

# ANNUAL REPORT 2013-2014



**NATIONAL INSTITUTE OF TECHNOLOGY  
SILCHAR**

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## *From The Director's Desk*



**W**ith a vision to train and transform young professionals into responsible citizens engaging themselves for the betterment of the society, NIT Silchar has come a long way from being a REC to brand- NITS. The Institute aims to produce skilled and trained industry-ready professionals through imparting quality technical education and acts as the center of excellence for engineering and scientific research. Tremendous hard work, confidence and faith of all the stakeholders and well-wishers of the Institute encourage us to strive towards the zenith of academic excellence.

Being an integral part of the dynamic research community, NIT Silchar focuses on designing engineering and management programs that instil leadership and teamwork, and carries a global appeal. The undergraduate, postgraduate and Ph.D. programs are regularly revised to comply with global technical developments and market demands. The Institute has bagged the 1st C-DAC Centre of Northeast India, established the first ever of its kind a High Performance Computing Centre in its sprawling campus and won the prestigious ASSHOCHSM awards for Best Engineering College in East India in February 2014.

The research conducive green campus encourages the young minds to develop attributes and knowledge beyond the constraints of traditional classroom teaching and learning. The flexibility in the design of management and engineering education in the institute incubates global trends and helps to meet future demands, ensuring better Institute-Industry partnership both at local and global levels. NITS has been able to create a niche of its own and become the most preferred institute in the eastern region of the country. It stands as a humble spectacle where tradition meets vogue, aspiration meets inspiration and regional excellence defines global benchmarks.

**Prof. N. V. Deshpande**  
Director



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## MISSION

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

## VISION

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

## OBJECTIVES

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



# 1. Introduction

## 1.1 Historical Background

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

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

On the basis of the report of the High Powered Joint Expert Committee of AICTE and UGC under the chairmanship of Prof. S. K. Joshi, Director General of Council for Scientific and Industrial Research (CSIR), Regional Engineering College Silchar has been transformed and upgraded to National Institute of Technology, Silchar with the status of Deemed University on 28<sup>th</sup> June 2002. The institute has been taken over by Government of India and subsequently made into a

fully funded Central Government Autonomous Institution. This ensures a better financial status for NIT Silchar and will accelerate its growth ensuring that it becomes one of the premier technological institutes of not just the North-East but the entire nation. The institute has remodeled its curriculum and academic activities in line with that of the IITs. With its Deemed University status, the institute started awarding degrees from the year 2002 and the first convocation of the institute was held on 16 February 2004. The Government of India declared the Institute as an Institute of National Importance by enacting the National Institutes of Technology Act 2007.

## 1.2 Location

The institute is situated at Silchar (latitude 24.5°N, longitude 92.51°E, at a height of 114.68m above MSL), at a distance of about eight kilometers to the south from the heart of the town on the Silchar-Hailakandi road in Cachar district of Assam. Silchar is well connected to rest of the country via airways, railways and roadways. The Institute boasts of state-of-the-art academic and research infrastructure, lecture theatres, laboratories, resource-centres, sports grounds, open-air theatre, hospital, food-courts and many more being embraced by the greenery, expansive tea gardens and lakes.

## 1.3 CAMPUS

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

The campus area has been organized in three functional sectors:

- Hostel, amenities and activities centre for students
- Academic blocks and administrative block
- Residential sectors for the staff

The instructional buildings are strategically located between the hostels and staff quarters to provide easy access. There is a full-fledged computerized branch of State Bank of India, a Post-Office, Health centre and a shopping complex. A well-equipped Canteen is situated adjacent to the instructional buildings to facilitate the students and staff members during and beyond the working hours. There

is a well-equipped Gymkhana and a Students Activity Center which are utilized by students for activities like fitness, indoor games and similar other pursuits. There is a 40 room Guest House in the campus for the visitors. There is a Kids School, Lower Primary School and a Kendriya Vidyalaya up to class IX in the campus for the schooling of the children.



**The Campus**

## 2. The Council, BOG and other Committees

### 2.1 The Council

**Table 1: Composition of The Council**

Sl. No.	Members	Position
1.	Minister-in-charge, Ministry of Human Resource Development, Govt. of India	Chairman (ex-officio)
2.	Secretary to the Govt. of India, Deptt. of Higher Education, Ministry of Human Resource Development	Vice-Chairman (ex-officio)
3.	The Chairperson of National Institutes of Technology located at – Agartala (Tripura), Allahabad (UP), Bhopal (Madhya Pradesh) Calicut (Kerala), Durgapur (West Bengal), Hamirpur (Himachal Pradesh), Jaipur (Rajasthan), Jalandhar (Punjab), Jamshedpur (Jharkhand) Kurukshetra (Haryana), Nagpur (Maharashtra), Patna (Bihar), Raipur (Chattisgarh), Raourkela (Orissa), Silchar (Assam), Srinagar (J&K), Surat (Gujarat), Surathkal (Karnataka), Tiruchirapalli (Tamil Nadu) and Warangal (Andhra Pradesh)	Member (ex-officio)
4.	Director of every National Institute of Technology	Member (ex-officio)
5.	The Chairman, University Grant Commission	Member (ex-officio)
6.	The Director General, Council for Scientific & Industrial Research	Member (ex-officio)
7.	Secretary, Department of Bio-Technology, Govt. of India	Member (ex-officio)
8.	Secretary, Department of Atomic Energy, Govt. of India	Member (ex-officio)
9.	Secretary, Department of Information Technology, Govt. of India	Member (ex-officio)
10.	Secretary, Department of Space, Govt. of India	Member (ex-officio)
11.	The Chairman, All India Council for Technical Education	Member (ex-officio)
12.	Not less than three, but not more than five persons to be nominated by the Visitor, at least one of whom shall be a women, having special knowledge or practical experience in respect of education, industry, science or technology	Member
13.	Three Members of Parliament, of whom two shall be chosen by the House of People and one by the Council of States	Member

Sl. No.	Members	Position
14.	Two Secretaries to the State Govt. of Maharashtra, from amongst the Ministries or departments of that government dealing with technical education	Member (ex-officio)
15.	The Financial Advisor, Ministry of Human Resource Development, Govt. of India	Member-Secretary (ex-officio)
16.	Joint Secretary to the Govt. of India (Technical)/Additional Secretary (Technical)/ Department of Higher Education, Ministry of Human Resource Development	Member (ex-officio)

## 2.2 Board of Governors

**Table 2: Name and Position of Board of Governors**

Sl. No.	Members	Position
1.	Prof. Asis Datta, Professor of Eminence, NIPGR, Delhi	Chairman
2.	Prof. N.V. Deshpande, Director, NIT Silchar	Ex-officio Member
3.	Smti. Amita Sharma, Additional Secretary, Deptt. of Higher Education, MHRD, Govt. of India, Shastri Bhavan, C-Wing, New Delhi.	Member
4.	Sri. Yogendra Tripathi, Financial Adviser & Jt. Secretary, Deptt. of Higher Education, MHRD, Govt. of India, New Delhi.	Member
5.	Sri. H.K. Sharma, Commissioner & Secretary, Govt. of Assam, Higher Education (Tech.) Deptt., Guwahati	Member
6.	Dr. Atul Bora, Director of Technical Education, Govt. of Assam, Guwahati	Member
7.	Prof. Sunanda Dhar, Head of Electronics Sciences, University of Calcutta, Kolkata	Member
8.	Prof. Samrendra Dandapat, Deptt of Electronics & Electrical Engineering , IIT Guwahati	Member
9.	Prof. Uma Bhattacharya, Deptt. of CSE, B.E.S.U., Sibpur, Howrah	Member
10.	Prof. A.K. Roy, Professor Deptt. of EE, NIT Silchar (upto 26.09.13)	Member
11.	Mr. P.L. Choudhury, Assoc. Professor, Deptt. of ME, NIT Silchar (upto 26.09.13)	Member
12.	Sri Sanjay Srivastav , Registrar (I/C), (w.e.f. 19 <sup>th</sup> Feb'13 to 14 <sup>th</sup> May'13) Dr. A.K. Barbhuiya, Registrar (I/C), (w.e.f. 15 <sup>th</sup> May'13 to 1 <sup>st</sup> September'13) Sri. J. Patro, Registrar, (w.e.f 2 <sup>nd</sup> September'13)	Member Secy

## 2.3 Finance Committee

**Table 3: Name and Position of Members of Finance Committee**

Sl. No.	Name and Address	Position
1.	Prof. Asis Datta, Professor of Eminence, NIPGR, Delhi	Chairperson
2.	Prof. N.V. Deshpande, Director, NIT Silchar (Ex-officio)	Member
3.	Smti. Amita Sharma, Additional Secretary, Deptt. of Higher Education, MHRD, Govt. of India, Shastri Bhavan, C-Wing, New Delhi.	Member
4.	Sri. Yogendra Tripathi, Financial Adviser & Jt. Secretary, Deptt. of Higher Education, MHRD, Govt. of India, New Delhi.	Member
5.	Prof. A.K. Roy, Professor, Deptt. of E.E., NIT Silchar (upto 26.09.13) Mr. P.L. Choudhury, Assoc. Professor, Deptt. of M.E., NIT Silchar (upto 26.09.13)	Member
6.	Sri Sanjay Srivastav, Registrar (I/C), (w.e.f. 19 <sup>th</sup> Feb'13 to 14 <sup>th</sup> May'13 ) Dr. A.K. Barbhuiya, Registrar (I/C), (w.e.f. 15 <sup>th</sup> May'13 to 1 <sup>st</sup> September'13 ) Sri. J. Patro, Registrar, (w.e.f 2 <sup>nd</sup> September'13)	Member-Secy

## 2.4 Building and Works Committee

**Table 4: Name and Position of Members of Building and Works Committee**

Sl. No.	Name and Address	Position
1.	Prof. N.V. Deshpande, Director, NIT Silchar (Ex-officio)	Chairperson
2.	Mr. Navin Soi, Director, Finance, MHRD, New Delhi	Member
3.	Mr. Rajesh Singh Solanki, MHRD, New Delhi	Member
4.	Prof. P. S. Chowdhury, Dean (P&D), NIT Silchar (upto 31 <sup>st</sup> March, 2014)	Member
5.	Prof. A. I. Laskar, HOD, Civil Engineering Department, NIT Silchar	Member (Nominee)
6.	Mr. Kailash Das, Executive Engineer (E), PWD, Guwahati	Member
7.	Sri. Sanjay Srivastav, Registrar (I/c), (w.e.f. 19.02.13 to 14.05.13) Prof. A. K. Barbhuiya, Registrar & Member Secretary, NIT Silchar (upto August, 2013) Mr. J. Patro, Registrar & Member Secretary, NIT Silchar (from September, 2013)	Member- Secy

## 2.5 The Senate

**Table 5: Name and Position of Members of Senate**

Sl. No.	Name and Address	Position
1.	Prof. N.V. Deshpande, Director, NIT Silchar	Chairperson
2.	Prof. A.K. Roy, Deptt. of EE, NIT Silchar	Member



Sl. No.	Name and Address	Position
3.	Prof. Fazal A. Talukdar, Dean (Academic Affairs), NIT Silchar	Member
4.	Prof. A.K. Sinha, Deptt. of EE, NIT Silchar	Member
5.	Prof. K.M. Pandey, Deptt. of ME, NIT Silchar	Member
6.	Prof. Nidul Sinha, Deptt. of EE, NIT Silchar	Member
7.	Prof. A.K. Dey, Deptt. of CE, NIT Silchar	Member
8.	Prof. S. Baishya, Dean (R & C), NIT Silchar	Member
9.	Prof. P.S. Choudhury, Deptt. of CE, NIT Silchar	Member
10.	Prof. R.D. Misra, Dean (Faculty Welfare), NIT Silchar	Member
11.	Prof. Gurudas Das, HOD, Deptt. of HSS, NIT Silchar	Member
12.	Prof. Dibakar Chakraborty, Dean (Alumni Relations), NIT Silchar	Member
13.	Prof. A. I. Laskar, HOD, Deptt. of CE, NIT Silchar	Member
14.	Prof. M. A. Ahmed, Dean (P & D), NIT Silchar	Member
15.	Prof. A. K. Barbhuiya, Dean (Students' Welfare), NIT Silchar	Member
16.	Prof. B. K. Roy, HOD of EE, NIT Silchar	Member
17.	Prof. C. R. Bhattacharjee, Deptt. of Chemistry, Assam University, Silchar	Member
18.	Prof. Sunanda Dhar, Deptt. of Electronic Sciences, Calcutta University	Member
19.	Prof. (Ms.) Rohini M Punekar, HOD of HSS, IIT Guwahati	Member
20.	Mr. J. Patro, Registrar & Secretary, Senate	Member

## 2.6 DEANs and HODs

Dean (Academic Affairs)	:	Prof. F. A. Talukdar
Dean (Alumni Relation)	:	Prof. D. Chakraborty
Dean (Faculty Welfare)	:	Dr. R.D. Misra
Dean (Planning & Development)	:	Prof. P. S. Choudhury
Dean (Research & Development)	:	Dr. S. Baishya
Dean (Student Welfare)	:	Dr. A. K. Barbhuiya
HOD, Civil Engineering	:	Prof. S. Choudhury (upto 13.11.13) Prof. A. I. Laskar (from 13.11.13)
HOD, Computer Science Engineering	:	Prof. N. V. Deshpande (upto 12.11.13) Mr. S. K. Borgohain (from 13.11.13 to 13.02.14) Ms. Ujwala Barua (from 14.02.14)
HOD, Chemistry	:	Prof. A. K. Sil (upto 26.01.14) Dr. Pranjit Barman (from 27.01.14)

HOD, Electrical	:	Dr. A. K. Roy (upto 29.07.13) Dr. B. K. Roy (from 30.07.13)
HOD, Electronics and Communication Engineering	:	Mrs. M. Paul (upto 19.11.13) Dr. R. H. Laskar (from 20.11.13)
HOD, Electronics and Instrumentation Engineering	:	Dr. Shahedul Haque Laskar
HOD, Humanities and Social Sciences	:	Dr. Gurudas Das
HOD, Management Studies	:	Dr. Asim Kumar Das
HOD, Mathematics	:	Mr. Bijan Nath
HOD, Mechanical Engineering	:	Dr. R. D. Misra (upto 20.05.13) Dr. P. K. Patowari (from 20.05.13)
HOD, Physics	:	Dr. Asim Roy (upto 04.08.13) Dr. Subrat K. Barik (from 05.08.13)
Co-ordinator (TEQIP)	:	Dr. M. A. Ahmed
Chairman (Board of Hostel Management)	:	Dr. A. K. Barbhuiya
Head, Workshop	:	Dr. P. K. Patowari
Head, Training & Placement	:	Dr. N. B. D. Choudhury, FIC
Head, Computer Centre	:	Sh Mithlesh Kumar

## 3. Education System

### 3.1 Undergraduate (B. Tech.)

#### Admission Procedure:

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

#### Academic Calendar:

The academic session is divided into two semesters each of approximately 17 weeks duration, an Odd Semester (July-December) and an Even Semester (January-June). The AIEEE/JEE (Main) selected candidates take admission in the first semester and on successful completion of the semester register for the subsequent semester on the dates specified in the Academic Calendar. The Senate approves the Academic Calendar consisting of schedules of activities for a session inclusive of dates for registration, mid-semester and end-semester examinations, inter-semester breaks etc. well in advance of a session. The Academic Calendar usually provide for a total of about 85-90 working days in each semester.

#### Programme Structure:

The duration of the programme leading to B.Tech. degree is four years. The curricula for the different degree programmes as proposed by the respective departments and recommended by the Departmental Undergraduate Programme Committee (DUPC) shall have the approval of the Senate. The departments would also prepare the syllabus of each subject containing the scope of studies and detailed instructions to be imparted which must have the approval of the Senate.

All subjects would have a lecture-tutorial-practical (laboratory/sessional) component (L-T-P) to indicate the

contact hours. The tutorial (T) or practical/ Sessional (P) component may be absent in certain courses. Separate laboratory subjects (O-O-P) may exist in certain cases as decided by the Senate on the recommendation of the DUPC. All subjects will have a credit count 'C'. Teaching of subjects will be reckoned in terms of credits. One hour lecture or tutorial class is designated as 2 credits while one hour practical class is designated as one credit.

In each of the first year/ second year, there shall be non-credit compulsory Extra Academic Activity (EAA). The Extra Academic Activity may be N.S.S., N.C.C., or any other physical education. The curricula for B.Tech. programme includes compulsory Industrial training of 6-8 weeks duration after 6th semester in any reputed industry, research organization, IIT's and other reputed institutions which is assessed in the 7th Semester. The Project work will carry a total of 15-20 credits.

#### Registration and Assessment:

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

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

- c) The duration of the UG programme is normally four years. However, academically weak students are permitted to complete the programme in six years from the date of first registration.
- d) A student is permitted to register for few DD graded courses if the CPI of the student falls below 6.0 for improvement.
- e) If a student fails to clear a subject in the end-semester examination, then he/she is permitted to clear the same in the re-examination normally conducted within the first 15 days of the next semester. No reduction in grade is invoked if a student clears the subject in the re-examination.

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

The M.Tech. regulations provide the necessary guidelines for the two years regular Postgraduate programme and three years part-time programme in Engineering disciplines.

Similarly the M.Sc./MBA regulations provide guidelines for 2 years (4 semesters) M.Sc./MBA course.

#### Academic Procedure

##### M.Tech.:

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

##### M.Sc. (Chemistry, Mathematics, Physics):

Admission to M.Sc. courses in Chemistry, Mathematics and Physics are based on career marking, written test and interview. Applicants must have secured at least 50% marks or a CPI of 5.5 in aggregate at B.Sc. level and preference is given to students having honours in the applied discipline. Statutory relaxation in the minimum eligibility criterion is provided to candidates belonging to SC/ST communities.

##### M.B.A:

The minimum eligibility criterion for admission to MBA is Bachelors degree in any branch of engineering/science/humanities etc with 50% marks or 5.5 CGPA and valid CAT/MAT/CMAT scores. Final selection is made on the basis of Group Discussion and Personal Interview conducted at the Institute.

##### Programme Structure:

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

The 3<sup>rd</sup> and 4<sup>th</sup> semester mostly constitute the project work for M.Tech. while for M.Sc/MBA, the project work spans over the fourth semester. MBA students undergo a compulsory summer internship after second semester.

Project work and Seminar are essential part of the curricula. Class tests, assignments, tutorials, viva-voce, laboratory assignments, etc., are the constituent components of continuous assessment process and a student must fulfil all these requirements as prescribed by the teacher/coordinator of the subject.

##### Registration:

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

### 3.3 Research Course (Ph.D.)

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

1. Masters Degree in Engineering/Technology or equivalent in an appropriate area with a minimum CPI of 6.5 or equivalent (60% of marks).
2. Bachelors Degree in Engineering/Technology with an excellent academic record and with a CPI of at least 8 or equivalent (70% of marks).

Students for admission to the Ph.D. Programme in Science Departments must have a Master degree in relevant discipline with a first class or a minimum of 60% of marks or equivalent.

Students for admission to the Ph.D. Programme in Humanities and Social Sciences (HSS) Departments must

have a Masters degree with a minimum of 55% marks or equivalent.

Selection of candidates is made on the basis of interview conducted by the department concerned.

**Table 6: Details of Project work, Seminar and Technical Writing**

Course	Number of semesters	Typical credit per semester	Total course credit	Project work credit	Semester assigned for project	Industrial Training
B.Tech. (4 years) pre-2012	8	32-54	350-390	10	7 <sup>th</sup> and 8 <sup>th</sup>	6-8 weeks
B.Tech. (4 years) w.e.f. 2012 batch	8	32-48	320	15-20	7 <sup>th</sup> and 8 <sup>th</sup>	6-8 weeks (Audit)
M.Tech. (2 years)	4	24-32	Min 96	Min 32	3 <sup>rd</sup> and 4 <sup>th</sup>	-
M.Sc. (2 years)	4	26-30	Min 96	12-18	4 <sup>th</sup>	-
MBA (2 years)	4	Min 36	150	2	4 <sup>th</sup>	-
Ph.D.	6	Min 24				

### 3.4 Results

Summary of results of different academic programme is presented in following tables.

**Table 7: Results of B.Tech. Programme**

Programme	Branch & Course	Number Appeared	Number Passed	Percentage passed	Remarks
B.Tech.	Civil Engineering	90	89	98.89%	
	Mechanical Engineering	105	97	92.38%	
	Electrical Engineering	105	104	99.05%	
	Electronics & Communication Engineering	99	92	92.93%	
	Computer Science&Engineering	72	67	93.06%	
	Electronics & Instrumentation Engineering	15	15	100%	



Table 8: Results of M.Tech./M.Sc. Programme

Programme	Branch & Course	Number Appeared	Number Passed	Percentage passed	Remarks
M.Tech	Civil Engineering (Water Resources Engineering)	03	03	100%	
	Civil Engineering (Earthquake Engineering)	03	03	100%	
	Civil Engineering (Transportation)	05	05	100%	
	Civil Engineering (Geotechnical)	03	03	100%	
	Mechanical Engineering (Thermal Engineering)	15	15	100%	
	Mechanical Engineering (Design & Manufacturing)	12	12	100%	
	Electrical Engineering (Power & Energy system Engineering)	09	09	100%	
	Electrical Engineering (Control & Industrial Automation Engineering)	05	05	100%	
	Electronics & Communication Engineering (Microelectronics & VLSI Design)	09	09	100%	
M.Sc.	Chemistry (Applied Chemistry)	07	07	100%	

Table 9: Candidates qualified for the B.Tech. Degree after 10<sup>th</sup> Convocation held in 17<sup>th</sup> July, 2012 and before End semester Examination held in April, 2013.

Branch	Appeared	Passed
Civil Engineering (B.Tech.)	01	01
Mechanical Engineering (B.Tech.)	05	05
Electrical Engineering (B.Tech.)	18	18
Electronics & Communication Engineering (B.Tech.)	05	05
Computer Science & Engineering (B.Tech.)	14	14

### 3.5 Course-wise-Enrollment with Reservation Category (UG & PG)

#### 3.5.1 Undergraduate

**Table 10: Semester-wise, course wise enrolment with sex and caste breakup for the period 2013-14.**

(The excess intake, over and above the intake capacity, was carried out as seat distribution programme made by MHRD).

Sem	Branch	Open (Breakup)		OBC (Break up)		SC (Break up)		ST (Breakup)		PH		Total Enrolment
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Total
1 <sup>st</sup> & 2 <sup>nd</sup>	Civil	45	6	42	1	17	-	8	1	1 OBPH 1 SCPH	-	122
	Mech	55	2	36	1	17	1	9	-	1 OPPH	-	122
	Elect.	41	4	25	4	12	-	7	-	1 OPPH	-	94
	ECE	44	6	36	-	14	7	7	1	1 OPPH	-	116
	EIE	23	3	17	2	8	1	5	-	1 OPPH	-	60
	CSE	34	5	26	1	8	2	5	-	1 OPPH	-	82
		<b>242</b>	<b>26</b>	<b>182</b>	<b>9</b>	<b>76</b>	<b>11</b>	<b>41</b>	<b>2</b>	<b>07</b>	-	<b>596</b>
3 <sup>rd</sup> & 4 <sup>th</sup>	Civil	51	03	23	01	11	01	07	-	1 OPPH	-	98
	Mech	58	02	26	-	13	-	06	01	2 OPPH 1 OBPH	-	109
	Elect.	48	04	20	02	13	-	04	01	1 OBPH 1 SCPH	-	94
	ECE	44	04	22	02	12	01	06	01	1 OPPH	-	93
	EIE	09	03	08	-	04	01	02	-	1 OPPH	-	28
	CSE	53	06	19	02	11	02	05	01	1 OPPH	-	100
		<b>263</b>	<b>22</b>	<b>118</b>	<b>07</b>	<b>64</b>	<b>05</b>	<b>30</b>	<b>04</b>	<b>09</b>	-	<b>522</b>
5 <sup>th</sup> & 6 <sup>th</sup>	Civil	50	02	26	01	13	-	05	02	OPPH-01 OBPH-01	-	101
	Mech	51	02	25	-	12	03	07	-	OPPH-02	-	102
	Elect.	38	07	26	01	11	01	06	02	SCPH-01 OPPH-02	-	95
	ECE	43	06	25	01	11	03	08	01	OPPH-01	-	99
	EIE	08	02	08	-	04	-	02	-	OPPH-01	-	25
	CSE	42	06	22	02	9	04	06	-	OPPH-01 OBPH-02	-	94
		<b>232</b>	<b>25</b>	<b>132</b>	<b>05</b>	<b>60</b>	<b>11</b>	<b>34</b>	<b>05</b>	<b>12</b>	-	<b>516</b>

7 <sup>TH</sup> & 8 <sup>TH</sup>	Civil	48	03	30	01	16	01	07	01	-	01OB	108
	Mech	50	02	24	01	15	-	08	-	01OBPH	01-OB 02-OP	104
	Elect.	41	08	22	01	17	01	05	02	-	-	97
	ECE	35	02	25	02	13	02	06	03	01 OPPH	-	89
	EIE	08	-	06	02	02	01	01	-	-	01OP	21
	CSE	31	06	19	04	10	03	04	02	01 OPPH	-	80
		<b>213</b>	<b>21</b>	<b>126</b>	<b>11</b>	<b>73</b>	<b>08</b>	<b>31</b>	<b>08</b>	<b>03</b>	<b>05</b>	<b>499</b>
	Grand Total											<b>2133</b>

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

### 3.5.2 Postgraduate

Table 11: Course admission statistics of PG programmes (M.Tech., M.Sc. & MS ) for the year 2013-14.

Deptt.	Sanctioned strength including approved category (R-20+S-5)*	M.Tech. & M. Sc. Specialization	No. of PG students	
			M.Tech/M.Sc/MBA	Total
CE	25	M.Tech. in water Resource Engg.	18	18
	25	M.Tech. in Earthquake Engg.	16	16
	25	M.Tech in Transportation Engg.	18	18
	25	M.Tech. in Geotechnical Engg.	19	19
	25	M.Tech in Structural Engg.	20	20
ME	25	M.Tech. in Thermal Engg.	20	20
	25	M.Tech. in Design & Manufacturing	20	20
	12	M.tech in CAD-CAM Automation	09	09
	12	M.Tech in Meterial & Manufacturing Technology	08	08
EE	25	M.Tech. in Power & Energy system Engg.	16	16
	25	Control & Industrial Automation	14	14
ECE	25	M.Tech. in Micro-Electronics & VLSI Design	16	16
	12	M.Tech in Communication & Signal Processing	09	09
CSE	25	M.Tech. in Computer Science & Engg.	14	14
PHY	25	M.Sc. in Applied Physics	08	08

Deptt.	Sanctioned strength including approved category (R-20+S-5)*	M.Tech. & M. Sc. Specialization	No. of PG students	
			M.Tech/M.Sc/MBA	Total
CHEM	25	M.Sc. in Applied Chemistry	17	17
MATH	25	M.Sc. in Mathematics	07	07
MS	60	MBA	37	37
<b>Grand Total (M.Tech. + M.Sc. + MS) =</b>			<b>286</b>	<b>286</b>

\*(Regular & Sponsored)

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

### 3.6 Admission Statistics

**Table 12: Indian students admitted (state-wise and course-wise admission statistics with category breakup for the year 2013-14).**

Name of the State	Category	CE	ME	EE	ECE	CSE	EIE	Total
Assam	Open	28	30	22	28	22	14	<b>144</b>
	OBC	18	15	15	15	13	8	<b>84</b>
	SC	9	9	5	10	7	5	<b>45</b>
	ST	4	4	4	3	3	2	<b>20</b>
	OPPH	--	1	1	--	--	1	<b>3</b>
	SCPH	1	--	--	--	--	--	<b>1</b>
Rajasthan	OBC	2	1	1	3	3	3	<b>13</b>
	Open	5	5	2	7	4	1	<b>24</b>
	SC	--	--	1	--	--	--	<b>1</b>
	ST	2	--	2	1	--	1	<b>6</b>
Bihar	OP	3	8	4	2	--	1	<b>18</b>
	OBC	14	9	7	9	4	1	<b>44</b>
	OBPH	--	--	--	--	--	--	<b>--</b>
	OPPH	--	--	--	1	1	--	<b>2</b>
	SC	5	5	2	4	1	--	<b>17</b>
	ST	--	2	--	1	--	--	<b>3</b>
Uttar Pradesh	OBC	6	5	5	3	--	4	<b>23</b>
	Open	6	2	3	3	3	4	<b>21</b>
	SC	3	4	3	1	1	--	<b>12</b>
	OBPH	1	--	--	--	--	--	<b>1</b>
Andhra Pradesh	OBC	1	4	--	3	5	2	<b>15</b>
	Open	2	2	1	5	2	1	<b>13</b>
	SC	--	--	1	3	1	2	<b>7</b>
	ST	2	--	--	--	1	1	<b>4</b>

Name of the State	Category	CE	ME	EE	ECE	CSE	EIE	Total
Jharkhand	OBC	2	2	1	2	--	--	7
	Open	--	--	3	1	1	--	5
	SC	--	--	--	1	--	--	1
	ST	--	--	--	1	--	--	1
	ST	--	--	--	--	--	--	--
Tripura	ST	--	--	--	1	--	--	1
Delhi	Open	--	1	--	1	--	1	3
Chandigarh	OP	--	--	--	--	1	--	1
Haryana	Open	--	--	--	--	--	2	2
	OBC	--	--	--	--	1	--	1
Nagaland	ST	--	--	--	--	1	--	1
Meghalaya	ST	--	2	1	--	--	--	3
Karnataka	OP	--	1	--	--	--	--	1
Gujarat	Open	--	--	2	--	--	--	2
J & K	ST	--	--	--	--	--	1	1
Orissa	Open	1	1	1	--	2	2	7
	SC	--	--	--	1	--	--	1
Himachal Pradesh	ST	1	1	--	--	--	--	2
West Bengal	Open	1	--	--	--	--	--	1
	SC	--	--	--	1	--	--	1
Madhya Pradesh	Open	--	1	--	1	1	--	3
	OBC	--	--	--	1	1	1	3
	SC	--	--	--	--	--	2	2
Uttarakhand	Open	--	--	--	--	--	--	--
	OBC	--	1	--	--	--	--	1
	ST	--	--	--	1	--	--	1
Maharashtra	Open	--	--	--	1	3	--	4
19(Nineteen ) nos. foreign students : 11 from Bhutan , 6 from Afganistan, 1 from DASA ( from Dubai) , 1 from Euthopia (Re-admitted)	Open	5	6	7	1	--	--	19
	<b>Total</b>	<b>122</b>	<b>122</b>	<b>94</b>	<b>116</b>	<b>82</b>	<b>60</b>	<b>596</b>

Table 13: Admission statistics of foreign students for the year 2013-14.

Sl. No.	Courses	Admitted
1.	Civil Engineering	05
2.	Mechanical Engineering	06
3.	Electrical Engineering	07



Sl. No.	Courses	Admitted
4.	Electronics & Communication Engg.	01
5.	Computer Science & Engineering	00
6.	Electronics & Instrumentation Engg.	00
<b>Total</b>		<b>19</b>

19 (Nineteen) nos. foreign students: 11 from Bhutan, 6 from Afganistan, 1 from DASA (from Dubai) & 1 from Ethiopia Re-admitted)

**Table 14: Course-wise admission statistics B.Tech.(1<sup>st</sup> year) 2013-14.**

Sl.No.	Courses	Intake Capacity	Admitted	Remarks
1.	Civil Engineering	120	122	The excess intake (over & above the intake capacity) was carried out as distribution foreign students.
2.	Mechanical Engineering	120	122	
3.	Electrical Engineering	92	94	
4.	Electronics & Communication Engineering	120	116	
5.	Computer Science & Engineering	92	82	
6.	Electronics & Instrumentation Engineering	60	60	
<b>Total</b>		<b>604</b>	<b>596</b>	

**Table 15: Total student strength on the roll (course wise) of the year 2013-14 at NIT Silchar.**

Courses		Branches	Total students strength (course-wise)
UG (B.Tech.)		Civil Engineering	429
		Mechanical Engineering	437
		Electrical Engineering	380
		Electronics & Communication Engg.	397
		Computer Sc. & Engineering	356
		Electronics & Instrumentation Engg.	134
PG	M.Tech.	Postgraduate Course (all engineering department)	363
	M.Sc.	Applied Chemistry/Applied Physics/Mathematics	47
	Management Studies	MBA	59
<b>Total (B.Tech. + M. Tech. +M.Sc.+ MBA)=</b>			<b>2602</b>

ACADEMIC PROGRAMMES / COURSES OFFERED

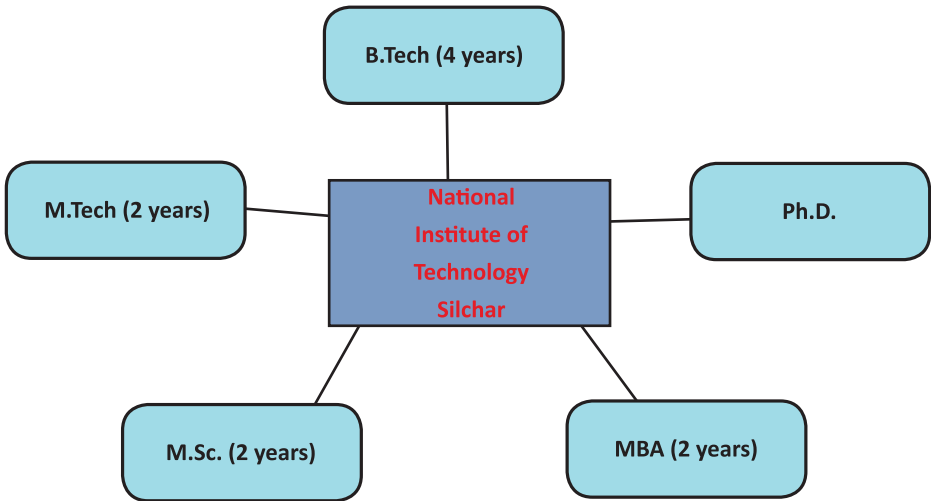


Figure 1: Courses Offered at NIT Silchar

B.Tech. Courses Offered at NIT Silchar

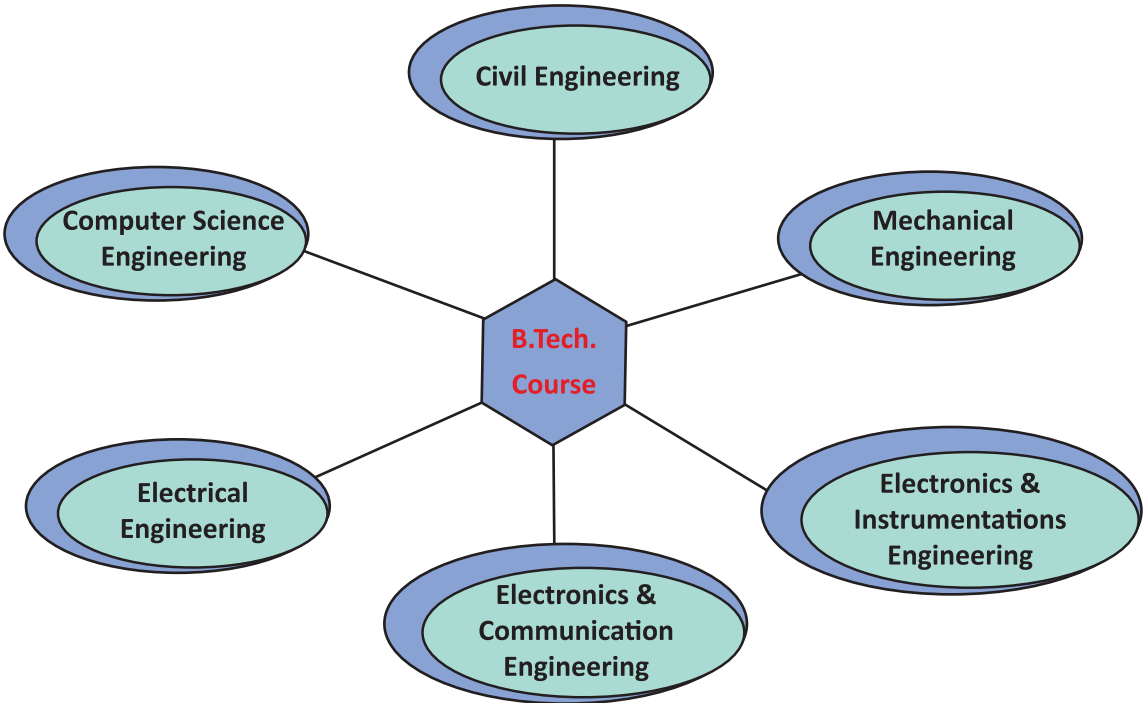


Figure 2: B.Tech. Courses Offered at NIT Silchar

### M.Tech. Courses Offered at NIT Silchar

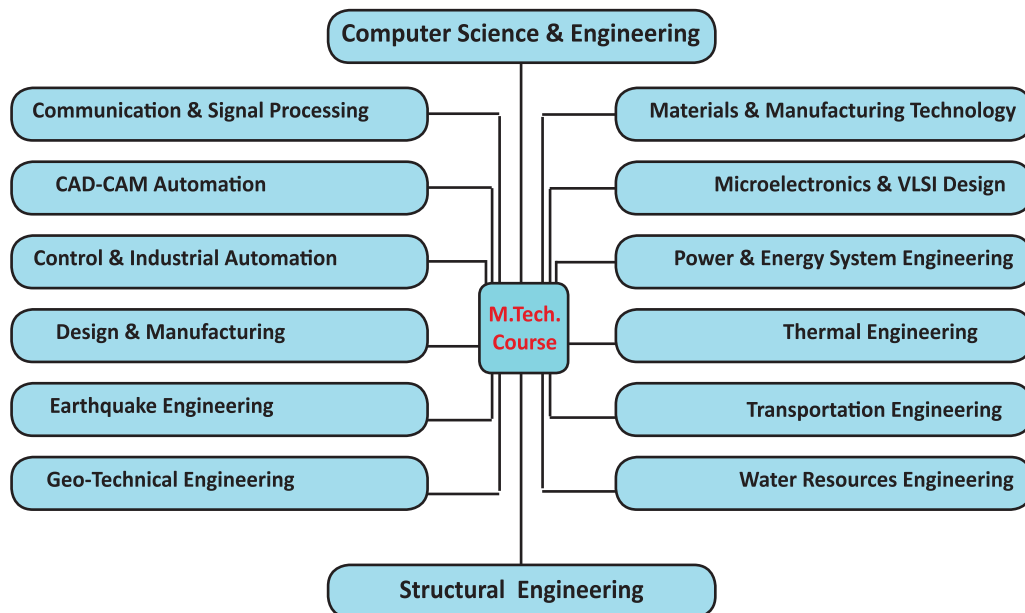


Figure 3: M.Tech. Courses Offered at NIT Silchar

### Other Postgraduate Courses Offered at NIT Silchar

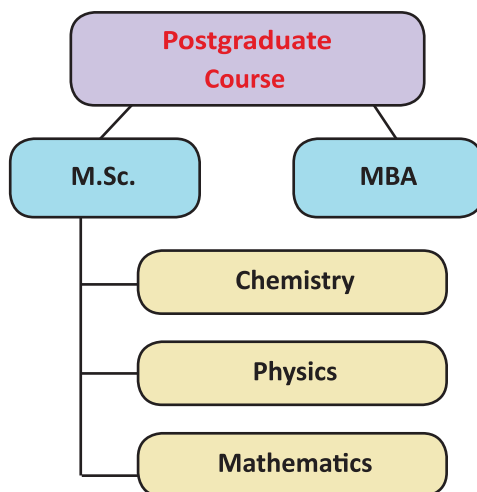


Figure 4: Postgraduate Courses Offered at NIT Silchar

## 4. Training and Placement

The Training and Placement Centre has been actively performing and coordinating a number of professional activities for the students. Some of the major activities relating to the students are Practical Training, Internship Programmes and Campus Placement. Like previous years the Centre had a series of such activities during the academic year 2013-14.

### 4.1 Practical Training:

Practical Training is an integral part of engineering education that aims at making students familiar with the culture and environment of industries and getting practical knowledge on working of equipments, plants and processes which cannot be accommodated or explained in a laboratory. Students are exposed to the concept of plant management

and organization at first hand. Practical Training for the B. Tech. students are arranged in different organizations/ industries throughout the country during May-July 2013 who had completed pre-final year studies. Considerable time of Practical Training at the end of 3rd Year is completed by each student before appearing at the final examination.

### 4.2 Campus Placement:

During the academic session 2013-14, 51 companies from different sectors visited out institute for campus placement. In all, 488 offers have been issued to our students. The list of companies who have visited the institute and the record of placement for the academic year 2013-14 are detailed in Annexure 1.



Garden view of the Administrative building, NIT Silchar

# 5. Departments and Academic Units

## 5.1 Civil Engineering

### 5.1.1 Academic Staff



**HEAD :** Prof. S. Choudhury, Ph.D. (upto 13.11.13)

Prof. Aminul Islam Laskar, Ph.D. (from 13.11.13)

#### Faculty members:

##### Professor

Prof. A. I. Laskar, Ph.D.  
Prof. S. Choudhury, Ph.D.  
Prof. A.K. Dey, Ph.D.  
Prof. P.S. Choudhury, Ph.D.  
Prof. D. Chakraborty, Ph.D.  
Prof. M. A. Ahmed, Ph.D.  
Prof. A. K. Barbhuiya, Ph.D.

##### Associate Professor

Dr. A. K. Das, Ph.D.  
Dr. P. Rajbangshi, Ph.D.  
Dr. A. M. Choudhury, Ph.D.  
Dr. U. Kumar, Ph.D.  
Dr. T. Rahman, Ph.D.

##### Assistant Professor

Mr. P. Roy, M.Tech.  
Ms. N. Borthakur, M.Tech.  
Mr. P. Das M.Tech.  
Mrs. P. Sultana, M.Tech.  
Mr. Arjun Sil, M.Tech.  
Mr. N. Ahir, M.Tech

### 5.1.2 Distinction Achieved

#### a) By Faculty Member:

- i Dr. U. Kumar; Citation of the Research Paper as on 24.02.2014 (Total = 490+); 2014

### 5.1.3 Seminar, Symposia, Short Term Courses, Workshops

#### a) Conducted by Faculty Member

Sl. No.	Name of the Coordinator	Title	Funding Agency	Duration
1.	Mr. N. Ahir Mr. A. Sil	Dynamic response structural health monitoring at NIT Silchar	TEQIP-II	5days
2.	Dr. A.K.Dey Mrs. P. Sultana	Application of Probability Theory and Optimization techniques in Civil Engineering	TEQIP-II	1week
3.	Dr. P.Rajbongshi	STTP on Civil Engineering Materials and its Quality Control	TEQIP-II	5days

#### b) Participated by Faculty Member

Sl. No.	Name of Faculty	Details of the Program	Organizing Institute
1.	Dr. A. M. Choudhury	One week management programme in November,13	IIM, Indore
2.	Mr. A.Sil	DST-Sponsored Workshop 30-31 January,14	IISC, Bangalore
3.	Mrs. P. Sultana	Hydraulogical Modeling: Recent Advances Application of Soft Computing Techniques in Engineering Civil Engineering Materials & Its Quality Control	NIT Silchar
4.	Dr. U.Kumar	Creativity & Innovation Techniques & Patenting in India & Abroad Advances in Transportation Engineering Spiritual Intelligence for Managerial Excellence Outcome based curriculum framework as per NBA requirement Applications of Soft Computing Techniques in Engineering Numerical Techniques in Water Resources and Environmental Engineering International Conference of Engineering & Management Sciences	NIT Silchar
5.	Mr. N. Ahir	Offshore Structural Engineering	NIT Durgapur

Sl. No.	Name of Faculty	Details of the Program	Organizing Institute
6.	Dr. P. Rajbongshi	Road Infrastructures for Safe Mobility	IRF India Chapter
		Training and Management capacity Enhancement for Administrators	IIM Indoor
		Workshop on Outcome Based Curriculum Framework as per NBA Requirement	NIT Silchar
		STTP on Application of Probability Theories and Optimization Techniques in Civil Engineering	NIT Silchar

### 5.1.4 Research Development

#### a) PhD Programme (Specialization)

Water Resource Engineering, Geotechnical Engineering, Earthquake Engineering, Structural Engineering, Environmental Engineering, Transportation Engineering.

#### b) PhD Produced/Ongoing (in number)

Completed	Submitted	Ongoing
08	00	23

#### c) Research Lab/ Workshop

Sl. No.	Name of Lab/Workshop	Purpose/Linkage to an existing/new programme
1.	Structural Engineering Laboratory	Current UG, PG & Research Work
2.	Concrete Laboratory	Current UG, PG & Research Work
3.	Highway Laboratory	Current UG, PG & Research Work
4.	Hydraulics Laboratory	Current UG, PG & Research Work
5.	Environment Engineering Laboratory	Current UG, PG & Research Work
6.	Surveying Laboratory	Current UG Programme
7.	Soil Dynamics Laboratory	Current UG, PG & Research Work
8.	Advanced Computational Laboratory	Current PG & Research Work
9.	UG Computational Laboratory	Current UG Programme
10.	Geotechnical Engineering Laboratory	Current UG, PG & Research Work
11.	Geology Laboratory	Current UG Programme
12.	GIS & Remote Sensing Laboratory	Current PG & Research Work

#### d) Ongoing/Completed Sponsored Research Project

Sl. No.	Project Title	Principal Investigator	Funding Agency	Cost in lakhs	Duration
1.	Bridge pier Scour in Cohesive soil	Dr. A.K.Barbhuiya	AICTE	17.00	3 Years
2.	River Bank Erosion and its Countermeasures	Dr. A.K.Barbhuiya	DST	30.00	4 Years



## e) Research Paper Reviewed

Sl. No.	Faculty Name	Journal Name	No. of Paper	Year
1.	Prof. A.I. Laskar	ACI Structural Engineering	01	2013
2.	Prof. A.I. Laskar	Construction & Building Materials- ELSEVIER	02	2013
3.	Dr. U.Kumar	Chem. Biochem. Engineering Journal	01	2013
		Journal of Environmental Research and Development	01	2013
4.	Prof. S. Choudhury	Earthquake Engineering & Engineering Vibrations (EEEEV)	02	2013 & 2014
		Bulletin of Earthquake Engineering	01	2013
		Institution of India (I)	03	2013

## 5.1.5 Publication

## a) International Journal(s):

- Choudhury, S. & Mayengbam, S. S. (2013). Determination of column size for displacement based design of reinforced concrete framed buildings. *Journal of Earthquake Engineering & Structural Dynamics*. DOI: 10.002/EQE.2391
- Kumar, U. (2013). Thermodynamic characterization of adsorption of lead (II) ions on activated carbon developed from tamarind wood. *The South African Journal of Chemical Engineers (SAJChE)*. Vol.18, Issue 1, pp 70-76, Thomson Reuters.
- Kumar, U. (2013). Fixed Bed Column Study for the Removal of Lead from Aquatic Environment by NCRH. *Research Journal*. Vol.2, Issue 1, pp241-257, Thomson Reuters.
- Kumar, U. (2013). Simulation and Forecasting of Downstream Flow Top Width in a River Reach Using Upstream Flow. *International Journal Hydrology Science and Technology*. Vol.3, Issue 3, pp 241-257, Thomson Reuters.
- Sil, A., Sitharam, T.G. & Kolathayar, S. (2013). Probabilistic seismic hazard analysis of Tripura and Mizoram states. *Natural Hazards*. Vol.68, Issue2, pp1089-1108, Springer Publication.
- Sil, A. & Sitharam, T.G. (2013). Comprehensive seismic hazard assessment of Tripura and Mizoram states. *Journal of Earth Seismic Science*. Springer (Accepted)
- Sil, A. & Sitharam, T.G. (2013). Dynamic site characterization & correlation of shear wave velocity with SPT 'N' value for the city of Agartala, Tripura state, India. *Journal of Pure applied geophysics*. Springer (Accepted)
- Sil, A. & Sitharam, T.G. (2013). Site response evaluation of Agartala city using geophysical and geotechnical data. *International Journal of Geotechnical Earthquake Engineering*. (Accepted)
- Sil, A. (2013). Control of vibration through an innovative isolation technique of a multistoried building using magnetic field. *International Journal of Research and Engineering Technology*. Vol.2, Issue 12, pp90-95.

## b) National Journal(s):

- Choudhury, S. & Singh, S. (2013). A Unified Approach to Perform – Based Design of RC Framed Buildings. *Journal of Institution of Engineers (I)- Series-A*. Vol.94, Issue 2, pp 73-82, DOI 10. 107/s40030-013-0037-8

## c) International Conference(s):

- U. Kumar, International Conference of Engineering & Management Science, Organized by SEMS & RIET. Reuse of exhausted rice husk after heavy Metal adsorption from aquatic waste. December 21-22, 2013, at RIET, Gr. Noida.
- A.K.Dey & Arjun Sil, 3<sup>rd</sup> International Earthquake Symposium, IESB-3, Dhaka, Bangladesh. Analysis on stability of slope in cohesive embankment under static and dynamic condition.



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

1. Arjun Sil, T.G.Sitharam & S. Kolathayar, Tripura Science Congress, Probabilistic evaluation of seismic hazard in and around Tripura, September 8-10, 2011.
2. A.K.Dey & Arjun Sil, IGC, IIT Bombay, Yield deformation of cohesive soil. December 2010.

**e) Book/Chapter:**

1. A. Sil, Control of Vibration Through Magnetic Field in the Multi-structural Building
2. U. Kumar; Book Chapters in “Handbook of Engineering & Applied Science”, Edited By V.K. Srivastava and R.K. Pandey; Published by Society of Engineering & Management Sciences, 2013, 76-80 ISBN: 978-81-28926-1-0.

**5.1.6 Consultancy Services**

Sl. No.	Name of the Scheme	Sponsoring Agency	Amount Earned
1.	STA of PMGSY for part of Manipur and Assam States.	NRRDA (CECON Cell of the Department)	Scrutinized Nearly Rs. 300.00 Crores of project value
2.	Soil Investigation & Design of Canopy Structures.	IOC	Rs. 1,00,000.00 (approx)

**5.1.7 Major Equipment Acquired**

Acoustic Doppler Velocimeter; Acoustic Doppler Profiler

## 5.2 CHEMISTRY



### 5.2.1 Academic Staff

**HEAD :** Dr. A. K. Sil, Ph.D. (Up to 26.01.14)

Dr. Pranjit Barman, Ph.D. (From 27.01.14)

**Faculty members:**

**Professor**

Prof. Ashim Kumar Sil, Ph.D. (upto 28.02.14)

**Assistant Professor**

Dr. Pranjit Barman, Ph.D.

Dr. Md. Ahmaruzzaman, Ph.D.

Dr. S. S. Dhar, Ph.D.

Dr. N. Shaemningwar Moyon, Ph.D.

Dr. R. Ranu(Chaudhury), Ph.D.

Dr. B.H. Shambharker, Ph.D.

Dr. Lalthazuala Rokhum, Ph.D.

### 5.2.2 Seminars, Symposia, Short Term Courses, Workshops

a) Conducted by Faculty Member

Sl. No.	Name of the Co-ordinator	Title	Funding Agency	Duration
1.	Dr. S. S. Dhar	Photochemical Machining	TEQIP - II	02 days

b) Participated by Faculty Member

Sl. No.	Name of the Faculty	Details of the Program	Organizing Institute
1.	Pauli Borah, M. Ahmaruzzaman	Triethanolamine based highperformance hyperbranched epoxy resin: Synthesis, property evaluation and utilization in thin film application	International Conference on Advancements in Polymeric Materials, APM 2014

Sl. No.	Name of the Faculty	Details of the Program	Organizing Institute
2.	B.H. Shambharker	Materials: Synthesis to diverse Applications (MSDA-2013) 9-13 Dec, 2013	Deptt. Of Applied Physics, VNIT, Nagpur
3.	L. Rokhum	Innovating India	NIT, Silchar & NISTADS (CSIR)
4.	L. Rokhum	SESI, NIT, Silchar	NIT, Silchar
5.	N.S. Moyon	National Symposium in Radiation and Photochemistry (NSRP-2013)	Deptt. of Chemistry, NEHU, Shillong
6.	N.S. Moyon	Innovating India	NIT, Silchar & NISTADS (CSIR)

### 5.2.3 Research Development

#### a) Ph.D. Programme Specialization(s):

Environmentally friendly synthesis of newer/ known reagents/ catalysts and their applications in chosen organic transformations; Synthesis of bivalent sulfur compounds, Synthesis of transition metal complexes with ONS donor

ligand and their applications in organic transformation, Microwave synthesis of organo sulfur compounds; Characterization and utilization of flyash and other industrial waste materials; Organic Synthesis; Chemical and biological synthesis of nano materials and their applications; Water treatment, adsorption.

#### b) PhD Produced/Ongoing (in number):

Completed	Submitted	Ongoing
01	00	17

#### c) Research Lab/ Workshop:

Sl. No.	Name of Lab/Workshop	Purpose/Linkage to an existing/new programme
1.	B.Tech laboratory	For B.Tech Laboratory Class
2.	PG Laboratory-I	For M.Sc. Organic Practical Class
3.	PG Laboratory-II	For M.Sc. Inorganic Practical Class
4.	PG Laboratory-III	For M.Sc. Physical/Environmental Practical Class
5.	PhD Laboratory	For Ph.D. Students
6.	Instrument Laboratory	Sophisticated instruments are kept here

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

Sl. No.	Project Title	Principal Investigator	Funding Agency	Cost in lakhs	Duration
1.	Studies of cooperative assistance to nucleophilic substitution at disulfide bridge	Dr.Pranjit Barman	AICTE	10	3 Years (Completed)
2.	Synthesis of Indenoisoquinoline	Dr.L. Rokhum	DST	21.3	4 years
3.	Development of surface modified adsorbents for the removal of Iron(III) and Chromium(III) from waste water	Dr.M.Zaman	AICTE	10	3 years (completed)

## e) Research Paper Reviewed

Sl. No.	Faculty Name	Journal Name	No. of Papers	Year
1.	Dr. Md. Ahmaruzzaman	Industrial and Engineering Chemistry Research	04	2013
		The Journal of Composite Materials	01	2013
		The Journal of thermoplastic Composite Materials	01	2013
		Chemistry and Ecology	01	2014
		Desalination and water Treatment	01	2014
		Water Science and Technology	02	2013
		The Korean Journal of Chemical Engineering	01	2013
		Applied Water Science	01	2013
2.	Dr. Pranjit Barman	Journal of Fluorine Chemistry	01	2013
		Inorganic Chemistry Communications	01	2013
3.	Dr. L. Rokhum	Wyno Academic Journal of Physical Sciences	01	2014

## 5.2.4 PUBLICATION

## a) International Journal(s):

- Bhattacharjee, T., Kalita, M., Chakravarty, D., Barman, P. & Puranik, V. G. (2014). Synthesis, characterization and crystal structure determination of Palladacycles of para-substituted 2-thiobenzylazobenzenes. *Journal of Coordination Chemistry* (Accepted).
- Kalita, M., Gogoi, P., Barman, P., Sarma, B., Buragohain, A. K. & Kalita, R. D. (2014). A new series of Ni (II), Cu (II), Co (II) and Pd (II) complexes with ONS donor Schiff base: Synthesis, crystal structure, catalytic properties and bioactivities. *Polyhedron*. Vol. 74, pp 93-98.
- Gogoi, P., Kalita, M. & Barman, P. (2014). An efficient protocol for the C-S cross-coupling of sulfenyl chloride with arylboronic acid using a palladium catalyst. *Synlett*. Vol. 25, pp 0866-70.
- Gogoi, P., Gogoi, S. R., Devi, N. & Barman, P. (2014). Aluminium Chloride Catalyzed Synthesis of 4-benzyl Cinnolines from Aryl Hydrazones. *Synthetic Communications*. Vol. 44, pp 1-7.
- Gogoi, P., Kalita, M., Bhattacharjee, T. & Barman, P. (2014). Copper-Schiff base complex catalyzed oxidation of sulfides with hydrogen peroxide. *Tetrahedron Letters*. Vol. 55, pp 1028-30.
- Bhattacharjee, T., Barman, P., Thakuria, T., Sarma, R., Kalita, R. D. & Sarma, B. (2013). Antimicrobial Investigation and Structural Study of 4'-Methylazobenzene-2-sulfenyl Thiocyanate by X-Ray Diffraction, DFT, and Ab Initio HF Calculations. *Heteroatom Chemistry*. Vol. 24, pp 502-09.
- Ahmed, N., Bhattacharjee, T., Barman, P. & Bhattacharjee, S. K. (2013). One-Pot, Catalyst-Free, Facile, and Efficient Sulfenylation of Electron-Rich Substrates with a Mild Sulfenium Carrier Azobenzene-2-sulfenyl Bromide. *Synthetic Communications*. Vol. 43, pp 2663-71.
- Kalita, M., Bhattacharjee, T., Gogoi, P., Barman, P., Kalita, R. D., Sarma, B. & Karmakar, S. (2013). Synthesis, characterization, crystal structure and bioactivities of a new potential tridentate (ONS) Schiff base ligand N-[2-(benzylthio) phenyl] salicylaldimine and its Ni (II), Cu (II) and Co (II) complexes. *Polyhedron*. Vol. 60, pp 47-53.
- Dey, R. R. & Dhar, S. S. (2013). Ammonium Persulphate Promoted Synthesis of Polyethylene Glycol Entrapped Potassium Tribromide and Its Application in Acylation and Bromination of Some Selective Organic Compounds. *Chinese Chemical Letters*.

10. Dey, M., Dey, R. R. & Dhar, S. S. (2014). Sodium Hypochlorite Promoted Novel Synthesis of Organic Ammonium Tribromides and Application of Phenanthroline Hydrotribromide in Chemoselective Oxidation of Organic Sulfides by Hydrogen Peroxide. *Chemistry Letters*.
  11. Dey, R. R. & Dhar, S. S. (2014). Synthesis and Characterization of 2-Carboxyethyltriphenyl Phosphonium Tribromide and its Application as Catalyst in Silylation of Alcohols and Thiols under Solvent Free Condition. *Synthetic Communications*.
  12. Ahmaruzzaman, M., Reza, R. A., Ahmed, J. K. & Sil, A. K. Scavenging behavior of *schumannianthus dichotomus*-derived activated carbon for the removal of methylene blue from aqueous phase. *Environmental Progress and Sustainable Energy*.
  13. Ahmaruzzaman, M., Reza, R. A., Ahmed, J. K. & Sil, A. K. A non-conventional adsorbent for the removal of Clofibric acid from aqueous phase. *Separation Science and Technology*.
  14. Shambharker, B. H., Vmase, S. S. & Rathod, R. C. (2014). Synthesis and characterization of polyaniline-Mn<sub>3</sub>O<sub>4</sub> nanocomposite: Electrical conductivity and Magnetic studies. *Trans Ind Inst Met* (Accepted).
  15. Rokhum, L. & Bez, G. (2013). One pot solid phase synthesis of (E)-nitroalkanes. *Tetrahedron Letters*. Vol. 54, pp500-04.
  16. Rokhum, L. & Bez, G. (2013). Ethylacrylate conjugated polystyryl-diphenylphosphine- An extremely efficient catalyst for Henry reaction under solvent free condition. *Can.J.Chem.* Vol. 91, pp 300-06.
  17. Rokhum, L., Vanlalveni, C. & Lalfakzuala, R. (2013). A simple mild and selective iodination of alcohols. *International Journal of Emerging Technologies in Computational and Applied Science*. 13-169, pp 370-76.
  18. Islam, M. M., Moyon, N. S., Gashnga, P. M. & Mitra, S. (2014). Interaction of Sulfadiazine with Model Water Soluble Proteins: A Combined Fluorescence Spectroscopic and Molecular Modeling Approach. *J. Fluoresc.* Vol. 24, pp 579.
  19. Moyon, N. S., Gashnga, P. M., Phukan, S. & Mitra, S. (2013). Specific solvent effect on lumazine photophysics: A combined fluorescence and intrinsic reaction coordinate analysis. *Chemical Physics*. pp 421-22.
  20. Moyon, N. S., Islam, M. M., Phukan, S. & Mitra, S. (2013). Fluorescence modulation and associative behavior of lumazine in hydrophobic domain of micelles and bovine serum albumin. *Journal of Photochemistry and Photobiology B: Biology*. 121, 37.
- b) Book/Chapter**
1. Dr. L. Rokhum; Polymer supported phosphine reagents- Design, Synthesis and application; Scholar's Press, Germany ISBN-363970454

## 5.2.5 Major Equipment Acquired

START SYNTH, Microwave Synthesis Labstation, Make: Milestone; SLFA-2800, Sulfer-in-oil Analyzer, Make: Horiba.

## 5.3 Computer Science and Engineering



### 5.3.1. Academic Staff

**HEAD :** Dr. N. V. Deshpande, Ph.D. (Upto 12.11.13)  
Mr. S. K. Borgohain, M.Tech. (From 13.11.13 to 13.02.14)  
Ms. Ujwala Barua, M.Tech. (From 14.02.14)

#### Faculty members:

##### Associate Professor

Dr. Biswajit Purkayastha, Ph.D.

##### Assistant Professor

Dr. Arup Bhattacharjee, Ph.D.	Mr. Saroj Kumar Biswas, M.Tech.
Ms. Ujwala Barua, M.Tech.	Mr. Badal Soni, M.Tech.
Dr. Pinki Roy, Ph.D.	Mr. A. Sabyasachi, M.Tech.
Mr. S. K. Borgohain, M.Tech.	Mr. Dalton M. Thounaojam, M.Tech.
Mr. Biswanath Dey, M.Tech.	Mr. Amit K. Trivedi, M.Tech.
Mr. Pantha Kanti Nath, M.Tech.	Mr. Saptarshi Chakraborty, M.Tech.
Mr. Prabhakar Sharma Neog, M.Tech.	

### 5.3.2. Seminar, Symposia, Short Term Courses, Workshops

Participated by Faculty Member

Sl. No.	Name of the Faculty	Details of the Program	Organizing Institute
1.	Mr. S. Chakraborty	DBMS technology	IIT Mumbai
2.	Mr. S. Chakraborty	Microcontroller and PLC Programming and Application	EIE Dept., NIT Silchar Micro-pro, Kolkata
3.	Mr. Dalton Meitei Thounaojam	Microcontroller and PLC Programming and Application	EIE Dept., NIT Silchar Micro-pro, Kolkata
4.	Mr. Dalton Meitei Thounaojam	Matlab and its application in image processing	NIT Agartala
5.	Mr. Dalton Meitei Thounaojam	Two week workshop on signal and system	ECE Dept., NIT Silchar
6.	Mrs. Ujjwala Baruah	Microcontroller and PLC Programming and Application	EIE Dept., NIT Silchar Micro-pro, Kolkata
7.	Mrs. Ujjwala Baruah	Two week ISTE workshop on signal and system	IIT Kharagpur
8.	Mr. Badal Soni	Microcontroller and PLC Programming and Application	EIE Dept., NIT Silchar Micro-pro, Kolkata
9.	Mr. Badal Soni	Two week ISTE workshop on signal and system	IIT Kharagpur
10.	Mr. Badal Soni	School on Advanced Algorithm (SOAA-13)	Indo-German Max Plank Center for Computer Science & IIT Jabalpur
11.	Mr. Badal Soni	DST Sponsored National Programme for Training of Scientists and Technologists Working in Government Sector	ABV-Indian Institute of Information Technology and Management, Gwalior
12.	Mr. Pantha K. Nath	Microcontroller and PLC Programming and Application	EIE Dept., NIT Silchar Micro-pro, Kolkata
13.	Mr. Pantha K. Nath	Two week ISTE workshop on signal and system	IIT Kharagpur

### 5.3.3 Research Development

#### a) PhD Programme (Specialization):

Computer Science and Engineering.

#### b) PhD Produced/Ongoing (in number):

Completed	Submitted	Ongoing
02	00	05

#### c) Research Lab/ Workshop:

Sl. No.	Name of Lab/Workshop	Purpose/Linkage to an existing/new programme
1.	Computer Vision	Human computer interaction and image application



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

Sl. No.	Project Title	Principal Investigator	Funding Agency	Cost in lakhs	Duration
1.	Extension of NLP	Mr. S. K. Borgohain	IBM Shared University, 2012	\$10,000	Ongoing

**e) Research Paper Reviewed**

Sl. No.	Faculty Name	Journal Name	No. of Paper	Year
1.	Mr. Badal Soni	National Academy Science Letters	01	2013-14

**5.3.4 Publication****a) International Journal(s):**

1. Soni, B., Jha, R. K. & Aizawa, K. (2013). Logo extraction from Audio Signals by Utilization of Internal Noise. *IETE Journal of Research*. Vol.59, Issue 3, pp 270-79. DOI: 10.4103/0377-2063.116092.
2. Chakraborty, S. (2012). A study on eigen faces for removing image blurredness through image fusion. *The International Journal of Multimedia & Its Application*. Vol.4, Issue 3.
3. Chakraborty, S. (2014). An Overview of Face Liveness Detection. *International Journal on Information Theory*.
4. Chakraborty, S. (2012). A case study on Liveness detection using Thermal Image. *International journal of Emerging technology and Advanced Engineering*. Vol.2, Issue 12.

**b) International Conference(s):**

1. Saptarshi Chakraborty, Application of image fusion for enhancing the quality of an image. International Conference of Advanced Computer Science & Information Technology (ACSIT-2012), July 14-15, 2012, Chennai, India.
2. Saptarshi Chakraborty, Automatic blood smear analysis for anemia detection. International Conference on Signal Processing & Integrated Networks (SPIN-2014), published in IEEE Xplore Digital Library.

3. Arif A., Abadhan Sabyasachi. Network based QoS-aware mobile cloud service prediction & selection. 8<sup>th</sup> International Conference on Communication Network (ICCN-2014) Bangalore, India (Elsevier, DBLP).
4. Arif A., Abadhan Sabyasachi. Cloud computing simulators: A detailed survey and future direction. 4<sup>th</sup> IEEE International Advanced Computing Conference (IACC-2014) Gurgaon, India.

**c) National Conference(s):**

1. Onkar Krishna, Rajib Jha, Anil Tiwari, Badal Soni. Noise Induced Segmentation of Noisy Color Image. National Conference on Communication (NCC-2013), pp 01-05, February 15-17, 2013.
2. Thounaojam D. M., A. Trivedi, K. M. Singh, & S. Roy. A Survey on Video-Segmentation. Intelligent computing, networking, and Information. Springer India, pp 903-12, 2014.
3. Hidangmayum Saxena Devi, Dalton M Thounaojam. Facial feature Extraction and Classification Techniques. Emerging Global trends in Engineering and Technology, Don Bosco University, Assam, India, 2014.



## 5.4 Electrical Engineering



### 5.4.1. Academic Staff

**HEAD :** Dr. A. K. Roy, Ph.D. (Up to 29/07/2013)

Dr. B. K. Roy, Ph.D. (From 30/07/2013)

**Faculty members:**

#### **Professor**

Dr. A.K.Roy, Ph.D.

Dr. A.K.Sinha, Ph.D.

Dr. Nidul Sinha, Ph.D.

Dr. B.K.Roy, Ph.D.

#### **Associate Professor**

Dr. S. Chaudhury, Ph.D.

Dr. N.B.D. Choudhury, Ph.D.

#### **Assistant Professor**

Dr. L. C. Saikia, Ph.D.

Dr. T.Malakar, Ph.D.

Dr. J.P.Mishra, Ph.D.

Dr. Arup Kumar Goswami, Ph.D.

Mr. Dulal Ch. Das, M.Tech.

Mr. C. Bhattacharjee, M.Tech

Dr. P.K.Tiwari, Ph.D.

P.Roy, M.Tech.

Mr. S. Samanta, M.Tech

Miss B. Roy, M.Tech

### 5.4.2. Distinction Achieved

**a) By Faculty Member:**

- i) Dr. Arup Kumar Goswami; Awarded Fellowship for doing research at IISc Bangalore sponsored by IASc, INSA and NASI; 2013.

### 5.4.3 Seminar, Symposia, Short Term Courses, Workshops

#### a) Conducted by Faculty Member

Sl. No.	Name of the Co-ordinator	Title	Funding Agency	Duration
1.	Dr. B. K. Roy	Workshop on Implementation of Image Processing using LabVIEW	TEQIP-II	Two Days
2.	Dr. B. K. Roy	Touch Screen Botix Workshop, Integral Part of Indo-US Robo League	VI Club	Two Days
3.	Dr. N. B. D. Choudhury	Investors Awareness Programme	TEQIP-II, NIT Silchar	September 28, 2013

#### b) Participated by Faculty Member

Sl. No.	Name of the Faculty	Details of the Program	Organizing Institute
1.	Dr. Arup Goswami	IEEE INDICON 2013	IIT Bombay
2.	Dr. Arup Goswami	ITSIP 2013	ACEEE, MUMBAI
3.	Dr. L.C. Saikia	IEEE INDICON 2013	IIT Bombay
4.	Dr. L.C. Saikia	CIEC 2014 (January 31 –February 2, 2014)	Calcutta University
5.	Dr. L.C. Saikia	Quality assurance and NBA Accreditation in technical institutions, July 2013	NITTR Chandigarh
6.	Dr. L.C. Saikia	Regional seminar cum workshop on pedagogy, April 2013	AEC, Assam
7.	Dr. L.C. Saikia	Outcome based Curriculum framework as per NBA Requirement, May 2013	NIT Silchar
8.	Dr. B.K.Roy	Regional seminar cum workshop on pedagogy, April 2013	AEC, Assam
9.	D. C. Das	Renewables in Science and Engineering (RISE) January 10-14, 2014	NIT Silchar
10.	D. C. Das	Applications of Soft Computing Techniques in Engineering, November 9-11, 2013	NIT Silchar
11.	Dr. J.P.Mishra	Outcome Based Curriculum Framework as per NBA Requirement, May 2013	NIT Silchar
12.	Dr. J.P.Mishra	Microcontroller and PLC Programming & Applications, April 13-14, 2013	NIT Silchar
13.	P.Roy	Implementation of image processing using LABVIEW	NIT Silchar
14.	P.Roy	Workshop on MEMS	NIT Silchar
15.	P.Roy	Workshop of Soft computing in Engg	NIT Silchar
16.	Dr. S. Chaudhury	Implementation of Image Processing using Labview, February 2014	NIT Silchar
17.	Dr. S. Chaudhury	Int. Conference CSI-EAIT 2013	ISI Kolkata
18.	Dr. P.K.Tiwari	Microcontroller and PLC Programming & Applications”, April 13-14,2013	NIT Silchar and Micro-Pro Kolkata
19.	Dr. P.K.Tiwari	Interdisciplinary Research on Biomedical Engineering, August 26, 2013	NIT Silchar

Sl. No.	Name of the Faculty	Details of the Program	Organizing Institute
20.	Dr. P.K.Tiwari	MEMS & SENSORS, September 11-12, 2013	NIT Silchar
21.	Dr. P.K.Tiwari	Renewables in Science & Engineering, January 10-14, 2014	NIT Silchar & Solar Energy Society of India
22.	Dr. P.K.Tiwari	Innovating India	NIT Silchar & CSIR-NISTADS-New Delhi & IIM Kashipur
23.	Dr. B. K. Roy	Renewable in Science & Engineering (RISE-2014)	SESI Students' Chapter, NIT Silchar
24.	Dr. B. K. Roy	Dynamic Response & Structural Health Monitoring and Training on Rapid Visual Screening	Civil Engineering Department, NIT Silchar
25.	Dr. B. K. Roy	Challenges of Engineering Education in the NE and Role of Institutions and Teachers	Assam Engineering College, Guwahati
26.	Dr. B. K. Roy	Outcome Based Curriculum Framework – as per NBA requirement	NIT Silchar
27.	Dr. B. K. Roy	Management Capacity Enhancement Programme for Administrators	Indian Institute of Management Lucknow
28.	Dr. B. K. Roy	NBA-WOSA2014	MHRD Delhi
29.	Dr. B. K. Roy	3 <sup>rd</sup> International Conference on Advances in Control and Optimization of Dynamical Systems (ACODS) 2014	IIT Kanpur
30.	Dr. N. B. D. Choudhury	Outcome based curriculum framework as per NBA requirement, May 2013	NIT Silchar
31.	Dr. N. B. D. Choudhury	Renewables in Science and Engineering	NIT Silchar
32.	Dr. N. B. D. Choudhury	Implementation of image processing using LABVIEW	NIT Silchar
33.	Dr. N. B. D. Choudhury	Inovating India	NIT Silchar , CSIR-NISTADS-New Delhi & IIM, Kashipur

#### 5.4.4. Research Development

##### a) PhD Programme (Specialization):

Power system (Power System Protection, Power system Economics, Automatic Generation Control, Grid Power and Bus Management , Power System Planning, congestion management, Networking Pricing, Power Quality, Power System Reliability , Smart Grid); Renewable Energy (Renewable Energy and its Applications, Renewable Energy Generation & Control (Wind and Solar Photo-voltaic),

Distributed Generation and Control); Control Systems, Fault detection and diagnosis of dynamical systems, Industrial Automation, Intelligent Instrumentation, Virtual Instrumentation; Digital Signal processing (Image Processing, Application of Signal and Image Processing ); Application of Soft-Computing in Engineering Applications; Power Electronics; Electrical Machine Drives; Application of Microprocessor/Microcontroller; CNT and Carbon Nanowire Interconnects, Low Power VLSI Design.

## b) PhD Produced/Ongoing (in number):

Completed	Submitted	Ongoing
01	01	23

## c) Research Lab/ Workshop:

Sl. No.	Name of Lab/Workshop	Purpose/Linkage to an existing/new programme
1.	Virtual Nanolab	To establish a centre for nano-electronic design and create manpower in this specialized field

## d) Ongoing/Completed Sponsored Research Project:

Sl. No.	Project Title	Principal Investigator	Funding Agency	Cost in lakhs	Duration
1.	Design & Implementation of pure sine wave inverter for residential solar power system in India	Dr. Arup Kumar Goswami	AICTE	15	2012-14
2.	Power Quality Assessment and Improvement in Barak Valley	Dr. Arup Kumar Goswami	DST Fast Track	9.87	2012-15
3.	Automatic generation control of autonomous hybrid generation system	D. C. Das	AICTE	15	2012-2014
4.	Design, Simulation and Implementation of CNT based FET Devices for VLSI Applications	Dr. Saurabh Chaudhury	AICTE	8	02 years (ongoing)
5.	The National Mission Project on Education through ICT on 'Developing suitable pedagogical methods for various classes, intellectual calibers and research in e-learning'	Dr B. K. Roy Participating as Co-developer of 'Control System' course Status – on going	MHRD		May 09 - June 14

## c) Research Paper Reviewed

Sl. No.	Faculty Name	Journal Name	No. of Paper	Year
1.	Dr. Nidul Sinha	IEEE Trans. on power system	03	2013
2.	Dr. Nidul Sinha	IEEE Trans. on Evolutionary Computation	02	2013
3.	Dr. Nidul Sinha	IJEPES (Elsevier)	02	2013
4.	Dr. Nidul Sinha	IET Gen. Tr. & Dist.	02	2013
5.	Dr. Nidul Sinha	IEEE Trans. on Evolutionary Computation	01	2013
6.	Dr. N.B.D. Choudhury	IJEPES, Elsevier	02	2013
7.	Dr. N.B.D. Choudhury	European Transactions on Electrical Power, Willey	01	2014
8.	Dr. N.B.D. Choudhury	Ain Shams Engineering Journal, Elsevier	01	2013
9.	Dr. T. Malakar	Energy Conversion and Management, Elsevier	01	2014
10.	Dr. T. Malakar	Swarm and Evolutionary Computation, Elsevier	03	2013

Sl. No.	Faculty Name	Journal Name	No. of Paper	Year
11.	Dr. L.C.Saikia	International journal of electrical power and energy system, Elsevier	04	2013
12.	Dr. L.C.Saikia	IET Generation, Transmission & Distribution	02	2013
13.	Dr. L.C.Saikia	European Transactions on Electrical Power, Willy	01	2013
14.	Dr. S. Chaudhury	IEEE Signal Processing Letters	01	2013
15.	Dr. S. Chaudhury	Solid State Electronics, Elsevier	01	2013
16.	Dr. P.K.Tiwari	IET Generation, Transmission & Distribution	01	2013
17.	Dr. P.K.Tiwari	Journal of Renewable & Sustainable Energy (AIP Journals)	01	2013
18.	Dr. P.K.Tiwari	International Journal of Computer & Electrical Engineering (Elsevier)	01	2013
19.	Dr. B. K. Roy	IEEE Trans. on Instrumentation and Measurement	01	2013
20.	Dr. A. K.Goswami	European Transactions on Electrical Power,	02	2014
21.	Dr. A.K.Goswami	International Journal in Power System Research	02	2014
22.	Dr. A.K.Goswami	International Journal in Electrical Power Component and Systems	02	2014

#### 5.4.5 Publication

##### a) International Journal(s):

- Malakar, T., Goswami, S. K. & Sinha, A. K. (2014). Optimum Scheduling of Micro Grid Connected Wind-Pumped Storage Hydro Plant in a Frequency based Pricing Environment. *International Journal Electrical Power and Energy System*. Vol. 54, pp 341-351, Elsevier.
- Malakar, T., Goswami, S. K. & Sinha, A. K. (2014). Impact of load management on the energy management strategy of a wind-short hydro hybrid system in frequency based pricing. *Energy Conversion and Management*. Vol. 79, pp 200-212, Elsevier.
- Saikia, L. C. & Sahu, S. S. (2013). Automatic generation control of a combined cycle gas turbine plant with classical controllers using Firefly Algorithm. *International Journal of Electrical Power & Energy Systems*. Vol.53, pp 27-33.
- Dash, P., Saikia, L. C. & Sinha, N. (2014). Comparison of Performances of Several Cuckoo Search Algorithm Based 2DOF Controllers in AGC of Multi - area Thermal System. *International Journal of Electrical Power & Energy Systems*. Vol 55, pp 429-436.
- Debbarma, S., Saikia, L. C. & Sinha, N. (2014). Solution to Automatic Generation Control Problem using Firefly Algorithm Optimized IAD $\mu$  Controller. *ISA Transaction*. Vol. 53, Issue2, pp 358-366.
- Sinha, S. K. & Chaudhury, S. (2013). Impact of Oxide Thickness on Gate Capacitance-A Comprehensive Analysis on MOSFET, Nanowire FET and CNTFET Devices. *IEEE Transaction on Nanotechnology*. Vol. 12, Issue 6, pp958-964.
- Chaudhury, S. & Ray, A. K. (2013). Histogram Equalization-A Simple but Efficient Technique for Image Enhancement. *International Journal on Image, Graphics and Signal Processing*. Vol. 5, Issue 10, MECS Press.
- Sinha, S. K. & Chaudhury, S. (2013). Impact of Body Coefficient and Threshold Voltage on CNTFET with Varying Oxide Thickness. *International Journal of Recent Development in Engineering and Technology (IJRDET)*. Vol. 1, Issue 1, pp 31-35.
- Tiwari, P. K. & Sood, Y. R. (2013). An Efficient Approach for Optimal Allocation and Parameters Determination of TCSC with Investment Cost Recovery under Competitive Power Market. *IEEE Transactions on Power Systems*. Vol. 28, Issue 3, pp 2475-2484.

10. Dev Choudhury, N. B., De, M. & Goswami, S. K. (2013). Transmission Loss Allocation in a Power Market using Artificial Neural Network. *Electrical Engineering*. Vol. 86, Issue 5, Springer.
  11. Santhosh K V. & Roy, B. K. (2014). Practically Validated Adaptive Calibration Technique for Thermocouple using Optimized ANN. *ACEEE Journal on Instrumentation and Control Systems*. Vol. 5, Issue 1.
- b) National Journal(s):**
1. Santhosh K V. & Roy, B. K. (2013). An Intelligent Flow Measurement Technique Using Orifice with an Optimized ANN. *Indian Journal of Technical Education*. Vol. 36, Issue 2, pp 33-42.
- c) International Conference(s):**
1. Manash Chakraborty and Arup Kr. Goswami, Reliability Assessment of Single Bus Generation Expansion Planning, INDICON 2013, IIT Bombay, Dec 2013.
  2. Arup Kr. Goswami and Abhishek Dey , A Novel Peak Load Management Scheme for an Indian Distribution System, INDICON 2013, IIT Bombay, Dec 2013.
  3. Subhasish Deb, Sadhan Gope and Arup Kr. Goswami, Generator Rescheduling for Congestion Management with incorporation of wind farm using Artificial Bee Colony Algorithm, INDICON 2013, IIT Bombay, December 2013.
  4. Arup Kr. Goswami and Monalisha, A Heuristic Approach to Solve Multistage Transmission Expansion Planning, itsSIP 2013, Mumbai, October 2013.
  5. Santosh Kr. Singh, Arup Kr. Goswami and Nidul Sinha, Variable Constrained based LMS Algorithm for Power System Harmonic Estimation, IEEE, ICCPS-2014, Adiprasakti Engineering College, Chennai, April 2014.
  6. Santosh Kr. Singh, Arup Kr. Goswami and Nidul Sinha, Power System Harmonic Estimation using FT-RLS Algorithm, IEEE, I2CT-2014, I2CT-2014, Pune, April-2014
  7. Santosh Kr. Singh, Arup Kr. Goswami and Nidul Sinha, Fast Transverse-RLS Algorithm Based Power System Harmonic Estimation, IEEE, ICICES-2014, S A Engineering College, Chennai, Feb-2014.
  8. Santosh Kr. Singh, Arup Kr. Goswami and Nidul Sinha, Application of Voltterra-Series Algorithm for Power System Harmonic Estimation, IEEE, ACES 2014, AOT, Hooghly, WB, Feb-2014.
  9. Santosh Kr. Singh, Arup Kr. Goswami and Nidul Sinha, Robust Power System Harmonic Parameter Estimation Using Fast Transverse Based RLS Algorithm, RTCSP-2014, Amrita Vidyapitham, Coimbatore, Feb-2014.
  10. Santosh Kr. Singh, Arup Kr. Goswami and Nidul Sinha, Power System Harmonic Estimation by using Complex normalized least means square algorithm, ICRTIT 2014, Anna University, 10-12 April 2014.
  11. L.C.Saikia, S. Debbarma, N. Sinha, P. Dash, "AGC of a multi-area hydrothermal system using Thyristor controlled series capacitor", Annual IEEE India Conference (INDICON), December, 2013, pp 01-06.
  12. L. Chandra Saikia, A. Chowdhury, N. Shakya, S. Shukla, P.K. Soni, " AGC of a multi area gas-thermal system using firefly optimized IDF controller", Annual IEEE India Conference (INDICON), December, 2013, pp. 01-06.
  13. Puja Dash, Lalit Chandra Saikia, Nidul Sinha, "AGC of a Multi - area Interconnected System with FACTS and Firefly Optimized 2DOF PID Controller", IEEE international conference on control, instrumentation, energy and communication (CIEC), January 31 to February 2, 2014.
  14. Lalit Chandra Saikia, Asmita Paul, Puja Dash, N.B. Dev Choudhury, "AGC of An Interconnected Multi-area Hydrothermal System Using A Neuro-Fuzzy Controller", IEEE international conference on control, instrumentation, energy and communication (CIEC), January 31 to February 2, 2014.
  15. Puja Dash, Lalit Chandra Saikia , Nidul Sinha, "AGC of a Multi - area System Using Firefly Optimized Two Degree of Freedom PID Controller", March 2014, IEEE International Conference on Power & Energy Systems: Towards Sustainable Energy - PESTSE, March 2014,
  16. Lalit Chandra Saikia, R.Kedia, Nidul Sinha, Puja Dash, " Damping of Oscillations Using TCPS with BF Technique in a Three-Area Thermal System", IEEE International



- Conference on Power & Energy Systems:Towards Sustainable Energy - PESTSE, March 2014,
17. Sanjeet Kumar Sinha and Saurabh Chaudhury, "Advantage of CNTFET Characteristics Over MOSFET to Reduce Leakage Power", 2<sup>nd</sup> IEEE International Conference on Devices, Circuits, and Systems (ICDCS 2014), Karunya University, Coimbatore, Tamilnadu, March 6-8, 2014.
  18. Sanjeet Kumar Sinha, Preeti Singh and Saurabh Chaudhury," Effect of Temperature and Chiral Vector on Emerging CNTFET Device", 8<sup>th</sup> IEEE International Conference on Computing for Sustainable Global Development (INDIACom 2014) March 5-7, 2014, Bharti Vidyapeeth, New Delhi.
  19. Rohit Lorenzo and Saurabh Chaudhury , "A Novel PMOS Data Retention Leakage Power Reduction Design" International Conference on Communication Systems and Network Technologies (CSNT-2014), April 7-9, 2014 organized by NITTTR Bhopal-accepted for presentation
  20. RohitLorenzo and Saurabh Chaudhury, "Analysis of leakage feedback techniques" Proceedings of IEEE International conference on Electronics communication and Instrumentation 2014 16-17 January 2014 organized by Heritage Institute of Technology, Kolkata (WB).
  21. Sanjeet Kumar Sinha and Saurabh Chaudhury," Application of Graphene as CNT in CNTFET Devices", 10<sup>th</sup> National Conference on Solid State Ionics (NCSSI-10), IIT Kharagpur, W.B, India, December 22-24, 2013.
  22. Sanjeet Kumar Sinha and Saurabh Chaudhury, "Impact of Temperature Variation on CNTFET Device Characteristics", IEEE International Conference on Control, Automation, Robotics & Embedded Systems (CARE-2013), IIIT-DM Jabalpur, M. P, India, December 16-18, 2013, pp. 1-5.
  23. Sanjeet Kumar Sinha, Kanhaiya Kumar and Saurabh Chaudhury," CNTFET: The Emerging Post- CMOS Device", IEEE International Conference on Signal Processing and Communication (ICSC 2013), IIIT Noida, U.P, December12-14, 2013, pp. 372-374.
  24. Sanjeet Kumar Sinha and Saurabh Chaudhury, "CNTFET: The Emerging device in nanometer Regime", International Conference on Advanced nanomaterials and nanotechnology (ICANN-2013), IIT Guwahati, India, December 1-3, 2013.
  25. Sanjeet Kumar Sinha and Saurabh Chaudhury, "A Comparative Analysis of FETToy Simulation of CNTFET Characteristics", IEEE International Conference on Emerging Trends and Applications in Computer Science (ICETACS – 2013), Shillong, Meghalaya, India, September 13-14, 2013, pp62-64.
  26. Rohit Lorenzo and Saurabh Chaudhury, "A Novel all NMOS leakage feedback with data retention technique" Proceedings of IEEE sponsored International conference on Control, Automation,Robotics and Embedded system December 16-18,2013 organized by PDPM IIITDM Jabalpur (MP).
  27. Prashant Kumar Tiwari, Yog Raj Sood, "An Approach for Optimal Placement Rating and Investment Cost Recovery of a TCSC in Double Auction Power Market", published in Proceedings of the 2014 International Conference on Power Systems, Energy, Environment; Switzerland. (ISBN: 978-1-61804-221-7), March 2014.
  28. Santhosh K.V., and B. K. Roy, "A soft Calibration Technique for Capacitance Pressure Sensor using Support Vector Machine," *International Conference on Image and Signal Processing*, Bangalore, India, August 9-11, 2013.
  29. Santhosh K.V., and B. K. Roy, "Design of an Adaptive Calibration technique based on LSSVM for Liquid Level Measurement," *International Conference on Emerging Trends and Applications in Computer Science*, Shillong, India, Sep. 13-14, 2013.
  30. Piyush Pratap Singh, H. Handa, and B. K. Roy, "Observer Based Synchronization of 4-D Modified Lorenz-Stenflo Chaotic System," *Annual IEEE India Conference (INDICON)*, IIT Bombay, pp. 1-6, 2013.
  31. Santhosh K.V., and B. K. Roy, "An Intelligent Calibration Technique for Ultrasonic Flow meters using Support Vector Machine," *International Conference on Trends in Industrial Measurement and Automation*, Chennai, India, December 22-24, 2013.

32. Santhosh K.V., and B. K. Roy, "A soft Calibration Technique for Thermistor using Support Vector Machine," *International Conference on Soft Computing for Problem Solving*, IIT Roorkee Extension center, Noida, India, December 26-28, 2013.
33. Bidhan Malakar, and B. K. Roy, "Survey of RFID Applications in Railway Industry," *1st International Conference on Automation, Control, Energy and Systems (ACES)*, Kolkata, India, February 1-2, 2014.
34. Piyush Pratap Singh, Jay Prakash Singh, and B. K. Roy, "PI based Sliding Mode Control for Synchronization of Lu and BaoHyperchaotic Systems," *4th IEEE International Conference on Information, Communication & Embedded Systems (ICICES)*, Chennai. February 27-28, 2014.
35. Joy Prakash Singh, Piyush Pratap Singh, and B. K. Roy, "Synchronization of Lu and Bhalekar-Gejji Chaotic Systems using Sliding Mode Control," *4th IEEE International Conference on Information, Communication & Embedded Systems (ICICES)*, Chennai, February 27-28, 2014.
36. Abahan Sarkar, and B. K. Roy, "Identification of Defect in Labels on Cigarette Packets using LabVIEW," *4th IEEE International Conference on Information, Communication & Embedded Systems (ICICES)*, Chennai, February 27-28, 2014.
37. Santhosh K.V., and B. K. Roy, "LabVIEW Implementation of Liquid Density Measurement Using Ultrasonic Transducer," *4th IEEE International Conference on Information, Communication & Embedded Systems (ICICES)*, Chennai, February 27-28, 2014.
38. Suresh Kumar sahuo, and B. K. Roy, "Antenna Azimuth Position Control using Quantitative Feedback Theory," *4th IEEE International Conference on Information, Communication & Embedded Systems (ICICES)*, Chennai, February 27-28, 2014.
39. Bidhan Malakar, and B. K. Roy, "Railway Fail-Safe Signalization and Interlocking Design Based On Automation Petri Net," *4th IEEE International Conference on Information, Communication & Embedded Systems (ICICES)*, Chennai, February 27-28, 2014.
40. Santhosh K.V., and B. K. Roy, "Design of an Adaptive Calibration Technique using Support Vector Machine for LVDT," *International Symposium on Signal Processing and Intelligent Recognition Systems (SIRS)*, Trivandrum, India, March 13-15, 2014.
41. Piyush Pratap Singh, Jay Prakash Singh, and B. K. Roy, "Nonlinear Active Control Based Hybrid Synchronization between Hyper chaotic and Chaotic Systems," *3rd International Conference on Advances in Control and Optimization of Dynamical Systems (ACODS)*, IIT Kanpur, March 13-15, 2014.
42. Joy Prakash Singh, Piyush Pratap Singh, and B. K. Roy, "Hybrid Synchronization of Lu and Bhalekar-Gejji Chaotic Systems Using Nonlinear Active Control," *3rd International Conference on Advances in Control and Optimization of Dynamical Systems (ACODS)*, IIT Kanpur, March 13-15, 2014.
43. Santhosh K.V., and B. K. Roy, "Support Vector Machine based Adaptive Calibration Technique for Resistance Temperature Detector," *3rd International Conference on Advances in Control and Optimization of Dynamical Systems (ACODS)*, IIT Kanpur, March 13-15, 2014.
44. Dev Choudhury, N. B., S. K. Goswami, Mala De, "A modified approach to transmission loss allocation using proportional sharing method for transaction based power system operation", *IEEE Conference, EUROCON 2013 at Zagreb, Croatia, July1-4, 2013*, pp 1278-84.
45. Sinha, A.K, et. al., "An optimal PMU placement technique for the topological observability of a part of the NER grid of India," *IEEE International Conference on Circuits, Power and Computing Technologies (ICCPCT-2013)*, pp142-46, March 20-21, 2013 (Online).
46. Sinha, A.K., "Mininizing the cost of generation for future Smart Grids," *IEEE International Conference on Circuits, Power and Computing Technologies (ICCPCT 2013)*, pp87-92, March 20-21,2013(Online).
47. Jayesh D. Ruikar, A. K. Sinha, S. Chaudhury, "Review of Image Enhancement Techniques", *International Conference on Information Technology in Signal and Image Processing - itSIP 2013* (Accepted for the publication in Elsevier Proceeding).
48. Jayesh Deorao Ruikar, Dr. A. K. Sinha, Dr. S. Chaudhury, "Image Quality Assessment Algorithms: Study and Performance Comparison", *IEEE International*



- Conference on Electronics and Communication Systems-2014, 13-14-Feb-2014, Coimbatore, TN.
49. Jayesh Deorao Ruikar, Dr. A. K. Sinha, Dr. S. Chaudhury, "Structural SIMilarity and correlation based filtering for Image Quality Assessment" IEEE International Conference on Communication and Signal Processing 2014, 03, 04 & 05 April 2015 - Melmaruvathur, TN.
  50. Adla Vinod, Dr. A. K. Sinha, "Performance Comparison of Controllers For Non-Isolated Boost Converter", IEEE International Conference on Electronics and Communication Systems-2014, 13-14-Feb-2014, Coimbatore, TN.
  51. Adla Vinod, Dr. A. K. Sinha, "A Study on Intelligent Algorithms For Maximum Power Point Tracking in Field of Wind Energy Conversion System (Review)", IEEE International Conference on Electronics and Communication Systems-2014, 13-14-Feb-2014, Coimbatore, TN.
  52. Dr. A. K. Sinha, "Wavelet Based Speech Coding Technique Using Median Function Thresholding", IEEE International Conference on Electronics and Communication Systems-2014, 13-14-Feb-2014, Coimbatore, TN.
  53. Dr. A. K. Sinha, Priyank Ray, "Design of a Controller for Grid Bus Power Management with PV System", IEEE, The International Conference on Green Computing, Communication and Electrical Energy (ICGCCEE'14) 6-8, March 2014, Coimbatore.
  54. Dr. A. K. Sinha, "Design of Controller for Power Quality Management in Presence of Unbalanced Load Integrated with Solar PV", IEEE, The International Conference on Green Computing, Communication and Electrical Energy (ICGCCEE'14) 6-8, March 2014, Coimbatore.

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

1. Santhosh K.V., and B. K. Roy, "Soft Calibration Technique with SVM for Intelligent Flow Measurement," *National Systems Conference (NSC13)*, Jodhpur, India, Dec. 5-7, 2013.
2. Piyush Pratap Singh, Jay Prakash Singh, and B. K. Roy, "Global Synchronization of Non-identical (Hyper chaotic-Chaotic) Systems Using Nonlinear Active Control," *8<sup>th</sup> Conference on Nonlinear Systems and Dynamics (CNSD)*, IIT Indore, December 11-14, 2013.
3. Joy Prakash Singh, Piyush Pratap Singh, and B. K. Roy, "Global Synchronization of Lu and Bhalekar-Gejji Chaotic System using Nonlinear Active Control," *8<sup>th</sup> Conference on Nonlinear Systems and Dynamics (CNSD)*, IIT Indore, December 11-14, 2013.

**5.4.6 Major Equipment Acquired**

Sb-Rio; SCXI 1102; SCXI 1001; SCXI 1502; Pressure Transducer; Magnetic Levitation System; Coupled Tank System; Complete Modular Servo System; Process Control Trainer; Complete Transducer Kit; Ball and Plate Control System; HP Computer; Power Quality Analyser; ELVIS-II Kit; Numerical protection relays; Numerical protection relays (freq. relays); Numerical protection relays (over current); Numerical protection relays (over voltage/under voltage); Relay Testing unit; dSPACE ACE1103\_CLP\_USB ACE Kit (Controller board with Hardware and Software); High voltage power electronics Lab Kit; Power Electronics Lab Kit; Single Phase Cycloconverter Kit; Speed Control of universal motor using SCR; Dual Channel, 4-trace, 30 MHz analog Oscilloscope, Model: SM511, Make: Scientific; Digital Storage Oscilloscope, 100 MHz, 4 channel, Color, TDS 2014C, Make: Tectronix; 3-phase Power Quality Analyser, Model: 61-807, Make: Ideal; Spectrum Analyser, Model: MDO 4054-3, Make: Tectronix.

## 5.5 Electronics and Communication Engineering



### 5.5.1. Academic Staff

**HEAD :** Ms. M. Paul, M.Tech. (Up to 19.11.13)

Dr. R. H. Laskar, Ph.D. (From 20.11.13)

**Faculty members:**

#### **Professor**

Dr. F. A. Talukdar, Ph.D.

Dr. S. Baishya, Ph.D.

#### **Associate Professor**

Mr. P. K. Paul, M.Tech.

Mrs. M. Choudhury, M.Tech.

Mrs. M. Paul, M. Tech.

#### **Assistant Professor**

Dr. K. L. Baishnab, Ph.D.

Dr. R. H. Laskar, Ph.D.

Ms. B. Bhowmick, M.Tech.

Dr. J. Mehedi, Ph.D.

Mr. Wasim Arif, ME

Mr. Koushik Guha, M.Tech

Dr. T. R. Lenka, Ph.D.

Mr. Avinash Sahoo, M.Tech.

Dr. Ashraf Hossain, Ph.D.

Mrs. J. Chakraborty, Ph.D.

Mr. Ram K. Karsh, M.Tech.

Mr. Ganesh P. Keshri, M.Tech.

Dr. Abhishek. Midya, Ph.D.

Ms. Bhaswati Das, M.Tech.

**Visiting Professor:**

Prof. Sunanda Dhar, Ph.D.

Prof. Mrinal Kanti Naskar, Ph.D.

### 5.5.2. Distinction Achieved

#### a) By Faculty Member:

- i) Dr. T. R. Lenka; Letter of Appreciation from Director, NIT Silchar, 2014.
- ii) Dr. T. R. Lenka; Letter of Appreciation from Intel Technology India Ltd., 2014.
- iii) Dr. T. R. Lenka; Letter of Appreciation Dr. P. K. Sinha, Sr. Director, C-DAC, Pune, 2014.
- iv) Dr. T. R. Lenka; Letter of Appreciation Prof. Rajat Moona, Director General, C-DAC, Pune, 2014.

- v) Dr. T. R. Lenka; Inclusion in 30<sup>th</sup> Pearl Anniversary Edition of Who's Who in the World, 2013.

#### b) By Student:

- i) Mr. Aravind Subramaniam; Secured 1<sup>st</sup> position in Polaroid held during Techfest 2013-14 at IIT Bombay, 2014.
- ii) Mr. Shubham Jain; EUREC Awards 2013, Best Undergraduate student projects on Renewable Energy, 2013.

### 5.5.3. Seminar, Symposia, Short Term Courses, Workshops

#### a) Conducted by Faculty Member

Sl. No.	Name of the Co-ordinator(s)	Title	Funding Agency	Duration
1.	Dr. T. R. Lenka	First National Symposium on High Performance Computing	TEQIP-II	6 Days
		C-DAC's High Performance Computing for Computational Science and Engineering Research	TEQIP-II	2 Days
		MEMS and SENSORS	TEQIP-II	2 Days
		IEEE-EDS Distinguished Lecturer (DL) Talk on Nano-electronics	TEQIP-II	1 Day
		Interdisciplinary Research on Biomedical Engineering	TEQIP-II	1 Day
2.	Mr. Koushik Guha & Dr. Trupti R. Lenka	Two Days Workshop on MEMS & SENSORS	TEQIP-II, NIT SILCHAR	September 11-12, 2013
	Mr. Kaushik Guha	Two Days Training on AGILENT TECHNOLOGIES ADVANCE DESIGN SYSTEM OVERVIEW TRAINING	Sponsored by Company itself	January 29-30, 2014
	Mr. Kaushik Guha	Two Days Training on COVENTORWARE, ARCHITECT 3D & MEMS+ SOFTWARE OVERVIEW TRAINING"	Sponsored By Company itself	March 11-12, 2014
3.	Dr. R. H. Laskar	Main Workshop on Signals & Systems	NMEICT	January 02-12, 2014

#### b) Participated by Faculty Member

Sl. No.	Name of the Faculty	Details of the Program	Organizing Institute
1.	Dr. T. R. Lenka	2 Days Course on CoventorWare MEMS Design Software on 11-12 March 2014	FTD Infocom

Sl. No.	Name of the Faculty	Details of the Program	Organizing Institute
2.	Dr. T. R. Lenka	3 <sup>rd</sup> International Conference on Physics at Surfaces and Interfaces, 24-28 Feb 2014, Puri, Odisha, India	IOP, Bhubaneswar
3.	Dr. T. R. Lenka	Advanced Design System Overview Training by Agilent Technologies from 29 <sup>th</sup> to 30 <sup>th</sup> Jan 2014 at NIT Silchar	Agilent Technologies
4.	Dr. T. R. Lenka	Two Week ISTE Main Workshop on Signals and Systems from 02-12 Jan 2014 at NIT Silchar	NIT Silchar
5.	Dr. T. R. Lenka	17 <sup>th</sup> International Workshop of the Physics of Semiconductor Devices (IWPSD-2013), 9-13 Dec 2013, Amity University, Noida UP	Amity University, Noida & Society of Semiconductor Devices
6.	Dr. T. R. Lenka	One Week Short Term Training Programme on Advances in Laser and Spectroscopy from 26 <sup>th</sup> - 30 <sup>th</sup> Dec 2013	NIT Silchar
7.	Dr. T. R. Lenka	NASSCOM Meet at Hotel Hyatt Regency, Pune from 8-9 Oct 2013	NASSCOM
8.	Dr. T. R. Lenka	4 <sup>th</sup> National Symposium on "High Performance Computing in Academia and Beyond" at AEC, Guwahati on 05 Oct 2013	C-DAC, Pune
9.	Dr. T. R. Lenka	One Week Short Term Course on "Failure Analysis of Engineering Materials" during 23-27 Sept, 2013 at NIT Silchar	NIT Silchar
10.	Dr. T. R. Lenka	Three Days Workshop on "Failure Analysis of Engineering Materials" from April 18-20, 2013, at VNIT Nagpur	VNIT Nagpur
11.	Dr. T. R. Lenka	Two Days workshop on "Microcontroller and PLC Programming & Applications" from 13-14 April, 2013 at NIT Silchar	NIT Silchar
12.	Mr. W. Arif	Development of Collision Avoidance System (CAS) by Inter-Vehicular Ad hoc Network (InVANET)	Proceedings of FOSET: Academic meet-2013
13.	Mr. W. Arif	FOSE Mouse pointer controller by real time tracking of colour	Proceedings of FOSET: Academic meet-2013
14.	Mr. W. Arif	A survey of compressed sensing in cognitive radio	Proceedings of FOSET: Academic meet-2013
15.	Mr. W. Arif	A Power Efficient 6-Bit TIQ ADC Design for Portable Applications	Proceedings of 2013 IEEE ICCE-Berlin, 978-1-4799-1412-8/13/2013.
16.	Mr. W. Arif	An Inclusive Study on Characteristics of Junction less Transistor	International Conference on Electronics and Communication System ICECS -2014, Accepted for Publication in-IEEE-Xplore

Sl. No.	Name of the Faculty	Details of the Program	Organizing Institute
17.	Mr. W. Arif	Auto Route Selection based Dynamic Spectrum Management under Centralized Cooperative Communication in Cognitive Radio	International Conference on Green Computing, Communication and Electrical Engg. (ICGCCEE-2014), Accepted for Publication in-IEEE-Xplore
18.	Mr. W. Arif	Gate Capacitance of a two dimensional JLT	International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET), 2014 Accepted for IJIRSET publication
19.	Mr. W. Arif	An Adaptive Spectrum Sensing Model for Cognitive Radio Application	International Journal of Soft Computing and Engineering (IJSCE), ISSN: 2231-2307, Vol. 4, Issue 1, March 2014 Vol. 4, Issue 1, March 05, 2014, pp 171-75
20.	Dr. Ashraf Hossain	2 week ISTE workshop on Signals & Systems 2-1-14 to 12-1-14	IIT Kharagpur, Bombay, NIT Silchar
21.	Dr. R. H. Laskar	3 <sup>rd</sup> PRSG meeting and Workshop on Speech Processing 27-28 September 2013	NEHU shillong
22.	Dr. R. H. Laskar	Coordinators Workshop on Signals & Systems from 30 September to 4 October 2013	IIT Kharagpur
23.	Dr. R. H. Laskar	WISP 2013, 13 -14 December 2013	IIT Guwahati
24.	Dr. R. H. Laskar	WISSAP 2014, 23-27 January 2014	IIIT Hyderabad
25.	Dr. R. H. Laskar	4 <sup>th</sup> PRSG meeting and Workshop on Speech Processing 4-5 April 2014	IIT Guwahati
26.	Mr. Ram Kumar Karsh	3 <sup>rd</sup> PRSG meeting and Workshop on Speech Processing 27-28 September 2013	NEHU Shillong
27.	Mr. Ram Kumar Karsh	WISP 2013, 13 -14 December 2013	IIT Guwahati
28.	Mr. Ram Kumar Karsh	WISSAP 2014, 23-27 January 2014	IIIT Hyderabad
29.	Mr. Ram Kumar Karsh	4 <sup>th</sup> PRSG meeting and Workshop on Speech Processing 4-5 April 2014	IIT Guwahati
30.	Mr. Ram Kumar Karsh	QIP-STC on Fundamentals of Signal Processing for Antenna Array, 15-20 July 2013	IIT Kharagpur
31.	Mr. Ram Kumar Karsh	Workshop on "MEMS & SENSORS", 11-12 Sept 2013	NIT Silchar
32.	Mr. Ram Kumar Karsh	Workshop on "Outcome Based Curriculum Framework as per NBA Requirement", 30th May 13	NIT Silchar
33.	Mr. Ram Kumar Karsh	Workshop on Image Processing using LabView 16-17 Feb 2014	NIT Silchar

Sl. No.	Name of the Faculty	Details of the Program	Organizing Institute
34.	Mr. Ram Kumar Karsh	2 week ISTE workshop on Signals & Systems 2-1-14 to 12-1-14	IIT Kharagpur, Bombay, NIT Silchar
35.	Mr. Ganesh Prasad	QIP-STC on Fundamentals of Signal Processing for Antenna Array, 15-20 July 2013	IIT Kharagpur
36.	Mr. Ganesh Prasad	Workshop on Wireless Network Simulation and Protocol Development using Network Simulator(ns2), 06-08 Mar 2014	Bangalore
37.	Mr. Ganesh Prasad	Workshop on MEMS & SENSOR , 11-12 Sept 2013	NIT Silchar
38.	Mr. Ganesh Prasad	Workshop on Outcome Based Curriculum Framework as per NBA Requirement, 30 May 13	NIT Silchar
39.	Mr. Ganesh Prasad	Workshop on Image Processing using LabView 16-17 Feb 2014	NIT Silchar
40.	Mr. Ganesh Prasad	2 week ISTE workshop on Signals & Systems 2-1-14 to 12-1-14	IIT Kharagpur, Bombay, NIT Silchar
41.	Mr. Ganesh Prasad	Advanced Design System Overview Training, 29-30, Jan 2014	NIT Silchar

#### 5.5.4. Research Development

##### a) PhD Programme (Specialization):

Semiconductor Device Modelling and Simulation; Microelectronics & VLSI Design; MEMS-CMOS Co-design related to Spectrum Sensing in Wireless; Power Electronics; Signal Processing; Communication Engineering; Ad-hoc & Sensor Networks; Digital System Design.

##### b) PhD Produced/Ongoing (in number):

Completed	Submitted	Ongoing
02	01	23

##### c) Research Lab/ Workshop:

Sl. No.	Name of Lab/Workshop	Purpose/Linkage to an existing/new programme
1	Basic Electronics Lab	To conduct Lab classes of UG/PG student
2	Microprocessors and Instrumentation lab	To conduct Lab classes of UG/PG student
3	VLSI Lab	For UG Lab class/Research work of PG/Ph.D student
4	Communication Lab	For UG lab and for wireless research, RF Design etc.
5	Digital Signal Processing lab	For lab classes and for development of Video and image processing system
6	Advance Electronics Lab	Design Lab (Circuit and PCB Design)
7	Computational Lab	For Simulation/Design/Computation
8	TCAD Lab	For Device simulation
9	Speech & Image Processing Lab	Speech Processing system development purpose
10	MEMS Lab	Research work of UG/PG/Ph.D student

## d) Ongoing/Completed Sponsored Research Project:

Sl. No.	Project Title	Principal Investigator	Funding Agency	Cost in lakhs	Duration
1.	National MEMS Design Centre	Prof. S. Baishya	NPMASS (National Program for micro and smart systems)	Provided the hardware and software resources by National MEMS Design Centre	Completed
2.	Investigation of some binary Metal Oxide material for Resistive Switching Memory Applications	Prof. F. A. Talukdar	AICTE	18.40	Upto 2013
3.	Development of speech based multilevel person authentication system	Dr. R.H. Laskar	DIT, MHRD	57.93	Upto 2015
4.	Development of Prototype Video Surveillance System Using Face Invariant Face Recognition System	Prof. F. A. Talukdar	BRNS, BARC	24.9	03 years, (waiting for final approval)
5.	Super-resolution Image Analysis Under Translational and Rotational Motion	Dr. R.H. Laskar	ISRO, Ahmedabad	20.00	Under Review
6.	NITS Supercomputing Centre	Dr. T. R. Lenka	NIT Silchar	4 Crore	3 Year
7.	SMDP II	Dr. K.L.Baishnab	DIT, MHRD	48	Final approval for Phase-III (waiting)

## e) Research Paper Reviewed

Sl. No.	Faculty Name	Journal Name	No of Papers	Year
1.	Dr. Jayasree Chakraborty	IET Image Processing (Journal)	01	2014
		Neurocomputing (Elsevier, Journal)	01	2014
		Neurocomputing (Elsevier, Journal)	01	2013
		International Journal of Computer Applications in Technology (IJCAT)	01	2014



Sl. No.	Faculty Name	Journal Name	No of Papers	Year
		IEEE Students' Technology Symposium-2014 (Conference)	02	2014
		2 <sup>nd</sup> International Conference on Advance Computing, Networking, and Informatics (Conference)	03	2014
		6th International Congress on Image and Signal Processing (CISP)-2013/6th International Conference on Bio-Medical Engineering and Informatics (BMEI) 2013 (Conference)	02	2013
		5th International Conference on Computer Applications in Electrical Engineering (CERA)-2013 (Conference)	01	2013
2.	Dr. Abhishek Midya	IET Image Processing (Journal)	01	2014
		IEEE Students' Technology Symposium-2014 (Conference)	03	2014
		6th International Congress on Image and Signal Processing (CISP)-2013/6th International Conference on Bio-Medical Engineering and Informatics (BMEI) 2013 (Conference)	03	2013
3.	Dr. T. R. Lenka	Proceedings of the National Academy of Sciences, India Section A: Physical Sciences (Springer)	01	2014
4.	Dr. R.H. Laskar	Applied Soft Computing, Elsevier	01	2014
		British Journal of Mathematics & Computer Science	01	2013
5.	Dr. Ashraf Hossain	Wiley Journal of Wireless Communications & Mobile computing	01	2013
		Wiley Journal of Wireless communications & Mobile computing	01	2014
		IEEE Sensors Journal	01	2013
		Elsevier Journal of Computers & Electrical Engineering	01	2014

#### f) Chairing of Technical Section

Sl. No.	Faculty Name	Details
1.	Prof. F. A. Talukdar	Capacity building programme for Faculty in Social sciences, Sponsored by ICSSR, New Delhi, organized by Deptt. Of Business Administration, Assam University, Silchar, from 25-11-2013 to 11-12-2013.



### 5.5.5 Publication

#### a) International Journal(s):

1. Bhowmick, B., Baishya, S. & Sen, J. (2013). Optimization and Length Scaling of Raised Drain Buried Oxide SOI Tunnel FET. *Electronics Letters*. Vol. 16, Issue 49, pp 1031 – 1033.
2. Gupta, S. K. & Baishya, S. (2013). Subthreshold Modeling of Cylindrical Surrounding Gate MOSFETs Including the Fringing Field Effects. *IOP Journal of Semiconductors* (To be published).
3. Gupta, S. K. & Baishya, S. (2013). Modeling of Cylindrical Surrounding Gate MOSFETs including the Fringing Field Effects. *Journal of Semiconductors*. Vol. 34, Issue 7, pp 074001-1-6.
4. Gupta, S. K. & Baishya, S. (2013). Analysis and Design of a Novel Junction Less Triple Metal Cylindrical Surround Gate (JLTM CSG) MOSFET. *Research Journal of Recent Sciences*. Vol. 2, Issue 6, pp 23-31.
5. Gupta, S. K. & Baishya, S. (2013). Analysis and Design of a Novel Junction Less Triple Metal Cylindrical Surround Gate (JLTM CSG) MOSFET. *ISCA Research Journal of Recent Sciences*. Vol. 2, Issue 6, pp 23-31.
6. Gupta, S. K. & Baishya, S. (2013). Novel Characteristics of Junction Less Dual Metal Cylindrical Surround Gate (JLDM CSG) MOSFETs. *Research Journal of Recent Sciences*. Vol. 2, Issue 1, pp 44-52.
7. Gupta, S. K. & Baishya, S. (2013). Analog and RF Performance Evaluation of Dual Metal Double Gate High-k Stack (DMDG-HKS) MOSFETs. *Journal of Nano- and Electronic*. Vol. 5, Issue 3, 03008-1-8.
8. Hossain, A. Chakrabarti, S. & Biswas, P. K. (2013). Equal Energy Dissipation in Wireless Image Sensor Network: A Solution to Energy-Hole Problem. *Computers and Electrical Engineering (CAEE) Journal*. Vol. 39, Issue 6, pp 1789-1799, Elsevier Science.
9. Lenka, T. R. & Pandey, D. A Model Predicting Sheet Charge Density and Threshold Voltage with dependence on Interface States Density in LM-InAlN/GaN MOSHEMT. *Semiconductors*. Springer. (Accepted)
10. Lenka, T. R. and Bhattacharjee, A. (2014). Performance Analysis of 20nm Gate Length  $\text{In}_{0.2}\text{Al}_{0.8}\text{N}/\text{GaN}$  HEMT with Cu-Gate having a Remarkable High  $I_{\text{ON}}/I_{\text{OFF}}$  Ratio. *Journal of Semiconductors*. Vol. 35, Issue 6. (IOP).
11. Lenka, T. R., Bhattacharjee, A. & Pandey, D. (2014). An Investigation of Novel Characteristics of ultrathin  $\text{Al}_{0.2}\text{Ga}_{0.8}\text{N}/\text{GaN}$  MOSHEMT having 20nm Gate length and  $\text{SiO}_2$  Gate Dielectric. *Journal of Electron Devices* Vol. 19, pp 1674-1679.
12. Lenka, T.R., Dash, G. N. & Panda, A. K. (2014). Small-Signal RF and Microwave Characteristics of Sub-Micron AlGaIn/GaN HEMT. *Physics of Semiconductor Devices, Environmental Science and Engineering*. pp 153-156, 2014. DOI: 10.1007/978-3-319-03002-9\_15. Springer.
13. Lenka, T.R., Pandey, D. & Bhattacharjee, A. (2014). Study on Temperature Dependence Scattering Mechanisms and Mobility Effects in GaN and GaAs HEMTs. *Physics of Semiconductor Devices, Environmental Science and Engineering* pp 67-70. DOI: 10.1007/978-3-319-03002-9\_15. Springer.
14. Lenka, T.R., Dash, G.N. & Panda, A. K. (2013). RF and Microwave Characteristics of 10nm thick InGaIn-Channel Gate Recessed HEMT. *Journal of Semiconductors*. Vol. 34, Issue 11. pp 114003-1-6. (IOP).
15. Lenka, T.R. & Dash, A. R. (2013). VLSI Implementation of Reed-Solomon Encoder Algorithm for Communication Systems. *Radioelectronics and Communications Systems*. Vol.56, Issue 9, pp. 441-447. Springer.
16. Sharma, R., Baishya, S., Haldar, R. & Guha, K. (2014). Future Transistor for Hand-held Devices. *International Journal of Innovative Research in Science, Engineering and Technology*. Vol.3, Special Issue 3.
17. Mahto, O. P., Baishya, S., Guha, K. & Parmar, A. (2014). A Novel SB-MOSFET With Record Switching Characteristic. *International Journal of Innovative Research in Science, Engineering and Technology*. Vol. 3, Special Issue 3.
18. Laskar, R.H., Biswas, R. & Kar, S. (2014). An Algorithm for Denoising Color Images Corrupted By Impulse Noise. *DSP Journal*. Springer (accepted).
19. Karsh, R. K., Soren, N., Kumar, R. & Viswakarma, D.N (2013). An Overview-Protection of Transmission Line using Artificial Intelligence Techniques. *International*

*Journal of Engineering Research & Technology*. Vol.2, Issue 1.

20. Chander, S., Singh, P. & Baishya, S. (2013). Optimization of Direct Tunneling Gate Leakage Current in Ultrathin Gate Oxide FET with High-K Dielectrics. *International Journal of Recent Development in Engineering and Technology (IJRDET)*. Vol. 1, Issue 1. pp 24-30.
  21. Bhowmick, B., Baishya, S. & Sen, J. (2013) Optimization and Length Scaling of Raised Drain Buried Oxide SOI Tunnel FET. *Electronics Letters*. Vol. 16, Issue 49. pp. 1031 – 33.
- c) International Conference(s):**
1. T. Chakraborti, A. Sengupta, A. Midya, A. Konar and S. Sengupta, "3D model assisted facial error concealment technique using regenerative particle filter based technique", International Conference on Multimedia & Expo Workshops(ICMEW) 2013, pp. 1-6, San Jose, USA, July, 2013.
  2. J. Chakraborty, A. Midya, S. Mukhopadhyay and A. Sadhu, "Automatic Characterization of Masses in Mammograms", 6<sup>th</sup> International Conference on BioMedical Engineering and Informatics, Hangzhou, China, 2013.
  3. A. Ranjan, A. Midya, J. Chakraborty, S. Sengupta, "Video Error Concealment Using Speeded Up Robust Features and Affine Transformation", IEEE Students' Technology Symposium-2014.
  4. A. Verma, S. A. Raj, A. Midya, J. Chakraborty, "Face detection using skin color modeling and Geometric features", 3<sup>rd</sup> IEEE International Conference on Informatics, Electronics, and Vision (ICIEV), May 23-24, 2014 (Accepted).
  5. J. Chakraborty, S. Mukhopadhyay, R. M. Rangayyan, A. Sadhu, and P. M. Azevedo-Marques, "Automatic localization of the nipple in mammograms using Gabor filters and the Radon transform," in Proceedings of SPIE Medical Imaging 2013: Computer Aided Diagnosis, vol. 8670, pp. 86701s-86701s-6, Florida, Feb., 2013.
  6. J. Chakraborty, A. Midya, S. Mukhopadhyay, and A. Sadhu, "Automatic Characterization of Masses in Mammograms", 6<sup>th</sup> International Conference on BioMedical Engineering and Informatics, Hangzhou, China, 2013.
  7. A. Ranjan, A. Midya, J. Chakraborty, S. Sengupta, "Video Error Concealment Using Speeded Up Robust Features and Affine Transformation", IEEE Students' Technology Symposium-2014, Kharagpur, Feb., 2014.
  8. A. Verma, S. A. Raj, A. Midya, J. Chakraborty, "Face detection using skin color modeling and Geometric features", 3<sup>rd</sup> IEEE International Conference on Informatics, Electronics, and Vision (ICIEV), May 23-24, 2014 (Accepted).
  9. T. R. Lenka, "Study of 2DEG Interface Charge in AlGaIn/GaN and InAlN/GaN based HEMTs," 3<sup>rd</sup> International Conference on Physics at Surfaces and Interfaces, 24-28 Feb 2014, Puri, Odisha.
  10. T. R. Lenka and A. Bhattacharjee, "RF and Microwave characteristics of a 20nm Gate Length InAlN/GaN based HEMT having a High Figure of Merit," IEEE International Conference on Devices, Circuits and Systems – ICDCS 2014. 6-8 Mar, 2014, Coimbatore, TN, India. (IEEE Xplore)
  11. T. R. Lenka and D. Sahoo, "RF Characteristics and Mobility Performance of a 30nm Gate Length E-mode Junctionless Nanowire Transistor," IEEE International Conference on Electronics and Communication Systems, 13-14 Feb 2014, Coimbatore. (IEEE Xplore)
  12. T. R. Lenka and A. Bhattacharjee, "Insight to the 2DEG Transport and Mobility Effects of a 20nm Recessed Gate InAlN/AlN/GaN HEMT," IEEE International Conference on Electronics and Communication Systems, 13-14 Feb 2014, Coimbatore, TN, India. (IEEE Xplore)
  13. T. R. Lenka, G. N. Dash and A. K. Panda, "Small-Signal RF and Microwave Characteristics of Sub-Micron AlGaIn/GaN HEMT," 17<sup>th</sup> International Conference on Physics of Semiconductor Devices, 10-13 Dec 2013, Noida (Springer)
  14. T. R. Lenka, G. N. Dash and A. K. Panda, "2DEG Transport in Gate Recessed AlGaIn/InGaIn/GaN HEMT," IEEE International Conference on EDSSC 2013, Hong Kong, 3-5 June 2013. (IEEE Xplore)
  15. Koushik Guha, Purbashish Ganguly, Srimanta Baishya, "Performance Analysis of Low Power and High Frequency Novel RF Power Amplifier for 4G Systems" in IEEE Electron Device & Solid State Circuits conference

- held on Hong Kong polytechnic University, Hong Kong during 3rd June to 5th June, 2013.INSPEC Accession Number: 13844551. Page: 1-2.
16. Johnson Taye, Koushik Guha, Srimanta Baishya, "Design and Analysis of RF MEMS Shunt Capacitive Switch for Low Actuation Voltage & High Capacitance Ratio" in International Workshop on Physics of Semiconductor Devices (IWPSD) held on Amity University, Noida, India during 10<sup>th</sup> to 12<sup>th</sup> December, 2013 & also published in Book Chapter of Springer (MEMS & SENSORS).
  17. Krishna Dharavath, Amarnath Gaini, Fazal Ahmed Talukdar and Rabul Hussain Laskar, "Impact of Image Pre-processing on Face Recognition: A Comparative Analysis", Accepted for publication in ICCSP 2014.
  18. Krishna Dharavath, Rabul Hussain Laskar, Fazal Ahmed Talukdar, "Qualitative study on 3D face databases: A review", India Conference (INDICON), 2013 Annual IEEE, page(s):1-6, DOI: 10.1109/INDCON.2013.6726093.
  19. Krishna Dharavath, Fazal Ahmed Talukdar and Rabul Hussain LOaskar, "Study on biometric authentication systems, challenges and future trends; A review", IEEE International Conference on Computational Intelligence and Comp18ting Research (ICCIC), 2013, pages: 1-7, DOI: 10.1109/ICCIC.2013.6724278.
  20. S. Mandia, Krishna Dharavath and Rabul Hussain Laskar, "Improving Image Compression Ratio: A Novel Approach", accepted for publication in IEEE-ICRTIT 2014
  21. R. H. Laskar, Kalyan Banerjee and Debajit Basak, "Removal of High Densith Salt and Pepper Noise from Collor Images through Variable Window Size". International Conference on Circuits, Power and Computing Technologies (ICCPCT), IEEE, 2013, pages: 1132 – 1136, DOI: 10.1109/ICCPCT.2013.6528868
  22. Rinku Rabidas, R. H. Laskar, A. Roy and S. Mandia, "A Fast and Different Method for Face Recognition using SVM", communicated to ICACC-2014.
  23. B. Bhowmick, S. Baishya and K. Jena, "Digital circuit performance of Si-Ge pocket high gate dielectric SOI tunnel FET", Proceedings of International conference on Control, Communication, Power Engineering, CCPE 2013, Elsevier, Bangalore, 26-27 April, 2013.
  24. B. Bhowmick, S. Baishya and C. Joishy, "Compact models for double gate hetero gate dielectric nano scale Tunnel FET", Proceedings of International conference on Signal Processing Computing and Control (ISPCC), 2013 IEEE International conference on Signal Processing Computing and Control, pp. 1-4, 26-28 Sept. 2013, DOI: 10.1109/ISPCC. 2013. 6663448
  25. B. Bhowmick and S. Baishya, "Drain Current Model for Ballistic Double Gate Dielectric Tunnel FET and its Mixed Mode Application" accepted in Third International Conference on Computational Intelligence and Information Technology (CIIT 2013), Elsevier, Mumbai, INDIA
  26. M. Das and B. Bhowmick, Effect of temperature on Si-Ge Heterogate Raised Buried Oxide Drain Tunnel FET Electrical Parameters", Lecture Notes in Electrical Engineering, Springer, Volume 150, 2013, pp. 283-291
  27. B. Bhowmick, R. Goswami and B. Das, "A mathematical model and an algorithm for transmission in single rectangular potential barriers, "Proceedings of International Conference on Mathematical Computer Engineering ICMCE 2013, Chennai.
  28. K. Guha, B. Bhowmick and S. Baishya, "An innovative approach Crowbarless Solid state modular Klystron bias supply", Proceedings of CIEC 2014, IEEE, Calcutta University.
  29. K. Jena, B. Bhowmick and S. Baishya, "Simulation and Optimization of a partial gate all around Cylindrical Tunnel FET" International journal of recent trends and Technology, (ISSN:2277-3878, Volume-2, Issue-5, pp.43-45, November 2013
  30. B. Bhowmick, K. Jena and S. Baishya, "A Self-Consistent Model for Hetero-Gate All Around Tunnel FET", Proceedings of 2<sup>nd</sup> International Conference on Devices Circuits and systems (ICDCS'14), IEEE-EDS, Coimbatore, India, March 2014.
  31. B. Bhowmick, S. Baishya, R. Goswami, B. Das and C. Joishy, "An Optimized SOI g-TFET and its application in a half Adder Circuit, "Proceedings of 2<sup>nd</sup> International Conference on Devices Circuits and systems (ICDCS'14), IEEE-EDS, Coimbatore, India, March 2014.

32. R. Goswami, B. Das, B. Bhowmick, S. Haque, "A single gate nanoscale n-Channel Silicon MOSFET with gate overlap Si-Ge region for improved  $I_{on}/I_{off}$  ratio", Proceedings of International Conference on Circuits, Power and Computing Technologies 2014 (IEEE), Kanyakumari, 20-21 March.
33. B. Das, B. Bhowmick, "Arc shaped gate nanoscale AlGa<sub>N</sub>/Ga<sub>N</sub> HEMT with high-k gate dielectric," Proceedings of International conference on Recent Trends in Engineering and Technology, 2014, Nasik.
34. R. Goswami, B. Bhowmick, "A dual high-k dielectric gate-drain underlap nanoscale TFET with dp+ Si (1-x) Ge<sub>x</sub> layer at source channel tunnel junction", Proceedings of International conference on Recent Trends in Engineering and Technology, 28-30 March 2014, Nasik.
35. R. Goswami, B. Bhowmick, S. Baishya "Physics-based surface potential, electric field model of a Si<sub>1-x</sub>Ge<sub>x</sub> Gate-Drain Underlap Nanoscale n-TFET", communicated to International Journal of Electronics.
36. B. Bhowmick, S. Baishya and J. Sen "Optimization and length Scaling of Raised Drain Buried Oxide SOI Tunnel FET", Electronics letters, Volume 49, Issue 16, 01 August 2013, p. 1031-1033, DOI: 10.1049/el. 2013.1256
37. D. Basak, K.L. Baishnab, "Reduced Access Time with WTA Sense amplifier for standard CMOS SRAM Cell," IEEE International Conference on Advances in Electrical Engineering (ICAEE'14)," at VIT Vellore 9-11th January 2014.
38. Rajdeep Dhar, Radheshyam Gupta, K. L. Baishnab "An Analysis of CANNY and LAPLACIAN of GAUSSIAN Image Filters in Regard to Evaluating Retinal Image", International Conference on Green Computing, Communication And Electrical Engineering (ICGCCEE'14), 6<sup>th</sup>-8<sup>th</sup> Coimbatore, March 2014.
39. Rajdeep Dhar, Radheshyam Gupta, K. L. Baishnab, "Design of High Performance 16 bit Multiplier using Vedic Multiplication Algorithm with CMOS Technique", IEEE International Conference on Green Computing, March 2014. Communication And Electrical Engineering (ICGCCEE'14).
40. Sandeep Kumar, M.K. Suman and K. L. Baishnab, "A Novel Approach to Thermometer-to-Binary Encoder of Flash ADCs-Bubble Error Correction Circuit IEEE , ICDCS,, organized by Karuna University, 6<sup>th</sup>-8<sup>th</sup> March Coimbatore, 2014.
41. Sweta Chander and S. Baishya, "A Comprehensive Analysis of SOI-TFET with Novel Al<sub>x</sub>Ga<sub>1-x</sub>As Channel Material," Proceeding of the second IEEE International Conference on Devices, Circuits and Systems, Karunya University, Tamilnadu, 2014. (to be published)
42. Sweta Chander, Om Prakash Mahto, Vivek Chander and S. Baishya, "Analysis of Novel SGOI-TFET with Record Low Subthreshold Swing (SS) and High  $I_{on}/I_{off}$  Ratio," Proceedings of the eighth IEEE International Conference on Computing for Sustainable Global Development, Bharti Vidyapeeth, New Delhi, 2014 (to be published).
43. Sweta Chander and S. Baishya, "Improved Miller Effect using Al<sub>0.2</sub>Ga<sub>0.8</sub>As as a novel channel material in SOI based TFET," Proceedings of the IEEE International Conference on VLSI and Signal Processing, IIT Kharagpur, January, 2014 (to be published).
44. Sweta Chander and S. Baishya, "Advantage of SOI-TFET with Channel Material of Al<sub>0.2</sub>Ga<sub>0.8</sub>As," Proceedings of the tenth National Conference on Solid State Ionics (NCSSI 10), IIT Kharagpur, December, 2013 (to be published).
45. Sweta Chander and S. Baishya, "Impact of Channel Length & Oxide Thickness Variation in an Asymmetric SGOI-TFET," Proceedings of the IEEE Asia Pacific Conference on Postgraduate Research in Microelectronics & Electronics, Visakhapatnam, pp103-106, 2013.
46. Sweta Chander and S. Baishya, "SOI-TFET with Different Mole Fraction of Germanium," Proceedings of the IEEE International Conference on Advanced nanomaterials and nanotechnology (ICANN-2013), IIT Guwahati, December, 2013 (to be published).
47. Om Prakash Mahto, S. Baishya, Koushik Guha, & Ajay Parmar, "A Novel SB-MOSFET with Record Switching Characteristic, Proceedings of the IEEE International Conference on Innovations in Engineering and Technology (ICIET'14), March, 2014 (to be published).

48. Rahul Sharma and S. Baishya, "TCAD Simulation for Low Power UTBB FDSOI CMOS Device" Proceedings of the IEEE ICGCCEE, March 2014(to be published).

**c) National Conference(s):**

1. Koushik Guha, Brinda Bhowmick (Shome), and S. Baishya, "An Innovative approach for Crowbarless Solid-State Modular Klystron Bias Supply," Proceedings National Conference on Emerging Trends in Engineering and Sciences (ETES'14), Asansol, West Bengal, India, January, 2014.
2. Ashraf Hossain, R. Mishra, "Sensing and Link Model for Woreless Sensor Network: Coverage and Connectivity Analysis", In the Proceedings of the National Conference on Emerging Area of Photonics & Electronics 2013 (EAPE 2013), SPIE Student Chapter, B.P. Poddar Institute of Management & Technology, Kolkata, India August, 2013.

**d) Book / Chapter :**

1. Johnson Taye, Koushik Guha & Srimanta Baishya; Design and Analysis of RF MEMS Shunt Capacitive Switch

for Low Actuation Voltage & High Capacitance Ratio; International Workshop on Physics of Semiconductor Devices (IWPSD) held on Amity University, Noida, India during December 11-12, 2013 and also published in Book Chapter of Springer on Physics of Semiconductor Devices Environmental Science and Engineering, 2014, pp 445-48.

2. F. A. Talukdar & Ram Kumar; Design of 5.5 GHz Highly Linear CMOS Low Noise Amplifier; December, 2013; Lambert, Germany.

**5.5.6. Major Equipment Acquired**

MEMS + Perpetual License; Coventorware Architect software; Coventorware; COMSOL Multiphysics with 17 other equipment; Synopsys Asia Pac Advances TCAD University Bundle; Synopsys Asia Pac System University Bundle (SPW); Xilinx ISE Design Suite : System Edition 14.6; SILVACO TCAD OMNI Bundle; Voice Server with accessories.



## 5.6 Electronics and Instrumentation Engineering



### 5.6.1. Academic Staff

HEAD : Dr. Shahedul Haque Laskar, Ph.D.

Faculty members:

**Associate Professor**

Dr. S. H. Laskar, Ph.D.

Mr. Sudarsan Sahoo, M.Tech.

Mrs. Jupitara Hazarika, M.Tech.

**Assistant Professor**

Dr. Rajdeep Dasgupta, Ph.D.

Mr. Lalu Seban, M.Tech.

Mr. Tushar Bachhar, M.Tech. (Contractual)

Dr.Sougata Kumar Kar, Ph.D.

Mr. Kalimuddin Mondal, M.Tech. (Contractual)

### 5.6.2. Seminar, Symposia, Short Term Courses, Workshops

a) Conducted by Faculty Member

Sl. No.	Name of the Coordinator	Title	Funding Agency	Duration
1.	Dr. S. H. Laskar	Microcontroller and PLC Programming and Application	TEQIP-II	April 13-14, 2013
2.	Dr. S. H. Laskar	Distributed Control System (DCS)	TEQIP-II	April 11, 2013
3.	Dr. S. H. Laskar	Training on Industrial Simulator	Self	April 1-3, 2014

## b) Participated by Faculty Member

Sl. No.	Name of the Faculty	Details of the Program	Organizing Institute
1.	Dr. S.H. Laskar	MHRD's National mission for teachers management capacity enhancement programme held at IIM Indore during 24 <sup>th</sup> to 30 <sup>th</sup> September' 2013.	IIM Indore and MHRD
2.	Mr. Lalu Seban	Two weeks AICTE sponsored FDP on "Recent Advances in Industrial Automation, Control & Embedded System"; June 2013  Two weeks AICTE sponsored FDP on "Simulation, Design and Tools for Electronics System Development"; June 2013  One week FDP on "Classical & Modern Control with MATLAB/SIMULINK"; December 2013	St. Joseph's College of Engineering & Technology, Palai  St. Joseph's College of Engineering & Technology, Palai  Indian Institute of Space Science and Technology, Thiruvananthapuram

## 5.6.3 Research Development

## a) PhD Programme (Specialization):

Emerging fields & Applications of Sensors and Transducers; Industrial and Process Control Instrumentation; Power Quality Measurements & Monitoring; Biomedical Instrumentation and Signal Processing; Drug Delivery System & Instrumentation; Intelligent and Virtual Instrumentation.

## b) PhD Produced/Ongoing (in number):

Completed	Submitted	Ongoing
00	00	02

## c) Research Lab/ Workshop:

Sl. No.	Name of Lab/Workshop	Purpose/Linkage to an existing/new programme
1.	Instrumentation Lab	For Laboratory works & Research activities
2.	Instrumentation & Automation Lab	For Laboratory works & Research activities
3.	Process Control Instrumentation lab	For Laboratory works & Research activities
4.	Software & Simulation Lab	For Laboratory works & Research activities
5.	DSP & Communication Lab	For Laboratory works & Research activities
6.	Microcontroller & Embedded System Lab	For Laboratory works & Research activities
7.	Circuits & Networks	For Laboratory works & Research activities
8.	Biomedical Instrumentation & Signal Processing	For Laboratory works & Research activities

## d) Research Paper Reviewed

Sl. No.	Faculty Name	Journal Name	No of Paper(s)	Year
1.	Dr. S.H. Laskar	IJETAE	01	2013
2.	Dr. S.H. Laskar	ITHERM	01	2013



#### 5.6.4. Publication

##### a) International Journal(s):

1. Jena, D. P., Sahoo, S., & Panigrahi, S. N. (2014). Gear fault diagnosis using active noise cancellation and adaptive wavelet transform. *Measurement*. Vol. 47, pp 356-72.
2. Kar, S. & Sen, S. (2013). Linearity Improvement of Source Degenerated Transconductance Amplifiers. *Analog Integrated Circuits and Signal Processing*. Vol. 74, Issue 2, pp 399-407, Springer.
3. Kar, S., Swamy, K. B. M., Mukherjee, B., & Sen, S. (2013). Testing of MEMS Capacitive Accelerometer Structure Through Electro-static Actuation. *Microsystem Technologies*. Vol. 19, Issue 1, pp 79-87, Springer.
4. Laskar, S. H., Mohibullah (2014). Issues of power quality and an efficient PQ monitoring system. *IEEE transactions on Instrumentation & Measurement*. Manuscript ref.no. IM-14-8659(communicated).

#### 5.6.5. Major Equipment Acquired

LabVIEW(Campus License with unlimited users); NI Biomedical tools; NI CompactRIO; NIELBES; Digital Storage Oscilloscopes; Smart Camera; Function Generators; Arbitrary Waveform Generator; High Voltage Power Electronics Lab(ST2700); Sensor modules; Microprocessor Trainer Kits(8086, 8051); Xilinx development boards; Nanoboards; Analog Oscilloscopes; Power Quality Analyzer; DSP Kits; VLSI design tools; Dynamic simulation Software/ Prosim(with Advanced industrial models); Process Control Trainer; MATLAB; LCD projector.

## 5.7 Humanities and Social Sciences



### 5.7.1. Academic Staff

HEAD : Dr. Gurudas Das, Ph.D.

Faculty members:

**Professor**

Dr. Gurudas Das, Ph.D.

**Assistant Professor**

Dr. Reena Sanasam, Ph.D.

Dr. N. Bhupendro Singh, Ph.D.

Dr. Ashim Kumar Das, Ph.D.

### 5.7.2. Seminar, Symposia, Short Term Courses, Workshops

a) Conducted by Faculty Member

Sl. No	Name of the Co-ordinator	Title	Funding Agency	Duration
1.	Dr. Gurudas Das	Socio-Economic Status of Marginalised Communities in Barak Valley with Special Reference to Schedule Caste Groups	ICSSR-NERC	2 days (August 30-31, 2013)

## b) Participated by Faculty Member

Sl. No	Name of the Faculty	Details of the Program	Organizing Institute
1.	Dr. Gurudas Das	Presented a paper on “Implications of Engaging Myanmar for India’s North East: Trade, Transit and Security” at an international seminar in Paris, France, held during April 8-11, 2013	IJAS
2.	Dr. Gurudas Das	Attended a workshop on “Academic Writing & Publication” during September 9-13, 2013	ICSSR-NERC, Shillong
3.	Dr. Gurudas Das, Mr. U. Paul, & Mr. T. Mathur	Presented a paper on -Sub-Regional Cooperation for the Development of Landlocked Peripheral Areas: The Case of BCIM; in a national seminar on BCIM- Economic Corridor (BCIM- EC), held on December 5, 2013.	ICWA, New Delhi
4.	Dr. Gurudas Das, & S. Das	Presented a paper on “ Democracy in the Grassroots: A Case Study of Nagendranagar Gaon Panchayat in Karimganj District of Assam “ in a national seminar on “Democracy and Development in India’s North-East: Challenges and Opportunities” held during December 6-7, 2013	ICSSR-NERC, Shillong
5.	Dr. Reena Sanasam	The Colonial Agenda in Roy’s ‘The God of Small Things’. International Conference on Literature to Cinema: Appropriation, Adaptations, Adulteration, 1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> June 2013	NIT Durgapur, West Bengal
6.	Dr. Reena Sanasam	Identity Crisis and the Contemporary Literature. Two Day International Seminar on Social inequality and Literature, 16-17 January, 2014	Tripura University
7.	Dr. Reena Sanasam	Quest for Identity in Anita Desai’s ‘Bye-Bye Blackbird’ and Manju Kapur’s ‘The Immigrant’. Women and Media: Challenges and Opportunities, 3 <sup>rd</sup> and 4 <sup>th</sup> March, 2014	Centre for Bangladesh Studies, in collaboration with the Dept. of Bengali & Dept. of Mass Communication Assam University, Silchar

## 5.7.3. Research Development

## a) PhD Programme (Specialization):

English Literature; Feminism; Agricultural Economics; Rural Development; Small Scale Business; Area Studies; International Trade; Political Economy.

## b) PhD Produced/Ongoing (in number):

Completed	Submitted	Ongoing
01	06	27

## c) Research Lab/ Workshop:

Sl. No.	Name of Lab/Workshop	Purpose/Linkage to an existing/new programme
1.	Computer Lab	For the use of the scholars

## d) Ongoing/Completed Sponsored Research Project:

Sl. No.	Project Title	Principal Investigator	Funding Agency	Cost in lakhs	Duration
1.	Agricultural Development and Environment Issues in the North Eastern Region: A Case Study of Manipur	Dr. N. Bhupendro Singh	ICSSR, New Delhi	6.35	May 2012 to April 2014

## e) Chairing of Technical Section

Sl. No.	Faculty Name	Details
1.	Dr. Gurudas Das	Chaired an academic session in "Euro-American Conference for Academic Disciplines" held during April 8-11, 2013, at FIAP Jean Monnet, Paris, France
2.	Dr. Gurudas Das	Chaired an academic session in a seminar on "Democracy and Development in India's North-East: Challenges and Opportunities" held during December 6-7, 2013, organised by ICSSR-NERC, Shillong

## 5.7.4 PUBLICATION

## a) National Journal(s):

- Das, A. K. (2013). Industrial Cluster and Regional Economic Development: A Literature Review. *Small Enterprise Development, Management and Extension Journal (Sedme)*. Vol.39, Issue 2, Nisiet Hyderabad.
- Sanasam, R. (2013). Cosmopolitanism in Amitav Ghosh's Hungry Tide. *English Literary Circle*, Imphal. Vol.1, Issue 1, pp 86-91, Spectrum.
- Sanasam, R. (2013). Tradition, Nostalgia and Spiritualism in S.K sharma's poems. *English Literary Circle*, Imphal. Vol.1, Issue 1, pp 216-23, Spectrum.
- Sanasam, R. (2013). African culture, folklore and myth in Toni Morrison's Song of Solomon: Discovering self identity. *PRATIDHWANI, A Journal of Humanities and Social Science*. Vol.2, Issue 1. Department of Bengali, Karimganj College, Karimganj, Assam, India.
- Sanasam, R. (2013). A Quest for Identity and Self Independence in Manju Kapur's *A Married Woman*. Vol. 1, Issue 3. *Research Scholar, An International Refereed e-Journal of Literary Explorations*, RSIRJLE, Gwalior.
- Sanasam, R. (2014). Roy's Reclaiming Voices on Feminist Identity. *English Literary Circle*, Imphal. *Spectrum : An International journal of humanities and Social Sciences*. English Literary Circle, Imphal. Vol. 2, Issue 1.
- Sanasam, R. (2013). Cosmopolitanism in Amitav Ghosh's The Hungry Tide. *Spectrum, An International journal of humanities and Social Sciences*. Vol. 1, Issue 1. English Literary Circle, Imphal.
- Sanasam, R. (2013). The Concept of New Woman in Anita Desai's *Clear Light of the Day* and Manju Kapur's *Home*. *PRATIDHWANI, A Journal of Humanities and Social Science*. Department of Bengali, Karimganj College, Karimganj, Assam, India. Vol. 2, Issue 3.

## 5.8 Management Studies



### 5.8.1. Academic Staff

**HEAD :** Dr. Ashim Kumar Das, Ph.D.

**Faculty members:**

**Assistant Professor (Contractual):**

Mr. Abhijit Ghosh, MBA (Finance & HRM)

Mr. Neilh M Gautam, MBA (Marketing & HRM)

Ms. Arpita Dutta, M.Tech.

Ms. Sonam Jain, MBA (HRM)

Mr. Kelvin Mutum, MBA (Finance)

Mr. Naba K. Das, MBA (Finance)

Mr. S. Baruah, MBA (Marketing & Finance)

Mr. Vivek Pathak, MBA (Marketing and HR)

**Visiting Faculty:**

Mr. Anil Jain, CA

Dr. Sunil Saikia, Ph.D.

### 5.8.2. Seminar, Symposia, Short Term Courses, Workshops

a) Conducted by Faculty Member

Sl. No	Name of the Co-ordinator	Title	Funding Agency	Duration
1.	Mr. Neilh M Gautam	A Work Shop on Leadership @ Bhagavad Gita: From Instinct to Intellect	TEQIP-II	1 day

Sl. No	Name of the Co-ordinator	Title	Funding Agency	Duration
2.	Mr. Neilh M Gautam	A Seminar on "How to face an interview confidently"	Department & Training and Placement Cell	1 day
3.	Mr. Neilh M Gautam	Mock Recruitment Drive	Department & Training and Placement Cell	2 days
4.	Mr. Neilh M Gautam	A Seminar on "Facing GD and Interview the Right Way"	Department & Training and Placement Cell	1 day
5.	Mr. Neilh M Gautam	A Seminar on "Managing yourself" by Mr. Anil Kapur Vice President of Topcem Cement	Department & Training and Placement Cell	1 day
6.	Mr. Vivek Pathak	A Seminar on "Rural Marketing" By Mr. Samrat Bhowmick General Manager (Sale & Marketing) of Dalmia Bharat Cement Ltd.	Department	1 day
7.	Head of Department	A Seminar on "Work Analysis" By Mr. Suresh Magarkar Tata Motor Ltd.	Department	1 day
8.	Head of Department	A Seminar on "Transforming in Mahindra & Mahindra after Liberalization" By Mr. Subhash Fadanavis Mahindra & Mahindra	Department	1 day
9.	Mr. Neilh M Gautam	A Seminar on "Page 3 Vs Chapter 3" By Mr. Vishwa Mohan Tiwari (Retd.) Air Vice Marshall	Department & Training and Placement Cell	1 day

**b) Activities/Events/ Seminars/ Workshops/Guest Lectures**

Sl. no	Date	Activities/Events/ Seminar/ Workshops
1.	26/07/2013	Interaction of Former Founder Director of IIM Shillong, Prof. Ashoke Kumar Dutta with Management Students
2.	27/07/2013	A Workshop on Leadership @ Bhagavad Gita: From Instinct to Intellect



Sl. no	Date	Activities/Events/ Seminar/ Workshops
3.	02/09/2013	Departmental Magazine – “UDAAN” launched
4.	11/09/2013	Career Awareness Campaign at Local School (Barak valley Public High School & Junior College, Fakirtilla)
5.	28/09/2013	Industrial Visit at Cachar Paper Mill, Hindustan Paper Corporation Ltd.
6.	9/1/2013 12/1/2013	Paarbon-14, The Annual Management Fest
7.	17/01/2014	A Seminar on “Managing yourself” By Mr. Anil Kapur Vice President of Topcem Cement
8.	31/01/2014	A Seminar on “Rural Marketing” By Mr. Samrat Bhowmick General Manager (Sale & Marketing) of Dalmia Bharat Cement Ltd.
9.	06/02/2014	A Seminar on “Work Analysis” By Mr. Suresh Magarkar Tata Motor Ltd.
10.	06/02/2014	A Seminar on “Transforming in Mahindra & Mahindra after Liberalization” By Mr. Subhash Fadanavis, Mahindra & Mahindra
11.	07/02/2014	A Lecture on “Managing innovation for powerful outcomes in Business” By Prof. Rajat K. Baisya (Retd.) Department of Management Studies, IIT Delhi
12.	15/03/2014	A Lecture on “How to develop Positive Attitude” By Prof. S.S. Khanka, National Institute of Financial Management (NIFM), Faridabad
13.	28/03/2015	A Lecture on “International Business Management” By Dr. Sunil Saikia, Retd. Director, Indian Institute of Entrepreneurship(IIE), Guwahati

### 5.8.3. Training and Placement Activities

The Training and Placement (T&P) Co-ordinators are actively working for placement assistance of final year students and provided SIP's (Summer Internship Project) to every student for the last two batches. Organizations which have turned up for the campus selection during reporting year are as:

- |                          |                                      |
|--------------------------|--------------------------------------|
| 1. NEDFi                 | 8. IndusInd Bank                     |
| 2. Vodafone              | 9. Future First                      |
| 3. Ways2Capital          | 10. Pradan                           |
| 4. Jaro Education        | 11. Nile Infostream Technologies     |
| 5. Topcem                | 12. Reinspire Tech                   |
| 6. Capital Via           | 13. Star Union Daichi Life Insurance |
| 7. Bespoke Digital Media | 14. Ideal 21 <sup>st</sup> Century   |



Following organizations have offered Summer Internship Project (SIP) to the students of Class 2013-2015.

- |                             |  |
|-----------------------------|--|
| 1. SBI                      | 14. Bajaj Aalinz Life Insurance Co.    |
| 2. NABARD                   | 15. NEC (CIL)                          |
| 3. ONGC                     | 16. Madura Fashion & Life Style        |
| 4. HPCL                     | 17. HCL Infosystem                     |
| 5. NEDFi                    | 18. Godrej Consumer Products Pvt. Ltd. |
| 6. E-mart solutions         | 19. IOCL                               |
| 7. Reliance Jio Infocomm    | 20. CCD                                |
| 8. Assam Roofing Ltd.       | 21. Aircel                             |
| 9. Kotak Securities Ltd.    | 22. TOPCEM                             |
| 10. Assam Gramin Vikas Bank | 23. Dalmia Cements                     |
| 11. Airtel                  | 24. Star Cement                        |
| 12. ITC Ltd.                | 25. Share Khan                         |
| 13. Youth 4 Work            | 26. Bandhan Financial Service          |

#### 5.8.4. ANNUAL MANAGEMENT FESTIVAL (PAARBON-2014)

During the month of January 9<sup>th</sup>-12<sup>th</sup> 2014, the Department has organized the first ever Annual Management Festival- **Paarbon'14** at NIT Silchar with events of different nature ranging from interactive sessions to various competitions. The fest witnessed the presence of many dignitaries including Shri. Pradyut Bordoloi, Minister of Industry & Commerce, Power (Electricity) and Public Enterprises, Government of Assam. Paarbon'14 provided a forum for budding managers of future to conceptualize and implement their ideas, along with interaction and deliberations with fellow students which was the core objective of the Festival. Certain events of Paarbon'14 include:

- SRISHTI- 3 days Exhibition cum Sale of Handicrafts & Handloom of Northeast Region.
- SAMAAVESH- The Conclave where Shri. Pradyut Bordoloi, Minister of Industry & Commerce, Power (Electricity) and Public Enterprises, Government of Assam, interacted with students on the Topic: Prospects of Industrial Development in North East.
- MAARGDARSHAN- Talk and discussion on Entrepreneurship by Corporate and Academic Professionals like Prof. D.K. Pandiya, Dean, Mahatma Gandhi School of Economics and Commerce of Assam University, Silchar; Mr. I.B. Ubadhia, Manager, Rosekandy Tea Garden, Silchar; Divisional Manager LIC (Silchar Div.); Sr. Manager BEST Cement.
- AALAP- An interactive session on problems & prospects of Small & Medium Enterprises in Assam. The officials were Branch Manager of NEDFi, General Manager of DIC, Astd. Director MSME and President of Kathigara Khadi Gram Unnyan Parashid.
- FLAME- The Mega Fashion Show in which the talent of the national and international students along with the kids of the faculties was showcased.
- KAUTILYA ka KAUSHAL- Strategic Planning Competition on Revival of Tea Industry with excellent ideas and proposals, were bought forward by the students. Managers from tea gardens and a renowned Chartered Accountant judged the proposals. Finally, a project

was selected by the esteemed judges for practical implementation in their tea gardens and assured financial assistance and technical support to the project by local tea board.

- QPL (Quiz Premier League) - Business Quiz was hosted by Mr. Manimugdha Sharma from Times Group, New Delhi. Total of 40 teams are registered and finally 8 teams are selected for the QPL.



Inauguration of PAARBON'14 by Prof. N V Deshpande, Director, NIT Silchar

## 5.9 Mathematics



### 5.9.1. Academic Staff

HEAD : Mr. Bijan Nath, M.Sc.

Faculty members:

**Associate Professor**

Mr. Bijan Nath, M.Sc.

Dr. P. K. De, Ph.D.

**Assistant Professor**

Dr. S. Roy, Ph.D.

Dr. M. Sen, Ph.D.

Dr. G. Ramesh

Dr. K. N. Das

Dr. D. Choudhury (till 28.02.14)

### 5.9.2. Seminar, Symposia, Short Term Courses, Workshops

a) Conducted by Faculty Member

Sl. No	Name of the Co-ordinator	Title	Funding Agency	Duration
1.	Dr. KedarNath Das	One day workshop on "Design and Innovation" as a coordinator, on 09.03.2014 at NIT Silchar	TEQIP – II, NIT Silchar	01 day

Sl. No	Name of the Co-ordinator	Title	Funding Agency	Duration
2.	Dr. KedarNath Das	Two days Exhibition workshop on “Miniature Engineering Working Models” on the working model of Mr Iqbal Ahmed (The Guinness book of world record holder) as a coordinator, during 29 <sup>th</sup> and 30 <sup>th</sup> March’ 2014	TEQIP – II, NIT Silchar	02 days
3.	Dr. Mausumi Sen	Co-ordinator of one day seminar on “Awareness of gender equality and behavioral attitude towards women at work places” held on 31.08.13	NIT Silchar	01 day
4.	Dr. Mausumi Sen	Co-ordinator of one day seminar on “Schemes of DST Projects” held on 27-01-14	TEQIP – II, NIT Silchar	01 day

#### b) Participated by Faculty Member

Sl. No	Name of the Faculty	Details of the Program	Organizing Institute
1.	Dr. S. Roy	<b>Three-Day Short term Course on App. of Soft computing. From 09.11.13 – 11.11.13 in Engg.</b>	NIT Silchar
2.	Dr. KedarNath Das	3rd International Conference ‘SocPors-2013’, during 26-28 Dec, 2013.	IIT Roorkee
3.	Dr. KedarNath Das	One day seminar on “Interdisciplinary Research on Biomedical Engineering”, IEEE Student Chapter, on 26th August 2013.	NIT Silchar
4.	Dr. KedarNath Das	3rd International Conference ‘SocPors-2013’, during 26-28 Dec, 2013.	IIT Roorkee
5.	Dr.P.K.De	Fuzzy IEEE International Conference 2013 Hyderabad, India, July 07-10, 2013. “Optimal order quantity of an EOQ model using expected value of a fuzzy function”, Fuzzy IEEE 2013, IEEE Explore	ISI Kolkata and Jadavpur University Kolkata
6.	Dr.P.K.De	Short Term Course on “Applications of Soft Computing Techniques in Engineering”, November 09-11, 2013.	Civil Engg. Deptt. NIT Silchar
7.	Dr.P.K.De	National Workshop on “Mathematical Modeling in Engineering”, December 02-06, 2013.	Deptt. Of Maths, NIT Warangal
8.	Dr.P.K.De	One week STTP on “Application of Probability Theories and Optimization Techniques in Civil Engineering”, December 09-13, 2013.	Civil Engg. Deptt. NIT Silchar

### 5.9.3 Research Development

#### a) PhD Programme (Specialization):

Fuzzy Optimization and Decision Making; Evolutionary Optimization; Fuzzy set theory; Linear Algebra; Sequence Space & summability; Numerical Optimizations; Complex Analysis; Mathematical Modelling; Seismic Wave Propagation; Operations Research in Crisp and Fuzzy Environments.

## b) PhD Produced/Ongoing (in number):

Completed	Submitted	Ongoing
02	01	08

## c) Research Lab/ Workshop:

Sl. No.	Name of Lab/Workshop	Purpose/Linkage to an existing/new programme
1.	Computational Fluid Dynamics	Required for M. Sc. (Maths) Program

## d) Research Paper Reviewed

Sl. No.	Faculty Name	Journal Name	No. of Paper	Year
1.	Dr. Santanu Roy	International Journal of Modern Mathematical Sciences	01	2013
2.	Dr. Santanu Roy	Annals of Fuzzy Mathematics and Informatics (AFMI)	01	2014
3.	Dr. KedarNath Das	International Journal of Swarm Intelligence (IJSI), Inder Science	01	2013
4.	Dr .KedarNath Das	International Journal of Applied Mathematics and Computation, Elsevier	01	2013
5.	Dr. KedarNath Das	International Journal of high performance computing and networking, Inderscience.	01	2013
6.	Dr. KedarNath Das	3 <sup>rd</sup> Int. Conf. on "Soft Computing for Problem Solving (SocPros-2013)", Organizer: IIT Roorkee, Publisher: Springer.	01	2013
7.	Dr. KedarNath Das	Journal of Computational Science, Elsevier	01	2013
8.	Dr. KedarNath Das	National Academy Science Letters, Springer	01	2014
9.	Dr. KedarNath Das	International Journal of Artificial Intelligence and Soft Computing, Inderscience	01	2014
10.	Dr. Mausumi Sen	Acta Mathematica Scientia	01	2013
11.	Dr. Mausumi Sen	Mathematica Slovaca	01	2013
12.	Dr. Mausumi Sen	Applied Math. & information Sciences	01	2013
13.	Dr. Mausumi Sen	Annals of Fuzzy Mathematics and Informatics	01`	2013

## e) Chairing of Technical Section

Sl. No	Faculty Name	Details
1.	Dr. KedarNath Das	Technical session chaired in the 3 <sup>rd</sup> Int. Conf. on "Soft Computing for Problem Solving (SocPros-2013)", Organizer: IIT Roorkee, Dec' 2013.

### 5.9.4 Publication

#### a) International Journal(s):

1. Sen, M.& Roy, S. (2013). Generalized Bounded variation Fuzzy real-valued double sequences  ${}_2bv^F(p)$ . Sciknow Publications Ltd. RICM. Vol.1, Issue 4. pp 43-50.
2. Roy, S.& Nath, B. (2013). Some Classes of Fuzzy  $I$  – Convergent Difference Double Sequence spaces associated with Multiplier Sequences. *International Journal of Engineering and Advanced Technology*. Vol. 2, Issue 5.
3. Roy, S. & Nath, B. (2013). Classes of Fuzzy Real-Valued Double Sequences related to the Space  $\ell^p$ . *Global Journal of Science (US), Frontier Research (F)*. Vol.13, Issue 6,pp36-46.
4. Roy, S & Nath, B. (2013).Some Classes of  $I$ -convergent difference double sequence spaces defined by Orlicz functions. *International Journal of Futuristic Science Engineering and Technology*. Vol.1, Issue 7, pp 420-436.
5. Sen, M.& Roy, S. (2013).On Paranormed type Fuzzy real valued  $I$ -convergent double Multiplier Sequences. *Kuwait Journal of Science and Engineering*. Vol. 40, Issue 1, pp 01-12.
6. Sen, M.& Roy, S. (2014). Some  $I$ -convergent multiplier double classes of sequences of fuzzy numbers defined by Orlicz functions. *Journal of Intelligent & Fuzzy systems*. Vol.26, pp 431-37.
7. Sen, M. & Sarma, D. (2014). Generalized inverse eigenvalue problem for matrices whose graph is a path. *Linear Algebra and its Applications*. Vol. 446, pp 224–36, Elsevier.
8. Sen, M. (2014). On  $I$ -Limit Superior and  $I$ -Limit Inferior of Sequences in Intuitionistic Fuzzy Normed Spaces. *IJCA*. Vol. 85, pp 30-33.
9. Sen, M. & Debnath, P. (2014). Some completeness results in terms of infinite series and quotient spaces in intuitionistic fuzzy  $n$ -normed linear spaces. *Journal of Intelligent and Fuzzy Systems*. Vol. 26, pp 975-82.
10. Sen, M. & Tripathy, B.C. (2013). On Fuzzy  $I$ -convergent Difference Sequence Spaces. *Journal of Intelligent and Fuzzy Systems*. Vol.25, pp 643-47.
11. Sen, M., Tripathy, B.C. & Nath, S. (2013).  $I$ -Limit Superior and  $I$ -Limit Inferior of Sequences in Probabilistic Normed Space. *International J. of Modern Math. Sciences*. Vol. 7, pp 01-11.
12. Sen, M., Ganie, A. H. & Sheikh, N.A. (2013). The Difference Sequence Space Defined by Orlicz Functions. *International J. of Modern Math. Sciences*. Vol.6, pp 151-59.
13. Das, K. N. (2013). A Novel Hybrid Genetic Algorithm for Constrained Optimization. *International Journal of System Assurance Engineering and Management*. Vol. 4, pp 86 – 93, Springer.
14. Das, K. N. (2013). Chemo-inspired genetic algorithm for function optimization. *International Journal of Applied Mathematics and Computation*. Vol.220, pp 394-404, Elsevier.
15. Das, K. N. (2014). Drosophila Food-Search Optimization. *International Journal of Applied Mathematics and Computation*. Vol.231, pp 566-80.
16. De, P.K. (2013). Algorithm for Solving Fuzzy Multi objective Linear Fractional Programming Problem by Additive Weighted Method. *Int'l J. of Computer Applications*. Vol. 80.
17. De, P. K. (2014). A Study on Ranking of Trapezoidal Intuitionistic Fuzzy Numbers. *International J. of Computer Information Systems and Industrial Management Applications*. Vol. 6, pp 437-41.
18. Debnath, P. (2013). Domination in Interval Valued Fuzzy Graphs. *Annals of Fuzzy Mathematics & Informatics*. Vol. 6, Issue. 2, pp 363-70.

#### b) International Conference(s):

1. Das, K.N. “Synergy of Differential Evolution and Particle Swarm Optimization”. International Conference ‘SocPors-2013’. IIT Roorkee, India. 26-28 Dec, 2013. Springer Proceeding, Volume 258, 2014, pp 143-160.
2. Das, K.N. “Modified Activity of Scout Bee in ABC for global optimization”. International Conference ‘SocPors-2013’. IIT Roorkee, India. 26-28 Dec, 2013. Springer Proceeding, Vol. 259, 2014. pp 649-659.



3. Das, K.N. "A Novel Search Technique for Global Optimization". International Conference 'SocPors-2013'. IIT Roorkee, India. 26-28 Dec, 2013. Springer Proceeding, Volume 259, 2014, pp 497-508.
  4. Das, K.N. "Optimization of Engineering Design Problems via an Efficient Hybrid Meta-heuristic Algorithm". Third International Conference on Advances in Control and Optimization of Dynamical Systems. IIT Kanpur, India. March 13-15, 2014.
  5. Das, K.N. "An effective hybrid DE with PSO for constrained engineering design problem". 16<sup>th</sup> Annual Conf. of Int. Academy of Physical Science on Physical Sc. and Technology for Sustainable Development. IIITDM, Jabalpur, India. March 20-22, 2014.
  6. Das, K.N. "Hybridizing DE with PSO for Constrained Engineering Design Problems". Int. conf. on Industrial Engg. Sc. and Applications. NIT Durgapur, India. 2-4 April, 2014.
  7. De, P.K. "Optimal order quantity of an EOQ model using expected value of a fuzzy function". Fuzzy IEEE Int'l Conference 2013. Hyderabad. IEEE Explore. July 7-10, 2013.
- c) Book/Chapter:**
1. Dr Kedar Nath Das; Accepted Book Chapter: "Hybrid Genetic Algorithm: An Optimization Tool", in the book "Global Trends in Knowledge Representation and Computational Intelligence", Accepted on 9th Feb. 2013; IGI Global publisher, USA.
  2. Dr.P.K.De; Chapter Title –"An Algorithm for Solving General Linear Programming Problem with Fuzzy Variables and Fuzzy Resources"; Book- "Mathematical Sciences and their Applications"; Narosa Publishing House, New Delhi, 2013.



## 5.10 Mechanical Engineering



### 5.10.1 Academic Staff

**HEAD :** Prof. Dr. R.D. Misra, Ph.D. (Up to 20.05.2013)

Prof. Dr. P.K. Patowari, Ph.D. (w.e.f. 20.05.2013)

#### Faculty members:

##### Professor

Prof. N. V. Deshpande, Ph.D.  
 Prof. R. Gupta (On lien), Ph.D.  
 Prof. K. M. Pandey, Ph.D.  
 Prof. R.D. Misra, Ph.D.

##### Associate Professor

Dr. K. Chakraborty, Ph.D.  
 Mr. D.H. Das, M.Tech.  
 Dr. K. K. Sharma, Ph.D.  
 Dr. P. K. Patowari, Ph.D.  
 Mr. P. Choudhury, M.Tech.

##### Assistant Professor

Mr. Lintu Roy, M.Tech.  
 Mr. S.K. Pattanayak, ME  
 Dr. S. Chatterjee, Ph.D.  
 Dr. A. Biswas, Ph.D.  
 Mrs. S. Debbarma, M.Tech.  
 Dr. S. Halder, Ph.D.  
 Dr. R. K. Gupta, Ph.D.  
 Dr. S. Bhowmik, Ph.D.  
 Dr. D. Dutta, Ph.D.  
 Dr. D. Bhanja, Ph.D.  
 Dr. A. Ray, Ph.D.  
 Dr. S. Nath, Ph.D.  
 Mr. Jagadish, M.Tech.

### 5.10.2 Distinction Achieved

#### a) By Student:

- i) Mr. Rohit Thakwani, Mr. Shubham Jain, & Mr. Rajarshi Choudhury; European Master in Renewable Energy Award 2013.
- ii) Mr. Rohit Thakwani; Indian National Academy of Engineering; 2013
- iv) Team TWARAN (A group of Final year and Pre-final year B.Tech Students) under the supervision of Dr. S. Chatterjee & Dr. S. Halder; 4<sup>th</sup> rank amongst new participating teams in BAJA SAE 2014; 6<sup>th</sup> rank amongst all the government colleges; 88<sup>th</sup> rank amongst the 350 participating teams; 19<sup>th</sup>-26<sup>th</sup> Feb, 2014.

### 5.10.3 Seminar, Symposia, Short Term Courses, Workshops

#### a) Conducted by Faculty Member

Sl. No.	Name of the Co-ordinator	Title	Funding Agency	Duration
1.	Dr. R. K. Gupta	Finishing School on CAD, CAM and Automation	TEQIP-II	May 02-06, 2013
2.	Dr. S. Halder, Dr. P.K. Patowari (Chairman)	Curriculum development program on "Materials & Manufacturing Technology"	TEQIP-II	July 9-12, 2013
3.	Dr. S. Halder, Dr. S. Bhowmik & Dr. P. K. Patowari (Chairman)	One week short term course on Joining of Materials	TEQIP-II	August 09-13, 2013
4.	Dr. R. K. Gupta	4-Day Workshop on CAD/CAM/ CAE for Creo 2.0 (Pro-E)	TEQIP-II	August 23-26, 2013
5.	Dr. S. Halder, Mr. P Choudhury & Dr. P. K. Patowari (Chairman)	One week short term course on Failure Analysis of Engineering Materials	TEQIP-II	September 23-27, 2013
6.	Dr. A. Ray & Dr. P. K. Patowari (Chairman)	Two Day Workshop on Photo Chemical Machining	TEQIP-II	October 3-4, 2013
7.	Dr. S. Chatterjee	Two weeks ISTE workshop on "Engineering Mechanics"	IIT Bombay	November 26 - December 06, 2013
8.	Dr. R. D. Misra (Chairman)	Celebration of 126 <sup>th</sup> Birthday of Mathematical Legend Srinivasa Ramanujan	TEQIP-II (NIT Silchar)	December 23, 2013
9.	Dr. R. D. Misra (Chairman)	Advances in Laser and Spectroscopy	TEQIP-II (NIT Silchar)	December 26-30, 2013
10.	Dr. R. D. Misra (Chairman)	Renewables in Science and Engineering (RISE-2014)	TEQIP-II (NIT Silchar) & MNRE Solar RTC Project	January 10-14, 2014

Sl. No.	Name of the Co-ordinator	Title	Funding Agency	Duration
11.	Dr. S. Halder	One Week Lecture series on Processing of Nonferrous Materials and Nanostructured Materials	TEQIP-II	February 3-7, 2014
12.	Dr. S. Bhowmik & Dr. P. K. Patowari (Chairman)	Exhibition workshop on Miniature Engineering Working Models	TEQIP-II	March 29-30, 2014

**b) Participated by Faculty Member**

Sl. No.	Name of the Faculty	Details of the Programme	Organizing Institute
1.	Dr. K.M. Pandey	Management Capacity Enhancement, September 24-30, 2013	IIM Indore
2.	Dr. R.D. Misra	WOSA-2014, March 8-10, 2014	MHRD, New Delhi
3.	Dr. R.D. Misra	One week short term course on JOINING OF MATERIALS, under TEQIP-II, August 09-13, 2013	NIT Silchar
4.	Dr. R.D. Misra	One week short term course on FAILURE ANALYSIS OF ENGINEERING MATERIALS, September 23-27, 2013	NIT Silchar
5.	Mr. D.H. Das	Failure Analysis of Engineering Materials, 23-27, Sep, 2013	NIT Silchar
6.	Dr. P. K. Patowari	International Conference on PRECISION, MESO, MICRO AND NANO ENGINEERING (COPEN-8: 2013), December 13-15, 2013	NIT Calicut, Kerala
7.	Dr. P. K. Patowari	Management Capacity Enhancement for Administrators, June 10-14, 2013	IIM Lucknow, Noida Campus
8.	Mr. P. Choudhury	ICON-DM 2013(International Conference on Design & Manufacturing 2013) July 18-20,2013 Paper presented: Stress & Free Edge Delamination Analyses of Delaminated Composite Structures using ANSYS	IIIT DM, Chennai
9.	Mr. P. Choudhury	One week Short term training Program on Computational Fluid Dynamics, July 2-6, 2013	MNNIT Allahabad
10.	Mr. P. Choudhury	Management Capacity Enhancement for Administrators, March 20-26, 2014	IIM, Indore
11.	Dr. K.K. Sharma	Failure Analysis of Engineering Materials, September 10-23, 2013	NIT Silchar
12.	Dr. K.K. Sharma	Joining of Materials, August 9-13,2013	NIT Silchar
13.	Dr. K.K. Sharma	Rise-2014 (Renewables in Science & Engineering Materials), January 10-14, 2014	NIT Silchar
14.	Dr. S. Chatterjee	One week ISTE Workshop on Engineering Mechanics for Coordinators, September 16-20, 2013	IIT Bombay
15.	Dr. S. Chatterjee	One week Short term training Program on Computational Fluid Dynamics, July 2-6, 2013	MNNIT Allahabad

Sl. No.	Name of the Faculty	Details of the Programme	Organizing Institute
16.	Dr. S. Chatterjee	Failure Analysis of Engineering Materials September 23-27, 2013	NIT Silchar
17.	Dr. A. Biswas	National Workshop on Turbo-Machinery Aerodynamics, June 21-24, 2013, under TEQIP II	IIT Mandi, HP
18.	Mrs. S. Debbarma	MEMS & SENSORS, Electronics & Instrumentation Engineering Department, under TEQIP II	NIT Silchar
19.	Mrs. S. Debbarma	Interdisciplinary Research on Bio-Medical Engineering under TEQIP II	NIT Silchar
20.	Mrs. S. Debbarma	Micro controlled & PLC Programming & Applications, Electronics & Instrumentation Engineering Department	NIT Silchar & Micro-pro, Kolkata, India
21.	Mrs. S. Debbarma	Industry Oriented Piping Engineering, TEQIP II	NIT Silchar
22.	Dr. S. Halder	Failure Analysis and Prevention	VNIT Nagpur
23.	Dr. S. Halder	Five Days Proficiency Improvement Programme on Advances in Automotive Materials	ARAI Pune
24.	Dr. S. Halder	1st International and 16th National Conference on Machines and Mechanisms, December 18-20, 2013	IIT Roorkee
25.	Dr. S. Bhowmik	International Conference on Design and Manufacturing (IConDM2013)	IITDM, Chennai
26.	Dr. S. Bhowmik	Two Days Workshop on Photochemical Machining	BCDI, Agartala
27.	Dr. S. Bhowmik	Short term course on Failure Analysis of Engineering Materials	NIT Silchar
28.	Dr. D. Dutta	Recent Trend on Manufacturing Science and Technology, April 18-19, 2013	NITTR, Kolkata
29.	Dr. D. Dutta	International Conference on EMSI, 3-4 <sup>th</sup> July, 2013	EMSI and SINP Kolkata
30.	Dr. D. Dutta	IEEE Conference, August 22-23, 2013	IEEE, Kolkata Chapter
31.	Dr. D. Dutta	South Asean Conference on Management and Case Research, December 27-29, 2014	IIM Bangalore
32.	Dr. D. Dutta	Case Methodology Workshop, February 13-14, 2014	IIM Calcutta
33.	Dr. D. Bhanja	One week short term course on Failure Analysis of Engineering Materials, September 23-27, 2013, under TEQIP-II	NIT Silchar
34.	Dr. D. Bhanja	One week Coordinators' workshop on Fluid Mechanics, March 11-15, 2014, under NMEICT	IIT Kharagpur
35.	Dr. S. Nath	Workshop on Implementation of Image Processing using LabVIEW February 15-16, 2014	NIT Silchar
36.	Dr. S. Nath	Failure Analysis of Engineering Materials, September 23-27, 2013	NIT Silchar

Sl. No.	Name of the Faculty	Details of the Programme	Organizing Institute
37.	Mr. Jagadish	Five Days TTT-Programme for FSIPD on Sector Skills Council NASSCOM, November 18-22, 2013	SRM University
38.	Mr. Jagadish	Two-Day workshop on Photochemical Machining, October 03-04, 2013	BCDI, Agratala
39.	Mr. Jagadish	Four-Day workshop on CAD/CAM/CAE using Creo 2.0(Pre-E), August 23-26, 2013	NIT Silchar
40.	Mr. Jagadish	Two Days International Conference on materials processing and characterization, March 8-9, 2014	G. R. Institute of Engg. & Tech., Hyderabad

#### 5.10.4 Research Development

##### a) PhD Programme (Specialization):

Thermal Engineering; Thermodynamics; Heat Transfer; Computational Fluid Dynamics; Combustion; Refrigeration and Air Conditioning; Alternate Fuels; Solar Energy; Wind Turbines; Hydraulic Turbines; Spray combustion; Non-conventional Energy, Tribology; Fracture Mechanics; Stress Analysis; Vibration; Micro-machining; Advanced Manufacturing Process; Engineering Materials; Virtual Manufacturing; Composites; Thermo-fluidics.

##### b) PhD Produced/Ongoing (in number):

Completed	Submitted	Ongoing
01	00	24

##### c) Research Lab/ Workshop:

Sl. No.	Name of Lab/Workshop	Purpose/Linkage to an existing/new programme
1.	Instrumentation & Mechatronics Laboratory	Existing B.Tech Program in Mechanical Engineering
2.	Composite Materials Laboratory	Existing New M.Tech Programme (MMT) and PhD work
3.	Energy Research Laboratory	Existing M.Tech Programme in Thermal Engineering and PhD work
4.	Refrigeration and Air Conditioning Laboratory	Existing B.Tech, M.Tech Programme in Thermal Engineering and PhD work
5.	Renewable Energy Laboratory	Existing M.Tech Programme in Thermal Engineering, PhD and R&D Project
6.	I.C. Engine Laboratory	Existing B.Tech & M.Tech Programme in Thermal Engineering and PhD work
7.	Fluid Mechanics & Fluid Machinery Laboratory	Existing B.Tech & M.Tech Programme in Thermal Engineering
8.	Heat Transfer Laboratory	Existing B.Tech & M.Tech Programme in Thermal Engineering

Sl. No.	Name of Lab/Workshop	Purpose/Linkage to an existing/new programme
9.	Advanced Manufacturing Laboratory	Existing B.Tech & M.Tech Programme in D&M and New M.Tech Programme (CAD-CAM and Automation MMT), and PhD work
10.	Computational Laboratory	Existing B.Tech & M.Tech Programmes in Thermal Engg, D&M and New M.Tech Programmes (CAD-CAM and Automation MMT), and PhD work
11.	Thermodynamics Laboratory	Existing B.Tech & M.Tech Programme in Thermal Engineering

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

Sl. No.	Project Title	Principal Investigator	Funding Agency	Cost in lakhs	Duration
1.	Establishment of Regional Test Center (RTC) - Cum Technology Back Up Unit For Solar Thermal Devices at ME Department, NIT Silchar (Assam)	Dr. R.D. Misra & Dr. A. Biswas	Ministry of New & Renewable Energy	73.86	5 years (2013-2017)
2.	Development of an enzymatic process for production of microalgaal biodiesel	Dr. S. Chatterjee	All India Council For Technical Education (AICTE)	10.4	2 years (April, 2012 - March, 2014)

**e) Research Paper Reviewed**

Sl. No.	Faculty Name	Journal Name	No. of Paper(s)	Year
1.	Dr.K. M. Pandey	Reviewed one paper from SadhnaAcademy Proceedings in Engineering Science, SADH-D-13-00444 on 05 February 2014	01	2014
2.	Dr.K.M.Pandey	Reviewed one paper from IEIC-D-13-00161, Journal of Institution of Engineers, India, Published from Springer on 04 Feb. 2014	01	2014
3.	Dr.K.M.Pandey	Reviewed one paper for Journal of thermal science published from Institute of Nuclear Science,Vinca, Belgrade, Serbia, SCI International Journal in January 2014	01	2014
4.	Dr.K.M.Pandey	Reviewed one paper from Renewable energy, Elsevier SCI International Journal	01	2014
5.	Dr.K.M.Pandey	Reviewer for ASME HEAT TRANSFER SUMMER INTERNATIONAL CONFERENCE July 2013, reviewed two papers July 14-19, Minneapolis, MN, USA	02	2013
6.	Dr.K.M.Pandey	Reviewed three papers for IMECE 2013, organized by ASME in 2013 International Mechanical Engineering Congress and Exposition, IMECE2013-66274, November 15-21, 2013, San Diego, CA, USA	03	2013
7.	Dr.K.M.Pandey	Reviewed three papers for 2014 2nd INTERNATIONAL CONFERENCE ON NUCLEAR ENGINEERING, July-7-11, 2014, Prague, Czech Republic	03	2014

Sl. No.	Faculty Name	Journal Name	No. of Paper(s)	Year
8.	Dr. R.D. Misra	International Journal of Energy Research, Elsevier	01	2013-14
9.	Dr. R.D. Misra	International Journal of Bioresources and Bioprocessing, Springer	01	2013-14
10.	Dr. P. K. Patowari	International Journal of Advanced Manufacturing Technology, Springer	03	2013
11.	Dr. P. K. Patowari	Materials and Manufacturing Processes, Taylor and Francis	01	2013
12.	Dr. S. Chatterjee	International Journal of Applied Research in Mechanical Engineering (IJARME). ISSN: 2231-5950	01	2013
13.	Dr. A. Biswas	Applied Energy (Elsevier)	05	2013-14
14.	Dr. A. Biswas	Proceedings of the IMechE, Part C: Journal of Mechanical Engineering Science (SAGE Publications, UK)	01	2013-14
15.	Dr. A. Biswas	Journal of Energy Engineering (ASCE Journal)	01	2013-14
16.	Dr. S. Halder	Journal of the Institution of Engineers (India): Series C	01	2014
17.	Dr. R. K. Gupta	Computer-Aided Design (Elsevier)	03	2013-14
18.	Dr. D. Bhanja	International Journal of Refrigeration ( <i>Elsevier</i> )	01	2013
19.	Dr. D. Bhanja	Heat & Mass Transfer ( <i>Springer</i> )	01	2013
20.	Dr. D. Bhanja	Walailak Journal of Science & Technology	01	2014
21.	Dr. A. Ray	Institution of Engineers	01	2013
22.	Dr. A. Ray	Production planning & Control	01	2013
23.	Dr. A. Ray	International Journal of Advance manufacturing Technology	01	2013

#### f) Chairing of Technical Section

Sl. No.	Faculty Name	Details
1.	Dr. P. K. Patowari	Co-Chairing two technical sessions in International Conference on PRECISION, MESO, MICRO AND NANO ENGINEERING (COPEN-8: 2013), NIT Calicut, Kerala, India, December 13-15, 2013



### 5.10.5 Publication

#### a) International Journal(s):

1. Gupta, R., Sinha, A. & Pandey, K. M. Computational Fluid Dynamics (CFD) study of tea withering trough considering leaf layer as porous medium. *Progress in Computational Fluid Dynamics*. (Accepted)  
Available on <http://www.inderscience.com/info/ingeneral/forthcoming.php?Jcode=pcfd>.
2. Debbarma, A. & Pandey, K. M. (2013). Numerical Analysis of Flow and Heat transfer in Sub-channel of Supercritical Water Reactor. *International Journal Procedia Engineering*. Vol.64, pp 507-517, Elsevier Publications.
3. Sinha, A., Gupta, R. & Pandey, K. M. (2013). Design and analysis of a modified tea withering trough using Computational Fluid Dynamics (CFD)-A case study. *International Journal Procedia Engineering*. Elsevier Publications (Accepted)
4. Dey, A., Chaudhary, G., Choudhury, P. & Pandey, K. M. (2014). Study of Post-Buckling Behavior of Carbon-Epoxy Composite Pressure Vessel Subjected to Hydrostatic Pressure. *International Journal of Trends in Economics Management & Technology*. Vol.III, Issue Copernics Value 6.14.
5. Dey, A., Choudhury, P. & Pandey, K. M. (2014). A Computational Study of Buckling Analysis of Filament Wound Composite Pressure Vessel Subjected to Hydrostatic Pressure. *Global Journal Research and Engineering*. Vol. 14, Issue 1, Version 1.0
6. Pandey, K. M. & Roga, S. CFD Analysis of Scramjet Combustor with Non-Premixed Turbulence Model Using Ramp Injector. Scientific. Net, Materials Science and Engineering.
7. K. Geetai, Joshi, G. & Pandey, K. M. (2014). Analysis of Factors Affecting Job Satisfaction of the Employees in Public and Private Sector. *International Journal of Trends in Economics Management & Technology*. Vol.III Issue, Copernics value 6.14.
8. Pandey, K. M. & Choubey, G. (2014). Numerical analysis of Hypersonic Combustion of a Scramjet Combustor with a Central lobed Strut Injector at flight Mach Number 7. *International Journal of Innovative Technology and Exploring Engineering*. Vol. 3, Issue 9, pp52-58.
9. Choubey, G. & Pandey, K. M. (2014). Numerical analysis of Hypersonic Combustion of a Scramjet Combustor with a Central lobed Strut Injector by varying the angle of attack. *International Journal of Advanced Mechanical Engineering*. Vol. 4, Issue 3, pp 269-276, Research India Publications, New Delhi.
10. Karthik, R., Kumar, U. & Pandey, K. M. (2014). CFD Analysis in the Field of River Engineering: A Review. *International Review of Applied Engineering Research*. Vol. 4, Issue 4, pp 337-342, Research India Publications, New Delhi.
11. Srivastawa, P. & Pandey, K. M. (2014). Computational Analysis of Hypersonic Combustion Using Flame Stabilizing Fuel Injection with Species Transport Model. *International Journal of Advanced Mechanical Engineering*. Vol. 4, Issue 3, pp 405-412, Research India Publications, New Delhi.
12. Misra, R.D., Jena, J. & Murthy, M.S. (2013). Energy and Exergy Analyses of a CI Engine Fuelled with Palm Biodiesel based on Experimental Data. *International Journal of Exergy*. Vol. 13, Issue 1, pp124-139.
13. Gupta, R., Deb, B. & Misra, R.D. (2013). Performance Analysis of a Helical Savonius Rotor with Shaft at 45° Twist Angle using CFD. *Journal of Mechanical Engineering Research (JMERE)*. Vol. 3, Issue 1.
14. Deb, B., Gupta, R. & Misra, R.D. (2013). Performance Analysis of a Helical Savonius Rotor without Shaft at 45° Twist Angle using CFD. *Journal of Urban and Environmental Engineering (JUEE)*. Vol. 7, Issue 1.
15. Jena, J. & Misra, R.D. (2013). Exergetic Cost Analysis of a CI Engine Fuelled with Petrodiesel and Palm and Karanja Biodiesels: A Comparative Assessment. *International Journal Exergy* (Accepted)
16. Jena, J. & Misra, R.D. (2014). Effect of fuel oxygen on the energetic and exergetic efficiency of a compression ignition engine fuelled separately with palm and karanja biodiesels. *Energy – The International Journal*. (Accepted)
17. Sarma, N., Biswas, A. & Misra, R.D. (2014). Experimental and computational evaluation of Savonius hydrokinetic turbine for low velocity condition with comparison to Savonius wind turbine at the same input power. *Energy Conversion and Management* (Accepted)

18. M. Eswara K. & Patowari, P. K. (2013). Parametric optimization of Electric Discharge Coating Process with W-Cu Powder Metallurgy Green Compact Tools Using Taguchi Analysis. *Surface Engineering*. Vol. 29, Issue 9, pp 703-11.
19. Gogoi R., Mahanta, R. B., Das, K. K., Das. G. & Sharma, K. K. (2013). Experimental investigation of Three-Stage Savonius rotor with concentrator. *International Journal of Mechanical Engineering and Research*. Vol. 8, Issue 15, pp 401-406, RI publication.
20. Sharma, K. K. & Gupta, R. (2013). Flow Field Around Three Blades Savonius Rotor. *International Journal of Applied Energy Research*. Vol. 3, Issue 4, pp 1773-82, RI Publication.
21. Sharma, K. K. & Gupta, R. (2014). Speed Variation in Savonius Rotor with Respect to Overlap. *International Review of Applied Engineering Research*. Vol.4, Issue 3, pp 233-240, RI Publication.
22. Sharma K.K., Biswas, A. & Gupta, R. (2013). Performance measurement of a three-bladed combined Darrieus-Savonius rotor. *Journal of Renewable Energy Research*. Vol 3, Issue 4, pp 885-891, IJRRER Press.
23. Sinha A., Biswas, A. & Sharma, K. K. (2013). On performance Study of Solar Driven Heat Engine with Consideration to Internal Irreversibility and Power density. *International Journal of Renewable Energy Research*. Vol 3, Issue 3, pp 509-513, IJRRER Press.
24. Ghosh, A., Gupta, R., Sinha, A., Biswas, A. & Sharma, K. K. (2013). Some Aspects of Vertical Axis Wind Turbines (VAWTs)-A review. *ISESCO Journal of Science and Technology*. Vol.9, Issue 16, pp 68-73, ICPSR.
25. Roy, L. & Kakoty, S. K. (2013). Optimum Groove Location of Hydrodynamic Journal Bearing Using Genetic Algorithm. *Advances in Tribology*. Vol. 2013, pp 1-13.
26. Chatterjee, S., Yadav, D., Barbora, E., Mahanta, P. & Goswami, P. (2014). Silk-cocoon matrix immobilized lipase catalyzed transesterification of sunflower oil for production of biodiesel. *Journal of Catalysis*. Vol. 2014, Article ID 868535, 7 pages. DOI:<http://dx.doi.org/10.1155/2014/868535>
27. Gupta, R. & Biswas, A. (2013). Flow Physics of 3-bladed Straight Chord H-Darrieus Wind Turbine. *Journal of Urban and Environmental Engineering (JUEE)*. Vol. 7, Issue 1, pp151-156, JUEE Press. DOI:10.4090/juee.2013.v7n1.151156
28. Sakthivel, S., Halder, S. & Gupta, P. D. (2013). Influence of co-solvent on production of biodiesel in batch and continuous process. *International Journal of Green Energy*. Vol.10, Issue 8, pp 876-884.
29. Sakthivel, S., Halder, S. & Gupta, P. D. (2013). Optimization of process variables for production of biodiesel in packed bed reactor using response surface methodology. *International journal of ambient energy*. Vol.34, Issue 2, pp 83-91.
30. Halder, S., Ghosh, P. K., Goyat, M. S. & Ray, S. (2013). Ultrasonic Dual Mode Mixing and its Effect on Tensile Properties of SiO<sub>2</sub>-Epoxy Nanocomposite. *Journal of Adhesion Science and Technology*. pp 111-124.
31. Ghosh, P. K., Halder, S., Goyat, M. S. & Karthik G. (2013). Study on thermal, lap shear and lap fracture characteristics of metallic and non-metallic particles reinforced epoxy adhesive. *The Journal of Adhesion*. Vol. 89, Issue 1.
32. Halder, S., Sakthivel, S. & Gupta, P. D. (2014). Studies of transesterification of karanja (Pongamiapinnata) oil in a packed bed reactor. *Chemical engineering communications*. Vol. 201, Issue 1.
33. Das, S., Chowdhury, P., Halder, S. & Sriram, P. (2013). Stress and Free Edge Delamination Analyses of Delaminated Composite Structure using ANSYS. *Journal of Procedia Engineering*. Vol.64, pp1364 – 1373.
34. Choudhury, I., Mathur, A. & Halder, S. (2014). Determination of Elastic Behaviour of Self-Healing Composites. *IJLTEMAS*. Vol. 3, Issue 1, pp 20-24.
35. Gupta, R.K. & Gurumoorthy, B. (2013). Classification, representation, and automatic extraction of deformation features in sheet metal parts. *Computer-Aided Design*. Vol. 45, Issue 11, pp 1469-1484. [www.elsevier.com/locate/cad](http://www.elsevier.com/locate/cad) (ScienceDirect).
36. Kumar, R., Kumar, K. & Bhowmik, S. (2014). Optimization of Mechanical properties of epoxy based wood dust reinforced green composite using Taguchi method. *Procedia Materials Science*(In press)

37. Kumar, R., Kumar, K., Sahoo, P. & Bhowmik, S. (2014). Study of mechanical properties of wood dust reinforced epoxy composite. *Procedia Materials Science*(In press)
38. Bhowmik S., Sahoo, P., Acharyya, S. K., & Dhar, S. (2013). Fracture behaviour of 20MnMoNi55 steel in DBT region under corrosive environment. *Procedia Engineering*. Vol. 64, pp795 – 804.
39. Bhowmik, S., Acharyya, S.K., Sahoo, P., Dhar, S. & Chattopadhyay, J. (2013). Estimation and comparative study of  $J_{IC}$  using different methods for 20MnMoNi55 steel. *Materials and Design*. Vol. 46, pp680 – 687.
40. Bhanja, D., Kundu, B. & Mandal, P. K. (2013). Thermal analysis of porous pin fin used for electronic cooling. *Journal of Procedia Engineering*. Vol. 64, pp 956-965, Elsevier.
41. Poddar, A. & Ray, A. Supplier selection: An intelligent approach. *IEI-Springer series* (Accepted)
42. Haldar, A., Ray, A., Banerjee, D. & Ghosh, S. (2014). Resilient supplier selection under a fuzzy Environment. *International Journal of Management Science and Engineering Management*. Vol.9, Issue 2, pp 147-156.
43. Deshamukhya, T. & Ray, A. (2014). Selection of cutting fluid for green manufacturing using analytical hierarchy process (AHP): a case study. *International Journal Mech. Engineering & Rob. Research*. Vol. 3, Issue 1.
44. Shabbiruddin, Ray, A., Sherpa, K. S. & Chakravorty, S. (2013). Evaluation of substation location using geographical information system: A case study. *Elixir Elec. Engineering*. Vol. 62, pp 17464-17468.
45. Nath, S., Mukhopadhyay, A., Datta, A., Sen, S. & Sarkar, S. (2014). Effect of confinement on breakup of planar liquid sheets sandwiched between two gas streams and resulting spray characteristics. *Fluid Dynamics Research*. Vol. 46, Issue 1.

**b) National Journal(s):**

1. Dutta, D. (2013). Labour Market: Age-A major Barrier: Six Sigma Methodology for its Solution. *IIM Bangalore Annual Journal on Management Studies*. Vol. 32, pp 42-48.

**c) International Conference(s):**

1. Ajoy Debbarma and K. M. Pandey, Numerical Analysis of Flow and Heat Transfer in the Sub-Channel of Supercritical Water Reactor, Paper presented in ASME 2013 International Mechanical Engineering Congress & Exposition IMECE2013, November 15-21, 2013, SAN DIEGO, CA, USA.
2. K. M. Pandey and BinitaNath, Numerical Simulation of a Hydrogen Fuelled Scramjet Combustor at Mach 1.5 Using Strut Injectors at Mach 2.47 Air Speed, Paper presented in November 15-21, 2013, San Diego, CA, USA, ASME 2013 International Mechanical Engineering Congress and Exposition, IMECE2013-66036
3. K. M. Pandey and Pinku Debnath, Performance Investigation on Single Phase Pulse Detonation Engine Using Computational Fluid Dynamics, Paper presented in IMECE 2013, ASME 2013 International Mechanical Engineering Congress and Exposition, IMECE2013-66274, November 15-21,2013, San Diego, CA, USA.
4. K.M. Pandey, K.K. Sharma, Kumar Gaurav, TarunAshutosh, AbhinavHazarika, Ritabrata Thakur, CFD Analysis of Blood Flow through Carotid Artery with 30% Blockage, International Congress of Environmental Research-2013, Aurangabad, India, December 19-21, 2013.
5. K. M. Pandey and PrateekSrivastava, Design and Combustion in Ramjet engines: A Review, International Congress of Environmental Research-2013, Aurangabad, India, December 19-21, 2013.
6. K. M. Pandey, R. Kannojiya, & K. K. Sharma, Performance Study of Single and Double-stage Bach Type Savonius Rotor having Blade Shape factor 0.4 with Varying Overlap Ratios, International Congress of Environmental Research-2013, Aurangabad, India, December 19-21, 2013.
7. Sinha, A., Gupta, R. and Pandey K.M. "Design and analysis of a modified tea withering trough using Computational Fluid Dynamics (CFD)-A case study", Accepted in 10<sup>th</sup> International conference on Mechanical Engineering, BUET, Dhaka, Bangladesh, 20-22 December, 2013. Will be published *Procedia Engineering* (Elsevier).

8. Sinha, A., Gupta, R. and Pandey K.M. "First law analysis of tea drying furnace in Cut-Tear-Curl (CTC) tea manufacturing-A case study", Accepted in 1<sup>st</sup> International conference on Energy system modeling and optimization, NIT Durgapur, India, 9<sup>th</sup>-11<sup>th</sup> December, 2013.
9. K. M. Pandey, K. K. Sharma, Kumar Gaurav, Tarun Ashutosh, AbhinavHazarika, Ritabrata Thakur, CFD Analysis of Blood Flow through Carotid Artery with 30% Blockage, International Congress of Environmental Research-2013, Aurangabad, India, December 19-21, 2013.
10. K. M. Pandey and Prateek Srivastava, Design and Combustion in Ramjet engines: A Review, International Congress of Environmental Research-2013, Aurangabad, India, December 19-21, 2013.
11. K. M. Pandey, R. Kannojiya, & K. K. Sharma, Performance Study of Single and Double-stage Bach Type Savonius Rotor having Blade Shape factor 0.4 with Varying Overlap Ratios, International Congress of Environmental Research-2013, Aurangabad, India, December 19-21, 2013.
12. R. Thakur, A.Hazarika, and T. Ashutosh and K. M.Pandey, Computational Analysis of Variation of Blood Flow in Multiple Blockages in Coronary Artery, International Conference on Advances in Civil, Structural and Mechanical Engineering, ACSME-2014, 4-5 January, Bangkok, Thailand organised by Institute of Research Engineers and Doctors, USA.
13. Deepak Sharma and K.M.Pandey, Computational study of convective heat transfer in sub channels of carbon dioxide flow at a pressure just above the critical value, International Conference on Advances in Civil, Structural and Mechanical Engineering, ACSME-2014, 4-5 January, Bangkok, Thailand organised by Institute of Research Engineers and Doctors, USA.
14. S. Roga and K. M. Pandey, "CFD Analysis of Supersonic Combustion Using Kerosene Fueled Scramjet Combustor With Double-Cavity Flameholders," International Conference on Innovation in Design, Manufacturing and Concurrent Engineering (IDMC 2014) 01<sup>st</sup>-03<sup>rd</sup>, March 2014
15. S.Roga and K. M. Pandey, "CFD Analysis of Supersonic Combustion Using H<sub>2</sub>Fueled Scramjet Combustor With Diamond-shaped Fuel Injector," International Conference on Innovation in Design, Manufacturing and Concurrent Engineering (IDMC 2014) 01<sup>st</sup>-03<sup>rd</sup>, March 2014
16. Abhijit Dey, K. M. Pandey and P. Choudhury, "A comparison study of post-buckling analysis of filament wound composite pressure vessel subjected to hydrostatic pressure", Accepted in International Conference on Innovation in Design, Manufacturing and Concurrent Engineering, National Institute of Technology, Rourkela, March 2014.
17. Gautam Choubey, K. M. Pandey, "Numerical analysis of Hypersonic Combustion of a Scramjet Combustor with a Central lobed Strut Injector by varying the angle of attack", paper published in International conference on "InnovativeTrends in Mechanical, Material, Manufacturing, Automotive, Automobile and Aeronautical Engineering" (ITMMMAAAE-2014), February 15-16, 2014, organized by KrishiSanskriti, JNU, New Delhi.
18. Prateek Srivastawa and K. M. Pandey, Computational Analysis of Hypersonic Combustion Using Flame Stabilizing Fuel Injection with Species Transport Model, paper published in International conference on "InnovativeTrends in Mechanical, Material, Manufacturing, Automotive, Automobile and Aeronautical Engineering" (ITMMMAAAE-2014), Feb.15-16, 2014, Organized by KrishiSanskriti, JNU, New Delhi.
19. R. Karthik, U. Kumar and K. M.Pandey, CFD Analysis in the Field of River Engineering, A Review, paper published in International conference on "Innovative Trends in Mechanical, Material, Manufacturing, Automotive, Automobile and Aeronautical Engineering" (ITMMMAAAE-2014), February 15-16, 2014, Organized by KrishiSanskriti, JNU, New Delhi.
20. Deb B., Gupta R., and Misra R. D., 2013, "Experimental Analysis of a 10° Helical Savonius Rotor at different overlap conditions". *Energy System Modeling and Optimization Conference (ESMOC 2013)*, to be held in December 9-11 at National Institute of Technology-Durgapur, India
21. Patowari, P. K., Wangikar, S. S., Misra, R. D., Misal, N. D., A Parametric Study on Photochemical Machining



- of Brass with Ferric Chloride as Etchant International Conference on PRECISION, MESO, MICRO AND NANO ENGINEERING (COPEN-8: 2013) NIT Calicut, Kerala, India, December 13th-15th, 2013, pp 451-456.
22. Rahang, M., Patowari, P.K., Multiple Lines Deposition using Selective Masking Technique in Electro Discharge Machine (EDM) International Conference on PRECISION, MESO, MICRO AND NANO ENGINEERING (COPEN-8: 2013) NIT Calicut, Kerala, India, December 13th-15th, 2013, pp 667-672.
  23. Singh, A. K., Patowari, P. K., Deshpande, N. V., Fabrication of Micro Tool using Reverse-Micro EDM International Conference on PRECISION, MESO, MICRO AND NANO ENGINEERING (COPEN-8: 2013) NIT Calicut, Kerala, India, December 13th-15th, 2013, pp 218-221.
  24. Shivkant Tilekar, Sankha Shuvra Das, P. K. Patowari, Process Parameter Optimization of Wire EDM on Aluminum and Mild Steel by Using Taguchi Method, International Conference on Advances in Manufacturing and Materials Engineering, (ICAMME 2014) at National Institute of Technology Karnataka, Surathkal, India, March 27-29, 2014.
  25. Borthakur M. P., Biswas A. Performance Analysis of Least Square Based Finite Difference method with variations in operating parameters. International Conference in Design, Manufacturing and Concurrent Engineering (IDMC), NIT Rourkela, India March 1-3, 2014.
  26. Sumita Deb Barma, Biplab Das, P. Lingfa and M. R. Singh (2013). Effect of various reaction parameters on the Biodiesel production process: A Review. Published in the proceeding National conference on Recent Advances in Civil Engineering NCRACE-2013, NERIST, Itanagar, 15-16 Nov, 2013, NCRACE13-069/ENV-19.
  27. Subhankar Das, Pannalal Choudhury, Sudipta Halder & P. Sriram, Stress and Free Edge Delamination Analyses of Delaminated Composite Structure using ANSYS, International Conference On DESIGN AND MANUFACTURING, IConDM 2013.
  28. Sudipta Halder, P. K. Ghosh, Mechanism of nanoparticle dispersion via acoustic cavitation in highly viscous fluid, iNaCoMM 2013, IIT Roorkee (Accepted).
  29. Ikkal Choudhury, Abhinav Mathur, Sudipta Halder. Determination of Elastic Behaviour of Self-Healing Composites, ICRSI -2013.
  30. Gupta R. K., Gurumoorthy B. 'Unified taxonomy for reference ontology of shape features in product model', In: Proceedings of the IFIP WG 5.1 10th Int. Conference on Product Lifecycle Management, held in Nantes, France, 6-10 July 2013 and published in the series of IFIP advances in IFIP Advances in Information and Communication Technology (Springer).
  31. D. Dutta. Inequality and Labour Market-Theories, Opinions, Models and Modern Innovative Practices on Unequal Distribution and Proper Justification. IEEE Conference, 22-23 August, 2013, IEEE Kolkata Chapter.
  32. D. Dutta, S. Das, Failure Analysis Approach to Fracture Studies in Powder Metallurgy. International Conference on EMSI, 3-4<sup>th</sup> July, 2013, EMSI and SINP Kolkata
  33. D. Dutta. Optimisation of Propagating Error due to Large Distance Follow Mechanism and Developing Compliance Mechanism for Large Distance Linear Motion. Recent Trend on Manufacturing Science and Technology, 18-19<sup>th</sup> April, 2013. NITTR Kolkata.
  34. D. Bhanja, B. Kundu, P. K. Mandal, 2013. *An analytical prediction in thermal analysis of porous pin fin with variable thermal conductivity*, Proceedings of the 22<sup>nd</sup> National and 11<sup>th</sup> International ISHMT-ASME Heat and Mass Transfer Conference, December 28-31, 2013, IIT Kharagpur, India.
  35. Tonmoy Choudhury, Partha Pratim Das, Manish Kumar Roy, Ishwer Shivakoti, Amitava Ray, "Optimization of Multi-Responses in EDM Process using Factor Analysis", Proceedings of International Conference on Smart Technologies for Mechanical Engineering, pp 858-864, 2013, ISBN: 978-93-83083-35-0.
  36. Tonmoy Choudhury, Partha Pratim Das, Manish Kumar Roy, Ishwer Shivakoti, Amitava Ray, "Selection of Non-traditional Machining Process: A Distance Based Approach", Proceedings of the 2013 IEEE IEEM2013, ISBN: 978-1-4799-0986-5.
  37. Rajnish Kumar, Jagadish, Amitava Ray, "Selection of material for optimal design using multi-criteria decision making", International Conference on Material Processing and characterization, proceeding of this conference is published in ELSEVIER PROCEDIA MATERIAL SCIENCE JOURNAL (ICMPC-2014), at GRIET, Hyderabad, India.

38. Rajnish Kumar, Jagadish, Amitava Ray, "Selection of cutting tool material: A holistic approach", International Conference on mechanical Engineering: Energy Trends for sustainability (ICMEETS-2014), at MANIT, Bhopal, India.
39. Rajnish Kumar, Jagadish, Amitava Ray, *Selection of material: A multi-objective decision making approach*, International Conference on Industrial Engineering(ICIE-2013), at S.V. National Institute of Technology, Surat, India. ISBN:978-93-83083-37-4, 162-165.
40. Rajnish Kumar, Jagadish, Amitava Ray. *Selection of material: A multi-objective decision making approach*. Presented at the International Conf. on Industrial Engineering (ICIE-2013), SVNIT, Surat, India. Nov 22-23, 2013, Proceeding of ICIE-2013 with ISBN: 978-93-83083-37-4, pp.162-165.
41. Rajnish Kumar, Jagadish, Amitava Ray. *Selection of cutting Tool Materials: A holistic approach*. Presented at the 1<sup>st</sup> International Conf. on MECHANICAL ENGINEERING EMERGING TRENDS FOR SUSTAINABILITY (ICMEETS–2014), MANIT, Bhopal, India. Jan 29-31, 2014, ICMEETS-2014-p-5028, pp.447-452.
- d) National Conference(s):**
1. M. Rahang, P. K. Patowari, Selective Surface Modification of Aluminium in EDM, Proceedings of National Conference on Manufacturing: Vision for Future, IIT Guwahati, 12-13 October, 2013, 100-105.
  2. Amit Kumar Singh, P. K. Patowari, N. V. Deshpande, Micro–Hole Drilling on Thin Sheet Metals by Micro – EDM and its Multiple Regression Model, Proceedings of National Conference on Manufacturing: Vision for Future, IIT Guwahati, 12-13 October, 2013, 118-126.
  3. L. Roy and S. K. Kakoty, Stability and flow optimized bearing configuration of two groove bearing, ISTAM, 58th Congress of the Indian Society of Theoretical and Applied Mechanics (ISTAM), 18-21 December, 2013, BESU, SIBPUR (full paper submitted)
  4. Biswas A., Sharma K.K., Gupta R., *Aluminum-Silica Gel Metal Matrix Composite (MMC) for future- a review. National Conference on Manufacturing: Vision for Future (MVF2013), October 12-13, 2013, IIT Guwahati.*
  5. Sudipta Halder, R. K. Gupta, Tankeshwar Prasad, Effect of process zone on tensile behavior of DGBA/SiO<sub>2</sub> nanocomposites, 5th National Symposium for Materials Research Scholars, MR-13, 2013.
6. Rajnish Kumar, Chiranjib Bhomik, Amitava Ray, Selection of cutting tool material by TOPSIS method, National Conference on Recent advancement in Mechanical Engineering (NCRAME-2013), at NERIST, Itanagar, India. ISBN: 978-93-82880-71-4.
- e) Book/Chapter:**
1. Dr. K. M. Pandey & Ajoy Debbarma; CFD Analysis of Flow and Heat Transfer in Sub-Channels of HPLWR(High Performance Light Water Reactor); LAMBERT Academic Publications, Germany,2013 Pages 80, ISBN 978-3-659-40788-8.
  2. Dr. K. M. Pandey & Deepak Sharma; 3D CFD Analysis of Heat Transfer in Sub Channels of Nuclear Reactors; LAMBERT Academic Publications, Germany, 2013 Pages 80, ISBN- 978-3-659-46288-7.
  3. Dr. K. M. Pandey, Dr. K. K. Sharma & R. Kannoja; Experimental Studies on Savonius and Bach Type Rotors; LAMBERT Academic Publications, Germany, 2013 Pages 92, ISBN- 978-3-659-19500-6.
  4. Dr. K. M. Pandey; Written a chapter of book on Nanotechnology, Vol.5 Defence Applications, Recent advances in nanomaterials of defence applications, Chapter 3Series Title: NANTOTECHNOLOGY, Volume No. and Title: Vol.5: Defence Application, Volume (5) ISBN: 1-62699-005-0, Executive Editor: Dr. J. N. Govil, Volume Editors: Dr. Shishir Sinha and Dr. Naveen K. Navani; Studium Press LLC, Houston, USA, 2013 Page 35-53, Series ISBN: 1-62699-000-X
  5. Promod Kumar Patowari, Gauranga Dutta & Kangkan Kalita; Design and Analysis of Electro-Thermal Micro Actuator and Gripper; LAMBERT Academic Publications, Germany ISBN-13: 978-3-659-43498-3.
  6. Ngangkham Devarani&Promod Kumar Patowari; Surface Modification of Graphite by Electrical Discharge Machine; LAMBERT Academic Publications, Germany ISBN-13: 978-3-659-35024-5.
  7. Dr. N. V. Deshpande, Amitava Ray, Rajnish Kumar et al.; Foundation skill integrated product design; NASSCOM.

### 5.10.6 Major Equipment Acquired

Computerised two shaft Gas Turbine Study Unit; Precision Thermal Imager; VAC Parameter Measurement Instrument (Multifunctioning); CNC Wire cut EDM Machine; Orion 5KVA/168V UPS, Orion 30 KVA/360V UPS; Biodiesel Reactor; Shell and Tube heat Exchanger; Heat Pipe Demonstrator; Finned Tube Cross Flow heat Exchanger; Cross Flow Heat Exchanger Apparatus; Pro Fin Apparatus; Cetane Index Measuring Apparatus; Computerised Single Cylinder 4 stroke water cooled multifuel VCR Engine setup; Computerised 3 cylinder 4 stroke water cooled petrol Engine Test setup; Computerised 4 cylinder 4 stroke Turbo Charger water cooled Diesel Engine Test setup; Francis Turbine Test Rig; Hydraulic Ram Test Rig; Humidity and

Temperature Measuring Instrument; Thermal Anemometer with five velocity probe; The ABC in pressure & flow velocity Measurement Apparatus; Thermo 200 CHN/O; Die Sensitized Solar Cell; Air Compressor 100PSI; Laminar Flow Hood; Light Microscope; Capacitance measurement Trainer Module for linear displacement; Flow Measurement trainer using orifice meter module, linear trainer module for linear displacement; Bourdon pressure gauge trainer; Vibration Measurement Trainer Module; Ultrasonic Machining Center with Accessories; Digital Oven; Muffle furnace; Computerised Vapour absorption Refrigerator Test rig; Vortex tube Refrigeration test rig. Apparatus; Photochemical coater cum photo Regist Dryer; Both side vacuum ultra violet exposer; Easy Etcher.

### 5.10.7 Patent

Sl. No.	Details	Year
1.	P. K. Patowari, Ashesh Srivastava, Ravi Yadav, Planer Machine Tool using Magnetic Levitation, Application number 421/KOL/2013, filed in Indian Patent Office, Kolkata	2013-14
2.	Dr. N.V. Deshpande, Mr. Rohit Thakwani, Mr. Subham Jain, Mr. Rajarshi Choudhury, SOLAR POWERED WHEELCHAIR, Reference No. 832/KOL/2013, filed in Indian Patent Office, Kolkata	2013-14



## 5.11 Physics



### 5.11.1 Academic Staff

**HEAD : Prof. Asim Roy, Ph.D. (Up to 04.08.13)**

**Prof. Subrat Kumar Barik, Ph.D. (From 05.08.13)**

**Faculty members:**

**Associate Professor**

Dr. Asim Roy, Ph.D.

Dr. Ranjith G. Nair (Contractual), Ph.D.

Dr. Priyalaxmi Goswami (Contractual), Ph.D.

**Assistant Professor**

Dr. Ayon Bhattacharjee (on Lien), Ph.D.

Dr. Saumya Ranjan Mohapatra (Contractual), Ph.D.

Dr. Subrat Kumar Barik, Ph.D.

Dr. Rupak Dutta (Contractual), Ph.D.

Dr. Avijit Chowdhury, Ph.D.

Dr. Subhasish Panda (Contractual), Ph.D.

### 5.11.2 Seminar, Symposia, Short Term Courses, Workshops

a) Conducted by Faculty Member

Sl. No.	Name of the Coordinator	Title	Funding Agency	Duration
1.	Dr. Subrat K. Barik & Dr. Priyalakshmi Goswami	A One Week Short Term Training Programme on Advances in Laser and Spectroscopy	TEQIP II	December 26-30, 2013
2.	Dr. Ranjith G. Nair	One week Short Term Course on Renewables In Science and Engineering (RISE-2014)	TEQIP-II	January 10-14, 2014

## b) Participated by Faculty Member

Sl. No.	Name of the Faculty	Details of the Program	Organizing Institute
1.	Dr. Subrat Kumar Barik	Short Term Training Programme on Renewables in Science and Technology, January 10-14, 2014	NIT Silchar
2.	Dr. Subrat Kumar Barik	Short Term Training Programme on Advances in Laser and Spectroscopy, December 26-30, 2013	NIT Silchar
3.	Dr. Subrat Kumar Barik	Presented a paper titled "Relaxation behavior and conduction mechanism of $\text{Na}_{1/2}\text{Dy}_{1/2}\text{TiO}_3$ : effect of temperature and frequency" in Winter School on Frontiers of Materials Science, December 2-6, 2013	JNCASR, Bangalore
4.	Dr. Avijit Chowdhury	Short Term Training Programme on Renewables in Science and Technology, January 10-14, 2014	NIT Silchar
5.	Dr. Saumya Ranjan Mohapatra	Short Term Training Programme on Renewables in Science and Technology, January 10-14, 2014	NIT Silchar
6.	Dr. Rupak Dutta	Short Term Training Programme on Renewables in Science and Technology, January 10-14, 2014	NIT Silchar
7.	Dr. Subhasis Panda	Short Term Training Programme on Renewables in Science and Technology, January 10-14, 2014	NIT Silchar
8.	Dr. Avijit Chowdhury	Short Term Training Programme on Advances in Laser and Spectroscopy, December 26-30, 2013	NIT Silchar
9.	Dr. Ranjith G. Nair	Short Term Training Programme on Advances in Laser and Spectroscopy, December 26-30, 2013	NIT Silchar
10.	Dr. Saumya Ranjan Mohapatra	Short Term Training Programme on Advances in Laser and Spectroscopy, December 26-30, 2013	NIT Silchar
11.	Dr. Priyalakshmi Goswami	Short term course on Application of Soft Computing Techniques in Engineering, November 9-11, 2013	NIT Silchar
12.	Dr. Priyalakshmi Goswami	Workshop on Investor Awareness and opportunities, September 27, 2013	NIT Silchar
13.	Dr. Ranjith G. Nair	IEEE Workshop on Nanotechnology and Sensors, Centre for Nano Science and Engineering, September 19-21, 2013	IISc Bangalore
14.	Dr. Priyalakshmi Goswami	National Seminar on Advances in Research in Physical Sciences, March 25-26, 2013	Cachar College Silchar
15.	Dr. Priyalakshmi Goswami	Workshop on Awareness on Women Harassment in workplaces	NIT Silchar

## 5.11.3 Research Development

## a) PhD Programme (Specialization):

X-ray Diffraction, Structural phase transitions in oxides perovskites, Multiferroics; Binary oxide for RRAM, Thin Films, Semiconductor nanostructures; Liquid Crystals, Metal Oxide Semiconductors, Raman Spectroscopy; Semiconductor Nanostructure and Devices, Polymer nano-composites.

## b) PhD Produced/Ongoing (in number):

Completed	Submitted	Ongoing
02	00	09

## c) Research Lab/ Workshop:

Sl. No.	Name of Lab/Workshop	Purpose/Linkage to an existing/new programme
1.	Microscience & Nanophysics	Research
2.	Multifunctional Materials	Research
3.	Liquid crystals	Research

## d) Ongoing/Completed Sponsored Research Project:

Sl. No.	Project Title	Principal Investigator	Funding Agency	Cost in lakhs	Duration
1.	Synthesis & characterization of BST-BFO composites for devices	Dr. Subrat Kumar Barik	AICTE	16	2 yrs
2.	Modernization of thin film laboratory	Dr. Asim Roy	AICTE	10	2 yrs
3.	Study of Bi-Layered Perovskite oxide: Thin Film for Nonvolatile ferroelectric memory applications	Dr. Asim Roy	AICTE	17.5	2 yrs

## e) Research Paper Reviewed

Sl. No.	Faculty Name	Journal Name	No. of Paper	Year
1.	Dr. Subrat K. Barik	Journal of Electroceramics (Elsevier)	01	2013-14
2.	Dr. Priyalakshmi Goswami	Journal of Optics (Springer-verlag)	01	2013-14
3.	Dr. Saumya R. Mohapatra	Ionics	03	2013-14

## 5.11.4 Publication

## a) International Journal(s):

- Barik, S. K., Chatterjee, S. & Choudhary, R. N. P. (2014). Molecular and impedance spectroscopy of  $\text{Na}_2\text{Mo}_2\text{O}_7$  ceramics. *Pramana: Journal of Physics* (Accepted).
- Chatterjee, S., Barik, S. K. & Choudhary, R. N. P. (2013). Studies of structural, spectroscopic and electrical properties of sodium molybdate ceramics. *J Mater Sci: Mater Electron*. Vol.24, pp 3359-64.
- Roy, N. & Roy, A. (2014). Zinc vacancy mediated structural phase transition and photoluminescence in nanocrystalline ZnS thin films. *J Mater Sci: Mater Electron*. Vol.25, pp 1275-79.
- Thingujam, K. D., Alapati, P. R., Choudhury, B. & Bhattacharjee, A. (2013). Optical studies of a liquid crystalline compound 6O.6. *Liquid Crystals*. <http://dx.doi.org/10.1080/02678292.2013.783132>, 2013.
- Nair, R. G., Samdarshi, S. K. & Boury, B. (2013). The surface mineralization of cellulose by metal chloride: An original pathway for the synthesis of hierarchical superstructures of  $\text{TiO}_2$ -like urchins and carpets of needles. *European Journal of Inorganic Chemistry*. pp5303-10.
- Das, B., Nair, R. G., Bijumani, R. & Samdarshi, S. K. (2013). Investigation of the photoactivity of pristine and

- mixed phase N-doped Titania under visible and solar irradiation. *Material Characterization*. Vol. 83, pp 145-51.
7. Maiti, S., Maiti, U. N., Chowdhury, A. & Chattopadhyay, K. K. (2014). Ambient condition oxidation of zinc foil in supersaturated solution for shape tailored ZnO nanostructures: low cost candidates for efficient electron emitter and UV-detector. *CrystEngComm*. Vol. 16, pp 1659-68.
  8. Chowdhury, A., Biswas, B., Sanyal, M. K. & Mallik, B. (2013). Organic Rectifiers Grown from MPcs Seeds: Effects of Grain Growth and Grain Orientation on the Rectification. *Science of Advanced Materials*. Vol. 5, pp 1857-66.
  9. Biswas, B., Chowdhury, A. & Mallik, B. (2013). Role of solvents on the electrical conductivity of solution-processed poly (methyl methacrylate) thin films. *Synthetic Metals*. Vol. 178, pp 44– 51.
  10. Chowdhury, A., Biswas, B. & Mallik, B. (2013). Effects of Substrate on the Asymmetric Grain Growth and Observation of Conductivity Anisotropy in Nanostructured Organic Thin Films. *Science of Advanced Materials*. Vol. 5, pp 1297-1306.
  11. Panda, S. & Khastgir, S. P. (2014). Metric deformation and eigenvalue problems in 3D. *Progress of Theoretical & Experimental Physics*. Oxford University Press on behalf of Physical Society of Japan (Accepted).
  12. Panda, S. & Hazra, G. (2014). Boundary perturbations and the Helmholtz equation in three dimensions. *Eur. Phys. J. Plus*. Springer (Accepted).
  13. Dutta, R., Bhol, A. & Giri, A. K. (2013). Effective theory approach to new physics in b to u and b to c leptonic and semileptonic decays. *Phys. Rev. D* 88, 114023.
  14. Dutta, R., Sinha, N. & Raut, S. K. (2014). Determining neutrino mass hierarchy from electron disappearance at a Low energy neutrino factory. *Phys. Rev. D* 89, 073011.
  15. Barua, A. G. & Goswami, P. (2013). Interaction of a tunable laser beam with high-resolution lines of methane in 9190–9199 cm<sup>-1</sup>. *Journal of Optics*. Vol. 42, Issue 1, pp 37–41.
- b) National Journal(s):**
1. Ojah, S., Nair, R. G. & Samdarshi, S. K. (2013). Recent Developments in Dye-Sensitized Solar Cells. *Akshay Urja*. Vol. 7, Issue 1, pp 10-13.

### 5.11.5 Major Equipment Acquired

RF Sputtering System; Horizontal quartz tube Furnace; Annealing and synthesis semiconductor nanostructures by chemical vapor deposition method; De-ionized water plant Thermal evaporation technique; Electrical characterization set up for electrical properties of materials; High temperature Muffle furnace; Low temperature furnace; LCR meter for dielectric/impedance properties of materials; DC resistivity set up; Polarizing Microscope for detecting phase of liquid crystal.

## 6. Academic Centre

### 6.1 Central Computer Centre

**Head/ In-charge:** Mr. Kumar Mithilesh (M.C.A.) Sr. Tech. Officer

Officer	Technical Staff	Attendant
Mr. Prabodh Meshram (B.E.), Technical Officer	(i) Abhishek Palit (contractual), M.C.A. (ii) Rupak Ranjan Deb (contractual), Diploma	(i) Mr. Nagina Sonar (ii) Mr. Sudarshan Goala

The Institute computing facility is maintained by the Central Computer Centre (CCC) which includes high-end servers and Intel Core-i5 & i7 based Personal Computers. The CCC is having three computer labs equipped with around 400 computers.

The State-of-Art IT Infrastructure has been recently deployed and the whole Institute including the various Departments, Students' Hostels, Administrative Building, Guest House, Library, Residential Quarters, Health Centre, Estate Engg. Branch, SAC Building, NITS Café, is connected by a campus-wide LAN & Wi-Fi facility using high speed Fibre Optic cables (1 Gbps). The LAN & Wi-Fi are managed by High Level Switches and a host of Servers. The Switches are connected by Fibre Optic Cables to Switches located in different academic departments, students' hostels of the Institute. The Institute has a dedicated 1 Gbps leased line from Bharat Sanchar Nigam Ltd. (BSNL) under National Mission on Education through Information & Communication Technology (NME-ICT) / National Knowledge Network (NKN), which provides 24x7 Internet Connectivity to serve

the Institute Internet needs. With this link, the Institute is getting around 400 to 600 Mbps bandwidth. The institute also has a 16 Mbps leased line from BSNL, dedicated to Web Server and Mail Server.

Currently, Wi-Fi connectivity is available at Guest House, Administrative Building, Lecture Hall Complex, Residential Quarters, Health Centre, Estate Engg. Branch, SAC Building, NITS Café as well as the departments. Network expansion still continues and work is going on for making the campus Wi-Fi by deploying more number of Access Points. CCC takes all possible steps in its capacity to make the network accessible round-the-clock. Efforts are being made to improve the reliability to meet the expectations of the user-base.

**Facilities provided by Computer Centre:** Internet facility is provided by the Central Computer Centre (CCC) to NITS campus and LAN and network updation and Maintenance is done by the centre. Web services along with domain based mail services facility is provided to faculty, staff and students in the NITS campus by this centre.

### 6.2 Central Workshop

Head	Workshop Superintendent(s)	Foreman
Prof. P.K. Patowari, PhD	Mr. S.K. Pattanayak, M.E. Mr. A. Ray, M.E.	Mr. B.K. Nath, Diploma

The workshop of the Mechanical Engineering Department acts as a Central Workshop of the Institute. It is one of the major service sections of the institute consisting of five sections namely, (i) Machine shop, (ii) Fitting shop, (iii) Carpentry shop, (iv) Welding shop, (v) Sheet Metal shop.

The Machine Shop comprises of Lathe (GD lathe, Capstan lathe, Turret lathe, Speed lathe, All Geared Sliding Surface Screw Cutting Lathe), Milling machine (horizontal and vertical), Surface Grinder, Shaper, Double Housing Planner, Slotter and Radial Drilling machine.

The Fitting Shop comprises of Bench Drilling machine, Power Hacksaw, Fitting Tables with vices, Wall mounted Grinding machine and Pedestal Grinder.

The Carpentry Shop has Carpentry Tables with vices, Wood Turning lathe, Surface planner and Thickness planner.

The Welding Shop includes Oxy-Acetylene Gas Welding, Arc Welding, TIG, MIG and Submerged Arc Welding.

The Sheet Metal Shop has Bending machine and Shearing machine.

All the shops are equipped with necessary tools. Common workshop classes are held in the workshop along with workshop classes for higher semesters of Mechanical Engineering branch. Different project works for the undergraduate and postgraduate students are also carried out in the workshop. However, continuous efforts are being taken to augment the facilities of the workshop commensurate with the change in technology. The workshop is also used for fabrication work for the Institute.

### 6.3 Central Library

Central Library plays a pivotal role in the academic and research activities of NIT Silchar. It provides facilities for creation and dissemination of knowledge among its 2928 members (including students, research scholars, academic and non-academic staff). The Central Library is one of the biggest technical libraries in North-East India and its web site address is: <http://www.nits.ac.in/library/library.html#page=default>

The key officers of the Central Library are:

<b>Chairman</b>	<b>Librarian</b>	<b>Astt. Librarian</b>
Prof. F. A. Talukdar Ph.D.	Dr. Kishor C. Satpathy Ph.D.	Ms. Krishnamati Singha MLISc, MBA (HRM)

**The total collection of library as on 31<sup>st</sup> March 2014 stands as follows:**

Books: 90418	Print Journals: 156	Bound Volumes: 4771
CD-ROMs: 3726	Databases: 21	Videos: 909
ISI Code (Printed): 8627	Book Bank (General): 9235	Book Bank (SC/ST): 8050
IRC Codes: 152	Thesis: 38	Dissertation (M.Tech/ M.Sc): 151
Reports/ Annual Reports: 333		

#### **Budgetary Details:**

Central Library received a projected allocation of 3.40 crore under Plan-Head and 14 lacs under Non-Plan during the financial year 2013-14. Out of the allocation of Plan funds Rs. 2,16,49,240.00 have been utilized for purchase of books & e-journals and databases and out of Non-Plan grant Rs.

3,08,991.00 has been utilized for subscription of printed journals/ newspapers/ binding purpose and rest for day-to-day operation of the library.

Below table gives the detailed expenditure incurred on books, journals, newspaper, binding etc. from 2011-12 to 2013-14:



Year	Books	Book Bank (General)	e-Books & archive of e-Journals	Printed Journals/ Magazine	Online Database/ e-Journals	Contingency	Newspaper & Magazines
2013-14	32,86,222.00	1,88,700.00	82,07,724.00 (TEQIP – II)	1,70,140.00	1,83,63,018.00	1,18,541.00	20,310.00

### Human Resources:

The library has a small team of talented and dedicated staff to perform their duties and responsibilities with dignity and honesty. In addition to their regular jobs, most of them are involved in various academic activities like attending workshop, presenting papers in seminars and conferences, delivering lectures in various training programmes, serving on various expert committees etc. Some of the major contributions /achievements are listed below:

### Paper Presentation:

1. Dr. Kishor Chandra Satpathy was invited to deliver a lecture in the National Workshop cum Training Programme on “Management of Libraries and Information Centers in Digital Era” Organized by Rajiv Gandhi Indian Institute of Management, Shillong, & National Library, Kolkata during 25-27 March 2014 at IIM Shillong.
2. Mrs. Krishnamati Singha presented paper entitled “Social Audit with web 2.0: A new methodological approach for successful e-governance” in the “Innovation India” held at NIT Silchar 25 – 26 November, 2013.
3. Mr. Suresh Chandra Padhy presented paper entitled “Knowledge sharing through E- resources” in the “Innovation India” held at NIT Silchar from 25 – 26 November, 2013.
4. Mr. Suresh Chandra Padhy and Saumen Dutta presented paper entitled “The impact of social networking sites on library professionals in Tripura: a case study” at NEHU University, Shillong from 6-8 March, 2014.

### Workshop attended:

1. Dr. Kishor Chandra Satpathy attended “Higher Education Leadership Programme” at University of Urbana Champaign, USA during December 2013.
2. Dr. Kishor Chandra Satpathy attended “National Workshop on “Promoting Excellence in Research among

NITs through E-Journals” along with NIT Librarians meeting on 12-13 July 2013 at NIT Warangal & delivered a lecture on Best Practices at NIT Silchar Library.

3. Mrs. Krishnamati Singha, Mr. Himadri Sekhar Chakrabarty and Mr. Satyabrata Goswami participated in Training Programme on “Office Procedure and Establishment Rules” jointly organized by NIT Silchar and Defence Headquarters Training Institute, New Delhi from 24.02.2014 to 28.02.2014.
4. Mrs. Krishnamati Singha, Mr. Himadri Sekhar Chakrabarty and Mr. Satyabrata Goswami, Mr Suresh Chandra Padhy, Ms. Papiya Dutta, Ms Barnalee Chakraborty, Ms. Swarnika Dey and Aminul Islam Laskar participated in the “Innovation India” held at NIT Silchar 25 – 26 November, 2013.

### Other Activities:

1. Dr. Kishor Chandra Satpathy acted as a member of the Selection Committee of Assam University Silchar.
2. Dr. Kishor Chandra Satpathy acted as an External Examiner for Assam University, Silchar.
3. Dr. Kishor Chandra Satpathy was nominated as a Coordinator for the State of Assam for Indian Knowledge Grid Network (INKOGNET) of Libraries and Librarians.
4. Dr. Kishor Chandra Satpathy was co-opted as members of the Society for Information Science (SIS) Executive Committee.
5. Dr. Kishor Chandra Satpathy’s bio data profile was included in the publication “Asian Admirable Achievers”.
6. Dr. Kishor Chandra Satpathy as the Member of National Negotiation Committee, INDEST Consortium.
7. Dr. Kishor Chandra Satpathy was nominated as the Founder Member, Core Group, NIT Consortium, 2013.



- 8. Dr. Kishor Chandra Satpathy was nominated as the Member, Price Negotiation Committee, NIT Consortium, 2013.
- 9. Edited a Book entitled “Vistas of Education” Published by N E Books & Publishers, Silchar, Assam.

November, 2013 at NIT Silchar jointly organized by CSIR-NISTADS, New Delhi; NIT Silchar & IIM Kashipur under TEQIP II.

- 2. Dr. Kishor Chandra Satpathy in collaboration with Gymkhana organised Library Orientation Programme on 15<sup>th</sup> March 2014 at RPC.

**Programme Organized by the Central Library:**

- 1. Dr. Kishor Chandra Satpathy organized the National Workshop on “Innovation India” held from 25-26



National Workshop on Innovating India



## 7. Students Activity Centre

The Students Activity Centre of NIT Silchar organized different workshops, events, competitions and fests throughout this year through its four clubs viz. Music club; Dramatic & dance club; Literary, publication and fine arts club; and Photography club under Gymkhana.

The General programmes and Annual Festivals such as Orientation program for 1<sup>st</sup> Semester students; Freshers Social; Annual Techno-Management Fest, Tecnoesis (4<sup>th</sup>-7<sup>th</sup> October 2013); Annual Cultural Festival, Incandescence (7<sup>th</sup>-10<sup>th</sup> February 2014); Blood donation camp in association with Silchar Medical College on Republic Day (where 205 units of blood were donated); Institutes' Election to Gymkhana 2013-14 and Prize Distribution Ceremony for the year 2013-2014 were successfully organized.

Manycultural and extra-curricular activities were performed/organized by the students of NIT Silchar under Gymkhana during this year. A Cultural Evening dedicated to the visiting NBA team was organized on 25<sup>th</sup> October 2013. A Cultural Programme in association with an NGO S.M.I.L.E was organized over a period of 4 days, 9<sup>th</sup> to 23<sup>rd</sup> March 2014. A Career Guidance Session in association with T.I.M.E was organized on 15<sup>th</sup> March 2014. The Library Orientation Programme was organized on 15<sup>th</sup> March 2014. POSUA, an event to make everyone familiar of the culture of North East India was too organized. A Voluntary Blood Donor's database of NIT Silchar was created and hard copies made available in every hostel. Dramatic Club and Literary and Publication Club were modified to Dramatic and Dance Club, and Literary, Publication and Fine Arts Club respectively.

The Music club of Gymkhana organized an event named Talent-Hunt exclusively for the newly admitted 1<sup>st</sup> semester students where they were given a platform to showcase their musical talents of any form. SPARK 3.0, the closing ceremony of Tecnoesis 2013; Band Wagon, intra/inter institute band competition; Hammer-On, online solo competition and Thundermarch 2014, one of the biggest Rock Fests of the country and a major attraction of Incandescence 2014 were also organized by the Music club.

The Dramatic & Dance Club of Gymkhana organized a street play "Parivartan" on the occasion of Independence Day. A one Act Play "Pani ka Rang" where different faces of the society were shown through the varied forms water assumes was performed during the General Freshers 2013. A Guest Lecture by renowned Bollywood Director and documentary filmmaker Sanjivan Lal was organized during the year. In the opening ceremony of Tecnoesis 2013 a dance drama titled "Reincarnation of Innovation" was performed on the theme of Tecnoesis. A street play "College Elections" was performed on the occasion of Republic Day. The Movie Weekend was also organized for the first time. A Theme based Inter Hostel Drama Competition "Adaptation of favourite movie/literary work" was also organized by the dramatic and dance club during this year.

The Literary, Publication and Fine Arts Club of Gymkhana organized a Mock Parliament Session, Inter-Hostel Debate Competition, Poetry recitation evening, extempore speech competition and street painting competition in collaboration with ISTE. During the Literary Weekend, Inter Hostel Declamation Contest, Haiku competition, Fan Fiction writing contest, literary quiz, vocabulary tests, picture perception competition, on-spot poetry writing contest and an open forum on Women's Day (in collaboration with Iota) were organized.

The club also helped in the formation of (i) Model United Nations Chapter, NIT Silchar, which conducted its first meet on 23<sup>rd</sup> March, 2013; (ii) Dead Poet's Society, an initiative to discuss philosophy, creative writing, arts and reading habits of varied tastes. It also organized DEPRADOR-6.0, the flagship event of INCANDESCENCE-2014. The budget of NITSPEAK was re-allocated to finance this event.

The Photography club of Gymkhana organized Sanpthrillz- a national level Photography Competition, Photivation- photography guest lecture by renowned photographer Karthik Srinivasan. The club also conducted a workshop on Adobe Photoshop Software.

Amountaineering event was successfully conducted by the Gymkhana Union Body of NIT Silchar. It was trek of 10 days on the Zaskar frozen river in Ladakh. One student named Anjan Das represented NIT Silchar in the Trek. Tournaments and competitions in which students participated under the Sports Section NIT Silchar during this year are All India Inter NIT Tournament held at NIT Surathkal in January 2014; All India Inter NIT Tournament held at NIT Trichy in February 2014; and State Karate Championship held at Guwahati in the month of March 2013.

In 2013-14 session, 538 students of NIT Silchar have received prizes and certificates in different categories of various Intra NITS Sports/ Tournaments/ Events/ competition, for their successful participation.

### 7.1 Facilities for Games & Sports

The Institute has a playground measuring 150m x 90m with facility for playing football, Cricket, Hockey and other games. NIT Silchar also has a hard court for playing basketball and is provided with hard courts for playing Volleyball and Badminton. It has got a Lawn Tennis court

within the campus. Glimpses of the various sports facilities are given below.

Football/Cricket ground	30,600.00 Sq m
Basket ball court	1 No.
Tennis court	3 Nos.
Badminton court	3 Nos.
Students' Activity Centre	1,145.00 Sq m
Amenities Building	1,739.00 Sq m

### 7.2 Students' Gymkhana

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

GYMKHANA OFFICE BEARS -2013-14			
Name	Port-Folios	Semester	Tenure
RIDIP BORUAH	Vice President	8 <sup>th</sup>	1 Year
PRABHAKAR DEKA	General Secretary (GS, Gymkhana)	-do-	-do-
ABHRADEEP GOSWAMI	G.S, Cultural	-do-	-do-
TUSHAR DEV SHARMA	GS, Sports	6 <sup>th</sup>	-do-
SUGATA SIDDHARTA GOSWAMI	Secretary, Music Club	-do-	-do-
ATUL CHAUHAN	Secretary, Foot ball	-do-	-do-
ANURAG ANAND	Secretary, Dramatic Club	-do-	-do-
VIKASH KADYAN	Secretary, Basket ball	8 <sup>th</sup>	-do-
SIDDHARTH CHAUHAN	Secretary, Cricket	6 <sup>th</sup>	-do-
HIMANSHU SHARMA	Secretary, Photography	-do-	-do-
AGNI .KR. JHA	Secretary, Lit. & Publication	-do-	-do-
SUMIT SINGH BHAMBRAH	Secretary, Hockey	-do-	-do-
ASHOK KUMAR	Secretary, Tennis	-do-	-do-
BIKIRAN GOGOI	Secretary, Indoor Games	-do-	-do-
GAURAV SHAHI	Secretary, Athletics & Gym.	-do-	-do-
RAJESH KUMAR	Secretary, Trekking & Mount.	-do-	-do-
SACHIN GANGWAR	PG/PhD Representative to Gymkhana	3 <sup>rd</sup> Sem	-do-
CHIRANJIB BHOWMIK		-do-	-do-

GYMKHANA OFFICE BEARS -2013-14			
Name	Port-Folios	Semester	Tenure
TARALICIN DEKA	Girls Representative to Gymkhana	6 <sup>th</sup> Sem	-do-
SHREYA DALELA		-do-	-do-

FACULTY ADVISORS OF GYMKHANA			
Port-Folios	Name	Designation	Department
Vice President (VP)	Dr. N.B. Dev Choudhury	Asso. Professor	Electrical
General Secretary (Gymkhana)	Mr. Wasim Arif	Asst. Professor	ECE
General Secretary (Cultural Activities)	Dr. Asim Roy	Asso. Professor	Physics
Music Club Secretary	Mr. Prabhakar Sarma Neog	Asst. Professor	CSE
Dramatic Club secretary	Dr. L.C. Saikia	Asst. Professor	Electrical
Photographic Club Secretary	Mr. Koushik Guha	Assi. Professor	ECE
Literary & Publication Secretary	Dr. A.M. Choudhury	Asso. Professor	Civil
General Secretary (Sports)	Mr. Dulal Ch. Das	Asst. Professor	Electrical
Football Secretary	Dr. P. Rajbongshi	Asso. Professor	Civil
Cricket Secretary	Dr. Keder Nath Das	Asst. Professor	Maths
Hockey Secretary	Mr. Dulal Ch. Das	Asst. Professor	Electrical
Tennis secretary	Dr. Reena Sanasam	Asst. Professor	HSS
Indoor Game secretary	Dr. Siddhartha S. Dhar	Asst. Professor	Chemistry
Athletics & Gymnastic Secretary	Dr. Gisan Medhi	Asst. Professor	ECE
Basket Ball Secretary	Mr. Dulal Ch. Das	Asst. Professor	Electrical
Tracking & Mountaineering Secretary	Dr. R. H. Laskar	Asst. Professor	ECE
PG/Ph.D representative to Gymkhana	Mr. S.K. Pattanayak	Asst. Professor	Mechanical
Girl's representative to Gymkhana.	Miss. Jupitara Hazarika	Asst. Professor	E&I

### 7.3 National Service Scheme (NSS)

NSS is being made compulsory for every student in NIT Silchar. As it is known that the primary aim of NSS is Personality Development through social or community services, this year under NSS, the institute has organized campaigns like, Green Day, Campus Cleaning, Green March, Clothes donation programme etc. Apart from that Debate and Quiz Competitions were also organized for the students.

### 7.4 National Cadet Corp (NCC)

NCC is engaged in grooming the youth of the country into disciplined and patriotic citizens. Every year NIT, Silchar conducts NCC Annual Training Camp (ATC) for its Cadets. Students attend regular parade sessions for participating on Independence Day and Republic Day march-past.

- 38 nos. of NCC cadets of our institute have participated in national level, National Integration Camp (NIC) held in December 2013, and have successfully completed the camp and awarded certificates.
- 17 nos. of NCC cadets of NIT Silchar have successfully completed "B" level certificates exam in September 10, 2013.

### 7.5 Gyansagar

Gyansagar was established in 2009 with the aim of creating a difference in the lives of children and people of nearby villages through quality education, awareness programs and courses that brings them at par with the national level of education. This year Gyansagar witnessed a lot of events and programs that transformed lives of people who enrolled for it.



Gyansagar has mainly four pillars of working that can be divided as-

1. Educational Outreach Program: Under this our volunteers go to nearby villages and teach the students. Currently we cater to 7 villages around NIT Silchar campus.
2. NIT Silchar Certification in Information Technology (NITS-CIT): IT education course for anyone who wants to learn and get certification.
3. Awareness: We soon plan to launch a series of awareness drives in various domains- Finance, Agriculture, Health etc for the benefit of villagers nearby.
4. Student Projects: We involve students from colleges to work on project which can solve some grass root problem for villages.

Dr. Kedar Nath Das, Assistant Professor, Dept. of Mathematics and the Head of Gyansagar played an important role in facilitating all these activities under Gyansagar during the year under report. Here are few of them:

- 1) **NITS-CIT** (National Institute of Technology Certificate in Information Technology): Gyansagar adopted a three months computer course in which all essential basics of computers were taught to a batch of 85 students comprising of college staff, working adults as well as people from distant villages. A dedicated team of volunteers from the institute developed the course framework under the guidance of coordinators and taught on those lines for three hours every weekend. After assessment, those who had performed well were awarded a certificate on the NITS-CIT Convocation Day on 19th January 2014.
- 2) **Design and Innovation Workshop**: On 9th of March, Gyansagar in collaboration with TEGIP-II organized a workshop on Design and Innovation by Professor M.P Ranjan and A.K Gogoi. Professor M.P Ranjan for National Institute of Design, Ahmedabad has worked for years to study the design prospects with the use of Bamboo by visiting many local development sites in North-East and shared valuable insights with us. On the other hand, Professor A.K Gogoi from IIT Guwahati shared his insights from his intensive research work on Systems Design.
- 3) **Exhibition Workshop on Miniature Engineering models by Guinness Record Holder Iqbal Ahmed**: Organised on 29<sup>th</sup> March, this two day workshop was held in collaboration with Mechanical Engineering Department of NIT Silchar. Sir Iqbal had never heard of 'model engineering' but through observation and his own experimental learning he was able to create working models of steam engine and boiler, brass lathe with electrical motor, 4 cylinder internal combustion engine and several milling machines.
- 4) **Prayas**: In collaboration with Paarban, fest of Management Department of NIT Silchar, Prayas was organized which witnessed participation of hundreds of kids from various nearby villages who participated in lot of activities like drawing competition, dance competition, craft models competition and the best works were put in the exhibition stall from where some brilliantly made models were sold and the kids were awarded with the money. On the Convocation Day of NITS-CIT, the winners of Prayas were also showered with gifts, prize money and certificates to appreciation.
- 5) **Clothes Donation Camp**: Like every year, this year also Clothes Donation Camp was organized in campus and around 800 units of clothes were donated to villagers of nearby villages.
- 6) **Kite Fest on Republic Day**: For the first time, Kite festival was organized in NIT Silchar and all the village kids who came to witness the festival were also made a part of the celebration. A lot of colorful kites adorned the sky of NIT Silchar on that day.
- 7) **Smokeless chulha** for poor people in North-eastern region: World Health Organization (WHO) survey confirms that 1.6 millions of people die per year due to the smoke generated by the traditional chulha. Hence, the "Smokeless Chulha" (stove) is conceptualized by Philips Design to provide a healthy and smoke-free kitchen environment for the society of poor people. Gyansagar aims at making the smokeless Chulha available near poor village people. The idea to implement it in North-eastern region was initiated by Mr Mukesh Swarup, a final year B. Tech. student of NIT Silchar. A team of 25 numbers of very enthusiast and dedicated students (actively involved with Gyansagar)

have taken the initiative to manufacture and install the chulha at village kitchens. In the initial phase, a total of 20 chulhas are under construction, which will be distributed free of cost to the poor villagers around NIT Silchar Campus, very soon. Moreover, under the R&D activities of Gyansagar, the team is also working on the model design in order to achieve an improved efficiency as compared to that given by Philips Design.

Other than the above mentioned regular activities Gyansagar also conducts some events which are documented below.

- 1) From 2010 many events like painting, dancing, singing, quiz competitions etc, have been organized under **Razzmatazz** in collaboration with Gymkhana Union Body (NIT SILCHAR).
- 2) An inter village painting competition was organized at *Sadhutilla* village on 14<sup>th</sup> Nov.2011.
- 3) Vocational training workshop on plumbing, electrical and masonry on 4<sup>th</sup>, 5<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> Aug. 2012 in separate batches and certified them based upon their performance in exam and interview conducted under the guidance of estate engineers.
- 4) **Blood donation camp** at NIT Silchar and a Cloth donation camp at 3 villages name *Sadhutilla*, *Madhutilla*, *Babutilla* near to college campus on 2nd Oct. 2012.
- 5) An event named **Balkalakar** was organized in collaboration with ISAC on 10<sup>th</sup> March 2013 at NIT Silchar. Under this event competitions such as dance, drawing, games etc were organized for the village children. And at last prizes were distributed to encourage them.

## 8. Report of Kendriya Vidyalaya NIT Silchar

Kendriya Vidyalaya (KV), NIT Silchar stepped into the 2<sup>nd</sup> Academic Session from 1<sup>st</sup> April 2013. Along with this there has been an increase in the enrolment of students. There has also been an addition of two more Classes, Class IX and Class VI B; as the Vidyalaya at its inception had two sections for Primary Classes and was upto Class VIII in secondary section. The total enrolment of the students in the Vidyalaya is upto 720. The Vidyalaya is growing and developing very fast and it is a matter of great pride and fortune that it is earning a great lot of reputation in the locality and society as one of the best Educational Institution.

There was registration of approximately 500 students for new admission in the last academic session but, only 94 students could be accommodated & permitted; keeping in view the permissible class strength in each class as per KVS Guidelines for Admission. Kendriya Vidyalaya, NIT, Silchar provides ample opportunities and guidance to the students for all round development of their personalities and master and excel in every field they venture into, in their future carrier keeping in line with the curriculum of NCERT & CBSE.

Among the major achievements two students Master Aniket Patnaik & Miss Mouli Paul of the Vidyalaya got selected at Regional Level Children Science Congress and represented Silchar Region at Bhopal. Two more students Master Abhinav Ghosh & Miss Trisha Paul from the Vidyalaya got selected from Silchar Region for 41<sup>st</sup> Jawaharlal Nehru Regional Science, Mathematics & Environment Exhibition for Children - 2014 and would be representing the Silchar Region for National Level Exhibition to be held at Bhopal in June 2014. One student Master Nitish Jha from the Vidyalaya secured 3<sup>rd</sup> position in Hindi Debate Competition held at NIT, Silchar in the Inter School Debate Competition. Another student Master Aniketh Patnaik secured 2<sup>nd</sup> position in the Inter School Drawing Competition held at NIT, Silchar. Another student Master Biswaroop Sarma has received Silver Medal in inter-school Yoga Competition at the District Level.

Apart from Students achievements the Teachers also brought laurels for the Vidyalaya. One Teacher Mrs. Lipika Dutta Choudhury earned accolades for her consistent devotion and dedication for the cause of education. She

has been awarded with the Regional Level Incentive Award by KVS (RO), Silchar. Two other Teachers Mrs. Kalpana Shrivastav & Mr. Prithwish Chakraborty also have bagged 2<sup>nd</sup> and 3<sup>rd</sup> prize in Swami Vivekananda's Quotation Competition held by KVS (RO), Silchar to commemorate 150<sup>th</sup> Birth Anniversary of Swami Vivekananda in the Golden Jubilee Year of Celebration of Kendriya Vidyalaya Sangathan.

The Vidyalaya had been the host of 41<sup>st</sup> Jawaharlal Nehru Regional Science, Mathematics & Environment Exhibition for Children - 2014 and also the Regional Level Incentive Award Ceremony 2013-14. It was also the host of Cluster Level Bal Diwas Celebration.

With the addition of each class proportionate teaching and non-teaching posts are sanctioned and hence there isn't any dearth of qualitative and quantitative progress in the Vidyalaya.

At infrastructural Level there hasn't been any changes, it continues to function in the NIT New Guest House Complex its temporary shelter. The construction of the permanent building is under process and the progress is very satisfactory. KV NIT inspite of running in a temporary building has a library with around 1000 books; periodicals, weekly, daily newspapers, etc. to keep the students updated with the current happenings, and it is also growing as a store house of knowledge and information.

There is a science lab equipped with modern equipment for experiments which make teaching learning a joyful experience. We also have sports and games materials for both the primary and secondary students. There is a primary resource room with LCD TV, a Duplicating Machine, a projector with screen, a computer etc. where children are exposed to a different world of learning. We also have a music room with musical instruments which are played and used by teacher and students alike. We have also got a medical room established with some major medical equipments necessary as fast aid resources.

It is worth mentioning that most of the students of KV NIT Silchar comes from the under privileged class of the society. The financial condition not being very sound the Chairman, Prof. Shri N.V. Deshpande, Director, NIT Silchar, have been



very kind and generous enough to provide with Text Books to all the students of the Vidyalaya free of cost irrespective of creamy and non-creamy layer.

The Group of devoted teachers are working tirelessly for allround development of the students. Parallel to academics various co-curricular activities and non-scholastic activities under CMP & CCA are carried out providing a platform to the students to explore and exhibit their inborn latent talents & potentials. Each & every attempts are made to form a stronger foundation for a higher structure & a better flight.

Education to Home (ETH) Project is also been carried out simultaneously. The Training of Teachers for it is also going step by step. Under the Chairmanship of Prof. Shri N.V. Deshpande, and DC, KVS, RO, Silchar, Shri Somit Shrivastav and AC, KVS, RO, Silchar, Shri R. Senthil Kumar the Vidyalaya is fulfilling its mission in the field of education. It's not a dream but a vision, KV NIT, Silchar will be one of the pioneering institutions in the days to come.



Various programmes organised by KV NIT Silchar

## 9. Estate Engineering Section

The Estate Engineering Section has the responsibility to maintain the NITS campus which is spread over an extent of 560 acres (approx). Estate Section is involved in the maintenance and construction of civil works in the Institute. The section looks after the functions of the building, water supply and electrical wings. They supervise the repair and

maintenance of instructional buildings, staff quarters and student hostels. Apart from the buildings and quarters the Estate Maintenance department also maintains the Guest House in top shape. The list of officials under the estate section has been given below:

### Dean (P&D)

Prof. P. S. Choudhury, Ph.D.

M. S. Chauhan, Asst Engineer (Elect.)

### Associate Dean (P&D) Other officers

Mr. D. H. Das, M.Tech. Mr. Debasish Dey, Engineer

### 9.1 Physical Facilities

#### Institute development authority (Construction)

##### Work completed:

1. Construction of 500 capacities Boys Hostel No.8.
2. Construction of Water Supply Distribution Network along with 3 Nos. of RCC over head water reservoir of 5.00 lacs capacity each.
3. Construction of Production Engineering Laboratory.
4. Construction of 100 capacity Security Barrack.
5. Expansion of Hydraulics Laboratory.
6. Construction of chain link fencing for Hostel No. 6 & 7.
7. Internal road and re-carpeting of old road at NIT Silchar.
8. Construction of road connecting Borakhai T.E entry point to Modhutilla, Babutilla entry point out side security wall within NIT land.

##### On-going project/works:

1. Construction of 1000 capacity Boys Hostel No.9 & new Library building.
2. Construction of Academic building.
3. Construction of Type-VI(EL) Prof. Qtrs. – 12 units

4. Construction of Type-V(E) Associate Prof. Qtrs. – 20 units
5. Construction of Type-IV(E) Asst. Prof. Qtrs. – 30 units
6. Supplying and installation of tubular type street light pole, LED street light etc.
7. Providing poly-coated GS roofing over the existing roof of Electrical Engg. Dept. Block-B.
8. Construction of Assam Type Civil Engineering shed.
9. Construction of Assam Type KIDS-NITS School building.
10. Construction of Earthquake Engineering Laboratory under Civil Engg. Department.
11. Construction of NABL Accredited Laboratory building.
12. Expansion of Electrical Engineering Department.
13. Construction of Institute Health Care Centre.
14. Construction Eat-out Dhaba.

##### Project undertaken by CPWD:

1. Central School building "A" type, and 17 numbers of staff qtrs.
2. Providing and laying of sewerage system for collection of sewage.

3. Construction of T-III Non-faculty staff qtrs. (100 units).
4. Construction of Administrative building.

**Project undertaken by HPL:**

1. Construction of Married Scholar Hostel (PG/Ph.D students) (a) 300 capacity PG Boys and (b) 100 Married Scholar.

**Priority-wise upcoming projects:**

1. Construction of 1000 capacity Boys Hostel No.10
2. Construction of 400 capacity Girls Hostel No.3

3. Construction of Type-VI(EL) Prof. qtrs. – 12 units
4. Construction of Type-V(E) Associate Prof. qtrs. – 20 units
5. Construction of Type-IV(E) Asst. Prof. qtrs. – 30 units



## 10. Vehicle Management

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

Sl. No.	Vehicle Registration No.	Type of Vehicle	Purpose
1.	AS 11-6913	Maruti VanAmbulance	Medical purpose for staff and students
2.	AS 11B-0930	Tata Bus	For staff and students
3.	AS 11B-2703	Tata Bus	For staff and students
4.	AS 11C-0043	Ambassador Car	Director
5.	AS 11D-7736 (Donated by NITS Alumni Association)	Tata Indigo Car	T & P Academic & Office purpose
6.	AS 11D-2701/ 2702	Tractor &Trailer	Estate Branch



# 11. Health Centre

The Institute has a Health Centre with a full-time Senior Medical Officer and a Medical Officer on contractual basis to attend the medical needs of the students, staffs and their families. The Health Centre apart from providing allopathic medicine services also offers homeopathy and dental

treatment. Patients suffering from serious illness, requiring intensive care, are referred to the Silchar Medical College & Hospital (SMCH), which is about two kilometers from the campus. There is also a students' counselor who offers counseling to the students.



The name, designation and status of the staff of the Health Centre have been given below:

Sl. No.	Name	Designation	Status
1.	Dr. T. S. Dutta	Senior Medical Officer	Regular
2.	Dr. R. K. Das	Medical Officer	Contract, NIT
3.	Dr. Reetamoni Goswami	Dental Consultant	Contract, NIT
4.	Dr. H.Rahman	Medical Officer (Allo)	Contract, NIT
5.	Dr. Arindam Nath	Medical Officer (Allo)	Contract, Panorama
6.	Dr. A. R. Laskar	Medical Officer (Ayu)	Contract, Panorama
7.	Dr. Bandita Phukan	Medical Officer (Allo)	Contract, NIT
8.	Mr. Priyabrata Nath	Pharmacist	Regular
9.	Mr. Samanta Das	Pharmacist	Contract, NIT
10.	Mr. Sanjit Banik	Pharmacist	Contract, NIT
11.	Mr. Nabarun Saha	Physiotherapist	Contract, NIT
12.	Ms. A.S. Wungreichon	Dietitian	Contract, NIT
13.	Mr. Dipak Roy	Lab. Technician	Contract, Panorama
14.	Mrs. Shila Nath	Work Asstt. (Nurse)	Regular
15.	Ms. Mutum Malasana Singha	Work Asstt. (Nurse)	Contract, Panorama
16.	Ms. Moni Akura	Trainee (Nurse)	Contract, Panorama
17.	Mrs. Shanti Sen	Assistant (SG-I)	Regular
18.	Mr. Dilip Kumar Dey	Steno (SG-I)	Regular
19.	Mr. Sayub Ali Laskar	Attendant-I	Regular
20.	Mr. Dilip Ch. Das	Medical Attendant-I	Contract, NIT
21.	Mr. Hari Mohan Singha	Assistant	Contract, NIT
22.	Mr. Niloy Sinha	Student Counselor	Contract, Panorama

# 12. Staff Position

## (i) Chief Academic & Executive Officer

Position	Name
Director	Prof. N. V. Deshpande

## (ii) Administrative Staff

Name of the post	Sanctioned Strength	Staff in Position
Registrar	01	01
Dy. Registrar (A/C & Admin.)	02	01
Asst. Registrar	04	03
Librarian	01	01
Deputy Librarian	01	00
Asst. Librarian	01	01
Students Activity & Sports Officer	02	01
Sr. Technical Officer	01	01
Technical Officer	01	01
Executive Engineer	01	00
Engineer (Civil/Elect.)	02	01
Senior Medical Officer	01	01
Medical Officer	01	00
Security Officer	01	00
<b>Total</b>	<b>20</b>	<b>12</b>

## (iii) Academic Staff

Name of the post	Sanctioned Strength	Staff in Position
Professor	25	17
Associate Professor	55	20
Assistant Professor	122	73
<b>Total</b>	<b>202</b>	<b>110</b>

## (iv) Faculty Position (Department –wise break up)

Name of Deptt.	Professor		Associate Professor		Assistant Professor		Total
	Sanctioned Strength	In position	Sanctioned Strength	In position	Sanctioned Strength	In position	
Civil Engg.	04	07	10	05	19	06	33
Mech. Engg.	04	03	10	05	19	13	33



Name of Deptt.	Professor		Associate Professor		Assistant Professor		Total
	Sanctioned Strength	In position	Sanctioned Strength	In position	Sanctioned Strength	In position	
Elect. Engg.	04	04	08	03	17	08	29
ECE	04	02	08	03	17	12	29
CSE	03	00	06	01	16	13	25
E & I	01	00	03	00	08	04	12
Physics	01	00	02	01	05	07	08
Chemistry	01	00	02	00	05	03	08
Maths	01	00	03	02	08	04	12
HSS	01	01	02	00	04	03	07
Management	01	00	01	00	04	00	06
<b>Total</b>	<b>25</b>	<b>17</b>	<b>55</b>	<b>20</b>	<b>122</b>	<b>73</b>	<b>202</b>

**(v) Ministerial Higher Staff**

Sl. No.	Name of the Post	Sanctioned strength	Staff in position
1.	Superintendent/Accountant/Secretary	07	00
2.	Sr. Superintendent /Accountant/ Secretary	05	02
3.	Superintendent/Accountant/Secretary(SG – II)	04	01
4.	Superintendent/Accountant/Secretary(SG – I)	00	01
	<b>Total</b>	<b>16</b>	<b>04</b>

**(vi) Technical Higher Staff**

Sl. No.	Name of the Post	Sanctioned strength	Staff in position
1.	Technical Assistant / SAS Assistant/ Junior Engineer	28	00
2.	Sr. Technical Assistant / Sr. SAS Assistant/ Assistant Engineer	21	01
3.	Technical Assistant / SAS Assistant/ Assistant Engineer (SG – II)	13	02
	<b>Total</b>	<b>62</b>	<b>03</b>

**(vii) Ministerial Lower Staff**

Sl. No.	Name of the Post	Sanctioned strength	Staff in position
1.	Junior Assistant	16	00
2.	Senior Assistant/Stenographer	12	02
3.	Assistant (SG-II)/Senior Stenographer	07	02
4.	Assistant (SG-I)/Stenographer (SG-II & I)	00	24
	<b>Total</b>	<b>35</b>	<b>28</b>

**(viii) Technical Lower Staff**

Sl. No.	Name of the Post	Sanctioned strength	Staff in position
1.	Technician/LabAssistant/Work Assistant	28	04
2.	Sr. Technician/LabAssistant/Work Assistant	21	05
3.	Technician/Lab Assistant/Work Assistant (SG-II)	13	06
4.	Technician/Lab Assistant/Pharmacist/Work Assistant (SG-I)	00	17
5.	Technician (SG-I)	00	01
	<b>Total</b>	<b>62</b>	<b>33</b>

**(ix) Supporting Staff**

Sl. No.	Name of the Post	Sanctioned strength	Staff in position
1.	Supporting Staff (Attendant/Mali/Security Guard)	31	111
	<b>Total</b>	<b>31</b>	<b>111</b>

# 13. Research and Development

Research and development is one of the most vital activities of the Institute since its inception. The Institute encourages R & D works that syncs with the global technical advancements, with special emphasis on development of Northeastern region. The synergy of R & D facilities along with the diverse expertise of the faculty and dedicated students, the Institute is touching new heights of Innovation in terms of research. Recently a Research & Promotion Cell

has been established in the campus to identify the young budding researchers and provide a unique platform to promote their innovative ideas. The academic curricula of all the disciplines is designed according to the current Industry needs and an initiative has been taken to establish a research park comprising of different pioneers of the Industry through MoUs.

## 13.1 Report on PhD Programs (Details of PhD Degree awarded/ continuing)

Sl. No.	Department	Degree Awarded (Provisional)			Continuing		
		Total	Status		Total	Status	
			Full time	Part time		Full time	Part time
1.	Civil Engineering	05	03	02	23	15	08
2.	Mechanical Engineering	01	00	01	24	13	11
3.	Electrical Engineering	01	01	00	23	15	08
4.	Electronics & Communication Engineering	03	00	03	27	17	10
5.	Computer Science and Engineering	01	00	01	06	00	06
6.	Electronics & Instrumentation Engineering	00	00	00	02	00	02
7.	Humanities and Social Sciences	05	03	02	29	15	14
8.	Mathematics	02	01	01	09	05	04
9.	Chemistry	03	02	01	19	17	02
10.	Physics	01	01	00	09	07	02
	<b>Total</b>	<b>22</b>	<b>11</b>	<b>11</b>	<b>171</b>	<b>104</b>	<b>67</b>

## 13.2 Statements of R &amp; D Projects: (DST/MCIT/DSIR/AICTE)

Sl. No.	Title of the Project	Sanction letter no. & date	Project Coordinator	Duration	Grand received (Rs.)
1.	River Bank Erosion & Its Counter Measures	SR/S3/MERC/095/2008 Dt: 26.05.2009	Dr. A.K.Barbhuiya (Civil)	3 Yrs	24,06,300
		SR/S3/MERC-095/2008 Dt: 24.09.2012			
2.	L-Moments Based Regional Extreme Rainfall & Flood Frequency Analysis for Hydro-meteorological Sub Zones 2(b) and 2(c) of India	MOES/16/35/09-RDEAS Dt: 26.04.2010	Dr. P.S. Choudhury (Civil)	3 Yrs	16,84,000
3.	Behaviour of Clay Dampers under Impact Loading	MOES/P.O.9SEISMO/ 1(22)/2008 Dt: 18.5.2010	Dr. A.K.Dey (Civil)	3 Yrs	29,90,000
4.	Studies of Co-operative Assistance to Nucleophilic Substitution Reactions at Disulfid Bridge	8023/BOR/RID/RPS/(NER)-68/10-11 Dt: 31.3.2011	Dr. P. Barman	3 Yrs	10,00,000
5.	Development of Surface Modified Absorbents for the Removal of CR(VI) and FE(III) from Wastewater	8023/BOR/RID/RPS/(NER)-70/10-11 Dt: 31.3.2011	Dr. Md. Ahmaruzzaman	3 Yrs	10,00,000
6.	Study of Bi-Layered Perovskite Oxides: Thin Film for Non-Volatile Ferroelectric Memory Applications	8023/BOR/RID/RPS/(NER)-67/10-11 Dt: 31.3.2011	Shri Asim Roy (Physics)	3 Yrs	17,50,000
7.	Investigation of Some Binary Metal Oxide Material for Resistive Switching Memory Applications	8023/BOR/RID/RPS/(NER)-69/10-11 Dt: 31.3.2011	Shri Fazal A. Talukdar (ECE)	3 Yrs	18,40,000
8.	Development of An Enzymatic Process for Production of Micro-algae Biodiesel	8023/RID/RPS-32 (POLICY-III) (NER) 11-12 Dt: 23.3.2013	Shri S. Chaterjee (Mechanical)	2 Yrs	10,40,000

Sl. No.	Title of the Project	Sanction letter no. & date	Project Coordinator	Duration	Grand received (Rs.)
9.	Design and Implementation of Pure Sine Wave Inverter for Residential Solar Power	8023/RID/RPS-31 (POLICY-III) (NER)11-12 Dt:23.3.2012	Shri A.K. Gowasmi (Electrical)	2 Yrs	15,00,000
10.	Design, Simulation and Implementation of Carbon Nano-tube Based Fet Logics	8023/RID/RPS-27 (POLICY-III) (NER) 11-12 Dt: 23.3.2012	Shri S. Choudhury (Electrical)	2 Yrs	8,00,000
11.	Synthesis & Characterization of BST-BFO Composites for Devices	8023/RID/RPS-32 (POLICY- III) (NER) 11-12 Dt: 23.3.2012	Dr. B. Choudhury Dr. S.K.Barik (Physics)	2 Yrs	16,00,000
12.	Automatic Generation Control of Autonomous Hybrid Generation System	8023/RID/RPS-28 (POLICY-III) (NER) 11-12 Dt: 23.3.2012	Shri Dulal Ch. Das (Electrical)	2 Yrs	15,00,000
13.	Utility of Para-transit Modes in Regional Passenger Transportation	8023/RID/RPS-29 (POLICY-III) (NER) 11-12 Dt: 23.3.2012	Shri M.A.Ahmed (Civil)	2 Yrs	17,50,000
14.	Agricultural Development and Environment Issues in the North-Eastern Region: A Case Study of Manipur	02/206/2011/NER/RP Dt: 29.6.2012 02/206/2011/NER/RP Dt: 18.01.2013	Dr. N.B.Singh (HSS)	2 Yrs	3,39,825
15.	Development of Speech Based Multi level Person Authentication System	12(6) 2012-ESD Dt: 28/03/2012	Dr. R.H. Laskar (ECE)	3 Yrs	27,92,000
16.	Refrigeration and Air Conditioning Lab	8024/RIFD/BOR/MOD (NER) -22 Dt: 19.3.2012	Shri R.D.Misra	1 Year	15,00,000
17.	Modernization of Thin Film Laboratory	8024/RIFD/BOR/MOD (NER)-22 Dt: 19.3.2012	Shri Asim Roy (Physics)	1 Year	10,00,000
18.	Up Gradation Of Highway Engineering Laboratory	8024/RIFD/BOR/MOD (NER)-23 Dt: 19.3.2012	Dr. S. Choudhury Dr. P. Rajbongshi (Civil)	1 Year	800,000
19.	Heat Transfer Lab	8024/RIFD/BOR/MOD (NER)- 25 Dt: 19.3.2012	Shri R.D. Misra	1 Year	8,00,000
20.	Extension of NLP	NIT/NLP/11-12 Dt: 05.09.2012	Shri S. Borgohain		2,50,000
21.	Regional Test Centre cum Technology Back-up Unit	7/2/2012-13/ST Dt: 26.03.2013	Dr. Agnimitra Biswas (Mechanical)	5 Yrs	25,00,000

### 13.3 Journal / Books / Chapter / Conference Publication Details:

Sl. No.	Department	Books/ Chapter	International Journal	National Journal	International Conference	National Conference
1.	Civil Engineering	02	10	01	02	02
2.	Mechanical Engineering	07	45	01	41	06
3.	Computer Science & Engineering	00	04	00	04	03
4.	Electronics & Communication Engineering	01	21	00	48	02
5.	Electrical Engineering	00	12	01	54	03
6.	Electronics & Instrumentation Engineering	00	04	00	00	00
7.	Physics	00	15	01	00	01
8.	Chemistry	01	20	00	00	00
9.	Mathematics	02	18	00	07	00
10.	Humanities and Social Sciences	00	00	08	00	00
11.	Management Studies	00	00	00	00	00
<b>Total</b>		<b>13</b>	<b>149</b>	<b>12</b>	<b>156</b>	<b>17</b>

### 13.4 Research Promotion Cell:

Research Promotion Cell (RPC) is established in NIT Silchar in December 2012. It aims to provide funding for research by B.Tech., M.Tech., and M.Sc students of NIT Silchar. The main objective of this cell is to motivate the students to indulge themselves in research work and to facilitate the students to undertake independent research in newly emerging and frontier areas of Science, Engineering and Technology. Certain research projects undertaken by the students include:

- i) MPPT based on Solar Power
- ii) SPARSH (Solar Power Automated Route Sensing Hexapod)

- iii) Self Stabilized Quad-rotor with GSM Navigation
- iv) GSM based Automation and Control
- v) Solar Fountain
- vi) Quadcopter & Image Processing
- vii) Ethane-O-Creeper
- viii) Geotechnical Properties of Soil
- ix) DC Generator by using Electromagnet

The cell comprises of one Laboratory and one Seminar Hall with the facilities like 25 no. of computers, printer, projector, AC, UPS, LAN connectivity etc. The LAB is open to the students on 24x7 basis.



# 14. Institute Industry Collaboration

The Institute is in constant pursuit for collaborating with industries in order to scale up research activities in practical direction. The Institute has signed Mou with large number of industries in India. A comprehensive list of these includes:

- a) MoU signed with NASSCOM for industry ready program in introduction of Credit Course on Foundation Skills in Product Development (FSIPD). Twenty (20) technical institutions have participated to launch FSIPD course. Student Handbook for the course has been written by NITSilchar.
- b) MoU signed with M/s Brigosha Technologies for conducting workshops on Entrepreneurship development program.
- c) MoU signed with C-DAC for high computing facilities.
- d) MoU signed with M/s ETH Ltd., Pune for ICT in education. Learning management Systems for KVNIT.
- e) One week industry-ready program for Final Year B. Tech.& M. Tech. students. Industrial experts from Tata technologies, Tata Consultancy Services have sharpened the skills of the students.
- f) Workshop conducted on Photo chemical machining for development of traditional artesian from North East India. Experts invited from Bhaba Atomic Research Center, Bombay.
- g) Entrepreneurship Development & ICT in education.

## Future prospects & goals:

To set up a Design school at NITS

To set up of a world class CAD/ CAM centre in association with-TATA Technologies & DASSAULT SYTEMES



Solar panels inside campus

# 15. The Hostels

NIT Silchar is essentially a residential one and provides hostel accommodation for students. Separate hostel accommodation is available for girl students. It is mandatory for all the students to stay in the hostels. However, under special and extraordinary cases a student may be permitted to live with his/her parents or local guardian at Silchar. Students permitted to stay outside hostels are exempted from payment of mess charges, electricity and water charges under hostels fees but they will have to pay the hostel establishment charges. The name, full address, office and residence telephone number, designation and willingness of local guardian have to be furnished at the time of admission. Room allotment in the hostels is done in

such way that students from different regions of the country freely stay with each other, depicting national integration.

The Institute has 14 nos. of hostels for the students inside the campus of which 12 are for the boys (UG/PG separate) and 2 for the girl students (UG/PG). Hostels' capacity varies from hostel to hostel. Available capacity of boys' hostels all together (UG/PG) is 2349 and the available capacity of girls' hostel (UG/PG) is 296.

The Board of Hostel Management comprises of Chairman, Vice-chairman and the Wardens, who are also the members of the Board. The Board functions under the Director. The existing Board of Hostel Management comprises of the following people:

Chairman	:	Dr. A.K. Barbhuiya
Vice Chairman	:	Dr. N.B.D. Choudhury
Members	:	Dr. Kedar Nath Das, Warden, Hostel 1
		Dr. N. Bhupendro Singh, Warden, Hostel 2
		Dr. Debasish Dutta, Warden, Hostel 3
		Dr. Koushik Guha, Warden, Hostel 4
		Dr. Biswanath Dey, Warden, Hostel 5
		Dr. L.C. Saikia, Warden, Hostel 6
		Dr. Dulal Chandra Das, Warden, Hostel 7
		Dr. Ganti Ramesh, Warden, Hostel 8
		Mrs. Jupitara Hazarika, Warden, GH 1
		Mrs. Sumita Debbarma, Warden, GH 2
		Mr. Wasim Arif, Warden, PG Hostel

**Following are the list of facilities available in the Hostels:**

- |   |  |
|---|--|
| 1. Chair, Table, Bed, Wardrobe, and Fan provided in each room | 3. Diesel generator (centrally) available in case failure of power supply. |
| 2. Round the clock water supply and power supply.             | 4. LAN/ Internet & Wi-Fi connection  |
|   | 5. Inverter.   |

6. Water cooler cum Purifier.
7. TV Hall with LED TV.
8. Newspaper and Magazine.
9. Ambulance service round the clock.
10. Coffee house provided.
11. Indoor game like, Table Tennis, carom, chess provided.
12. LPG connection and fire wood cook house available.
13. Dining hall with dining Table/chair provided
14. Fire Extinguisher provided.
15. Bio Gas plant provided. (Only Hostel - 8)
16. Bi-cycle stand provided.
17. Badminton court with lighting arrangement available (Only BH-1 & GH- 2).

**Following are the list of services available in the hostels:**

1. Security service
2. Cleaning service
3. Food & catering service
4. Maintenance of civil, electrical, plumbing & sanitary services.
5. Maintenance of Aqua guard & cooling cum purifier service.
6. Hot water for bath during winter.
7. Managerial service provided for messing & Maintenance

There are facilities for sports and other activities in the hostels. Hostel messes are run by private caterers selected by a committee with an open tender and managed by nominated student representatives under the overall supervision of Wardens of concerned hostels.





# 16. TEQIP II

## Introduction

Technical Education Quality improvement Programme (TEQIP) is a World Bank and MHRD funded project for the technical Institutions. Around 206 Technical Institutions (CFIs/ Govt. Institutions/ Private Institutions) in India are supported by TEQIP program among which NIT Silchar is one of them. The TEQIP project is broadly divided into two Sub-components.

A) Sub-component 1.1: TEQIP-I

B) Sub-component 1.2: TEQIP-II

NIT Silchar has successfully completed sub-component 1.1 in the previous TEQIP Phase I. Presently NITS is undergoing TEQIP Phase II of the sub-component 1.2.

National Project Implementation Unit (NPIU) is the coordinator for implementation of TEQIP Project in the country.

## Goal of TEQIP

To scale up and support ongoing efforts of the GOI 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 at the local, state, national and international levels. It has a clear focus on the objectives to improve the overall quality of existing engineering education.

## Objectives of TEQIP

- Strengthening Institutions to produce high quality engineers for better employment.
- Scaling up post-graduate education and demand-driven research and development and innovation.
- Establishment centre of excellence (CoE) for focused application research.
- Training of faculty for effective teaching.

Enhancing Institution and system management effectiveness

### Activities under TEQIP – II NIT Silchar & Fund allocation

Activities	Percentage	Cost in Crore
Procurement of Good	45	5.625
Provide Teaching and Research Assistantships for significantly increasing enrolment in existing and new Master's and Doctoral programmes in Engineering disciplines	20	2.50
Enhancement of R & D and institutional consultancy activities	5	0.625
Expenditure on faculty and Staff development for improved competence based on Training Needs Analysis.	10	1.250
Enhanced interaction with Industry	5	0.625
Institutional Management Capacity enhancement	2	0.250

Activities	Percentage	Cost in Crore
Implementation of Institutional academic reforms	1	0.125
Academic support for weak students	2	0.250
Incremental operating cost	10	1.250
<b>Total</b>	<b>100</b>	<b>12.50</b>

The total amount granted for a TEQIP-II is Rs 12.5 crore out of which Rs 992.53 has already been utilized till 31<sup>st</sup> March 2014 in different activities of the project heads. According to the NPIU, the performance of Fund utilization of TEQIP-II project at NIT Silchar is the best in the country among all others project participation institutes. Therefore, NIT Silchar is proudly recognized as the top most TEQIP performance institute in the country.

During the current financial year, TEQIP has organized 38 numbers of in-house Workshop/Expert Lecture/Seminar/

Conference/Training at NIT Silchar; 74 numbers of teaching staff and 11 numbers of non-teaching staff went to attend Workshop/Expert Lecture/Seminar/Conference/Training outside in various other institutes and organizations across country. Besides, TEQIP NIT Silchar invested an amount of Rs.45525500 for procurement of various needs for respective departments as well as the institute. About 149 students are assisted by TEQIP for various programmes. The number of weak students supported academically is at tune of 418.



Various programs organized under TEQIP II

# 17. ACHIEVEMENT

1. NIT Silchar awarded the Best Engineering Institute of eastern India by ASSOCHAM and 'Centre of Excellence' by HR Club, Mumbai.
2. C-DAC: A premiere research and development organization of Govt. of India in NITS Campus. First of its type in Northeast India, it provides impetus for multi disciplinary research, industry institute interactions, technology transfer and entrepreneurship development.
3. Development of two new course by NITS team "Foundation skills in Integrated Product Development" and "Off-highway vehicle Engineering" for special Interest Group, NASSCOM.
4. MoU with ETH for implementation of ICT.
5. Five first prizes in flower show organized by Greens Silchar.
6. National Board of Accreditation: An Expert Committee conducted an on-site evaluation of the programmes during 25<sup>th</sup> to 27<sup>th</sup> October 2013. The report submitted by the Expert Committee was considered by the Engineering Evaluation Accreditation Committee (EEAC) at its meeting held during 13 – 17 January, 2014. The recommendations of the EAEC were considered by the Sub-Committee of Academic Advisory Committee of NBA at its meeting held on 18<sup>th</sup> January, 2014. The Executive Committee of the National Board of Accreditation considered the recommendations of Sub-Committee at its meeting held on 21<sup>st</sup> January, 2014. The Executive Committee approved the accreditation status of the programmes as given in the table below:

Sl. No.	Name of the Programme	Basis of Evaluation	Accreditation Status	Period of validity w.e.f. 01.01.2014
1.	UG-Civil Engineering	Tier I Document	Provisionally Accredited	2 years
2.	UG-Electrical Engineering	Tier I Document	Provisionally Accredited	2 years
3.	UG-Mechanical Engineering	Tier I Document	Provisionally Accredited	2 years
4.	UG-Electronics & Communication Engineering	Tier I Document	Accredited	5 years



## 18. New Initiatives

1. Design Centre in association with TATA Technology.
2. Solar water heating project.
3. Delegation Queens University, Belfast on November 21-22, 2013.
4. MOU with University of Illinois.

# 19. Corporate Social Responsibilities

Despite of being located in the remote corner of the country with prevailing challenges like earthquake, massive floods, extreme road conditions and limited air and railway connectivity, NITS has become one of the most coveted educational institutes of its times in the North-eastern

part of the country. As a part of its enduring CSR endeavor, the Institute has undertaken various measures to improve the socio-economic conditions of the nearby villages and North-eastern region at large. The contributions of the Institute towards social development are listed below:

## Adoption of border villages to develop these as Model villages:

Sl.No.	Name of District	Name of Village
1.	Cachar	A. Tukargram in Katigora Block at Bangladesh boarder B. Chekardam in Fulong ghat Block at Mizoram boarder
2.	Hailakandi	A. Telkata Village and B. Dhalchara village both bordering with Mizoram
3.	Karimganj	A. efalala and B. Mukumtilla both are in Patharkandi
4.	Karbi Anglong	A. Mulaber near Khathasala and B. Tahpat near Khanduli. (Both are under Hamren sub-division bordering state of Meghalaya)
5.	Dima-Hasao	A. Alaisong Village under Mahoor Block B. Prasadimik under Maibang Block

In addition, 8 priority areas were identified where NIT Silchar will extend its expertise for the development of Border villages of 5 Districts of Hills and Barak Valley Division and for the promotion of National Solidarity in the region.

The Priority areas identified are: Communication: *Roads and Bridges & Transport, Education, Health & Family Welfare, Drinking Water, Child and Women Nutrition and PDS, Power (including Non-conventional energy), Women Self Help Groups, Information Technology and National Solidarity and Integration.*

NIT Silchar has also taken an initiative to send 10 Nos. of unemployed youth from these model villages to Tripura Forest Development and Plantation Limited for training on furniture manufacturing and nursery.

NIT Silchar in collaboration with C-DAC is planning to implement the Telemedicine project for the betterment of Border villages.

To sensitize local village people on Health issues, the Institute's Health Centre and its staff have organized various health camps and blood donation camps in and around villages and remote areas of Cachar district.

- Kendriya Vidyalaya NIT, Silchar: KV NIT has been a long cherished desire of the people of Silchar; but it would have remained a distant dream until it was materialized on 21.04. 2012 having signed the MOU with KVS. It is a project sector school under institute of Higher Learning.
- NITS-KIDS School: The Institute has established a Kids School in its campus for imparting lower primary education with a minimal course fee to the children of nearby areas.
- Gyansagar: It started out as a small club which used to do social activities majorly educational outreach (going out) in and around NIT Silchar has now turned

into a tremendous force which is transforming the lives of hundreds of students and adults alike. Right now, Gyansagar is on way to become a formal NGO under NIT Silchar. It works in three divisions – Educational outreach, NIS-CIT (NIT Silchar Certification in Information Technology) and Awareness & Projects.

A list of activities conducted by Gyansagar is given below:

1. Vocational Training course in plumbing, masonry and electrical
2. Computer education demo class
3. Painting Competition
4. Imparted school level course

In future Gyansagar wishes to successfully replicate this college-centric model at other colleges and become a movement unstoppable.

- **Blood donation camp:** Every year on the eve of Republic Day and Independence Day, the Institute organizes blood donation camps. Under the leadership of Prof. N. V. Deshpande, Director NITS, all other staff members and students donate blood. Recently on 65<sup>th</sup> Republic Day we donated 205 units of blood.
- **NSS & NCC Joint Activities:** The Institute has wings of both NSS and NCC who periodically carry out several community service oriented activities in the nearby villages.
- **Prayas Programme** (an initiative of MBA Dept.): The MBA department in collaboration with Gyansagar provides a platform to the under privileged children of the nearby villages and far flung areas of Cachar district to showcase their talents and creativity. In the month of January 2014, during the Institute's management fest Parbon more than 50 participants exhibited their paintings, crafts and models.
- **Bomb Blast Assessment:** As and when the need arises the Institute offers its helping hand to the district

administration. During the explosion of RCC road-bridge over Chiri River on 27<sup>th</sup> November 2013, a faculty team of Civil engineering department was deputed along with the State PWD and BRO officials to inspect the extent of damage and submit a detailed report and steps needed to overcome the same.

- **Silchar-Lumding Railway Gauge Conversion project:** The Civil engineering department of the Institute will be offering assistance for technical guidance/ monitoring and evaluation of the claims by Railways for the project.
- **Skill Development-  
Community College:** Recently the Institute has received an approval from AICTE to establish a community college in its vicinity. Initially the Institute will offer 2 courses of IT and Building Construction.

NITS association with Barak Valley Pineapple Growers Association will open new avenues for skills development & generate employment opportunities in the entire NE region through:

- Handicrafts
- Food Processing Units

**Photochemical Machining:** Institute has initiated R&D projects in collaboration with Bamboo & Cane Development Institute, Agartala and Bhabha Atomic Research Centre, Mumbai.

**Solar Photo Voltaic Power Plant:** Institute has set up 100 Kwp Solar Photo Voltaic Power Plant in collaboration with MNRE, Govt. of India during the year 2012-13. 200 nos. of Solar street light have been installed in the Campus having 1100 watt.

**Kitchen Waste Bio-Gas Plant:** In order to gain partial self sustainability in the field of fuel consumption in the hostels, the Institute has installed a bio gas plant in its campus. The Plant runs on kitchen waste collected from the hostels, NITS-Café, and Staff quarters etc.

## 20. Financial Status

### Analysis of Plan, Non-Plan and OSC Grants (Rupees in Lacs)

Sl. No.	Particulars	Non Plan	Plan
1	Opening balance as on 01.04.2013	1040.13	4049.56
2	Grants-in-aid received from GOI during the year 2013-14	2675.00	10500.00
3	IRG during the year 2013-14	1153.94	0
4	Total (1+2+3)	4869.07	14549.56
5	Expenditure during the year 2013-14	4303.66	15926.00
6	Balance as on 01.04.2014	565.41	-1376.44

### Sources of Funds

**Plan** : Rs.10500.00 lac

**Non-Plan** : Rs.2675.00 lac

**TEQIP-II** : Rs.550.00 lac

### Expenditure Position for Staff

SCHEDULE - 11. ESTABLISHMENT EXPENSES	Rupees in Lacs
Pay & Allowances	2311.15
Pay of Adhoc Staff / Visiting Teachers	2.85
Pay of Muster Roll	83.65
Contribution to CPF	6.42
Medical Expenses including reimbursement	37.22
Leave Salary to Staff	96.20
Bonus	8.31
Expenditure on Death cum retirement Gratuity	95.82
Contribution to New Pension Scheme	44.93
Pension	193.07
L.T.C. Expenditure	38.20
H.T.C. Expenditure	7.02
Security Services	138.30
House Keeping	24.26
Professional Development Allowance	40.31
Staff Welfare Expenses	6.89
Children Education Allowance	15.36
<b>TOTAL</b>	<b>3149.96</b>

**Technical Education Quality Improvement Programme - Phase-II [TEQIP-II](Rs. in lacs)**

<b>Opening Balance as on 01.04.13</b>	<b>512.64</b>
Grants-in-aid received during the year from MHRD, GOI	<b>550.00</b>
Interest Earned during the year	<b>23.35</b>
<b>Expenditure Incurred during the year</b>	<b>790.70</b>
<b>Balance as on 01.04.2014</b>	<b>295.29</b>

**Statement of the on-going Project Accounts: (DST/MCIT/DSIR/AICTE PROJECT)**

Sl. No.	Month & Year	NAME OF THE PROJECTS	PROJECT CO-ORDINATOR	GRANTS SANCTIONED UPTO 31.03.2014	INTEREST	TOTAL GRANT (INCLUDING INTEREST)	EXPENDITURE UPTO 31.03.1014 (Rs.)	Refund to Ministry (Rs.)	Balance as on 01.04.14 (Rs.)
<b>Ministry of Communication &amp; Information Technology (GOI)</b>									
1.	Nov' 2005	Special Manpower Development Programme in VLSI Design and Related Software (SMDP-II)	Shri K. L. Baishnab	41,00,000	1,73,481	42,73,481	38,04,361	4,69,120	<b>0</b>
2.	Apr' 2012	Development of Speech Based Multi level Person Authentication System	Shri R.H. Laskar	41,43,000	2,30,265	43,73,265	31,59,570	2,30,265	<b>9,83,430</b>
<b>Department of Science &amp; Technology (GOI)</b>									
3.	Nov' 2007	Management of Soil and Land Resources for Eco- restoration of Barak Watershed	Shri D. Chakaraborty	11,00,000	1,42,368	12,42,368	6,27,410	6,14,958	<b>0</b>
4.	Apr' 2008	ANN-GA-ANFIS Models Development for Flood Forecasting With Multiple Inflows in Barak River Network	Shri P.S. Choudhury	6,00,000	28,588	6,28,588	6,28,563	0	<b>25</b>

Sl. No.	Month & Year	NAME OF THE PROJECTS	PROJECT CO-ORDINATOR	GRANTS SANCTIONED UPTO 31.03.2014	INTEREST	TOTAL GRANT (INCLUDING INTEREST)	EXPENDITURE UPTO 31.03.1014 (Rs.)	Refund to Ministry (Rs.)	Balance as on 01.04.14 (Rs.)
5.	June' 2008	Solvent Free Oxidation & Brominations of Organic Substracts Catalyzed and/ or Promoted by Peroxometal Complexes	Shri S.S. Dhar	6,55,000	23,212	6,78,212	6,78,174	0	38
6.	May'2009	River Bank Erosion & Its Counter Measures	Shri A.K. Barbhuiya	24,06,300	3,37,437	27,43,737	22,14,973	5,28,764	0
7.	Oct ' 2008	Management of TUC	Shri F.A Talukdar (ECE)	4,70,000	79,797	5,49,797	2,40,859	0	3,08,938
8.	Dec' 2012	Power Quality Assessment and Improvement in Barak Valley, Assam	Shri A.K. Goswami	7,06,000	17,622	7,23,622	7,23,622	0	0
<b>Khadi &amp; Village Industries Commission (KVIC)</b>									
9.	Aug' 2009	Extraction of Pineapple Fibre for making Commercial Product	Shri. K.M. Pandey	5,68,100	71,472	6,39,572	3,56,288	2,83,284	0
10.	Aug' 2009	Energy Quality & Productivity Audit of KVIC Based Industries	Shri. K.M. Pandey	5,10,600	71,470	5,82,070	2,29,234	3,52,836	0
<b>Ministry of Earth Sciences (GOI)</b>									
11.	Apr' 2010	L- Moments Based Regional Extreme Rainfall & Flood Frequency Analysis for Hydro-meteorological Sub Zones 2(b) and 2(c) of India	Shri P.S. Choudhury	16,84,000	1,67,483	18,51,483	7,49,598	0	11,01,885



Sl. No.	Month & Year	NAME OF THE PROJECTS	PROJECT CO-ORDINATOR	GRANTS SANCTIONED UPTO 31.03.2014	INTEREST	TOTAL GRANT (INCLUDING INTEREST)	EXPENDITURE UPTO 31.03.1014 (Rs.)	Refund to Ministry (Rs.)	Balance as on 01.04.14 (Rs.)
12.	May'2010	Behaviour Of Clay Dampers under Impact Loading	Shri A.K. Dey	29,90,000	3,76,379	33,66,379	17,67,186	0	15,99,193
<b>Ministry of Defence (NRB) (GOI)</b>									
13.	Nov' 2011	Development of Carbon Nanotube Reinforced Polymer Composites for Naval Applications	Smt. Smrutisikha Bal (Physics)	10,20,000	54,119	10,74,119	4,78,855	5,95,264	0
<b>All India Council for Technical Education (RPS)</b>									
14.	Mar' 2011	Studies of Co-operative Assistance to Nucleophilic Substitution Reactions at Disulfidied Bridge	Shri P. Barman	10,00,000	1,33,064	11,33,064	11,18,467	0	14,597
15.	Mar' 2011	Development of Surface Modified Adsorbents for The Removal of CR(VI) and FE(III) From Wastewater	Md. Ahmaruzzaman	10,00,000	1,33,913	11,33,913	5,68,063	0	5,65,850
16.	Mar' 2011	Study of Bi-Layered Perovskite Oxides: Thin Film for Non-Volatile Ferroelectric Memory Applications	Shri Asim Roy	17,50,000	1,72,388	19,22,388	18,22,432	0	99,956

Sl. No.	Month & Year	NAME OF THE PROJECTS	PROJECT CO-ORDINATOR	GRANTS SANCTIONED UPTO 31.03.2014	INTEREST	TOTAL GRANT (INCLUDING INTEREST)	EXPENDITURE UPTO 31.03.1014 (Rs.)	Refund to Ministry (Rs.)	Balance as on 01.04.14 (Rs.)
17.	Mar' 2011	Seismic Performance of Beam Column Joint Made With Peppolymer Concrete	Shri A.I. Laskar	9,00,000	84,120	9,84,120	9,84,120	0	0
18.	Mar' 2011	Investigation Of Some Binary Metal Oxide Material for Resistive Switching Memory Applications	Shri Fazal A. Talukdar	18,40,000	1,89,604	20,29,604	15,64,515	0	4,65,089
19.	Apr' 2012	Development of An Enzymatic Process for Production of Microalgaeal Biodiesel	Shri S. Chaterjee	10,40,000	1,04,568	11,44,568	3,18,042	0	8,26,526
20.	Apr' 2012	Design and Implementation of Pure Sine Wave Inverter for Residential Solar Power	Shri A.K. Goswami	15,00,000	1,50,964	16,50,964	2,44,224	0	14,06,740
21.	Apr' 2012	Design , Simulation and Implementation of Carbon Nanotube Based Fet Logics	Shri S. Choudhury	8,00,000	79,767	8,79,767	55,146	0	8,24,621
22.	Apr' 2012	Stynthesis & Characterization of BST-BFO Composites for Devices	Smt. B. Choudhury Shri S.K. Barik	16,00,000	1,47,283	17,47,283	8,64,482	0	8,82,801

Sl. No.	Month & Year	NAME OF THE PROJECTS	PROJECT CO-ORDINATOR	GRANTS SANCTIONED UPTO 31.03.2014	INTEREST	TOTAL GRANT (INCLUDING INTEREST)	EXPENDITURE UPTO 31.03.1014 (Rs.)	Refund to Ministry (Rs.)	Balance as on 01.04.14 (Rs.)
23.	Apr' 2012	Automatic Generation Control of Autonomous Hybrid Generation System	Shri Dulal Ch. Das	15,00,000	1,50,963	16,50,963	21,363	0	16,29,600
24.	Apr' 2012	Utility of Paratransit Modes in Regional Passenger Transportation	Shri M.A Ahmed	17,50,000	1,76,124	19,26,124	14,47,692	0	4,78,432
<b>All India Council for Technical Education (MODROB)</b>									
25.	Apr' 2012	Refrigeration and Air Conditioning Lab	Shri R.D. Misra	15,00,000	1,20,475	16,20,475	16,20,475	0	0
26.	Apr' 2012	Modrnisation of Thin Film Laboratory	Shri Asim Roy	10,00,000	80,317	10,80,317	10,70,828	0	9,489
27.	Apr' 2012	Up Gradation Of Highway Engineering Laboratory	Shri P. Rajbongshi	13,50,000	1,06,443	14,56,443	7,19,231	0	7,37,212
28.	Apr' 2012	Heat Transfer Lab	Shri R.D. Misra	8,00,000	64,253	8,64,253	4,27,665	0	4,36,588
<b>Indian Council of Social Science Research</b>									
29.	June' 2012	Agricultural Development and Environment Issues in the North Eastern Region: A Case Study of Manipur	Shri N. B. Singh	4,43,250	19,279	4,62,529	4,58,183	0	4,346
<b>IBM Research University</b>									
30.	Nov ' 2012	Extension Of NLP	Shri Samir Borgohain	2,50,000	9,684	2,59,684	0	0	2,59,684

Sl. No.	Month & Year	NAME OF THE PROJECTS	PROJECT CO-ORDINATOR	GRANTS SANCTIONED UPTO 31.03.2014	INTEREST	TOTAL GRANT (INCLUDING INTEREST)	EXPENDITURE UPTO 31.03.1014 (Rs.)	Refund to Ministry (Rs.)	Balance as on 01.04.14 (Rs.)
<b>Ministry of Non- Renewable (GOI)</b>									
31.	Mar' 2013	Reginal Test Centre cum Technology Back-up Unit.....	Shri Agnimitra Biswas	25,00,000	96,848	25,96,848	15,10,289	0	10,86,559
<b>TOTAL</b>				<b>4,34,76,250</b>	<b>37,93,750</b>	<b>4,72,70,000</b>	<b>3,04,73,910</b>	<b>30,74,491</b>	<b>1,37,21,599</b>

# 21. Photo Gallery



Inauguration of C-DAC centre at NIT Silchar



Inauguration of Bio-gas Plant



Seminar on Awareness of gender equality and behavioral attitude towards women at work places





Awareness Program on Right to Information Act



Anti-ragging Student Meeting



Independence Day celebration





Independence Day celebration



Blood Donation Camp



Eleventh Convocation





Eleventh Convocation



Plantation inside campus



Bihu Dance



Fashion show

Incandescence 2014





Singing sensation Papon, Incandescence 2014

**Incandescence 2014**

**Gyansagar activity**



Balkalakar



Balkalakar



Prayas



Kite festival



Cloth donation camp





One day workshop on Design and Innovation



Two days exhibition workshop on Miniature Engineering working Models by Mr. Iqbal Ahmed



Preparing smokeless chula



*The sky is the Limit...*

# Annexures

## Annexure 1: Placement Record

Sl.No.	Name of organisation	Date of visit	CTC (LPA)	CE	ME	EE	ECE	CSE	EI	MBA	M.TECH
1.	Shapoorji Pallonji & Co. Ltd.	21 - 22 Jul 13	3.5	03	-	-	-	-	-	-	-
2.	Mu Sigma	01 - 02 Aug 13	18 (3 Yrs)	01	02	01	04	04	01	-	-
3.	Mjunction Service Ltd.	06 - 07 Aug 13	CTC: 5.2	-	02	-	01	02	-	-	-
4.	Keross R & D	12 - 13 Aug 13	CTC-4.2	-	-	-	01	-	-	-	-
5.	Mahindra & Mahindra Ltd , Mumbai	21 - 23 Aug 13	5.3	-	02	-	-	-	-	-	-
6.	Capgeminibn	02 - 04 Sep 13	3.05 (B.Tech) 3.5 (M.Tech)	03	04	07	03	04	02	-	CSE-3 EE-2
7.	Accenture	04 - 05 Sep 13	3.3	19	14	29	19	17	07	-	-
8.	IBM	04 - 07 Sep 13	3.4	07	11	02	11	02	01	-	-
9.	Samsung Research India, Bangalore	7 Oct 13 Pool campus at Agartala	7.75	-	-	-	-	06	-	-	-
10.	Polaris Financial Technology	08 - 10 Sep 13	4.5	-	-	-	-	05	-	-	-
11.	Larsen & Tourbo	11 - 14 Sep 13	3.75	14	02	08	Result pending	-	02	-	EE-2
12.	Oracle India, Bangalore	23 - 25 Sep 13	7.5	-	-	-	-	01	-	-	-
13.	Basepoke Digital Media	29 Sep to 02 Oct 13	15,000 PM	2+2 (Wt List)	-	1+1 (wt list)	2 + 1 (wt list)	01+1 (wt list)	-	Marketing-1 Finance-1 HR - 1	-
14.	Vedanta Resources	05 - 07 Oct 13	3.4	-	-	2013 batch	-	-	-	-	-
15.	SONY India Soft ware Pvt. Ltd.	16-17 Oct 13	4.5	-	-	1	1	1	1	-	-
16.	Maruti Suzuki India Ltd	24 Sep 13	5.8	--	03	-	-	-	-	-	-



Sl.No.	Name of organisation	Date of visit	CTC (LPA)	CE	ME	EE	ECE	CSE	EI	MBA	M.TECH
17.	Verizon	24 -26 Oct 13	5	-	-	01	04	02	-	-	-
18.	ABB	25 -26 Oct 13	4.5	-	-	-	-	-	01	-	-
19.	UNISYS Global	29-31 Oct 13	4.5	-	-	-	-	04	-	-	-
20.	National Instruments	29-31 Oct 13	10	-	-	-	-	-	01	-	-
21.	Nucleus Software	13 -15 Nov 13	4.58	-	-	-	08	05	-	-	-
22.	Aricent Group	21-23 Nov 13	3.5	-	-	01	02	01	-	-	CSE-2 ECE-1
23.	SUBROS Ltd.	20-22 Nov 13	5	-	4	-	-	-	-	-	-
24.	Honda Two Wheeler	25-27 Nov 13	5.6	-	3	-	-	-	-	-	-
25.	ITC	29-30 Nov 13	8.5	-	01	-	-	-	-	-	-
26.	Magneti Marelli	09-11 Dec 13	3.5	-	-	-	04	-	-	-	-
27.	Ericsson Global	11-13 Dec 13	3.45	-	-	-	09	03	-	-	-
28.	Philips Electronics	18-19 Dec 13	6	-	-	-	01	03	-	-	-
29.	Concept Education, Guwahati	3 -5 Jan 14	4.5	01	-	01	-	-	-	-	-
30.	JGI Group, Karnataka ( for M.tech)	6-7 Jan 14	3.5 – 5	-	-	-	-	-	-	-	ME-3 EE-3 ECE-2
31.	Resonance Pvt Ltd ,Kota	6-8 Jan 14	4.8	01	01	02	02	-	-	-	-
32.	Samsung Engg Labs	9 Jan 14 (Pool campus at Agartala)	7.62	-	-	-	-	01	-	-	-
33.	Idea Cellular Ltd.	10-11 Jan 14	4.2	-	-	-	03	-	-	-	-
34.	Yodlee Info Tech.	13 Jan 14 (Pool Campus at Siliguri)	4	-	-	-	-	01	-	-	-
35.	KEC International, Mumbai	15-17 Jan 14	3	02	-	-	-	-	-	-	-

Sl.No.	Name of organisation	Date of visit	CTC (LPA)	CE	ME	EE	ECE	CSE	EI	MBA	M.TECH
36.	Vodafone Spacetel Ltd	24-25 Jan 14	4.01	-	-	-	03	-	02	02 (By Pool Campus at Dibrugarh University on 18 Mar 14)	-
37.	Potential Coaching Centre, Guwahati	24-25 Jan 14	10.8	-	01	-	-	-	-	-	-
38.	Tata Advance System Ltd	28-29 Jan 14	3.94	-	04	02	-	-	-	-	-
39.	Tata Chemicals	31 Jan 14 Interview at Guwahati	4.75	-	02	-	-	-	-	-	-
40.	Star Cement	05 Feb 14 Interview at Guwahati	2.04	05	-	-	-	-	-	-	-
41.	JCB, India	5-7 Feb 14	6.4	-	RA	-	-	-	-	-	-
42.	WSP Consultant India Ltd.	15 Feb 14 (On line Interview )	4.2	01	-	-	-	-	-	-	-
43.	Brahmos Aerospace	18-20 Feb 14	7.64	-	01	-	01	-	-	-	-
44.	Parul Institute of Engineering & Technology, Gujrat	22 Feb 14 (on line interview )	As per 6 <sup>th</sup> PC	-	-	-	-	-	-	-	M E - 3 EE-3 CSE- 1 CE-4= 11
45.	Zeus Numerix Pvt. Ltd.	20 Feb 14 (Interview at PUNE)	4	-	02	-	-	-	-	-	-
46.	NEDFI	7 Mar 14 ( On line Interview)	7.2	-	-	-	-	-	-	01	-
47.	Ways2Capital.com	10 Mar 14( On line Interview)	2.64	-	-	05	05	02	-	09	-

Sl.No.	Name of organisation	Date of visit	CTC (LPA)	CE	ME	EE	ECE	CSE	EI	MBA	M.TECH
48.	Daimler India Commercial Vehicle Pvt Ltd.	Mar 14 (Interview at Kolkata)	4.5	-	02	-	-	-	-	-	-
49.	JK Lakshmipath University	05 -06 Feb 14	4.8	-	-	-	-	-	-	-	C E - 1 M E - 2 EE-1 =4
50.	Marwadi Education Foundation	22 Mar 14 (on line interview through Skype)	4.66	-	-	-	-	-	-	-	CE-8 ME-3 =11
51.	Re Inspire Tech	4-5 Apr 14	4	13	10	15	5	10	7	11	CSE-5 ME-02 EE - 3
	Total No. of eligible students			72	76	74	73	50	20	22	CSE-17 ECE-18 ME-38 EE-27 CE-39 = 139
	Total No. of Job offers (till date)			72	71	76	89	75	25	26	54
	Total No. of Job Placed			61	53	65	63	58	17	17	51
	Highest Package	10.8 LPA									
	Average Package	B. Tech-3.93 LPA		MBA – 3.4 LPA			M.Tech – 4.94 LPA				

Annexure 2: **Fresh Appointments****Teaching (Contractual)**

Sl. No.	Name	Designation	Department	Date of Joining
1.	Mr. Vivek Kumar Pathak	Assistant Professor	Management Studies	10-07-13
2.	Mrs. Ruchi Bharadwaj	Assistant Professor (Part-Time)	Chemistry	10-07-13
3.	Mr. Naba Kumar Das	Assistant Professor	Management Studies	10-07-13
4.	Miss Mahasweta Laskar	Assistant Professor	Civil Engineering	10-07-13
5.	Mr. Kelvin Mutim	Assistant Professor	Management Studies	11-07-13
6.	Mrs. Priya Lakshmi Goswami	Assistant Professor	Physics	12-07-13
7.	Mr. Abhijit Ghosh	Assistant Professor	Management studies	15-07-13
8.	Dr. (Mrs.) Dipannita Das	Assistant Professor	Chemistry	15-07-13
9.	Ms. Bhaswati Das	Assistant Professor	Electronics and Communication Engineering	16-07-13
10.	Mr. Shubrangshu Baruah	Assistant Professor	Management studies	16-07-13
11.	Mr. Neil M Gautam	Assistant Professor	Management Studies	17-07-13
12.	Mr. Arpan Paul	Assistant Professor	Humanities and Social Sciences	19-07-13
13.	Ms. Sagarika Kotoky	Assistant Professor	Humanities and Social Sciences	19-07-13
14.	Dr. Saumya Ranjan Mohapatra	Assistant Professor	Physics	22-07-13
15.	Ms. Bismita Roy	Assistant Professor	Electrical Engineering	13-07-13
16.	Mr. Biplab Singha	Assistant Professor	Mathematics	25-07-13
17.	Mr. Soumya Samanta	Assistant Professor	Electrical Engineering	26-07-13
18.	Mr. Sudipto Paul	Assistant Professor	Mathematics	29-07-13
19.	Miss Padmaja Tamuli	Assistant Professor	Humanities and Social Sciences	31-07-13
20.	Mr. Subhasis Panda	Assistant Professor	Physics	04-10-13
21.	Dr. Rupak Dutta	Assistant Professor	Physics	17-10-13
22.	Mr. Biswajit Roy	Teaching Assistant	Civil Engineering	08-01-14
23.	Mr. Subhradeep Dhar	Teaching Assistant	Civil Engineering	08-01-14
24.	Mr. Angshuman Deb	Teaching Assistant	Civil Engineering	08-01-14

**Non-teaching (Contractual)**

Sl. No.	Name	Designation	Date of Joining
1.	Mr. Ranjan Baran Paul	Program Co-ordinator	29.07.13
2.	Mr. Dhrubajyoti Chakraborty	Assistant Engineer (Civil)	02.09.13
3.	Mr. Anjan Das	Junior Engineer (Civil)	02.09.13
4.	Mr. Rahul Suklabaidya	Junior Engineer (Civil)	02.09.13

Sl. No.	Name	Designation	Date of Joining
5.	Mr. Debojyoti Deb	Junior Engineer (Civil)	02.09.13
6.	Mr. Swapan Das Baisnab	Junior Engineer (Electrical)	02.09.13
7.	Mr. Bipan Kumar Sinha	Junior Engineer (Electrical)	02.09.13
8.	Mr. Naruttam Sinha	Security Assistant	03.08.13
9.	Mr. Sushil Kumar Sinha	Assistant	20.09.13
10.	Mr. S. Gaurnitai Singha	Assistant	20.09.13
11.	Mr. Ratish Ch. Paul	Assistant	20.09.13
12.	Mr. Animesh Deshmukha	Assistant	23.09.13
13.	Mr. Hari Mohan Singha	Assistant	30.09.13
14.	Dr. Habibur Rahman Barlaskar	Medical Officer Allopathic	02.09.13
15.	Mr. Samanta Das	Pharmacist	02.09.13
16.	Mr. Sanjit Banik	Pharmacist	02.09.13
17.	Ms. A.S. Wungreichon	Dietician	02.09.13
18.	Mr. Nabarun Saha	Physiotherapist	12.09.13
19.	Dr.(Mrs.) Bandita Phukan	Medical Officer	27.09.13
20.	Mr. Ranjit Kumar Singha	Accounts Assistant	03.03.14
21.	Ms. Aparna Hazam	Trainee Accounts	06.03.14

### Annexure 3: Retirement/Resignation

Sl. No.	Name	Designation	Date of Retirement / Resignation
1.	Dr. Arun Chandra Paul	Professor (Mechanical Engineering)	31.03.13
2.	Dr. Asim Kumar Sil	Professor (Chemistry)	28.02.14
3.	Dr. Smruti Shika Bal	Assistant Professor (Physics)	06.05.13
4.	Mr. Bhanu Pratap	Assistant Professor (Electrical Engineering)	13.05.13
5.	Mr. Debasish Mitra	Assistant Professor (ECE)	29.10.13
6.	Dr. Sougata Kumar Kar	Assistant Professor (E & I)	06.01.14
7.	Dr. Deborjyoti Choudhury	Assistant Professor (Maths)	28.02.14
8.	Mr. Nanka Dusad	Senior Attendant	31.03.13
9.	Mr. Purnanjan Chakrabarty	Assistant (SG I)	30.04.13
10.	Mr. Dilip Kumar Nath	Assistant (SG I)	30.04.13
11.	Mr. Shyam Lal Roy	Attendant (SG II)	31.05.13
12.	Mr. Promesh Chandra Nath	Technician (SG I)	30.06.13
13.	Mr. Mohan Roy	Attendant	31.08.13 (VRS)
14.	Mr. Kulendra Chandra Roy	Attendant (SG I)	30.09.13
15.	Mr. Sailesh Bhattacharjee	Work Assistant (SG I)	30.11.13
16.	Mr. Chandra Deo Singh	Attendant (SG I)	30.11.13
17.	Ms. Santi Sen	Assistant (SG I)	31.12.13

Sl. No.	Name	Designation	Date of Retirement / Resignation
18.	Mr. Hari Narayan Gorh	Attendant	31.12.13
19.	Ms. Namita Dutta	Assistant (SG I)	31.01.14
20.	Mr. Keshab Ranjan Bhattacharjee	Assistant (SG I)	31.01.14
21.	Mr. Abdul Jabbar Khan	Work Assistant (SG I)	31.01.14
22.	Mr. Swapan Kr. Paul	Technician (SG I)	28.02.14
23.	Mr. Promode Chandra Bauri	Attendant (SG I)	31.03.14
24.	Mr. Krishna Kumar Singha	Technician (SG I)	31.03.14
25.	Ms. Kamala Deb	Technician (SG I)	31.03.14
26.	Mr. Makabbir Ali Laskar	Attendant (SG I)	31.03.14
27.	Mr. Rahmat Khan	Attendant (SG II)	31.03.14
28.	Mr. Bishu Kanta Paul	Attendant (SG II)	31.03.14
29.	Mr. Ram Lagan Rabidas	Attendant (SG I)	30.09.13 (VRS)

#### Annexure 4: Staff members (Non-teaching) deputed/ sponsored for Training & Learning

Sl. No.	Name	Deptt	Date (From)	Date (To)	Topics	Organization	Place
1.	L. Prakash Singh	T&P	03 April 2013	07 April 2013	Improvement for Industry Institute Relation for Placement	Corporate Hr in Pune	Pune
2.	Kumar Mithlesh, & Probadh Mishram	Techincal	18 May 2013	27 May 2013	CDAC	Pune	Pune
3.	Dr. K. S. Satpathy	Library	12 July 2013	13 July 2013	Promoting Excellence in Research Among NITs Through E-Journal	NIT Warangal	Warangal
4.	Rajib Kahar	Administration	21 Aug 2013	23 Aug 2013	Materials Management and Purchase Policy & Procedure	New Delhi	New Delhi
5.	R. N. Biswas	Pension cell	12 Sept 2013	14 Sept 2013	Pension Programme	Delhi	
6.	Meshram		17 Oct 2013	19 Oct 2013	2 <sup>nd</sup> Annual Workshop	Bangalore	
7.	Ranjana Jha, Pijush Bhatt, & Rajib Kahar	Accounts Acadmic Administration	11 Nov 2013	13 Nov 2013	Training Programme	Faridabad	
8.	Pratap Dhar	Accounts	5 Dec 2013	5 Dec 2013	Second Joint Review Mission	IHC, New Delhi	New Delhi



Sl. No.	Name	Deptt	Date (From)	Date (To)	Topics	Organization	Place
9.	Dr. K S Satpathy	Library	9 Dec 2013	13Dec 2013	Hugher Education Management Programme	University of Illinois USA	USA
10.	Sanjay Srivastava, &Pratap Dhar	Administration	6Feb 2014	8Feb 2014	General Financial Rules & DoTPR for Purchase Procedure & etc	SERT, New Delhi	New Delhi
11.	Rajib Kahar	Administration	8March 2014	10March 2014	NBA WOSA-2014	Ashok Hotel, New Delhi organized by NBA	New Delhi
12.	Mr. J Patro	Administration	20 March 2014	26March 2014	Training on Management Capacity Enhancement for Administrator	IIM Indore	Indore

## Annexure 5: Awards and Sponsored Awards

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

(A)	Institute Gold Medal		
Sl.No.	Title of the Medal	Department	Awardees
1.	Best B.Tech. Graduate	Computer Science & Engg.	Jahidul Islam Sarkar

(B)	Institute Silver Medals	
Sl.No.	Title of the Medal	Awardees
1.	Best B.Tech. Graduate in Civil Engineering	Vishal Patwary
2.	Best B.Tech. Graduate in Mechanical Engineering	Dipesh Kumar Guha
3.	Best B.Tech. Graduate in Electrical Engineering	Ch. Karthik
4.	Best B.Tech. Graduate in Electronics & Communication Engineering	Arpita Gang
5.	Best B.Tech. Graduate in Electronics & Instrumentation Engineering	Nilutpal Choudhury

### Sponsored awards-

(C)	Kalikrishna Mrinalini Krori Gold Medal		
Sl.No.	Title of the Medal	Department	Awardees
1.	Best B.Tech. Graduate on overall performance, ( Instituted by Dr. K.D Krori, Guwahati)	Mechanical Engineering	Ravi Yadav

(D) Saswata Purkayastha Memorial Gold Medel			
Sl.No.	Title of the Medal	Department	Awardees
1.	Best B.Tech. Graduate on overall performance, (Instituted by Shree Niharendu Purkayastha, Silchar)	Civil Engineering	Samujjal Das

## Annexure 6: Scholarship/ Assistantship awarded

The students, of this Institute, are awarded various types of scholarships from various schemes of Central Govt., State Governments, PSUs, Charitable Trusts/ Organizations. During this period under review 240 no. of students received scholarship/stipend from various sources.

Sl. No.	Name of the Scholarship	Name of the State	Amount of Scholarship awarded in 2012-13 (RS)	No. of students received the Scholarship
1.	ITDP	Assam	34,60,140/-	72
2.	Govt. Of Andhra Pradesh	Andhra Pradesh	3,52,952/-	10
3.	Govt. Of Bihar	Bihar	12,64,468/-	53
4.	NEC	Assam	10,72,600/-	80
5.	Govt. of West Bengal	West Bengal	95936/-	2
6.	Govt. of Arunachal Pradesh	Arunachal Pradesh	24230/-	3
7.	Engineers India Ltd	EIL	45000/-	3
8.	Central Sector Scholarship	All India	9,98368/-	8
9.	Ajmal Foundation	Assam	30000/-	1
10.	NHFDC	All India	3,24072/-	8

Apart from the aforesaid Scholarships, guardians of our students also avail reimbursement of educational expenditure from their employers like – BSNL, Railways, & other Govt. / PSUs on our recommendations.

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

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

## Annexure 7: Ph.D. thesis

Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis	Department
1.	Jyotikumar Acharya	Dr. U.Kumar	Sorption of Heavy Metals From Wastewater Using Low Cost Materials-Rice Husk	CE
2.	Nazrin Ullah	Dr. P. S. Choudhury	Flood Flow Modeling in a River System Using Multiple Upstream Flows	CE

Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis	Department
3.	Mayeng bam Sunil Singh	Prof. S Choudhury	Performance- Based Seismic Design of Reinforced Concrete Frame Buildings	CE
4.	Tirtha Bhattacharjee	Dr. Pranjit Barman	Studies on the Synthesis, Electrophilic Reactions and Bioactivity of Stabilized Sulfenyl Derivatives and Palladacycles formation with Organosulfur (II) Compounds	Chemistry
5.	Pinky Roy	Dr. P. K. Das, IIT Guwahati	Automatic Identification of Indian Languages based on various Statistical Approaches	CSE
6.	Santhosh KV	Dr B. K. Roy	Design and Implementation of Adaptive Calibration Techniques using Optimized ANN for Intelligent Measurements	EE
7.	Sweta Chandar	Prof. S. Baishya	Device Modeling	ECE
8.	C. Anandini Devi	Prof. F. A. Talukdar	VLSI	ECE
9.	Krishna Dharavat	Prof. F. A. Talukdar & Dr. R.H. Laskar	Pose invariant Face recognition	ECE
10.	Neme Fraol	Dr. Jishan Mehedi	Communication	ECE
11.	Amarnath Giani	Dr. T. R. Lenka	VLSI	ECE
12.	Ram Kumar Karsh	Dr. R. H. Laskar	Text-Dependant Speaker Verification	ECE
13.	Ganesh Prasad Keshri	Dr. Asraf Hossain	Communication	ECE
14.	Salam Sulandana Devi	Dr. R. H. Laskar	Medical Image Segmentation	ECE
15.	Joyeeta Singha	Dr. R. H. Laskar	Hand Gesture Identification	ECE
16.	Kanjalochna. Jena	Dr. T. R. Lenka	Simulation and modelling of HEMT and MOSHEMT devices	ECE
17.	Sunandita Debnath	Dr. A. Hossain	Communication	ECE
18.	Nivedita Biswas	Prof. F. A. Talukdar	Communication/Antenna	ECE
19.	Raghunandan Swain	Dr. T. R. Lenka	Simulation and modelling of HEMT	ECE
20.	Sultan M. Choudhury	Dr. A. Hossain	Communication	ECE
21.	Pranami Borah	Dr. R. H. Laskar	Speech Processing	ECE
22.	Richik Kashyap	Prof. S. Baishya	MEMS	ECE
23.	Ram Kumar	Prof. F. A. Talukdar	Medical Image Segmentation	ECE
24.	Chua China Bhanja	Dr. R. H. Laskar	Language Identification in Context to North Eastern Language	ECE
25.	Prasanta Kr. Paul	Dr. R. H. Laskar & Dr. K. L. Baishnab	Impulse Noise Removal and Its Hardware Implementation	ECE
26.	Baswati Das	Dr. J. Chakraborty	Image Processing	ECE
27.	Niladri Maiti (Part-time)	Prof. S. Baishya	Device Modeling	ECE
28.	Reshmi Maiti(Part-time)	Prof. S. Baishya	Device Modeling	ECE

Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis	Department
29.	Barnali Dey(Part-time)	Dr. J. Mehedi	Adhoc Sensor Network	ECE
30.	Achinta Baidya(Part-time)	Prof. S. Baishya & Dr. T. R. Lenka	Junction less Transistor	ECE
31.	Wasim Arif	Prof. S. Baishya	Cognitive Radio	ECE
32.	Kaushik Guha	Prof. S. Baishya	RF-MEMS	ECE
33.	Tushar Bachhar	Dr. S. H. Laskar & Dr. R. Dasgupta	Advances in instrumentation and signal processing (ongoing)	E&I
34.	Kalimuddin Mondal	Dr. R. Dasgupta & Dr. S. H. Laskar	Intelligent remote ECG monitoring and analysis(on-going)	E&I
35.	Debabrata Sutradhar	Gurudas Das	The Role of Foreign Direct Investment in Economic Development: The Indian experience since Economic Reforms	HSS
36.	Moumita Bhattacharjee	Gurudas Das	Continuity, Change and Adjustment of the Kaibartta Community of Barak Valley	HSS
37.	Lalit Premial Tirkey	Ashim Kumar Das	Livelihood Status of tea garden workers: A Study of Livelihood (in) security and Livelihood Diversification Options in the Tea Gardens of North Bengal	HSS
38.	Rinku Das	Ashim Kumar Das	Cluster Development Approach towards Poverty Alleviation and Income Generation : A Case Study of BARPETA District of Assam	HSS
39.	Memthoibi Devi	Reena Sanasam	Rescuing Herself from being "A mad women in the Attic": A Feminist Perspective of Virginia Woolf"	HSS
40.	Kaberi Borah	Ashim Kumar Das	Economics of Small Tea Gardens: A Study of Golaghat District of Assam	HSS
41.	P. Debnath	Dr.M.Sen	A study on Intuitionistic Fuzzy n-normed linear space	Mathematics
42.	S.Nath	Dr.M.Sen	On probabilistic normed linear space(Submitted)	Mathematics
43.	Mr. Probhas Bose	Dr.K.M.Pandey	Investigation of Ballistic, Combustion Characteristics And Physical Properties Of Solid Composite Propellant For Multi Barrel Rocket Launcher ( <i>Examination held on 10-2-2014</i> )	ME

## Annexure 8: M.Tech. / M.Sc. thesis

Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis	Department
1.	Sonali Bhowmik	Dr. A. M. Choudhury	Study on size effect of coconut fibre reinforced RC beam	CE
2.	N. S. Roy	Dr. A. M. Choudhury	Study on size effect of steel fibre reinforced RC beam	CE
3.	M.S.Tiewsoh	Dr. D Chakraborty	Optimal water distribution systems designed using genetic algorithm	CE
4.	Debojit Paul	Dr. P.S.Choudhury	Flood flow modelling of Barak river system with gauzed and ungauzed water sheds	CE
5.	Shayama Debbarma	Dr. P.S.Choudhury	Sediment flow simulation model for river system	CE
6.	Siddique N K Khan	Dr. M.A.Ahmed	Parking study and management: Case study Silchar	CE
7.	Nipa Chanda	Dr. M.A.Ahmed	Performance analysis of intersection: Silchar	CE
8.	Siyaram Chauhan	Dr. M.A.Ahmed	Assessment of the role of paratransit in the regional passenger movement: Case study Silchar	CE
9.	Pritam Das	Dr. T.Rahman	Site specific seismic study of a major tunnel in Jiribum-Imphal BG Line	CE
10.	Hindola Saha	Dr. P.Rajbongshi	Effect of Gradation on mix Volumetric and Parameters	CE
11.	Aparna Reang	Dr. P.Rajbongshi	Studies on Pavement Layer Thickness based on Mixes characteristics.	CE
12.	Tanwee Mazumdar	Dr. A.K.Dey	Study of yield surfaces on locally available clayey soil	CE
13.	Samarjyoti Kalita	Dr. A.K.Dey	A study of Micro piles	CE
14.	R.A.Mazumdar	Dr. A.K.Dey	Dynamic soil structure interaction in piles	CE
15.	Piya Biswas	Dr. A.K.Barbhuiya	Study of scour at 90° horizontal bend and its protection using riprap	CE
16.	Y. Soniya Devi	Dr. A.K.Barbhuiya	Flow analysis around a semi-circular abutment using fluent software	CE
17.	Shamima Begam	Md. Ahmaruzzaman	Adsorptive removal of Erichrome Black-T from aqueous phase using activated berry leaves as an agro-based adsorbent	Chemistry
18.	Babita Devi	Md. Ahmaruzzaman	Adsorptive removal of methylene blue from aqueous phase using low cost activated carbon prepared from rice husk, saw dust and fish scale	Chemistry

Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis	Department
19.	Bappi Paul	Md. Ahmaruzzaman	Comparative adsorption of Methylene blue on ASB, AWP and ADRF from aqueous phase-Isotherm and Kinetic Approach	Chemistry
20.	Biplab Das	S S Dhar	Synthesis of Peroxovanadium(V) complexes and Peroxomolybdenum(VI) complexes with a few chosen Schiff bases as heteroligands	Chemistry
21.	Luhit Mili	S S Dhar	A new method of synthesis of organic ammonium tribromides, OATBs using potassium chromate as oxidant under environmentally favourable condition	Chemistry
22.	Ajit Sarma	Pranjit Barman	Studies on the synthesis of symmetrical aryl disulfides and oxidation of sulfide to sulfoxide by using Indium oxide as catalyst	Chemistry
23.	Pranjal Sarmah	Pranjit Barman	Synthesis and characterization of a series of a new series of metal complexes of a new Schiff base containing N, S donor ligand	Chemistry
24.	Saxena	Mr. Dalton Meitei	Face recognition	CSE
25.	Nivedita	Mr. S. Chakraborty	Blood analysis	CSE
26.	Monalisha	Dr.A. K. Goswami	Multistage transmission expansion planning	EE
27.	ShasikantSahu	Dr.L.C.Saikia	Automatic generation control of a combined cycle gas turbine plant	EE
28.	Rakesh Singh Oinam	Dr. A.K. Sinha	A comparative analysis of different PMU placement algorithms and optimum placement of PMU(S) in North-Eastern region of Indian Power Grid supervisory operation	EE
29.	Abhishek Rajan	Mr. T. Malakar	Optimal Active and Reactive Power Dispatch using Hybrid Evolutionary Algorithm	EE
30.	SudhanshuRanjan	Mr.D. C. Das	Some studies on reactive power compensation of isolated wind-diesel hybrid power system, May 2013	EE
31.	Satyajit Das	Dr. J.P. Mishra	Dynamic Operation and Control of Grid Connected Interior Permanent Magnet Wind Turbine Generator	EE
32.	Debashish Dash	Dr.S. Chaudhury	Design of Low Power and Area Optimized DCTQ Processor used for Image Compression	EE



Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis	Department
33.	TamalDatta	Dr. B. K. Roy	Automation of packaging system in ITC using Image Processing	EE
34.	Nalin Kr. Sharma	Dr. B. K. Roy	Effective measurement and control of cooling mechanism of a car	EE
35.	Alok Kumar Sarder	Dr. B. K. Roy	Modelling and design of controller for level control process using PLC and SCADA	EE
36.	S. Sanajaoba Singh	Dr. Nidul Sinha	Some Studies on Automatic Generation Control of thermal System using Integrated Controller with FACTS Devices	EE
37.	Abhraneel Malakar	Dr. A. K. Roy	Power Quality problems associated with ARC Furnace and mitigation using statcom	EE
38.	Soumya Samanta	C. Bhattacharjee	Power management and control of a standalone Wind-Solar-Battery-Fluid Cell-Electrolyzer based distributed generation system	EE
39.	Pikaso Pal	Dr. Nidul Sinha	Design of a heuristic algorithms optimized intelligent Fuzzy controller for speed control of a separately excited DC motor and its implementation using dSPACE	EE
40.	Cyriac Lukose	Dr. K.L. Baishnab	Design and Analysis of 4 bit switched Capacitor array Wide Band Voltage Controlled Oscillator	ECE
41.	Ram Kumar	Dr. R. H. Laskar & Prof F. A. Talukdar	Design of Highly Linear CMOS Low Noise Amplifiers for 5.5 GHz Applications.	ECE
42.	Richik Kashyap	Prof. S. Baishya	Design and Analysis of MEMS based suspended-Gate MOSFET.	ECE
43.	Johnson Taye	Mr. K. Guha & Mrs. M. Choudhury	Study, Design and Analysis of RF MEMS Shunt Capacitive Switches for Low Actuation Voltage and High Capacitance Ratio.	ECE
44.	Vineet Krishnan	Mr. S. K. Gupta	Junction Less Transistor	ECE
45.	Pragati Singh	Prof. S. Baishya	Gate leakage of MOSFET	ECE
46.	KanjaloChan Jena	Mrs. B. Shome	Optimization of 3D Tunnel FET and its Digital Applications	ECE
47.	Satya Narayan Misra	Mr. W. Arif & Dr. J. Mehedi	Design of a six bit TIQ ADC for SoC based low power Applications	ECE
48.	Jitendra Kumar Mishra	Mr. P. K. Paul	Design and Ultra Wide Band low noise Amplifier for 6GHz Applications	ECE

Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis	Department
49.	MitaliDebnath	Dr.P.K.De (Jointly with Prof.A.C.Paul)	A Study on Inventory Problems in Fuzzy and Stochastic Environments	Mathematics
50.	Anindita Sengupta	Dr. S. Chatterjee	Optimization of some Process Parameters of transesterification for Production of Bio-diesel from Vegetable oil using soft computing technique	ME
51.	Sharon S. Bashyam	Mr. D.H. Das	Numerical Analysis of Cylindrical Heat Pump with extended at the condenser end	ME
52.	Vivek Shahaji Doke	Dr. R.D. Misra	Effect of Organic Element in Bio-fuels on CI Engine performance and Emission through Exergetic Analysis	ME
53.	Neelam Kumar Sarma	Dr. R.D. Misra & Dr. A. Biswas	Experimental and Computational Investigation of Savonius Water Turbines	ME
54.	Sunita Deb	Dr.K.M.Pandey	2D CFD Analysis of Combustion in 6 & 8 legged star shaped perforation in ammonium perchlorate Composite propellant with H.T.P.B binder	ME
55.	Sangeeta Das	Dr. R.D. Misra	Performance Evaluation of a CI Engine fuelled with water emulsified diesel oil	ME
56.	Kummitha O. Reddy	Dr.K.M.Pandey	Burnback Analysis of 3D star grain solid propellant and CFD Simulation of core flow.	ME
57.	Rajiva L. Mohanty	Mr. D.H. Das	Numerical Analysis of double pipe heat exchanger using heat transfer augmentation techniques	ME
58.	Runjun Saikia	Dr. R. D. Misra	Comparative evaluation of CI engine performance and emission characteristics using preheated Karanja oil blends and its corresponding biodiesel blends	ME
59.	Ravindra Kannojiya	Dr. K. M. Pandey & Dr. K. K. Sharma	Performance study of Savonius and Bach type rotors with variation in blade shape factor and overlap	ME
60.	Binita Nath	Dr. K. M. Pandey	CFD Analysis of a Hydrogenfueled Scramjet combustor using injectors with variations in Mach Number	ME
61.	Subhasish Das	Dr. S. Chatterjee	CFD Analysis for Fluid Flow and Heat Transfer on some hollow cylindrical components in Thermal Power Plant	ME
62.	Ajoy Debbarma	Dr. K. M. Pandey	CFD analysis of flow & heat transfer in sub channels of high performance nuclear reactor with light water as coolant	ME

Sl. No.	Name of the Scholar	Name of the Supervisor	Title of the Thesis	Department
63.	Maisanam Anil Kumar Singh	Dr. R. D. Misra & Dr. A. Biswas	Computational and Experimental Investigation of self starting and performance of a new VAWT	ME
64.	Deepak Sharma	Dr. K. M. Pandey	Studies in 3D CFD steady state heat transfer in nuclear fuel rods for sub channels of CO <sub>2</sub> flow at a pressure above critical value	ME
65.	Himanshu Bhusan Prusty	Mr. S.K. Pattanayak	Formulation and Composition of outsourcing models in product mix-problem	ME
66.	Nasir Hassan S.K.	Dr. S. Chatterjee	Stress analysis of Typical Process Piping using ANSYS	ME
67.	Robin Ghoshal	Dr. K. Chakraborty	Some Studies on the effects of Machining Parameters on hydro static stress, flow strain and friction behavior of material during metal machining	ME
68.	Ikbal Bahar Laskar	Mr. S.K. Pattanayak	Bio-ethanol from rotten potato in Barak Valley: A Socio-economic Prospective	ME
69.	Priyaranjan Biswal	Mr. S.K. Pattanayak	Development and illustration of a simulation model for determining the optimal size of buffer in a multi product system	ME
70.	Manoj Kumar Rout	Mr. S.K. Pattanayak	Formulation and Analysis of aggregate production planning in much product system: A case study	ME
71.	Sanasam Sunderlal Singh	Dr. P. K. Patowari	Texturing of external cylindrical surface of rotational component by machining and deposition in EDM	ME
72.	Chandan Bhagat	Mr. L. Roy	Steady State Thermo-hydrodynamic Analysis of Multi lobe oil journal bearing	ME
73.	Mitali Debnath	Dr. A.C. Paul, Dr. P.K. Dey & Dr. D. Dutta	A study on inventory problem in Fuzzy and Stochastic environments	ME
74.	Subhankar Das	Mr. P. Choudhury	Suppression of Free Edge Mixed Mode Delamination in Laminated Composite Structures using ANSYS	ME
75.	Trisha Biswas	Dr. P. K. Patowari	Micro hole drilling on thin sheet metals by micro-EDM	ME
76.	Ngangkham Devrani	Dr. P. K. Patowari	Surface modification of graphite using powder metallurgical green compact tool electrode in EDM	ME

## Annexure 9: Visits to abroad

Sl.No.	Name of the faculty	Name of the Conference/ Programme	Place	Date
1.	Prof. N.V. Deshpande	Higher Education Leadership Programme	UIUC, USA	June 15-21, 2013
2.	Prof. N.V. Deshpande	Collaboration of the Northeastern institutions with QUB	Belfast, UK	October 21-23, 2013
3.	Dr. A. K. Barbhuiya	Higher Education Leadership Programme	University of Illinois , USA	December 5-13, 2013
4.	Dr. K. M. Pandey	ASME 2013 International Mechanical Engineering Congress & Exposition IMECE 2013	SAN DIEGO, CA, USA	November 15-21, 2013
5.	Dr. Ravi Kumar Gupta	International Conference on Product Lifecycle Management	Nantes, France	July 6-10, 2013
6.	Mr. A. Sabyasachi	15 <sup>th</sup> International IEEE High performance computing and communication HPCC 2013  6 <sup>th</sup> ACM Compute convention 2013	South Central University, Zhamjiaji, China  China	November 13-15, 2013
7.	Dr. Abhishek Midya	6 <sup>th</sup> International Conference on Bio-Medical Engineering and Informatics (BMEI)	Hangzhou, China	December 16-18, 2013
8.	Dr. Jayashree Chakraborty	6 <sup>th</sup> International Conference on Bio-Medical Engineering and Informatics (BMEI)	Hangzhou, China	December 16-18, 2013
9.	Dr. T.R. Lenka	2013 International Conference of Electron Devices and Solid-State Circuits	Hong Kong, China	June 3-5, 2013
10.	Mr. Wasim Arif	3 <sup>rd</sup> IEEE International Conference on Consumer Electronics	Berlin, Germany	September 8-11, 2013
11.	Dr. N.B.D. Choudhury	EUROCON 2013	Zagreb, Croatia	June 29- July 4, 2013
12.	Dr. N.B.D. Choudhury	University of Illinois	USA	December 8-14, 2013
13.	Dr. Gurudas Das	IJAS Conference	Paris, France	April 8-11, 2013









SPEED POST

भारतीय लेखा तथा लेखा-परीक्षा विभाग  
प्रधान निदेशक, लेखा-परीक्षा का कार्यालय,  
केन्द्रीय, कोलकाता

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

No: OA II (AB)/AR/2013-14/NITSILCHAR/ 281

Date: 28-09-2014

To  
The Secretary,  
Ministry of Human Resource Development,  
Government of India,  
Department of Higher Education,  
Shastri Bhawan, New Delhi,  
New Delhi - 110001

Subject: Separate Audit Report on the accounts of *National Institute of Technology, Silchar*  
Assam for the year 2013-14

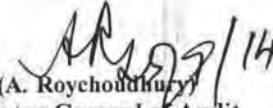
Sir,

I am to forward herewith the Separate Audit Report in the prescribed format introduced by the C & A.G of India on the accounts of *National Institute of Technology, Silchar, Assam* for the year 2013-14. A copy of the annual accounts of the organisation for the year 2013-14 is also enclosed.

- Two copies of Separate Audit Report (both English and Hindi Version), as may be presented before Parliament, may please be forwarded to this office for necessary action at this end.
- The dates of laying the audited accounts and the Separate Audit Reports for the year 2013-14 on the Tables of both the Houses of Parliament may also please be communicated to this office.

Yours faithfully,

Encl.: As stated

  
(A. Roychoudhury)  
Director General of Audit  
Central: Kolkata

जि. आई. प्रेस बिल्डिंग, 8 किरण शंकर राय रोड (1म मंजिल), कोलकाता- 700 001  
Govt. of India Press Building, 8, Kiran Sankar Roy Road, Kolkata -700001  
Phone : 2254-0221, (Gram : ACCOUNTCENT) Post Box : 2699, Fax No. : 033 22135377

**Separate Audit Report of the Comptroller & Auditor General of India on the Accounts of National Institute of Technology, Silchar for the year ended 31 March 2014**

We have audited the attached Balance Sheet of **National Institute of Technology, Silchar Assam** as at 31 March 2014 and the Income and Expenditure account for the year ended on that date under Section 19(2) of the Comptroller and Auditor General's (Duties, Power and Conditions of Service) Act, 1971 read with Section 22(2) of the National Institute of Technology Act 2007. These financial statements are the responsibility of the Institute's Management. Our responsibility is to express an opinion on these financial statements based on our audit.

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

3. We have conducted our audit in accordance with 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 disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by the management, as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.

4. Based on our audit, we report that:
  - i. We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of our audit;
  - ii. The Balance Sheet and Income and Expenditure Account dealt with by this report have not been drawn up in the Uniform Format of Accounts prescribed by the Ministry of Finance, Government of India.
  - iii. In our opinion, proper books of accounts and other relevant records have not been maintained by the Institute as required under section 22(2) of the NIT Act, 2007 in so far as it appears from our examination of books.
  - iv. We further report that

#### **A. Balance Sheet**

##### **1.1 Liabilities**

##### **1.1.1 Corpus Fund (Sch-1) : ₹ 1503.28 lakh**

The amount of ₹ 17.42 lakh recovered as interest on mobilization advance from the contractor of ongoing works had been credited to the above account instead of crediting the amount against capital work in progress as an income during construction period. This had resulted in overstatement of Corpus Fund by ₹ 17.42 lakh with corresponding overstatement of Fixed Assets-Capital Work in Progress by equal amount.

##### **1.1.2 Current Liabilities and Provision (Sch-6) : ₹ 4023.79 lakh**

As per significant Accounting Policies (Sl. No. 2-C of Notes to Accounts) of the Institute, Grants in aids received for Capital and Revenue Purposes are recognized as and when received (cash basis). In contravention to the above policy, ₹204.16 lakhs (Schedule 6C) had been booked under Current liabilities & Provision(debit balance) being the amount of excess



of expenditure over income on Salary of the Institute as receivable/accrued from Government towards Non-Plan grant.

Accounting of Non-Plan grant (revenue) on receivable/accrual basis in violation to the Policy had resulted in understatement of Current liabilities & Provision by ₹ 204.16 lakh with the corresponding overstatement of Corpus/General Fund by equal amount.

## **1.2 Assets**

### **1.2.1 Fixed Assets (Sch-7): ₹ 20407.1 lakhs (Tangible Assets)**

The above amount had been understated by ₹ 68.05 lakh due to non-provision of the balance amount payable to the supplier of Solar Photovoltaic Devices.

This had also resulted in understatement of Current Liabilities & Provision by the equal amount.

### **1.2.2 Loans, Advances & Deposits (Sch-10): ₹ 7212.39 lakh**

As a departure from the declared Accounting Policies-(Sl. No. 2-C of Notes to Accounts) to account for Grants-in-aids received for Capital and Revenue Purposes on as and when received basis-(Cash basis), Plan grant amounting to ₹ 1924.38 lakh(Sch-10(A)) had been accounted for on accrual basis. This had resulted in overstatement of Loans, Advances & Deposits by ₹ 1924.38 lakhs as well as overstatement of Restricted Funds by the same amount.

## **B. Income and Expenditure Account**

### **2.1 Income**

#### **2.1.1 Other Incomes (Sch. 14) : ₹ 216.84 lakhs**

The above amount included the interest accrued on investment of caution money(₹ 4.19 lakh) and Non-Plan Fee account-(₹ 16.05 lakh) though as per Accounting Policies of the

Institute-(Sl. No. 2-b of Notes to Accounts), interest on deposits are to be accounted for on receipt (cash) basis.

Accounting of interest on accrual basis had resulted in overstatement of both the Other Incomes as well as Current Assets by ₹20.24 lakh with consequential overstatement of Excess of Income over Expenditure of the year by ₹ 20.24 lakh.

### C. General comments

**3.1** Ministry of Finance, Government of India had introduced Uniform Format of Accounts for all Central Autonomous Bodies in 2001 in consultation with C&AG of India. Accounts of National Institute of Technology, Silchar have been prepared in the new format of account introduced by Ministry of Human Resources Development, Government of India for institutions of Higher Education, which are still under finalization in consultation with C&AG of India.

**3.2** The impact on the accounts in the following cases due to changes in Accounting Policies/treatments had not been disclosed as required under Provision of AS-5:

- a) Increase in the amount of Current liabilities & Provision(net) by ₹967.06 lakhs(Sch-6 C) with the corresponding decrease in Corpus/General fund by similar amount due to providing liabilities towards unspent balance of non-plan grant as against the earlier policy/practice of not providing any liability there against and recognizing the entire non-plan grant as Income.
- b) Depiction of TEQIP Phase-I Fund (₹1031.66 lakh), Earthquake Engineering NPEE (₹14.28 lakh), Sponsored Project (R & D) Fund (₹194.65 lakh) and AICTE Sponsored Project Fund (₹190.57 lakh) under General Fund (Schedule-2) instead of earlier year's practice of reflecting the funds under Designated/Earmarked Fund had

resulted in overstatement of General Fund of ₹1431.16 lakh and understatement of Designated/Earmarked Fund by similar amount.

- c) The unutilized amount of Plan grant had been exhibited in Restricted Funds Account (Schedule-4) instead of showing under Designated/Earmarked Funds as per earlier policies resulting in overstatement of Restricted Funds by ₹152.06 crore and understatement of Designated/Earmarked Funds by equal amount.

The Restricted Funds had also been understated by ₹2623.32 lakh and Designated/Earmarked Funds had been overstated by equal amount as the balances under Depreciation Fund (₹1258.42 lakh), Maintenance Fund (₹1254.48 lakh), Staff Development Fund (₹110.41 lakh), Library Development Fund (₹0.01 lakh) had been shown under Designated/Earmarked Funds instead of earlier year's Policy of showing under Restricted Funds.

- d) Increase in the amount of depreciation by ₹1.48 lakh (Campus Development/Beautification: ₹0.85 lakh and Children Park : ₹0.63 lakh) due to providing depreciation on those assets @ 5% instead of earlier policy of not providing depreciation thereon.

**3.3** As a departure from earlier policy as well as Provisions of AS-12, depreciation provided on assets created out of Government Grant (₹1467.42 lakh) and withdrawal of equal amount of grant money had been directly reflected under Restricted Funds Account instead of routing those through Income & Expenditure Accounts.

**3.4** The declaration made under Sl. No.-5 of Notes to Accounts that depreciation is applied at the rate as per AS-6 is not correct. The depreciation on Fixed Assets had been provided for at the rates determined by the Institute.



**3.5** In violation to the instructions of Uniform Format of Accounts, no liabilities towards the retirement benefits payable to the officials/staffs had been provided for. The fact of non-provision had also not been disclosed.

**3.6** The Institute had not followed the 'Pattern of Investment' prescribed by the Government of India, Ministry of Finance Notification dated 14 August 2008 in respect of the investment towards Contributory Provident fund and had kept whole amount of ₹ 26.62 crore in Fixed Deposit.

#### **D. Grants-in-aid**

The Institute is mainly financed by grants from the Government of India. During the year(2013-14), the Institute had received total grants of ₹145.68crore both under Plan and Non Plan heads (Plan received ₹ 85.76 crore and receivable of 2012-13 ₹ 23.28 crore and Non Plan received ₹26.75 crore and receivable of 2012-13 ₹ 9.89 crore). The Institute had spent ₹173.36 crore (Plan Capital ₹142.54 crore, Non-Plan-₹30.82 crore) out of grants received both under Plan & Non-Plan heads resulting in net excess expenditure<sup>1</sup> of ₹ 27.68 crore (Plan (-) ₹33.50 crore and non Plan (+) ₹5.82 crore). The excess expenditure was met out of previous year's unspent balance.

Besides above, the Institute had received main Project grants under ICCSR& MCIT of ₹ 14.54 lakh (ICCSR-₹ 1.03 lakh and MCIT-₹13.51 lakh ). The Institute had spent ₹ 22.48 lakh( ICCSR-₹ 3.98 lakh and MCIT-₹ 18.50 lakh )out of grants received under Project account resulting in an excess expenditure of ₹ 7.94 lakh which was met from the opening balance of the previous year.

<sup>1</sup> Excess expenditure was shown as the Institute had deposited and paid advances lump sum amounts with the construction agencies and provided for liabilities for expenditure during the year 2013-14 and all those advances and provisions were shown as expenditure by the Institute.

Further, the Institute had also received a total amount of ₹ 5.50 crore under the World Bank assisted Technical Education Quality Improvement Programme (TEQIP-Phase II) from the Government of India and had spent ₹ 7.91 crore during the year 2013-14. The excess expenditure of ₹ 2.41 crore was met from the unspent balance of previous year and encashed amount of Investment.

**E. Net Effect**

The net impact of the comments given in the preceding paragraphs is that the Assets and Liabilities of the Institute Balance Sheet as at 31 March, 2014 were overstated by ₹ 18.74 crore and the excess of income over expenditure was overstated by ₹ 0.20 crore for the year ended 31 March, 2014

**F. Management Letter**

Deficiencies which have not been included in the Audit Report have been brought to the notice of the Director, National Institute of Technology, Silchar through a management letter issued separately for remedial/corrective action.

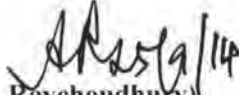
v. Subject to our observations in the preceding paragraphs, we report that the Balance Sheet and Income and Expenditure Account dealt with by this report are in agreement with the books of accounts.

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

- a.* in so far as it relates to the Balance Sheet, of the state of affairs of the National Institute of Technology, Silchar as at 31 March 2014 and
- 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 C&AG of India**

Place:- Kolkata  
Date:- 25.09.2014

  
(A. Roychoudhury)  
Director General of Audit  
Central :: Kolkata

### Annexure

#### 1. Adequacy of Internal Audit System:

- Institute had appointed one Internal Audit Officer on 23.11.2011 and no staffs were posted to assist the said officer for pre-auditing/post-auditing. All purchase matters are routed through the said officer. Some of financial matters which require audit assistance are sent to the officer for scrutiny and comments. The Institute had not appointed any agency for conducting Internal Auditing. Thus there was very limited internal audit in the Institute.
- No periodic internal audit report was generated.
- There is no Internal Audit manual in use.

#### 2. Adequacy of Internal Control System:

- Accounts are not coded.
- Cash in hand and cash in transit are not covered by any insurance.
- All Fixed Assets are not covered by insurance.

#### 3. System of Physical verification of Assets:

- Fixed Asset (Sch-7) exhibited ₹ 281.86 lakh (Net block) as closing balance of library books at the year ended 31 March 2014. However progressive value of books was not recorded in the Accession Register. The Institute had also not conducted the physical verification of the books since inception till date(31.03.2014). In absence of the progressive value of books recorded in the Accession Register and for not conducting physical verification since inception till date(31.03.14), actual existence as well as the condition of the books as exhibited in the Schedule-7, under the head "Library Books" (₹517.39 lakh) could not be verified. Despite mention in the previous year's Management letter the Institute had not conducted physical verification on other



assets. However, the Institute started to conduct department wise physical verification of the assets for the year 2013-14 from April 2014 yet the Fixed Asset Register was not maintained as per form GFR 40 of General Financial Rules.

**4. Statutory Liabilities:**

- The Institute had not disposed of the statutory dues for more than one year as detailed below:-

(i) Income Tax Payable (Salary): ₹ 0.23 lakh

(ii) VAT Payable: ₹0.04 lakh





**Statement of Accounts  
of  
National Institute of Technology  
Silchar**

**For the Year 2013 - 2014**

## NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

## BALANCE SHEET AS AT 31ST MARCH, 2014

*(Amount in Lacs)*

	Schedule	Current Year	Previous Year
<b>SOURCES OF FUND</b>		₹	₹
Unrestricted Funds			
Corpus General Fund Designated/Earmarked Funds	1	1,503.28	742.00
Restricted Funds	2	23,313.46	4,455.06
Loans/Borrowings	3	3,188.95	30,109.38
Current liabilities & Provisions	4	15,206.46	0.00
	5	0.00	0.00
	6	4,023.79	967.06
<b>TOTAL</b>		<b>47,235.94</b>	<b>36,273.49</b>

<b>APPLICATION OF FUNDS</b>			
<b>Fixed Assets</b>			
Tangible Assets	7	20,407.14	18,710.23
Intangible Assets		204.34	82.33
Capital Work - In- Progress		14,219.96	4,444.71
<b>Investments</b>			
Long Term	8	3,345.65	1,641.86
Short Term		336.65	36.43
<b>Current Assets</b>	9	1,509.82	4,446.23
<b>Loans, Advances &amp; Deposits</b>	10	7,212.39	6,911.71
<b>TOTAL</b>		<b>47,235.94</b>	<b>36,273.49</b>

Dated, Silchar  
The 12th May 2014

Registrar

Director

**NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM**  
**INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH, 2014**

INCOME	Schedule	Current Year			Restricted Fund	Total	Previous Year Total
		Unrestricted Fund					
		Corpus	Designated Fund	General Fund			
Academic receipts	11			937.10	937.10	1,003.79	
Grants & Donations	12			4,303.66	4,303.66	3,989.00	
Income from Investments	13			-	-	-	
Other Incomes	14			216.84	216.84	242.00	
<b>TOTAL (A)</b>				<b>5457.60</b>	<b>5457.60</b>	<b>5234.79</b>	
<b>EXPENDITURE</b>							
Staff Payments & Benefits	15			3,147.10	3,147.10	2,598.00	
Academic expenses	16			389.27	389.27	36.82	
Administrative & general Expenses	17			558.86	558.86	1,494.60	
Transportation Expenses	18			16.20	16.20	21.60	
Repairs & Maintenance	19			191.89	191.89	157.30	
Finance Costs	20			-	-	-	
Other Expenses	21			0.35	0.35	13.85	
<b>TOTAL (B)</b>				<b>4,303.66</b>	<b>4,303.66</b>	<b>4,322.17</b>	
<b>Balance being excess of Income over Expenditure (A-B)</b>				1,153.94	0	912.62	
<b>Transfer Corpus/General Fund (Balance of Surplus) to</b>		700.00		453.94			
				1,153.94	0	912.62	

Dated, Silchar

The 12th May 2014

Registrar

Director

**NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2014**

*(Amount in Lacs)*

	Current Year		Previous Year	
	₹	₹	₹	₹
<b>SCHEDULE 1 -CAPITAL FUND:</b>				
Balance as at the beginning of the year		742.00		139.66
Add: Contributions Towards Corpus	61.29	-	602.34	-
Fund Add: Surplus of Income over Expenditure	700.00	-		-
Deduct: Assests written off during the year	--	-		-
		761.29		602.34
<b>BALANCE AT THE YEAR - END</b>		<b>1,503.28</b>		<b>742.00</b>

Dated, Silchar

The 12th May 2014

## NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

### SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2014

*(Amount in Lacs)*

SCHEDULE 2 - GENERAL FUND	Current Year		Previous Year	
	₹	₹	₹	₹
Balance as at the Beginning of The Year				
02.01 Capital Fund	3,023.91		-2,534.50	
02.03 TEQIP Phase I Fund	1,031.66		1,031.66	
02.04 Earth Quake Engineering NPEEE	14.28		14.28	
02.05 Sponsored project (R&D) Fund	194.65		179.71	
02.06 AICTE Sposored Project Fund	190.57		114.86	
<b>Total</b>		4,455.06		-1,194.00
Add: Contribution towards General Fund	21,318.18			
Add: Capital fund utilised			6,116.76	
Add/Deduct : Balance of Net Income transferred from			368.42	
Add/Deduct: Capital Reserve (Support from MNRE in			243.00	
02.06 AICTE Sposored Project Fund			75.71	
02.05 Sponsored project (R&D) Fund			14.94	
Deduct: General Fund & Reserve during the year	-2,459.78			6,818.82
Add: Contributions Towards General Fund (Surplus of			-1,089.79	
Less: Depreciation on Grant Assets during the year			-79.97	
		18,858.40		-1,169.76
<b>BALANCE AT THE YEAR - END</b>		<b>23,313.46</b>		<b>4,455.06</b>

Dated, Silchar

The 12th May 2014

**NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM**  
**SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2014**

SCHEDULE 3 - DESIGNATED/EARMARKED FUNDS	(Amount in Lacs)				
	3.01 Plan Grant fund	3.02 Pension Fund	3.03 Depreciation Fund	Schedule 3A Current Year	Previous year
<b>a) Opening balance of the funds</b>	27,219.16		1,192.42	28,411.59	24,464.54
<b>b) Additions to the Funds:</b>					
i. Donations/Grants					9,528.00
ii. Income from Investments made of the funds			0.25	0.25	160.98
iii. Accrued Interest on Investments of the Funds		110.00	56.82	56.82	55.95
iv. Other additions (specify nature)			8.93	118.93	557.16
<b>TOTAL (a+b)</b>	<b>27,219.16</b>	<b>110.00</b>	<b>1,258.42</b>	<b>28,587.58</b>	<b>34,766.63</b>
<b>c) Utilisation/Expenditure towards objectives of funds</b>					
<b>i. Capital Expenditure</b>					
- Fixed Assets					6,116.76
- Others					
<b>TOTAL</b>					<b>6,116.76</b>
<b>ii. Revenue Expenditure</b>					
Salaries, Wages and allowances etc.					233.94
Rent					
Other Administrative expenses	27,219.16			27,219.16	4.34
<b>iii. Other Adjustment</b>					
<b>TOTAL</b>	<b>27,219.16</b>			<b>27,219.16</b>	<b>238.28</b>
<b>TOTAL (c)</b>	<b>27,219.16</b>			<b>27,219.16</b>	<b>6,355.04</b>
<b>NET BALANCE AT THE YEAR END (a+b-c)</b>	<b>0.00</b>	<b>110.00</b>	<b>1,258.42</b>	<b>1,368.42</b>	<b>28,411.59</b>

Note: Opening Balance of Plan Grant fund reclassified and accounted at Schedule-2 (Rs.1982410533) and Schedule-4 (Rs.73950938)

**Dated, Silchar**  
**The 12th May 2014**



**NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM**  
**SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2014**

SCHEDULE 3 - DESIGNATED/EARMARKED FUNDS	<i>(Amount in Lacs)</i>			
	3.04 Maintenance Fund	3.05 Staff Development Fund	3.06 Student Welfare Fund	Schedule 3B Current Year Previous year
a) Opening balance of the funds	1,192.94	96.41		1,289.35
b) Additions to the Funds:				
i. Donations/Grants				
ii. Income from Investments made of the funds	0.26	0.05		0.31
iii. Accrued Interest on Investments of the Funds	59.22	8.45		67.67
iv. Other additions (specify nature)	2.06	5.49	1.69	9.25
<b>TOTAL (a+b)</b>	<b>1,254.48</b>	<b>110.41</b>	<b>1.69</b>	<b>1,366.58</b>
c) Utilisation/Expenditure towards objectives of funds				
i. Capital Expenditure	0			
- Fixed Assets				
- Others				
<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
ii. Revenue Expenditure				
Salaries, Wages and allowances etc.				
Rent				
Other Administrative expenses				
<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>TOTAL (c)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>NET BALANCE AT THE YEAR END (a+b-c)</b>	<b>1,254.48</b>	<b>110.41</b>	<b>1.69</b>	<b>1,366.58</b>

Dated, Silchar  
The 12th May 2014

**NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM**  
**SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2014**

SCHEDULE 3 - DESIGNATED/EARMARKED FUNDS	<i>Amount in Lacs)</i>				
	3.07 Institute Development Fund	3.08 Employee Welfare Fund	3.09 Departmental Promotion Fund	Schedule 3C Current Year	Previous year
a) Opening balance of the funds					
b) Additions to the Funds:					
i. Donations/Grants					
ii. Income from Investments made of the funds					
iii. Accrued Interest on Investments of the Funds	6.77	1.69	6.77	15.22	
iv. Other additions (specify nature)	6.77	1.69	6.77	15.22	0
<b>TOTAL (a+b)</b>					
c) Utilisation/Expenditure towards objectives of funds					
i. Capital Expenditure					
- Fixed Assets					
- Others					
<b>TOTAL</b>	0.00	0.00	0.00	0.00	0
ii. Revenue Expenditure					
Salaries, Wages and allowances etc.					
Rent					
Other Administrative expenses					
<b>TOTAL</b>	0.00	0.00	0.00	0.00	0
<b>TOTAL (c)</b>	0.00	0.00	0.00	0.00	0
<b>NET BALANCE AT THE YEAR END (a+b-c)</b>	6.77	1.69	6.77	15.22	0

Dated, Silchar

The 12th May 2014

**NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM**  
**SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2014**

SCHEDULE 3 - DESIGNATED/EARMARKED FUNDS	Amount in Lacs)			
	3.10 Library Development Fund	3.11 Book Bank SC/ ST Fund	3.12 Saswata Purkayastha Fund	Schedule 3D Current Year Previous year
a) Opening balance of the funds	0.01	4.57		4.57
b) Additions to the Funds:				0.30
i. Donations/Grants				
ii. Income from Investments made of the funds				
iii. Accrued Interest on Investments of the Funds			0.04	
iv. Other additions (specify nature)			0.04	0.04
<b>TOTAL (a+b)</b>	<b>0.01</b>	<b>4.57</b>	<b>0.04</b>	<b>4.61</b>
c) Utilisation/Expenditure towards objectives of funds				
i. Capital Expenditure				
- Fixed Assets				
- Others				
<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
ii. Revenue Expenditure				
Salaries, Wages and allowances etc.				
Rent				
Other Administrative expenses				0.29
iii. Others	0.01	4.57	0.04	4.61
<b>TOTAL</b>	<b>0.01</b>	<b>4.57</b>	<b>0.04</b>	<b>4.61</b>
<b>TOTAL (c)</b>	<b>0.01</b>	<b>4.57</b>	<b>0.04</b>	<b>4.61</b>
<b>NET BALANCE AT THE YEAR END (a+b-c)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>4.58</b>

Dated, Silchar  
The 12th May 2014

**NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM**  
**SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2014**

SCHEDULE 3 - DESIGNATED/EARMARKED FUNDS	<i>Amount in Lacs</i>			
	3.13 Gratuity Fund	3.14 Virtual Classroom Fund	3.15 NMICT Awareness Program Fund	Schedule 3E Previous year
a) Opening balance of the funds	378.1	8.64	5.00	340.97
b) Additions to the Funds:				
i. Donations/Grants				108.62
ii. Income from Investments made of the funds	14.82			0.18
iii. Accrued Interest on Investments of the Funds	18.30			30.02
iv. Other additions (specify nature)				
<b>TOTAL (a+b)</b>	<b>411.23</b>	<b>8.64</b>	<b>5.00</b>	<b>479.78</b>
c) Utilisation/Expenditure towards objectives of funds				
i. Capital Expenditure				
- Fixed Assets				8.30
- Others				
<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>8.30</b>
ii. Revenue Expenditure				
Salaries, Wages and allowances etc.				79.74
Rent				
Other Administrative expenses			0.14	0.14
iii. Others		6.72		6.72
<b>TOTAL</b>	<b>0.00</b>	<b>6.72</b>	<b>0.14</b>	<b>79.74</b>
<b>TOTAL (c)</b>	<b>0.00</b>	<b>6.72</b>	<b>0.14</b>	<b>88.04</b>
<b>NET BALANCE AT THE YEAR END (a+b-c)</b>	<b>411.23</b>	<b>1.92</b>	<b>4.86</b>	<b>391.74</b>

Dated, Silchar

The 12th May 2014

**NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM**  
**SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2014**

SCHEDULE 3 - DESIGNATED/EARMARKED FUNDS	3.16		Schedule 3E	
	Student Aid Fund		Current Year	Previous year
a) Opening balance of the funds	12.13		12.13	9.39
b) Additions to the Funds:				
i. Donations/Grants				
ii. Income from Investments made of the funds				
iii. Accrued Interest on Investments of the Funds				
iv. Other additions (specify nature)	9.94		9.94	3.24
<b>TOTAL (a+b)</b>	<b>22.06</b>	<b>0</b>	<b>22.06</b>	<b>12.63</b>
c) Utilisation/Expenditure towards objectives of funds				
i. Capital Expenditure				
- Fixed Assets				
- Others				
<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>8.30</b>
ii. Revenue Expenditure				
Salaries, Wages and allowances etc.				
Rent				
Other Administrative expenses	1.33		1.33	0.50
iii. Others	0.00		0.00	0.00
<b>TOTAL</b>	<b>1.33</b>	<b>0</b>	<b>1.33</b>	<b>0.50</b>
<b>TOTAL (c)</b>	<b>1.33</b>	<b>0</b>	<b>1.33</b>	<b>0.50</b>
<b>GRAND TOTAL (Schedule A to F)</b>	<b>20.73</b>	<b>0</b>	<b>3,188.95</b>	<b>30,109.38</b>

Dated, Silchar

The 12th May 2014

**NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR: ASSAM**  
**SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2014**

SCHEDULE 4 RESTRICTED FUNDS	04.01 Plan Grant						4.02		(Amount in Lacs)	
	Plan Grant General 112-31	Plan Grant General 112-35	Plan Grant SC 789-31	Plan Grant SC 789-35	Plan Grant ST 796-31	Plan Grant ST 796-35	Plan Grant Liability	Current Year	Previous year	
a) Opening balance of the funds	200.00	6321.06	0.00	649.00	0.00	225.00		7395.06		
b) Additions to the Funds:										
i. Donations/Grants	2846.03	5239.88	819.20	768.13	529.20	297.56		10500.00		
ii. income from Investments Made of the Funds										
iii. Accrued interest on Investment of the Funds										
iv. Other additions							13061.59	13061.59	0.00	
<b>TOTAL (a+b)</b>	<b>3046.03</b>	<b>11560.94</b>	<b>819.20</b>	<b>1417.13</b>	<b>529.20</b>	<b>522.56</b>	<b>13061.59</b>	<b>30956.65</b>	<b>0.00</b>	
c) Utilisation/Expenditure towards										
i. Capital Expenditure										
- Fixed Assets		11121.91	0.00	1417.13	0.00	522.56	1467.42	14529.01		
- Others										
<b>TOTAL</b>	<b>0.00</b>	<b>11121.91</b>	<b>0.00</b>	<b>1417.13</b>	<b>0.00</b>	<b>522.56</b>	<b>1467.42</b>	<b>14529.01</b>	<b>0.00</b>	
ii. Revenue Expenditure										
Salaries, Wages and allowances			600.48		320.26			920.74		
Rent										
Other Administrative expenses										
Stipend	300.45							300.45		
<b>TOTAL</b>	<b>300.45</b>	<b>0.00</b>	<b>600.48</b>	<b>0.00</b>	<b>320.26</b>	<b>0.00</b>	<b>0.00</b>	<b>1221.18</b>	<b>0.00</b>	
<b>TOTAL (c)</b>	<b>300.45</b>	<b>11121.91</b>	<b>600.48</b>	<b>1417.13</b>	<b>320.26</b>	<b>522.56</b>	<b>1467.42</b>	<b>15750.20</b>	<b>0.00</b>	
<b>NET BALANCE AT THE YEAR END (a+b-c)</b>	<b>2745.58</b>	<b>439.04</b>	<b>218.72</b>	<b>0.00</b>	<b>208.94</b>	<b>0.00</b>	<b>11594.17</b>	<b>15206.46</b>	<b>0.00</b>	

Dated, Silchar

The 12th May 2014



**NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR: ASSAM**  
**SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2014**

*(Amount in Lacs)*

SCHEDULE 5 - LOANS AND BORROWINGS:	Current Year		Previous Year	
<b><u>SECURED LOANS</u></b>				
1. Central Government			-	
2. State Government (Specify)			-	
3. Financial Institutions				
a) Term Loans	-		-	
b) Interest accrued and due	-	-	-	-
4. Banks:				
a) Term Loans	-		-	
- Interest accrued and due				
b) Other Loans (Specify)	-		-	
- Interest accrued and due				
5. Other Institutions and Agencies	-		-	
6. Debentures and Bonds	-		-	
7. Others (Specify)	-		-	
<b>TOTAL</b>		-		-
<b><u>UNSECURED LOANS</u></b>				
1. Central Government	-		-	
2. State Government (Specify)	-		-	
3. Financial Institutions				
a) Term Loans	-		-	
b) Interest accrued and due	-	-	-	-
4. Banks:				
a) Term Loans	-		-	
- Interest accrued and due				
b) Other Loans (Specify)	-		-	
- Interest accrued and due				
5. Other Institutions and Agencies	-		-	
6. Debentures and Bonds	-		-	
7. Fixed Deposits				
<b>TOTAL</b>		-		-

Dated, Silchar

The 12th May 2014

**NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR: ASSAM**  
**SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2014**

Schedule 6 A	(Amount in Lacs)			
CURRENT LIABILITIES AND PROVISIONS	Current Year		Previous Year	
06.02.01 Hostel Caution Money	135.68		113.60	
06.02.02 Institute Caution Money	67.32		59.08	
06.02.03 Foreign Student Security Deposit	1.50	204.51	1.50	174.18
<b>06.03 Sundry Creditors</b>				
06.03.01 Creditors for Goods& Services				
06.03.01.01 CPWD (Payable)	0.36			
06.03.01.02 M/s Avi Plast			1.34	
06.03.01.03 M/s BMG Informatics	0.30		0.30	
06.03.01.04 M/s Book Emporium			0.22	
06.03.01.05 M/s Chekmate Services Pvt Ltd (Payable)	0.43			
06.03.01.06 M/s Computer World			0.61	
06.03.01.07 M/s Godrej & Boyce Mfg Co Ltd	4.40			
06.03.01.08 M/s Kali Bhandar			0.72	
06.03.01.09 M/s NCC Ltd (Payable)				
06.03.01.10 M/s Researchco Book Centre			0.79	
06.03.01.11 M/s Sibyl Marketing Ltd			1.09	
06.03.01.12 M/s Space Wood Furnishers Pvt Ltd	0.52		0.52	
06.03.01.13 M/s Square Systems			2.44	
06.03.01.14 Earnest Money Deposit	35.90		32.58	
06.03.01.15 Security Deposit	204.63		135.70	
06.03.01.16 M/s Gangwal Engg & Const. P Ltd	0.30		0.30	
06.03.01.17 M/s M.K Agarwal	2.81		2.81	
06.03.01.18 M/s Nexgen Funitures	1.41		1.41	
06.03.01.19 M/s Northeastern Traders	0.80		0.80	
06.03.01.20 M/s S.M Khetwat	3.23		3.23	
06.03.01.21 Load Security of Phd Hostel	0.09	255.18		184.88
06.03.02 Sundry Creditors Others				
06.03.02.01 Security Money (ATM)	0.10	0.10	0.10	0.10
<b>06.05 Statutory Liabilities</b>				
06.05.01 GSLI Payable	0.69	0.69	0.69	0.69
<b>06.06 Other Current Liability</b>				
06.06.01 NRFCC BRNS Projects	1.12			
06.06.02 Gratuity Fund- From Other Organisation	2.46			

Schedule 6 A	(Amount in Lacs)			
	CURRENT LIABILITIES AND PROVISIONS		Current Year	Previous Year
06.06.03 Alumini Association Fee		22.66		14.11
06.06.04 K.K Mrinalini Kroni Gold Medal Fund		1.00		
06.06.05 CSIR - NISTADS				
06.06.06 29th Convention Seminer(Library)		2.09		0.09
06.06.07 Acdd Intt From Inv.of Caution Money				7.31
06.06.08 CCTV Payable		15.47		11.40
06.06.09 Children Education Allowance Payable				0.01
06.06.10 Court Recovery Payable				
06.06.11 DASA		0.79		0.79
06.06.12 Deposit Remittance		4.59		5.84
06.06.13 Group Insurance Claim		1.69		6.18
06.06.14 Gymkhana		44.28		39.19
06.06.15 Hostel Management		14.02		1.35
06.06.16 Hostel Welfare		1.47		0.70
06.06.17 HTC Exp Payable				0.10
06.06.18 Institute Share on Consultancy				
06.06.19 Intel Big Idea		0.23		0.23
06.06.20 JEE (MAIN)-2013		0.00		
06.06. 21Leave Encashment Payable				8.75
06.06.22 Leave Encashment Payable (Other Org)		0.96		
06.06.23 Liability to CCB				1.80
06.06.24 Liability Towards DCRG		1.20		
06.06.25 L.I.C.I Payable		5.29		9.74
06.06.26 LTC Exp Payable				0.17
06.06.27 Mediclaim Insurance		2.11		5.02
06.06.28 Mess Advance		9.49		18.64
06.06.29 Mess Dues		0.12		0.12
06.06.30 Mess Establishment		38.81		26.99
06.06.31 Outside Scholarship Payable		23.32		33.31
06.06.32 Payable to TEQIP-II (TA Adv)		0.30		
06.06.33 Processing Charges		0.77		0.57
06.06.34 Red Ribbon Club		0.05		0.14
06.06.35 Refundable Excess Deposit		3.96		5.69
06.06.37 Seminar Grant				0.50
06.06.38 Salary Teach/Admin Payable				0.94
06.06.39 Student Mediclaim Payable		1.18		
06.06.40 Fees Received In Advanced		235.62		

Schedule 6 A	(Amount in Lacs)			
CURRENT LIABILITIES AND PROVISIONS	Current Year		Previous Year	
06.06.41 Visiting Fellowship	0.28		0.28	
06.06.42 Transcript Fee	6.88	442.20	5.98	205.95
06.06.43 Soil Test Charges (Payable)				
<b>6.B.Provisions</b>				
6.B.1.Provision (Tax)				
6.B.1 Income Tax Payable (Contractor A/c)				
6.B.1.Income Tax Payable(Salary)	0.23		0.23	
6.B.1.Labour Cess Payable				
6.B.1.Service Tax Payable				
6.B.1.VAT Payable	0.04		0.04	0.28
Professional Tax				
6.B.3.Superannuation/Pension				
6.B.3.Pension Payable	0.30		40.40	40.40
6.B.5.Outstanding Exp	117.46		70.20	70.20
Provision Others				
6.C.1 Provision for Works Contract	1950.92			
6.C.1.Provision - Plan (Others)	275.53	2344.49		
<b>Grand Total</b>	<b>3247.16</b>	<b>3247.16</b>		<b>676.67</b>
<b>Schemes and Project</b>	<b>(Amount in Lacs)</b>			
CURRENT LIABILITIES AND PROVISIONS	Current Year		Previous Year	
6.B.1.Professional Tax Payable				0.00
Performance Security		0.41		0.00
06.06.36 Salary Payable (Project A/c)		0.93		1.22
Deposit Remittance				0.10
<b>Total</b>		<b>1.34</b>		<b>1.33</b>

Dated, Silchar

The 12th May 2014

**NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR: ASSAM**  
**SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2014**

*(Amount in Lacs)*

SCHEDULE -6 B	Opening Balance		Transactions		Closing Balance	
	Dr.	Cr.	Debit	Credit	Dr.	Cr.
AICTE Projects		160.17	82.44	6.04		83.78
ICSSR		2.88	3.98	1.15		0.04
KVIC PROJECTS		6.37	6.50	0.13		0.00
MCIT		21.18	25.60	14.25		9.83
DST Projects		19.24	23.26	7.11		3.09
MINISTRY OF EARTH SCIENCES		40.35	14.84	1.50		27.01
NRB		6.14	6.27	0.13		0.00
IBM		7.71	0.00	0.30		8.01
MINISTRY OF NON- RENEWABLE		25.00	15.10	0.97		10.87
<b>Grand Total</b>		<b>289.05</b>	<b>178.00</b>	<b>31.58</b>		<b>142.63</b>

Details of Project activity is appended in Separate Annexure.

**Dated, Silchar**  
**The 12th May 2014**

**NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR: ASSAM**  
**SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2014**

SCHEDULE 06 -C: Current Liability And Provision	06.06.44 Non Plan Grant		Schedule 6 C	
	Non Plan Grant General 31	Non Plan Grant Salary 36	Current Year	Previous year
<b>a) Opening balance of the funds</b>	708.52	331.61	1,040.13	0.00
<b>b) Additions to the Funds:</b>				
i. Donations/Grants	787.50	1,887.50	2,675.00	0.00
ii. Income from Investments made of the funds	0.00	0.00	0.00	0.00
iii. Accrued Interest on Investments of the Funds	0.00	0.00	0.00	0.00
iv. Other additions	0.00	0.00	0.00	0.00
<b>TOTAL (a+b)</b>	<b>1,496.02</b>	<b>2,219.11</b>	<b>3,715.13</b>	<b>0.00</b>
<b>c) Utilisation/Expenditure towards objectives of funds</b>				
<b>i. Capital Expenditure</b>				
- Fixed Assets	0.00	0.00	0.00	0.00
- Others	0.00	0.00	0.00	0.00
<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>ii. Revenue Expenditure</b>				
Salaries, Wages and allowances etc.	0.00	2,423.27	2,423.27	0.00
Rent	0.00	0.00	0.00	0.00
Other Administrative expenses	659.20	0.00	659.20	0.00
Stipend	0.00	0.00	0.00	0.00
<b>TOTAL</b>	<b>659.20</b>	<b>2,423.27</b>	<b>3,082.47</b>	<b>0.00</b>
<b>TOTAL (c)</b>	<b>659.20</b>	<b>2,423.27</b>	<b>3,082.47</b>	<b>0.00</b>
<b>NET BALANCE AT THE YEAR END (a+b-c)</b>	<b>836.82</b>	<b>-204.16</b>	<b>632.66</b>	<b>0.00</b>
<b>GRAND TOTAL (Schedule A to C)</b>			<b>4,023.79</b>	<b>967.06</b>

Dated, Silchar

The 12th May 2014

Registrar

Director



# NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR: ASSAM

## BALANCE SHEET AS AT 31ST MARCH, 2014

SCHEDULE 7 - FIXED ASSETS	GROSS BLOCK						DEPRECIATION				NET BLOCK	
	Cost/ Valuation As at beginning of the year	Additions during the year	Deductions during the year	Cost/ Valuation at the year end	As at the beginning of the year	During the year	On Deductions during the year	Total up to the year end	As at the Current year	As at the Previous year		
<b>7.1 INTANGIBLE ASSETS</b>												
7.1.01 SOFTWARE (15%)	151.27	137.04	0.00	288.31	68.94	15.03	0.00	83.97	204.34	82.33		
7.1.02.ELECTRONIC JOURNAL (100%)	42.54	128.00	0.00	170.54	42.54	128.00	0.00	170.54	0.00	0.00		
<b>TOTAL (A)</b>	<b>193.81</b>	<b>265.04</b>	<b>0.00</b>	<b>458.85</b>	<b>111.48</b>	<b>143.03</b>	<b>0.00</b>	<b>254.51</b>	<b>204.34</b>	<b>82.33</b>		
<b>7.2 TANGIBLE ASSETS</b>												
7.2.01.LAND (Freehold)	8.66	0.00	0.00	8.66	0.00	0.00	0.00	0.00	8.66	8.66		
7.2.02 BUILDING (5%)	14,990.35	1,127.27	0.00	16,117.62	2,039.38	663.46	0.00	2,702.84	13,414.78	12,950.96		
7.2.03.CAMPUS DEVELOPMENT (5%)	669.96	543.09	0.00	1,213.06	115.26	30.19	0.00	145.45	1,067.60	617.57		
7.2.04.PLANT,MACHINERY & EQUIPMENT (15%)	2,338.10	724.73	243.00	2,819.83	972.07	183.58	0.00	1,155.65	1,664.19	1,303.16		
7.2.05.VEHICLES (20%)	44.76	1.21	1.67	44.30	33.68	2.22	1.55	34.34	9.96	11.09		
7.2.06.FURNITURE, FIXTURES. (10%)	866.88	215.95	0.00	1,082.83	259.97	66.77	0.00	326.74	756.09	606.91		
7.2.07.OFFICE EQUIPMENTS (15%)	73.26	27.55	0.00	100.81	46.46	4.73	0.00	51.20	49.61	26.80		
7.2.08. COMPUTER/PERIPHERALS (30%)	991.93	136.32	0.00	1,128.25	567.81	129.58	0.00	697.39	430.86	424.11		
7.2.09. LIBRARY BOOKS (30%)	485.05	37.04	4.70	517.39	127.77	109.20	1.44	235.54	281.86	357.27		
7.2.10. TUBEWELLS & WATER SUPPLY (5%)	1,355.63	13.72	0.00	1,369.35	42.82	65.64	0.00	108.46	1,260.89	1,312.81		
7.2.11. OTHER FIXED ASSETS (30%)	71.60	440.78	0.00	512.38	12.38	69.02	0.00	81.40	430.98	59.21		
7.2.12. TEQUIP-I ASSETS	1,031.66	0.00	0.00	1,031.66	0.00	0.00	0.00	0.00	1,031.66	1,031.66		
<b>TOTAL (B)</b>	<b>22,927.84</b>	<b>3,267.67</b>	<b>249.36</b>	<b>25,946.15</b>	<b>4,217.62</b>	<b>1,324.39</b>	<b>2.99</b>	<b>5,539.01</b>	<b>20,407.14</b>	<b>18,710.23</b>		
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7.3.01 CAPITAL WORK-IN-PROGRESS	4,444.71	10,381.86	606.61	14,219.96	0.00	0.00	0.00	0.00	14,219.96	4,444.71		
<b>TOTAL ( C)</b>	<b>4,444.71</b>	<b>10,381.86</b>	<b>606.61</b>	<b>14,219.96</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>14,219.96</b>	<b>4,444.71</b>		
<b>GRAND TOTAL (A+B+C)</b>	<b>27,566.36</b>	<b>13,914.57</b>	<b>855.97</b>	<b>40,624.97</b>	<b>4,329.10</b>	<b>1,467.42</b>	<b>2.99</b>	<b>5,793.53</b>	<b>34,831.44</b>	<b>23,237.27</b>		

Dated, Silchar

The 12th May 2014

**NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR: ASSAM**  
**SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2014**

(Amount in Lacs)

SCHEDULE 8 - INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS	Current Year		Previous Year	
1. Investment In Central Government Securities				
2. In State Government Securities				
3. Other Approved Securities				
4. Shares				
5. Debentures & Bonds				
<b>6. Otherss</b>				
<b>FDR With Banks</b>				
<b>8.A.1.Long Term Investment</b>				
8.1.Investment of Corpus Fund	680.28		130.28	
8.1.Investment of Depreciation Fund	1115.97		565.97	
8.1.Investment of Gratuity Fund	357.28		303.49	
8.1.Investment of Maintenace Fund	1115.66		565.66	
8.1.Investment of Staff Development Fund	76.47		76.47	
		3345.65		1641.86
<b>8.B.1.Short Term Investment</b>				
8.1 Investment (Nonplan Fees)	300.22			
8.1.Investment of Caution Money	36.43	336.65	36.43	36.43
<b>Total</b>		<b>3682.30</b>		<b>1678.28</b>

Dated, Silchar

The 12th May 2014

**NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR: ASSAM**  
**SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2014**

SCHEDULE 9 (A)- CURRENT ASSETS, LOANS, ADVANCES ETC.	Current Year		Previous Year	
<b>1. Stock</b>				
a. Stores and Spares				
b. Loose Tools				
c. Publications				
<b>2. Sundry Debtors:</b>				
a. Debts Outstanding for period exceeding Six months				
b. Others				
<b>3. Cash balances in hand (including cheques/drafts and imprest)</b>	0.08	0.08	2.40	2.40
<b>4. Bank Balances:</b>				
<b>SH-9. Bank Accounts</b>				
<b>9.4. Other Funds</b>				
9.4.SBI-10521277818(CORPUS FUND)	42.04		2.47	
9.4.SBI-10521278197(GRATUITY FUND)	19.08		26.82	
9.4.SBI-30052416379(STAFF DEV FUN)	6.35		0.97	
9.4.SBI-30052438520(DEPRECIATION FUND)	10.15		2.74	
9.4.SBI-30052443879(MAINT.FUND)	2.92	80.55	3.52	
<b>9.4 Plan/Non Plan &amp; Scholarship A/c</b>				36.52
9.4.AXIS-10049704315 (PLAN)	11.41		0.12	
9.4.SBI-10521277057 NON PLAN	1149.98		2043.46	
9.4.SBI-10521277068 (PLAN GRANT)	43.57		2030.58	
9.4.SBI-10521278244 (SCHOLARSHIP)	24.73		33.20	
9.4.SBI-30432905766 (OBC)	10.03		9.64	
9.4.SBI-30763009570(NONPLAN FEE)	45.66	1285.38	0.12	4117.12
<b>Total</b>		<b>1366.01</b>		<b>4156.05</b>

Dated, Silchar

The 12th May 2014

**NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR: ASSAM**  
**SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2014**

(Amount in Lacs)

SCHEDULE 9 (B) - CURRENT ASSETS, LOANS, ADVANCES ETC.	Current Year		Previous Year	
<b>R &amp; D Schemes &amp; Project</b>				
<b>9.4. Projects A/cs</b>				
9.4.SBI-302335026221(SMDP-II)	0.00		5.65	
9.4.SBI-30293179613(,GT OF SOIL)	0.00		5.93	
9.4.SBI-30293190682(TUC)	3.09		2.97	
9.4.SBI-30422523520(ANNA-GA-ANFIS)	0.00		0.01	
9.4.SBI-30468295090(SOLVENT FREE OXI)	0.00		0.02	
9.4.SBI-30780415571(RPS SCHEME)	101.88		168.59	
9.4.SBI-30780416041(MODROBS)	11.83		48.01	
9.4.SBI-30879033374(RIVER BANK EROSION)	0.00		5.82	
9.4.SBI-30937813157(ENERGY & PINEAPPLE)	0.00		6.37	
9.4.SBI-31306562769(BEHAVIOUR OF CLAY)	15.99		29.09	
9.4.SBI-31306566082(REG EXTRM RAINFALL)	11.02		11.41	
9.4.SBI-31910741183(DEV OF CARBON NANO)			6.30	
<b>Total</b>		<b>143.81</b>		<b>290.18</b>
<b>GRAND TOTAL (Schedule A + B)</b>		<b>1509.82</b>		<b>4446.23</b>

Dated, Silchar

The 12th May 2014

**NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR: ASSAM**  
**SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2014**

(Amount in Lacs)

SCHEDULE 10 (A) - LOANS, ADVANCES & DEPOSITS	Current Year		Previous Year	
10.01 Advance to Employees				
10.01.01.Festival Advance	5.36		0.00	0.00
10.01.02.HTC Advance	0.19		0.00	0.00
10.01.03.LTC Advance	0.55		0.00	0.00
10.01.04 Other Advance To Employees	0.00		0.00	0.00
10.01.04.01 Recoverable Advance	12.62		1.31	0.00
10.01.04.02 TA Advance	1.20		0.00	0.00
10.01.04.03 Soft Loan (Staff)	17.51		0.00	0.00
10.01.04.04 Salary Advance		37.42	2.84	4.15
10.03.01.Advances & Other Receivable on Capital A/c			0.00	0.00
10.03.01.01.Deposit Work	2952.64		2552.88	0.00
10.03.01.02.Secured Advance	860.12		616.90	0.00
10.03.01.03.Advance - PHE Water Supply	0.65		0.65	0.00
10.03.01.04.Margin Money for LC	53.37		97.85	0.00
10.03.01.05.Mobilisation Adv- NCC Ltd	858.00	4724.78	0.00	3268.28
10.03.02.Advance to Firm	6.98	6.98	3.19	3.19
10.04.Prepaid Expenses	126.63	126.63	77.49	77.49
10.05.Deposits	5.73	5.73	5.73	5.73
10.06.Accrued Income	382.88	382.88	232.13	232.13
10.07.Other Receivable	1924.38	1924.38	3317.00	3317.00
10.08.Claims Receivable	3.43	3.43	3.53	3.53
<b>TOTAL</b>		<b>7212.23</b>		<b>6911.51</b>

SCHEDULE 10 (B) - LOANS, ADVANCES & DEPOSITS	Current Year		Previous Year	
<b>Schemes and Project</b>				
Loans & Advance	0.16		0.20	<b>0.00</b>
<b>Total</b>		<b>0.16</b>		<b>0.20</b>
<b>GRAND TOTAL (Schedule A+B)</b>		<b>7212.39</b>	<b>0</b>	<b>6911.71</b>

Dated, Silchar  
The 12th May 2014

## NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR: ASSAM

### SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE PERIOD ENDED 31ST MARCH, 2014

*(Amount in Lacs)*

SCHEDULE 11 - ACADEMIC RECEIPTS	Current Year		Previous Year	
<b>11.A. ACCADEMIC</b>				
11.A.1 Tuition fees	628.74		877.22	
11.A.2 Admission Fees	169.10		20.82	
11.A.3 Library Admission Fees	13.24		11.88	
<b>TOTAL (A)</b>		<b>811.07</b>		<b>909.92</b>
<b>11.B. EXAMINATIONS</b>				
11.B.1 Examination Fees	22.06		19.20	
<b>TOTAL (B)</b>		<b>22.06</b>		<b>19.20</b>
<b>11.C. OTHER FEES</b>			0.00	
11.C.1 Fine/Miscellaneous Fees	2.24		5.68	
11.C.2 Miscellaneous Fees	0.89			
11.C.3 Medical Fees	7.98		7.12	
11.C.4 Transportation Fees	8.01		7.28	
11.C.5 Institute fees	1.73		0.66	
11.C.6 I.T system Fees	39.63		35.66	
11.C.7 Migration fees	0.08		0.30	
11.C.8 Summer term course	8.57		15.21	
11.C.9 Training & Placements	3.05		2.75	
11.C.10 Verification Fees	0.22			
11.C.11 Light & Water Hostel	31.58			
<b>TOTAL (C)</b>		<b>103.97</b>		<b>74.66</b>
<b>11.D. SALE OF PUBLICATIONS</b>				
11.D.1 Sale of Syllabus & Question Paper etc.				
11.D.2 Sale of Prospectus including admission forms				
<b>TOTAL (D)</b>		<b>0.00</b>		<b>0.00</b>
<b>GRAND TOTAL (A+B+C+D)</b>		<b>937.10</b>		<b>1.003.79</b>

Dated, Silchar

The 12th May 2014



## NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR: ASSAM

### SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE PERIOD ENDED 31ST MARCH, 2014

*(Amount in Lacs)*

SCHEDULE 12 - GRANTS/SUBSIDIES	Current Year		Previous Year	
(Irrevocable Grants & Subsidies Received)				
1. Central Government	4,303.66	4,303.66	3,989.00	3,989.00
2. State Government				
3. Government Agencies				
4. Institutions/Welfare Bodies				
5. International Organisations				
6. Others				
<b>TOTAL</b>		<b>4,303.66</b>		<b>3,989.00</b>

Amount Actually Appropriated from Plan Recurring, General SC ST and Non Plan Grant

NON PLAN GRANT GENERAL 31	659.2
PLAN GRANT SC 789-31	600.48
PLAN GRANT ST 796-31	320.26
NON PLAN GRANT SALARIES 36	2423.27
PLAN GRANT GENERAL 112-31 (Stipend)	300.45
<b>Total</b>	<b>4303.66</b>

**Dated, Silchar**

**The 12th May 2014**

## NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR: ASSAM

### SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE PERIOD ENDED 31ST MARCH, 2014

*(Amount in Lacs)*

SCHEDULE 13 - INCOME FROM INVESTMENTS	Current Year		Previous Year	
Investment from Earmarked/Endowment Funds				
<b>1. Interest</b>				
a) On Government Securities				
b) Other Bonds/Debentures		0		0
<b>2. Income Received:</b>				
Each Fund Separately		0		0
<b>3. Income Accrued:</b>				
Each Fund Separately		0		0
<b>4. Others (Specify)</b>		0		0
<b>TOTAL</b>		<b>0</b>		<b>0</b>

**NOTE: TRANSFERRED TO EARMARKED/ENDOWMENT/CORPUS FUNDS**

Dated, Silchar

The 12th May 2014

## NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR: ASSAM

### SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE PERIOD ENDED 31ST MARCH, 2014

*(Amount in Lacs)*

SCHEDULE 14 - OTHER INCOME	Current Year		Previous Year	
<b>14.A. Income from Land &amp; Building</b>				
14.A.1 Hostel Room Rent	11.78		13.19	
14.A.2 License Fees	10.07		4.93	
14.A.3 Hire Charges of Shops, Canteen, Bank and Post Office	6.52		2.81	
14.A.4 Electricity & Water Charges	38.47		22.80	
14.A.5 Guest Room Rent	15.85		7.11	
<b>Total</b>		<b>82.70</b>		<b>50.84</b>
<b>14. B. Sale of Institute's Publications</b>				
<b>14.C. Income from Holding Events</b>				
1. Gross receipts from annual function/ sports carnival				
Less: Direct expenditure incurred on the annual function/ sports carnival				
2. Gross receipts from Fetes				
Less: Direct expenditure incurred on the Fetes				
3. Gross receipts for Educational Tours				
Less: Direct expenditure incurred on the Tours				
4. Others (to Be Specified)				
<b>Total</b>		<b>0.00</b>		<b>0.00</b>
<b>14. D. Interest on Term Deposits</b>				
a) With Schedule Banks				
b) With Non Schedule Banks				
c) With Institutions				
d) Others				
<b>Total</b>		<b>0.00</b>		<b>0.00</b>
<b>14. E. Interest on Savings Accounts</b>				
a) With Schedule Banks	110.45		51.94	
b) With Non Schedule Banks				
c) With Institutions				
d) Others				
<b>Total</b>		<b>110.45</b>		<b>51.94</b>

Dated, Silchar

The 12th May 2014

*(Amount in Lacs)*

SCHEDULE 14 - OTHER INCOME	Current Year		Previous Year	
<b>14.F. Interest on Loans</b>				
a) Employees/Staff				
b) Others				
<b>Total</b>		0.00		0.00
<b>14.G. Interest on Debtors &amp; Other Receivables</b>				
<b>Total</b>		0.00		0.00
<b>14.H. Others</b>				
14.H.1 Income from Consultancy			17.97	
14.H.2 RTI Fees	0.01			
14.H.3 Income from Royalty				
14.H.4 Sale of Application Form	2.40		2.42	
14.H.5 Transfer of depreciation on Grant assets			79.97	
14.H.6 Tender form Fees	3.88		8.03	
14.H.7 Electricity Consumption Receipts			23.84	
14.H.6 Misc Receipts	6.96			
14.H.7 Liquidated Damages against damages on furniture				
14.H.8 Profit on sale & Disposal of Assets :				
a) Owned Assets (Scrap Sale)	10.44		6.99	
b) Assets Acquired out of Grants or Received free of cost				
<b>Total</b>		23.69		139.23
<b>GRAND TOTAL (A+B+C+D+E+F+G+H)</b>		216.84		242.00

Dated, Silchar

The 12th May 2014

## NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR: ASSAM

### SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE PERIOD ENDED 31ST MARCH, 2014

*(Amount in Lacs)*

SCHEDULE 15 - STAFF PAYMENTS & BENEFITS	Current Year	Previous Year
<b>15.A.Salaries &amp; Wages</b>		
15.A.1.Salary Teach & Admin	1,195.22	915.80
15.A.2.Salary Class-III	441.42	455.94
15.A.3.Salary Class-IV	366.10	394.11
15.A.4.Salary of Cont. Staff (Teach/admin/III/IV)	175.98	183.87
15.A.5.Salary of MR Staff	83.65	90.05
15.A.6.Salary of Outsourced Staff	128.11	4.69
15.A.7.Security Services	138.30	141.36
<b>15.B.Allowances &amp; Bonus</b>		
15.B.1.Bonus	8.31	8.71
15.B.2.House Keeping	24.26	23.90
15.B.3.Leave Encashment	95.15	46.48
15.B.4.Leave Salary (Deputation)	1.05	0.00
15.B.5.Professional Dev Allowance	40.31	21.80
<b>15.C.Contribution to Provident Fund</b>		
15.C.1.Employers Contribution to CPF	6.42	90.79
<b>15.D.Contribution to Other Fund</b>		
15.D.1.NPS Contribution	44.93	7.46
15.D.2.Pension Contribution (Depu)	1.82	0.91
<b>15.E.Staff Welfare Exp</b>		
15.E.1.Mobile & Telephone Bill Reimbursement	6.89	5.77
<b>15.F.Retirement &amp; Terminal Benefits</b>		
15.F.1.Death Cum Ret. Gratuity	95.82	100.32
15.F.2.Pension	117.69	40.40
15.F.3.Commuted Pension	73.56	0.00
<b>15.G.LTC/HTC Facility</b>		
15.G.1.Home Travel Concession	7.02	4.98
15.G.1.Leave Travel Concession	38.20	16.25

*(Amount in Lacs)*

SCHEDULE 15 - STAFF PAYMENTS & BENEFITS	Current Year	Previous Year
<b>15.H.Medical Facility Including Reimbursement</b>		
15.H.1.Medical Reimbursement	20.46	18.58
15.H.2.Medicine & Dispensary Exp	16.76	9.61
<b>15.I.Children Education Allowance</b>		
15.I.Children Education Allowance	15.36	13.30
<b>15.J.Honorarium</b>		
15.J.1.Honorarium/Sitting Fees	4.32	2.90
<b>15.K TA/DA Expenses</b>		
<b>TOTAL</b>	<b>3,147.10</b>	<b>2,598.00</b>

Dated, Silchar

The 12th May 2014



## NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR: ASSAM

### SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE PERIOD ENDED 31ST MARCH, 2014

*(Amount in Lacs)*

SCHEDULE 16 - ACADEMIC EXPENSES	Current Year	Previous Year
16.01.Visiting Faculty Remuneration	2.85	0.29
16.02.Seminer & Conferences	2.10	1.85
16.03.Convocation Expenses	27.91	12.02
16.04.Contingency to Phd	3.26	3.15
16.05.Student Project Expenses	13.99	0.76
16.06.Examination Expenses	16.59	10.52
16.07.Internship Exp	0.54	0.00
16.08.Library Contingency	2.16	0.00
16.09.Lab Consumable	19.43	7.48
16.10. Stipend to M.Tech/ Ph.D	300.45	0.00
16.11.Subscription Exp	0.00	0.63
16.12. Stipend/means cum Merit Scholarship	0.00	0.12
<b>TOTAL</b>	<b>389.27</b>	<b>36.82</b>

SCHEDULE 17 - ADMINISTRATIVE & GENERAL EXPENSES	Current Year	Previous Year
17.01. Electricity & Power Charges	187.86	134.84
17.02.Water and Electricity Charges to PHE	35.39	24.27
17.03.Postage Exp	1.14	1.79
17.04.Internet Expenses	20.91	0.00
17.04.Telephone Charges	0.75	1.37
17.05.Printing and Stationary Exp	20.20	11.49
17.06.Hospitality Exp/Refreshment	4.58	2.66
17.07.Audit Fees	4.12	2.45
17.08.Professional Fee & Legal Exp	3.85	2.49
17.09.Advertisement Expenses	26.08	51.22
17.10.Board & Committee Meeting	29.41	62.10
17.11.Support for NITS KIDS School	8.65	0.00
17.11.Support to Kendriya Vidyalaya	100.00	80.00
17.13.Computer Consumable Exp	6.90	6.81
17.14.Consumable	9.18	5.85
17.15.Livergae	0.10	0.00
17.16.Gyan Sagar Exp	5.16	0.15

(Amount in Lacs)

SCHEDULE 16 - ACADEMIC EXPENSES	Current Year	Previous Year
17.17.Casual Work & Carriage	5.42	2.54
17.18.Gardening & Horticulture	9.08	21.84
17.19.News Paper & Periodicals	0.25	1.19
17.20.Training & Placement Expenses	10.45	3.33
17.21.Celebration of National Day	1.86	1.28
17.21.NCC & NSS Activities	1.90	2.42
17.22.Promotion of Rashtriya Bhasha	0.76	0.32
17.23.Joining T.A	3.51	0.00
17.23.Local Conveyance	0.16	0.00
17.23.Relocation Charges (Transportation)	3.58	0.00
17.23.TA/DA Expenses	42.46	41.55
17.24.Institute Industry Partnership Cell	4.13	0.00
17.25.Initiative to Foster Social Responsibility	1.00	0.00
17.26.BIO Gas Contingency Exp	0.35	0.00
17.28.Misc Expenditure	9.63	0.46
Depreciation (Current years figure shown under Schedule 4)	0.00	1,032.17
<b>TOTAL</b>	<b>558.86</b>	<b>1,494.60</b>
		0.00

SCHEDULE 18 - TRANSPORTATION EXPENSES	Current Year	Previous Year
Vehicles (owned by educational institutions)		
18.1.Vehilces Running Exp	14.85	20.78
18.2.Insurance Expenses- Vehicles	1.35	0.83
<b>TOTAL</b>	<b>16.20</b>	<b>21.60</b>

SCHEDULE 19 - REPAIRS & MAINTENANCE	Current Year	Previous Year
19.1.Repairs & Maintenace- Building & Others	85.59	9.32
19.2.Repairs and Maintenace- Tools Equipments	17.88	17.61
19.3.Maintenance of Furniture & Fixtures	11.50	1.44
19.4.Repairs & Maintenance- Electricity	25.53	15.69
19.5.Maintenance of D.G Set	37.89	81.54
19.6.Repairs & Maintenace of Guest House	2.65	4.66
19.7.Manitenance of Networking	9.92	26.76
19.8.Maintenance of Digital Library	0.92	0.00
19.9.Mintenance of EPBAX	0.00	0.27
<b>TOTAL</b>	<b>191.89</b>	<b>157.30</b>

Dated, Silchar

The 12th May 2014

<b>SCHEDULE 20 - FINANCE COSTS</b>	<b>Current Year</b>	<b>Previous Year</b>
20.1 Interest on Fixed Loans		
20.2 Interest on Other Loans		
20.3 Others (Specify)		
<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>
<b>SCHEDULE 21 - OTHER EXPENSES</b>	<b>Current Year</b>	<b>Previous Year</b>
21.1. Bank Charges	0.35	0.25
21.2. Irrecoverable Expenses W/off	0.00	4.19
21.3. Obsolete/unserviceable assets W/off	0.00	9.42
<b>TOTAL</b>	<b>0.35</b>	<b>13.85</b>

Dated, Silchar

The 12th May 2014

## NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR: ASSAM

### CASH FLOW STATEMENT FOR THE YEAR ENDED 31 MARCH 2014

*(Amount in Lacs)*

<b>Cash Flow from Operating Activities:</b>			
Surplus/(deficit) for the year			1,153.94
<b>Adjustments for the non-operating incomes/expenses</b>			
Depreciation			
Write offs			
Interest expenses on loans			
(Interest Income)			
(Dividend Income)			
(Grants relating to assets to the extent recognised as			
<b>Surplus /(deficit) before changes in the Current</b>			
(Increase)/Decrease in Current Assets	-300.68		
Increase/(Decrease) in Current Liabilities	3,056.73		
<b>Net Cash from Operating Activities</b>			2,756.05
<b>Cash Flow from Investing Activities:</b>			
(Purchase)/Sale of fixed assets	-11,594.17		
(Purchase)/Sale of investments	-2,004.01		
Interest received			
Dividend received			
<b>Net Cash from Investing Activities</b>			-13,598.19
<b>Cash Flow from Financing Activities:</b>			
Additions to general fund during the year (Less Eol)	18,404.46		
Grants/funds in nature of founders'/promoters' contribution	15,206.46		
Grants/funds related to assets not requiring fulfillment of	-26,920.43		
Plan Grant			
Designated /Earmarked Funds	61.29		
Endowment fund (principal sum)			
Proceeds from long term borrowings			
(Repayment of long-term borrowings)			
Interest paid on loans			

Net Cash Flow From Financing Activities			6,751.77
Net Increase /Decrease in Cash equivalents			-2,936.42
Cash and Cash equivalent at the beginning of the period			4,446.23
Cash and Cash equivalent at the end of the period			1,509.82

Dated, Silchar

The 12th May 2014

Registrar

Director

## NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR

### SCHEDULE FORMING PART OF BALANCE SHEET AND INCOME AND EXPENDITURE ACCOUNT

#### FOR THE YEAR ENDING ON 31ST MARCH 2014

#### SCHEDULE 22 NOTES TO ACCOUNTS

### General :

- (a) In compliance with the MHRD Instructions in terms of MHRD, Department of Higher Education, Govt. of India, letter No.21-16/2012/TS.II dated 21.02.2012, for implementing of new system of accounting and new uniform Accounting and Reporting format, Schedule numbers as per the new formats have been adopted. Therefore, some expenditure /receipts accounted for in the previous year in different schedules are reclassified and recast in the new formats of schedules.
- (b) In the new account format Corpus fund is defined as Endowment fund. Corpus fund shown under Earmarked Fund in the previous year is now depicted under Schedule 1 as per the new format. Capital fund is defined as General fund in the new format and thus depicted under schedule 2
- (c) Sponsored Schemes & Project is now depicted as Current Liability as required in the new accounting format and shown under Schedule 6. In the previous year this was shown as Earmarked Fund in Schedule 3.
- (d) As per General Instructions item 10 of the revised Accounting format the Annual Financial Statement for the year 2013-14 figures have been rounded to Rupees in lakhs.

#### 1. Accounting convention

The financial statements are prepared under the historical cost convention and on the basis of generally accepted Accounting principles in India. Institute's Accounts are maintained on accrual system of accounting in terms of the New System.

#### 2. Revenue recognition

- (a) Fees received are accounted on day to day basis and recorded on monthly basis in classified form in the Ledger Accounts.
- (b) Interest on deposits is accounted for on as received basis.
- (c) Grant in aid received for Capital and Revenue purposes are recognized on as and when received

#### 3. Grant-in Aid

The grant sanctioned is received in terms of GFR 211 and 212(1) Note 2 there-under and appropriated towards creation of assets and operational and maintenance (revenue) purposes. Plan Grant received for acquisition of fixed assets is recognized by capital approach and presented as Grant for creation of Capital Assets in financial statements. The value of assets acquired out of Plan Grant is accounted as Plan Grant Liability for Assets complying with the AS 12. The Plan grant sanctioned for meeting recurring expenditure such as Stipend and other operational expenditure are apportioned and taken to Income and Expenditure Account. Non Plan grant received for Salary and non-salary are accounted for as Liability and expenditure is apportioned to Income & Expenditure account.



**4. Fixed Assets:**

The Net book value of Fixed Assets are revalued and computed in terms Accounting Standard 10 (AS - 10).

**5. Depreciation:**

The Depreciation as per Accounting Standard 6 (AS - 6) is provided at "written down method" and at historical cost. Depreciation is applied to the related Asset at the rate as per AS 6. Percentage of depreciation is shown in Schedule 7 against each Asset. Depreciation amount in respect of assets procured from Plan grant is transferred to Plan Grant Liability. The Depreciation in respect of Assets procured out of Plan Grant does not affect the surplus / deficit for the year. Depreciation is worked out 100 percent on the opening balance and at the number of days from date of receipt proportionately. During the year 2012-13, Depreciation was shown under Income and Expenditure Account and now is directly transferred to Plan Grant Liability account to eliminate impact on the deficiency/excess of Income & Expenditure.

Biogas Plant which was being constructed was erroneously treated as completed asset and depreciated during 2012-13 for Rs.10539. Since this has been completed and now held under Fixed Asset the Depreciation charged during previous year has been suitably adjusted during the year 2013-14.

**6. Investments :**

Institute has invested temporary surplus in Bank Fixed Deposit Receipts, complying with the directives and the guidelines provided by the Govt. of India, Ministry of Human Resource Development on the subject. Investments are stated at cost. A Schedule showing details of Investments of various funds annexed with the Statement of Accounts.

**7. Contingent Liability**

No significant contingent liability is noticed. Therefore no provision is made for contingent Liability.

**8. Corpus Fund:**

This fund is created in compliance with Government of India, Ministry of Human Resource Development Department of Secondary and Higher Secondary Education, New Delhi letter no. F 21-7/2006-TS III dated 31 March 2006. This fund is in the nature of Endowment Fund created out of Fees of Capital nature. This fund will be administered as per Guidelines of BOG. Out of the surplus of the year 2013-14, contribution has been made to the Corpus Fund.

**9. General Fund:**

Surplus of Income and Expenditure of the year is transferred and depicted as General Fund and depicted under Schedule 2.

**10. Earmarked Fund:**

There are 14 Earmarked Funds with restriction as to the utilization. Therefore these are treated as Restricted Funds.

**11. (A) Plan Grant:**

Grant in aid is sanctioned as grant for acquisition of capital assets, general activity and for salary. It is further divided in to grant for ST and SC promotion. Therefore the Grant is accounted for in the classification in which the same is granted. Expenditure from these Grants are apportioned in relation to the ratio of number of students SC, ST to the total. Thus Salary and General Grant is apportioned and depicted as Income in the Income and Expenditure account and charged off from Plan/Non Plan Grant Account respectively. Similarly, expenditure on account of acquisition of assets is charged off Plan Grant Account and transferred to Plan Grant Liability for Assets Account. This done to distinguish value of assets procured from

Plan Grant Account and reduced by Depreciation charged. The remaining balances either surplus or deficiency is indicated in the Utilization Certificates rendered for each grant.

**11. (B) Non-Plan Grant :**

Non-Plan Grant is sanctioned separately for Salaries and Non Salaries respectively on an irrevocable basis. Expenditure there-from is apportioned and taken to Income & Expenditure

**12. Foreign Currency Transaction:**

The foreign currency transactions are accounted at the exchange rate prevailing on the date of transactions. Margin money retained by the bank to meet irrevocable Letters of Credit are shown as Current Assets.

**13. Stipend:**

Stipends to students are paid from Plan Grant as per directives of the MHRD. Stipend was accounted in the previous year as Plan Grant expenditure and stated under Earmarked Fund. In the year 2013-14 stipend amount is shown under expenditure side of Income & Expenditure accounts. Corresponding amount of appropriation from grant is shown at the income side of Income and Expenditure Account. Thus, this amount appears in the Schedule 16.

**14. Retirement Benefits :**

Retirement Benefits of employees appointed prior to the year 2004 and are entitled to Pension and terminal benefits such as Gratuity, Commuted value of Pension, Leave Encashment etc., are shown at actual as per provisions made by the Institute in the Annual Budget as Grant in Aid and provided for as per orders of the Government of India and paid as per schemes as applicable from time to time. Employees appointed after 2004 are governed by New Pension Scheme to whom on a monthly basis matching Employer's contribution is paid from the Salary Grant provided under Non-Plan Grant duly budgeted.

**15. A. Current Assets:**

Current Assets is divided into two schedules 9 and 10 one to indicate only Cash and Bank accounts and others for regular current assets to facilitate preparation of Cash flow Statement.

**15. B. Current Liabilities:**

For Sponsored R&D Schemes and Projects Sub schedules are maintained in booklet form.

**16. Sponsored Schemes and Projects**

Accounts of Sponsored schemes and Projects are maintained in separate Bank Accounts. In certain cases excess expenditure is met from contribution from Institute.

**17. Assets created out of Funds provided by Sponsors:**

Fixed assets of the Institute include assets created from grants received from Sponsors and taken over by the Institute.

**18. Assets created out of funds of TEQIP I :**

Assets created from TEQIP- I is taken over and shown separately in the books of accounts.

**20 Advance for stores/supply/Civil Constructions:**

Whenever required, advances are paid to suppliers and contractors against Bank Guarantee obtained from Nationalized Banks. In certain cases Advance as interest bearing Mobilization Advance is paid to Contractors subject to recovery from RAR advances paid to the Contractors.

**21. Letter of credits :**

Letters of credit is opened both in cases of foreign/inland procurement from Plan Grant or from Sponsored Schemes and Projects. Margin money set aside by the Bank is so accounted under Current Assets. Expenditure is accounted for on the basis of documents such as Bills, acceptance by user Department after installation and commissioning. Besides advises of settlement of margin received from bank also form part of basis for financial adjustment.

**22. Asset Accounting :**

Assets procured from Non-Plan Grant with a life of more than 3 years and of the value of Rs. 50,000.00 only is accounted as assets and is treated as Capital Assets. Assets costing less than Rs. 50,000.00 even if the same has more than 3 years life expectancy is treated as Revenue Expenditure and charged to Income and Expenditure.

Repairs/Renewals to Assets costing less than Rs. 50,000.00 even if the same results in the extension of life and enhances performance will be treated as Revenue Expenditure and charged to Income and Expenditure. Such expenditure exceeding Rs. 50,000 which extends life of the Assets and enhances performance will be treated as Capital Expenditure and Accounted as such.

Assets donated by Ministry of New and Renewal Energy costing Rs. 2.43 Crore shown as Fixed Assets earlier is now set aside and indicated at nominal value of Zero

**Silchar**

**12th May, 2014**

**REGISTRAR**

**DIRECTOR**

**NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR: ASSAM**  
**SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2014**

*(Amount in Lacs)*

SCHEDULE -6 B	Opening		Balance		Transactions		Closing Balance	
	Dr.	Cr.	Debit	Credit	Dr.	Cr.	Dr.	Cr.
AICTE Projects		160.17	82.44	6.04		83.78		
ICSSR		2.88	3.98	1.15		0.04		
KVIC PROJECTS		6.37	6.50	0.13		0.00		
MCIT		21.18	25.60	14.25		9.83		
DST Projects		19.24	23.26	7.11		3.09		
MINISTRY OF EARTH SCIENCES		40.35	14.84	1.50		27.01		
NRB		6.14	6.27	0.13		0.00		
IBM		7.71	0.00	0.30		8.01		
MINISTRY OF NON- RENEWABLE		25.00	15.10	0.97		10.87		
<b>Grand Total</b>			<b>289.05</b>	<b>178.00</b>	<b>31.58</b>	<b>142.63</b>		

# NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR: ASSAM

## SUMMARY OF SCHEMES AND PROJECTS

### Annexure Correspondent Schedule 6B

(Amount in Lacs)

Sponsoring Ministry	MCIT	DST	KVIC	MESc	ICCSR	NRB	AICTE	Non-Renewable	IBM	Total of projects
	Amt (Rs.)	Amt (Rs.)	Amt (Rs.)	Amt (Rs.)	Amt (Rs.)	Amt (Rs.)	Amt (Rs.)	Amt (Rs.)	Amt (Rs.)	Amt (Rs.)
<b>SCHEDULE 3 - EARMARKED/ENDOWMENT FUNDS</b>										
<b>a) Openia balance of the funds</b>	21.18	19.24	6.37	40.35	2.88	6.14	160.17	25.00	7.71	289.05
<b>b) Additions to the Funds:</b>										
i. Grants/Additions received during the year	13.51	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00	14.54
ii. Income from Investments made on a/c of funds	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
iii. Other additions (Interest)	0.74	0.74	0.13	1.50	0.11	0.13	5.94	0.97	0.30	10.57
iv. Loan from the Institute	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50
<b>Total (b)</b>	14.25	1.24	0.13	1.50	1.15	0.13	5.94	0.97	0.30	25.61
<b>TOTAL (a+b)</b>	<b>35.44</b>	<b>20.48</b>	<b>6.50</b>	<b>41.85</b>	<b>4.02</b>	<b>6.27</b>	<b>166.11</b>	<b>25.97</b>	<b>8.01</b>	<b>314.66</b>
<b>c) Utilisation/Expenditure towards objectives of funds</b>										
i. Capital Expenditure										
- Fixed Assets	7.89	4.82	0.00	9.51	0.00	0.00	66.33	5.26	0.00	93.80
- Others( Books/ Software)	0.82	0.00	0.00	0.00	0.07	0.00	13.29	0.00	0.00	14.18
Other Costs	0.00	0.00	0.00	4.30	0.00	0.00	0.00	0.00	0.00	4.30
Total	8.70	4.82	0.00	13.81	0.07	0.00	79.61	5.26	0.00	112.28
ii. Revenue Expenditure										
- Salaries, Wages and allowances etc.	5.62	0.24	0.00	0.62	2.16	0.32	0.00	0.62	0.00	9.57
- Overhead	2.25	0.00	0.00	0.00	0.00	0.00	0.00	7.31	0.00	9.56
- Contingency / Other Administrative expenses	1.92	0.76	0.14	0.42	1.75	0.00	2.72	1.92	0.00	9.62
Total	9.80	1.00	0.14	1.03	3.91	0.32	2.72	9.85	0.00	28.76
iii. Deduction from the fund										
- Interest	2.41	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.55
iv. Refund to Ministry/ Other Institute	4.69	11.44	6.36	0.00	0.00	5.95	0.00	0.00	0.00	28.44
<b>TOTAL (c)</b>	<b>25.6</b>	<b>17.39</b>	<b>6.50</b>	<b>14.84</b>	<b>3.98</b>	<b>6.27</b>	<b>82.33</b>	<b>15.10</b>	<b>0.00</b>	<b>172.03</b>
<b>NET BALANCE AS AT THE YEAR-END (a+b-c)</b>	<b>9.83</b>	<b>3.09</b>	<b>0.00</b>	<b>27.01</b>	<b>0.04</b>	<b>0.00</b>	<b>83.78</b>	<b>10.87</b>	<b>8.01</b>	<b>142.63</b>

**NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR: ASSAM**  
**RECEIPTS AND PAYMENTS ACCOUNT OF C. P FUND FOR THE YEAR ENDED 31ST MARCH, 2014**

RECEIPTS	Current year	Previous Year	PAYMENTS	Current year	Previous Year
Opening Balance : Cash at Bank	19,170,642	5,055,583	Final Payment made	33,948,799	22,162,542
CPF Subscription for Apr. 2013	542,218	9,181,171	Investment (Fixed Deposit)	129,824,361	13,000,000
CPF Contribution for Apr. 2013	542,218	9,178,260	Advance to subscriber	2,271,800	3,976,956
NPS Subscription	4,492,589	746,103	NPS Subscription	7,243,307	7,329,365
NPS Contribution	4,492,589	746,103	NPS Contribution	7,243,307	7,329,365
Voluntary Deposit for Apr. 2013	565,100	3,347,500	NPS Interest		3,422,342
GPF Subscription	11,295,362				
Pension Fund	16,533,354				
Interest on Fixed Deposit (Current Year)	10,670,822	1,446,501	Bank Commission	400	530
Interest on RBI Bond		55,916			
Interest received on S/B Account	382,368	182,834	Closing Balance :		
Accrued Interest Credited on Maturity of					
Investments	16,670,787	2,535,691	Cash at Bank at SBI NIT Br.	12,058,567	19,170,642
Accrued interest received from RBI Bond.		2,221,586	(A/C No. 10521278164)		
Payable against CPF Subscription	3,318				
Fixed Deposit (Matured-Face Value)	102,669,383	33,000,000			
RBI Bond (Matured)		3,800,000			
CPF Advance Recovery	4,559,791	4,894,494			
<b>TOTAL</b>	<b>192,590,541</b>	<b>76,391,742</b>		<b>192,590,541</b>	<b>76,391,742</b>

**Note: Pension Fund created on adjustment of CPF Final Payment**

**INCOME AND EXPENDITURE ACCOUNT OF C.P FUND FOR THE YEAR ENDED 31ST MARCH, 2014.**

EXPENDITURE	Current year	Previous Year	INCOME	Current year	Previous Year
Provision for interest to be credited to	24,000,000	20,153,343	Accrued Interest on FD	17,227,837	13,491,811
Bank Commission	400	665	Interest on F.D. during the year	10,670,822	9,081,934
			Interest on ICICI Bond		82,593
Excess of Income over Expenditure	4,280,627	3,088,411	Interest received on S/B A/C	382,368	200,799
(Transferred to Balance Sheet)			Interest Accrued on RBI Bond		385,282
<b>TOTAL</b>	<b>28,281,027</b>	<b>23,242,419</b>	<b>TOTAL</b>	<b>28,281,027</b>	<b>23,242,419</b>

**Note: Due to implementation of GPF cum Pension Scheme, bifurcation of fund value is under process and thus provision of interest to Subscribers' account is made.**

Dated, Silchar

The 12th May 2014

Registrar

Director



**NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR: ASSAM**  
**BALANCE SHEET OF PROVIDENT FUND ACCOUNT AS ON 31ST MARCH, 2014**

FUND & LIABILITIES	Current year	Previous Year	ASSETS	Current year	Previous Year
<b>Accumulated Capital Fund</b>	294,201,021	286,312,803	Investment (Fixed Deposit)	266,152,596	238,997,618
Less Final Payments	33,948,799	22,259,542			
Less NPS Subs., Cont. & Interest tr.to NPS a/c	0	22,881,658	Accrued interest with Bank	36,614,982	36,057,932
	260,252,222	241,171,603	Advance Outstanding	3,979,630	6,267,621
Add CPF Subscription & Contribution	1,084,436	18,359,431			
Add: GPF Subscription	11,295,362				
Add Voluntary Deposit	565,100	3,347,500			
Add: Excess provision of Last Year towards NPS Payable	720,086				
Add: Pension fund created out of Final Payment	16,533,354				
Provision of Interest to be Credited to subscribers A/C	24,000,000	22,299,605			
<b>Total Capital Fund</b>	<b>314,450,560</b>	<b>285,178,139</b>	<b>Closing Balance:</b>		
Add: Excess of Income over expenditure :			Cash at Bank at SBI NIT Br.	12,058,567	12,045,797
Add: income during the yr. 4280627.00			(A/C No. 10521278164)		
(Tr. From I/E Account)	4,280,627	9,022,882			
<b>Total Capital Fund under CPF (A)</b>	<b>318,731,187</b>	<b>294,201,021</b>			
NPS ACCOUNT					
Opening NPS payable	6,292,792				
Add:Received from CPF a/c		22881658			
Add Subscription & Contribution	8,985,178	1492206			
Less: Paid during the year	14,486,614	24373864			
Less Transferred to Accumulated Fund A/c	720,086	18081072			
Net NPS Payable (B)	<b>71,270</b>	6,292,792			
Payable against CPF Subs. To Subscriber	<b>3,318</b>				
<b>TOTAL (A+B)</b>	<b>318,805,775</b>	<b>300,493,813</b>	<b>TOTAL</b>	<b>318,805,775</b>	<b>300,493,813</b>

Note: Schedule of Investment & interest accrued upto 31.03.14 annexed

**Dated, Silchar**  
**The 12th May 2014**

Registrar

Director

## NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR: ASSAM

### Schedule of Investment & Interest accrued of C P Fund upto 31.03.2014

Sl	Name of Bank	Fixed Deposit/Bond Account No	Dated	Period	Face Value Rs.	Date of maturity	Matured Value	Accrued Int. upto 2012-13	Accrued Int. 2013-14	Accrued Int. upto 31.03.14
1	SBI	32194969292	15/02/2012		6,524,932			699,724	624,817	1,324,541
2	-do-	33117158972	10.07.2013		2,500,000			0	167,676	167,676
3	-do-	33117149707	10.07.2013		2,500,000			0	167,676	167,676
4	-do-	33117146207	10.07.2013		2,500,000			0	167,676	167,676
5	-do-	33117143727	10.07.2013		2,500,000			0	167,676	167,676
6	-do-	33600639100	21.01.2014		3,761,792			0	64,409	64,409
7	-do-	33600653624	21.01.2014		3,761,792			0	64,409	64,409
8	-do-	33600654334	21.01.2014		3,761,792			0	64,409	64,409
9	-do-	33600654800	21.01.2014		3,761,792			0	64,409	64,409
10	-do-	33600655688	21.01.2014		2,821,345			0	48,306	48,306
<b>Total (A)</b>					<b>34,393,445</b>	<b>0</b>	<b>0</b>	<b>699,724</b>	<b>1,601,463</b>	<b>2,301,187</b>
1	IDBI Bank	293107000004572	31/03/2011		2,248,835			451,310	258,562	709,872
2	-do-	293107000004589	-do-		2,248,835			451,310	258,562	709,872
3	-do-	293107000004596	-do-		2,248,835			451,310	258,562	709,872
4	-do-	293107000004602	-do-		1,102,351			221,227	126,743	347,970
5	-do-	293107000004619	-do-		1,102,351			221,227	126,743	347,970
6	-do-	293107000004626	-do-		1,102,351			221,227	126,743	347,970
7	-do-	293107000004633	-do-		15,328,283			3,166,312	1,820,576	4,986,888
8	-do-	293107000004640	-do-		15,328,283			3,166,312	1,820,576	4,986,888
<b>Total (B)</b>					<b>40,710,124</b>	<b>0</b>	<b>0</b>	<b>8,350,235</b>	<b>4,797,067</b>	<b>13,147,302</b>
1	Indian Bank	6025599411	31/03/2012		1,000,000			98,725	111,305	210,030
2	-do-	6025600075	31/03/2012		1,000,000			98,725	111,305	210,030
3	-do-	6025600803	31/03/2012		1,000,000			98,725	111,305	210,030

4	-do-	6025601885	31/03/2012							1,000,000								98,725	111,305	210,030
5	-do-	6025602816	31/03/2012							1,000,000								98,725	111,305	210,030
		<b>Total(C)</b>								<b>5,000,000</b>								<b>493,625</b>	<b>556,525</b>	<b>1,050,150</b>
1	PNB	2716	29/09/2011							8,000,000								1,607,861	907,299	2,515,160
2	-do-	2910	28/11/2011							7,500,000								1,256,083	837,644	2,093,727
3	-do-	2929	28/11/2011							7,500,000								1,256,083	837,644	2,093,727
4	-do-	3335	20/01/2012							15,000,000								2,071,414	1,652,577	3,723,991
5	-do-	3326	20/01/2012							15,000,000								2,071,414	1,652,577	3,723,991
6	-do-	3797	31/03/2012							10,000,000								790,353	1,081,570	1,871,923
7	-do-	3803	31/03/2012							10,000,000								790,353	1,081,570	1,871,923
		<b>Total(D)</b>								<b>73,000,000</b>								<b>9,843,561</b>	<b>8,050,881</b>	<b>17,894,442</b>
1	Corp. Bank	130005000568	3/31/2013							11,093,179								0	1,091,990	1,091,990
	-do-	140001000568	12/29/2013							16,955,848									396,529	396,529
		<b>Total(E)</b>								<b>28,049,027</b>								0	1,488,519	1,488,519
1	Vijaya Bank	800603311003253	2/8/2014							15,000,000								0	208,690	208,690
2	-do-	800603311003252	2/8/2014							15,000,000								0	208,690	208,690
3	-do-	800603311003254	2/8/2014							15,000,000								0	208,690	208,690
4	-do-	800603311003321	3/22/2014							10,000,000								0	26,828	26,828
5	-do-	800603311003324	3/22/2014							10,000,000								0	26,828	26,828
6	-do-	800603311003323	3/22/2014							10,000,000								0	26,828	26,828
7	-do-	800603311003322	3/22/2014							10,000,000								0	26,828	26,828
		<b>Total(F)</b>								<b>85,000,000</b>								0	733,382	733,382
		<b>GRAND TOTAL (A+B+C+D+E+F)</b>								<b>266,152,596</b>								<b>19,387,145</b>	<b>17,227,837</b>	<b>36,614,982</b>

## NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR: ASSAM

### Schedule of Investment & Interest accrued of Gratuity Fund upto 31.03.2014

Sl	Name of Bank	Fixed Deposit/Bond Account No	Dated	Face Value Rs.	Accrued Int. upto 2012-13	Accrued intt. 2013-14	Accrued Int. upto 31.03.14
1	SBI	32115391407	31/12/2011	6,260,000	744,211	599,448	1,343,659
2	-do-	32269515122	31.03.2012	4,567,987	437,423	437,423	874,846
3	-do-	32323115747	23.04.2012	2,500,000	239,396	239,396	478,792
4	IDBI	293107000004343	31/03/2011	1,328,540	266,620	152,750	419,370
5	-do-	293107000004336	31/03/2011	1,071,403	215,016	123,185	338,201
6	Vijaya Bank	800603311003251	08.02.2014	20,000,000	0	278,253	278,253
<b>Total (A)</b>				<b>35,727,930</b>	<b>1,902,666</b>	<b>1,830,455</b>	<b>3,733,121</b>
<b>Schedule of Investment &amp; Interest accrued of Corpus Fund upto 31.03.2014</b>							
1	IDBI	4435	31/03/2011	1,071,403	215,016	123,185	338,201
2	-do-	4442	31/03/2011	1,071,403	215,016	123,185	338,201
3	-do-	4466	31/03/2011	1,071,403	215,016	123,185	338,201
4	-do-	4473	31/03/2011	1,071,403	215,016	123,185	338,201
5	-do-	4459	31/03/2011	1,071,403	215,016	123,185	338,201
6	-do-	4480	31/03/2011	1,334,968	267,910	153,489	421,399
7	SBI	32115408694	31/12/2011	2,650,000	315,042	253,760	568,802
8	-do-	32269399181	31.03.2012	2,185,757	209,305	209,305	418,610
9	-do-	32323116853	23.04.2012	1,500,000	143,638	143,638	287,276
10	-do-	33761329398	31.03.2014	55,000,000			
<b>Total (B)</b>				<b>68,027,740</b>	<b>2,010,975</b>	<b>1,376,117</b>	<b>3,387,092</b>
<b>Schedule of Investment &amp; Interest accrued of Staff Development Fund upto 31.03.2014</b>							
1	IDBI	4411	31/03/2011	1,071,403	215,016	123,185	338,201
2	-do-	4404	31/03/2011	1,071,403	215,016	123,185	338,201
3	-do-	4381	31/03/2011	1,071,403	215,016	123,185	338,201
4	-do-	4398	31/03/2011	1,071,403	215,016	123,185	338,201
5	-do-	4428	31/03/2011	1,585,676	318,224	182,314	500,538
6	SBI	32115415012	31/12/2011	700,000	83,219	67,031	150,250
7	-do-	32269400369	31.03.2012	675,374	64,673	64,673	129,346
8	-do-	32323059473	23.04.2012	400,000	38,304	38,304	76,608
<b>Total (C)</b>				<b>7,646,662</b>	<b>1,364,484</b>	<b>845,062</b>	<b>2,209,546</b>
<b>Schedule of Investment &amp; Interest accrued of Maintenance Fund upto 31.03.2014</b>							
1	IDBI	4527	31/03/2011	1,071,403	215,016	123,185	338,201
2	-do-	4541	31/03/2011	1,071,403	215,016	123,185	338,201
3	-do-	4534	31/03/2011	1,071,403	215,016	123,185	338,201

4	-do-	4510	31/03/2011	1,071,403	215,016	123,185	338,201
5	-do-	4558	31/03/2011	1,071,403	215,016	123,185	338,201
6	-do-	4565	31/03/2011	1,208,543	242,538	138,953	381,491
7	PNB	3195		12,500,000	1,867,168	1,384,412	3,251,580
8	-do-	3186		12,800,000	1,911,980	1,417,638	3,329,618
9	SBI	32313794525	4/23/2012	6,700,000	641,581	641,581	1,283,162
10	-do-	32313795314	4/23/2012	9,000,000	861,826	861,826	1,723,652
11	-do-	32313796146	4/23/2012	9,000,000	861,826	861,826	1,723,652
12	-do-	33761420276	3/31/2014	55,000,000	0	0	0
<b>Total (D)</b>				<b>111,565,558</b>	<b>7,461,999</b>	<b>5,922,161</b>	<b>13,384,160</b>
<b>Schedule of Investment &amp; Interest accrued of Depreciation Fund upto 31.03.2014</b>							
1	IDBI	4497	31/03/2011	2,142,806	430,032	246,371	676,403
2	-do-	4503	31/03/2011	1,954,239	392,189	224,690	616,879
3	UBI	313109086809	31/12/2011	12,100,000	1,518,352	1,240,464	2,758,816
4	-do-	313109086793	31/12/2011	15,000,000	1,882,255	1,537,766	3,420,021
5	SBI	32313779663	4/23/2012	7,400,000	708,612	708,612	1,417,224
6	-do-	32313798610	4/23/2012	9,000,000	861,826	861,826	1,723,652
7	-do-	32313799432	4/23/2012	9,000,000	861,826	861,826	1,723,652
8	-do-	33761405327	3/31/2014	55,000,000	0	0	0
<b>Total (E)</b>				<b>111,597,045</b>	<b>6,655,092</b>	<b>5,681,555</b>	<b>12,336,647</b>
<b>Schedule of Investment &amp; Interest accrued of Caution Money Fund upto 31.03.2014</b>							
1	IDBI	4350	31/03/2011	1,071,403	215,016	123,185	338,201
2	-do-	4367	31/03/2011	1,071,403	215,016	123,185	338,201
3	-do-	4374	31/12/2011	1,499,964	301,022	172,460	473,482
<b>Total (F)</b>				<b>3,642,770</b>	<b>731,054</b>	<b>418,830</b>	<b>1,149,884</b>
<b>Schedule of Investment &amp; Interest accrued on FEE Account upto 31.03.2014</b>							
1	IDBI	33150266623	7/22/2013	30,000,000	0	1,602,724	1,602,724
2	SBI	32921378693	4/3/2013	14,000	0	1,265	1,265
3	-do-	32958920067	4/24/2013	8,000	0	663	663
<b>Total(G)</b>				<b>30,022,000</b>	<b>0</b>	<b>1,604,652</b>	<b>1,604,652</b>
<b>GRAND TOTAL (A+B+C+D+E+F+G)</b>				<b>368,229,705</b>	<b>20,126,270</b>	<b>17,678,832</b>	<b>37,805,102</b>

**NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR: ASSAM**  
**TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME [TEQIP PHASE- II]**  
**BALANCE SHEET AS AT 31ST MARCH, 2014**

S. No.	PARICULARS	SCHEDULE No.	CURRENT YEAR Rs.	PREVIOUS YEAR Rs.
A	<b>SOURCE OF FUNDS:</b>			
	<b>Opening Balance</b>		70,000,000.00	20,000,000.00
	1) Amount received from: Govt of India		55,000,000.00	50,000,000.00
	2) Contribution from:		0.00	0.00
	<b>3) Less: Excess of Expenditure over income:</b>			
	As per last Account Rs. 1,52,15,382/-			
	Add during the year Rs. 3,12,09,524/-		46,424,906.00	15,215,382.00
	<b>TOTAL</b>		<b>78,575,094.00</b>	<b>54,784,618.00</b>
B	<b>APPLICATION OF FUNDS</b>			
	1) Fixed Assets	I	49,046,030.00	3,520,530.00
	2) Investment	II	0.00	40,000,000.00
	2) Work in progress - Scheme work under implementation			
	<b>TOTAL</b>		<b>49,046,030.00</b>	<b>43,520,530.00</b>
	<b>3) A. Current Assets, Loans and Advances</b>			
	a) Cash Balance	III	29,102,578.00	86,897.00
	b) Bank Balance			10,483,191.00
	c) Advance for Capital Goods	IV	0.00	0.00
	d) Loans and Advances	V	491,531.00	1,000,000.00
	<b>TOTAL (A)</b>		<b>29,594,109.00</b>	<b>11,570,088.00</b>
	<b>B. Less: Curent Liabilities</b>			
	Earnest Money Deposit	VI	65,045.00	306,000.00
	Net Current Assets (A - B)		29,529,064.00	11,264,088.00
	<b>TOTAL</b>		<b>78,575,094.00</b>	<b>54,784,618.00</b>

Dated, Silchar  
The 12th of May, 2014

Registrar  
NIT Silchar

Director  
NIT Silchar



# NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

## TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME [TEQIP PHASE- II]

### INCOME AND EXPENDITURE ACCOUNT FOR

THE YEAR ENDED 31ST MARCH, 2014.

(Amount in Rs.)

EXPENDITURE		INCOME			
Previous Year	Particulars	Amount Rs.	Previous Year	Particulars	Amount Rs.
	<b>Incremental Operating Cost</b>				
2,383,413.00	(a) Operation & Maintenance	2,474,083.00	1,041,086.00	Interest earned	2,334,585.00
19,495.00	(b) Consumables	10,808.00	0.00	Other income	
152,514.00	(c) Salary	239,853.00			
641,139.00	Industry Institute Interaction	3,030,197.00			
4,816,477.00	Teaching & Research Assistantship	14,729,578.00	12,939,683.00	<b>Excess of Expenditure over Income</b>	31,209,524.00
1,567,978.00	Faculty & staff Development	5,544,704.00			
916,658.00	Research & Development	4,201,861.00			
559,800.00	Academic Support for weak students	596,500.00			
2,798,295.00	Institutional Mgt. Capacity Enhancement	1,499,470.00			
125,000.00	Institutional Reforms	1,217,055.00			
<b>13,980,769.00</b>	<b>Total Rs.</b>	<b>33,544,109.00</b>	<b>13,980,769.00</b>	<b>Total Rs.</b>	<b>33,544,109.00</b>

Dated, Silchar  
The 12th of May, 2014

Registrar  
NIT Silchar

Director  
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## NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

### TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME - PHASE-II [TEQIP-II]

#### SCHEDULE FOR FIXED ASSETS AS ON 31ST MARCH, 2014

*(Amount in Rs.)*

SI	Particulars	Gross Balance as on 01/04/2013	Addition during the year	Deletion during the year	Gross Balance as on 31/03/2014
1	Equipment	3,520,530	37,317,776	0	40,838,306
2	Furniture	0	0	0	0
3	Books & LRs & Software	0	8,207,724	0	8,207,724
4	Minor Works	0	0	0	0
<b>Total</b>		<b>3,520,530</b>	<b>45,525,500</b>	<b>0</b>	<b>49,046,030</b>

Dated, Silchar  
The 12th of May, 2014

Registrar  
NIT Silchar

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## NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM

### TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME [TEQIP PHASE- II

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2014

(Amount in Rs.)

Current Assets: Investment	Schedule II	Current Year	Previous year
STDR		0.00	40,000,000.00
<b>Total</b>		<b>0.00</b>	<b>40,000,000.00</b>
Current Assets, Loans and Advances:	Schedule III	Current Year	Previous year
Cash in Hand			86,897.00
Cash at Bank (SBI, NIT Branch)		29,102,578.00	10,483,191.00
<b>Total</b>		<b>29,102,578.00</b>	<b>10,570,088.00</b>
Advance for Capital Goods	Schedule IV	Current Year	Previous year
		0.00	0.00
<b>Total</b>		<b>0.00</b>	<b>0.00</b>
Loans and Advances:	Schedule V	Current Year	Previous year
T A Advance		99,842.00	0.00
Advance to Firm		0.00	0.00
Advances		391,689.00	100,000.00
<b>Total</b>		<b>491,531.00</b>	<b>100,000.00</b>
Current Liabilities :	Schedule VI	Current Year	Previous year
<b>EARNEST MONEY DEPOSIT:</b>			
Hydraulic Engineering Instrument		0.00	30,000
AIMIL Ltd.		0.00	30,000
Ultra Technologies Pvt. Ltd.		0.00	30,000
Trivium Power		0.00	48,000
Lakshya Enterprise		0.00	48,000
Maverick Technologies		0.00	48,000
Maverick Technologies		0.00	24,000
Ratnaparkhi Electronics		0.00	24,000
Reliable Enterprise		0.00	24,000
Zephyr Enterprise (India)		25,045.00	
National Instrument Systems India Pvt. Ltd		40,000.00	
<b>TOTAL</b>		<b>65,045.00</b>	<b>306,000.00</b>

Dated, Silchar  
The 12th of May, 2014

Registrar  
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**NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR : ASSAM**  
**TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME [TEQIP PHASE - II]**  
**RECEIPTS & PAYMENTS ACCOUNT FOR THE YEAR ENDED ON 31ST MARCH, 2014**

(Amount in Rs.)					
Previous Year (Rs.)	RECEIPT	Current Year (Rs.)	Previous Year (Rs.)	PAYMENT	Current Year (Rs.)
	Openina Balance :		3,520,530.00	Equipment	37,317,776.00
218.00	i) Cash in Hand	86,897.00	0.00	Furniture	0.00
17,724,083.00	ii) Cash at Bank	10,483,191.00	0.00	Books & LRs & Software	8,207,724.00
				Investment:	
			40,000,000.00	Investment	0.00
	<b>Grants-in-Aid:</b>			Loan from Institute	10,000,000.00
50,000,000.00	Received from Govt. of India	55,000,000.00		<b>Indirect Expenditure:</b>	
				<b>Incremental Operating Cost:</b>	
	Investment:		2,383,413.00	(a) Operation & Maintenance	2,474,083.00
	Investment	40,000,000.00	19,495.00	(b) Consumables	10,808.00
			152,514.00	(c) Salary	239,853.00
	<b>Other Receipts:</b>		641,139.00	Industry Institute Interaction	3,030,197.00
1,041,086.00	Interest Earned	2,334,585.00	4,816,477.00	Teaching & Research Assistanceship	14,729,578.00
	Accrued Interest on Investment		1,567,978.00	Faculty & staff Development	5,544,704.00
			916,658.00	Research & Development	4,201,861.00
	<b>Other Receipt :</b>		559,800.00	Acedemic Support for weak students	596,500.00
453,000.00	T A Advance	2,032,857.00	2,798,295.00	Institutional Management Capacity Enhancement	1,499,470.00
	Advance to Firm	2,076,983.00	125,000.00	Institutional Reforms	1,217,055.00
3,395,750.00	Advances (for workshop etc)	7,169,575.00			
26,170.00	VAT	863,505.00		<b>Other Payments :</b>	
2,704.00	Professional Tax	2,140.00	453,000.00	T A Advance	2,132,699.00
113,269.00	Income Tax	44,450.00	529,529.00	Advance to Firm	2,076,983.00

306,000.00	Earnest Money Deposit	791,045.00	4,395,750.00	Advances (for workshop etc)	6,561,264.00
	Loan from Institute	10,000,000.00	26,170.00	VAT	863,505.00
	<b>IRG:</b>		2,704.00	Professional Tax	2,140.00
	Cost of Tender paper	8,250.00	113,269.00	Income Tax	44,450.00
	Postal Charge	500.00		Earnest Money Deposit	1,032,000.00
				IRG:	
				Cost of Tender paper	8,250.00
				Postal Charge	500.00
				Closina balance :	
			86,897.00	Cash in hand	0.00
			10,483,191.00	Cash at Bank (SBI, NIT Br)	29,102,578.00
<b>73,591,809.00</b>	<b>TOTAL Rs.</b>	<b>130,893,978.00</b>	<b>73,591,809.00</b>	<b>TOTAL Rs.</b>	<b>130,893,978.00</b>

Dated, Silchar

The 12th of May, 2014

Registrar

NIT Silchar

Director

NIT Silchar





**National Institute of Technology Silchar**

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