saurab Dhar, Pinak Chakraborty, Kamalesh Debnath, Suvra Prakash Mondal, Journal of Electroanalytical Chemistry,.813, 92-101,(2018)
8. S. N. Pradhan, P. Choudhury, D. Nath, International Journal of Computer Aided Engineering and Technology, Inderscience Publishers, 9(3),351-371,(2017)
9. A. Nag, D. Nath and S. N. Pradhan Leakage Reduction of SRAM Based Look Up Table Using Dynamic Power Gating, Journal of Circuits, Systems, and Computers (JCSC) Vol. 26 No. 3, pp. 1750041-1 to 1750041-12 2017
- 10.T. Sarkar and S. N. Pradhan, International Journal of Engineering (IJE), TRANSACTIONSC: Aspects,31(5),752 – 758,(2018)
- 11.S. Bhowmik, S. N. Pradhan, and B. K. Bhattacharyya, IEEE Transactions on Components, Packaging, and Manufacturing Technology,8(5), 875-882,(2018)
- 12.Dwipjoy Sarkar, Tamasi Moyra, AEU - International Journal of Electronics and Communications (Elsevie), 77(7), 156–162,(2017)
- 13.Dwipjoy Sarkar, Tamasi Moyra, Journal of Electromagnetic Waves and Applications (Taylor & Francis),DOI: 10.1080/09205071.2017.1365628,1-11,(2017)
- 14.Atanu Chowdhury, S. Datta, T.K. Bera, D. Ghoshal, B. Chakraborty, Journal of Food Process Engineering, Wiley,DOI:-10.1111/jfpe.12640,(2017)
- 15.Atanu Chowdhury, T.K. Bera, D. Ghoshal, B. Chakraborty, Journal of Engineering and Applied Sciences,12 (Special Issue),8924-8935,(2017)
- 16.Priyansha Bhowmik and Tamasi Moyra, Electromagnetics(Taylor & Francis), 38(3), 166-176,(2018)
- 17.Sarban Sen, Tamasi Moyra, Dwipjoy Sarkar, AEU - International Journal of Electronics and Communications (Elsevier), 88,1-10,(2018)
- 18.Priyansha Bhowmik, Tamasi Moyra, Advances in Modelling and Analysis C, 73(1),17-22, (2018)
- 19.MitraBarun Sarkar , BijitChoudhuri , P. Bhattacharya , R.N. Barman , A. Ghosh ,S.M.M. DharDwivedi , S. Chakraborty and AniruddhaMondal, Journal of Nanoscience and Nanotechnology, 18(7),4898-4903
- 20.Abhishek Nag, Subhajit Das & Sambhu Nath Pradhan , Journal of Circuits, Systems, and Computers (JCSC), 28,(2018)
- 21.Abhishek Nag & Sambhu Nath Pradhan , International Journal of Image, Graphics and Signal Processing ,10,15-23,(2018)
- 22.Rupam Gupta Roy, D.Ghoshal,International Journal of control,https://doi.org/10.1080/00207179.2017.1400183,(2017)
- 23.A. J. Mondal, A. Majumder, B.K. Bhattacharyya, Integration, The VLSI Journal; Elsevier, 58,356-368,(2017)
- 24.N.Laskar,S. Debnath, A.Majumder and B.K. Bhattacharyya ,Journal of Circuit, System and Computers, World Scientific Publishers,27,(2017)
- 25.Alak Majumder, Abir Jyoti Mondal and B. K.Bhattacharyya.,ASP Journal of Low Power Electronics, 13,1-9,(2017)
- 26.Nobutaka Ikeda, Nilanjan Dey, Aditya Sharma, Ajay Gupta, Soumyo Bose, Suvojit Acharjee, Shoaib Shafique, Elisa Cuadrado-Godia, Tadashi

Araki, Luca Saba, John R. Laird, Andrew Nicolaides, Jasjit S. Suri, Computer methods and programs in biomedicine, 141, 73-81, 2017

In Proceedings of International Conference:

- 1 Pratibha Verma, Tamasi Moyra, Sarbani Sen, Dharmvir Kumar, 8th International Conference on Computing, Communication and Networking Technologies (ICCCNT) , IEEE, IIT Delhi, (in the Proceeding of ICCCNT), July 3-5, 2017
- 2 Dharmvir Kumar, Tamasi Moyra, Pratibha Verma, 8th International Conference on Computing, Communication and Networking Technologies (ICCCNT) , IEEE, IIT Delhi, (in the Proceeding of ICCCNT), July 3-5, 2017
- 3 Apurba Chakraborty and Dhrub Biswas, International workshop of Physics of semiconductor devices (IWPSD 2017), SSPL & IIT Delhi, Proceeding published, Dec 11-15, 2017.
- 4 Dwipjoy Sarkar, Tamasi Moyra, 2nd International Conference on Advanced Computing and Intelligent Engineering (Springer), Central University of Rajasthan, Ajmer, India , (in the Proceeding of ICACIE), 46, 26-28 Nov, 2017
- 5 Sarbani Sen, Tamasi Moyra, 2nd International Conference on Advanced Computing and Intelligent Engineering (Springer) Central University of Rajasthan, Ajmer, India, (in the Proceeding of ICACIE), 83, 26-28 Nov, 2017
- 6 Pratibha Verma, Tamasi Moyra, Dwipjoy Sarkar, Priyansha Bhowmik, Sarbani Sen and Dharmvir Kumar, 2nd International Conference on Advanced Computing and Intelligent Engineering (Springer), Central University of Rajasthan, Ajmer, India, (in the Proceeding of ICACIE), 65, 26-28 Nov, 2017
- 7 Ankita Kumari, Tamasi Moyra and Priyansha Bhowmik, 3rd International conference on Computing, Communication and Signal Processing, Maharashtra, (in the Proceeding of ICCASP), January 26-27, 2018
- 8 Biman Debbarma, Jeetu Debbarma, 19th International Conference on Researches in Science & Technology (ICRST), 27-28 July 2017, Barcelona, Spain Barcelona, Spain, Published in MATTER: International Journal of Science and Technology, 3, 113-124 27-28 July, 2017
- 9 Mitra Barun Sarkar, Aniruddha Mondal, 7th International Conference on Research Trends in Engineering, Applied Science and Management, (ICRTESM-2017) Pune, Maharashtra (India), 177-180, 27th August 2017
- 10 Saritha P., A. Bhattacharjee, ICCSP'17, Melmaruvathur, TN, INDIA, 6-8 April 2017.

Distinguished Visitors to the Departments:

Sl. No.	Name of the Visitors and Designation	Date of Visit	Purpose of Visit
1	Prof. Subhasis Neogi, Professor	11-09-2017	PhD. Thesis Evaluation
2	Dr. Ashis Kumar mal, Asso. Professor	18-10-2017	PhD. Thesis Evaluation
3	Prof. J.P. Singh, Professor	06-11-2017	PhD. Thesis Evaluation
4	Prof. Bhaswati Goswami, Professor	29-01-2018	PhD. Thesis Evaluation
5	Prof. Pradip Kumar Das, Professor	23-02-2018	PhD. Thesis Evaluation
6	Prof. Durga Basak, Professor	27-02-2018	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 advance 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 eight(8) qualified and experienced faculty members and six(6) staff members to develop highly competing young engineers, scientist 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.



12.2 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
Conference:			
1.	Dr. Prasenjit Ghorai	70 th Annual Session of the Indian Institute of Chemical Engineers (CHEMCON'2017)	Dec 27 – 30, 2017
2.	Dr. Jayanta Kumar Rakshit	International Conference on Lasers and Electro-Optics Pacific Rim (CLEO-PR), 2017	31 July-4 Aug. 2017

Visits Abroad by Faculty:

Sl. No.	Name of Faculty	Country Visited	Date	Purpose of Visit
1.	Dr. Jayanta Kumar Rakshit	Singapore	31 July-4 Aug. 2017	To present research paper in International Conference on Lasers and Electro-Optics Pacific Rim (CLEO-PR), 2017

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 circuits 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: 7

Total No. of papers presented in International Conferences: 7

Total No. of patents: 1

In Refereed International Journals:

Name of the Authors published in International Journals	Title of the Journals	Date of publication of the paper	Issue/ Volume No./ Page No.
Aparupa Kar, Nabamita Goswami, Ardhendu Saha	Applied Optics	November 2017	Vol. 56, Issue No. 35, pp. 9656-9662
Rupam Gupta Roy	International	November	DOI: 10.1080/002071

& Dibyendu Ghoshal	Journal of Control, Taylor & Francis	2017	79.2017.1400183
P Ghorai, S Majhi, and S Pandey	<i>International Journal of Dynamics and Control, Springer</i>	31 October 2017	https://doi.org/10.1007/s40435-017-0359-x
Debarati Nath, Puja Dey, Debajit Deb, Jayanta Kumar Rakshit, J. N.Roy	CSI transactions on ICT	2017/6/1	(2)5, pp. 149-160
Jayanta Kumar Rakshit, Jitendra Nath Roy	Photonic Network Communications	2017/8/1	(1)34, pp. 84-92
Gaurav Kumar Bharti, Jayanta Kumar Rakshit	Fiber and Integrated Optics	2018/3/4	(2)37, pp. 103-121
Debarati Nath, SK Mandal, Debajit Deb, JK Rakshit, P Dey, JN Roy	Journal of Applied Physics	2018/3/7	(9)123, pp. 095-115

In Proceedings of International Conference:

Name of the Conference	Place of the Conference	Name of the participants	Date/ Duration
International Conference on Advances in Optics and Photonics -2017	Guru Jambheshwar University of Science and Technology, Hisar, Haryana, India	Aparupa Kar, Nabamita Goswami, Ardhendu Saha	23 rd November-26 th Nov. 2017.
International Conference on Nanotechnology: Ideas, Innovations & Initiatives-2017 (ICN: 31- 2017)	IIT Roorkee, India.	Aparupa Kar, Nabamita Goswami, Ardhendu Saha	6 th - 8 th December, 2017
International Conference on Advances in Optics and Photonics -2017	Guru Jambheshwar University of Science and Technology, Hisar, Haryana, India	Jayantta Kumar Rakshit, Gaurav kumar Bharti	23 rd November-26 th November, 2017.
Conference on Lasers and Electro-Optics Pacific Rim (CLEO-PR), 2017	Singapore, Singapore	Jayanta Kumar Rakshit	31 July-4 Aug. 2017
62 nd edition of DAE Solid State Physics Symposium (DAE SSPS 2017)	BARC, Mumbai, India	Debarati Nath, SK Mandal, Debajit Deb, JK Rakshit, P Dey, JN Roy	26 Dec.-30 Dec. 2017
7th International Conference on Informatics, Computing in Engineering systems ICICES 2018,	S. A. Engineering College, Chennai, India	Soumya Sanghamitra Pal, Gaurav Kumar Bharti, Jayanta Kumar Rakshit, Uttara Biswas	21 March-22 March 2018

7th International Conference on Informatics, Computing in Engineering systems ICICES 2018,	S. A. Engineering College, Chennai, India	Uttara Biswas, Soumya Sanghamitra Pal, Gaurav Kumar Bharti, Jayanta Kumar Rakshit	21 March-22 March 2018
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Patent Published:

Inventor Name	Year	Title	Published source	Patent version no.	Patent application no.
Ardhendu Saha, Priyanka Dey	2017	DFG induced optical phase conjugation for efficient dispersion compensated optical amplifier		Indian Patent	201731029278

Distinguished Visitors to the Departments:

Sl. No.	Name of the Visitors and Designation	Date of Visit	Purpose of Visit
1.	Elizabeth Thomas-Toby, SE 'E', EA to Asset Manager, ONGC Agartala, Tripura, 799014	24 th April, 2017	To conduct B.Tech Grand Viva examination
2.	Mr. Dipankar Bhattacharjee, Deputy General manager (Instrumentation), ONGC, Agartala	12 th Dec. 2017	To conduct interview for selection of Asst. Prof. (on contract) for TEQIP
3.	Mr. Sadhan Sarkar, Associate Professor, EE Dept., TIT Agartala	12 th Dec. 2017	

13.0 HUMANITIES & SOCIAL SCIENCES DEPARTMENT

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.

Sl. No.	Name of the Laboratories	Maximum Batch Size	No. of Experiments		Remarks
			Prescribed	Conducted	
01	Language Lab	40	Practice in Basic Language, Body Language, Listening Practice, GD, Debate, Communication Skills	Practice in Basic Language, Body Language, Listening Practice, GD, Debate, Communication Skills	



Language LAB

13.2 Academic Programme:

The Department of Humanities and Social Sciences offers undergraduate courses in English, Costing, Economics and Management for the B. Tech. students and English for BS-MS as well as BT-MT. The department also offers postgraduate courses in Economics to the M.Tech. students, English and Management to the MCA student and English and Economics to the MBA students. Besides that the Department is also running Ph.D. programme.

13.3 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.	Gyanabati Khuraijam	Foundation Program in ICT for Education	3 rd August to 7 th September, 2017
2.	Gyanabati Khuraijam	Pedagogy for Online and Blended Teaching-Learning Process	14 th September to 12 th October, 2017
3.	Kaju Nath	Foundation Program in ICT for Education	3 rd August to 7 th September, 2017
National Conference:			
1.	Gyanabati Khuraijam and Adwitiya Gope.	The Public and Private Space: The North East Indian Scenario in Mitra Phukan's The Collector's Wife and. Manju Kapur's Difficult Daughters.	26 th -27 th August, 2017
2.	Anuradha Nongmaithem	"The socio-political condition depicted in the short story "Aunty Leibaklei"	26 th -27 th August, 2017
3.	Anuradha Nongmaithem	"A Study of 'The Aftermath Of The Incident' by N. Kunjamohan Singh	8 th September, 2017
4.	Anuradha Nongmaithem	"The Change of Mind by N. Kunjamohan Singh: A Study"	23 rd -25 th January, 2018
5.	Anuradha Nongmaithem	"The Importance of Oral Presentation for B.Tech Engineering Students"	16 th and 17 th February, 2018
6.	Jayashree Tripura	"North-East India: A Cultural Revaluation" (Participated)	26 th -27 th August 2017
International Conference:			
1.	Debasis Neogi and Amit Bikram Chowdhury	"Has India-BIMSTEC Economic Cooperation has helped in increasing India's Trade in the Region?: A Panel Data Analysis"	26 th -27 th August, 2017

2.	Gyanabati Khuraijam and Jayashree Tripura.	The Trails of Multiculturalism in Amitav Ghosh's Novel The Shadow Lines.	24 th -25 th Jan. 2018
3.	Gyanabati Khuraijam and Toijam Chanu Panthoi.	An Ecofeminist Study of Mahasweta Devi's The Hunt translated by Gayatri Chakraborty Spivak	24 th -25 th Jan. 2018
4.	Gyanabati Khuraijam and Jayashree Tripura	A Reading of The Shadow Lines: Identity in the Postmodern Times	9 th -10 th Nov. 2017
5.	Gyanabati Khuraijam and Adwitiya Gope	Politics and Poetics of Home: A Study of Manju Kapur's Novel Home	9 th -10 th Nov. 2017

Visits Abroad by Faculty:

Sl. No.	Name of Faculty	Country Visited	Date	Purpose of Visit
1.	Debasis Neogi	Canada	26 th -27 th August, 2017	International Conference on Social Sciences, Economics & Finance

13.4 Research and Consultancy:

Total No. of papers published in Refereed International Journals: 14

Total No. of papers presented in National Conferences: 06

Total No. of papers presented in International Conferences: 05

Total No. of Books published: 02

In Refereed International Journals:

1. Pradeep Kumar Chakravarty and Debasis 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?" 'American International Journal of Research in Humanities, Arts and Social Sciences', 22(1), March- May, 2018 pp.186-198
2. Gyanabati Khuraijam and Adwitiya Gope. Quest for Space by Virmati in Manju Kapur's Difficult Daughter. Spectrum. ISSN: 2319-6076. Vol. 6, Issue 1. Jan-June 2018. Pp. 28-36.
3. Gyanabati Khuraijam and Adwitiya Gope. Discourse of Indianness and Global Hybridity in Manju Kapur's The Immigrant . IJELLH. ISSN: 2321-7065. Vol. 6. Issue 3. March 2018. Pp. 403 – 416.
4. Jayashree Tripura and Gyanabati Khuraijam. Tracing Multiculturalism in Amitav Ghosh's Novel The Shadow Lines. International Journal of Creative Research Thoughts. ISSN:2320-2882. Vol. 6 Issue 2. April 2018. Pp. 818-823

5. Anuradha Nongmaithem, "Shri Biren's 'A Tangkhul Dog': A Subaltern Perspective". *The Criterion: An International Journal in English*. Vol.8, Issue3 (2017):223-238. ISSN: 0976-8165. June, 2017. UGC Approved.Jr.No.768.
6. Anuradha Nongmaithem, "The socio-political condition depicted in the short story "Aunty Leibaklei". *International Journal of Latest Research in Humanities and Social Science (IJLRHSS)*, Vol. 01 – Issue 02 (2017): 42-45. ISSN 2321 – 9203. September, 2017.
7. Anuradha Nongmaithem, "The mindset of Men depicted in 'Rice Bag' by Salam Tomba". *International Journal of English Literature (IJELLH)*. Vol. 5, Issue 6(2017): 644-647. ISSN: 2321-7065. September, 2017. UGC Approved. Impact Factor: 5.7.
8. Anuradha Nongmaithem, "A Study Of 'The Aftermath Of The Incident' By, N. Kunjamohan Singh. *Research magma: An International Multidisciplinary Journal*. Vol. 1, Issue: 7(2017): 1-5. ISSN: 2456-7078. September, 2017. Impact Factor: 4.520.
9. Anuradha Nongmaithem, "The Importance of Oral Presentation for B.Tech Engineering Students". *ELT@I Tirupati Chapter, Journal of English Language And Literature*. Vol. 4, Issue: 2(2017):5-6. ISSN: 2349-2295. October, 2017
10. Anuradha. Nongmaithem, "The role of women in A Thousand Splendid Suns by Khaled Hosseini". *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*. Vol.22, Issue 12, Version 3 (2017): 57-60. E-ISSN: 2279-0837. December, 2017.
11. Anuradha 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*. Vol.18, Issue 3, (2018): 28- 32. ISSN 1930-2940. March, 2018.
12. Kaju Nath(Co-authored), 'A Study on the Performance of Rural Credit in South Tripura District of Tripura', *Researchers World-Journal of Arts, Science & Commerce*, Vol.-VIII, Issue-3(3), July 2017, pp. 96-103, ISSN 2231-4172.
13. Kaju Nath(Co-authored), 'Accessibility of Rural Credit among Weaker Section of the Society: A Case Study of South Tripura District of Tripura', *Economic Affairs*, Vol.-52, No. 2, June 2017, pp. 275-282, ISSN 0424-2513.
14. Kaju Nath(Co-authored) 'Forest Resources and Forestry Planning in the Eastern Himalayas: Facts and Policy Implications', *Asian Journal of Research in Business Economics and Management*, Vol. 7, No. 6, June 2017, pp. 278-288, ISSN 2249-7307, DOI NUMBER: 10.5958/2249-7307.2017.00088.3.

Books Published: 02

Name of the Authors published	Title of the Books	Date of publication of the Book	Issue/ Volume No./ Page No.
1. Gyanabati	Critical Essays on	2017	Lambert Academic

Khuraijam	Gender Studies in Literature		Publishing, Germany.
2. Gyanabati Khuraijam	Identity, Diasporas and Multiculturalism: A Postcolonial Discourse	2017	Lambert Academic Publishing, Germany.

Distinguished Visitors to the Departments:

Sl. No.	Name of the Visitors and Designation	Date of Visit	Purpose of Visit
01	KRISHNA MOHAN PANDEY <i>Professor of English, Faculty of Arts, Banaras Hindu University.</i>	3 rd November, 2017.	External Expert of Ph.D. Viva Voce Examination

14.0 MECHANICAL ENGINEERING DEPARTMENT

14.1 Introduction

The Department of Mechanical Engineering at NIT Agartala 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. Program , 77 students in the M.Tech . programme and 39 Scholars in the Ph.D. programme, which are supported by 30 faculty members and 19 staff.

The Mechanical Engineering Department of NIT Agartala 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 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 that 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.





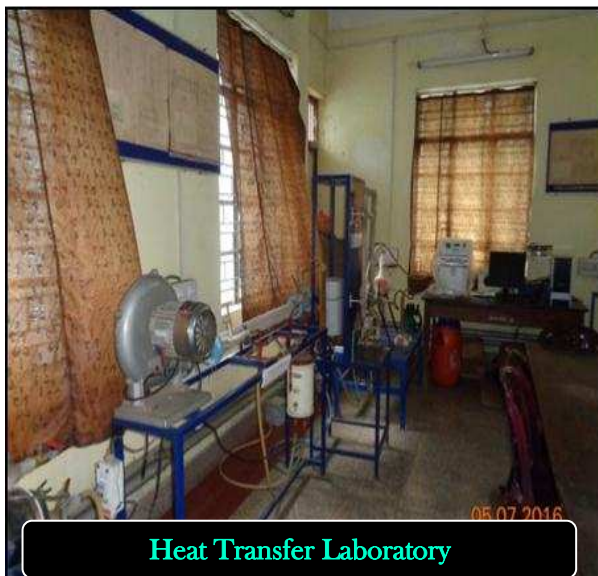
Refrigeration & Air Conditioning Lab



Computational Laboratory-II



Machine Shop



Heat Transfer Laboratory



Wind Tunnel Laboratory



Five Days National Workshop on 'Engine Combustion and Emission Diagnostics

on 26th Feb-2nd March, 2018 at NIT Agartala

14.2 Faculty and their Activities:

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

Sl. No.	Coordinators	Title	Period
Workshops:			
1.	Dr. Madhujit Deb	Engine Combustion and Emission Diagnostics	26 th Feb-02 nd March, 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
Short-Term Courses:			
1.	Dr. Ajay Biswas	GIAN Course on "Disaster Information Management Systems" held at Malaviya National Institute of Technology Jaipur (MNIT)	12 th -16 th March , 2018
Workshops:			
1.	Dr. Pritam Das	Teachers' Training Workshop on Induction	13 th -15 th

		Training	October 2017
2.	Dr. Ashis Acharjee	Engine Combustion and Emission Diagnostics	26 th Feb – 2 nd March 2018
3.	Durbadal Debroy		
4.	Dr.Pinku Debnath		
5.	Dr. Sagnik Pal		
6.	Dr. Dipak Ch. Das		
Seminars			
1.	Dr. Ankuran Saha	Seminar on Automobile Engineering, IEI, Tripura State Centre	20 th January 2018
2	Dr .Swapan Bhaumik		
3.	Dr. Swapan Bhaumik	One Day Seminar on Intellectual Property Rights at Tripura University, Agartala	July 22,2017
4		One Day seminar on Innovation & Entrepreneurship: Challenges & Opportunities in North East Region, (IECO-NER-2017), NIT Silchar	April 9, 2017
Conferences			
1.	Dr. Ajay Biswas	International Conference on Healthcare, Applied science and Engineering, New York, United States of America, organized by the Ontario College for Research and Development, Ontario, Canada.	4 th -5 th August , 2017
2.	Dr. Pankaj Kumar Das	19thInternational Conference on Researches in Science & Technology (ICRST), Spain	27 th -28 th July 2017
3.	Dr. Swapan Bhaumik	International Conference on Social, Arts, Business, and education, New York	4-6 th Aug, 2017
4.	Dr. Swapan Bhaumik	33rd National Convention on Advances in MEMS and Robotics in Manufacturing industries, IEI Udaipur local Center, Udaipur	2 nd Sept., 2017
5.	Dr. Swapan Bhaumik	32 nd Indian Engineering Congress (IEC-2017), IEI Tamil Nadu state center, Chennai	December 21 - 23, 2017
6.	Dr. Swapan Bhaumik	58th Convention of Institute of Engineers Bangladesh, Khulna	03 rd - 05 th Mar, 2018

Visits Abroad by Faculty:

Sl. No.	Name of Faculty	Country Visited	Date	Purpose of Visit
1	Dr. Pankaj Kumar Das	Spain	27 th -28 th July 2017	For Paper Presentation in the 19th International Conference on Researches in Science & Technology (ICRST), Spain
2	Dr. Ajay Biswas	New York, USA	4 th - 5 th August, 2017	Presented research paper in the International Conference on Healthcare, Applied science and Engineering, New York, United States of America, organized by the Ontario College for Research and Development, Ontario, Canada.
3.	Dr. Swapan Bhaumik	New York, USA	4-5 th Aug, 2017	Presented research paper in the International Conference on Healthcare, Applied science and Engineering, New York, United States of America, organized by the Ontario College for Research and Development, Ontario, Canada.
4.	Dr. Swapan Bhaumik	Khulna, Bangladesh	03 rd - 05 th March, 2018	IEB, National Convention & Seminar

Honors and Awards obtained:

Sl. No.	Name of Faculty	Name of Award	Awarded by	Award for	Date
1.	Dr. Swapan Bhaumik	Sri Ganga Ram memorial Award	The Institution of Engineers(India)	Best Paper	December 21, 2017

Fellowships of Academics and Professional Societies:

Sl. No.	Name of Faculty	Level	Year
ISTE/ CSI and others			
	Dr. Swapan Bhaumik	Selected as i. Member of Mechanical Engineering Division Board, IEI ii. Member of Board of Examinations Committee,	2017-18

		IEI iii. Member of Education, Examination and Accreditation Committee, IEI	
	Dr. Swapan Bhaumik	Member of Internal Quality Assurance Cell (IQAC) of Tripura University, Agartala	2017-18

14.3 Research and Consultancy :

Sponsored Research Projects:

Sl. No.	Title	Period (Years)	Funding Agency	Amount (in lakhs)	Coordinators
1.	Parametric Optimization and Heat Transfer Study During Submersed Arc Welding	3	All india council for technical education (AICTE)	10.00	Dr. Ajay Biswas
2.	Modernization of fitting shop, carpentry shop, machine shop, automobile shop under workshop	3	All india council for technical education (AICTE)	12.00	Dr. Ajay Biswas

Industrial Consultancy:

Sl. No.	Name of the Faculty	Title	Industry	Amount (Rs)
1.	Majority of Faculties and supporting staff of the Department	Third party Inspection of 54453 Nos. of Girls Bi-Cycle	School Education Department, Government of Tripura	3.8 Lakh

Research Publications:

Total No. of papers published in Refereed National Journals: 02

Total No. of papers published in Refereed International Journals: 31

Total No. of papers presented in National Conference: 02

Total No. of papers presented in International Conferences: 10

Total No. of Books published: 01

In Refereed National Journals:

1. P.K Das, N. Kumar & P. Chakraborti , 'Loading effect on friction behavior of ordered/disordered graphite in ambient and inert condition', Indian Journal of Engineering and Materials Sciences (IJEMS), 25(1,)19-25 (2018)
2. Mukul Ray, and Swapan Bhaumik , Review of Nucleate Pool Boiling Heat Transfer using Refrigerant & International Journal of Applied Engineering Research, 12 (7): 1156-1165 (July, 2017).

In Refereed International Journals:

1. S. Chakraborty, S. Kar , V. Dey, & S. K. Ghosh. The Phenomenon of Surface Modification by Electro-Discharge Coating Process: A Review. *Surface Review and Letters*, 25(01), 1830003, (2018).
2. S. Chakraborty, S. Kar, V. Dey, & S. K. Ghosh, 'Multi Attribute Decision Making for Determining Optimum Process Parameter in EDC with Si and Cu Mixed Powder Green Compact Electrodes', *Journal of Scientific & Industrial Research*, 77, 229-236 (2017)
3. Mukul Ray, and Swapan Bhaumik. Structural properties of glancing angle deposited nanostructured surfaces for enhanced boiling heat transfer using refrigerant R-141b & *International Journal of Refrigeration*, 88: 78-90 (19 Dec 2017).
4. Mukul Ray, and Swapan Bhaumik. Nucleate Pool Boiling Heat Transfer of Hydro-Fluorocarbon Refrigerant R134a on TiO₂ Nanoparticle Coated Copper Heating Surfaces & *Heat Transfer Engineering*, 1-1(30 Mar 2018)
5. S. Das, B. Saha, and S. Bhaumik, Experimental study of nucleate pool boiling heat transfer of water by surface functionalization with SiO₂ nanostructure & *Experimental Thermal and Fluid Science*, 81 (2017): 454-465 (Feb, 2017)
6. S.Das, B. Saha, and S. Bhaumik, Experimental study of nucleate pool boiling heat transfer of water by surface functionalization with crystalline TiO₂ nanostructure & *Applied Thermal Engineering*, 113 (2017): 1345-1357 ,(25 Feb, 2017)
7. Mukul Ray, Sandipan Deb, and Swapan Bhaumik, Experimental Investigation of Nucleate Pool Boiling Heat Transfer of R134a on TiO₂ Coated TF Surface & *Materials Today: Proceedings*, 4(9), (2017): 10002-10009,(26 October 2017)
8. M. Hussain, V. Mandal, V. Kumar, A.K. Das, & S.K. Ghosh, 'Development of TiN particulates reinforced SS316 based metal matrix composite by direct metal laser sintering technique and its characterization', *Optics and Laser Technology*, 97, 46-59 (2017)
9. B. Debbarma, P. Chakraborti, P. K. Bose, M. Deb, & R. Banerjee, 'Exploration of PROMETHEE II and VIKOR methodology in a MCDM approach for ascertaining the optimal performance-emission trade-off vantage in a hydrogen-biohol dual fuel endeavor', *Fuel*, 210, 922-935, (2017).
10. K. Gupta, & S. Chatterjee, 'Analysis of Design and Material Selection of a Spur gear pair for Solar Tracking Application' *Materials Today: Proceedings*, 5(1), 789-795, (2018).
11. J. Roy, R. N. Rai, & S. C. Saha, 'Evaluation of microstructure and mechanical properties of P91 steel weldment due to addition of boron trioxide into flux during submerged arc welding'. *Welding in the World*, 62(1), 1-8, (2018).
12. J. Roy, R. N. Rai, & S. C. Saha, 'Effect of TiO₂ enriched fluxes on the bead geometry, grain size and hardness in submerged arc welds', *International Journal of Materials and Product Technology*, 56(4), 313-325 (2018).
13. R. Banerjee, M. Mikulski, A. Chakraborty, S. Roy, & P. K. Bose, 'ANN meta-model assisted MOPSO application in an EPA-Tier 4 constrained emission-performance trade-off calibration problem of a hydrogen-diesel-EGR dual fuel operation', *Fuel*, 208, 746-778, (2017).
14. A. Chakraborty, S. Roy, & R. Banerjee, 'Characterization of performance-emission indices of a diesel engine using ANFIS operating in dual-fuel mode with LPG'. *Heat and Mass Transfer*, 1-18, (2018).

- 15.S. Roy, & R. Banerjee, 'Multi-objective optimization of the performance-emission trade-off characteristics of a CRDI coupled CNG diesel dual-fuel operation: A GEP meta-model assisted MOGA Endeavour'. *Fuel*, 211, 891-897,(2018).
- 16.A. Banik, B. Saha Roy, J. Deb Barma, & S. C. Saha, 'An experimental investigation of torque and force generation for varying tool tilt angles and their effects on microstructure and mechanical properties: Friction stir welding of AA 6061-T6', *Journal of Manufacturing Processes*, 31, 395-404, (2018)..
- 17.A. Paul, R. Panua , & D. Debroy, An experimental study of combustion, performance, exergy and emission characteristics of a CI engine fueled by Diesel-ethanol-biodiesel blends. *Energy*, 141, 839-852, (2017).
- 18.S. Bhowmik, R. Panua, S. K. Ghosh, D. Debroy, & A. Paul, 'A comparative study of Artificial Intelligence based models to predict performance and emission characteristics of a single cylinder Diesel engine fueled with Diesosenol'. *Journal of Thermal Science and Engineering Applications*, 10(4), 041004, (2018).
- 19.T. Medhi, B. S. Roy, & S. C. Saha. A comprehensive review of microstructure evolution during friction stir welding of aluminum to copper. *International Journal of Materials and Product Technology*, 57(1-3), 1-19 (2018).
- 20.R. K. B. Meitei, P. Maji, A. Samadhiya, S. K. Ghosh, B. Saha Roy, A.K. Das, S.C. Saha, 'A study on induction welding of mild steel and copper with flux under applied load condition', *Journal of Manufacturing Processes*, 34, 435-441, (2018).
- 21.A. Majumder : "A Simple and robust Fuzzy-AHP based Taguchi Approach for multi-objective optimization of welding process parameters" *International Journal of Productivity and Quality Management*. 20 (1), pp.116-137, (2017).
- 22.A. Majumder, A. Das, and P. K. Das. "A standard deviation based firefly algorithm for multi-objective optimization of WEDM process during machining of Indian RAFM steel." *Neural Computing and Applications*. 29 (3), 665-677, (2018).
- 23.K. V. Krishna, G. R. K. Sastry, M. M. Krishna, & J. D. Barma. Investigation on performance and emission characteristics of EGR coupled semi adiabatic diesel engine fuelled by DEE blended rubber seed biodiesel. *Engineering science and technology, an international journal*, 21(1), 122-129, (2018).
- 24.R. Sen , B. Choudhuri, J. D. Barma, & P. Chakraborti. Experimental investigation and optimization of WEDM process for machining maraging steel using neural network based Jaya algorithm. *International Journal of Machining and Machinability of Materials*, 20(4), 387-399, (2018).
- 25.R. Sen, B. Choudhuri, J. D. Barma, & P. Chakraborti. Study the impact of process parameters and electrode material on wire electric discharge machining performances. *Materials Today: Proceedings*, 5(2), 7552-7560, (2018).
- 26.R. Sen, B. Choudhuri, J. D. Barma, & P. Chakraborti. Optimization of wire EDM parameters using teaching learning based algorithm during machining of maraging steel 300. *Materials Today: Proceedings*, 5(2), 7541-7551, (2018).
- 27.S.S. Das, P. Chakraborti. Development of Biomaterial for Total Hip Joint Replacement, *IOP Conference Series: Materials Science and Engineering*, (2018). (Accepted)

- 28.C. Bhowmik, P. Chakraborti and S. S. Das. Dynamic Analysis of Typical Composite Electric Power Transmission Tower Structure by ANSYS, Elsevier Library ,(2018). (Accepted)
- 29.S. S. Das, P. Chakraborti and C. Bhowmik. Modeling and Numerical Simulations of a MoP Hip-Prostheses using a Novel Bio-Plastic Material PTFE-Glass Composite, Elsevier Library,(2018). (Accepted)
- 30.C. Bhowmik, P.Chakraborti, S. S. Das and R. Singh. Modal Analysis of 132KV Double Circuit Electric Power Transmission Tower Made Up With Composite Material Thermoplastic Long Carbon Fiber Nylon 66, Springer Publisher,(2018). (Accepted)
- 31.S.S. Das, P. Chakraborti, C. Bhowmik and R. Singh. Decision Making for Selection of Most Suitable Materials for Biomedical Applications, Springer Publisher,(2018). (Accepted)

In Proceedings of National Conference:

1. S. S. Gajghate, S. Bhaumik & S. Das, '33rd National Convention on Advances in MEMS and Robotics in Manufacturing industries', IEI Udaipur local centre, Udaipur, ISBN978-81-934377-0-4,(August, 2017)
2. S. S. Gajghate, S. Bhaumik & S. Das, '32nd Indian Engineering Congress' IEI Tamil Nadu state center, Chennai ,(IEC-2017)

In Proceedings of International Conference:

1. Anil Katarkar, Sameer Gajghate, Swapan Bhaumik, 'International conference on Emerging technologies for sustainable & intelligent HVAC & R systems', IE(I), West Bengal state centre, Kolkata, July 27-28, 2018
2. Sanjay Kumar Gupta, Sudev Das, Swapan Bhaumik, 'International conference on Social, Arts, Business, and education', New York, USA, 4-6th Aug, 2017
3. Sudev Das, Vijay Kumar, Sameer S. Gajghate, Swapan Bhaumik, 'Indian Technology Congress', NIMHANS Convention Centre, Bengaluru, 10 - 11th, August, 2017
4. A. Bhise, S. S. Gajghate, S. Bhaumik & S. Das, '24th National & 2nd Int. ISHMT-ASTFE HMT Conference', BITS Pilani, Hyderabad, India, December 27-30, 2017
5. 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', 8th International Conference of Materials Processing and Characterization (ICMPC-18), Hyderabad, March 16-18, 2018
6. P. Chakraborti & A. Acharjee, 'Energy Audit and subsequent identification of best alternative for thermal power plant using promethee MCDA approach', ICOPE-2017/ASME POWER CONFERENCE, USA, June 26-30, 2017
7. A. Chakraborty, S. Roy, R. Banerjee, 'Performance Emission Characterization of a LPG-Diesel Dual Fuel Operation: A Gene Expression Programming', 4th International Conference on Harmony Search, Soft Computing and Applications, 4th International Conference on Harmony Search, Soft Computing and Applications (ICHSA 2018), BML Munjal University, Gurgaon, February 7th -9th, 2018.
8. A. Biswas, D. Saha, 'Study of Hardness of Weldment Produced by Submerged Arc Welding on Mild Steel Plate Preheated at 100°C

- Temperature”, International Conference on Healthcare, Applied science and Engineering, New York, United States of America, August 4th -5th , 2017.
9. P. K. Das, 'Friction and wear behavior of Aluminum-Copper alloy using Taguchi technique', 19th International Conference on Researches in Science & Technology (ICRST), Spain, July 27th -28th, 2017.
 10. D. Saha, P. Das, S. Majumder, 'Experimental Study of Turbulent Air Flow in a Circular Duct with Multiple Side Mass Injection: Enhancement of Friction Coefficient by the addition of Mass Laterally', 44th National Conference on Fluid Mechanics and Fluid Power, Amrita Vishwa Vidyapeetham, Amritapuri Campus, Kollam, Kerala, from December 14-16, 2017.

Books Published:

Name of the Authors published	Title of the Books	Date of publication of the Book	Issue/ Volume No./ Page No.
Tanmoy Medhi, Barnik Saha Roy, Subash Chandra Saha	Thermo Mechanical Modeling of Friction Stir Welding,	Scholar Press,	ISBN-978-620-2-30303-3

Distinguished Visitors to the Departments:

Sl. No.	Name of the Visitors and Designation	Date of Visit	Purpose of Visit
1.	Dr. S K Kakoty, Professor & Dean IIT Guwahati	07.06.2017	To Conduct the PhD Defense Viva-Voce
2.	Dr. R D Misra, Professor, M. E. Department, NIT Patna	09.10.2017	To Conduct the PhD Defense Viva-Voce
3.	Dr. OM Prakash Professor, M. E. Department, NIT Silchar	10.10.2017	To Conduct the PhD Defense Viva-Voce
4.	Er. M S Ray, Alumnous & Entrepreneur	12.01.2018	To attend the Annual Alumni Meet at NIT Agartala
5.	Er. Smaran Chaudhury, Alumnous & Entrepreneur	12.01.2018	To attend the Annual Alumni Meet at NIT Agartala
6.	Prof. R K Garg, Professor & Director, NIT Arunachal Pradesh	26.02.2018	To attend the 5 Days Workshop as Guest
7.	Dr. Brijesh P Patel	26.02.2018	To deliver Expert Lecture in the 5 Days Workshop
8.	Dr. M S Bobji, Professor, M E Deptt., IISc Bangalore	16.03.2018	To Conduct the PhD Defense Viva-Voce
9.	Dr. Niranjana Kumar, Scientist IGCAR, Kalpakkam	16.03.2018	To attend the PhD Defense Viva-Voce as Co-Supervisor

10.	Dr. Partha Saha, Professor, M E Deptt., IIT Kharagpur	23.03.2018	To Conduct the PhD Defense Viva-Voce
11.	Dr. B L Swami, Professor & Dean(Acad), MNIT Jaipur	24.03.2018	Visited the Department

14.4 Other Activities:

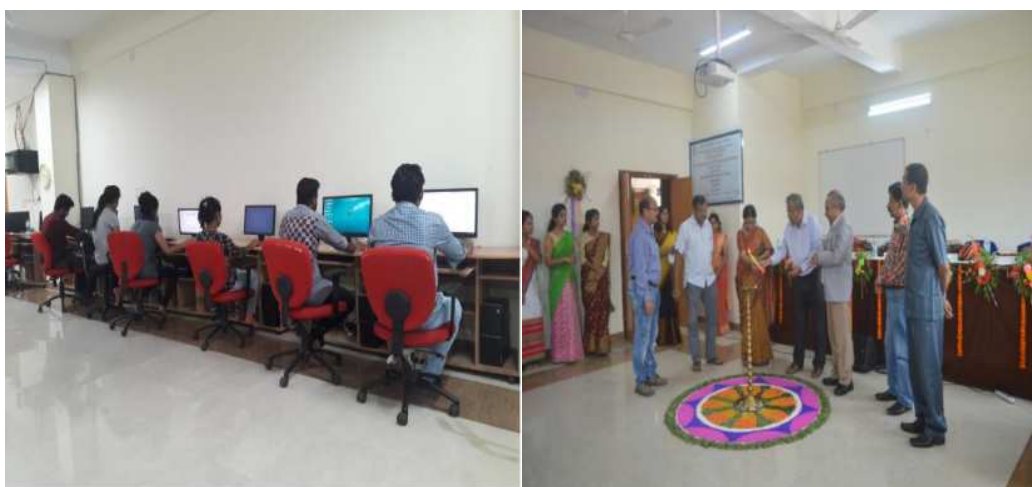
Sl. No.	Name of Faculty	Date	Role	Venue
1	Dr. Swapan Bhaumik	July 22, 2017	Keynote Speaker	One Day Seminar on Intellectual Property Rights at Tripura University, Agartala
2	Dr. Swapan Bhaumik	March 26-28, 2018	External expert for M.Tech dissertation evaluator	Research week 2018 of Gujarat Technical University, Ahmedabad
3	Dr. Swapan Bhaumik	Sept, 2017	Chair person in Technical Session	33rd National Convention on Advances in MEMS and Robotics in Manufacturing industries, on at IEI Udaipur local centre, Udaipur

15.0 MATHEMATICS DEPARTMENT

15.1 Introduction: Department of Mathematics is one of the premiere departments of NIT, Agartala and it was initialized on 2006 along with NIT, Agartala, formerly known as Tripura Engineering College. Both UG (BS-MS Mathematics and Computing) and PG (M.Sc. in Mathematics) level courses are taught in this Department. The Department has highly qualified faculty members consisting of three Associate Professors, Fourteen Assistant Professors (two are regular and the other contractual) and one Teaching Assistant.

15.2 Academic Program: For imparting quality education, both PG and UG level courses (M.Sc. in Mathematics and BSMS in Mathematics & Computing) are taught in Mathematics Department. Admission in the two years (4 Semester) M.Sc. Degree and 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 Programs 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 three Associate Professors, twelve Assistant Professors (two are regular and the other 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 Biomathematics, Topology, Generalized fuzzy topological space, 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/ Seminars/ Symposia/ Conferences/
Training attended by the Faculty in Academic Institutions and Public
Sector Undertakings:**

Sl. No.	Name of Faculty	Title	Period
Conference:			
1.	Dr. Paritosh Bhattacharya	i) "Stochastic Time Evolution Of A Simple Birth-Death Process"	22 nd – 26 th May, 2017
		i) "Power-log Based Plateau Limit Histogram Equalization Algorithm for Infrared Image Enhancement -10 th International Conference on Contemporary Computing (IC3-2017) "	10 th -12 th August, 2017
		ii) "Enhancing personalized learning with interactive note taking on video lectures-an analysis of effective HCI design on learning outcome " 3 rd International Conference on Next Generation Computing Technologies	30 th -31 st October, 2017
		ii) "An efficient semi automatic Active Contour model of Liver Tumor Segmentation from CT Images-an International Conference RECENT ADVANCES & APPLICATIONS IN COMPUTER ENGINEERING"	23 rd -25 th November, 2017
		iii) "Stability analysis of prey–predator system in Interval environment" 11 th International Conference of IMBIC on "Mathematical Sciences for Advancement of Science and Technology"	21 st -23 rd December, 2017
		iii) "Optimal Geometric Active Contours: Application to human brain Segmentation"	19 th – 21 st January, 2018
2.	Dr. Apu Kumar Saha	iv) "Performance of Improved symbiosis organisms search on CEC 2015 continuous benchmark functions-an International Conference on Recent Trends in	24 th - 25 th March, 2018

		Mathematical Sciences (ICRTMS)"	
	v)	"JAYASQI-A new hybrid Meta-heuristic for global optimization problem-an International Conference on Recent Trends in Mathematical Sciences (ICRTMS)"	24 th -25 th March, 2018.
	vi)	"Socio-Economic Perspective in the performance efficiency of water Treatment Plant: An MCDM approach-an International Conference on Recent Trends in Mathematical Sciences (ICRTMS)"	24-25th March, 2018
	vii)	"Quantum-dot Cellular Automata Based 2-to-4 Decoder using Layered T-Gate-an International Conference on Recent Trends in Mathematical Sciences (ICRTMS)"	24-25th March, 2018
	viii)	"Implementation and Optimization of design for Three-Input Complex Gate fabricated with majority gates and Inverter using QCA-an International Conference on Recent Trends in Mathematical Sciences (ICRTMS)"	24 th -25 th March, 2018
	ix)	"A new approach on graph theory: component union of two graphs-an International Conference on Recent Trends in Mathematical Sciences (ICRTMS)"	24 th -25 th March, 2018
	x)	"A theoretical study on dispersion in a three-layer fluid flow- an International Conference on Recent Trends in Mathematical Sciences (ICRTMS)"	24 th -25 th March, 2018
	xi)	"An EOQ model with service level constraint in intuitionistic fuzzy random environment- an International Conference on Recent Trends in Mathematical Sciences (ICRTMS)"	24 th -25 th March, 2018
	xii)	"A note on hydrodynamic dispersion of reactive solute in	24 th -25 th March,

		Casson liquid flow with reaction-an International Conference on Recent Trends in Mathematical Sciences (ICRTMS)"	2018
3.	Dr. Debasish Bhattacharya	xiii) 8 th International Conference on Applied Physics and Mathematics, ICAMP 2018, to be held at Sea Sun Sand Resort & Spa, Prabaramee Road, Patony Beach, Phuket 83150, Thailand, during	27 th -29 th January, 2018
4.	Dr. Baby Bhattacharya	iv) TOPAS-2017	16-17 th December , 2017
		xiv) Soft Computing for Problem Solving - SocProS 2017	December 23-24, 2017

Visits Abroad by Faculty:

Sl. No.	Name of Faculty	Country Visited	Date	Purpose of Visit
1.	Dr. Debasish Bhattacharya	Phuket, Thailand	25 th -27 th January, 2018	Paper presentation
2.	Dr. Uttam Kumar Bera	i) Dubai	11 th -14 th August, 2017	Paper presentation
		ii) Bangladesh	21 st -23 rd December, 2017	Paper presentation
3.	Dr. Apu Kumar saha	Bercelona, Spain	27 th -28 th July, 2017	Paper presentation

Honours and Awards obtained:

Sl. No.	Name of Faculty	Name of Award	Awarded by	Award for	Date
1.	Dr. Paritosh Bhattacharya	Best Technical Paper Award (First)	Computer Society of India (CSI 2017) organized by Kolkata Chapter at Science City Kolkata	Paper presentation in "Optimal Geometric Active Contours: Application to human brain Segmentation- 52 nd Annual Convention "	19 th – 21 st Jan 2018

15.4 Research and Consultancy:***Sponsored Research Projects:***

Sl. No	Title	Period	Funding Agency	Amount (in lakhs)	Coordinators/ PI
1.	Transportation Problems for breakable/deteriorating items under constraints in Uncertain Environment	18.03.2015 – 17.03.2018	SERB-DST	15.61	Dr. Uttam Kumar Bera
2.	Design Development & Demonstration of Solar Dryer Suitable for Drying Natural Rubber Sheets in North East India	21.03.2017 - March 2020	Ministry of New and Renewable Energy (MNRE)	21.40	Dr. Subarna Maiti, (PI) , CSIR-CSMCRI, Bhavnagar & Dr. Paritosh Bhattacharya (Joint PI) of National Institute of Technology, Agartala

Research Publications:

Total No. of papers published in Refereed International Journals: 29 (approx)

Total No. of papers presented in International Conferences :18(approx)

Total No. of Books published: 05

In Refereed International Journals:

1. A.Das, U. K. Bera and M. Maiti, "Defuzzification and application of trapezoidal type-2 fuzzy variable to green solid transportation problem", Soft Computing, 500-017-2491-0,2017.
2. Dipanjana Sengupta,U. K. Bera, Anirban Datta and Amrit Das, "Reduction Method of Zigzag Type Uncertain Variable and its Application in Two Stage STP", IEEE, 978-1-5386- 1772-4, 2017.
3. Akash Singh, Dipanjana Sengupta, U. K. Bera, Anirban Datta and Amrit Das, "Defuzzification Method of Type-2 Gamma Fuzzy Variables and its application to Transportation Problem", IEEE , 978-1-5386-1772-4, 2017.
4. A. Baidya, U. K. Bera and and M. Maiti, "Models for solid transportation problems in logistics using particle swarm optimisation algorithm and genetic algorithm", Int. J. of Logistics Systems and Management, Vol. 27(4), 487-526, 2017.
5. A. Debbarma, P. Bhattacharya and B. S. Purkayastha "CRF Approaches to Kokborok Named Entity Recognition, a Low Resource Language" in

- International Journal of Control Theory and Applications, , Pages: 738-747, 2017.
6. A. Debbarma, P. Bhattacharya and B. S. Purkayastha "SVM APPROACH TO NAMED ENTITY RECOGNITION FOR LOW RESOURCE LANGUAGE" in Journal of Advance Research in Dynamical and Control Systems Volume 10 , Number 1, 2017.
 7. A. K. Roy, A.K. Saha, S. Debnath, "On dispersion in oscillatory annular flow driven jointly by pressure pulsation and wall oscillation", Journal of Applied Fluid Mechanics, 10(5), 1487-1500, 2017.
 8. S. Debnath, A.K. Saha, B. S. Mazumder, A. K. Roy, "Dispersion phenomena of reactive solute in a pulsatile flow of three-layer liquids", Physics of Fluids, 29(9), 097107, 2017.
 9. S. Debnath, A.K. Saha, B. S. Mazumder, A. K. Roy, "Hydrodynamic dispersion of reactive solute in a Hagen-Poiseuille flow of a layered liquid", Chinese Journal of Chemical Engineering, 25(7), 862-873 ,2017.
 10. S. Debnath, A.K. Saha, A. K. Roy, "A study on solute dispersion in a three layer blood-like liquid flowing through a rigid artery", Periodica Polytechnica Mechanical Engineering, 61(3), 173-183 (2017)/Scopus.
 11. S. Debnath, T.K. Bandyopadhyay, A.K. Saha, "CFD Analysis for Non-Newtonian Pseudo Plastic Liquid Flow Through Small Diameter U-BEND", Journal of Applied Fluid Mechanics, 10(3), 971-987 (2017)/SCIE (IF: 0.888).
 12. S. Debnath, T.K. Bandyopadhyay, A.K. Saha, "CFD Analysis of Non-Newtonian Pseudo Plastic Liquid Flow through Bends", Periodica Polytechnica Mechanical Engineering, 61(3), 184-203, 2017.
 13. S. Choudhury, A.K. Saha, M. Majumder, "A Novel Method for Performance Analysis of Surface Water Treatment Plant: MCDM Approach", Journal of Global Ecology and Environment, 6(1), 21 -27 (2017).
 14. A.K. Saha, S. Choudhury, M. Majumder, "Performance Efficiency Analysis of Water Treatment Plants By Using MCDM and Neural Network Model", Matter: International Journal of Science and Technology, 3(1), 2017.
 15. S. Choudhury, A.K. Saha, M. Majumder, "An Optimization Model Using the Standard Deviation Method and Multiple Decision Making Statistics in Water Treatment Plants in North-eastern India", Asian Journal of Water, Environment and Pollution, 14(3), 27 -37, 2017.
 16. P. Majumder, A.K. Saha, M. Majumder, "Efficiency Assignment of Hydropower Plants by a Hybrid MCDM Method", Journal of Engineering Mathematics & Statistics, 1(1), 2017.
 17. P. Majumder, A.K. Saha, M. Majumder, "Identification of Most Important Parameter for Efficiency Performance of Hydro Power Plant by Harmonic Mean Hierarchy Process (HMHP)", SKIT Research Journal, 7(1), 60-66, 2017.
 18. P. Majumder, A.K. Saha, M. Majumder, "Selection of Significant Lifestyle Risk Factor of Cancer by Hybrid X- Bar – DEMATEL-TOPSIS Method", Journal of Pharmaceutical Sciences and Research, 9(6), 878-885, 2017.
 19. B. Das, A.K. Saha, B. Bhattacharya, "On Infi-topological Spaces", The Journal of Fuzzy Mathematics, 25(2), 437-448, 2017.

- 20.S. Sharma, S. Choudhury, A.K. Saha, "Selection of Engineering Discipline in an Institute through Analytic Hierarchy Process", Journal of Statistics and Mathematical Engineering, 3(1) (2017).
- 21.P. Majumder, M. Majumder, A.K. Saha, "Selection of Important Parameter for Financial Performance of Hydro Power Plant", Journal of Engineering and Applied Sciences, 12(10), 8809-8812, 2017.
- 22.S. Nama, A.K. Saha, S. Ghosh, "A Hybrid Symbiosis Organisms Search algorithm and its application to real world problems", Memetic Computing, 9(3), 261-280, 2017.
- 23.S. Nama, A.K. Saha, S. Ghosh, "Improved backtracking search algorithm for pseudo dynamic active earth pressure on retaining wall supporting c- Φ backfill", Applied Soft Computing, 52, 885-897, 2017.
- 24.S. Chakrabarty, A. Mondal, A.K. Saha, "Effect of Annealing on Optical, Electrical and Charge Trapping Properties of TiO₂ NPs Arrays", Journal of nano-science and nanotechnology, 17(2), 1300-1306, 2017.
- 25.S. Choudhury, A.K. Saha, M. Majumder, "Identifying the risk factor of water treatment plant: An MCDM approach", International Journal of Control Theory and Applications, 10(6), 33-38, 2017.
- 26.D. Bhattacharya, S.Chakraborty, "Solution of the general multi-objective De-Novo Programming problem using compensatory operator under fuzzy environment", IOP: Journal of Physics, pp: 1-8, 2018.
- 27.J. Chakraborty, B. Bhattacharya and A. Paul, "Fuzzy Λ_r^{gx} - sets and generalization of closed sets in generalized fuzzy topological spaces", Songklanakrin Journal of Science and Technology, 39 (3), 275-291, 2017.
- 28.J. Chakraborty, B. Bhattacharya and A. Paul, "Some Results on Fuzzy Hyperconnected Spaces", Songklanakrin Journal of Science and Technology, 39 (5), 619-624, 2017.
- 29.Rupak Datta, Baby Bhattacharya, Abanishwar Chakrabarti, "On improved delay-range-dependent stability condition for linear systems with time-varying delay via Wirtinger inequality", International Journal of Dynamics and Control, 2017.

In Proceedings of International Conference:

1. A.K. Saha, S. Nama, 19th International Conference on Researches in Science and Technology (ICRST), Barcelona, Spain, 27-28th July, 2017.
2. P. Majumder, A. K. Saha, M. Majumder, 2nd International Conference on Sustainable Computing Techniques in Engineering, Science and Management (SCESM), Jain College of Engineering, Belagavi, 27-28th January, 2017.
3. A.K. Saha, S. Nama, International Conference on Recent Trends in Mathematical Sciences (ICRTMS), Maharaja Bir Bikram University, Tripura, India, 24th - 25th March, 2018.
4. 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.

5. 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.
6. 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.
7. D. Bhowmik, P. Dutta, A.K. Saha, International Conference on Recent Trends in Mathematical Sciences (ICRTMS), Maharaja Bir Bikram University, 24th - 25th March, 2018.
8. K. Debnath, P. Baidya, A.K. Saha, International Conference on Recent Trends in Mathematical Sciences (ICRTMS), Maharaja Bir Bikram University, 24th - 25th March, 2018.
9. S. Debnath, A.K. Saha, A.K. Roy, International Conference on Recent Trends in Mathematical Sciences (ICRTMS), Maharaja Bir Bikram University, 24th - 25th March, 2018.
10. M. Kumar, R.S. Kumar, A.K. Saha, International Conference on Recent Trends in Mathematical Sciences (ICRTMS), Maharaja Bir Bikram University, 24th - 25th March, 2018.
11. A.K. Roy, A.K. Saha, S. Debnath, International Conference on Recent Trends in Mathematical Sciences (ICRTMS), Maharaja Bir Bikram University, 24th - 25th March, 2018.
12. A. Paul, P. Bhattacharya, 10th International Conference on Contemporary Computing (IC3- 2017), IIIT, Noida, India, 10th - 12th August, 2017.
13. A. Biswas, S.P. Maity, P. Bhattacharya, 52nd Annual Convention of Computer Society of India (CSI 2017), Kolkata, 19th - 21st January, 2018.
14. S. Deb and P. Bhattacharya, 3rd International Conference on Next Generation Computing Technologies, University of Petroleum and Energy Studies, Dehradun, India, 30th - 31st October, 2017.
15. A. Biswas, P. Bhattacharya and S.P. Maity, International Conference Recent Advances & Applications In Computer Engineering (RAACE 2017) Xt. Xavier College, Jaipur, India, 23rd - 25th November, 2017.
16. S. Paul, S. Banik and P. Bhattacharya, 11th International Conference of IMBIC on "Mathematical Sciences for Advancement of Science and Technology" (MSAST 2017), Kolkata, 21st - 23rd December, 2017.
17. D. Bhattacharya, S. Chakraborty, 8th International Conference on Applied Physics and Mathematics, ICAMP 2018 Phuket, Thailand 27th - 29th January, 2018
18. S. Deb, A. Pal, P. Bhattacharya, 9th international conference on Intelligent Human Computer Interaction (IHCI 2017) Paris, France 11th - 13th December, 2017

19.B. Bhattacharya, J. Chakraborty, A. Paul, G. Sree Anusha, IFSA-SCIS 2017, Piazza Omi, Otsu, Siga, Japan, 27th -30th June, 2017.

20.R. Datta, R. Dey, B. Bhattacharya, A. Chakraborti, IFSA-SCIS 2017, Piazza Omi, Otsu, Siga, Japan, 27th -30th June, 2017.

Books Published:

Name of the Authors published	Title of the Books	Date of publication of the Book	Issue/ Volume No./ Page No.
Dr. Apu Kumar Saha	1. Application of Cognitive Algorithms in Optimal Power Allocation	2017	Springer
	2. Intuitionistic fuzzy difference equation: Emerging Research on Applied Fuzzy Sets and Intuitionistic Fuzzy Matrices	2017	IGI Global, Chapter-5
	3. Development of Financial Liability Index for Hydropower Plant with MCDM and Neuro-genetic Models: Application of Geographical Information Systems and Soft Computation Techniques in Water and Water Based Renewable Energy Problems	2017	Springer, Chapter-4
Dr. Uttam Kumar Bera	Reduction of Type-2 Lognormal Uncertain Variable and its Application to a Two stage Solid Transportation Problem	2017	Operation Research and Optimization-FOTA, Springer series
Dr. Baby Bhattacharya, Dr. Arnab Paul and Dr. Jayasree Chakraborty	A study on Fuzzy Hyperconnectedness	06-03-2018	104

15.5 Other Activities:

Number of Students (year-wise) who qualified in SLET/NET/GATE: Two (02) Students of BS-MS (Mathematics & Computing) and M.Sc. (Mathematics) qualified GATE-2018 and one (01) Ph.D. scholar qualified NE SLET -2018.

16.0 PHYSIC DEPARTMENT

16.1 Introduction:

The Physics Department is as old as NIT Agartala (NITA in 2006, formerly Tripura Engineering College) itself - a venerable forty six years of age, established in 1965. Since then, the mandate of the Department is to conduct teaching courses for students of engineering disciplines and conduct interdisciplinary studies, especially with engineering departments. The faculty members are engaged in rendering the post graduate and engineering undergraduates with the fundamental knowledge of physics and problem solving skills, requisite for a bright career, and striving tirelessly to improve the education further.

16.2 Academic Programme:

- The department currently offers the course of Engineering Physics to 1st and 2nd semesters of engineering undergraduates (**B.Tech**) and Material Science to the 4th semester engineering undergraduates of Electrical branch.
- The department also offers 10 semester BT-MT and BS-MS dual degree programmes in Engineering physics. The dual degree program affords undergraduate students enhances the opportunity to broaden their studies and improve their career prospects.
- The department runs 4 semester master degree programme (M.Sc) in Physics. The unique course structure of M.Sc. (Physics) blends well the areas of contemporary and applied physics to create post-graduates who are equally comfortable with science and technology.
- The department has also runs the PhD (Physics) programme in different topics, within the major thrust areas of *Applied Optics & Photonics, Plasma Physics, Theoretical Condensed Matter Physics, Liquid Crystals Atmospheric Science, General Relativity, Cosmology, Thin film, Nanotechnology*.

The department has a vibrant research program (Ph.D.) in various frontline areas of research, in addition to the present undergraduate and post-graduate programmes. Presently work is going on cutting edge topics within the following major thrust areas of

- Applied Optics & Photonics
- Theoretical and experimental Condensed Matter Physics
- Experimental Plasma Physics
- Liquid Crystals
- Spintronics and devices
- Experimental Nano-science
- Atmospheric Science
- General Relativity, Cosmology
- Thin film, Nanotechnology
- Quantum Field Theory

16.3 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 the faculty	Title	Period
Conference:			
1.	International Conference on Advanced Nanomaterials And Nanotechnology, ICANN-2017	Centre for Nanotechnology, IIT Guwahati, Assam, India	December 18-21,2017

16.4 Research and Consultancy:**Sponsored Research Projects:**

Sl. No.	Title	Period	Funding Agency	Amount (in lakhs)	Co-ordinators
1.	Investigation on synthesis processes and physical characterization of Cu based oxide thin film as p-type semiconductor material and to functionalize it for Photo voltaic applications	3 years	Department of Science and Technology, (DST) Government of India.	19.2 lakhs	Principle Investigator Dr. Biswajit Saha
2.	Development of organometallic nano-composites and scientific investigation on their functionalization towards improved adsorptive removal of toxic dyes for application in industrial wastewater treatment	3 years	CSIR, Government of India	16.5 Lakh	Principle Investigator Dr. Biswajit Saha

Research Publications:

Total No of papers published in Referred InterNational Journals : 43

Total No of papers published in Referred National Conferences : 6

Total No of papers published in Referred InterNational Conferences : 20

Total No of Books Published: 1

In Referred International Journals:

1. P. Chakraborty, T. Majumder, S. Dhar and S. P. Mondal, "Non-enzymatic glucose sensing using hydrothermally grown ZnO nanorods: Sensitivity augmentation by carbon doping and carbon functionalization", Materials Research Express, 5 (9) (2018).
2. S. Dhar, P. Chakraborty, T. Majumder, and S. P. Mondal, "CdS Decorated Al Doped ZnO Nanorod/Polymer Schottky Junction Ultraviolet-Visible Dual

- Wavelength Photodetector", ACS Appl. Nano Mater., 2018, 1 (7), pp 3339–3345.
3. T. Majumder, S. Dhar, P. Chakraborty, and S. P. Mondal, "Growth of Carbon-Functionalized, Carbon-Doped ZnO/C Core-Shell Nanorods for Photoelectrochemical Solar Energy Conversion", Chemistry Select, 3, pp. 4082–4094 (2018).
 4. T. Majumder, S. Dhar, P. Chakraborty, K. Debnath, S. P. Mondal, "Advantages of ZnO nanotaper photoanodes in photoelectrochemical cells and graphene quantum dot sensitized solar cell applications", Journal of Electroanalytical Chemistry 813, pp. 92–101 (2018).
 5. S. Dhar, T. Majumder, P. Chakraborty, S. P. Mondal, "DMSO modified PEDOT:PSS polymer/ZnO nanorods Schottky junction ultraviolet photodetector: Photoresponse, external quantum efficiency, detectivity, and responsivity augmentation using N doped graphene quantum dots", Organic Electronics 53 ,pp. 101–110 (2018).
 6. S. Dhar, T. Majumder, S. P. Mondal, "Phenomenal improvement of external quantum efficiency, detectivity and responsivity of nitrogen doped graphene quantum dot decorated zinc oxide nanorod/polymer schottky junction UV detector" Materials Research Bulletin, 95 , pp. 198–203 (2017).
 7. Sangita Patari, Aparna Nath, Study of dielectric anisotropy and other related parameters of a liquid crystal compound 7OAOB, Phase transition 90, 974-983(2017).
 8. Sangita Patari, Aparna Nath, Tunable dielectric and conductivity properties of two 4-n alkoxy benzoic acid, Opto-Electronics Review 26, 35-43 (2018)
 9. A. Bera, K. Deb, A. Kathirvel T. Bera, R. Thapa, B. Saha, "Flexible diode of Polyaniline/ITO heterojunction on PET substrate", Applied surface science, 418, 264-269, 2017.
 10. Bera, K Deb, T Bera, S Sinthika, R Thapa, B Saha, "Effect of Mg substitution in delafossite structured CuFeO₂ thin film deposited on FTO coated glass substrate and its diode characteristics", Thin Solid Films, 642, 316-323, 2017.
 11. B Saha, K Sarkar, A Bera, K Deb, R Thapa, "Schottky diode behaviour with excellent photoresponse in NiO/FTO heterostructure", Applied Surface Science, 418, 328-334, 2017

12. S Nandhini, A Rajkamal, Biswajit Saha, Ranjit Thapa, "First-principles identification of site dependent activity of graphene based electrocatalyst", *Molecular Catalysis*, 432, 242-249, 2017.
13. Kartick Lal Bhowmik, Animesh Debnath, Ranendu Kumar Nath, Biswajit Saha, "Synthesis of MnFe_2O_4 and Mn_3O_4 magnetic nano-composites with enhanced properties for adsorption of Cr (VI): artificial neural network modeling", *Water Science and Technology*, 76, 3368-3378, 2017.
14. A Debnath, A Bera, KK Chattopadhyay, B Saha, "Facile additive-free synthesis of hematite nanoparticles for enhanced adsorption of hexavalent chromium from aqueous media: Kinetic, isotherm, and thermodynamic study", *Inorganic and Nano-Metal Chemistry*, 47, 1605-1613, 2017.
15. Nahakpam Hitler Singh, Kethonulu Kezo, Animesh Debnath, Biswajit Saha, "Enhanced adsorption performance of a novel Fe-Mn-Zr metal oxide nanocomposite adsorbent for anionic dyes from binary dye mix: Response surface optimization and neural network modeling", *Applied Organometallic Chemistry*, 32, e4165, 2018.
16. Mahashweta Bhowmik, Krishna Deb, Animesh Debnath, Biswajit Saha, "Mixed phase $\text{Fe}_2\text{O}_3/\text{Mn}_3\text{O}_4$ magnetic nanocomposite for enhanced adsorption of methyl orange dye: Neural network modeling and response surface methodology optimization", *Applied Organometallic Chemistry*, 32, e4186, 2018.
17. Arun Bera, Krishna Deb, S Sinthika, Ranjit Thapa, Biswajit Saha, "Chemical modulation of valance band in delafossite structured CuFeO_2 thin film and its photoresponse", *Materials Research Express*, 5, 015909, 2018.
18. Kartick Lal Bhowmik, M Kanmani, Akash Deb, Animesh Debnath, Ranendu Kumar Nath, Biswajit Saha, "Mesoporous Iron-Manganese Magnetic Bimetal Oxide for Efficient Removal of Cr (VI) from Synthetic Aqueous Solution", *Applied Mechanics and Materials*, 877, 33-38, 2018.
19. B. Paul, "Removing the Ostrogradski ghost from degenerate gravity theories", *Phys. Rev. D* 96, 044035 (2017).
20. Jwmwi Basumatary, Rahul Malla, Aparna Nath, Thingujam Kiranmala Devi "Study of effective geometry parameter, order parameter, temperature gradients and crossover temperatures of three nematic liquid crystals having highly different clearing temperature", *Optical Materials*, 84, 821 (2018).

21. Temperature and frequency dependence of AC electrical properties of Zn and Ni doped CoFe₂O₄ nanocrystals, S. K. Mandal, Swati Singh, P. Dey, J. N. Roy, P. R. Mandal & T. K. Nath, Philosophical Magazine, 97, 1628-1645 (2017).
22. Magnetoelectric Coupling, Dielectric and Electrical Properties of xLa_{0.7}Sr_{0.3}MnO₃ – (1-x) Pb(Zr_{0.58}Ti_{0.42})O₃ (x = 0.05, 0.1) Multiferroic Nanocomposites, S. K. Mandal, Swati Singh, Rajesh Debnath and A. Nath, Journal of Alloys and Compounds 720, 550-561 (2017).
23. Signature of Magnetoelectric Coupling of xNiFe₂O₄ - (1-x)HoMnO₃ (x = 0.1 and 0.3) Multiferroic Nanocomposites, S. K. Mandal, Rajesh Debnath, Swati Singh, A. Nath, P. Dey, and T. K. Nath, Journal of Magnetism and Magnetic Materials 443, 222–232 (2017).
24. xZn_{0.3}Ni_{0.7}Fe₂O₄ - (1-x)HoMnO₃ (x = 0.1, 0.3 and 0.5) Nanocomposites: Magnetoelectric, Magnetodielectric and AC Electrical Response, S. K. Mandal, Rajesh Debnath, A. Nath and P. Dey, Material Research Express, 4, 115014 (2017).
25. Magnetoelectric Coupling and AC Electrical Properties of xLa_{0.7}Sr_{0.3}MnO₃ - (1 - x) HoMnO₃ (x = 0.1, 0.3, 0.5) Lead Free Multiferroic Nanocomposite, S. K. Mandal, Swati Singh, Rajesh Debnath and P. Dey, Materials Chemistry and Physics, 205, 217-227 (2018).
26. Light Tuning DC and AC Electrical Properties of ZnO - rGO Based Hybrid Nanocomposite Film, Debarati Nath, S. K. Mandal, Debajit Deb, J. K. Rakshit, P. Dey and J. N. Roy, Journal of Applied Physics, 123, 095115 (2018).
27. Zn Doped NiFe₂O₄- Pb (Zr_{0.58}Ti_{0.42})O₃ Multiferroic Nanocomposites: Magnetoelectric Coupling, Dielectric and Electrical Transport, S. K. Mandal, Sarit Chakraborty, P. Dey and B. Saha, Journal of Alloys and Compounds, 747, 834- 845 (2018)
28. Ba Doped Fe₃O₄ Nanocrystals: Magnetic Field and Temperature Tuning Dielectric and Electrical Transport, Papia Dutta, S. K. Mandal and A. Nath, Material Research Express, 5, 055003 (2018).
29. Room temperature magnetoelectric coupling of 0.4Zn_{0.3}Ni_{0.7}Fe₂O₄- 0.6PbZr_{0.52}Ti_{0.48}O₃ multiferroic nanocomposite, S. Chakraborty, S. K.

- Mandal, Rajesh Debnath, Swati Singh, P. Dey and B. Saha, *Materials Today: Proceedings* 4, 5663–5666 (2017)
30. Magnetoelectric coupling and dielectric study of $x\text{NiFe}_2\text{O}_4 - (1-x)\text{ErMnO}_3$ lead free multiferroic nanocomposites, Swati Singh, P. Dey and S. K. Mandal, *AIP Conference Proceedings* 1832, 050022 (2017)
31. Magnetoelectric coupling and AC impedance studies of $0.5\text{NiFe}_2\text{O}_4 - 0.5\text{PbZr}_{0.58}\text{Ti}_{0.42}\text{O}_3$ nanocomposite, Rajesh Debnath, S. K. Mandal, Swati Singh, P. Dey and A. Nath, *AIP Conference Proceedings* 1832, 050028 (2017)
32. Magnetoelectric coupling of $x\text{Zn}_{0.5}\text{Co}_{0.5}\text{Fe}_2\text{O}_4 - (1-x)\text{PbZr}_{0.58}\text{Ti}_{0.42}\text{O}_3$ ($x = 0.3$ and 0.4) nanocomposites, Sarit Chakraborty, S. K. Mandal, Swati Singh, P. Dey and B. Saha, *AIP Conference Proceedings* 1832, 050023 (2017)
33. Magnetoelectric Coupling and Magnetic field Dependent AC Electrical Response of $0.5\text{Zn}_{0.3}\text{Ni}_{0.7}\text{Fe}_2\text{O}_4 - 0.5\text{PbZr}_{0.58}\text{Ti}_{0.48}\text{O}_3$ Multiferroic Nanocomposite, Sarit Chakraborty, S. K. Mandal, P. Dey and B. Saha, *International Journal of Engineering Technology Science and Research*, 5, 385 (2018).
34. Room Temperature Magnetoelectric Coupling and AC Electrical Response of $0.2\text{NiFe}_2\text{O}_4 - 0.8\text{ZnO}$ Multiferroic Nanocomposite, Papia Dutta, S. K. Mandal and A. Nath, *International Journal of Engineering Technology Science and Research*, 5, 392 (2018).
35. Temperature Dependent Dielectric and AC Electrical Response of $0.5\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3 - 0.5\text{Polyvinylidenefluoride (PVDF)}$ Hybrid Nanocomposites, Rajesh Debnath, S. K. Mandal and A. Nath, *International Journal of Engineering Technology Science and Research*, 5, 402 (2018).
36. Multiferroic Nanocomposite $0.5\text{LaFeO}_3 - 0.5\text{PbZr}_{0.58}\text{Ti}_{0.42}\text{O}_3$: Studies of Magnetoelectric Coupling and Dielectric Response, Debajyoti Nath, S. K. Mandal and A. Nath, *International Journal of Engineering Technology Science and Research*, 5, 318 (2018).
37. Bhattacharjee, D., Alapati, P. R., & Bhattacharjee, A. (2017). Comparative experimental optical studies on 7. O5O. 7 dimeric liquid crystal

compound using theoretical models. *Liquid Crystals*, 586-592, 2017. (IF: 2.6)

38. Bhattacharjee, Debanjan, Roman Dabrowski, and Ayon Bhattacharjee. "Theoretical investigation of nonlinear optical and vibrational properties of two liquid crystalline compounds." *Journal of Molecular Liquids* 255 (2018): 80-92. .
39. Mishra, Ramanuj, Ayon Bhattacharjee, Debanjan Bhattacharjee, Keisham Nanao Singh, Binod Gogoi, and Parameswara Rao Alapati. "Temperature-dependent vibrational spectroscopic studies of pure and gold nanoparticles dispersed 4-n-Hexyloxy-4'-cyanobiphenyls." *Liquid Crystals* (2018) .
40. Ramanuj Mishra, Jayanta Hazarika, Anil Hazarika, Binod Gogoi, Ragini Dubey, Debanjan Bhattacharjee, Keisham Nanao Singh, P. R. Alapati, Dielectric properties of a strongly polar nematic liquid crystal compound doped with gold nanoparticles.
41. Mishra, Ramanuj, Ayon Bhattacharjee, Debanjan Bhattacharjee, Parameswara Rao Alapati Temperature-dependent Raman study of pure and silver nanoparticles dispersed N-(4-n-heptyloxybenzylidene)-4'-n-butylaniline (7O.4) (*Liquid Crystal*)
42. Bhattacharjee, Debanjan, Mishra, Ramanuj, ,Roman Dabrowski, and Ayon Bhattacharjee. Experimental and DFT generated Raman study of two bent-core monomeric liquid crystalline compounds. .
43. Bhattacharjee Debanjan et al. Birefringence, polarizability order parameters and DFT calculations in the nematic phase of two bent-core liquid crystals and their correlation. ." *Journal of Molecular Liquids* (Just accepted)

In Proceedings of National Conference:

1. Enhancement of UV photodetector properties of ZnO nanorods/PEDOT: PSS Schottky junction by NGQD sensitization along with conductivity improvement of PEDOT: PSS by DMSO additive. S Dhar, T Majumder, P Chakraborty, SP Mondal, AIP Conference Proceedings 1942 (1), 080051.

2. Nonenzymetic glucose sensing using carbon functionalized carbon doped ZnO nanorod arrays. P Chakraborty, T Majumder, S Dhar, SP Mondal ,AIP Conference Proceedings 1942 (1), 050074.
3. Sangita Patari and Aparna Nath "Effect of temperature on the dielectric anisotropy of a Liquid crystal material", National Conference on Recent Trends in Engineering and Technology (NCRTE-2017), 17th-18th, March-2017, Tripura Institute of Technology.
4. Room Temperature Magnetic Field Dependent AC Electrical Properties of NiFe_2O_4 Nanoparticles, Rajesh Debnath, P. Dey, A. Nath and S. K. Mandal, National Seminar on Reaching the Unreached Through Science & Technology, 10th – 11th April 2018, Government Degree College, Dharmanagar.
5. Magnetoelectric coupling, AC Electrical Properties and Dielectric Studies of LaFeO_3 - ErMnO_3 Multiferroic Nanocomposite, Debajyoti Nath, S. K. Mandal, A. Nath, National Seminar on Reaching the Unreached Through Science & Technology, 10th – 11th April 2018, Government Degree College, Dharmanagar.
6. BaFe_2O_4 nanoparticles: Studies on Magnetic field and temperature dependence dielectric studies and AC electrical properties, Papia Dutta, S.K. Mandal and A. Nath, National Seminar on Reaching the Unreached Through Science & Technology, 10th – 11th April 2018, Government Degree College, Dharmanagar.

In Proceedings of International Conference:

1. Magnetically and thermally tuneable dielectric and AC electrical properties of Zn doped Co-ferrite nanoparticle, Mainak Majumder, Papia Dutta, Sarit Chakraborty, S. K. Mandal and P. Dey, 8th International Conference Advanced Materials Development and Performance (AMDP-2017) 11th – 15th July, 2017, Department of Physics Savitribai Phule Pune University, Pune, INDIA, Page – 59.
2. Magnetically and Thermally tunable SC electrical Transport of La doped Ferrite Nanoparticles, Supratim Roy, S. K. Mandal, Rajesh Debnath, Debajyoti Nath and Puja Dey, 8th International Conference Advanced Materials Development and Performance (AMDP-2017) 11th – 15th July, 2017, Savitribai Phule Pune University, Pune, INDIA, Page – 60.
3. Complex Impedance Spectroscopy of $(1-x)\% \text{L}_{0.7}\text{S}_{0.3}\text{MnO}_3$ – $(x)\% \text{WAX}$ Hybrid Nanocomposites ($0.05 \leq x \leq 1.0$), Debajit Deb, Sanjay Kumar Mandal, Puja Dey, Debarati Nath, and Aparna Nath, 8th International

- Conference Advanced Materials Development and Performance (AMDP-2017) 11th – 15th July, 2017, Savitribai Phule Pune University, Pune, INDIA, Page – 83.
4. Room Temperature Magnetoelectric Coupling, Dielectric and Impedance Studies of $0.5\text{Zn}_{0.3}\text{Ni}_{0.7}\text{Fe}_2\text{O}_4 - 0.5\text{HoMnO}_3$ Nanocomposite, Rajesh Debnath, S. K. Mandal, P. Dey, and A. Nath, 8th International Conference Advanced Materials Development and Performance (AMDP-2017) 11th – 15th July, 2017, Savitribai Phule Pune University, Pune, INDIA, Page –84.
 5. Thermally tunable dielectric and electrical properties and room temperature magneto – electric coupling of $x\text{Zn}_{0.5}\text{Co}_{0.5}\text{Fe}_2\text{O}_4 - (1-x)$ PZT composite, Sarit Chakraborty, S. K. Mandal, P. Dey and B. Saha. 8th International Conference Advanced Materials Development and Performance (AMDP-2017) 11th – 15th July, 2017, Savitribai Phule Pune University, Pune, INDIA, Page –122.
 6. Magnetoelectric Coupling, magnetic field and temperature tuning electrical properties of $x\text{CoFe}_2\text{O}_4 - (1-x)\text{PbZr}_{0.52}\text{Ti}_{0.48}\text{O}_3$ ($x = 0.2$ and 0.4) multiferroic nanocomposites, Debajyoti Nath, Sanjay Kumar Mandal, Sumit Singha, Sarit Chakraborty, A. Nath, P. Dey, 8th International Conference Advanced Materials Development and Performance (AMDP-2017) 11th – 15th, 2017, Savitribai Phule Pune University, Pune, INDIA, Page – 142.
 7. Magnetic field and temperature tuning AC electrical Properties and dielectric studies of BaFe_2O_4 nanoparticles, Papia Datta, S. K. Mandal, A. Nath, and P. Dey, 8th International Conference Advanced Materials Development and Performance (AMDP-2017) 11th – 15th, 2017, Savitribai Phule Pune University, Pune, INDIA, Page – 145.
 8. Magnetoelectric Coupling and Electrical properties of Inorganic-Organic Based LSMO - PVDF Hybrid Nanocomposites, Rajesh Debnath, S. K. Mandal, P. Dey, and A. Nath, 62nd DAE Solid State Physics Symposium, BARC, Mumbai, India, 26th to 30th December, 2017.
 9. Room temperature magnetoelectric coupling and electrical properties of Ni doped Co - ferrite – PZT nanocomposites, Sarit Chakraborty, S. K. Mandal, P. Dey and B. Saha, 62nd DAE Solid State Physics Symposium, BARC, Mumbai, India, 26th to 30th December, 2017.
 10. Frequency and temperature dependence of dielectric and AC electrical properties of $0.5\text{NiFe}_2\text{O}_4 - 0.5\text{ZnO}$ multiferroic nanocomposite, Papia Dutta, S.K. Mandal, P.Dey and A. Nath, 62nd DAE Solid State Physics Symposium, BARC, Mumbai, India, 26th to 30th December, 2017.
 11. Magnetic Field Tunable AC Electrical Transport of LaFeO_3 -Wax Nanocomposites, Supratim Roy, S. K. Mandal, Rajesh Debnath, Debajyoti Nath, P. Dey, 62nd DAE Solid State Physics Symposium, BARC, Mumbai, India, 26th to 30th December, 2017.
 12. Optical electrical properties and structural characterization of ZnO:rGO based photodetector, Debarati Nath, S. K. Mandal, Debajit Deb, J. K.

- Rakshit, P. Dey, J. N Roy, 62nd DAE Solid State Physics Symposium, BARC, Mumbai, India, 26th to 30th December, 2017.
13. Enhanced room temperature magneto resistance in $(1-x)\%$ $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ - $x\%$ WAX ($x=0, 0.1, 0.2, 1.0$) nanocomposites, Debajit Deb, Puja Dey, Sanjay Kumar Mandal, Debarati Nath, Aparna Nath, 62nd DAE Solid State Physics Symposium, BARC, Mumbai, India, 26th to 30th December, 2017.
 14. Temperature and Magnetic Field Tunable AC Electrical Properties and Dielectric Studies of LaFeO_3 - ErMnO_3 Multiferroic Nanocomposite, Debajyoti Nath, S. K. Mandal, Rajesh Debnath, P. Dey and A. Nath, International Conference on Systems and processes in Physics, Chemistry and Biology (ICSPPCB 2018), Assam, India.
 15. Magnetically Tunable Dielectric and AC Electrical Properties of Zn Doped Co-Ferrite - Wax Hybrid Nanocomposite, Mainak Majumder, S. K. Mandal, Sarit Chakraborty and P. Dey, International Conference on Systems and processes in Physics, Chemistry and Biology (ICSPPCB 2018), Assam, India.
 16. Magnetoelectric Coupling and Magnetic field Dependent AC Electrical Response of $0.5 \text{ Zn}_{0.3}\text{Ni}_{0.7}\text{Fe}_2\text{O}_4 - 0.5 \text{ PbZr}_{0.58}\text{Ti}_{0.48}\text{O}_3$ Multiferroic Nanocomposite, Sarit Chakraborty, S. K. Mandal, P. Dey and B. Saha, International Conference on Research Trends in Engineering, Applied Science and Management (ICRTESSM-2018), 11th March 2018, (ICSSR, Chandigarh).
 17. Room Temperature Magnetoelectric Coupling and AC Electrical Response of $0.2 \text{ NiFe}_2\text{O}_4 - 0.8 \text{ ZnO}$ Multiferroic Nanocomposite, Papia Dutta, S. K. Mandal and A. Nath, International Conference on Research Trends in Engineering, Applied Science and Management (ICRTESSM-2018), 11th March 2018, (ICSSR, Chandigarh).
 18. Temperature Dependent Dielectric and AC Electrical Response of $0.5\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3 - 0.5\text{Polyvinylidenefluoride (PVDF)}$ Hybrid Nanocomposites, Rajesh Debnath, S. K. Mandal and A. Nath, International Conference on Research Trends in Engineering, Applied Science and Management (ICRTESSM-2018), 11th March 2018, (ICSSR, Chandigarh).
 19. Multiferroic Nanocomposite 0.5LaFeO_3 - $0.5\text{PbZr}_{0.58}\text{Ti}_{0.42}\text{O}_3$: Studies of Magnetoelectric Coupling and Dielectric Response, Debajyoti Nath, S. K. Mandal and A. Nath, International Conference on Research Trends in Engineering, Applied Science and Management (ICRTESSM-2018), 11th March 2018, (ICSSR, Chandigarh).
 20. Sangita Patari and Aparna Nath, "Influence of frequency on the dielectric permittivity of a Nematic Liquid Crystal" International Conference on Systems and Processes in Physics, Chemistry and Biology (ICSPPCB-2018) at Assam University, Silchar, India to be held on 01 – 03 March, 2018.

Books Published:

Name of the Author published	Title of the book	Date of publication of the book	Issue/Vol/ Page no
Suvra Prakash Mondal, Saurab Dhar, Tanmoy Majumder	Physical Chemistry for Chemists and Chemical Engineers Chapter name : ZnO Nanostructure–Polymer Dielectric Films for Electronic and Optoelectronic Device Applications	17/08/2018	eBook ISBN 9781351379243

16.5 Industrial consultancy and sponsored Research:

Under the 1st DST sponsored project "Investigation on synthesis processes and physical characterization of Cu based oxide thin film as p-type semiconductor material and to functionalize it for Photo voltaic applications" the following article has been published in the various SCI journals.

1. A. Bera, K. Deb, A. Kathirvel, T. Bera, R. Thapa, B. Saha, "Flexible diode of Polyaniline/ITO heterojunction on PET substrate", Applied surface science, 418, 264-269, 2017.
2. A Bera, K Deb, T Bera, S Sinthika, R Thapa, B Saha, "Effect of Mg substitution in delafossite structured CuFeO₂ thin film deposited on FTO coated glass substrate and its diode characteristics", Thin Solid Films, 642, 316-323, 2017.
3. B Saha, K Sarkar, A Bera, K Deb, R Thapa, "Schottky diode behaviour with excellent photoresponse in NiO/FTO heterostructure", Applied Surface Science, 418, 328-334, 2017
4. Kartick Lal Bhowmik, Animesh Debnath, Ranendu Kumar Nath, Biswajit Saha, "Synthesis of MnFe₂O₄ and Mn₃O₄ magnetic nano-composites with enhanced properties for adsorption of Cr (VI): artificial neural network modeling", Water Science and Technology, 76, 3368-3378, 2017.
5. A Debnath, A Bera, KK Chattopadhyay, B Saha, "Facile additive-free synthesis of hematite nanoparticles for enhanced adsorption of hexavalent chromium from aqueous media: Kinetic, isotherm, and thermodynamic study", Inorganic and Nano-Metal Chemistry, 47, 1605-1613, 2017.
6. Arun Bera, Krishna Deb, S Sinthika, Ranjit Thapa, Biswajit Saha, "Chemical modulation of valance band in delafossite structured CuFeO₂ thin film and its photoresponse ", Materials Research Express, 5, 015909, 2018.

16.6 Other Activities:

1. Member of Research Advisory Committee, NIT Agartala.
2. Member of Board of Post Graduate studies NIT Agartala.
3. Faculty incharge, X-ray diffractometer, Central Research Facility, NIT Agartala
4. Faculty incharge of Examination section, NIT Agartala.
5. Member Departmental purchase Committee, Physics
6. Member Academic Committee, TEQIP, NIT Agartala.
7. Member, Library committee, NIT Agartala
8. Reviewer of International SCI journals of American Chemical Society, Science Direct, Wiley and Springer publications.

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 as well as Doctoral Program 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 honest 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 Non Traditional Machining Laboratory



Pictures of CNC, Automation and Robotics 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. Subhadeep Bhattacharjee, Dr. Swarup Paul	"Energy Production and Management"	19 th -23 rd March, 2018
2.	Dr. Uttam Kumar Mandal	"Character Building & Man Making: A Philosophy of Swami Vivekananda"	23 rd January, 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. Vidyut Dey, Dr. Sujoy Chakraborty, Dr. Bishop Debbarma, Mrs. Pushparenu Bhattacharjee, Dr. Nabarun Biswas, Mr. Debashis Podder	"Character Building & Man Making: A Philosophy of Swami Vivekananda"	23 rd January, 2018
Conference:			
1.	Dr. R.N. Rai	"International Conference on Innovative Research in Engineering and Science (IRES 2017), Asian Institute of Technology Conference Center, Thailand, 2017"	16 th -17 th June, 2017

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.	Mrs. Pushparenu Bhattacharjee	Associate Member (IEI)	2014

9.	Mr. Debashis Podder	Associate Member (IEI)	2015
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*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 has 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, 8) Muffle Furnace, 9) Induction Furnace, 10) Hydraulic press, 11) Pneumatic Hammer, 12) Image Analyzer, 13) CAD Software- CATIA, PRO-E, DELMIA, AUTO CAD etc.

17.5 Research and Consultancy:

Research Publications:

Total No. of papers published in Refereed International Journals : 11

In Refereed International Journals:

1. Jibitesh Kumar Panda, G. R. K. Sastry, R. N. Rai, "A Taguchi-Fuzzy-Based Multi-Objective Optimization of a Direct Injection Diesel Engine Fueled With Different Blends of Leucas Zeylanica Methyl Ester and 2-Ethylhexyl Nitrate Diesel Additive With Diesel", Journal of Energy Resources Technology, vol. 139, Issue 4, 2017.
2. A.K. Singh, V. Dey, R. N. Rai, "Enhanced the depth of penetration in grade P91 steel plate using ceramic powder flux in FBTIG welding", Arabian Journal for Science and Engineering, vol. 23, pp. 1-12, 2017.
3. Roy J., R. N. Rai, and S. C. Saha, "Effect of TiO₂ enriched fluxes on bead geometry grain size and hardness in Submerged Arc weld metals" International Journal of Materials and Product Technology, 2017.
4. Binayak Sen, Uttam Kumar Mandal, Sankar Prasad Mondal, "Advancement of an intelligent system based on ANFIS for predicting machining performance parameters of Inconel 690 – A perspective of metaheuristic approach", Measurement, vol. 109, pp. 9-17, 2017.
5. Jibitesh Kumar Panda, G.R.K Sastry and R.N. 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, vol. 13, pp- 1-17, 2018.
6. Sujoy Chakraborty, Kar S., Dey V., Ghosh S.K., "Multi Attribute Decision Making for Determining Optimum Process Parameter in EDC with SiC and Cu Mixed Powder Green Compact Electrodes", Journal of Scientific & Industrial Research, vol. 77, 2018, pp. 229-236.
7. Chakraborty S., Kar S., Dey V., Ghosh S.K., "The Phenomenon of Surface Modification by Electro Discharge Coating Process: A Review", Surface Review and Letters, vol. 25, no. 5, pp- 1830003-(1-12), 2017.

8. H. Majumder, T.R. Paul , V. Dey, P. Dutta , A. Saha, "Use of PCA-grey analysis and RSM to model cutting time and surface finish of Inconel 800 during wire electro discharge cutting", *Measurement*, vol. 107, pp. 19–30, 2017.
9. Chakraborty S., Kar S., Dey V., Ghosh S.K., "Parametric Optimization of Electric Discharge Coating on Aluminium-6351 Alloy with Green Compact Silicon Carbide and Copper Tool: A Taguchi Coupled Utility Concept Approach", *Surfaces and Interfaces*, vol. 7, pp- 47-57, 2017.
10. Syed Abou Iltaf Hussain, Uttam Kumar Mandal, "Decision Maker Priority Index and Degree of Vagueness Coupled Decision Making Method: A Synergistic Approach", *International Journal of Fuzzy System*, (doi.org/10.1007/s40815-017-0440-9), 2017.
11. Bhattacharjee P., Debnath A., Chakraborty S., Mandal U.K., "Selection of optimal aluminum alloy using TOPSIS method under fuzzy environment", *Journal of Intelligent & Fuzzy Systems*, vol. 32, pp- 871–876, 2017.

Distinguished Visitors to the Departments:

Sl. No.	Name of the Visitors and Designation	Date of Visit	Purpose of Visit
1.	Prof. Subhash Chandra Panja, Professor	09 th May, 2017	External Examiner
2.	Prof. Titas Nandi, Professor	10 th May, 2017	External Examiner
3.	Swami. Hitakamananda Maharaj	23 rd January, 2018	Expert Speaker

17.6 Other activities

The "Student Chapter (IEI)" of Production Engineering Division has been formed under the Faculty Advisor ship of Dr. Nabarun Biswas (Assistant Professor).

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 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 School of Management is also offering Ph.D programme in Management since January 2017 session. The department has 05 (Five) nos. of dedicated faculty members along with faculty 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.



School of Management Building

18.2 Academic Programme:

Currently, School of Management is offering two year (four semesters) full time MBA programme. This Program 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, and Human Resource. The teaching strategy for this program oriented towards the application of knowledge with live cases and teaching aids. In the academic year 2017-18, the total student strength of the department in MBA programme is 46 (forty six) for odd semester, consisting 23 in 1st semester and 23 in 3rd semester and also the student strength is same for even semester.

There is a six weeks Summer Internship Programme (SIP) for MBA 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. SOM has also started Ph.D Programme in management from January, 2017.

18.3 Design and Development Activities

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

The department has initiated various programmes for developing the skills of students. The department has organized **"Corporate Lecture Series"**, the experts' shares their valuable industry experience to our MBA students, so that they will be enlightened, motivated and understand the requirement & importance of management education from industry perspectives. The department has also organized various kinds of activities at departmental level like Business Quiz, Industry Profile Presentation, Management Game, Mock –interview etc.

18.4 Research and Consultancy

Research Publications:

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

Total No. of papers presented in National Conferences: 02

Total No. of papers presented in International Conferences: 04

In Refereed International Journals: 01 (One)

1. M. Kar and P. Shil, 'Performance Indicators of Mutual Funds- An Appraisal', International Journal of Research in Management and Social Science, 4(VI), 32-40, (2017).

In Proceedings of International Conference: 01(one)

1. R. Mallik, 'Infrastructural Status of Regulated Markets in Tripura', International Conference on Research and Business Sustainability 2017(ICRBS-2017), IIT Roorkee, Noida Campus, 191-196, 16th – 17th December, 2017.

Books Published: 04(Four)

Sl No	Name of the Authors published	Title of the Books	Date of publication of the Book	Issue/ Volume No./ Page No.
1.	Mallik, Rajib and Sarkar, Sukanta	Goods and Services Tax in India: A new horizon of Indian Taxation	2017 Global Vision Publishing House, New Delhi	ISBN 978-81-8220-939-8, pp-1-159
2.	Mallik, Rajib and Chaudhury, Suman Kalyan and Sarkar, Sukanta	Indian Banking System, Growth Challenges and Government Initiatives	2017 KALPAZ Publications, New Delhi	ISBN 978-93-8639-713-3, pp-1-279
3.	Mallik, Rajib and Chaudhury,	Women Empowerment in	2017 SSDN	ISBN 9789383575923,

	Suman Kalyan and Sarkar, Sukanta	Indian Society (Edited Book)	Publishers, New Delhi	pp-1-278
4.	Mallik, Rajib and Chaudhury, Suman Kalyan and Sarkar, Sukanta	Economic Development and Human Rights (Edited Book)	2017 Avon Publications, New Delhi	ISBN-978-93-8182-983-6, pp-1-227

Distinguished Visitors to the Departments: 03(Three)

Sl No.	Name of the Visitors	Dated of Visit	Purpose of Visit
1.	Mr. Sougata Chatterjee , Deputy Vice President & Cluster Head, North East Circle, Axis Bank Ltd.	3 rd April, 2017	Delivered lecture in Corporate Lecture Series.
2.	Mr. Aishik Raha, Deputy Vice President & Branch Head Axis Bank, Agartala Branch, Tripura (West)	3 rd April, 2017	Delivered lecture in Corporate Lecture Series.
3.	Dr. Pankaj Dutta, Associate Professor, Shailesh J Mehta, School of Management, IIT Bombay.	24-26 April, 2017	External Expert for Grand Viva, Admission Personal Appearance (PA) Process.

18.5 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 new building with a carpet area of 727.18 SqM. Since then it has grown in size and content to take a notable shape. In December 2017 the Central Library has been shifted to a 4 (four) storied sophisticated building known as Knowledge Centre with all modern amenities for readers.

The library is at present equipped with modern facilities and resources in the form of books, journals including e-resources, dissertation, thesis, CD ROM back volume Journals etc.

The library is under process of RFID system. Under This systems the self check-in and check-out services will be started shortly library automation is introducing for the betterment and modernization of the institute library as well as to save the time of the readers with a view to modernizing the Central Library a small scale RFID project has been executed in the library. In this project 30000 selected volumes have been 'RFID tagged'. In near future there is a plan to execute the RFID system for the entire collection of the library. 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. It opens recently a non-book section for the benefit of the PG and PhD scholars and faculty members of the institute.

19.2 Library Information Services Statistics:

Item	2016-2017	2017-2018	Remarks
A. Collections:			
Books	84358 (As per Accession register)	85336 (As per Accession register)	Current physical book as per accession register 69422 . 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	53	86	
Pamphlets and Reports	Nil	Nil	
Microfilms / fiche	Nil	Nil	
Book Bank (General)	Nil	Nil	
Book Bank (Weaker Section)	Nil	956	
Current Periodicals by Subscription	16	9	
Current Periodicals by Exchange/ Gift	248	174	
Back volumes of Periodicals	Nil	Nil	
Patents & Specifications	Nil	Nil	
Faculty Publications	NA	NA	
German Collection	Nil	Nil	
C.D	612	662	

Video Cassettes	Nil	Nil	
Total			
B. Membership:			
Staff	22	10	
Faculty	23	4	
Students	910	1052	
Alumni Members	Nil	Nil	
Corporate Members	Nil	Nil	
Industrial Associate Members	Nil	Nil	
Special Members	Nil	Nil	
Project Co-ordinators	NA	NA	
Total			
C. Services : Circulation			
Number of Readers visited	41340	28239	
Number of Books/ Journals issued	20928	14205	
Number of Books issued through Book Bank (General)	NA	NA	
Number of Books issued Book Bank (Weaker Section)	NA	3598	
Consultation cards issued to users	NA	NA	
D. Reservation of Books			
Registered	Nil	55	
Fulfilled	Nil	51	
E. Loans			
Department Loan (Under issue)	Nil	Nil	
Permanent Loan issued	Nil	65	
F. Inter Library Loans			
Borrowed from other Libraries	Nil	Nil	
Loaned to other Libraries	Nil	Nil	
G. Literature Search			
CD-ROM search by users	Nil	5	
H. Expenditure on			
Books Printed	Nil	Rs.4,39,930	
Printed Journals	Rs.16,803	Rs.23,892	
E-books	Nil	Nil	In 2017-18 subscription to e-resources has been made through ESS only.
E-journals	Nil	Nil	
I. New Journals Added	621	585	585 number of e-journals added through ESS
J. Any other material, if any:		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 67070 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. Recently NITA Central Library is covered with the CCTV surveillance. 956 volumes of text books for the UG and PG students belonging to SC community are added in 2018 and these books are being issued to them.

19.5 Future Plan:

- i) Fully computerization of NITA Central library.
- ii) Starting documentation work and services on different subjects specially in Science and Engineering.
- iii) Providing resource sharing and inter-library loan facilities.
- iv) Launching user-education programme.
- v) Online question paper facilities to be provided for different PG & UG previous years examinations.
- vi) 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.

19.6 Other activities:

Library staff of NITA, Central Library are participating in the all India National Conference and workshops in Library and Information science held in different states. The Institute Library has participated in the NDL project of MHRD. Every academic session students of UG and PG and staff and new faculty members who have been joined NITA are being registered themselves in the portal of NDL. The registered members can browse through the rich contents of NDL portal contains multiple subject domains and find them extremely useful.

20.0 STUDENT AMENITIES AND ACTIVITY

20.1 Hostels:

The Institute has both Boys' and Girls' Hostel facilities. Students are accommodated in 5 Boys' Hostels and 1 Girls' Hostel. Present status of the Hostels is given below:

Name of the Hostel/ Unit	Hostel Seat Capacity
Aryabhatta Hostel	1024
Howra Hostel	128
Dhalai Hostel	90
Gomati Hostel	128
Rabindra Nath Tagore Hostel (RNT)	1500 (666 existing boarders)
Gargi (Girls Hostel)	412

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:

NITAgartala has applied for the NCC unit for both Boys and Girls and the same is expected to be functional soon.

20.4 NSS:

The NSS Unit of NIT Agartala has 100 volunteers. The unit members find pleasure in going out of the routine student-life and engage themselves in organizing various programs. The march past of 26th January and of 15th August; tree plantations of 15th August, a rally on 1st December on AIDS day, Blood Donation Camp, Special Camp (Seven days- Art competition, Make dustbin, Awareness of bed effect of smoking & Awareness on various social issues), Meditation & Yoga program, Rashtriya Ekta Divas, Contribution to the Armed Force Flag Day Fund, Campus Cleaning Programme & Swachh Bharat Abhiyaan. All were organized in the campus with great enthusiasm and zeal by the said unit.

20.5 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 elected by the students.

20.6 Games & Sports:

A team of 15 students of NIT Agartala has participated in NORTH EAST SPORTS MEET organized by NIT Silchar from 21-22 January and following are the achievements.

Category	Gold	Silver	Bronze
Boys	2	3	3
Girls	2	8	5

A total of 23 medals were won and achieved overall second position in the meet.

Inter NIT Meet:

A total of 25 students participated and won 1 gold, 1 bronze, 4 stood in 4th position, 3 stood in 5th position and NIT Agartala got overall 7th position among all NITs.

NIT Agartala was organized All India Inter NIT Football, Kho-Kho and Yoga (Men & Women) during 26th – 28th October 2017.

20.7 Other Activities:

The students of NIT-A 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 CARRER DEVELOPMENT

We are proud to announce that the institute has a dedicated Centre for Carrer Development for organizing industrial training, study tours, Apprenticeship Training and Placement for all the students. The pacement record indicates that 61.96% of eligible students have been placed. Out of a total of 887 students, 610 students were eligible and 378 offers have been received. Total 378 offers have been received from different companies and organizations like Yodlee Software, Oracle GBU, CGI, Amdocs, Intellect Design Arena, Maruti Suzuki, Kreeti Technologies, Tata Motors, Vedanta, Capgemini, Mphasis, HSBC, Infoys, IBM, Wipro, Ashok Leyland, Sapient, MAQ Software, L&T Construction, People Interactive, Commvault, Cummins, SPML Infra Ltd etc.

We are happy to announce that this academic year too, the turn out of various organisations 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 have 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 Synopsis, Yodlee, Amdocs, Sorocco, L&T Heavy and Construction, Oracle GBU, All state, Maruti Suzuki, Medlife, MAQ Software, Topper.com, KPIT, ABCI Infrastructure etc.. We appeal to the student's community to 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. Through this we request all the students to help us in achieving better institutional development, and thus participate in the entire process of nation building.

For the academic year 2017-18, students are placed in these organizations like Yodlee-1, Oracle-9, Ashok leyland-2, Wipro-36, Maruti Suzuki-3, Reliance-14, Infosys-65, L&T Heavy-8, IBM-36, Oracle Finance Service Software-10, ADP-8, Grifeo-15, Concept education-2, L&T Construction-35, KPIT Technology-3, Cummins-2, Tata Motors-4, L&T Infotech -4, Fiat-1, Vedanta-14, Reliance Petrochemical-1, BPCL-7, Samsung R&D-2, Capgemini-7, HDFC Life-8, KEC -2, Reliance Jio-8, Axis Bank-3, Connect 2 India-1, HDFC AMC-2, PowerGrid-5, Karvy-3, STFC-1, MOBISOFT TECH-1, Equituora-1, Virtusa-3, BCPL-3, Bitmapper-2, Tata Projects-2, Cognizant -2, Amdocs-2, Loonycorn-6, Ways2capital-34.

CCD also provides internship to pre final year engineering students during summer and winter vacations in different organizations like Airports Authority of India, Bharat Coking Coal Limited, CSIR-Institute of Minerals and Materials Technology, Hindustan Petroleum Corporation Limited, Tripura State Pollution Control Board, ILS Hospital Agartala, Hetero Biopharma, Vertex Living Mordernised, Tripura Housing & Construction Board, Tribeni Construction Limited, Tata Steel Limited, Google India, IOCL Bongaigaon Refinery, Identiv Technologies, IIT Kharagpur, Linux World Pvt. Ltd. etc. In the academic year (2017-18) out of 646 pre final year students, 483 students participated during Summer Vacation and 399 Students participated during Winter Vacation in training & internship activities.

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

Work in progress:

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

Sl. No.	Name of the Works	Rupees in Lakhs
1.	Construction of 1500 Capacity Boys Hostel	15243.00
2.	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
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 is completed and is 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 constructed and presently is in functional.

22.5 Hostel:

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

22.6 Bank: State Bank of India, Canara Bank, Tripura Gramin Bank are operating threre brances 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. TEQIP - III

23.1 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 upto March 2018 is Rs. 28.00 lakh. From TEQIP-III, fund can be provided for procurement of equipments, Research Assistantships for Ph.D scholars and for attending and conducting workshop, conference, training etc.

This year student Induction Program for 1st Year UG students has been done at NIT Agartala under TEQIP-III.

Total 12 (twelve) nos. of workshop, training conducted at NIT Agartala in the A.Y. 2017-18 by the various department under TEQIP-III.

Conference, workshop etc. attended by Faculty and Students (A brief Statement):

Report of attended workshop, conference and training etc. by the Faculties under TEQIP-III from 01-04-2017

Total	Conference	Workshop	FDP and other Training	Training at IIM	GIAN
80	29	10	23	6	12

Report of attended workshop, conference and training etc. by the Students under TEQIP from 01-04-2017

Total	Conference	Workshop	Experimental Work	GIAN	Induction Program	MITACS
176	90	22	13	46	2	3

24.0. FINANCE & ACCOUNTS

24.1 Grants from MHRD: (Rs. in Lakhs)

Head	2017-18	2016-17
Income		
Grant from MHRD		
Object Head-31	1467.00	690.00
Object Head-36	6449.50	1990.00
Object Head-35	2999.50	9140.00
Total	10916.00	11820.00
Expenditure		
Object Head-31	3388.86	2260.86
Object Head-36	3953.61	3146.36
Object Head-35	4597.23	5300.72
Total	11939.70	10707.94

24.1.1 Expenditure Statement: (Rs. in Lakhs)

Particulars	OH-31	OH-36	OH-35	Total
Opening Balance	-20.81	0.40	4609.47	4589.06
Grant received from MHRD	1467.00	6449.50	2999.50	10916.00
Income from Other Sources	2321.45	----	117.26	2438.71
Total Available	3767.64	6449.90	7726.23	17943.77
Total Utilized	3388.86	3953.61	4597.23	11939.70
Unspent Balance as on 31.03.18	378.78	2496.29	3129.00	6004.07

24.1.2 Details Expenditure Statement: (Rs. in Lakhs)

Particulars	Amount
<u>Object Head-31</u>	
Retirement Benefit	915.10
Sweeping & Cleaning	327.28
Security Services	557.67
Electricity	277.16
Academic Activity	77.01
Student Activity	55.17
Scholarship	879.16
Administrative Exp	300.31
Total- OH-31	3388.86
<u>Object Head-36</u>	
Salaries (Faculty)	2105.97
Salaries (Non-Faculty)	294.84

Salaries (Contractual Employee)	1439.79
LTC	39.08
CPDA	69.50
Children Education Allowance	2.72
Medical Treatment	1.71
Total- OH-36	3953.61
Object Head-35	
Building & Construction	4476.53
Equipments	71.34
Furniture & Fittings	49.36
Total- OH-35	4597.23
Grand Total (31+36+35)	11939.70

Audit Report & Annual Accounts 2017 -2018

BY SPEED POST/FAX/E-MAIL

No. CCS/FAA/AB/SAR/NIT/2017-18/ 335

Dated: 02.11.2018



लोकहितार्थ सत्यनिष्ठा

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,
Pin - 799046

Subject: Separate Audit Report on the accounts of NIT, Agartala for the year 2017-18

Sir,

I am sending herewith the Separate Audit Report (SAR) on the accounts of NIT, Agartala for the year 2017-18 along with a Management letter for further action at your end.

Yours faithfully,

Encl: As stated.

Deputy Accountant General (Audit)

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 2018

We have audited the attached Balance Sheet of the National Institute of Technology (NIT), Agartala as on 31 March 2018, 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 NIT, Agartala. 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.

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

iv) We further report that:

A. Balance Sheet

Assets

Fixed Assets

Schedule-4

Capital work in Progress

₹ 281.82 crore

A.1. The above head is overstated by ₹ 131.01 crore due to non-transfer of six construction works¹ under plan fund to Tangible Assets though these were already completed between March 2016 and December 2016 and taken over by NIT, Agartala after completion of construction

¹Construction of market complex (plan): ₹ 3.26 crore; construction of sports complex: ₹ 64.40 crore; construction of central library: ₹28.76 crore; construction of H4B building: ₹ 22.98 crore; construction of duplex building: ₹ 9.33 crore; construction of central plaza: ₹ 2.28 crore.

activities. This has also resulted in understatement of Tangible Assets (Net Block) by ₹ 125.19 crore and understatement of accumulated depreciation of ₹ 5.82 crore. This also resulted in overstatement of Corpus/ Capital fund by ₹ 5.82 crore due to not making any provision for depreciation on these assets.

Corpus/Capital Fund and Liabilities

Loans, Advances & Deposits	Schedule-8	₹ 0.39 crore
---------------------------------------	-------------------	---------------------

A.2. NIT, Agartala had bank accounts in SBI, Canara Bank and TGB in which balances kept in Fixed Deposits (FD). Bank credits amount of interest at the end of March after completion of financial year and furnish a certificate for the same. The banks issued certificates showing details of interest amount credited, interest on TDS and book balance of FDs. An amount of ₹ 2.66 crore, as detailed in Annexure, had been accrued as interest during the year which could be withdrawn from the bank at any time along with FDs. As such interest accrued on deposits should be shown under head 'Loans, Advances & Deposits' but the above head did not include amount of interest of ₹ 2.66 crore accrued as interest on FDs.

This has resulted in understatement of Loans, Advances & Deposits by ₹ 2.66 crore as well as understatement of income from investment and Capital fund to the same extent.

Corpus/Capital Fund and Liabilities

Designated/Earmarked/Endowment funds	Schedule-2	₹ 44.24 crore
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A.3. The above is overstated by ₹ 44.24 crore as it includes closing balance of plan grant which was required to be booked as 'Current Liabilities and Provisions' under Schedule 3 as per the format of accounts approved by MHRD. This has also resulted in understatement of current liabilities by ₹ 44.24 crore.

Designated/Earmarked/Endowment funds	Schedule-2
---	-------------------

Utilisation/Expenditure towards objective of funds	
---	--

Capital expenditure	
----------------------------	--

Advance to parties	Schedule-2A	₹ 25.73 crore
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A.4 The above head is overstated by ₹ 13.65 crore with corresponding understatement of Fixed Assets by ₹ 13.65 crore and understatement of depreciation by ₹ 0.27 crore due to inclusion of advances of ₹ 13.65 crore given to one agency² for execution of a work which has been completed in December 2013 and handed over to the NIT, Agartala in October 2017.

Corpus/Capital Fund and Liabilities

Current Liabilities and Provision	Schedule-3	₹ 46.46 crore
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A.5. As per instructions given in the format of accounts notified by MHRD, the Provident Fund Account and the New Pension Scheme Account are owned by the members of those funds and not by the Institute. These accounts are required to be separated from the Institution's Account.

² Bridge & Roof Company (India) Limited for execution of deposit work – 'Construction of Computer Centre and Central Library'.

However, the Institute has incorporated balance of funds in its annual accounts. This has resulted in overstatement of Current Liabilities by ₹ 0.17 crore (NPS-Tier-I Fund of ₹ 0.02 crore and Staff Benefit Trust of ₹ 0.15 crore) with corresponding overstatement of current assets by similar amount of ₹ 0.17 crore.

Corpus/Capital Fund and Liabilities

Current Liabilities and Provision

Schedule-3

Current Liabilities

₹ 4.10 crore

A.6. The above head does not include invoice of ₹ 0.28 crore received from the suppliers against procurement of desktop computer, oscilloscope, spectrometer, refrigerator, AC machine, water purifier, incubator etc. during the year. Thus, due to not making any provision against those bills Current Liabilities is understated by ₹ 0.28 crore, Fixed Assets are understated by ₹ 0.23 crore with accumulated depreciation by ₹ 0.06 crore. This has also resulted in with corresponding overstatement of excess of income over expenditure as well as Corpus/ Capital fund by ₹ 0.06 crore due to not making any provision for depreciation on these assets.

Corpus/Capital Fund

Current Liabilities & Provision

Schedule—3

Sundry Creditors

Plan Fund

₹ 0.17 crore

A.7 The Institute created a liability of Rs.0.17 crore during 2010-11 to 2012-13 and booked the amount under Sundry Creditors. The above liability is being continued even after a lapse of 5 to 7 years which needs to be reviewed and regularised

B. Income and Expenditure Account: Nil

C. General

C.1. The erstwhile Tripura Engineering College (TEC) was converted into NIT Agartala vide decision of the Union Cabinet on 23 February 2006. The Institute had identified total net assets of ₹ 16.08 crore which was examined and approved by the Government of Tripura (May 2008). The Institute is yet to incorporate these assets and liabilities into its accounts even though it is in possession of the same.

C.2. As per the instructions contained in formats of accounts prescribed by MHRD under Schedule 23, Designated/Earmarked/Endowment Funds are those funds which are set aside by the institute for identified specific purpose. Income on these items is credited to the respective fund accounts. Similarly, expenditure is also debited to fund accounts. NIT, Agartala has maintained 15 fund accounts³ wherein related income/expenditure is suppose to be credited/debited to the

³Project : ₹ 0.73 crore; Retirement Benefit : ₹14.67 crore; Student Welfare : ₹0.12 crore; Institute Development: ₹ 8.77 crore; EMD & Security Deposit: ₹2.37 crore; Infrastructural Development : ₹0.87 crore; Sponsored Project : ₹10.09crore; Staff Welfare : ₹0.02 crore; Departmental Promotional (Civil): ₹ 0.23 crore; NSS Unit : ₹ 0.004 crore;

respective fund account itself. These funds were, however, booked under current liabilities and provisions. Thus, there is inconsistency in accounting of these funds.

C.3. As per the Instructions issued by Ministry of Human Resource Development, it is mandatory to follow the Accounting Standards applicable for Autonomous organizations and Higher Educational Institutions. However, National Institute of Technology, Agartala has made provisions for retirement benefits on accrual basis instead of actuarial basis as required by AS-15 applicable for the Institute.

D. Grant-in-aid

During the financial year 2017-18, the Institute received ₹ 109.16 crore (Non-recurring: ₹ 44.66 crore and Recurring: ₹ 64.50 crore) as grant-in-aid from the Government of India. An unspent balance of ₹ 45.89 crore (Non-recurring: ₹ 45.89 crore) was lying with the Institute as on 1 April 2017 while the internal income of the Institute for the year 2017-18 was ₹ 24.39 crore. Against the total available fund of ₹ 179.44 crore, the Institute could utilize only ₹ 119.40 crore during the year leaving an unspent balance of ₹ 60.04 crore as on 31 March 2018.

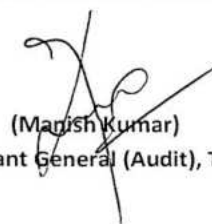
v) Subject to our observations in the preceding paragraphs, we report that the Balance Sheet and Income and Expenditure Account and Receipts and Payments Account dealt with by this report are in agreement with the books of Accounts.

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 as it relates to the Balance Sheet of the state of affairs of the National Institute of Technology, Agartala as on 31 March 2018.

b. In so far as it relates to Income and Expenditure Account of the surplus 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 : 2nd, November, 2018
Place : Agartala

Annexure

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

1. Adequacy of internal audit system:

- (i) Internal audit manual had not been prepared.
- (ii) As stated by the NIT, the Internal Audit wing of the Institute is functioning under two Audit Officers but no audit report was made available to audit.

2. Adequacy of internal control system:

- (i) The institute had not prepared its own accounting manual.
- (ii) Separate incoming bill register was not maintained to keep track of the receipt of bills from the suppliers and payment made there against.
- (iii) Fixed Deposit Register was not maintained properly and none of the entries was authenticated by any responsible officer.
- (iv) Even though many capital works were completed and taken over, these were not transferred to "Tangible Assets".
- (v) Bank Reconciliation Statements prepared by the NIT, Agartala indicated presence of stale cheques which were needed to be written back.

3. System of physical verification of fixed assets and inventory

Physical verification of Fixed Assets was conducted during 2017-18. Books, journals, furniture & fixtures and other assets procured in earlier years were not physically verified.

4. Payment of statutory dues

Records relating to recovery and payment of statutory dues were not maintained by the Institute to ensure that no statutory dues were outstanding for more than six months at the close of the financial year.

5. Submission of Utilisation Certificates

The Institute had already furnished utilization certificates in earlier years in support of utilisation of Plan Grant which did not depict true picture of unspent balance and also it resulted into misreporting to the Government of India.

This suggests that the internal control system of the Institute was inadequate and needs improvements.


Sr. Audit Officer

Confidential



लोकहितार्थ सत्यनिष्ठा

Dedicated to Truth in Public Interest.

No. CCS/FAA/AB/SAR/NIT/2017-18/336

Dated: 02-11-2018

महालेखाकार (लेखापरीक्षा) का कार्यालय,
त्रिपुरा, अगरतला,

OFFICE OF THE ACCOUNTANT GENERAL (AUDIT),
TRIPURA, AGARTALA

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

Subject: Management Letter on the annual accounts of the NIT, Agartala for the year ended 31 March 2018.

Sir,

Certification audit on the annual accounts of National Institute of Technology, Agartala for the year ended 31 March 2018 was taken up by this office under Section 19(2) of the Comptroller and Auditor General's (Duties, Powers & Conditions of Service) Act, 1971. A Separate Audit Report (SAR) incorporating final comments of C&AG is issued along with this letter. Apart from the audit comments issued in SAR, audit has noticed ten points which require management's action to ensure compliance to the instructions of MHRD with respect to preparation of annual accounts.

Yours faithfully

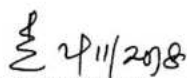
Enclosed: As stated.


Deputy Accountant General (Audit)

ANNEXURE TO THE MANAGEMENT LETTER

1. As per Schedule 9 of the format of accounts notified by MHRD, the Academic Receipts are to be classified as Fees from students, Other Fees, Sale of Publications and Other Academic Receipts. These heads are again to be sub-divided into various heads, viz. "Fees from students" into Tuition fee, Admission Fee, Enrolment Fee, Library Admission Fee, Laboratory Fee, etc. However, the Institute booked the above under the head "Academic Collection" with no detailed break-up in the Schedule.
2. As per the format of accounts notified by MHRD, the Fixed Assets are to be classified as Tangible Assets, Intangible Assets and Capital Works-in-Progress on the face of the Balance Sheet. However, the Institute did not provide the requisite break-up on the face of the Balance Sheet which was in contravention to the prescribed format.
3. As per instructions of MHRD, the NIT, Agartala is required to disclose contingent liabilities in the Schedule 24. Although there were 50 court cases pending against it, the NIT, Agartala did not disclose the fact.
4. As per instructions of MHRD, the NIT, Agartala is required to disclose assets held and used but not owned in the notes to accounts. Although out of 10 duplex houses completed in September 2016, NIT, Agartala has been using four houses, it did not take over the building from the construction agency till July 2018. The NIT, Agartala, however, did not disclose the fact.
5. Current Liabilities under the head Current Liabilities and Provision is understated by ₹ 0.09 crore with corresponding overstatement of excess of income over expenditure as well as Corpus/Capital fund by ₹ 0.09 crore due to non-making of any provision for seven invoice/bills received from the suppliers/ Lawyers against procurement of consumables and legal charges.
6. Current Liabilities under the head Current Liabilities and Provision is understated by ₹ 0.05 crore with understatement of Fixed Assets-Tangible Assets - Library Books (Net Block) by ₹ 0.04 crore and understatement of accumulated depreciation of ₹ 0.005 crore due to non-inclusion of bills of ₹ 0.05 crore received from two vendors for supply of books. This also resulted in overstatement of Corpus/Capital fund by ₹ 0.005 crore due to non-making of any provision for depreciation on these books.
7. Salaries and Wages does not include arrear of Dearness Allowance of ₹ 0.08 crore sanctioned by the GOI vide orders dated 15 March 2018 for the period from January to March 2018. This has resulted in understatement of Current Liabilities by ₹ 0.08 crore with corresponding overstatement of excess of income over expenditure as well as Corpus/Capital fund by ₹ 0.08 crore due to not making any provision against those claims.
8. Current Liabilities under the head Current Liabilities and Provision does not include Children Education Allowance claims of ₹ 0.13 crore submitted by 63 faculty and non-teaching staff for their wards for the year 2016-17 and 2017-18.

- This has resulted in understatement of Current Liabilities by ₹ 0.13 crore with corresponding overstatement of excess of income over expenditure as well as Corpus/Capital fund by ₹ 0.13 crore due to not making any provision against those claims.
9. Bank Balances (On savings account) under the head Current Assets does not include 14 time expired cheques relating to one bank account with total value of ₹ 0.02 crore which are needed to be written back due to completion of validity period of 3 months in terms of RBI's direction issued on 4 November 2011. This has resulted in understatement of Current Assets by ₹ 0.02 crore with corresponding understatement of liabilities by the same amount against which the cheques were originally issued but remained unpaid.
 10. For calculation of Depreciation under the head Expenditure under Income and Expenditure Account, the Institute classified Computer costing ₹ 0.19 crore as Machinery & Equipment for which applicable rate of depreciation is 5 *per cent* only. Incorrect accounting of depreciation (5 *per cent* instead of 20 *per cent*) resulted in understatement of depreciation for the year by ₹ 0.04 crore with corresponding overstatement of fixed assets. Excess of income for the year was also overstated by the same amount. Incorrect classification of Computer & Accessories as Machinery & Equipment resulted in overstatement of Machinery & Equipment by ₹ 0.15 crore with corresponding understatement of Computer & Accessories by the same amount.


 Sr. Audit Officer



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 01.04.2017 to 31.03.2018

With reference to the letter No. NITA.4 (10-Accounts)/2007/Vol-2/2288 dated 12th June 2018, we have conducted the Internal Audit of NIT Agartala for the period from 01.04.2017 to 31.03.2018 and our observations in this respect are as follows:

1. Grant received by NIT Agartala from MHRD, New Delhi during the financial year 2017-18 as follows:

For Non-Recurring items:

Sl. No	Sanction Memo	Date of sanction	Amount in Lakhs
1	F.36-4/2017-TS-III	19.05.2017	203.50
2	F.36-4/2017-TS-III	06.06.2017	375.00
3	F.36-4/2017-TS-III	24.07.2017	268.00
4	F.36-4/2017-TS-III	22.08.2017	268.00
5	F.36-4/2017-TS-III	22.08.2017	272.00
6	F.36-4/2017-TS-III	20.11.2017	532.00
7	F.36-4/2017-TS-III	06.12.2017	268.00
8	F.36-4/2017-TS-III	26.02.2018	542.00
9	F.36-4/2017-TS-III	09.03.2018	271.00
	Total		2999.50

For Recurring items:

Sl. No	Sanction Memo	Date of sanction	Amount in Lakhs
1	F.36-4/2017-TS-III	19.05.2017	546.50
2	F.36-4/2017-TS-III	06.06.2017	375.00
3	F.36-4/2017-TS-III	24.07.2017	475.00
4	F.36-4/2017-TS-III	22.08.2017	475.00
5	F.36-4/2017-TS-III	22.08.2017	477.00
6	F.36-4/2017-TS-III	26.09.2017	300.00
7	F.36-4/2017-TS-III	20.11.2017	1668.00
8	F.36-4/2017-TS-III	06.12.2017	832.00
9	F.36-4/2017-TS-III	26.02.2018	2436.00
10	F.36-4/2017-TS-III	09.03.2018	332.00
	Total		7916.50





S.A. MAJUMDER & ASSOCIATES
Chartered Accountants

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

2. CASH BOOK:

OBSERVATIONS:

- Cash Book namely Recurring items and Non-Recurring items have been properly maintained and closed on daily basis.
- We made test check of the Cash Book, Bank vouchers related to the Month of June 2017, October 2017, January 2018, February 2018 and March 2018 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 31.03.2018 are as follows:

Sl. No	Name of Bank, Branch	A/c No	Balance as on 31.03.2018 (Rs)
1	SBI, NIT Agartala Br	30358199684	40,65,67,100.00
2	Canara Bank, NIT Agartala Br	4121101001663	11,31,032.00
3	SBI, NIT Agartala Br	30369892838	11,69,83,594.00
4	Canara Bank, NIT Agartala Br	876	4,48,955.00

COMMENTS:

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

3. ADVANCES:

OBSERVATIONS:

- NIT Agartala has maintained common Advance Register.
- Temporary advances lying unadjusted as on 31.03.2018 amounting Rs. 10,17,046/-. Efforts to be made for adjustment of those at the earliest.
- Unadjusted advances given to third parties as on 31.03.2018 under Recurring items is as follows:

Sl. No	Name of Party/Agency	Amount of Advance as on 31.03.2018 (Rs)	Remarks
1	RD Deptt-Agartala	20,00,000.00	
	Total	20,00,000.00	





S.A. MAJUMDER & ASSOCIATES
Chartered Accountants

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Tripura (West)- 799001
casyamal@yahoo.co.in
Ph: 0381 2325276

- Unadjusted advances given to third parties as on 31.03.2018 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	1,72,764.00	
2	PHE-Agartala	15,60,100.00	
3	THB-Agartala	76,40,420.00	
4	DWS Deptt-Agartala	26,95,300.00	
5	EPIL	1,02,00,000.00	
6	CPWD-Agartala	9,45,23,563.00	
7	Bridge & Roof Co	13,65,19,625.00	
8	RD Deptt-Agartala	40,00,000.00	
	Total	25,73,11,772.00	

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.

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 processes:

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. 7. Negotiation of the lowest bidder, if necessary.





S.A. MAJUMDER & ASSOCIATES
Chartered Accountants

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

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)

[Signature]
(CA. S. Majumdar)

Chartered Accountant

Date: 23.06.2018
Place: Agartala



FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS) Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA BALANCE SHEET AS AT 31.03.2018			
CORPUS / CAPITAL FUND AND LIABILITIES	Schedule	Current year 2017-2018	Amount Rs
			Previous year 2016-2017
CORPUS / CAPITAL FUND			
DESIGNATED / EARMARKED / ENDOWMENT FUNDS	1	7925222642	7413127536
CURRENT LIABILITIES & PROVISION	2	442370256	542922811
	3	464647125	504346901
TOTAL		8832240023	8460397248
ASSETS			
FIXED ASSETS	4	7518782175	7268059703
INVESTMENTS - FROM EARMARKED / ENDOWMENT FUNDS	5	0	0
INVESTMENTS OTHERS	6	0	0
CURRENT ASSETS	7	1052227530	957280725
LOANS & ADVANCES-PLAN FUND	2(ii)	257311772	229572301
LOANS, ADVANCES & DEPOSITS	8	3918546	5484519
TOTAL		8832240023	8460397248
SIGNIFICANT ACCOUNTING POLICIES	23		
CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS	24		
Asstt. Registrar (Finance) (Jagajyoti Roy) Asstt. Registrar (Finance) National Institute of Technology Agartala. For S.A. MAJUMDAR & ASSOCIATES (Chartered Accountants) 23/06/18 (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				
INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD / YEAR ENDED ON 31.03.2018				
INCOME	Particulars	Schedule	Current year 2017-2018	Previous year 2016-2017
Academic Receipts		9	220619037	238529195
Grants & Donations				
Non Plan Fund		10	791650000	268000000
Plan Fund- Revenue Purpose		2	0	17511224
Income from Investments		11	0	0
Interest Earned		12	20149239	14175539
Other Income		13	10447	11208331
Prior Period Income		14	0	0
TOTAL (A)			1032428723	549424289
EXPENDITURE				
Staff Payment & Benefits		15	376343155	298846139
Academic Expenses		16	99277370	79933028
Administrative & General Expenses		17	164169394	96431528
Transportation Expenses		18	1880063	1782461
Repairs & Maintenance		19	16508980	11427626
Finance Cost		20	50617	70243
Other Expenses		21	0	0
Prior Period Expenses		22	0	0
Expenses of Plan Fund		2(iii)	0	17511224
Depreciation		4	149581593	343545541
Exp. on Moutoshi Kar Memorial Scholarship			0	5000
Grant to KV, NIT Agartala			23000000	14700000
Contribution to				
Retirement Benefit Fund			81100000	28500000
Inst. Dev. Fund			8925000	7310000
TOTAL (B)			920836172	900062790
Balance being Excess/Deficit of Income over Expenditure (A - B)			111592551	(350638501)
transferred to Capital Fund				
Significant Accounting policies		23		
Contingent liabilities and notes on Accounts		24		
Asstt. Registrar(Finance)	(Jagdyoti Roy)	Registrar		Director
For	Asstt. Registrar (Finance) National Institute of Technology Agartala	DR. GOVIND BHARGAVA Registrar, NIT, Agartala.		(Prof. Harish Kr. Sharma) Director, NIT Agartala.
S.A. MAJUMDAR & ASSOCIATES	(Chartered Accountants)			
(CA S. Majumdar)				
Chartered Accountant				



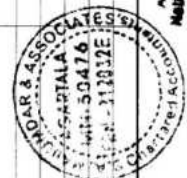
FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)					
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA					
RECEIPTS AND PAYMENTS FOR THE PERIOD/ YEAR ENDED ON 31.03.2018					
RECEIPTS	(Amount - Rs.) Current Year 2017-2018	(Amount - Rs.) Previous Year 2016-2017	PAYMENTS	(Amount - Rs.) Current Year 2017-2018	(Amount - Rs.) Previous Year 2016-2017
I) Opening Balance: In Savings Plus A/c (Non-Plan) Bank (SBI, NIT Agt Br) Bank (Canara Bank Agt Br) Cash	448955 20589569 888136	21933333 448955 272414	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	370602003 160486946 99277370 1890932 16431546 50617	294356444 99009757 79933028 1786417 10824790 70243
Opening Balance: (Plan) Bank (SBI, NIT Br) Bank (Canara Bank Agt Br) Cash	101000000 406943102 0	119477649 19541 0	II) Expenditure on Fixed Assets & Capital Working progress :- Fixed Assets: Plan Non-Plan		
III) GRANTS RECEIPTS: From MHRD (Govt. Of India) a) Object Head-35 b) Object Head-31 c) Object Head-36	29950000 146700000 644950000	914000000 268000000	III) Other Payments a) Stipend/Scholarship Otherstate-Stipend Moutoshi Kar Memorial	400502555 0	482035226 6223077
IV) Interest Received a) Plan Fund b) Non-Plan Fund	11857257 311014	8173919 2857840	IV) Advances a) Plan b) Non-Plan	27739471 0	46300000 0
V) Any other received a) Academic Collection b) Miscellaneous Receipts c) Library Caution Money d) CCB & CCMT Fees	226623561 10447 0 1565688	239322200 258835 4626000 4552113	Inst Dev Fund Exp. for CCB & CCMT Retirement Benefit Fund Library Caution Money Grant to KV, NIT Agartala Loan to Other Project LTC Advance to Faculty & Staff Temporary Advance to Employees Expenditure from Plan Fund Fixed Deposit V) Closing Balance	8925000 3485501 81100000 4161950 23000000 35735000 3321417 0 100000000	7310000 2026602 28500000 7654199 14700000 3561680 981796 5393998 0
Intt on Mobilization Advance Temporary Advance Received LTC Advance Received Loan from Other Projects Otherstate-Stipend Received Miscellaneous Receipts-Plan	0 359442 0 0 10262933 0	842036 329320 0 35000000 13002297 1217	a) In Savings Plus A/c (Non-Plan) Bank-Canara Bank, AGT Br Bank-SBI, NIT Br Cash b) In Savings Plus A/c (Plan) Bank-Canara Bank, Agt Br SBI, NIT Br. Cash	448955 116983594 269838 1131032 406567100 191812	20589569 888136 21926660 101000000 406943102 0
For S. A. Majumdar & Associates, Chartered Accountants.	1872460104	1633117669	TOTAL	1872460104	1633117669

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

DR. GOVIND BHARGAVA
Registrar,
NIT, Agartala.

(Jagdish K. Roy)
Asstt. Registrar (Finance)
National Institute of Technology
Agartala.

Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA FUND ACCOUNT FOR THE PERIOD / YEAR ENDED ON 31.03.2018			
Particulars		Schedule	STUDENT WELFARE FUND
INCOME			
1. Opening Bank Balance (S.B. A/c)		Current year 2017-2018	Previous year 2016-2017
2. Income from Sales / Services-		1234956	1537670
3. Fees / Subscriptions		139729	61764
4. Interest Earned		45645	65504
TOTAL		1420330	1664938
EXPENDITURE			
Bank Charges		241214	429809
Closing Bank Balance (S.B. A/c)	7	0	173
		1179116	1234956
TOTAL		1420330	1664938
NEW PENSION SCHEME-TIER-I FUND			
Particulars		Schedule	
INCOME			
1. Opening Balance:		Current year 2017-2018	Previous year 2016-2017
S.B. A/c		79024	93234
Fixed Deposit		63876540	63876540
2. Income from Sales / Services-		0	0
3. Fees / Subscriptions		0	0
Employee/ Employer's Contribution		17109259	16013562
Employee/ Employer's Contribution-FD		0	0
4. Interest Earned-S.B.Accounts		373526	43930
5. Interest Earned-F.D.Accounts		5181330	0
TOTAL		86619679	80027266
EXPENDITURE			
Fund transfer to CRA (NSDL)		0	0
Bank Charges		86450356	16071702
Fixed Deposit		0	0
Bank Balance (S.B. A/c)	7	0	63876540
		169323	79024
TOTAL		86619679	80027266
For			
S.A. MAJUMDAR & ASSOCIATES (Chartered Accountants)			
(C.A.S. Majumdar)			
Chartered Accountant			




(Jagajit Roy)
Asst. Registrar (Finance)
National Institute of Technology
Agartala.

DR. GOVIND BHAKTAN
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 31.03.2018			
Particulars	Schedule	RETIREMENT BENEFIT FUND	
		Current year 2017-2018	Previous year 2016-2017
INCOME			
1. Opening Balance:			
S.B. A/c		8212175	20142229
Fixed Deposit		92191594	86100292
2. Income from Sales / Services-		0	0
3. Fees / Subscriptions		46824618	4058414
4. Fees / Subscriptions-FD		0	0
5. Interest Earned-S.B.Accounts		695597	876112
6. Interest Earned-F.D.Accounts		6387237	6091302
TOTAL		154311221	117268349
EXPENDITURE(Pension / Gratuity)			
Bank Charges		7602063	16864350
Fixed Deposit	7	604	230
Bank Balance (S.B. A/c)	7	128578831	92191594
	7	18129723	8212175
TOTAL		154311221	117268349
INSTITUTE DEVELOPMENT FUND			
INCOME			
1. Opening Balance:			
S.B. A/c		4696391	3645228
Fixed Deposit		70110640	65385690
2. Income from Sales / Services-		0	0
3. Fees / Subscriptions		8172238	754570
4. Interest Earned-S.B.Accounts		96065	296593
5. Interest Earned-F.D.Accounts		4612958	4724950
TOTAL		87688292	74807031
Expenditure			
Fixed Deposit		0	0
Bank Balance (S.B. A/c)	7	84723598	70110640
	7	2964694	4696391
TOTAL		87688292	74807031
For			
S.A. MAJUMDAR & ASSOCIATES (Chartered Accountants)			
(CA S. Majumdar)			
Chartered Accountant			



DR. GOVIND BHARGAVA
Registrar,
National Institute of Technology,
Agartala.

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

Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA FUND ACCOUNT FOR THE PERIOD / YEAR ENDED ON 31.03.2018			
Particulars	Schedule	STAFF WELFARE FUND	
		Current year 2017-2018	Previous year 2016-2017
INCOME			
1. Opening Balance: S.B. A/c		89293	84172
2. Income from Sales / Services-		0	0
3. Fees / Subscriptions		70168	866
4. Interest Earned-S.B.Accounts		4637	4255
TOTAL		164098	89293
Bank Balance (S.B. A/c)	7	164098	89293
TOTAL		164098	89293
PROJECT FUND			
INCOME			
1. Opening Bank Balance (S.B. A/c)		6431127	2916193
1. Income from Sales / Services-		0	0
2. Fees / Subscriptions		6149508	6281446
3. Fees / Subscriptions-Tr. From College A/c		0	0
4. Interest Accrued-S.B..Accounts		225790	151354
TOTAL (A)		12806425	9348993
EXPENDITURE:			
Refund to Parties		0	0
Exp. & Distribution to Faculties & Staffs		5526271	2916543
Bank Charges		604	1323
Fixed Deposit		0	0
Closing Bank Balance (S.B. A/c)	7	7279550	6431127
TOTAL (B)		12806425	9348993
For			
S.A. MAJUMDAR & ASSOCIATES (Chartered Accountants)			
23/06/19 (CA S. Majumdar) Chartered Accountant			

MAJUMDAR & ASSOCIATES
(Chartered Accountants)

23/02/18
(CA S. Majumdar)
Chartered Accountant



Chartered Accountant

	Dr	Registered Rep Registrar (Finance) Institute of Technology Agraria.	UN JIVIND BARNACHIN Register NIT Agartala	Gandhi Kolkata-700064	Friedrich No. 28, New Market, Calcutta - 700017
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(Jagajyoti Roy)
Asstt. Registrar (Finance)
National Institute of Technology
Agartala.

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

Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA FUND ACCOUNT FOR THE PERIOD / YEAR ENDED ON 31.03.2018			
Particulars	Schedule	EMD & SECURITY DEPOSIT	
		Current year 2017-2018	Previous year 2016-2017
INCOME			
1. Opening Balance: S.B. A/c		4788591	13271183
Fixed Deposit		19586060	18378390
2. Income from Sales / Services-		0	0
3. Fees / Subscriptions		8122554	10838717
4. Interest Earned-S.B.Accounts		289267	585968
5. Interest Earned-F.D.Accounts		1240310	1207670
TOTAL		34026782	44281928
EMD & Security Released		10289866	9904830
Bank Charges		1239	2447
Loan to Non-Plan Fund		0	10000000
Fixed Deposit	7	20826370	19586060
Bank Balance (S.B. A/c)	7	2909307	4788591
TOTAL		34026782	44281928
INFRASTRUCTURAL DEVELOPMENT FUND			
Particulars	Schedule	Current year 2017-2018	
		Current year 2017-2018	Previous year 2016-2017
INCOME			
1. Opening Balance: S.B. A/c		832233	767724
Fixed Deposit		7786004	7769158
2. Income from Sales / Services-		0	0
3. Fees / Subscriptions		0	0
4. Interest Earned-S.B. Accounts		33440	64509
5. Interest Earned-F.D.Accounts		17098	16846
TOTAL		8668775	8618237
Expenditure		0	0
Fixed Deposit	7	7803102	7786004
Bank Balance (S.B. A/c)	7	865673	832233
TOTAL		8668775	8618237
For			
S.A. MAJUMDAR & ASSOCIATES (Chartered Accountants)			
(CA S. Majumdar)			
Chartered Accountant			
			
			
		BR. GOVIND BHARGAVA (Prof. Harish K. Sharma) Registrar, Director, NIT Agartala.	

Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA			
FUND ACCOUNT FOR THE PERIOD / YEAR ENDED ON 31.03.2018			
SPONSORED PROJECT FUND			
Particulars	Schedule	Current year 2017-2018	Previous year 2016-2017
INCOME			
1. Opening Balance:			
S.B. A/c		10675583	21374858
Fixed Deposit		87019720	80520379
2. Income from Sales / Services-		0	0
3. Fees / Subscriptions		14944154	31733611
4. Other Income		0	0
4. Interest Earned-S.B.Accounts		203308	1508504
5. Interest Earned- F.D. A/c		6232575	6499341
TOTAL		119075340	141636693
EXPENDITURE			
Bank Charges		18140862	18940703
Loan to Non-Plan Fund		0	687
Fixed Deposit	7	93252295	25000000
Bank Balance (S.B. A/c)	7	7682183	87019720
			10675583
TOTAL		119075340	141636693

For

S.A. MAJUMDAR & ASSOCIATES
(Chartered Accountants)

(Signature)
(CA S. Majumdar)
Chartered Accountant

DR. GOVIND BHARGAVA
Registrar,
NIT, Agartala.

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

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

GOVIND BHARGAVA
Registrar,
NIT, Agartala.

Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA		FUND ACCOUNT FOR THE PERIOD / YEAR ENDED ON 31.03.2018	
Particulars	Schedule	SCHOOL OF CONTINUING EDUCATION	
		Current year 2017-2018	Previous year 2016-2017
INCOME			
1. Opening Balance:			
S.B. A/c		35752	34021
2. Income from Sales / Services-		0	0
3. Fees / Subscriptions		0	0
4. Interest Earned-S.B.Accounts		1331	1731
TOTAL		37083	35752
Bank Charges		0	0
Bank Balance (S.B. A/c)	7	37083	35752
TOTAL		37083	35752
INCOME		GUEST HOUSE FUND	
1. Opening Balance:			
S.B. A/c		3468874	2402892
2. Income from Sales / Services-		0	0
3. Fees / Subscriptions		953910	994340
4. Interest Earned-S.B.Accounts		147317	139142
TOTAL		4570101	3536374
EXPENDITURE			
Bank Charges		0	67500
Bank Balance (S.B. A/c)	7	4570101	3468874
TOTAL		4570101	3536374

For

S.A. MAJUMDAR & ASSOCIATES
(Chartered Accountants)


(Signature) 23/06/18
(CA S. Majumdar)
Chartered Accountant

(Signature)
DR. GOUNDRABARUA
Registrar
N.I.T. Agartala

Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA			
FUND ACCOUNT FOR THE PERIOD / YEAR ENDED ON 31.03.2018			
Particulars	Schedule	NIT TRANSIT HOUSE FUND	
		Current year 2017-2018	Previous year 2016-2017
INCOME			
1. Opening Balance:			
S.B. A/c		299287	284797
2. Income from Sales / Services-		0	0
3. Fees / Subscriptions		0	0
4. Interest Earned-S.B.Accounts		11147	14490
TOTAL		310434	299287
EXPENDITURE			
Bank Charges		0	0
Bank Balance (S.B. A/c)	7	310434	299287
TOTAL		310434	299337
			TEQIP FUND
INCOME	Schedule	Current year 2017-2018	Previous year 2016-2017
1. Opening Balance:			
S.B. A/c		12862697	9561800
2. Grant from MHRD		0	1000000
3. Fees / Subscriptions		383531	1357141
4. Interest Earned-S.B.Accounts		106566	453267
TOTAL		13352794	21372208
EXPENDITURE			
Bank Charges		12785912	8508592
Bank Balance (S.B. A/c)	7	0	919
		566882	12862697
TOTAL		13352794	21372208
For			
S.A. MAJUMDAR & ASSOCIATES			
(Chartered Accountants)			
(CA S. Majumdar)			
Chartered Accountant			

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

(Legalized 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 31.03.2018			
	SCHEDULE 1- CORPUS / CAPITAL FUND :		(Amount - Rs.)
	Current Year 2017-2018	Previous Year 2016-2017	
Balance as at the beginning of the year	7413127536	7037660735	
Add Contributions towards Earmarked/Endowment Fund	400502555	613468302	
Add (Deduct) balance of Net Income/ Expenditure) transferred from the Income and Expenditure Account.	111592551	(350638501)	
Add: DoNER Fund (Creation of Capital Assets)	0	112637000	
Add: Other Additions			
BALANCE AS AT THE YEAR - END	7925222642	7413127536	
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>(Jagajyoti Roy) Asstt. Registrar (Finance) National Institute of Technology Agartala.</p> </div> <div style="width: 45%;"> <p>DR. GOVIND BHARGAVA Registrar, NIT, Agartala.</p> </div> </div>			
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>(Prof. Harish Kr. Sharma) Director, NIT Agartala.</p> </div> <div style="width: 45%;">  </div> </div>			

FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2018

SCHEDULE 2- DESIGNATED / EARMARKED FUNDS	FUND- WISE BRAKE UP		TOTALS
	Current Year 2017-2018	Previous Year	
a) Opening Balance of the Funds	461812322	0	461812322
b) Additions to the Funds:			0
i) Donations / Grants From AICTE			0
Fund for Capital Assets(tr to Balance Sheet)	299950000	8399266472	8699216472
Less: Tr. To Corpus/Capital Fund	400502555	7856343661	8256846216
Net Fund for Capital Assets(tr to Balance Sheet)	(10,05,52,555)	542922811	442370256
Fund for Revenue Purpose(tr to Income & Expenditure A/C)	0	17511224	17511224
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)	11857257	76278387	88135644
IV) Others Income	0	12552273	12552273
V) Advance Received back from Parties	0	0	0
VI) Fund for Virtual Class Room	0	1195524	1195524
VII) Grant from NMEICT	0	448873	448873
TOTAL (a+b)	373117024	763546092	1136663116
c) Utilisation / Expenditure towards objectives of funds			
I) Capital Expenditure			
-Fixed Assets			
Vehicle		1686081	1686081
Electric Instalations	3046928	33894911	36941839
Hostel Building, quarters etc		24896321	24896321
Const. of Ladies Toilets		115284	115284
Furniture & Fittings	4935792	155298045	160233837
Equipment & Machinery-Grass Cutter		40000	40000
Computer & Accessories	123700	77390038	77513738
Plant & Machinery		385000	385000
Generator		51000	51000
Machinery & Equipments-Air Conditioner		4961678	4961678
Equipment & Machinery	7482277	662194045	669676322
EPBX Machine		409937	409937
Library Books	198490	3032073	3230563
Type II & III Quarters	844327	32978525	33822852
Boundary Wall		66416946	66416946
Admn Building & Class Room		18621297	18621297
Academic, Library Building		136098725	136098725
Networking(Equipments)		63103243	63103243

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

DR. GOVIND BHARGAVA
 Registrar,
 NIT, Agartala.

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



Sports Equipments	125380	441196	566576
Workshop		23580479	23580479
Boys & Girls Hostel		1214183366	1214183366
Internal Road		192830778	192830778
33 KV Sub Station		40800000	40800000
Main Gate & Auxilary Gate		9906684	9906684
Basket Ball		1215736	1215736
Central Stores		8614183	8614183
Housing & Guest House		609580501	609580501
School of Management		397632958	397632958
Admn. Block & Seminar Hall		473117263	473117263
Watch Tower & Security Barrack		5698969	5698969
Auditorium Building		23151901	23151901
Iron Removal Plant		550000	550000
500KVA Sub-Station		5868452	5868452
Central School		361054872	361054872
Computer Center		372575151	372575151
Workshop, Lab cum canteen		444800000	444800000
Const of Internal Road	36923722	24754284	61678006
Const of Market Complex		32593877	32593877
Const of Sewarage Treatment Plant (STP)		10447478	10447478
Const of Sports Complex	28812100	615216961	644029061
Const of Central Library		287572907	287572907
Const of H4B Building		229821209	229821209
Const of 1500 Beded Boys Hostel	31,72,79,024	1073438305	1390717329
Const of Duplex Building	7,30,815	92523002	93253817
Const of Central Plaza	0	22800000	22800000
TOTAL	400502555	7856343661	8256846216
Less: Tr. to Fixed Assets (Schedule 4)	400502555	7856343661	8256846216
TOTAL (2i)	0	0	0
Others			
Advance to Parties(Schedule 2A)	27739471	4605069456	4632808927
Less: Adjustment Tr to Fixed Assets	0	4375497155	4375497155
Security Deposit to TSECL	2,77,39,471	229572301	257311772
	0	5100	5100
TOTAL (2iil)	2,77,39,471	229577401	257316872
II) Revenue Expenditure			
-Other Administrative Expences.			
Misc. Expenses		2550302	2550302
Bank Charges		1374	1374

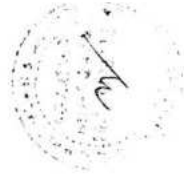
(Jagajyoti Roy)
Asstt. Registrar (Finance)
National Institute of Technology
Agartala.

DR. GOVIND BHARGAVA
Registrar,
NIT, Agartala.

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



NIT Transit House-Delhi				250000	250000
Repair & Maintenance-Building				13271006	13271006
Repair & Maintenance-Electrical				1119096	1119096
Repair & Maintenance-Internal Road				230912	230912
Repair & Maintenance				88534	88534
TOTAL (2iii)		0		17511224	17511224
GRNAD TOTAL (2i+2ii+2iii)		2,77,39,471		247088625	274828096
Un-Spent Grant (Plan Fund)		345377553		461812322	



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

DR. GOVIND BHARGAVA
Registrar,
NIT, Agartala.

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

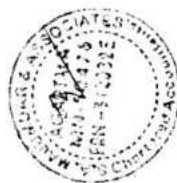
FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA
SCHEDULES FORMING PART OF SCHEDULE 2 AS AT 31.03.2018

SCHEDULE 2 A- DETAILS OF ADVANCE TO PARTIES	Current Year	Previous Year	Adjustment	TOTAL
	2017-2018	2016-2017	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	27739471	66784092		94523563
Bridge & Roof Co.(Const of Central Computer Centre & CSE Deptt)		136519625		136519625
R.D. Deptt (Const of Market Complex)		4000000		4000000
TOTAL	27739471	229572301	0	257311772

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

DR. GOVIND BHARGAVA
 Registrar,
 NIT, Agartala.

Prof. Harish Kr. Sharma
 (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 31.03.2018		
SCHEDULE 3- CURRENT LIABILITIES AND PROVISIONS	Current Year 2017-2018	(Amount - Rs.) Previous Year 2016-2017
A) CURRENT LIABILITIES		
1) Acceptances	0	
2) Sundry Creditors		
For Plan Fund	1675461	1675461
For Non-Plan Fund	8097130	4702367
Outstanding Liabilities:		
a) Repair & Maintenance-Computer	680270	602836
b) Fuel Charges	47599	58468
c) Internal Audit Fees	35400	34500
d) Salaries & Wages	28036809	24655050
e) Electricity & Power	2460492	2372197
f) Children Edu Allowance	0	0
TOTAL (3A)	41033161	34100879
PROVISION:		
a) Statutory Audit Fees-AG	300000	300000
b) CCB, CCMT & Other Fees	6365219	8285032
c) Counselling Fees-Payable to Students	100000	100000
TOTAL (3B)	6765219	8685032
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	35000000
TOTAL (3C)	0	35000000
5) Statutory Liabilities:		
a) Overdue		
b) Others		
Project Fund	7279550	6431127
New Pension Scheme-Tier-I Fund	169323	63955564
Retirement Benefit Fund	146708554	100403769
Student Welfare Fund	1179116	1234956
Staff Development Fund	120379	120379
Institute Development Fund	87688292	74807031
EMD & Security Deposit	23735677	24374651
Infrastructural Development Fund	8668775	8618237

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

DR. JUVINDU BHACHAVA
Registrar,
NIT, Agartala.

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

Sponsored Project Fund	100934478	97695303	
Staff Welfare Fund	164098	89293	
Departmental Promotional Fund(Civil)	2296924	2302901	
NSS Unit	39806	43195	
Staff Benefit Trust	1547773	152532	
Director's Relief Fund	377053	363513	
School of Continuing Education	37083	35752	
Guest House Fund	4570101	3468874	
NIT Transit House Fund	310434	299287	
TEQIP Fund	566882	12862697	
NSS Unit Prog.	13182	13182	
Renewable Energy Club(TREDA)	0	0	
Stipend Payable to Students(Former Part of Schedule 13A)	927205	821737	
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)	389531776	400291071	
6) Other current Liabilities			
i) Library Caution Money			
Opening Balance	20525349	23553548	
Add: This year	5209000	4626000	
	25734349	28179548	
Less: Payment this year	4161950	7654199	
TOTAL (3E)	21572399	20525349	
ii) Loan from DHE(Staff Salaries)	5629954	5629954	
iii) Earnest Money Deposit	114616	114616	
iii) Other Income - Plan Fund	0	0	
iv) Govt. Grant-DoNER Project	0	0	
TOTAL (3F)	5744570	5744570	
TOTAL (i)	464647125	504346901	
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)	464647125	504346901	

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

DR. GOVIND BHARGAVA
Registrar,
NIT, Agartala.

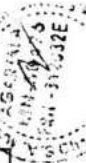
(Prof. Harish Kr. Sharma)
Director, NIT Agartala.

FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)												
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA												
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2018												
SCHEDULE 4 FIXED ASSETS	TANGIBLE ASSETS	Rate of Depn	GROSS BLOCK			DEPRECIATION			(Amount - Rs.)			
			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 Depreciation	Total up to the year-end	As at the Current year-end	As at the Previous year-end
PLAN FUND												
LAND												
	Freehold		0							0	0	
	Leasehold									0	0	
	Building	2%	24896321			24896321	16041938	497926		16539864	8356457	8854383
	Ladies Toilet	2%	115284			115284	81850	2306		84156	31128	33434
	Furniture & Fittings	7.5%	155298045	4935792		160233837	55434811	12008271		674433082	92790755	99863234
	Machinery & Equipments	5%	662194045	7482277		669676322	298190322	32632896		330823218	338853104	364003723
	Machinery & Equipments(Gras)	5%	40000			40000	40000	0		40000	0	0
	EPBX Machine	5%	409937			409937	369696	20122		389818	20119	40241
	Library Books	10%	3032073			3032073	3032073	3032073		3032073	0	0
	Machinery & Equipments(Air C	5%	4961678			4961678	3563042	212487		3775529	1186149	1398636
	Generator	5%	51000	123700		51000	51000	578086		51000	0	0
	Computer & Accessories	20%	77390038			77513738	75739509	578086		76317595	1196143	1650529
	Plant & Machinery(Tractor)	10%	385000			385000	385000	385000		385000	0	0
	Vehicle	10%	1686081			1686081	1457239	62207		1519446	166635	228842
	ELECTRIC INSTALLATIONS	5%	33894911	3046928		36941839	16623538	1770919		18394457	18547382	17271373
	Type II & III Quarters(Buildings	2%	32978525	844327		33822852	10498362	668014		11166376	22656476	22480163
	Boundary Wall	2%	66416946			66416946	2570488	1328339		3898827	62518119	63846458
	Admin Building & Class Room	2%	18621297			18621297	10427928	372426		10800354	7820943	8193369
	Academic, Library Building	2%	136098725			136098725	48477175	2721975		51199150	84899575	87621550
	Networking(Equipments)	7.5%	63103243			63103243	27116362	4732744		31849106	31254137	35986881
	Sports Equipments	5.0%	441196	125380		566576	44120	25195		69315	497261	397076
	Workshop	2.0%	23580479			23580479	936785	467609		1404394	22176085	22643694
	Boys & Girls Hostel	2.0%	1214183366			1214183366	109276504	24283667		133560171	1080623195	1104906862
	Internal Road	2.0%	192830778			192830778	17354770	3856616		21211386	171619392	175476008
	33 KV Sub Station	5.0%	40800000			40800000	5100000	2040000		7140000	33660000	35700000
	Main Gate & Auxiliary Gate	2.0%	9906684			9906684	909611	198134		1107745	8798939	8997073
	Basket Ball	2.0%	1215736			1215736	106475	24315		130790	1084946	1109261
	Central Stores	2.0%	8614183			8614183	516851	172284		689135	7925048	8097332
	Housing & Guest House	2.0%	609580501			609580501	6095805	12191610		18287415	591293086	603484696
	School of Management	2.0%	397632958			397632958	3976330	7952659		11928989	385703969	393656628
	Admin. Block & Seminar Hall	2.0%	473117263			473117263	4731173	9462345		14193518	458923745	468386090
	Watch Tower & Security Barrac	2.0%	5698969			5698969	56990	113979		170969	5528000	5641979
	Auditorium Building	2.0%	23151901			23151901	231519	463038		694557	22457344	22920382
	Iron Removal Plant	7.5%	550000			550000	20625	39703		60328	489672	529375
	500 KVA Substation	2.0%	5868452			5868452	58685	117369		176054	5692398	5809767
	Central School	2.0%	361054872			361054872	3610549	7221097		10831646	350223226	357444323
	Computer Centre	2.0%	372575151			372575151	3725752	7451503		11177255	361397896	368849399
	Workshop, Lab cum Canteen	2.0%	444800000			444800000	4448000	8896000		13344000	431456000	440352000
	TOTAL (I)		5467175638	16558404	0	5483734042	731300877	142585841	0	873886718	4609847324	4735874761

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

DR. GOVIND BHATTACHARYA
Registrar,
NIT, Agartala

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



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

NON-PLAN FUND									
Const of Market Complex									
Const of Admn. Building									
Const of Security Barrack									
TOTAL (ii)									
TOTAL (i + ii)									
GRAND TOTAL									
To be given as to cost of assets on hire purchase basis included above)									

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

(Signature)
DR. GOVIND BHARGAVA
Registrar,
NIT, Agartala.

(Signature)
(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 31.03.2018

	(Amount - Rs.)	
	Current Year 2017-2018	Previous Year 2016-2017
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

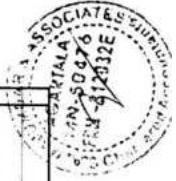
	(Amount - Rs.)	
	Current Year 2017-2018	Previous Year 2016-2017
SCHEDULE 6- INVESTMENTS - OTHERS		
1) In Govt securities		
a) F.D. with Canara Bank, Agartala Br.	0	0
b) F.D. with S.B.I., NIT Agartala Br.	0	0
2) Other approved Securities		
3) Shares		
4) Deventures & Bonds		
5) Subsidiaries & Joint Ventures		
6) Others (to be specified)		
TOTAL:	0	0

[Signature]
 (Jagadish Roy)
 Asstt. Registrar (Finance)
 National Institute of Technology
 Agartala.

[Signature]
 P. S. JOURNAL BRANCH
 Registrar
 NIT, Agartala.

[Signature]
 (Prof. Harish Kr. Shamma)
 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 31.03.2018			
SCHEDULE 7 CURRENT ASSETS	Current Year 2017-2018	Previous Year 2016-2017	
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
3) Cash balance in hand(including cheques / Drafts and Imprest			
Closing Cash Balance- Non Plan	269838		
Closing Cash Balance- Plan	191812	461650	888136
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)	116983594	20589569	
SBI, NITA Br.-Plan(A/c-30358199684)	406567100	406943102	
Canara Bank, Agt Br.- Plan (A/c-4121101001663)	1131032	101000000	
SBI, NITA Br.-N. P. S. Fund(A/c-30471674447)	169323	79024	



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

DR. GOVIND BHARGAVA
Registrar,
NIT, Agartala.

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

SBI, NITA Br.-Project Fund(A/c-30533908751)	7279550	6431127	
SBI, NITA Br.-R. B. Fund(A/c-30693303036)	18129723	8212175	
SBI, NITA Br.-Student Welfare Fund(A/c-30534089717)	1179116	1234956	
SBI, NITA Br.-Inst. Dev. Fund(A/c-30534091012)	2964694	4696391	
SBI, NITA Br.-EMD & Security Deposit(A/c-30936141729)	2909307	4788591	
TGB, NITA Br.-Inf. Dev Fund(A/c-8026010030064)	865673	832233	
SBI, NITA Br.-SDP Fund(A/c-30773081908)	7682183	10675583	
SBI, NITA Br.-Staff Welfare Fund(A/c-30534092027)	164098	89293	
SBI, NITA Br.-DPF(Civil)(A/c-30534090278)	2296924	2302901	
SBI, NITA Br.-NSS Unit(A/c-30786417404)	39806	43195	
SBI, NITA Br.-Staff Benefit Trust(A/c-31509918149)	1547773	152532	
SBI, NITA Br.-Director's Relief Fund(A/c-31536875510)	377053	363513	
SBI, NITA Br.-School of Cont. Edu.(A/c-30939795485)	37083	35752	
SBI, NITA Br.-Guest House Fund(A/c-31664487420)	4570101	3468874	
SBI, NITA Br.-NIT Transit House Fund(A/c-31092166195)	310434	299287	
SBI, NITA Br.-TEQIP Fund(A/c-32067844633)	566882	12862697	585549750
- On Deposit Account(Including Margine Money)			
Fixed Deposit with SBI Agt Br.-General A/c	3730800	3730800	
Fixed Deposit with Canara Bank, Agt. Br.-General A/c	136595380	26506381	
Fixed Deposit with SBI Agt Br.-NPS Fund	0	63876540	
Fixed Deposit with SBI Agt Br.-RBF Fund	128578831	92191594	
Fixed Deposit with TGB NITA Br.-Inf. Dev Fund	7803102	7786004	
Fixed Deposit with TGB NITA Br.-SDP Fund	93252295	87019720	
Fixed Deposit with SBI Agt Br.-Moutoshi Kar Memorial	30000	30000	
Fixed Deposit with SBI Agt Br.-EMD & Security Deposit	20826370	19586060	
Fixed Deposit with TGB NITA Br.-Inst. Dev. Fund	84723598	70110640	370837739
b) With Non Sheduled banks			
- On Current Account			
- On Deposit Account			
- On Savings Accounts			
5) Post office Savings Accounts:			
TOTAL		1052227530	957280725

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

DR. GOVIND BHARGAVA
Registrar,
NIT, Agartala.

(Prof. Harish K. Shartila)
Director, NIT Agartala.

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
ii) General Accounts						
1	31.03.2017	30268531331	3681092	30.05.2018	3941735	SBI Agt Br.
2	31.03.2017	30772128735	49708	30.05.2018	53228	SBI Agt Br.
3	15.03.2018	2348401000863/5	9922173	15.03.2020	11221379	Canara Bank, Agt Br
4	31.03.2018	3248401000647/3	5500000	31.03.2019	5866308	Canara Bank, Agt Br
5	31.03.2018	3248401000647/4	5574290	31.03.2019	5945547	Canara Bank, Agt Br
6	26.03.2018	3248401000648/1	9685006	26.03.2020	10953958	Canara Bank, Agt Br
7	01.04.2017	4121401000103/1	9002683	01.10.2018	9290787	Canara Bank, NIT Agt Br
8	01.04.2017	4121401000103/2	9002683	01.10.2018	9290787	Canara Bank, NIT Agt Br
9	01.04.2017	4121401000103/3	9002683	01.10.2018	9290787	Canara Bank, NIT Agt Br
10	01.04.2017	4121401000103/4	9002683	01.10.2018	9290787	Canara Bank, NIT Agt Br
11	01.04.2017	4121401000103/5	9002683	01.10.2018	9290787	Canara Bank, NIT Agt Br
12	01.04.2017	4121401000103/6	9002683	01.10.2018	9290787	Canara Bank, NIT Agt Br
13	01.04.2017	4121401000103/7	9002683	01.10.2018	9290787	Canara Bank, NIT Agt Br
14	01.04.2017	4121401000103/8	9002683	01.10.2018	9290787	Canara Bank, NIT Agt Br
15	01.04.2017	4121401000103/9	9002683	01.10.2018	9290787	Canara Bank, NIT Agt Br
16	01.04.2017	4121401000103/10	9002683	01.10.2018	9290787	Canara Bank, NIT Agt Br
17	01.04.2017	4121401000103/11	9002683	01.10.2018	9290787	Canara Bank, NIT Agt Br
18	01.04.2017	4121401000103/12	6884398	01.10.2018	7104713	Canara Bank, NIT Agt Br
TOTAL			140326180		147285525	
iii) Retirement Benefit Fund						
1	02.04.2017	30359168928	2496068	02.04.2020	2953299	SBI, NITA Br
2	09.06.2017	503	4189158	08.06.2018	4496810	TGB NITA Br.
3	09.06.2017	504	4189157	08.06.2018	4496809	TGB NITA Br.
4	09.06.2017	505	3351323	08.06.2018	3597444	TGB NITA Br.
5	09.06.2017	506	2513495	08.06.2018	2698086	TGB NITA Br.
6	09.06.2017	507	1675661	08.06.2018	1798722	TGB NITA Br.
7	09.06.2017	508	837847	08.06.2018	899379	TGB NITA Br.
8	06.02.2018	33642380099	3471065	06.02.2019	3668551	SBI, NITA Br.
9	06.02.2018	33642380191	2082637	06.02.2019	2201129	SBI, NITA Br.
10	06.02.2018	33642380351	2082637	06.02.2019	2201129	SBI, NITA Br.
11	06.02.2018	33642380500	2082637	06.02.2019	2201129	SBI, NITA Br.
12	06.02.2018	33642380634	2082637	06.02.2019	2201129	SBI, NITA Br.
13	06.02.2017	33642380736	2082637	06.02.2019	2201129	SBI, NITA Br.
14	06.02.2018	33642380872	2082637	06.02.2019	2201129	SBI, NITA Br.
15	06.02.2018	33642381004	2082637	06.02.2019	2201129	SBI, NITA Br.
16	06.02.2018	33642379708	2082637	06.02.2019	2201129	SBI, NITA Br.

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

L.R. GOVIND BHARGAVA
 Registrar,
 NIT Agartala.



17	06.02.2018	33642379822	2082637	06.02.2019	2201129	SBI, NITA Br.
18	06.02.2018	33642379866	2082637	06.02.2019	2201129	SBI, NITA Br.
19	06.02.2018	33642379968	2082637	06.02.2019	2201129	SBI, NITA Br.
20	12.03.2018	34783448095	1232761	12.03.2019	1304863	SBI NITA Br.
21	12.03.2018	34783447976	1232761	12.03.2019	1304863	SBI NITA Br.
22	12.03.2018	34788447885	1232761	12.03.2019	1304863	SBI NITA Br.
23	12.03.2018	34783447772	1232761	12.03.2019	1304863	SBI NITA Br.
24	12.03.2018	34783447727	1232761	12.03.2019	1304863	SBI NITA Br.
25	12.03.2018	34783447705	1232761	12.03.2019	1304863	SBI NITA Br.
26	12.03.2018	34783447568	1232761	12.03.2019	1304863	SBI NITA Br.
27	12.03.2018	34783447477	1232761	12.03.2019	1304863	SBI NITA Br.
28	12.03.2018	34783447400	1232761	12.03.2019	1304863	SBI NITA Br.
29	12.03.2018	34783447295	1232761	12.03.2019	1304863	SBI NITA Br.
30	25.02.2018	8026142103587	628273	25.02.2019	671767	TGB NITA Br.
31	31.03.2018	35665978111	5712881	31.03.2019	6046988	SBI NITA Br.
32	31.03.2018	35665977821	5712881	31.03.2019	6047007	SBI NITA Br.
33	31.03.2018	35665977355	5712881	31.03.2019	6047007	SBI NITA Br.
34	31.03.2018	35665976930	5712881	31.03.2019	6047007	SBI NITA Br.
35	31.03.2018	35665976500	5712881	31.03.2019	6047007	SBI NITA Br.
36	31.03.2018	35665976124	5712881	31.03.2019	6047007	SBI NITA Br.
37	31.03.2018	35665975868	5712881	31.03.2019	6047007	SBI NITA Br.
38	03.04.2017	36734493697	5000000	03.04.2018	5318626	SBI NITA Br.
39	03.04.2017	36734493711	5000000	03.04.2018	5318626	SBI NITA Br.
40	03.04.2017	36734493788	5000000	03.04.2018	5318626	SBI NITA Br.
41	03.04.2017	36734493857	5000000	03.04.2018	5318626	SBI NITA Br.
42	03.04.2017	36734493971	5000000	03.04.2018	5318626	SBI NITA Br.
43	03.04.2017	36734523883	5000000	03.04.2018	5318626	SBI NITA Br.
TOTAL			128578831		136782702	
iii) Sponsored Project Fund						
1	09.06.2017	459	2705430	08.06.2018	2904117	TGB NITA Br.
2	09.06.2017	460	3607589	08.06.2018	3872530	TGB NITA Br.
3	09.06.2017	461	5411386	08.06.2018	5808798	TGB NITA Br.
4	09.06.2017	462	4509486	08.06.2018	4840663	TGB NITA Br.
5	09.06.2017	463	1803793	08.06.2018	1936264	TGB NITA Br.
6	09.06.2017	476	2706106	08.06.2018	2904843	TGB NITA Br.
7	09.06.2017	477	2525700	08.06.2018	2711188	TGB NITA Br.
8	09.06.2017	478	2345291	08.06.2018	2517529	TGB NITA Br.
9	09.06.2017	479	2164885	08.06.2018	2323874	TGB NITA Br.
10	09.06.2017	480	1984475	08.06.2018	2130215	TGB NITA Br.
11	09.06.2017	481	1984476	08.06.2018	2130216	TGB NITA Br.
12	09.06.2017	482	1984476	08.06.2018	2130216	TGB NITA Br.

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

DR. GOVIND BHARGAVA
Registrar,
NIT, Agartala.

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





13	09.06.2017	483	1984476	08.06.2018	2130216	TGB NITA Br.
14	09.06.2017	484	1984476	08.06.2018	2130216	TGB NITA Br.
15	09.06.2017	485	1984476	08.06.2018	2130216	TGB NITA Br.
16	09.06.2017	486	1804071	08.06.2018	1936562	TGB NITA Br.
17	09.06.2017	487	1443257	08.06.2018	1549250	TGB NITA Br.
18	09.06.2017	488	1082463	08.06.2018	1161959	TGB NITA Br.
19	09.06.2017	489	721642	08.06.2018	774639	TGB NITA Br.
20	09.06.2017	490	360832	08.06.2018	387332	TGB NITA Br.
21	09.06.2017	8026142100058	7544449	08.06.2018	7602089	TGB NITA Br.
22	09.06.2017	8026142100067	7654580	08.06.2018	8216733	TGB NITA Br.
23	09.06.2017	8026142100076	7654584	08.06.2018	8216737	TGB NITA Br.
24	09.06.2017	8026142100085	7654584	08.06.2018	8216737	TGB NITA Br.
25	09.06.2017	8026142100094	6123667	08.06.2018	6573389	TGB NITA Br.
26	09.06.2017	8026142100100	4592750	08.06.2018	4930042	TGB NITA Br.
27	09.06.2017	8026142100119	3061832	08.06.2018	3286693	TGB NITA Br.
28	09.06.2017	8026142100128	1530915	08.06.2018	1643345	TGB NITA Br.
29	25.02.2018	8026142103578	2336148	25.02.2019	2497875	TGB NITA Br.
		TOTAL	93252295		99594483	
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	25.02.2018	8026142103602	268898	25.02.2019	287513	TGB NITA Br.
		TOTAL	7803102		11760561	
v) Institute Development Fund						
1	09.06.2017	509	5026989	08.06.2018	5396171	TGB NITA Br.
2	09.06.2017	510	4189157	08.06.2018	4496809	TGB NITA Br.
3	09.06.2017	511	4189157	08.06.2018	4496806	TGB NITA Br.
4	09.06.2017	512	3351323	08.06.2018	3597444	TGB NITA Br.
5	09.06.2017	513	2513495	08.06.2018	2698086	TGB NITA Br.
6	09.06.2017	514	1675661	08.06.2018	1798722	TGB NITA Br.
7	09.06.2017	515	837847	08.06.2018	899379	TGB NITA Br.
8	06.02.2018	33642377597	2082637	06.02.2019	2199179	SBI NITA Br.

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Dr. GOVIND BHARGAVA
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(Jagajyoti Ray)
Asstt. Registrar (Finance)
National Institute of Technology
Agartala.

9	06.02.2018	33642378738	2082637	06.02.2019	2201129	SBI NITA Br.
10	12.03.2018	34783371607	6163812	12.03.2019	6524325	SBI, NITA Br.
11	12.03.2018	34783371562	6163812	12.03.2019	6524325	SBI, NITA Br.
12	12.03.2018	34783371459	6163812	12.03.2019	6524325	SBI, NITA Br.
13	12.03.2018	34783371051	6163812	12.03.2019	6524325	SBI, NITA Br.
14	12.03.2018	34783369621	6163812	12.03.2019	6524325	SBI, NITA Br.
15	25.02.2018	8026142103596	816992	25.02.2019	873551	TGB NITA Br.
16	31.03.2018	35665970393	5712881	31.03.2019	6047007	SBI, NITA Br.
17	31.03.2018	35665969151	5712881	31.03.2019	6047007	SBI, NITA Br.
18	31.03.2018	35665968884	5712881	31.03.2019	6047004	SBI, NITA Br.
19	03.04.2017	36734493631	5000000	03.04.2018	5318626	SBI, NITA Br.
20	03.04.2017	36734493653	5000000	03.04.2018	5318626	SBI, NITA Br.
		TOTAL	84723598		90057171	
vi) EMD & Security Deposit Fund						
1	06.02.2018	33642378772	2082637	06.02.2019	2201129	SBI NITA Br.
2	06.02.2018	33642378909	2082637	06.02.2019	2201129	SBI NITA Br.
3	06.02.2018	33642378976	2082637	06.02.2019	2201129	SBI NITA Br.
4	06.02.2018	33642379038	2082637	06.02.2019	2201129	SBI NITA Br.
5	06.02.2018	33642379107	2082637	06.02.2019	2201129	SBI NITA Br.
6	06.02.2018	33642379232	2082637	06.02.2019	2201129	SBI NITA Br.
7	06.02.2018	33642379301	2082637	06.02.2019	2201129	SBI NITA Br.
8	06.02.2018	33642379436	2082637	06.02.2019	2201129	SBI NITA Br.
9	06.02.2018	33642379538	2082637	06.02.2019	2201129	SBI NITA Br.
10	06.02.2018	33642379606	2082637	06.02.2019	2201129	SBI NITA Br.
		TOTAL	20826370		22011290	
vii) Moutoshi Kar Memorial						
1	07.11.2016	34732977775	30000	14.09.2017	31694	SBI NITA Br.
		GRAND TOTAL	475540376		507523426	



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

DR. GOVIND BHARGAVA
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Registrar,
NIT, Agartala.

Jagajyoti Ray
(Jagajyoti Ray)
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 31.03.2018			
SCHEDULE 8 LOAN, ADVANCES & DEPOSITS	Current Year 2017-2018		Previous Year 2016-2017
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)		735000	
i) Loan to Startup Project			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	0
b) Prepaid Expenses			2000000
Loan to NIMCET Fund		0	0
c) Others			
Temporary Advance to Sundry Parties		1017046	1376488
LTC Advance to Employees		166500	0
4) INCOME ACCRUED			
a) On Investment - Others.			
i) Interest on Fixed Deposit-General A/c	0		2108031
ii) Interest on Fixed Deposit-SDP Fund	0	0	0
5) CLAIMS RECEIVABLE			
TOTAL		3918546	5484519



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

Dr. Ujjwal Bhargava
DR. UJJWAL BHARGAVA
Registrar,
NIT, Agartala.

(Legal Officer)
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 31.03.2018		
SCHEDULE 9 - ACADEMIC RECEIPTS	Current Year 2017-2018	(Amount - Rs.) Previous Year 2016-2017
	1) Academic Collection	220619037
2) Annual Fees / Subscription		
3) Seminar / program Fees		
4) Consultancy Fees	0	0
5) Others (Specify) -		
TOTAL	220619037	238529195
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  Asst. Registrar (Finance) National Institute of Technology Agartala. </div> <div style="width: 45%;">  DR. GOVIND BHARGAVA Registrar, NIT, Agartala. </div> </div> <div style="text-align: right; margin-top: 10px;">  (Prof. Harish Kr. Sharma) Director, NIT Agartala. </div>		





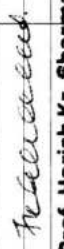
FORM OF FINANCIAL STATEMENTS (NON- PROFIT ORGANISATIONS)			
Name of Entity: NATIONAL INSTITUTE OF TECHNOLOGY, AGARTALA			
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/ YEAR ENDED 31.03.2018			
	(Amount - Rs.)		
SCHEDULE 10 - GRANTS / SUBSIDIES	Current Year 2017-2018	Previous Year 2016-2017	
(Irrevocable Grants & Subsidies received)			
1) Central Govt.			
a) From MHRD- Non Plan	0	268000000	
i) Object Head-31	146700000		
ii) Object Head-36	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	791650000	268000000	
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 31.03.2018			
	(Amount - Rs.)		
SCHEDULE 11 - INCOME FROM INVESTMENTS	Current Year 2017-2018	Previous Year 2016-2017	
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	0

(Jagajyoti Ray)
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 INCOME & EXPENDITURE FOR THE PERIOD/ YEAR ENDED 31.03.2018		
SCHEDULE 12 - INTEREST EARNED	(Amount - Rs.)	
	Current Year 2017-2018	Previous Year 2016-2017
1) On Term Deposits:		
a) With scheduled Banks- Non-Plan Fund		
State Bank of India, NIT Agartala Br.	0	447085
Canara Bank, Agartala Br	7980968	1854659
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.	311014	2857840
Plan Fund:		
Canara Bank, Agartala Br	0	0
State Bank of India, NIT Agartala Br.	11857257	8173919
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	20149239	14175539
<div style="display: flex; justify-content: space-between;"> <div>  (Jagajyoti Ray) 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 31.03.2018			
SCHEDULE 13 - OTHER INCOME	Current Year 2017-2018	Previous Year 2016-2017	(Amount - Rs.)
A. Income from Land & Building	0		
B. Sale of Institute's Publications			
C. Income from holding events			
D. Others (Specify)-			
a) Misc Income	10447		(1343942)
b) Misc. Income -Plan Fund	0		12552273
c) Sale of Tender Form	0		0
TOTAL	10447	11208331	
SCHEDULE 14 - PRIOR PERIOD INCOME	Current Year 2017-2018	Previous Year 2016-2017	(Amount - Rs.)
1. Academic Receipts	0	0	
2. Income from Investments			
3. Interest earned			
4. Others (Specify)-			
TOTAL	0	0	



(Jagajyoti Ray)
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Director, NIT 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 31.03.2018		
SCHEDULE 13A - STIPEND FUND	(Amount - Rs.)	
	Current Year 2017-2018	Previous Year 2016-2017
RECEIPTS		
Opening Balance	821737	395090
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		
2) Govt. Agencies		
a) NEC-Shillong-National Scholarship		
b) NEC-Shillong-Stipend	0	0
3) Institution / Welfare bodies		
4) Stipend-Other State	10262933	13002297
TOTAL (i)	11084670	13397387
EXPENDITURE:		
NEC-Stipend	0	0
Post Madhyamik Stipend	0	0
Otherstate-Stipend	10157465	12575650
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)	10157465	12575650
Net Amount (Tr. to Schedule 3)	927205	821737

(Signature)
Dr. GOVIND BHARGAVA
Registrar,
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(Signature)
(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 31.03.2018

SCHEDULE 15 - STAFF PAYMENT & BENEFIT		(Amount - Rs.)	
	Current Year	Previous Year	
	2017-2018	2016-2017	
a) Salaries and Wages			
i) Regular Faculty & Staffs	211726010	158617282	
ii) Contractual Faculty & Staffs	143840751	122153474	
b) Allowances and Bonus	0	2430922	
c) Contribution to Provident fund			
d) Contribution to other funds (Specify)			
e) New Pension Scheme Fund-Tier-I	10543926	7386085	
f) Staff Welfare Expenses			
g) Expenses on Employees Retirement and Terminal benefits			
h) LTC Facility	2413014	3175521	
i) Medical Facility	23346	203683	
j) Children Education Allowance	272392	1242855	
k) Other (Specify)			
1) Telephone Re-imbursement	283911	157889	
2) CPDA	7239805	3478428	
TOTAL	376343155	298846139	

SCHEDULE 16 - ACADEMIC EXPENSES		(Amount - Rs.)	
	Current Year	Previous Year	
	2017-2018	2016-2017	
a) Laboratory Expenses	4097186	806405	
b) Honarium to Visiting Examiner & others	4081150	4195882	
c) Expenses on Workshop	821583	2838599	
d) Convocation Expenses	2561018	2231729	
e) Scholarship-Institute	84582474	68123563	
f) Others (specify)			
1) Contingency to PhD/M.Tech	3133959	1736850	
2) Expenses for Research Affairs		277975	
TOTAL	99277370	80211003	

(Signature)
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(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 31.03.2018

SCHEDULE 17 - ADMINISTRATIVE & GENERAL EXPENSES	(Amount - Rs.)	
	Current Year 2017-2018	Previous Year 2016-2017
a) Electricity and Power	27199657	27727113
b) Water Charges		
c) Postage	90000	30000
d) Printing & Stationery	1266003	938466
e) Travelling & Conveyance Expenses	2029236	3260288
f) TDS Demand	10278298	0
g) Hospitality Expenses	240439	591161
h) Advertisement and publicity	2205832	1198568
i) Newspaper & Periodical	27751	11198
j) Telephone & Communication	332137	577900
k) Others (Specify)		
1) Miscellaneous Expenses	9821107	171165
2) Medicine Expenses	1102458	1478010
3) Institution Membership Exp		
4) Recruitment expenses	163268	19060
5) Liveries		
6) Security Services	58062875	27416976
7) Gardening Expenses	8571301	4904336
8) Sweeping & Cleaning	33782716	18263281
9) Lawyer Fees	836145	2717605
10) Networking Expenses	445733	0
11) Games, Sports & Cultural Activity	6063575	6247194
12) Internal Audit Fees	203809	46995
13) Statutory Audit Fees-A.G.		100000
14) Rent to PWD-Agartala Transit House	1168734	732212
15) BOG Meeting Expenses	28320	
16) Cable Charges	250000	
17) Rent to NIT Transit House, Delhi		
TOTAL	164169394	96431528

(Signature)
 Asst. Registrar (Finance)
 National Institute of Technology
 Agartala.

(Signature)
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 NIT, Agartala.

(Signature)
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 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 31.03.2018

SCHEDULE 18 - TRANSPORTATION EXPENSES		(Amount - Rs.)	
	Current Year	Previous Year	
	2017-2018	2016-2017	
a) Registration, Insurance etc. for Vehicle	203000	174976	
b) Transportation Expenses	129563	178884	
c) Vehicle Repair & Maintenance	285684	266659	
d) Fuel Charges	1261816	1161942	
e) Others (Specify)			
TOTAL	1880063	1782461	

SCHEDULE 19 - REPAIRS & MAINTENANCE		(Amount - Rs.)	
	Current Year	Previous Year	
	2017-2018	2016-2017	
a) Repair & Maintenance	3842874	3182675	
b) Repairs & Maints-Electricals	1833711	631945	
c) Repair & Maintenance - Building	6615346	2684416	
d) Repair & Maintenance - Computer & Accessories	3894841	4485406	
e) Repair & Maintenance - Internal Road	94500	443184	
f) Repair & Maintenance - Equipment & Machinery	227708	0	
g) Others (Specify)		0	
TOTAL	16508980	11427626	



(Jagajyoti Roy)
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 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 31.03.2018

SCHEDULE 20 - FINANCE COSTS		(Amount - Rs.)	
	Current Year	Previous Year	
	2017-2018	2016-2017	
a) Interest on Fixed Loans	0	0	0
b) Interest on Other Loans	0	0	0
c) Bank Commission	50617	70243	70243
d) Others (Specify)	0	0	0
TOTAL	50617	70243	

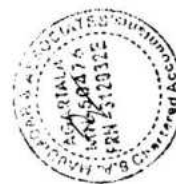
SCHEDULE 21 - OTHER EXPENSES		(Amount - Rs.)	
	Current Year	Previous Year	
	2017-2018	2016-2017	
a) Provision for Bad and Doughtful Debts	0	0	0
b) Irrecoverable Balance Written off	0	0	0
c) Others (Specify)	0	0	0
TOTAL	0	0	0

SCHEDULE 22 - PRIOR PERIOD EXPENSES		(Amount - Rs.)	
	Current Year	Previous Year	
	2017-2018	2016-2017	
1. Establishment Expenses	0	0	0
2. Academic Expenses	0	0	0
3. Administrative Expenses	0	0	0
4. Transportation Expenses			
5. Repairs & Maintenance			
6. Others (Specify)			
TOTAL	0	0	0

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

(Signature)
DR. GOVIND BHARGAVA
Registrar,
NIT, Agartala.

(Signature)
(Prof. Harish Kr. Sharma)
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 31.03.2018

Particulars	Current Year 2017-18	Previous Year 2016-17
A. CASH FLOW FROM OPERATING ACTIVITIES		
Susplus/(deficit) for the year	11,15,92,551	(35,06,38,501)
Less: Expenditure on other Fund (NMEICT)	-	-
Adjustments for the Non-operating Incomes/Expenses		
Depreciation	14,95,81,593	34,35,45,541
Write offs	-	-
Interest expenses on Loans	-	-
(Increase)/Decrease in Current Asstes	26,11,74,144	(70,92,960)
Increase/(Decrease) in Current Liabilities	(2,61,73,498) (2,88,35,013)	9,42,19,824 3,80,52,158
Net Cash Flow from Operating Activities	20,61,65,633	12,51,79,022
B. CASH FLOW FROM INVESTING ACTIVITIES		
(Purchase)/Sale of Fixed Asstes	(40,03,04,065)	(63,35,02,843)
(Purchase)/Sale of Fixed Investments	(11,00,88,999)	(4,47,085)
Interest received	-	(63,39,49,928)
Net Cash Flow from Investing Activities	(51,03,93,064)	(63,39,49,928)
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)	29,99,50,000	89,64,88,776
Interest paid on Loans	29,99,50,000	89,64,88,776
Net Increase in Cash Equivalents (A+B+C)	(42,77,431)	38,77,17,870
Cash and cash Equivelants as at the beginning of F.Y.	52,98,69,762	14,21,51,892
Cash and Cash Equivelant at the end of the period	52,55,92,331	52,98,69,762

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

(Signature)
 DR. GOVIND BHARGAVA
 Registrar,
 NIT, Agartala.

(Signature)
 (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 2017-18 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.


(Jagajyoti Roy)
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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 & Associates- 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 2017-18.


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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 31.03.2018 and Income and Expenditure and Receipts and Payment Accounts for the year ended on that date.


(Ujjayanti Roy)
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For S. A. Majumdar & Associates.
Chartered Accountants.


(CA, S. Majumdar)

