

# ANNUAL REPORT & AUDITED ACCOUNTS 2016-17



राष्ट्रीय प्रौद्योगिकी संस्थान, मणिपुर  
**NATIONAL INSTITUTE OF TECHNOLOGY MANIPUR**

एनआईटीएम मणिपुर

## **Vision**

*The institute aims to provide the best infrastructure and amenities to the students. The institute envisions being one of the best technical institutions in South-East Asia. The institute aims to attract students from the neighbouring south-east Asian countries in view of the Act-East Policy of the Government of India. The institute strongly believes that the success of an institute lies in the faculty and will leave no stone unturned to attract the best faculty available in the country.*

## **Mission**

*The institute being accorded the status of 'An Institute of National Importance' aspires to be a knowledge hub for the region. The institute through its academic and research activities would act as an incubation centre for aspiring 'Technopreneurs'. The institute provides an ideal platform for national integration through emotional integration as half the students are from outside the state. It envisions being an institute producing human resource of world class standard who will contribute significantly in the well being of mankind.*

## Objectives

- *To nurture and develop talented young minds, encouraging creativity with academic excellence.*
- *To provide a platform to young entrepreneurs and technocrats to experiment their dreams and aspirations.*
- *To encourage faculty and students to conduct research of international standard.*
- *To produce students fulfilling the employability criteria of MNCs.*
- *To set up Laboratories with latest Equipment and other facilities.*
- *To set up international standard infrastructure for extracurricular activities.*



## ***Foreword***

*It is deemed an honour for me to present before you the 7th Annual Report along with the Annual Accounts and the Audited Report of the National Institute of Technology Manipur, Imphal, Manipur for the year 2016-17.*

*National Institute of Technology Manipur, a centrally funded Institute was set up to impart quality technical education at various levels of higher learning. It is one of the ten newly set up NITs by the Ministry of Human Resource Development, Government of India in 2010 mainly in the NE region of India. The Institute at present offers Undergraduate programmes. Postgraduate programmes and PhD programmes. The Institute offers four years full time Bachelor of Technology degree courses in Computer Science and Engineering, Electrical Engineering, Electronics and Communication Engineering, Civil Engineering and Mechanical Engineering. Two years M. Tech programmes are also offered in computer Science and Engineering, Electrical Engineering, Electronics and Communication Engineering, Civil Engineering and Mechanical Engineering. In addition the institute offers M.Sc. programme in physics, Chemistry and Mathematics and PhD programmes in all the above stream.*

*NIT Manipur introduced M. Tech programme in*



*Mechanical Engineering from the academic session 2016-17.*

*The National Institute of Technology Act, 2017, amended in 2012 declared 20 existing and 10 new NITs as Institutes of National Importance.*

*The construction of a Multipurpose Building and Boys Hostel at permanent site was entrusted to CPWD, under an MOU signed between CPWD and NIT Manipur. New streams of PG courses will also be gradually added. All efforts are being made to fill all vacant positions of faculty and non-faculty at the earliest. The placement for the passing out four batches has been very encouraging. The institute has also setup Center of Excellence in collaboration with HP-India, Powai labs, Mumbai, collaborative Learning and Innovative centre with Tata Technologies for imparting industry standard training to the students.*

*In addition to the academic activities, the students have been actively involved in organizing several cultural, technical and sports activities. The Annual Report highlights the various activities and the present status of the Institute.*

### **MHRD-NIRF RANKINGS 2017**

*A major achievement for this young Institute came through the announcement of MHRD, National*

*Institutional Ranking Framework (NIRF), India Ranking 2017 in which NIT Manipur has been placed at 87<sup>th</sup> rank among all the participating engineering institutions in the country. It also stands out as first among all the 10 newly established NITs in the country. For a new Institute like NIT Manipur which is just 7 years old, it is indeed a big achievement. The credit for this success entirely goes to the faculty members, students, research scholars as well as the officers and staff members and well-wishers of the Institute. I am sure this is just the first step towards a glorious future for the Institute and we will continue striving hard in the coming days to improve the performance.*

**UNNAT BHARAT ABHIYAN**

*The Institute has also actively participated and implemented several flagship programmes initiated by the Central Government. Under Unnat Bharat Abhiyan, 4 villages have been adopted and a water treatment reactor plant based on roughing filter and slow sand filter has been constructed and dedicated to the villagers. Awareness programmes were also conducted to make the locals understand the importance of sanitation.*

**SWACHHA BHARAT ABHIYAN**

*The Institute has been actively participating in the Swachha Bharat Abhiyan since its initiation by the Hon'ble Prime Minister of India. Several activities and cleanliness drives have been conducted under the Swachha Bharat Abhiyan on a regular basis. Several dustbins are installed in all strategic places of the Institute. Awareness campaign are also done regularly to educate the students the need for keeping the Institute campus clean.*

**GLOBAL INITIATIVE OF ACADEMIC OF ACADEMIC NETWORKS (GIAN)**

*Global Initiative of Academic Networks (GIAN), an initiative of Government of India for Higher Education was started in 2016. The major aims of GIAN are to tap the international pool of talented scientist/entrepreneurs with an objective to encourage their engagement with institutes of Higher Education in India. GIAN is aimed to augment the country's existing academic resources, accelerate the pace of quality reforms and elevate India's scientific and technological capacity to global standard.*

*I would like to take this opportunity to express my sincere appreciation to all stakeholders of the Institute who has contributed in every possible way to make NIT Manipur an Institute of repute.*

**Prof. S. Birendra Singh**

**Director, NIT Manipur**

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## 1.0 INTRODUCTION

### 1.1. Mission

The Institute being accorded the status of '*An Institute of National Importance*' aspires to be a knowledge hub for the region. The Institute through its academic and research activities would act as incubation centre for aspiring 'Technopreneurs'. The Institute provides an ideal platform for national integration through emotional integration as half the students are from outside the state. It envisions being an Institute producing human resource of world class standard who will contribute significantly in the wellbeing of mankind.

### 1.2 Vision

The Institute aims to provide the best infrastructure and amenities to the students. The Institute envisions being one of the best technical institutions in South-East Asia. The institute aims to attract students from the neighboring south-east Asian countries in view of the Act -East Policy of the Government of India. The Institute strongly believes that the success of an Institute lies in the faculty and will leave no stone unturned to attract the best faculty available in the country.

### 1.3. Objectives

- To nurture and develop talented young minds, encouraging creativity with academic excellence.
- To provide a platform to young entrepreneurs and technocrats to experiment their dreams and aspirations.
- To encourage faculty and students to conduct research of international standard.
- To produce students of industry standard.
- To set up Laboratories with latest equipment and other facilities.
- To set up international standard infrastructure for extra curriculum activities.



#### ***1.4 The System***

The Institute offers four years full time Bachelor of Technology degree courses in Computer Science Engineering, Electrical Engineering, Electronics and Communication Engineering, Civil Engineering and Mechanical Engineering. The academic session is divided into two semesters, July-Dec and Jan-May. Five days week period with at least 90 working days in each semester.

## **2.0 AN OVERVIEW**

### ***2.1 Profile***

National Institute of Technology, Manipur has been set up by the Ministry of Human Resource Development, Govt. of India to cater to the needs of thousands of students from the North East and outside in the field of Technical Education. With the support from the Govt. of Manipur, NIT Manipur started its first session on 2nd August, 2010 in Government Polytechnic, Takyel Campus. The National Institute of Technology Act, 2007, amended in 2012 declared 20 existing and 10 new NITs as Institutes of National Importance. The National Institute of Technology Manipur is one of the new NITs established. The institute is governed by the NIT Act 2007 and its statutes, and under the overall guidance of the Board of Governors and the Hon'ble President of India functions as the Visitor of the Institute.

In status it is regarded equivalent to a Central University. Half of students admitted to NITs are reserved for the students from the state where they are located and the other 50% is taken from the rest of the country through Central Seat Allocation Board on the basis of their JEE (Main) ranking and marks obtained in Class XII Board examination.

### ***2.2 Temporary Campus***

The temporary campus is located at Government Polytechnic Campus, Takyel, Imphal. The campus has two Boys hostels, one Girls Hostel and an Academic Block. The campus is hardly 4 km from the main market. The Institute shares the existing facility of playgrounds, indoor stadium, basketball court etc. with Government Polytechnic College.

### 2.3 Permanent Campus

The first Boys Hostel with a capacity of 150 was inaugurated on 21st Feb 2014 by the Hon'ble Chief Minister of Manipur. The campus is located at the foot hills of the picturesque Langol hills at Lamphelpat in the outskirts of Imphal measuring an area of 341 acres. The campus is around 4 km from the main market of Imphal.



The Imphal Tulihal International Airport is located at a distance of 7 km from the campus. It is just 15 minutes' drive from the campus and is well-connected by multiple daily flights with Delhi, Kolkata and Guwahati. Imphal can be reached through National Highways No.2 and 37. The nearest railway station is Dimapur in Nagaland. Imphal can also be reached through Silchar Railway Station in Assam and Jiribam in Manipur. It takes around 8 hrs by bus from Dimapur to reach Imphal. The academic block including library in the permanent

campus will be fully functional by January 2015. The Administrative block will also be ready by April 2015.

#### 2.4 Administration

National Institute of Technology is an autonomous Institute under the Ministry of Human Resource Development (MHRD), Govt. of India. The Institute functions under the overall guidance of the Board of Governors. The other statutory bodies are the Finance Committee, Building and Works Committee and the Senate. The Director is the principal academic and executive officer of the Institute.

#### Administrative Staff:

| Sl. No. | Employee Name              | Designation                       |
|---------|----------------------------|-----------------------------------|
| 1       | Prof. S. Birendra Singh    | Director                          |
| 2       | R.K. Lalit Singh           | Registrar                         |
| 3       | Samarjit Singh             | Executive Engineer                |
| 4       | L. Dorendro Singh          | Assistant Registrar (Admn & Estt) |
| 5       | Dr. I. Bidhanchandra Singh | Assistant Registrar (Acad)        |
| 6       | Kh. Saikya Singh           | Technical Officer                 |
| 7       | H. Somorendro Singh        | Accountant                        |
| 8       | Suchitra Wangkhem          | Superintendent                    |
| 9       | L. Somokanta               | Technical Assistant               |
| 10      | Th. Robita Devi            | Stenographer                      |
| 11      | Fanny Khangembam           | Junior Assistant                  |
| 12      | Md. Amir Hussain           | Junior Assistant                  |
| 13      | Richard Mareem Chothe      | Junior Assistant                  |
| 14      | Ngaihlun Tonsing           | Junior Assistant                  |



|    |                  |                   |
|----|------------------|-------------------|
| 15 | L. Jenifer       | Junior Assistant  |
| 16 | Kh. Narmada Devi | Junior Assistant  |
| 17 | Ng. Binoi Singh  | Junior Assistant  |
| 18 | H. Monorama Devi | Account Assistant |
| 19 | G. Ranita Devi   | Store Keeper      |

### **2.5 Academic Programmes**

The Institute at present offers Undergraduate programmes, Postgraduate programmes and Ph.D programmes. The Institute offers four years full time Bachelor of Technology degree courses in Computer Science and Engineering, Electrical Engineering, Electronics and Communication Engineering, Civil Engineering and Mechanical Engineering. M.Tech programmes are also offered in CSE, EE, ECE, ME and CE. In addition the Institute offers M.Sc programmes in Physics, Chemistry and Mathematics. The academic session is divided into two semesters, July-Dec and Jan-May. Five days a week working with at least 90 working days in each semester.

### **2.6 Admission Procedure**

All admissions to National Institute of Technology Manipur are through Joint Entrance Examination (JEE) Main. Candidates interested in seeking admission in any NITs have to appear in JEE (Main) conducted by Central Board of Secondary Education (CBSE) on behalf of Government of India and fulfill all formalities of the CBSE. Counseling centres are set up throughout the country so that every aspirant is provided equal opportunity. The counseling takes place in a very transparent system. The Government of India has fixed 50% quota of seats for Manipur and 50% quota for other states based on their JEE (Main) ranks, normalized by taking into account marks obtained in the Class XII Board Examination.

### **2.7 Examination**

The Under graduate examinations of the Institute are conducted centrally by the Examination Cell of the Institute. Students are continuously evaluated through a continuous grading process. The academic performance of a student is assessed in terms of two indices viz;



the Semester Performance Index (SPI) for a semester and Cumulative Performance Index (CPI) which is the Grade Point index for all the completed semesters at any point of time.

### 2.8 Training and Placement

The Institute's Training and Placement Cell (T&P Cell) handles all issues related to students internship and final placements. The T&P Cell regularly organized industrial tour for the students thereby providing an opportunity to relate classroom teachings with reality. Workshops are also organized on regular basis thereby providing an interface between academia and industry.

### 2.9 Academic Calendar

The Academic Calendar prepared by the Institute and approved by the BOG is notified for the students and staff. The Academic Calendar reflects the various activities that are conducted in the Institute in an academic year.

No. NITM.3/(21-Acad)/A-Calendar/2012/08

Dated: 09/02/2016

### NOTIFICATION

In supersession of the earlier Notification No.NITM.3/(21-Acad)/A-Calendar/2012/07 dated 29/12/2015, the modified Academic Calendar 2016 is as follows:

#### **Academic Calendar 2016**

| Name   | Semester (January – May)      | Semester (July – November)      |
|--|-------------------------------|---------------------------------|
| Registration of all continuing UG, PG & PhD students   | 1-5 Jan 2016 Friday – Tuesday | 22-26 Jul 2016 Friday – Tuesday |
| Registration of new M. Tech students   |                               | 25-26 July 2016 Monday-Tuesday  |
| Registration of new PhD students   | 4-5 Jan 2016 Monday-Tuesday   | 25-26 July 2016 Monday-Tuesday  |
| First instruction day  | 6 Jan 2016 Wednesday          | 27 Jul 2016 Wednesday           |
| Last date for submission of appeal to HoD by students liable to be terminated for poor academic performance                    | 6 Jan 2016 Wednesday          | 27 Jul 2016 Wednesday           |
| Last date for submission of recommendation by DUPC on appeal of students liable to be terminated for poor academic performance | 7 Jan 2016 Thursday           | 28 July 2016 Thursday           |
| Last date for submission of recommendation by DPPC on appeal of students liable to be terminated for poor academic performance | 8 Jan 2016 Friday             | 29 July 2016 Friday             |
| IUPC meeting to discuss appeal of BTech  | 11 Jan 2016 Monday            | 1 August 2016 Monday            |

|  |   |  |
|--|---|--|
| students liable to be terminated due to poor CPI   |   |  |
| IPPC meeting to discuss appeal of MSc/MTech students liable to be terminated due to poor CPI | 12 Jan 2016 Tuesday   | 2 August 2016 Tuesday  |
| Last date for Registration with fine   | 13 January 2016 Wednesday                                   | 3 August 2016 Wednesday                                      |
| Institute Foundation Day   |   | 12 August 2016 Friday  |
| First Assignment   | 20 Jan 2016 Wednesday                                       | 11 Aug 2016 Thursday   |
| First Unit Test  | 25 Jan 2016 Monday  | 16 Aug 2016 Tuesday  |
| Project/Thesis Review of BTech/MTech   | On or Before 29 January 2016 Friday                         | On or before 26 August 2016 Friday                           |
| Second Assignment  | 12 Feb 2016 Friday  | 5 Sep 2016 Monday  |
| OUGRI (Students Cultural Festival)   | 13 - 15 February 2016 Saturday - Monday                     |  |
| Second Unit Test   | 19 Feb 2016 Friday  | 12 Sep 2016 Monday   |
| Project/Thesis Review of BTech/MTech   | On or Before 26 February 2016 Friday                        | On or before 30 September 2016 Friday                        |
| Mid Semester Examination (MSE) Theory  | 29 Feb - 5 March 2016 Monday - Saturday                     | 18 - 23 Sept 2016 Sunday Friday                              |
| Project/Thesis Review of BTech/MTech   | On or Before 1 April 2016 Friday                            | On or before 28 October 2016 Friday                          |
| Third Assignment   | 14 Mar 2016 Monday  | 7 October 2016 Friday  |
| Third Unit Test  | 18 March 2016 Friday  | 13 October 2016 Thursday                                     |
| Sport  | 21-23 Mar 2016 Monday - Wednesday (Yaoshang Sport)          | 8-9 October 2016 Technical Festival                          |
| Last date for returning evaluated MSE answer scripts to students                             | 18 March 2016 Friday  | 7 October 2016 Friday  |
| Laboratory End Semester Examination  | 11 - 15 April 2016 Monday Friday During Lab Class Hour only | 28 Oct - 4 Nov 2016 Friday Friday During Lab Class Hour only |
| IUPC Meeting   | April Second Week 2016 (Tentative) 12 April Tuesday         | November First Week 2016 (Tentative) 2 November Wednesday    |
| IPPC Meeting   | April Second Week 2016 (Tentative) 14 April Thursday        | November First Week 2016 (Tentative) 4 November Friday       |
| Last Date of submission of Project Work by BTech/MSc students                                | 22 April 2016 Friday  | 7 November 2016 Monday                                       |
| Online submission of feedback by students  | 28 April 2016 Thursday                                      | 17 November 2016 Thursday                                    |
| Last day of Instruction  | 29 April 2016 Friday  | 18 November 2016 Friday                                      |
| Project/Thesis Review of BTech/MTech   | On or Before 29 April 2016 Friday                           | On or before 18 November 2016 Friday                         |
| End Semester Examination (ESE) Theory  | 1 - 15 May 2016 Sunday - Sunday                             | 22 Nov - 6 Dec 2015 Tuesday Tuesday                          |
| Last date of evaluation of BTech Project   | 17 May 2016 Tuesday   | 8 December 2015 Thursday                                     |
| Last date of evaluation of MSc Project   | 17 May 2016 Tuesday   |  |
| Summer Vacation for continuing BTech/MSc students  | 20 May - 19 July 2016 Friday Tuesday                        |  |
| Submission of branch change Application  | 18-22 April 2016 Mon-Fri                                    |  |
| Last date for showing evaluated ESE answer   | Before 20 May 2016 Friday                                   | Before 13 December 2016                                      |

|   |  |                                    |
|---|--|------------------------------------|
| scripts to the first year BTech students  |  | Tuesday                            |
| Last date for seeking clarification of evaluated ESE answer scripts by the first year BTech students                    | Before 20 May 2016 Friday              | Before 13 December 2016 Tuesday    |
| MTech Thesis Evaluation   | 19 May 2016 Thursday                   | 16 December 2016 Friday            |
| Last date of submission of grades to Academic Section   | 23 May 2016 Monday                     | 16 December 2016 Friday            |
| On-line availability of provisional grade report  | 27 May 2016 Friday                     | 21 December 2016 Wednesday         |
| Last date for submitting formal appeal to the course instructor(s) by BTech students against any discrepancy in grading | 30 May 2016 Monday                     | 23 December 2016 Friday            |
| Issuing notices to students terminated from academic programmes due to Low CPI  |  | 28 December 2016 Wednesday         |
| Senate Meeting  | June First Week (TENTATIVE)            | December Last Week (TENTATIVE)     |
| Last date for reporting change in grade, if any to the Academic Section for the appeal by BTech students                | 3 June 2016 Friday                     | 30 December 2016 Friday            |
| Finalization of Branch Change   | 15 June 2016 Wednesday                 |                                    |
| Winter vacation for BTech/MSc   |  | 7 - 31 Dec 2016 Wednesday Saturday |
| 3 <sup>rd</sup> Convocation   | To be announced once date is finalized |                                    |
| Summer Back Course Examination Registration   | 30-31 May 2016 Mon-Tue                 |                                    |
| Mid Semester Examination for Back Courses   | 11-14 June 2016 Sat-Tue                |                                    |
| Last for showing evaluated MSE back courses   | 22 June 2016 Wednesday                 |                                    |
| Last Date for Comprehensive Examination/ SOAS/Synopsis Seminar by PhD Students  | 4 July 2016 Monday                     | 16 December 2016 Friday            |
| End Semester Examination for Back Courses   | 10-13 July 2016 Sun-Wed                |                                    |
| Last date of MTech thesis presentation  | 15 July 2016 Friday                    | 19 December 2016 Monday            |
| Last date of submission of grades for back courses to Academic Section  | 18 July 2016 Monday                    |                                    |
| Issuing notices to students terminated from Academic due to low CPI after back courses                                  | 21 July 2016 Thursday                  |                                    |

(Dr. Kh. Manglem Singh)

Dean (AA)

**Copy to:**

1. P.S to the Director for kind information
2. P.S. to the Registrar for kind information
3. Controller of Examinations



4. All HODs
5. Admission-In-Charge (UG/PG/Ph.D)
6. Assistant Registrar (Admn/Academic)
7. Accounts Section
8. System Analyst for uploading in the Institute Website
9. All Notice Boards
10. File concerned

(Dr. Kh. Manglem Singh)

Dean (AA)

No.NITM.3/(21-Acad)/A-Calendar/2012/09

Dated: 02/01/2017

**NOTIFICATION**  
**Academic Calendar 2017**

| Name   | Semester (January – May)            | Semester (July – November)         |
|--|-------------------------------------|------------------------------------|
| Registration of all continuing UG, PG & PhD students   | 2-6 Jan 2017 Monday – Friday        | 24-28 Jul 2017 Monday – Friday     |
| Registration of new MTech students   |                                     | 24-25 July 2017 Monday-Tuesday     |
| Registration of new PhD students   | 2-3 Jan 2017 Monday-Tuesday         | 24-25 July 2017 Monday-Tuesday     |
| First instruction day  | 2 Jan 2017 Monday                   | 24 Jul 2017 Monday                 |
| Last date for submission of appeal to HoD by students liable to be terminated for poor academic performance                    | 4 Jan 2017 Wednesday                | 26 Jul 2017 Wednesday              |
| Last date for submission of recommendation by DUPC on appeal of students liable to be terminated for poor academic performance | 5 Jan 2017 Thursday                 | 27 July 2017 Thursday              |
| Last date for submission of recommendation by DPPC on appeal of students liable to be terminated for poor academic performance | 6 Jan 2017 Friday                   | 28 July 2017 Friday                |
| IUPC meeting to discuss appeal of BTech students liable to be terminated due to poor CPI                                       | 9 Jan 2017 Monday                   | 31 July 2017 Monday                |
| IPPC meeting to discuss appeal of MSc/MTech/PhD students liable to be terminated due to poor CPI                               | 10 Jan 2017 Tuesday                 | 1 August 2017 Tuesday              |
| First Assignment   | 18 Jan 2017 Wednesday               | 9 Aug 2017 Wednesday               |
| Institute Foundation Day   |                                     | 12 August 2017 Saturday            |
| First Unit Test  | 23 Jan 2017 Monday                  | 14 Aug 2017 Monday                 |
| I- Project/Thesis Review of BTech/MTech  | On or Before 27 January 2017 Friday | On or before 25 August 2017 Friday |
| Second Assignment  | 10 Feb 2017 Friday                  | 4 Sep 2017 Monday                  |



|   |  |   |
|---|--|---|
| OUGRI (Students Cultural Festival)  | 10 – 12 February 2017 Friday - Sunday                          |   |
| Second Unit Test  | 17 Feb 2017 Friday   | 11 Sep 2017 Monday  |
| II - Project/Thesis Review of BTech/MTech   | On or Before 24 February 2017 Friday                           | On or before 29 September 2017 Friday                           |
| Mid Semester Examination (MSE) Theory   | 27 Feb – 4 March 2017 Monday - Saturday                        | 18 – 23 Sept 2017 Monday Saturday                               |
| Sport (March) / Technical Festival (September - October)  | 11 – 12 March 2017 Saturday - Sunday                           | 30 September – 1 October 2017 Saturday Sunday                   |
| III - Project/Thesis Review of BTech/MTech  | On or Before 31 March 2017 Friday                              | On or before 27 October 2017 Friday                             |
| Mid Semester Progress Presentation - PhD  | Before 31 March 2017 Friday                                    | Before 27 October 2017 Friday                                   |
| Third Assignment  | 14 Mar 2017 Tuesday  | 6 October 2017 Friday   |
| Third Unit Test   | 17 March 2017 Friday   | 13 October 2017 Friday  |
| Last date for returning evaluated MSE answer scripts to students  | 17 March 2017 Friday   | 6 October 2017 Friday   |
| Laboratory End Semester Examination   | 10 – 14 April 2017 Monday Friday<br>During Lab Class Hour only | 30 Oct – 3 Nov 2017 Monday Friday<br>During Lab Class Hour only |
| IUPC Meeting  | April Second Week 2017 (Tentative)<br>11 April Tuesday         | November First Week 2017 (Tentative)<br>2 November Thursday     |
| IPPC Meeting  | April Second Week 2017 (Tentative)<br>13 April Thursday        | November First Week 2017 (Tentative)<br>3 November Friday       |
| Parallel Examination Registration   | 17-21 April 2017 Monday Friday                                 | 6-10 November 2017 Monday Friday                                |
| Submission of branch change Application   | 17-21 April 2017 Monday Friday                                 |   |
| Last Date of submission of Project Work by BTech/MSc students   | 21 April 2017 Friday   | 6 November 2017 Monday  |
| Online submission of feedback by students   | 27 April 2017 Thursday   | 16 November 2017 Thursday                                       |
| Last day of Instruction   | 28 April 2017 Friday   | 17 November 2017 Friday   |
| IV - Project/Thesis Review of BTech/MTech   | On or Before 28 April 2017 Friday                              | On or before 17 November 2017 Friday                            |
| End Semester Examination (ESE) Theory   | 30 April – 13 May 2017 Sunday - Saturday                       | 22 Nov – 6 Dec 2017 Wednesday Wednesday                         |
| Last date of presentation & evaluation of BTech Project/MSc Project/ MTech Thesis                                       | 17 May 2017 Wednesday  | 8 December 2017 Friday  |
| Summer/Winter Vacation for continuing BTech/MSc students  | 20 May – 19 July 2017 Saturday<br>Wednesday (Summer)           | 7 – 31 Dec 2017 Thursday Sunday<br>(Winter)                     |
| Last date for showing evaluated ESE answer scripts to the first year BTech students                                     | Before 22 May 2017 Monday                                      | Before 13 December 2017 Wednesday                               |
| Last date for seeking clarification of evaluated ESE answer scripts by the first year BTech students                    | Before 22 May 2017 Monday                                      | Before 13 December 2017 Wednesday                               |
| Last date of submission of grades to Academic Section   | 22 May 2017 Monday   | 15 December 2017 Friday   |
| On-line availability of provisional grade report  | 26 May 2017 Friday   | 21 December 2017 Thursday                                       |
| Summer Back Course Examination Registration   | 29-31 May 2017 Monday Wednesday                                |   |
| Last date for submitting formal appeal to the course instructor(s) by BTech students against any discrepancy in grading | 30 May 2017 Tuesday  | 22 December 2017 Friday   |
| Senate Meeting  | June First Week (TENTATIVE)                                    | December Last Week (TENTATIVE)                                  |
| Last date for reporting change in grade, if any to the Academic Section for the appeal by BTech students                | 2 June 2017 Friday   | 29 December 2017 Friday   |
| Finalization of Branch Change   | 15 June 2017 Thursday  |   |
| 4 <sup>th</sup> Convocation   | To be announced once date is finalized                         |   |
| Unit Tests I, II, III for Back Courses  | 6-8 June 2017 Tuesday - Thursday                               |   |
| Mid Semester Examination for Back Courses   | 12-15 June 2017 Monday - Thursday                              |   |

|  |                                 |                                |
|--|---------------------------------|--------------------------------|
| Last for showing evaluated MSE back courses  | 22 June 2017 Thursday           |                                |
| Comprehensive Examination / SOAS/ Synopsis Seminar by PhD Students                     | Before 4 July 2017 Tuesday      | Before 15 December 2017 Friday |
| End Semester Examination for Back Courses  | 10-13 July 2017 Monday Thursday |                                |
| Last date of submission of grades for back courses to Academic Section                 | 18 July 2017 Tuesday            |                                |
| Availability of provisional grade report for back courses                              | 19 July 2017 Wednesday          |                                |
| Issuing notices to students terminated from Academic due to low CPI after back courses | 21 July 2017 Friday             | 28 December 2017 Thursday      |
| Registration of all continuing UG, PG & PhD students                                   | 24-28 Jul 2017 Monday – Friday  | 1-5 Jan 2018 Monday – Friday   |

(Dr. Kh. Manglem Singh)  
Dean (AA)

**Copy to:**

1. P.S to the Director for kind information
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3. Controller of Examinations
4. All HODs
5. Admission-In-Charge (B. Tech & M. Tech)
6. Admission-In-Charge (M.Sc & Ph.D)
7. Assistant Registrar (Admn/Academic)
8. Accounts Section
9. Academic Section
10. Technical Officer for uploading in the Institute Website
11. All Notice Boards
12. CF/GF

(Dr. Kh. Manglem Singh)  
Dean (AA)

### 2.10 Students

The Institute attracts students from various parts of the country giving it a national character. The Institute encourages students to actively take part in all cultural programmes so that students get exposure to the culture and tradition of other parts of the country.

### 2.11 Games & Sports

The Institute is keen to provide opportunities to the students for their all-round development. Though located in the temporary campus, the Institute is able to provide the following sports infrastructure:

- (i) Football Ground
- (ii) Volley ball Court
- (iii) Basket Ball Court
- (iv) Badminton Court
- (v) Table Tennis and other indoor games

The Institute also organizes Annual Sports Meet in a grand way. The sports meet is a multi-sporting event where both boys and girls are provided an opportunity to test their mettle in sports.

### 2.12 Faculty Position

|     | No of Faculty Post Sanctioned                          | Sanctioned Post of NIT Manipur as on 01-03-2016 |           |           |           |           |           |           |           |                 |                 |
|-----|--|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------------|-----------------|
| Sl. | Post   | Year 2010                                       | Year 2011 | Year 2012 | Year 2013 | Year 2014 | Year 2015 | Year 2016 | Total     | Filled Position | Vacant Position |
| 1   | Professor  | 1   | 1         | 1         | 2         | 1         | 2         | 0         | 8         | 0               | 8               |
| 2   | Associate Professor                                    | 2   | 2         | 2         | 5         | 1         | 3         | 0         | 15        | 1               | 14              |
| 3   | Assistant Professor                                    | 5   | 4         | 4         | 9         | 2         | 7         | 0         | 31        | 31              | 0               |
|     | <b>Total</b>   | <b>8</b>  | <b>7</b>  | <b>7</b>  | <b>16</b> | <b>4</b>  | <b>12</b> | <b>0</b>  | <b>54</b> | <b>32</b>       | <b>22</b>       |
|     |  |   |           |           |           |           |           |           |           |                 |                 |
|     | No. of Non-Faculty Post sanctioned                     | Sanctioned Post of NIT Manipur as on 01-03-2016 |           |           |           |           |           |           |           |                 |                 |
| Sl. | Post   | Year 2010                                       | Year 2011 | Year 2012 | Year 2013 | Year 2014 | Year 2015 | Year 2016 | Total     | Filled Position | Vacant Position |
| 1   | Director   | 1   | 0         | 0         | 0         | 0         | 0         | 0         | 1         | 1               | 0               |
| 2   | Registrar  | 1   | 0         | 0         | 0         | 0         | 0         | 0         | 1         | 1               | 0               |
| 3   | Asst. Registrar  | 1   | 0         | 0         | 0         | 0         | 1         | 0         | 2         | 1               | 1               |
| 4   | Deputy Librarian/<br>Asst. Librarian                   | 0   | 1         | 0         | 0         | 0         | 0         | 0         | 1         | 1               | 0               |
| 5   | Nurse  | 0   | 1         | 0         | 0         | 0         | 0         | 0         | 1         | 0               | 1               |
| 6   | Sports Officer   | 0   | 1         | 0         | 0         | 0         | 0         | 0         | 1         | 1               | 0               |
| 7   | Executive Engineer                                     | 0   | 1         | 0         | 0         | 0         | 0         | 0         | 1         | 1               | 0               |
| 8   | Technical Assistant                                    | 1   | 1         | 0         | 0         | 0         | 0         | 0         | 2         | 0               | 2               |
| 9   | Technical Assistant<br>(System)                        | 0   | 1         | 0         | 0         | 0         | 0         | 0         | 1         | 0               | 1               |
| 10  | Technical Assistant/Junior Engineer                    | 0   | 0         | 1         | 2         | 5         | 5         | 0         | 13        | 0               | 13              |
| 11  | Superintendent/<br>Accountant                          | 1   | 0         | 1         | 0         | 0         | 2         | 0         | 4         | 0               | 4               |
| 12  | Stenographer   | 1   | 0         | 0         | 0         | 0         | 0         | 0         | 1         | 1               | 0               |
| 13  | Junior Assistant                                       | 2   | 0         | 2         | 1         | 2         | 0         | 0         | 7         | 4               | 3               |
| 14  | Technician   | 2   | 2         | 0         | 0         | 0         | 0         | 0         | 4         | 0               | 4               |
| 15  | Technician/Laboratory Assistant/<br>Lab Work Assistant | 0   | 0         | 1         | 2         | 6         | 3         | 0         | 12        | 1               | 11              |
| 16  | Multitasking Staff                                     | 0   | 0         | 2         | 1         | 3         | 2         | 0         | 8         | 0               | 8               |
|     | <b>Total</b>   | <b>10</b>                                       | <b>8</b>  | <b>7</b>  | <b>6</b>  | <b>16</b> | <b>13</b> | <b>0</b>  | <b>60</b> | <b>12</b>       | <b>48</b>       |

### 3.0 ACADEMIC STATISTICS

#### 3.1 Courses Offered

- (i) A four year B.Tech programmes in the following branches of Engineering and Technology were offered during the period:

Computer Science & Engineering

Electrical Engineering

Electronics & Communication Engineering

Civil Engineering

Mechanical Engineering

- (ii) A two year M.Tech programmes in the following branches of Engineering and Technology were also offered:

Computer Science & Engineering

Electrical Engineering

Electronics & Communication Engineering

Civil Engineering

Mechanical Engineering

- (iii) A two year M.Sc programmes in the following branches of Science were also offered:

Physics

Chemistry

Mathematics

- (iv) In addition, PhD programmes in English, Chemistry, Physics, Mathematics, CSE, ECE, ME CE, EE are also offered.



### 3.2 Admission Details

#### Branch-wise Strength:

#### B. Tech.

| Sl.         | Batch   | CSE | EE | ECE | ME | CE | Total |
|-------------|---------|-----|----|-----|----|----|-------|
| 1           | 2012-13 | 21  | 22 | 25  | 0  | 0  | 68    |
| 2           | 2013-14 | 25  | 19 | 18  | 29 | 27 | 118   |
| 3           | 2014-15 | 46  | 22 | 24  | 25 | 30 | 147   |
| 4           | 2015-16 | 43  | 24 | 21  | 26 | 25 | 139   |
| 5           | 2016-17 | 38  | 24 | 17  | 23 | 23 | 125   |
| Grand Total |         | 135 | 87 | 88  | 80 | 82 | 597   |

#### M. Tech.

| Sl.         | Batch   | CSE        | EE         | ECE       | ME     | CE        | Total |
|-------------|---------|------------|------------|-----------|--------|-----------|-------|
| 1           | 2014-15 | 15         | 13         | 14        | 0      | 0         | 42    |
| 2           | 2015-16 | 15 + 3 PT* | 14 + 1 PT* | 15 + 5PT* | 0      | 15 + 2PT* | 70    |
| 3           | 2016-17 | 5          | 8          | 9+1 PT*   | 6+1 PT | 15+2 PT   | 47    |
| Grand Total |         | 115        | 90         | 89        | 54     | 57        | 159   |

\*PT = Part Time

#### M.Sc.

| Sl. No.     | Batch   | Physics | Chemistry | Mathematics | Total |
|-------------|---------|---------|-----------|-------------|-------|
| 1           | 2014-15 | 13      | 13        | 10          | 36    |
| 2           | 2015-16 | 14      | 15        | 7           | 36    |
| 3           | 2016-17 | 15      | 14        | 15          | 44    |
| Grand Total |         | 27      | 28        | 17          | 116   |

#### Ph.D.

| Sl. | Batch   | CSE | ECE | EE | CE | ME | Phys<br>ics | Chemi<br>stry | Mathe<br>matics | Engl<br>ish | Total |
|-----|---------|-----|-----|----|----|----|-------------|---------------|-----------------|-------------|-------|
| 1   | 2012-13 | 1   | 1   | 1  | 0  | 0  | 1           | 1             | 1               | 1           | 7     |
| 2   | 2013-14 | 6   | 3   | 2  | 0  | 0  | 3           | 0             | 3               | 0           | 15    |
| 3   | 2014-15 | 2   | 0   | 0  | 3  | 4  | 1           | 6             | 1               | 3           | 20    |
| 4   | 2015-16 | 2   | 0   | 0  | 2  | 2  | 0           | 1             | 0               | 0           | 7     |
| 5   | 2016-17 | 3   | 1   | 0  | 7  | 6  | 1           | 5             | 1               | 0           | 24    |

**CSE, NIT MANIPUR ANNUAL REPORT, (2017)**

**1. Academic Department:**

- (a) Name of the Department : Computer Science and Engineering
- (b) Year of Establishment : 2010
- (c) Phone No.: (Dept./Office) : +91 9982114196
- (d) Head of Department : Dr. Prakash Choudhary
- (e) E-mail Address : [hodcse@nitmanipur.ac.in](mailto:hodcse@nitmanipur.ac.in)  
[choudharyprakash87@gmail.com](mailto:choudharyprakash87@gmail.com)

**2. Brief Introduction of the Department:**

Department of Computer Science and Engineering offers 4 years B. Tech programme with annual intake of 60. It had already graduated 3 batches of B. Tech programme. Other than B. Tech programme the department offers 2 years M. Tech programme in Computer Science and Engineering with annual intake of 15 and 12 research scholars are currently pursuing Doctoral Programme in Computer Science and Engineering. The departmental research is focused in the areas of Image Processing and Computer Vision, Information Security (Cryptography, Watermarking, Steganography, Cyber Security), Artificial Intelligence & Robotics, Pattern Recognition. The department has state of the art laboratory and research facilities. The department attracts various talented students from all parts of the country. Placements for our graduates are the best sought in the Institute.

Most of the Alumni are pursuing successful career in the industry and some have opted for higher studies. For further development of the department, our alumni remain in constant touch with us and are contributing actively. The department has 11 experienced and sincere faculty members and 5 non faculty members.

**3. Highlight of research activities:**

Image Processing, Cryptography, Watermarking, Steganography, Artificial Intelligence, Machine Learning, Intelligent System Design, soft Computing, Networking, Network Security, Pattern Recognition, NLP.

## 4. Faculty Details:

| Sl. No. | Name of Faculty              | Designation         | Date of joining                                 | Degree & University/Institute  | Subject Specialization   |
|---------|------------------------------|---------------------|---|--|--|
| 1.      | Dr. Khumanthem Manglem Singh | Associate Professor | 21/08/2010 (Deputation)<br>22/09/2014 (Regular) | <b>B.Tech-</b> DEI, Agra<br><b>M.E.-</b> DU<br><b>M.S.-</b> BITS<br><b>Ph.D-</b> IIT Guwahati  | Image Processing, Digital Watermarking, Cryptography, Steganography  |
| 2.      | Dr. Khelchandra Thongam      | Assistant Professor | 03/08/2011 (Contract)<br>04/12/2013 (Regular)   | <b>B.Tech-</b> CSE, NERIST<br><b>M.Tech-</b> CSE, University of Aizu, Japan<br><b>Ph.D-</b> CSE, University of Aizu, Japan                               | Intelligent System Design, soft Computing, Hybrid Intelligent System |
| 3.      | Dr. Jina Yambem              | Assistant Professor | 02/08/2012 (contract)<br>21/1/2015 (Regular)    | <b>B.Tech-</b> IT, Anna University, Chennai<br><b>M.Tech-</b> IT, Vellore Institute of Technology University<br><b>Ph.D-</b> CSE, NERIST                 | Image Processing, Steganography                                      |
| 4.      | Dr. Prakash Choudhary        | Assistant Professor | 30/12/2013 (Regular)                            | <b>B.Tech-</b> IT, Rajasthan University<br><b>M.Tech-</b> CSE, NIT Nagpur<br><b>Ph.D-</b> CSE, NIT Jaipur  | Image Processing, Pattern Recognition, Computer Vision               |
| 5.      | Khundrakpam Johnson Singh    | Assistant Professor | 14 <sup>th</sup> January 2013 (contract)        | <b>B.E.-</b> CSE, KBNCE, Karnataka<br><b>M.Tech-</b> CSE, Dayananda Sagar College of Engineering, Bangalore<br><b>Ph.D-</b> CSE, NIT Durgapur (Pursuing) | Network and Cyber Security, Machine Learning                         |
| 6.      | Chingakham Neeta Devi        | Assistant Professor | 1 <sup>st</sup> January, 2013 (contract)        | <b>B.E.-</b> CSE, Manipur University<br><b>M.Tech-</b> CSE, Visvesvaraya Technological University<br><b>Ph.D-</b> CSE, Assam University (Pursuing)       | Parallel Computing, Image Processing                                 |



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|     |                          |          |   |   |   |
|-----|--------------------------|----------|---|---|---|
| 7.  | Anuradha Laishram        | Lecturer | 15 <sup>th</sup> January 2014<br>(contract)   | <b>B.E.-</b> CSE, VTU, Belgaum, Karnataka<br><b>M.E.-</b> CSE, Bangalore University<br><b>Ph.D-</b> CSE, NIT Manipur (Pursuing)         | Medical Image Processing,<br>Network Security |
| 8.  | Sanabam Bineshwor Singh  | Lecturer | 4 <sup>th</sup> September 2014<br>(contract)  | <b>B.Tech-</b> IT, Anna University, Coimbatore, Tamil Nadu<br><b>M.Tech-</b> CSE, SRM University, Kattankulathur, Chennai University    | Networking                                    |
| 9.  | Maibam Mangalleibi Chanu | Lecturer | 15 <sup>th</sup> January 2014<br>(contract)   | <b>B.E.-</b> CSE, Anna University, Chennai<br><b>M.E.-</b> CSE, Anna University, Chennai<br><b>Ph.D-</b> CSE, NIT Manipur (Pursuing)    | Medical Image Processing,<br>Networking       |
| 11. | Teressa Longjam          | Lecturer | 15 <sup>th</sup> September 2014<br>(contract) | <b>B.E.-</b> CSE, Manipur University<br><b>M.Tech-</b> CSE, Rajasthan Technical University<br><b>Ph.D-</b> CSE, NIT Durgapur (Pursuing) | Biometrics, NLP                               |

## 5. Staff Details:

| Sl. No. | Name of Staff          | Designation         | Date of joining                               | Degree & University/Institute  | Subject Specialisation                |
|---------|------------------------|---------------------|---|--|---------------------------------------|
| 1.      | Ksh Merina Devi        | Technical Assistant | 3 <sup>rd</sup> August 2011<br>(contract)     | <b>B.E.-</b> CSE, North Maharashtra University, Jalgaon<br><b>M.S.-</b> CSE, BITS Pilani   | Information Security,<br>Graph Theory |
| 2.      | Ngangbam Herojit Singh | Technical Assistant | 16 <sup>th</sup> September 2013<br>(contract) | <b>B.E.-</b> Anna University, Chennai<br><b>M.Tech-</b> CSE, Anna University Chennai<br><b>Ph.D-</b> CSE, NIT Manipur (Pursuing) | Machine Learning,<br>Networking       |

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|    |                           |                     |  |   |  |
|----|---------------------------|---------------------|--|---|--|
| 3. | Nirvana Thokchom          | Technical Assistant | 9 <sup>th</sup> October 2013 (contract)    | <b>B.Tech-</b> CSE, Sikkim Manipal Institute of Technology, Sikkim Manipal University<br><b>M.Tech-</b> CSE, BITS Pilani (Pursuing)                       | Image Processing, Data Mining  |
| 4. | Sanasam Renubala Devi     | Technical Assistant | 1 <sup>st</sup> September, 2014 (contract) | <b>B.E.-</b> CSE, MANIPUR UNIVERSITY<br><b>M.Tech-</b> CSE, NIT Manipur (Pursuing)  | Speech Processing, Machine Learning  |
| 5  | Thokchom Dayaananda Singh | Technical Assistant | 27 <sup>th</sup> September 2015 (contract) | <b>B.Tech – IT,</b> North Eastern Hill University<br><b>GATE Qualified-</b> 2015,2016(93.5 percentile),2017<br><b>M.Tech-</b> CSE, NIT Manipur (Pursuing) | Computer Networking and Security, High Performance Computing, Speech Processing. |

## 6. Teacher Trainees' Details:

| Sl. No. | Name of Staff       | Designation     | Date of joining             | Degree & University/Institute  | Subject Specialization |
|---------|---------------------|-----------------|-----------------------------|--|------------------------|
| 1       | Pankaj Kumar Kalita | Trainee Teacher | 26 <sup>th</sup> July, 2016 | <b>B.Tech – CSE,</b> NERIST, Arunachal Pradesh<br><b>M.Tech – CSE,</b> IIT Guwahati (pursuing) | Formal Verification    |
| 2       | Thiyam Susma Devi   | Trainee Teacher | 26 <sup>th</sup> July, 2016 | <b>B.Tech – CSE,</b> NERIST, Arunachal Pradesh<br><b>M.Tech – CSE,</b> IIT Guwahati (pursuing) | Network-on-Chip        |

**7. Publications:****7. a. Conferences**

1. Irom Lalit Meitei, Khundrakpam Johnson Singh, Tanmay De, "Detection of DDoS DNS Amplification Attack Using Classification Algorithm" in Proc. ACM Digital Library, ICIA-2016, Pondicherry, India.
2. Ningombam Anandshree Singh, Khundrakpam Johnson Singh, Tanmay De, "Distributed denial of service attack detection using Naïve Bayes Classifier through Info Gain Feature Selection", in Proc. ACM Digital Library, ICIA-2016, Pondicherry, India.
3. Naorem Nalani Devi, Khundrakpam Johnson Singh, Tanmay De, "ICMP-DDoS Attack Detection Using Clustering-Based Neural Networks Techniques" in Proc. FOTA- 2016, Kolkata, India Based on Http Count and Verification Using CAPTCHA," *2015 International Conference on Computational Intelligence and Networks (CINE)*, IEEE, vol., no., pp.196-197, 12-13 Jan. 2015.
4. Ratishchandra Huidrom, Yambem Jina Chanu and Khumanthem Manglem Singh. "A fat Automated Lung Segmentation method for the Diagnosis of Lung Cancer." In Region 10 Conference (TENCON), 2017 IEEE. (Accepted).

**7. b. Journals**

1. K. M. Singh, A robust rotation resilient video watermarking scheme based on the SIFT, *Multimedia Tools and Applications* (Springer), Publication date 2017/10/30 (SCIE).
2. L. D. Singh and K. M. Singh, Medical image encryption based on improved ElGamal encryption technique, *Optik-International Journal for Light and Electron Optics* (Elsevier) , 147, 88-102, 2017 (SCI).
3. H. S. Devi and K. M. Singh, A Novel, Efficient, Robust, and Blind Imperceptible 3D Anaglyph Image Watermarking, *Arabian Journal for Science and Engineering* (Springer) 42 (8), 3521-3533, 2017 (SCIE).
4. L. D. Singh and K. M. Singh, A robust image encryption scheme based on chaotic system and elliptic curve over finite field, *Multimedia Tools and Applications* (Springer), Publication date 2017/5/5 (SCIE).
5. B. P. Devi and K. M. Singh, S. Roy, New Copyright Protection Scheme for Digital Images Based on Visual Cryptography, *IETE Journal of Research* (Taylor & Francis), Publication date 2017/5/1 (SCIE).
6. A. Neelima and K. M. Singh, Collusion and rotation resilient video hashing based on scale invariant feature transform, *The Imaging Science Journal* (Taylor & Francis), 65 (1), 62-74, 2017 (SCI).
7. L. D. Singh and K. M. Singh, Cryptanalysis of symmetric key image encryption using chaotic Rossler system, *Optik - International Journal for Light and Electron Optics* (Elsevier), 135, 200-209, 2017 (SCI).
8. C. Chongtham, Y. J. Chanu, M. J. S. Khumanthem, A. Neelima, D. M. Thounaojam and K. M. Singh, A Copyright Protection Scheme for Videos based on the SIFT, *Iranian Journal of Science and Engineering* (Springer), 2017 (Accepted) (SCIE).
9. D. M. Thounaojam, K. Thongam, K. M. Singh and S. Roy, Color Histogram and modified Multi-layer Perceptron Neural Network based Video Shot Boundary Detection, *International Arab Journal of Science and Technology*, 2017 (Accepted) (SCIE).



10. B.A. Shimray, K. M. Singh, K. Thongam and R. K. Mehta, Ranking of Sites for Installation of Hydropower Plant Using MLP Neural Network Trained with GA: A MADM Approach, Computational Intelligence and Neuroscience, ID 4152140, 2017 (SCIE).
11. B.A. Shimray, K. M. Singh, K. Thongam and R. K. Mehta, A new MLP-GA fuzzy decision support system for hydro power plant site selection, Arab Journal of Science and Engineering (Springer), 2017 (Accepted) (SCIE).
12. D. M. Thounaojam, V. S. Bhadouria, S. Roy, K. M. Singh, Shot boundary detection using perceptual and semantic information, International Journal of Multimedia Information Retrieval (Springer), 6 (2), 167-174, 2017 (Scopus).
13. M. Kumar and K. M. Singh, Content Based Medical Image Retrieval System using SIFT and Hu-Moment for Hepatobiliary Images, Journal of Engineering and Applied Sciences 12 (11), 2946-2950, 2017 (Scopus).
14. Arambam Neelima, Kh Manglem Singh, Perceptual Hash Function based on Scale-Invariant Feature Transform and Singular Value Decomposition, The Computer Journal, Volume 59, Issue 9, 1275-1281, 2016.
15. Manoj Kumar and Kh. Manglem Singh, Content Based Medical Image Retrieval, I J C T A, Volume 9, Issue 40, 353-358, 2016.
16. K Pritamdas, Kh Manglem Singh, L Lolitkumar Singh, An adaptive switching filter based on approximated variance for detection of impulse noise from color images, SpringerPlus, Volume 5, Issue 1, December 2016.
17. Roji Chanu, Kh Manglem Singh, Vector Median Filters: A Survey, IJCSNS, Volume 16, Issue 12, December, 2016.
18. Manoj Kumar and Kh. Manglem Singh, Content Based Medical Image Retrieval Using Fourier Descriptors Feature for Nose Images. International Journal of Electronics and Communication Engineering, Volume 3, Issue 12.
19. L. Dolendro Singh and Kh. Manglem Singh, Cryptanalysis of symmetric key image encryption using chaotic Rossler system Elsevier Optik, International Journal for Light and Electron Optics Volume 135, 2017.
20. Kh. Manglem Singh and R.K. Mehta B. Shimray, A survey of Multi-Criteria Decision Making Technique used in Renewable Energy Planning, International Journal of Computer, 2017.
21. Dalton Meitei Thounaojam, Vivek Singh Bhadouria, Sudipta Roy, Kh Manglem Singh, Shot boundary detection using perceptual and semantic information, International Journal of Multimedia Information Retrieval , Springer London, 2017
22. A Neelima, KM Singh, Collusion and rotation resilient video hashing based on scale invariant feature transform, The Imaging Science Journal, Volume 65, Issue 1, Pages 62-74.

23. Smaranika Subhasini and Kh. Manglem Singh, Color Image Edge Detection: A Survey International Journal of Innovations in Engineering and Technology, Volume 8, Issue 1, 235-247, February 2017.
24. Benjamin A Shimray, Kh Manglem Singh, Thongam Khelchandra, RK Mehta, Ranking of Sites for Installation of Hydropower Plant Using MLP Neural Network Trained with GA: A MADM Approach Computational intelligence and neuroscience, 2017.
25. Kh. Manglem Singh and L. Lolitkumar Singh K. Pritamdas, A Summary on Various Impulse Noise Removal Techniques, International Journal of Science and Research, Volume 6, Issue 3, 941-954, March 2017.
26. B Pushpa Devi, Kh Manglem Singh, Sudipta Roy, New Copyright Protection Scheme for Digital Images Based on Visual Cryptography, IETE Journal of Research, May, 2017.
27. Ngangbam Herojit Singh, Khelchandra Thongam, Khaidem Panthoi Meetei, ACO-GA Algorithm in Global Path Planning of Mobile Robot, Indian Journal of Engineering, Volume 14, Issue 36, pp. 108 – 119, April - June, 2017
28. Dalton Meitei Thounaojam, Thongam Khelchandra, Kh. Manglem Singh, and Sudipta Roy, A Genetic Algorithm and Fuzzy Logic Approach for Video Shot Boundary Detection, Computational Intelligence and Neuroscience, Volume 2016, Article ID 8469428, 1-11, 2016.
29. Thongam Khelchandra, Jie Huang, "Robot Motion Planning with Neuro-Genetic-Fuzzy Approach in Dynamic Environment", International Journal of Information Technology, Singapore Computer Society, Volume 21, Number 1, 2015
30. Thongam Khelchandra, Jie Huang, Somen Debnath, "Path Planning of Mobile Robot with Neuro-Genetic-Fuzzy Technique in Static Environment", International Journal of Hybrid Intelligent systems, IOS Press, Volume 11, Number 2, 2014, pp. 71 – 80
31. Khundrakpam Johnson Singh, Thongam Khelchandra, Tanmay De, Entropy-Based Application Layer DDos Attack Detection Using Artificial Neural Networks, Entropy, MDPI, Volume 18, Issue 10, October 2016. (SCIE)
32. Jina Yambem, Kh. Manglem Singh, Themrichon Tuithung, Steganography and Steganalysis: A Survey, International Journal of Computer Applications
33. Jina Yambem, Kh. Manglem Singh, Themrichon Tuithung, Steganography Technique based on SVD, International journal of Research in Engineering and Technology(IJRET) ISSN 2277-4378.
34. Jina Yambem, Kh. Manglem Singh, Themrichon Tuithung, A Robust Steganographic Method based on Singular Value Decomposition, International Journal of Information and Computation Technology.
35. Jina Yambem, Kh. Manglem Singh, Themrichon Tuithung, Adaptive Edge Steganography for Images, International Journal of Information and Computation Technology
36. Jina Yambem, Kh. Manglem Singh, Themrichon Tuithung, Edge steganography for images, Wulfenia journal (SCIE).
37. Jina Yambem, Kh. Manglem Singh, Themrichon Tuithun, Steganalysis of  $\pm k$  Steganography based on Noncausal Linear Predictor, International Journal of Computers Communications & Controls (SCIE)
38. Jina Yambem, Kh. Manglem Singh, Themrichon Tuithung, Sudipta Roy, B. Pushpa Devi, A Watermarking Scheme for Digital Images Based on Visual Cryptography, A Contemporary Engineering Sciences (Scopus)

39. Jina Ymbem, N. Dhanachandra, Kh. Manglem Singh, Image Segmentation using K-means Clustering Algorithm and Subtractive Clustering Algorithm, *Procedia Computer Science* (Scopus)
40. Jina Yambem, Kh. Manglem Singh, Sudipta Roy, B. Pushpa Devi, Watermarking Scheme for Images based on Singular Value Decomposition, *Wulfenia journal* (SCIE)
41. Khundrakpam Johnson Singh, Tanmay De (2017): Application Layer DDoS Attack Detection Using MLP with Genetic Algorithm, *Journal of Information Security and Application*, 36, pp. 145-153. DOI: 10.1016/j.jisa.2017.09.004. (Web of Science, SCOPUS)
42. Khundrakpam Johnson Singh, Tanmay De (2017: Mathematical Modeling of DDoS and Detection using Correlation, *Journal of Cyber Security Technology*, Taylor & Francis, pp. 1-12, DOI: 10.1080/23742917.2017.1384213.
43. Khundrakpam Johnson Singh, Thongam Khelchandra, Tanmay De, Entropy-Based Application Layer DDoS Attack Detection Using Artificial Neural Networks, *Entropy*, MDPI, Volume 18, Issue 10, October 2016. (SCI Expanded)
44. Benjamin A. Shimray, Kh. Manglem Singh, Thongam Khelchandra, R.K. Mehta, Ranking of Sites for Installation of Hydropower Plant Using MLP Neural Network Trained with GA: A MADM Approach, *Computational Intelligence and Neuroscience*, vol. 2017, Article ID 4152140, 8 pages, 2017, doi:10.1155/2017/4152140 (SCI Expanded)
45. Dalton Meitei Thounaojam, Thongam Khelchandra, Kh. Joyshree Devi, Sudipta Roy and Kh. Manglem Singh, Color Histogram and modified Multi-layer Perceptron Neural Network based Video Shot Boundary Detection, *International Arab Journal of Information Technology*, 2017 (SCI Expanded) (Accepted)
46. Ngangbam Herojit Singh and Khelchandra Thongam, Mobile Robot Navigation using Fuzzy-GA approaches along with Three Path Concept, *Iranian Journal of Science and Technology, Transactions of Electrical Engineering*, 2017 (SCI Expanded) (Accepted)
47. Benjamin A Shimray, Kh. Manglem Singh, Th. Khelchandra Singh and R.K Mehta, A New MLP-GA-Fuzzy decision support system for hydro power plant site selection, *Arabian Journal for Science and Engineering*, 2017 (SCI Expanded) (Accepted).
48. Ngangbam Herojit Singh and Khelchandra Thongam, Mobile Robot Navigation using Fuzzy Logic in Static Environment, *Elsevier Procedia Computer Science*, 2017 (Scopus) (Accepted)

**8. Details of seminars/ conference/ workshop/symposium/STTP attended by teaching faculties and staffs:**

***Jina Yambem:***

- Workshop on “Regional Celebration of Women in Computing, East and North-East”, organized by CSE Dept., IIT Guwahati with ACM India from 2-11- 2015 to 3-11-2015
- Short term course on “Matlab Exposure” organized by NITTR Kolkata from 22-12- 2014 to 2-1-2016
- Faculty Development Program on HPC and Deep Learning, 17-22 March 2017, organised at IIIT Manipur in Association with E&ICT Academy IIT Guwahati and Fujitsu

***Chingakham Neeta Devi:***



- Short Term Training Programme on Recent Advances in Optimisation: Theory and Applications from 27th June, 2016 to 1st July, 2016 organised by NITTTR Kolkata.
- Winter School on Computational Intelligence in Pattern Recognition from December 12-December 17, 2016 organised by NIT Kurukshetra.

**Prakash Choudhary:**

- National workshop on "National Board of Accreditation" at The Institute of Engineers (India) Udaipur from August 28 to 30, 2015.
- Present a seminar on "Support for Entrepreneurial and Managerial Development of SMEs through Incubators" at Nirmal Bhawan, New Delhi on 28/05/2015.
- Present paper in the Second International Conference on Education Technologies and Computers (ICETC2015), IEEE, University of the Thai Chamber of Commerce Thailand, 20th - 22th May 2015.

**Teressa Longjam:**

- Winter School on Computational Intelligence in Pattern Recognition from December 12-December 17, 2016 organised by NIT Kurukshetra.
- ISEA STC Registration: Biometric Security: Theory and Applications: March 2016, Short Term Course on Biometric Security: Theory and Applications, 15-19 March 2016, NIT Rourkela.

**Sanabam Bineshwor Singh:**

- Participated in a two-week ISTE STTP workshop on *Introduction to Design of Algorithms*, May 2015, conducted by Indian Institute of Technology Kharagpur.

**Ngangbam Herojit:**

- Short Term Training Program on "Networking Principles" in NITTR Guwahati Extension from 5/01/2015 to 9/01/2015.

**Khelchandra Thongam:**

- National Conference for Awareness on "National Academic Depository" on 9<sup>th</sup> September, 2016 at Vigyan Bhawan, New Delhi.

**Khundrakpam Johnson Singh:**

- Singh, K.J.; De, T., "DDOS Attack Detection and Mitigation Technique Based on Http Count and Verification Using CAPTCHA," *2015 International Conference on Computational Intelligence and Networks (CINE)*, IEEE, vol., no., pp.196-197, 12-13 Jan. 2015
- Khundrakpam Johnson Singh, Tanmay De, An Approach of DDOS Attack Detection Using Classifiers, *2015 International Conference on Emerging Research in Computing, Information, Communication and Applications*, Springer, vol., no., pp. 1, 429-437, 30-31 Aug 2015.
- Khundrakpam Johnson Singh, Tanmay De, A Novel Approach of Detection and Mitigation of DDOS Attack, *Int'l Conference on Computer Science, Data Mining & Mechanical Engineering (ICCDMMME 2015)*, Bangkok (Thailand), pp. 61-66, April 20-21, 2015.
- Two Week ISTE Short Term Training Programme (STTP) on Introduction to Design of Algorithms, May 2015, organised by IIT Kharagpur.

**Mangalleibi Maibam:**

- Faculty Development Program on HPC and Deep Learning, 17-22 March 2017, organised at IIIT Manipur in Association with E&ICT Academy IIT Guwahati and Fujitsu

**Thokchom Dayaananda Singh:**

- Faculty Development Program on HPC and Deep Learning, 17-22 March 2017, organised at IIIT Manipur in Association with E&ICT Academy IIT Guwahati and Fujitsu.
- Workshop on Recent Trends in VLSI Design, 3-5 October 2016 organised at NIT Manipur in Association with E&ICT Academy IIT Guwahati.

**Kshetrimayum Merina:**

- Faculty Development Program on HPC and Deep Learning, 17-22 March 2017, organised at IIIT Manipur in Association with E&ICT Academy IIT Guwahati and Fujitsu

**9. Any event organized by the Department during (2015-16) (seminar, symposia, conference, workshop etc.):**

- Workshop on "Basic and Advanced concepts of JAVA(JDK 8) and its applications" GeeksLab Technologies Pvt. Ltd, on 4<sup>th</sup> and 5<sup>th</sup> of September 2015
- 5 days' workshop on "SWEBOOK contents (Software Engineering)" by IEEE Computer Society from 15-02-2016 to 19-02-2016 at NIT Manipur

**10. Research projects:**

| Name of the project | Sponsoring agency | Amount<br>(Rs in lakh) | Duration | Principal Investigator |
|---------------------|-------------------|------------------------|----------|------------------------|
|                     |                   |                        |          |                        |

**11. Students enrolled**

| Degree         | Intake Capacity | Year                    | ST |   | SC |   | OBC |   | Gen |   | Total |   |
|----------------|-----------------|-------------------------|----|---|----|---|-----|---|-----|---|-------|---|
|                |                 |                         | M  | F | M  | F | M   | F | M   | F | M     | F |
| <b>B. Tech</b> | 60              | First Year              | 11 | 0 | 5  | 1 | 9   | 3 | 9   | 0 | 34    | 4 |
|                | 60              | Second Year             | 7  | 0 | 9  | 1 | 16  | 1 | 7   | 3 | 39    | 5 |
|                | 60              | Third Year              | 3  | 0 | 9  | 4 | 17  | 1 | 9   | 1 | 38    | 6 |
|                | 30              | Fourth Year             | 1  | 2 | 3  | 1 | 9   | 3 | 6   | 0 | 19    | 6 |
| <b>M.Tech</b>  | 15              | First Year              | 0  | 0 | 0  | 0 | 1   | 0 | 4   | 0 | 5     | 0 |
|                | 05              | First Year (Part Time)  | 0  | 0 | 0  | 0 | 1   | 0 | 0   | 0 | 1     | 0 |
|                | 15              | Second Year             | 0  | 0 | 0  | 0 | 1   | 0 | 4   | 0 | 5     | 0 |
|                | 05              | Second Year (Part Time) | 0  | 0 | 0  | 0 | 1   | 0 | 0   | 3 | 1     | 3 |
| <b>Ph.D</b>    |                 | Full Time               |    |   |    |   |     |   |     |   | 2     | 5 |
|                |                 | Part Time               |    |   |    |   |     |   |     |   | 2     | 2 |

**Details of Students****A. Number of students:**

|                | Gen | OBC | SC | ST | PWD              |
|----------------|-----|-----|----|----|------------------|
| <b>B. Tech</b> | 31  | 54  | 28 | 20 | 2(1 Gen + 1 OBC) |
| <b>M. Tech</b> | 11  | 4   | 4  | 1  | 0                |
| <b>PhD</b>     | 7   | 3   | 0  | 0  | 0                |

**B. Name of students who got prizes in other institutes:**

| Sl. No. | Name          | Sem | Activity              | Name of the Institution      |
|---------|---------------|-----|-----------------------|------------------------------|
| 1.      | Anurag Mishra | 6th | Debugging Competition | Manipur Technical University |

**C. Name of students who went abroad: Nil**

| Sl. No. | Name                  | Course | Purpose of visit                    | Place of visit |
|---------|-----------------------|--------|-------------------------------------|----------------|
| 1       | Ratishchandra Huidrom | Ph.D   | TENCON 2017<br>(Paper Presentation) | Malaysia       |

**Number of Students who qualified Gate 2017:**

| Sl. No.      | Course            | No. of Gate Qualified students |
|--------------|-------------------|--------------------------------|
| 1.           | B.Tech 2013 Batch | 08                             |
| 2.           | M.Tech 2015 Batch | 03                             |
| 3.           | M.Tech 2016 Batch | 05                             |
| 4            | M.Tech 2017 Batch | 04                             |
| <b>Total</b> |                   | <b>20</b>                      |

**12. Ph.D. Scholars:**

- Hidangmayum Saxena Devi
- Angom Buboo
- Ngangbam Herojit Singh
- Anuradha Laishram
- Maibam Mangalleibi Chanu
- Rajkumari Bidyalakshmi Devi
- Ratishchandra Huidrom
- Babyna Nandeibam
- Sanasam Inunganbi
- Th. Korouhanbi Devi
- Pappu Kumar Bhagat



13. Course conducted:

Syllabus of B. Tech.

| First Year       |                             |    |   |    |    |                  |  |    |   |    |    |
|------------------|-----------------------------|----|---|----|----|------------------|--|----|---|----|----|
| Course No.       | Course Name                 | L  | T | P  | C  | Course No.       | Course Name  | L  | T | P  | C  |
| Semester - 1(G1) |                             |    |   |    |    | Semester - 1(G2) |  |    |   |    |    |
| CH101            | Chemistry                   | 3  | 0 | 0  | 6  | CS101            | Introduction to Computing                          | 3  | 0 | 0  | 6  |
| ME101            | Engineering Mechanics       | 3  | 1 | 0  | 8  | EE101            | Basic Electrical & Electronics Sciences            | 3  | 1 | 0  | 8  |
| MA101            | Mathematics - I             | 3  | 0 | 0  | 6  | MA101            | Mathematics - I                                    | 3  | 0 | 0  | 6  |
| PH101            | Physics - I                 | 3  | 0 | 0  | 6  | PH101            | Physics - I  | 3  | 0 | 0  | 6  |
| HS101            | Communication Skills        | 2  | 0 | 0  | 4  | CE101            | Environmental Studies                              | 2  | 0 | 0  | 4  |
| CH111            | Chemistry Laboratory        | 0  | 0 | 2  | 2  | CS111            | Computing Laboratory                               | 0  | 0 | 4  | 4  |
| ME111            | Workshop/Physics Laboratory | 0  | 0 | 3  | 3  | ME111            | Physics Laboratory/Workshop                        | 0  | 0 | 3  | 3  |
| ME112            | Engineering Drawing         | 1  | 0 | 3  | 5  | EE111            | Basic Electrical & Electronics Sciences laboratory | 0  | 0 | 3  | 3  |
| SA101            | Extra-Curricular Activity   | 0  | 0 | 2  | 0  | SA 102           | Extra-Curricular Activity                          | 0  | 0 | 2  | 0  |
|                  |                             | 15 | 1 | 10 | 40 |                  |  | 14 | 1 | 15 | 43 |
| First Year       |                             |    |   |    |    |                  |  |    |   |    |    |

| Course No.           | Course Name                 | L  | T | P  | C  | Course No.           | Course Name  | L  | T | P  | C  |
|----------------------|-----------------------------|----|---|----|----|----------------------|--|----|---|----|----|
| Semester – 2(G3)(G2) |                             |    |   |    |    | Semester – 2(G4)(G1) |  |    |   |    |    |
| CH101                | Chemistry                   | 3  | 0 | 0  | 6  | CS101                | Introduction to Computing                          | 3  | 0 | 0  | 6  |
| ME101                | Engineering Mechanics       | 3  | 1 | 0  | 8  | EE101                | Basic Electrical & Electronics Sciences            | 3  | 1 | 0  | 8  |
| MA102                | Mathematics - II            | 3  | 0 | 0  | 6  | MA102                | Mathematics - II                                   | 3  | 0 | 0  | 6  |
| PH102                | Physics - II                | 3  | 0 | 0  | 6  | PH102                | Physics - II                                       | 3  | 0 | 0  | 6  |
| HS101                | Communication Skills        | 2  | 0 | 0  | 4  | CE101                | Environmental Studies                              | 2  | 0 | 0  | 4  |
| CH111                | Chemistry Laboratory        | 0  | 0 | 2  | 2  | CS111                | Computing Laboratory                               | 0  | 0 | 4  | 4  |
| ME111                | Workshop/Physics Laboratory | 0  | 0 | 3  | 3  | ME111                | Physics Laboratory/Workshop                        | 0  | 0 | 3  | 3  |
| ME112                | Engineering Drawing         | 1  | 0 | 3  | 5  | EE111                | Basic Electrical & Electronics Sciences Laboratory | 0  | 0 | 3  | 3  |
| SA101                | Extra-Curricular Activity   | 0  | 0 | 2  | 0  | SA 102               | Extra-Curricular Activity                          | 0  | 0 | 2  | 0  |
|                      |                             | 15 | 1 | 10 | 40 |                      |  | 14 | 1 | 12 | 40 |
| Second Year          |                             |    |   |    |    |                      |  |    |   |    |    |
| Course No.           | Course Name                 | L  | T | P  | C  | Course No.           | Course Name  | L  | T | P  | C  |
| Semester – 3         |                             |    |   |    |    | Semester – 4         |  |    |   |    |    |
| MA201                | Mathematics III             | 3  | 0 | 0  | 6  | CS202                | Formal Languages and Automata Theory               | 3  | 1 | 0  | 8  |
| CS201                | Data Structures             | 3  | 0 | 0  | 6  | CS204                | Algorithms   | 3  | 0 | 0  | 6  |
| CS203                | Discrete Mathematics        | 3  | 1 | 0  | 8  | CS206                | Computer   | 3  | 0 | 0  | 6  |

|       |                                     |    |   |   |    |       |                                  |    |   |    |    |
|-------|-------------------------------------|----|---|---|----|-------|----------------------------------|----|---|----|----|
|       |                                     |    |   |   |    |       | Organization and Architecture    |    |   |    |    |
| CS205 | Digital Design                      | 3  | 0 | 0 | 6  | CS208 | Object Oriented Programming      | 3  | 0 | 0  | 6  |
| HS201 | Engineering Economics & Accountancy | 2  | 0 | 0 | 4  | MA202 | Probability and Random Processes | 3  | 0 | 0  | 6  |
| CS231 | Data Structures Lab                 | 0  | 0 | 3 | 3  | CS242 | Algorithms Lab                   | 0  | 0 | 3  | 3  |
| CS233 | Digital Design Lab                  | 0  | 0 | 3 | 3  | CS244 | Object Oriented Programming Lab  | 0  | 0 | 3  | 3  |
| SA201 | NCC/NSO/COS                         | 0  | 0 | 2 | 0  | CS246 | Peripherals and Accessories Lab  | 0  | 0 | 3  | 3  |
|       |                                     |    |   |   |    | SA202 | NCC/NSO/COS                      | 0  | 0 | 2  | 0  |
|       |                                     | 14 | 1 | 8 | 36 |       |                                  | 15 | 1 | 11 | 41 |

## Third Year

| Course No.   | Course Name          | L | T | P | C | Course No.   | Course Name                         | L | T | P | C |
|--------------|----------------------|---|---|---|---|--------------|-------------------------------------|---|---|---|---|
| Semester - 5 |                      |   |   |   |   | Semester - 6 |                                     |   |   |   |   |
| MA301        | Optimization         | 3 | 0 | 0 | 6 | HS302        | Management and Managerial Economics | 2 | 0 | 0 | 4 |
| CS301        | Software Engineering | 3 | 0 | 0 | 6 | CS302        | Databases                           | 3 | 0 | 0 | 6 |
| CS303        | Operating Systems    | 3 | 0 | 0 | 6 | CS304        | Compilers                           | 3 | 0 | 0 | 6 |
| CS305        | Data Communication   | 3 | 1 | 0 | 8 | CS306        | Computer Networks                   | 3 | 0 | 0 | 6 |
| CS307        | Machine Learning     | 3 | 0 | 0 | 6 | CS308        | Information Storage and Retrieval   | 3 | 1 | 0 | 8 |
| CS351        | Software Engineering | 0 | 0 | 3 | 3 | CS362        | Databases Lab                       | 0 | 0 | 3 | 3 |



|                     | and System Software Lab   |    |   |   |    |  |                     |                                      |    |   |   |    |  |
|---------------------|---------------------------|----|---|---|----|--|---------------------|--------------------------------------|----|---|---|----|--|
| CS353               | Operating Systems Lab     | 0  | 0 | 3 | 3  |  | CS364               | Compilers and System Programming Lab | 0  | 0 | 3 | 3  |  |
| CS355               | Machine Learning Lab      | 0  | 0 | 3 | 3  |  | CS366               | Computer Networks Lab                | 0  | 0 | 3 | 3  |  |
|                     |                           | 15 | 1 | 9 | 41 |  |                     |                                      | 14 | 1 | 9 | 39 |  |
| <b>Final Year</b>   |                           |    |   |   |    |  |                     |                                      |    |   |   |    |  |
| Course No.          | Course Name               | L  | T | P | C  |  | Course No.          | Course Name                          | L  | T | P | C  |  |
| <b>Semester – 7</b> |                           |    |   |   |    |  | <b>Semester – 8</b> |                                      |    |   |   |    |  |
| CS401               | Computer Graphics         | 3  | 0 | 0 | 6  |  | CS5XX               | Department Elective - IV             | 3  | 0 | 0 | 6  |  |
| MA401               | Numerical Methods         | 3  | 0 | 0 | 6  |  | CS5XX               | Department Elective - V              | 3  | 0 | 0 | 6  |  |
| CS5XX               | Department Elective - I   | 3  | 0 | 0 | 6  |  | CS5XX               | Department Elective - VI             | 3  | 0 | 0 | 6  |  |
| CS5XX               | Department Elective - II  | 3  | 0 | 0 | 6  |  | CS482               | Project - II                         | 0  | 0 | 9 | 9  |  |
| CS5XX               | Department Elective - III | 3  | 0 | 0 | 6  |  |                     |                                      |    |   |   |    |  |
| CS471               | Computer Graphics Lab     | 0  | 0 | 3 | 3  |  |                     |                                      |    |   |   |    |  |
| CS473               | Project - I               | 0  | 0 | 6 | 6  |  |                     |                                      |    |   |   |    |  |
|                     |                           | 15 | 0 | 9 | 39 |  |                     |                                      | 9  | 0 | 9 | 27 |  |

Total Credits: 303

**Syllabus of M. Tech.****SEMESTER – 1**

| <b>Course No.</b> | <b>Course Name</b>                     | <b>L-T-P-C</b>   |
|-------------------|--|------------------|
| CS501             | Advanced data structure and algorithms | 3-0-0-6          |
| CS503             | Mathematics for Computer Science       | 4-0-0-8          |
| CS505             | Computer Systems & Networks            | 3-0-0-6          |
| CSxxx             | Elective – 1                           | 3-0-0-6          |
| CS531             | Programming Lab                        | 0-0-3-3          |
|                   | <b>Total</b>                           | <b>13-0-3-29</b> |

**SEMESTER – 2**

| <b>Course No.</b> | <b>Course Name</b>    | <b>L-T-P-C</b>   |
|-------------------|-----------------------|------------------|
| CS502             | Theory of Computation | 3-0-0-6          |
| CSxxx             | Elective – 2          | 3-0-0-6          |
| CSxxx             | Elective – 3          | 3-0-0-6          |
| CSxxx             | Elective – 4          | 3-0-0-6          |
| CS532             | Computer System Lab   | 0-0-3-3          |
|                   | <b>Total</b>          | <b>12-0-3-27</b> |

**SEMESTER – 3**

| <b>Course No</b> | <b>Course Name</b> | <b>L-T-P-C</b>   |
|------------------|--------------------|------------------|
| CS631            | Thesis             | 0-0-24-24        |
|                  | <b>Total</b>       | <b>0-0-24-24</b> |

**SEMESTER – 4**

| <b>Course No</b> | <b>Course Name</b> | <b>L-T-P-C</b>   |
|------------------|--------------------|------------------|
| CS632            | Thesis             | 0-0-24-24        |
|                  | <b>Total</b>       | <b>0-0-24-24</b> |

**Total Credit = 104**

**14. Equipment List**

| Sl. No | Type of vehicle/machinery/equipment       | Year of acquisition | Cost Price (Rs) | Present status on or off road or functioning / non - functioning) | In case of off road /non-functioning, date from which off road/non-functioning | Remarks if any |
|--------|---|---------------------|-----------------|---|--|----------------|
| 1.     | Workstation Precision Tower 7810          | 2015                | 6,17,925        | Functioning   | NIL  |                |
| 2.     | Juniper Networks SRX550                   | 2015                | 24,22,245       | Functioning   | NIL  |                |
| 3.     | Biometrics (Hardware and Software)        | 2015                | 31,29,000       | Functioning   | NIL  |                |
| 4.     | Digital Circuit Trainer(Dynalog)          | 2015                | 14,17,500       | Functioning   | NIL  |                |
| 5.     | 8085 Microprocessor training Kit(Dynalog) | 2015                | 11,81,250       | Functioning   | NIL  |                |
| 6.     | Study Cards/Peripheral Interface Cards    | 2015                | 303750          | Functioning   | NIL  |                |
| 7.     | Digital storage Oscilloscope              | 2015                | 5,56,500        | Functioning   | NIL  |                |
| 8.     | Power Supply DC Output Rating             | 2015                | 5,20975         | Functioning   | NIL  |                |
| 9.     | Oracle Server                             | 2014                | 2,90,850        | Functioning   | NIL  |                |
| 10.    | Desktop i7                                | 2015                | 17,00087        | Functioning   | NIL  |                |
| 11.    | Wireless Sensor Network kit               | 2013                | 3,95,625        | Functioning   | NIL  |                |
| 12.    | Robotics Kit                              | 2013                | 8,01,800        | Functioning   | NIL  |                |
| 13.    | Digital Image                             | 2015                | 7,21,884        | Functioning   | NIL  |                |



|     |  |      |             |             |     |  |
|-----|--|------|-------------|-------------|-----|--|
|     | Processing Kit                             |      |             |             |     |  |
| 14. | Benchmark LAN Trainer Kit                  | 2013 | 1155000     | Functioning | NIL |  |
| 15. | Benchmark I- security                      | 2013 | 577500      | Functioning | NIL |  |
| 16. | Benchmark Network System                   | 2013 | 10,50,000   | Functioning | NIL |  |
| 17. | Microsoft Windows(OS) with Pro Upgrade     | 2015 | 18,86,745   | Functioning | NIL |  |
| 18. | IBM Rational Software Architect            | 2015 | 2043514     | Functioning | NIL |  |
| 19. | IBM Rational Application Developer         | 2015 | 4901169     | Functioning | NIL |  |
| 20. | VMware Workstation with production support | 2015 | 1148647.50  | Functioning | NIL |  |
| 21. | Estinet Software ES-9SB                    | 2015 | 27,30,000   | Functioning | NIL |  |
| 22. | Adobe Acrobat pro DC                       | 2015 | 5,93,548.20 | Functioning | NIL |  |
| 23. | NETSIM Standard Edition 8.1                | 2015 | 29,40,000   | Functioning | NIL |  |
| 24. | Oracle Database 11g                        | 2014 | 35,67,744   | Functioning | NIL |  |
| 25. | Oracle Technical Support Renewal           | 2014 | 77396.66    | Functioning | NIL |  |
| 26. | MATLAB 2014                                | 2014 | 84,35,700   | Functioning | NIL |  |
| 27. | Software for Advanced Linux Lab            | 2015 | 6797892.48  | Functioning | NIL |  |

**15. PLACEMENT Report**

| Sl. No. | Department | No. of Students Placed | No. of Eligible Students | Salary         |
|---------|------------|------------------------|--------------------------|----------------|
| 1       | CSE        | 19                     | 22                       | 2.04 to 10 LPA |

22-23 August 2016

**1. COMPANY NAME: CGI (3.25LPA)**

| Sl. No. | Name            | Department |
|---------|-----------------|------------|
| 1       | PRASHANT SINGH  | CSE        |
| 2       | PRAKASH KUMAR   | CSE        |
| 3       | SAURABH KUKRETI | CSE        |

17-18 September 2016

**2. COMPANY NAME: CAPGEMINI (6.00LPA)**

| Sl. No. | Name            | Department |
|---------|-----------------|------------|
| 1       | PRASHANT SINGH  | CSE        |
| 2       | SAURABH KUKRETI | CSE        |
| 3       | ABHIGYA PRANSHU | CSE        |

27-28 September 2016

**3. COMPANY NAME: WIPRO (3.25 LPA)**

|   |                     |     |
|---|---------------------|-----|
| 1 | MAYANK YADAV        | CSE |
| 2 | FM NURULHUDA PATHAN | CSE |
| 3 | VADDE KARTHEEK      | CSE |
| 4 | AMIT SANKHLA        | CSE |
| 5 | TARUN JOSHI         | CSE |
| 6 | UTPAL KUMAR         | CSE |

3-4 October 2016

**4. COMPANY NAME : IBM (3.25LPA)**

|   |            |     |
|---|------------|-----|
| 1 | NEHA PRIYA | CSE |
|---|------------|-----|

15-16 October 2016

**5. COMPANY NAME: INFOSYS (3.2LPA)**

|   |                         |     |
|---|-------------------------|-----|
| 1 | KHARIBAM PRIYOJIT SINGH | CSE |
|---|-------------------------|-----|

18-19 November 2016

**6. COMPANY NAME: SAPIENT NITRO (5.00LPA)**

|   |             |     |
|---|-------------|-----|
| 1 | TARUN JOSHI | CSE |
|---|-------------|-----|



17<sup>th</sup> March 2017

## 7. SAP (10LPA)

|   |                |     |
|---|----------------|-----|
| 1 | AMIT SHANKLA   | CSE |
| 2 | PRAKASH KUMAR  | CSE |
| 3 | PRASHANT SINGH | CSE |

15<sup>th</sup> April 2017

## 8. Rechner Software pvt. Ltd.

|   |                   |     |
|---|-------------------|-----|
| 1 | KISHAN KONTHOUJAM | CSE |
| 2 | L SOMORJIT SINGH  | CSE |
| 3 | BEDITA ARAMBAM    | CSE |
| 4 | ROHIT KUMAR       | CSE |
| 6 | BONDHU RAJU       | CSE |
| 7 | ROJALIN           | CSE |
| 8 | VIBHAS KUMAR      | CSE |

## 9. GREENPEACE (CTC: 2.4 LPA)

|   |             |     |
|---|-------------|-----|
| 1 | BONDHU RAJU | CSE |
|---|-------------|-----|

**Annual Report for April, 2016 – March, 2017**  
**Department of ECE**

**A. Faculty list**

| Name of Faculty          | Designation       | Qualification |
|--------------------------|-------------------|---------------|
| Dr. Ashish Ranjan        | Asst. Prof. (HOD) | PhD           |
| Mr. L. Surajkumar Singh  | Asst. Prof.       | M.E           |
| Mr. Manoj Kumar          | Asst. Prof.       | M.Tech        |
| Ms. Chitrakleha Ng.      | Asst. Prof.       | M.Tech        |
| Mr. K. Pritamdas         | Asst. Prof.       | M.E           |
| Ms. Kh. Jilenkumari Devi | Lecturer          | M.Tech        |
| Mr. H. Tarunkumar        | Lecturer          | M.Tech        |
| Ms. Pinky Kh.            | Lecturer          | M.Tech        |
| Mr. Th. Churchil Singh   | Lecturer          | M.E           |
| Mr. S. Jayananda Singh   | Lecturer          | M.Tech        |
| Ms. S. Devayani Devi     | Lecturer          | M.Tech        |
| Mr. Richard N.           | Lecturer          | M.Tech        |
| <b>Total</b>             |                   | <b>12</b>     |

**B. Technical Staff list**

| Name of Staff                 | Designation     | Qualification |
|-------------------------------|-----------------|---------------|
| Mr. Yumnam Shantikumar Singh  | Technical Asst. | B.Tech        |
| Ms. AnupaHijam                | Technical Asst. | B.E           |
| Mr. Salam Nonglenkhomba Singh | Technical Asst. | B.E           |
| Ms. N. Debala Devi            | Technical Asst. | B.E           |
| Mr. Robert Okram              | Technician      | B.Tech.       |
| <b>Total No. of Staff</b>     |                 | <b>5</b>      |

**C. Student list****B. Tech Student**

| Name of Student             | Enrollment Number | Name of Student        | Enrollment Number |
|-----------------------------|-------------------|------------------------|-------------------|
| Maibam Pooya Chanu          | 16105001          | Samarth Tibdewal       | 16105010          |
| Lydia Thoudam               | 16105002          | Yuimi Lungleng         | 16105011          |
| Justice Waikhom             | 16105003          | Serbum Nungaesha Moyon | 16105012          |
| Suraj Chingkhmayum          | 16105004          | Wungalak Raikhan       | 16105013          |
| Yendreddy, Venu Gopal Reddy | 16105005          | Amit Kumar             | 16105014          |
| Dayananda Thounaojam        | 16105006          | Thuinganing Kasomwoshi | 16105015          |
| Takhelchangbam Sachi Sharma | 16105008          | Teresa Paonam          | 16105016          |
| Angom Priyokanta            | 16105009          | Kalamanda Srikanth     | 16105017          |
| <b>Total</b>                |                   | <b>16</b>              |                   |

**M. Tech Student**

| Name of Student   | Enrollment Number |
|-------------------|-------------------|
| Ph Nonglen Meitei | 16205001          |
| Sumit Kumar Sinha | 16205002          |
| Abhilasha Kumari  | 16205003          |
| Nitin Singhal     | 16205004          |
| Rohit Kumar Singh | 16205005          |
| PamuHarika        | 16205008          |
| <b>Total</b>      | <b>6</b>          |

**PhD Student**

| Name of Student          | Full Time/Part Time | Enrollment Number |
|--------------------------|---------------------|-------------------|
| Mr. Bonny Sharungbam     | Full - Time         | 14PEC003          |
| Mr. Manoj Kumar          | Part Time           | 15PEC001          |
| Mr. H. Tarunkumar        | Part Time           | 14PEC002          |
| Ms. Kh. Jilenkumari Devi | Part Time           | 14PEC001          |
| Mr. K. Pritamdas         | Part Time           | 13PEC001          |
| Mr. L. Surajkumar Singh  | Part Time           | 1640500           |
| <b>Total</b>             | <b>6</b>            |                   |

**Total Number of graduating students = 11(B.Tech) + 15 (M.Tech) = 26**

**D. Number of Publications****Journal**

| Author's Name       | Title   | SCI/SCIE/AHCI/SCOPUS / ICI/ Other |
|---------------------|---|-----------------------------------|
| Ashish Ranjan       | Ashish Ranjan, Subrahmanyam Perumalla, Ravi Kumar, Vista J. (2017). "Third Order Universal Filter using CCCIP", Analog Integrated Circuits and Signal Processing., vol. 90, pp: 539-550.doi: 10.1007/s10470-016-0890-2, (March, 2017)                                 | SCI                               |
| Ashish Ranjan       | Chanderkanta, Ashish Ranjan, Santosh Kumar (2017). "Design of transmission gate using electro-optic effect of lithium niobate-based Mach-Zehnderinterferome-ters", Photonic Network Communications, DOI: 10.1007/s1107-017-0694-z,(March, 2017)                       | SCI                               |
| Chitrlekha Ngangbam | B. Shougaijam, Chitrlekha Ngangbam, T. R. Lenka(2017). "Plasmon-Sensitized Optoelectronic Properties of Au Nanoparticle-Assisted Vertically Aligned TiO2 Nanowires by GLAD Technique", IEEE TRANSACTIONS ON ELECTRON DEVICES, vol. 64, pp: 1127 – 1133, (March, 2017) | SCI                               |
| K.Pritamdas         | K Pritamdas, KM Singh, LL Singh (2016). "An adaptive switching filter based on approximated variance for detection of impulse noise from color images", SpringerPlus, vol. 5, DOI: 10.1186/s40064-016-3644-9, (November, 2016)  | SCI                               |



|                                     |   |                |
|-------------------------------------|---|----------------|
| Manoj Kumar                         | <b>Manoj Kumar, Manglemsingh (2016).</b> "Content based medical image retrieval system using texture and intensity feature for eye image", <i>International Journal of Scientific &amp; Engineering Research</i> , Vol. 7, pp: 636-640, (September, 2016)   | Google Scholar |
| Manoj Kumar                         | <b>Manoj Kumar, Kholee Phimu (2016)</b> "VLSI Implementation of area efficient 2-parallel FIR Digital Filter", <i>International Journal of VLSI design and Communication System</i> , vol. 7, pp. 17-24, (December, 2016)   | Google Scholar |
| Chitralkha Ngangbam                 | Longjam Abungcha Meitei, Rosy Kimneithem Haokip, Pheiroijam Pooja, <b>Chitralkha Ngangbam</b> , Biraj Shougaijam(2016). "Optical and Structural properties analysis of In <sub>2</sub> O <sub>3</sub> thin film deposited on GaN substrate and its optoelectronic applications", <i>International Journal of Engineering Research in Electronic and Communication Engineering (IJERECE)</i> , Vol. 3, pp. 197- 201, (April, 2016) | Google Scholar |
| Chitralkha Ngangbam                 | PheiroijamPooja,Rosy Kimneithem Haokip, Longjam Abungcha Meitei, <b>Chitralkha Ngangbam(2016).</b> "Structural, Optical and electrical characterization of Glancing Angle Deposited In <sub>2</sub> O <sub>3</sub> nanowire array for photo-detector applications", <i>International Journal of Engineering Research in Electronic and Communication Engineering (IJERECE)</i> , vol. 4, pp. 211- 216, (April, 2016)              | Google Scholar |
| Chitralkha Ngangbam                 | Rosy Kimneithem Haokip, Longjam Abungcha Meitei, Pheiroijam Pooja, <b>Chitralkha Ngangbam(2016).</b> "Optical and Structural analysis of TiO <sub>2</sub> nanowires deposited on Gallium nitride substrate and its photo-detector applications", <i>International Journal of Engineering Research in Electronic and Communication Engineering (IJERECE)</i> , vol. 4, pp. 206 – 210, (April, 2016)                                | Google Scholar |
| Kh. JilenKumari & K.Pritamdas       | Mohammad Ismaeil, Kh. JilenKumari Devi, Keisham Pritamdas, and Samarth Goyal(2017). "Performance Analysis of Algorithms over FPGA for Removing of Impulse Noise" <i>International Journal of Electronics, Electrical and Computational System</i> , Volume 6, Issue 3, pp. 189 – 194, (March, 207)  | Google Scholar |
| <b>Total number of Publications</b> |   | <b>10</b>      |

| Conference               |   |                                |
|--------------------------|---|--------------------------------|
| Author's Name            | Title   | SCI/SCIE/AHCI/SCOPUS/ICI/Other |
| Chitralekha Ngangbam     | Biraj Shougaijam, Chitralekha Ngangbam, T. R. Lenka (2017). "Fast Response Time Photodetector Based on Annealed TiO <sub>2</sub> Nanowires Deposited by GLAD", IEEE TENCON, Singapore, (November, 2017)   | IEEE Conf.                     |
| Ashish Ranjan & H. Tarun | H. Tarun, A. Ranjan, R. Kumar and S. Perumalla(2016). "Operational Amplifier based Fractional device of order $s^{\pm 0.5}$ ", International Conference on Intelligent Communication, Control and Devices, Dehradun, pp. 151-157, (September, 2016) | SCOPUS                         |
| Pinky Kh.                | Imopishak Thingom, Pinky Khundrakpam (2016). "FPGA implementation of FIR filter using RADIX-2", International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET), (March, 2016)                                      | IEEE Conf.                     |
| Total                    |   | 3                              |

Book – NIL

## E. Number of Labs

## B.Tech

| Name of Semester         | Name of Labs   |
|--------------------------|--|
| 3 <sup>rd</sup> Semester | 1. Network Analysis Lab<br>2. Semiconductor Device and Circuits Lab<br>3. Analog Circuits Lab                                |
| 4 <sup>th</sup> Semester | 1. Digital Electronics Lab<br>2. Analog Communication Lab<br>3. Electronics and Electrical Measurement & Instrumentation Lab |
| 5 <sup>th</sup> Semester | 1. Microprocessor Lab<br>2. Digital Communication Lab<br>3. Digital signal processing Lab<br>4. Control Systems Lab          |
| 6 <sup>th</sup> Semester | 1. VLSI and VHDL Lab<br>2. Embedded system Lab<br>3. Industrial Electronics Lab<br>4. Antenna Design Lab                     |
| 7 <sup>th</sup> Semester | 1. Microwave Engineering Lab<br>2. Computer Networks Lab   |
| Total                    | 16   |

## M.Tech

| Name of Semester         | Name of Labs                   |
|--------------------------|--------------------------------|
| 1 <sup>st</sup> Semester | VLSI & Embedded Systems Lab I  |
| 2 <sup>nd</sup> Semester | VLSI & Embedded Systems Lab II |
| Total                    | 2                              |

**F. Number of Workshop/Conference/Trainings/Short terms organised**

| <b>Workshop</b>           |  |                            |                       |
|---------------------------|--|----------------------------|-----------------------|
| <b>Coordinator's Name</b> | <b>Name of workshop/Training</b>   | <b>No. of participants</b> | <b>Duration</b>       |
| Mr. K. Pritamdas          | Two – Week ISTE STTP on CMOS, Mixed Signal and Radio Frequency VLSI Design | 21                         | Jan 23 – Feb 04, 2017 |
| Dr. Ashish Ranjan         | Recent Trends in VLSI Design   | 60                         | Oct. 03 – 05, 2016    |
| <b>Total</b>              |  |                            | <b>2</b>              |

**G. Name of Faculty/Staff presented paper in Conference/Attended workshop/Training/Short terms in other Institute.**

| <b>Workshop/Short term training</b> |  |  |                         |
|-------------------------------------|--|--|-------------------------|
| <b>Participant's Name</b>           | <b>Name of workshop/Training</b>   | <b>Name of the Institute</b>                     | <b>Duration</b>         |
| Dr. Ashish Ranjan                   | Two – Week ISTE STTP on CMOS, Mixed Signal and Radio Frequency VLSI Design | NIT Manipur                                      | Jan 23 – Feb 04, 2017   |
| Mr. Th. Churchil                    | Two – Week ISTE STTP on CMOS, Mixed Signal and Radio Frequency VLSI Design | NIT Manipur                                      | Jan 23 – Feb 04, 2017   |
| Ms. Kh. Jilenkumari                 | Two – Week ISTE STTP on CMOS, Mixed Signal and Radio Frequency VLSI Design | NIT Manipur                                      | Jan 23 – Feb 04, 2017   |
| Mr. H. Tarunkumar                   | Two – Week ISTE STTP on CMOS, Mixed Signal and Radio Frequency VLSI Design | NIT Manipur                                      | Jan 23 – Feb 04, 2017   |
| Mr. Richard Ningthoujam             | Two – Week ISTE STTP on CMOS, Mixed Signal and Radio Frequency VLSI Design | NIT Manipur                                      | Jan 23 – Feb 04, 2017   |
| Mr. Manoj Kumar                     | Two – Week ISTE STTP on CMOS, Mixed Signal and Radio Frequency VLSI Design | NIT Manipur                                      | Jan 23 – Feb 04, 2017   |
| Mr. Th. Churchil                    | LabView and MATLAB Applications in Engineering                             | NITTTR, Kolkata                                  | Dec. 02 – Jan. 06, 2014 |
| Mr. Manoj Kumar                     | Recent Trends in VLSI Design   | E & ICT Academy IIT Guwahati host by NIT Manipur | Oct. 03 – 05, 2016      |
| Ms. Pinky Khundrakpam               | Recent Trends in VLSI Design   | E & ICT Academy IIT Guwahati host by NIT Manipur | Oct. 03 – 05, 2016      |
| Mr. Th. Churchil                    | Recent Trends in VLSI Design   | E & ICT Academy IIT Guwahati host by NIT Manipur | Oct. 03 – 05, 2016      |



|                         |  |  |                     |
|-------------------------|--|--|---------------------|
| Mr. Richard Ningthoujam | Recent Trends in VLSI Design   | E & ICT Academy<br>IIT Guwahati host<br>by NIT Manipur | Oct. 03 – 05, 2016  |
| Mr. Y. Shantikumar      | Recent Trends in VLSI Design   | E & ICT Academy<br>IIT Guwahati host<br>by NIT Manipur | Oct. 03 – 05, 2016  |
| Ms. N. Debala Devi      | Recent Trends in VLSI Design   | E & ICT Academy<br>IIT Guwahati host<br>by NIT Manipur | Oct. 03 – 05, 2016  |
| Mr. S. Jayananda        | Recent Trends in VLSI Design   | E & ICT Academy<br>IIT Guwahati host<br>by NIT Manipur | Oct. 03 – 05, 2016  |
| Ms. Kh. Jilenkumari     | Recent Trends in VLSI Design   | E & ICT Academy<br>IIT Guwahati host<br>by NIT Manipur | Oct. 03 – 05, 2016  |
| Mr. K. Pritamdas        | One – Week ISTE STTP for<br>Coordinators on CMOS, Mixed<br>Signal and Radio Frequency<br>VLSI Design | IIT Kharagpur  | Sept. 19 – 23, 2016 |
| Mr. S. Jayananda        | Electromagnetic Wave   | NITTTR, Kolkata  | July 11 – 15, 2016  |
| Mr. S. Nonglenkhomba    | Electromagnetic Wave   | NITTTR, Kolkata  | July 11 – 15, 2016  |
| Mr. Th. Churchil        | Simulation and Analysis of Non<br>– linear and Adaptive Control<br>System.                           | NITTTR, Kolkata  | July 25 – 29, 2016  |
| Dr. Ashish Ranjan       | MATLAB Application in<br>Engineering   | NITTTR, Kolkata  | May 23 – 27, 2016   |
| <b>Total</b>            |  |  | <b>20</b>           |

## Conference

| Participant's Name | Name of Conference   |
|--------------------|--|
| Mr. H. Tarunkumar  | International Conference on Intelligent Communication, Control and Devices, Dehradun                               |
| Dr. Ashish Ranjan  | International Conference on Intelligent Communication, Control and Devices, Dehradun                               |
| Mr. Manoj Kumar    | 2 <sup>nd</sup> International Conference on Sustainable Computing Techniques in Engineering Science and Management |
| <b>Total</b>       | <b>3</b>   |

H. Number of Projects–NIL

I. Number of Patents –NIL

J. Number of Consultancy –NIL

K. Number of Students who have qualified GATE - 2017



**M. Tech Student (2015-2017) Batch**

| Student's Name             | Registration No. | Category | Score        | Marks    |
|----------------------------|------------------|----------|--------------|----------|
| Perumalla Subrahmanyam     | EC17S44031039    | OBC      | 508          | 37.69    |
| Abhishek Kumar Chaudhury   | IN17S84031005    | OBC      | 343          | 34.03    |
| Tourangbam Harishore Singh | EC17S44032014    | OBC      | 325          | 23.00    |
|                            |                  |          | <b>Total</b> | <b>3</b> |

**M. Tech Student (2016-2018) Batch**

| Student's Name    | Registration No. | Category | Score        | Marks    |
|-------------------|------------------|----------|--------------|----------|
| Nitin Singhal     | IN17S84030002    | GE       | 372          | 36.69    |
| Sumit Kumar Sinha | EE17S54031018    | OBC      | 355          | 25.70    |
|                   |                  |          | <b>Total</b> | <b>2</b> |

**B. Tech Student (2013-2017) Batch**

| Student's Name      | Registration No. | Category | Score        | Marks    |
|---------------------|------------------|----------|--------------|----------|
| BochaVeerendra      | EC17S44031023    | OBC      | 446          | 32.67    |
| Sai Sharan          | CS17S54030070    | OBC      | 533          | 41.36    |
| Poushali Mukherjee  | EC17S44031031    | GE       | 384          | 27.69    |
| Rajeev Kumar        | EC17S34030037    | OBC      | 343          | 24.43    |
| Ashish Kumar Pathak | EC17S34030027    | GE       | 399          | 28.43    |
|                     |                  |          | <b>Total</b> | <b>5</b> |

NET/CAT/GRE-NIL

**L. Number of students who got Placement and went for higher study in NITMN and other Institutes.****Placement**

| Student's Name  | Name of Placement     | Package         |
|---|-----------------------|-----------------|
| Poushali Mukherjee  | TECH Mahindra         | 3.5Lakh         |
| B. Sai Sharan   | CAPGEMINI             | 6 Lakh          |
| Ashish Kumar Pathak   | IBM                   | 3.7Lakh         |
| BochaVeerendra, Rajeev Kumar, Salu, Md. Shahzad, PrameshwarRupavath, Ravi Teja, B. Ramu | RECHNER TECH PVT. LTD | 1.3Lakh         |
|   |                       | <b>Total</b> 10 |

**Higher Study**

| Student's Name  | Name of Institute  | Course         |
|-----------------|--|----------------|
| Ms. Pooja Ph.   | National Institute of Technology Nagaland (NIT Nagaland)                                       | PhD.           |
| Mr. Ajit Sinam  | North Eastern Regional Institute of Science & Technology (NERIST), Nirjuli, Arunachal Pradesh  | PhD.           |
| Mr. Johnson Kh. | North Eastern Regional Institute of Science & Technology (NERIST), Nirjuli, Arunachal Pradesh. | M.Tech         |
|                 |  | <b>Total</b> 3 |

M. Number of Books in the library – NIL

N. Number of Classrooms, Lab rooms.

|                      |            |
|----------------------|------------|
| Number of Classrooms | 2          |
| Number of Lab rooms  | B.Tech - 4 |
|                      | M.Tech - 1 |

O. Number of Faculty & Staff who went abroad for training, workshop, conference, others – NIL

P. Number of Centre of excellence – NIL

Q. Number of MOU – ONE (E&ICT Academy IIT Guwahati and NIT Manipur)

R. Name of the students who got prizes in other institutes – NIL

S. Name of the students who went abroad

| Student's Name  | B.Tech/M.Tech/PhD | Name of Dept. | Purpose   | Country |
|-----------------|-------------------|---------------|---|---------|
| Bocha Veerendra | B.Tech Student    | ECE           | Cultural Exchange & people to people exchange Telecommunication | Japan   |

## Departmental Annual Report

(April, 2016- March, 2017)

### Department of Electrical Engineering

#### A. Publications

##### a. Total number of Journal publications = 7

1. A. Ghosh, S. Banerjee, M. K. Sarkar and P. Dutta, "Design and Implementation of Type-II and Type-III Controller for DC-DC Switched-Mode Boost Converter by using K-Factor Approach and Optimization Techniques", IET Power Electronics, Volume 9, Issue 5, pp. 938 – 950, 2016. (SCI)
2. S. Banerjee, M. K. Sarkar and A. Ghosh, "System and Method for obtaining simultaneous levitation and rotation of a ferromagnetic object", Journal of The Institution of Engineers (India): Series B. Springer, pp 1-8, 2017. (Google Scholar)
3. Tayenjam Jeneetaa, Benjamin A. Shimray, Romesh Laishram, "artificial Bee Colony Tuned PID Controller for Vibration Control In Two Mass Drive Systems", Vol.4, Issue.3. 2016. (Google Scholar)

4. Shuma Adhikari, Nidul Sinha., Optimal coordination of directional overcurrent relays using Bacteria Foraging Algorithm, Journal of Scientific & Industrial Research, Vol. 75, September 2016, pp.557-561. (SCIE)
5. Shuma Adhikari, Nidul Sinha, Thingam Dorendrajit. (2016). Fuzzy logic based on-line fault detection and classification in transmission line. Springerplus, DOI 10.1186/s40064-016-2669-4. (SCIE)
6. Shuma Adhikari, Nidul Sinha, Thingam Dorendrajit. (2016). Application of LabView as real time SCADA in power system transmission line, International Journal of Applied Engineering Research, Volume 11, Number 7, pp 5028-5031, 2016. (Google Scholar)
7. Benjamin A Shimray, KM Singh, T Khelchandra, RK Mehta "Ranking of Sites for Installation of Hydropower Plant Using MLP Neural Network Trained with GA: A MADM Approach". Computational Intelligence and Neuroscience, Volume 2017 (2017), Article ID 4152140, 8 pages <https://doi.org/10.1155/2017/4152140> (SCIE)]

**B. Number of Conferences=Nil**

**B. Number of Project= Nil**

**C. Number of Patents= Nil**

**D. Number of Regular Faculty=3**

**a. Number of Regular Faculty with PhD=1**

#### **List of Regular Faculty with PhD**

1. Dr. Mrinal Kanti Sarkar

**b. Number of Regular Faculty without PhD=2**

#### **List of Regular Faculty without PhD**

1. Dr. Shuma Adhikari
2. Mr. Benjamin A Shimray

**E. Number of Contract Faculty without PhD=7**

#### **List of Contract Faculty without PhD**

1. Mr. Devakishore Phurailatpam

2. Ms. Laishram Khumanleima Chanu
3. Ms. Rajkumari Malemnganbi
4. Ksh. Priyalakshmi Devi
5. Lukram Dhanachandra Singh
6. Ingudam Chitrasen Singh
7. Simon Tongbram

**F. Number of Contract Staff without PhD=2**

**List of Contract Staff without PhD**

1. Paonam Shantibala Devi
2. Mexkumar Brahmacharimayum

**G. Library Purchase:**

- a. Books=Information not available

**H. Number of GATE/NET Qualified Students**

- a. B-Tech 2017 (pass out) = 2
- b. M-Tech 2017 (batch 2015-2017, batch 2016-2018) = 5

**I. Number of Students Placed**

1. Year 2015-2016
  - a. B-Tech batch 2012-2013 =18
    - i) Private Company =16
    - ii) Govt. =2
  - b. M-Tech batch 2014-2015
    - i) Private Company =Nil
    - ii) Govt. =2

**J. Number of Admitted PG Students**

- a. Batch 2016-2017= 8



**K. Number of Faculty/ Staff Attended to Present Conference Paper**

- a. Year 2016-2017= Nil

**L. Number of Faculty/ Staff Attended Workshop or Training to Other Institute**

- a. Year 2016-2017= Nil

**M. Number of Faculty/ Staff who have given invited Talk to Other Institute**

- a. Year 2016-2017= Nil

**N. Number of Ladies Faculty/ Staff As a member, heads, etc.= 1 (Departmental Head)****O. Number of Pass out B-Tech, M-Tech, PhD Students and Pass Percentage**

1. Year 2016-2017

- a. B-Tech batch (2012-2013) = 18  
b. M-Tech batch (2014-2015) = 7  
c. PhD = Nil

**P. Departmental Total Purchase Amount =**

- a. Year 2016-2017 = 30 Desktop PC (Dell)

**Annual Report  
Department of Civil Engineering**

Number of Students of NIT Manipur in Civil Department

1. B-tech 1<sup>st</sup> year (1<sup>st</sup> sem) = 26
2. B-tech 2<sup>nd</sup> year (3<sup>rd</sup> sem) = 24
3. B-tech 3<sup>rd</sup> year (5<sup>th</sup> Sem) = 27
4. B-tech 4<sup>th</sup> year (7<sup>th</sup> Sem) = 29
5. M-tech students (1<sup>st</sup> sem) = 15
6. M-tech students (2<sup>nd</sup> sem) = 15
7. M-tech (Part-time) = 05
8. PhD = 13

Civil Department of NIT Manipur faculty list

1. Dr. P. Albino Kumar
2. Dr. Bakimchandra Oinam
3. Dr. Ngangbam Romeji Singh
4. Dr. Thiyam Tamphasana Devi
5. Dr. Mayengbam Sunil Singh
6. Dr. Waikhom Victory
7. Dr. Khwairakpam Sachidananda
8. Mr. Maisnam Nongthouba
9. Ms. Sarungbam Pipileima

#### Paper Published In International SCI/ Extended SCI/Scopus/indexed Journals and Conferences:

##### 1. Dr. P. Albino Kumar

- a) Sarungbam Pipileima and **P. Albino Kumar**, "Comparative Studies between Conventional and Polymer based Adsorption for Defluoridization for Drinking Water", *Journal of Energy Research and Environmental Technology(JERET)*, Vol. 3, Issue 1,2016, pp. 34-37.
- b) Sarungbam Pipileima and **P. Albino Kumar**, "Kinetics Study of Fluoride Uptake by Functionalized Polymer Polyaniline Synthesized on Jute Fibre", *Journal of Basic and Applied Engineering Research* p-ISSN: 2350-0077; e-ISSN: 2350-0255; Volume 3, Issue 12; October-December, 2016, pp. 1136-1139.

#### Paper Presented

- a) Sarungbam Pipileima, Longjam Anjali, **Potsangbam Albino Kumar**, "Assessment of Water Crisis & Management of Village Pond Water for Drinking Water at Nambol Village, Manipur", presented at 2016 Youth Sustainable Water Resources Education and Hub in APEC region on 4<sup>th</sup> to 8<sup>th</sup> September 2016 at National Pingtung University of Science and Technology, Chinese Taipei.

##### 2. Dr. Bakimchandra Oinam

#### 1. Paper Published In International SCI/ Extended SCI/Scopus/indexed Journals

- a) Parida, B.R.; Behera, S.N.; **Bakimchandra, O.**; Pandey, A.C.; Singh, N. (2017) Evaluation of Satellite-Derived Rainfall Estimates for an Extreme Rainfall Event over Uttarakhand, Western Himalayas. *Hydrology*, 4, 22, doi:10.3390/hydrology4020022.
- b) Mehra, M., Singh, C. K., Abrol, I. P., & **Oinam, B.** (2016). A GIS-based methodological framework to characterize the Resource Management Domain (RMD): A case study of Mewat district, Haryana, India. *Land Use Policy*, 60, 90-100

- c) Kumari, M., Singh, C. K., **Bakimchandra, O.** and Basistha, A. (2016), Geographically weighted regression based quantification of rainfall-topography relationship and rainfall gradient in Central Himalayas. *Int. J. Climatol.* doi:10.1002/joc.4777
- d) Kumari M., Singh, C.K. , **Bakimchandra, O.** and Basistha A. (2016) DEM-based delineation for improving geostatistical interpolation of rainfall in mountainous region of Central Himalayas, India. *Theor Appl Climatol.* pp 1-8. doi: 10.1007/s00704-016-1866-y

## 2. Paper Published In National Journals:

- a) **Oinam Bakimchandra** (2016), "Manipur: Spatial Geo-Database on Land Degradation", ENVIS Newsletter on Himalayan Ecology, vol. 13, no. 9, pp. 7. ISSN:2277-9000.
- b) Mehra, M., **Oinam, B.C.**, & Singh, C.K., (2016) Integrated Assessment of Groundwater for Agricultural Use in Mewat District of Haryana, India Using Geographical Information System (GIS). *Journal of the Indian Society of Remote Sensing* <http://dx.doi.org/10.1007/s12524-015-0541-6>.
- c) B.R. Parida and **B. Oinam** (2015). North Eastern region witnessed frequent unprecedented Drought than Western India. *Current Science*, Vol. 109, No. 11, 10.

## 3. Paper Publication in National Conferences

| Sl. No. | Title of Paper  | Co-author(s), if any              | Name of the Conference  | Date and Year               |
|---------|---|-----------------------------------|---|-----------------------------|
| 1       | "Geospatial based land degradadtion mapping and manitoring in the North-Eastern India: A case Study in Manipur" | Chandramani Loukrakpam            | 38th Asian Conference on Remote Sensing (ACRS 2017)   | October 23-27; Delhi, India |
| 2       | Hydrological Analysis of Satellite derived Extreme Rainfall Events over Uttarakhand Himalayas.                  | B.R. Parida                       | AARSGT Conference, BIT Mesra. (Advancements In Applications of Remote Sensmg and Geospatial Technology) | May 19-21, 2016             |
| 3       | Geospatial Perspectives on Hydro-meteorological Hazards and Groundwater Hazard in India.                        | B.R. Parida, P. Pathak, V. Chippa | IEEE Conference Publications: 39th National Systems Conference (NSC), Dadri, India                      | 14th-16th December 2015     |
| 4       | Geospatial Perspectives on Drought in India and Agriculture.  | B.R. Parida                       | 16th Esri India User Conference, New Delhi.   | Dec 2- 4, 2015              |



**4. Books/Book Chapters/Monographs/under process:**

- a) **Bakimchandra O.**, Prasad Pathak & Vaibhav Chhipa (2016). Mapping ground water quality in tehsils of Jaipur district, Rajasthan, India using GIS. David J. Cowen (Ed.), *STEM & GIS in Higher Education*. ESRI Press.
- b) Kumari, M., Basistha, A., **Bakimchandra, O.**, & Singh, C. K. (2016). Comparison of Spatial Interpolation Methods for Mapping Rainfall in Indian Himalayas of Uttarakhand Region. In *Geostatistical and Geospatial Approaches for the Characterization of Natural Resources in the Environment* (pp. 159-168). Springer International Publishing. ISBN: 978-3-319-18662-7.

| Sl. No. | Name of Book/Book Chapters/Monographs   | Name of Co-author, if any.                      | Year of Publication | Publisher with Address   |
|---------|---|---|---------------------|--|
| 1       | Mapping ground water quality in tehsils of Jaipur district, Rajasthan, India using GIS. David J. Cowen (Ed.), <i>STEM &amp; GIS in Higher Education</i> .   | Prasad Pathak & Vaibhav Chhipa                  | 2016                | David J. Cowen (Ed.), STEM & GIS in Higher Education. ESRI Press, USA          |
| 2       | Comparison Of Univariate And Multivariate Geostatistical Methods For Interpolation Of Rainfall In Indian Himalayas Of Uttarakhand Region. pp 159-168. N.Janardhana Raju (Ed.), <i>Geostatistical and Geospatial Approaches for the Characterization of Natural Resources in the Environment</i> . | Madhuri Kumari, Ashoke Basistha and C. K. Singh | 2016                | Springer International Publishing, Cham, Switzerland. ISBN: 978-3-319-18662-7. |

**5. Sponsored Research Projects Undertaken:**

| Sl. No | Sponsoring Agency  | Title of the Project   | Area                         | Period            | Amount of Grant | Whether Completed | Accomplishment |
|--------|--|--|------------------------------|-------------------|-----------------|-------------------|----------------|
| 1      | DST-SERB (Young Scientist Grant)   | Land degradation risks assessment and monitoring in Manipur, India: a multi-scale approach                             | Remote Sensing and GIS       | 3 Years (2016-19) | Rs 16,24,590    | No                | Undergoing     |
| 2      | PHFI, Public Health Foundation of India under the scheme: <b>Public Health Research Initiative</b> | Public Health Care System Facilities and Spatio-Temporal Disease Mapping and Assessment using Geospatial (GIS and GPS) | Health GIS and Public Health | 2 Years (2016-18) | Rs 19,25,000    | No                | Undergoing     |



|  |  |                                 |  |  |  |  |  |
|--|--|---------------------------------|--|--|--|--|--|
|  | (PHRI)<br>Research<br>Grant: 2015-<br>16 | Technology in<br>Manipur, India |  |  |  |  |  |
|--|--|---------------------------------|--|--|--|--|--|

### 3. Dr. Mayengbam Sunil Singh

- a) Rajkumar Manisana and **Sunil Mayengbam** (2017). "Existing Base Isolation System made of Elastomeric Polymer Bearing". *International Journal of Engineering Technology Science and Research*. Volume 4, Issue 3, pp 208-215.
- b) Rohit Kumar and **Mayengbam Sunil Singh** (2017). "Alternate Cementitious Material: Geopolymer Concrete". *International Journal of Engineering Technology, Management and Applied Sciences*. Volume 5, Issue 3, pp 371-379.
- c) Satish Yumnam and **Sunil Mayengbam** (2017). "Dynamic Soil-Structure Interaction of RC Frame Structure". *International Journal of Engineering Technology Science and Research*. Volume 4, Issue 3, pp 256-261.

### 4. Dr. Ngangbam Romeji Singh

- a) P.L.N. Raju et al....Ng. Romeji Singh\* (2016). "*Operational Remote Sensing Services in North Eastern Region of India for Natural Resources Management, Early Warning for Disaster Risk Reduction and Dissemination of Information and Services*", International Society of Photogrammetry & Remote Sensing Archives, ISPRS XXIII Congress, Commission VIII, ThS 2, Prague, Czech Republic, July 12→19, 2016.  
*Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci.*, XLI-B4, 767-775, 2016  
<https://doi.org/10.5194/isprs-archives-XLI-B4-767-2016>  
<https://www.int-arch-photogramm-remote-sens-spatial-inf-sci.net/XLI-B4/767/2016/>  
<https://www.int-arch-photogramm-remote-sens-spatial-inf-sci.net/XLI-B4/767/2016/isprs-archives-XLI-B4-767-2016.pdf>  
 \*(Authors: P.L.N. Raju, K.K. Sarma, Diganta Barman, Bijoy Krishna Handique, Dibyajyoti Chutia, S.S. Kundu, Ramani Kr Das, Kasturi Chakraborty, Ranjit Das, Jonali Goswami, Prathiba Das, H. Suchitra Devi, Jenita M. Nongkynrih, Kuntala Bhusan, M. Somorjit Singh, P.Subhash Singh, Victor

Saikhom, Chandan Goswami, Rocky Pebam, Arup Borgohain, Rekha B. Gogoi, Ng. Romeji Singh, Amaljit Bharali, , Dipima Sarma, Rosly Boy Lyngdoh, Partho Pratim Mandal, Mayuri Chabukdhara.)

- b) Jeffrey Denzil K. Marak, Ng. Romeji Singh, E. Venkata Rathnam, Diganta Barman, and P.L.N. Raju (2016). "*Hydrologic Modeling of Uniam Watershed using GIS and SWAT Model*", ISRS-IGS National Symposium on 'Recent Advances in Remote Sensing & GIS with Special Emphasis on Mountain Ecosystems', Dehradun, Uttarakhand (India), Dec 7→9, 2016.
- c) Ngangbam Romeji\*, Maisnam Bipinchandra, Loukrakpam Chandramani, and S. Birendra Singh (2017). "*Flooding Patterns and Analysis in Langol Sub-Urban Catchment, Imphal*", National Workshop on 'Space Technology Inputs for Disaster Risk Reduction in NER with Special Emphasis on Preparedness and Mitigation', NESAC, Meghalaya (India), March 16→17, 2017.
- d) Jenita M. Nongkynrih, Ngangbam Romeji Singh, Victor Saikhom, Ranjit Das, K.K. Sarma, P.L.N. Raju (2017). "*Vulnerability And Risk Assessments For Flood Hazard: Case Study Of Dibrugarh Town, India*" #, AOG-EGU Joint Intl. Conf. On 'New Dimensions for Natural Hazards in Asia', Tagaytay, Philippines, Feb 04→08, 2018.

(\*abstract paper accepted for the upcoming conference)

#### 5. Dr. Thiyam Tamphasana Devi

- a) **Thiyam Tamphasana Devi** and Bimlesh Kumar - Design of Unbaffled Stirred tank with Curved Blade Impeller, Journal of Engineering Thermophysics, Springer, (*Accepted for Publication*).
- b) **Thiyam Tamphasana Devi** and Bimlesh Kumar- Mass Transfer and Power Characteristics of Stirred Tank with Rushton and Curved Blade Impeller, Engineering Science and Technology, an International Journal, 20, 2, 730-737, 2017.
- c) Anurag Sharma, **Thiyam Tamphasana Devi** and Bimlesh Kumar- Turbulence in Continuous Flow Surface Aeration Systems, Water Science and Technology, 75, 5, 1148-1157, 2017.
- d) **Thiyam Tamphasana Devi** and Bimlesh Kumar - Vortex Depth Analysis in an Unbaffled Stirred Tank with Curved Blade Impeller, Chemistry and Chemical Technology, 11(3):301-307, 2017.

- e) **Thiyam Tamphasana Devi, Bakimchandra Oinam, Ngangbam Romeji Singh, Maisnam Bipinchandra Singh**, International Journal of Environmental Engineering and Water Resources, 9(2): 33-42, 2017.
- f) **Thiyam Tamphasana Devi, Bimlesh Kumar - CFD Simulation of Gas-Liquid Phase Stirred Tank**, International Journal of Mechanical, Aerospace, Industrial, Mechatronic and Manufacturing Engineering, World Academy of Science, Engineering and Technology, 11(3): 437-443, 2017.(Conference Paper)

#### 6. Dr. Waikhom Victory

- a) **Victory W. and Ahmed M. A.** (2016). Forecasting Paratransit Utility by using MNL Model: A case study; International Journal of Engineering & Technology, Vol (8), 2193 -2198.
- b) **Victory W. and Ahmed M. A.** (2016). Paratransit Modes in the North Eastern Regions of India; Journal of Basic & Applied Engineering Research Vol (3), 468-472.
- c) **Sachidananda K., Victory W., Singh M.H. and Singh M.J.** (2017). Peculiarity of physical and axial compressive strength of hand and machine made first class bricks found in different parts of Manipur. International Journal of Engineering Technology, Management and Applied Sciences, 5(3); 308-314.ISSN 2349-4476. .(Conference Paper)
- d) **Sachidananda K., Victory W., Singh M.J., Singh M.H. and Langhu M.** (2017). Characteristic strength of machine made first class bricks found in different parts of Manipur. International Journal of Engineering Technology, Management and Applied Sciences, 5(3); 364-370.ISSN 2349-4476. .(Conference Paper)

#### 7. Ms. Sarungbam Pipileima

##### Journals

- a) **Sarungbam Pipileima and P. Albino Kumar**, "Comparative Studies between Conventional and Polymer based Adsorption for Defluoridization for Drinking Water", *Journal of Energy Research and Environmental Technology(JERET)*, Vol. 3, Issue 1,2016, pp. 34-37.
- b) **Sarungbam Pipileima and P. Albino Kumar**, "Kinetics Study of Fluoride Uptake by Functionalized Polymer Polyaniline Synthesized on Jute Fibre", *Journal of Basic and Applied Engineering Research* p-ISSN: 2350-0077; e-ISSN: 2350-0255; Volume 3, Issue 12; October-December, 2016, pp. 1136-1139.



**International conference**

- a) **Pipileima Sarungbam**, Ray Srimanta, Menan Devi, "A Study on Simultaneous Photocatalytic Removal of Hexavalent Chromium and Pharmaceutical Contaminant from Aqueous Phase", Materials, Energy and Environment Engineering, pp 137-144, Springer Nature Singapore Pte Ltd. (2017).

**Paper Presented**

- b) **Sarungbam Pipileima**, Longjam Anjali, **Potsangbam Albino Kumar**, "Assessment of Water Crisis & Management of Village Pond Water for Drinking Water at Nambol Village, Manipur", presented at 2016 Youth Sustainable Water Resources Education and Hub in APEC region on 4<sup>th</sup> to 8<sup>th</sup> September 2016 at National Pingtung University of Science and Technology, Chinese Taipei.

**Workshop/Short Term/Training Program Attended:**

- a) A short term course on "*Advanced Treatment and Recycling of Urban and Industrial Wastewater*" organized by the School of Water Resources at IIT Kharagpur from March 6-10, 2017.
- b) A training and awareness program on "**Environmental Hazardous of Electronic Waste and its Management**" organized by NIELIT Imphal from 15-17 February 2017.

**8. Dr. Khwairakpam Sachidananda**

- a) **Sachidananda K.**, Victory W., Singh M.H. and Singh M.J. (2017). Peculiarity of physical and axial compressive strength of hand and machine made first class bricks found in different parts of Manipur. International Journal of Engineering Technology, Management and Applied Sciences, 5(3); 308-314. ISSN 2349-4476. **.(Conference Paper)**
- b) **Sachidananda K.**, Victory W., Singh M.J., Singh M.H. and Langhu M. (2017). Characteristic strength of machine made first class bricks found in different parts of Manipur. International Journal of Engineering Technology, Management and Applied Sciences, 5(3); 364-370. ISSN 2349-4476. **.(Conference Paper)**

**Placement**

6. M.Tech students have been placed in public sector job out of which 5 are section officer and 1 assistant engineer. Also, 2 B.tech students has been placed.

**Tour (Study tour)**



1. A study tour visit of 8<sup>th</sup> sem B-tech (2013-2017) to Dolaithabi dam, at Dolaithabi Village in Senapati District, Manipur. (April 2017)
2. A visit of NIT Manipur Student to Khongjom war memorial as a part of Ek Bharat Shrestha Bharat (October 2017) event.
3. A study tour of Civil B-tech and M-tech students to Leimatak Power Station, Churachandpur, Manipur.

## Consultancy

## Consultancy 2017-2018

| Sl. No | Name of faculty (Chief Consultant) | Client Organization                          | Title of Consultancy of project                | Amount received (in Rupees) |
|--------|------------------------------------|--|--|-----------------------------|
| 1      | Dr. Sunil                          | Jawahar Navodaya Vidyalaya                   |  | 47,000                      |
| 2      | Dr. P. Albino Kumar                | RKEC Projects                                | Material Testing                               | 1,30,000                    |
| 3      |                                    | Power Grid                                   | Material Testing                               | 46,000                      |
| 4      |                                    | Power Grid                                   | Material Testing                               | 31,500                      |
| 5      |                                    | Sterling & Wilson                            | Material Testing                               | 79,800                      |
| 6      |                                    | KB Enterprises                               | Material Testing                               | 34,087                      |
| 7      |                                    | Power Grid                                   | Material Testing                               | 10,500                      |
| 8      |                                    | Manipur state Information Technology Society | Testing of water bore IIIT Manipur Boys hostel | 23,000                      |
| 9      |                                    | Power Grid                                   | Material Testing                               | 5,000                       |
| 10     |                                    | WIN power                                    | Material Testing                               | 1,42,500                    |
| 11     |                                    | WN power                                     | Material Testing                               | 85,830                      |
|        |                                    | <b>Total</b>                                 |  | <b>6,35,217</b>             |

## Department of Mechanical Engineering

## National Institute of Technology, Manipur

| Sl. No. | Name of the Employee                         | Designation         |
|---------|--|---------------------|
| 1       | Dr. Anil Kumar Birru, Head of the Department | Assistant Professor |
| 2       | Mr. Huiem Neerajan Singh                     |                     |
| 3       | Dr. T.N. Verma                               |                     |
| 4       | Dr. Dushyant Singh                           |                     |
| 5       | Mr. Prabhat Kumar                            | Trainee Teacher     |
| 6       | Ashutosh                                     |                     |

|    |                                |                           |
|----|--------------------------------|---------------------------|
| 7  | Khundrakpam Nimo Singh         | Sr. Lecturer              |
| 8  | M. Bindya Devi                 | Lecturer                  |
| 9  | Th. Subhaschandra              |                           |
| 10 | L. Gayatri                     |                           |
| 11 | Laishram Birjit Singh          | Technical Assistant       |
| 12 | Thiyam Lakshmi Devi            |                           |
| 13 | Oinam Adeep Meitei             |                           |
| 14 | T. Satyajit Singh              |                           |
| 15 | Hindangmayum Manoranjan Sharma | Lab Attendant             |
| 16 | Th. Kamaljit Singh             |                           |
| 17 | LD Nathan                      |                           |
| 18 | Mr. Hem Wangkheimayum          | HOD (ME) Office Assistant |

**Short Term Courses/ Workshops/Seminars/Conferences conducted by faculty**

| Name of Event | 2016-2017 |
|---------------|-----------|
| STTP          | 0         |
| Workshop      | 2         |
| Seminar       | 0         |
| Conference    | 1         |
| Symposia      | 0         |
| Patents       | 0         |
| Total         | 3         |

**List of work Shops/Conferences organized by faculty and Staff**

| Name of the event   | Sponsored by          | Name of faculty      | Year |
|---|-----------------------|----------------------|------|
| Two days workshop on Integral Manufacturing and Retroversion in Engineering using a 3D printer  | NIT Manipur & EDULIFE | Dr. Anil Kumar Birru | 2016 |
| Support for Entrepreneurial and Managerial Development of SMEs Through Incubators   | MSME-Imphal           | Dr. Anil Kumar Birru | 2016 |
| A National Conference on Advances in Research and Innovations in Mechanical Engineering, Material Science, Industrial Engineering and Management, (NCARIMMIEM-2016) | NIT Manipur           | Dr. Anil Kumar Birru | 2016 |

**List of work Shops attended by faculty and Staff**

|  |             |                    |      |
|--|-------------|--------------------|------|
| Two days workshop on Integral Manufacturing and Retroversion in Engineering using a 3D printer | NIT Manipur | Maibam Bindya      | 2016 |
| Two days workshop on Integral Manufacturing and Retroversion in Engineering using a 3D printer | NIT Manipur | Th Subhaschandra   | 2016 |
| Two days workshop on Integral Manufacturing and Retroversion in Engineering using a 3D printer | NIT Manipur | Dr. Dushyant Singh | 2016 |
| Two days workshop on Integral Manufacturing and Retroversion in Engineering using a 3D printer | NIT Manipur | Huirem Neeranjan   | 2016 |
| Two days workshop on Integral Manufacturing and  | NIT Manipur | Dr. T.N Verma      | 2016 |

|  |             |                      |      |
|--|-------------|----------------------|------|
| Retroversion in Engineering using a 3D printer   |             |                      |      |
| Two days workshop on Integral Manufacturing and Retroversion in Engineering using a 3D printer | NIT Manipur | Dr. Anil Kumar Birru | 2016 |
| Two days workshop on Integral Manufacturing and Retroversion in Engineering using a 3D printer | NIT Manipur | K. Nimo Singh        | 2016 |
| Two days workshop on Integral Manufacturing and Retroversion in Engineering using a 3D printer | NIT Manipur | Prabhat Kumar        | 2016 |
| Two days workshop on Integral Manufacturing and Retroversion in Engineering using a 3D printer | NIT Manipur | Oinam Adeep          | 2016 |
| Two days workshop on Integral Manufacturing and Retroversion in Engineering using a 3D printer | NIT Manipur | T. Satyajit          | 2016 |
| Two days workshop on Integral Manufacturing and Retroversion in Engineering using a 3D printer | NIT Manipur | L. Birjit            | 2016 |
| Two days workshop on Integral Manufacturing and Retroversion in Engineering using a 3D printer | NIT Manipur | Th. Lakshmi          | 2016 |

#### List of Conferences attended by faculty and Staff

| Name of the event   | Sponsored by | Name of faculty    | Year |
|---|--------------|--------------------|------|
| Advances in Research and Innovations in Mechanical Engineering, Material Science, Industrial Engineering and Management | NIT Manipur  | Laipubam Gayatri   | 2016 |
| Advances in Research and Innovations in Mechanical Engineering, Material Science, Industrial Engineering and Management | NIT Manipur  | Maibam Bindya      | 2016 |
| Advances in Research and Innovations in Mechanical Engineering, Material Science, Industrial Engineering and Management | NIT Manipur  | Th Subhaschandra   | 2016 |
| Advances in Research and Innovations in Mechanical Engineering, Material Science, Industrial Engineering and Management | NIT Manipur  | Dr. Dushyant Singh | 2016 |
| Advances in Research and Innovations in Mechanical Engineering, Material Science, Industrial Engineering and Management | NIT Manipur  | Huirem Neeranjan   | 2016 |



|   |             |                      |      |
|---|-------------|----------------------|------|
| Advances in Research and Innovations in Mechanical Engineering, Material Science, Industrial Engineering and Management | NIT Manipur | Dr. T.N. Verma       | 2016 |
| Advances in Research and Innovations in Mechanical Engineering, Material Science, Industrial Engineering and Management | NIT Manipur | Dr. Anil Kumar Birru | 2016 |
| Advances in Research and Innovations in Mechanical Engineering, Material Science, Industrial Engineering and Management | NIT Manipur | K. Nimo Singh        | 2016 |
| Advances in Research and Innovations in Mechanical Engineering, Material Science, Industrial Engineering and Management | NIT Manipur | Prabhat Kumar        | 2016 |
| Advances in Research and Innovations in Mechanical Engineering, Material Science, Industrial Engineering and Management | NIT Manipur | Oinam Adeep          | 2016 |
| Advances in Research and Innovations in Mechanical Engineering, Material Science, Industrial Engineering and Management | NIT Manipur | T. Satyajit          | 2016 |
| Advances in Research and Innovations in Mechanical Engineering, Material Science, Industrial Engineering and Management | NIT Manipur | L. Birjit            | 2016 |
| Advances in Research and Innovations in Mechanical Engineering, Material Science, Industrial Engineering and Management | NIT Manipur | Th. Lakshmi          | 2016 |

#### DST (Science & Engineering Research Board) from Govt. Of India

|   |   |
|---|---|
| <b>Name of the Principle Investigator</b> | Dr. Dushyant Singh                                |
| <b>Name of the Funding Agency</b>         | DST (SERB)  |
| <b>Amount in Rs:</b>                      | 47,00,000/-                                       |
| <b>Title of the Project</b>               | Air mist jet impingement heat transfer            |
| <b>Status</b>                             | Sanctioned  |
| <b>Name of the Principle Investigator</b> | Dr. Anil Kumar Birru                              |
| <b>Name of the Funding Agency</b>         | Navel Research Board, DRDO<br>Government of India |
| <b>Amount in Rs:</b>                      | 9,60,000/-  |

|                             |   |
|-----------------------------|---|
| <b>Title of the Project</b> | Development of New Hybrid Composite Material Based on Aluminum Matrix Composite by stir casting method. |
| <b>Status</b>               | Sanctioned  |

## List of International Journals published during April 2016 to March 2017

| Author (s)   | Title   | Name of the Journal                                   | Volume | Page      | Year |
|--|---|---|--------|-----------|------|
| <b>Dushyant Singh, B. Premachandran and Sagneeta Kohli</b> | Double circular air jet impingement cooling of a heated circular cylinder                       | International Journal of Heat and Mass Transfer (SCI) | 109    | 619-646   | 2017 |
| <b>Hari Krishna C, Davidson M J, and Anil Kumar B</b>      | Effect of Aging on Hardness in the Ring Compression Tests Using Experimental and Finite Element | Journal of Testing and Evaluation (SCI)               | 45 (6) | 1852-1859 | 2017 |
| <b>K. Ch. Apparao and Anil Kumar Birru</b>                 | Optimization of Die casting based on Taguchi approach   | Scopus Materials Today: Proceedings (Elsevier)        | 4 (2)  | 1852-1859 | 2017 |
| <b>P. Srinivasa Rao and Anil Kumar Birru</b>               | Effect of Mechanical Properties with Addition of Molasses and Fly Ash in Green Sand Moulding    | Scopus Materials Today: Proceedings (Elsevier)        | 4 (2)  | 1186-1192 | 2017 |

## List of conference publications during April 2016 to March 2017

| Author (s) | Title | N<br>ame of the Publisher | ISBN | Year |
|------------|-------|---------------------------|------|------|
|------------|-------|---------------------------|------|------|

|                                       |   |   |                        |      |
|---------------------------------------|---|---|------------------------|------|
| Dushyant Singh                        | Assessment of Two Equation Turbulence Models for Slot Jet Impingement on Heated Cylinder                      | ICAEASM-2017, Mumbai  |                        | 2017 |
| P. Srinivasa Rao and Anil Kumar Birru | Enhancement of Mechanical Properties of Green Sand by Addition of Molasses and Fly Ash for Casting Industries | 6th International & 27th All India Manufacturing Technology, Design and Research Conference (AIMTDR-2016) |                        | 2016 |
| Upendra Rajak, TikendraNath Verma     | Numerical investigation on cylindrical combustion chamber for methane-air fuel                                | IJTARME-2017  |                        | 2017 |
| K. Ch. Apparao and Anil Kumar Birru   | Influence of Pouring Temperature on Fluidity of Aluminium Cast Alloys: Review                                 | NCARIMMIEM-2016   | ISBN 978-93-86176-46-2 | 2016 |
| P. Srinivasa Rao and Anil Kumar Birru | Influence of Pouring Temperature on Fluidity of Aluminium Cast Alloys: Review                                 | NCARIMMIEM-2016   | ISBN 978-93-86176-46-2 | 2016 |
| B. Praveen Kumar and Anil Kumar Birru | Bamboo Leaf Ash Reinforced in Aluminum Metal Matrix Composite: A Comprehensive Review                         | NCARIMMIEM-2016   | ISBN 978-93-86176-46-2 | 2016 |

**Annual Report- April, 2015 to March, 2016**  
**DEPARTMENT OF PHYSICS**  
**NIT MANIPUR**

**A. Academic Information**

**(1) Faculty**

| Faculty                |          |
|------------------------|----------|
| Professor              | Nil      |
| Associate Professor    | Nil      |
| Assistant Professor    | 4        |
| Lecturer (On contract) | 2        |
| Guest Lecturer         | 1        |
| <b>Total</b>           | <b>7</b> |

| Sl. No. | Name of faculty              | Designation         | Qualification | Subject Specialization                     |
|---------|------------------------------|---------------------|---------------|--|
| 1.      | Dr. Ibetombi Soibam          | Assistant Professor | M.Sc., Ph.D.  | Condensed Matter Physics, Material Science |
| 2.      | Dr. Mamata Maisnam           | Assistant Professor | M.Sc., Ph.D.  | Particle Physics, Material Science         |
| 3.      | Dr. Loushambam Herojit Singh | Assistant Professor | M.Sc., Ph.D.  | Magnetic Nanoparticles, Cathode materials. |
| 4.      | Dr. Shagolsem Lenin Singh    | Assistant Professor | M.Sc., Ph.D.  | Soft Matter/Polymer Physics                |
| 5.      | Dr. Thoudam Diana            | Lecturer            | M.Sc., Ph.D.  | Material Science                           |
| 6.      | Dr. RajkumarKamaljit Singh   | Lecturer            | M.Sc., Ph.D.  | Satellite Remote Sensing                   |



**(2) Non-faculty Staff**

| Non-teaching Data |     |
|-------------------|-----|
| Regular           | Nil |
| On contract       | 3   |

| Sl. No. | Name of staff            | Designation         | Qualification       |
|---------|--------------------------|---------------------|---------------------|
| 1.      | Mrs. Sujata Tongbram     | Technical Assistant | M.Sc., PhD pursuing |
| 2.      | Mr. Angom Devadatta Mani | Technical Assistant | M.Sc., PhD pursuing |
| 3.      | Mr. Jimpaul Samukcham    | Technical Assistant | M.Sc.               |
|         |                          |                     |                     |

**(3) M.Sc. Program**

| No. of students admitted | 1 <sup>st</sup> yr | 2 <sup>nd</sup> yrs |
|--------------------------|--------------------|---------------------|
| Admitted                 | 13                 | 13                  |
| Intake                   | 15                 | 15                  |

**(4) Ph.D. Program**

| Item             |   |
|------------------|---|
| No. of part-time | 2 |
| No. of full-time | 4 |

**B. Research Information****(1) Faculty visited abroad**

|     |   |
|-----|---|
| No. | 0 |
|-----|---|

**(2) Sponsored research project from Govt./Semi-govt. agencies**

|     |                |
|-----|----------------|
| No. | Rs.            |
| 4   | 101, 97, 823/- |

**(3) Research publications (See annexure)**

| Publication              | No. |
|--------------------------|-----|
| National Journal         | 1   |
| International Journal    | 17  |
| National Conference      | 9   |
| International Conference | 4   |
| No. of book published    | Nil |

**Industry Institute Interaction Information****(1) Short-term Course/Workshop/Seminar/Conference conducted by Faculty**

| April, 2016 to March, 2017     |     |
|--------------------------------|-----|
| STTP                           | Nil |
| Workshop                       | Nil |
| Seminar( Departmental Seminar) | 4   |
| Conference                     | Nil |
| Symposia                       | Nil |

**(2) Patents: Nil**

**(3) Records of result in various competitive examinations  
(GATE/GRE/CAT/NET/SLETetc.)**

|      |  |
|------|--|
| GATE |  |
| GRE  |  |
| CAT  |  |
| NET  |  |
| SLET |  |

**(4) Sponsored research projects from Industry: Nil**

**List of Ph.D. Scholars:**

1. Sanatombi Sorokhaibam
2. Elangbam Chitra Devi
3. Biju Thangjam
4. Angom Devadattamani
5. Jankhohao Touthang
6. Huidrom Surjalata

**ANNEXURE**

**List of publications:**

**(I) Journals Published:**

1. Low dielectric loss in Lithium-based Spinel Nano-ferrites Prepared by Sol-Gel Auto combustion Technique. **Mamata Maisnam**, Maisnam Victory, Nandeibam Nilima and Sumitra Phanjoubam, Bull. Mater. Sci. vol. 39, 249-254, 2016
2. Structural and electrical studies of sol-gel-synthesized nanocrystalline hexagonal yttrium iron manganite ceramics, Jangkhohao Touthang and **Mamata Maisnam**\_ MPLB, Vol 30, 1750066-1-9, (2016).
3. Preparation of lithium ferrite nanoparticles by high energy ball milling and characterizations, J. Touthang, **Mamata Maisnam**, W. Surachanda Singh and Sumitra Phanjoubam, IJERA, 2016.
4. Structural and magnetic properties of nanostructured Li-Ni-Co ferrite prepared by Sol-gel method, Nandeibam Nilima, **Mamata Maisnam**, Sumitra Phanjoubam, Int. J. Mod. Phys. B, Vol 31, 1750083-1 – 11 ( 2017)

5. Structural and electrical behaviour of Sol-Gel derived  $\text{SiO}_2$  and Li-Ni-Co Ferrite nano composites, Nandeibam Nilima, **Mamata Maisnam**, Sumitra Phanjoubam, J. Advan. Mater. Procs, Vol 2(5), 310-314 (2017).
6. Comparative studies of the dielectric properties of  $(1-x)\text{BiFeO}_3\text{-}x\text{Ni}_{0.8}\text{Zn}_{0.2}\text{Fe}_2\text{O}_4$  ( $x=0.0, 0.2, 0.5, 0.8, 1.0$ ) multiferroic nanocomposite with their single phase  $\text{BiFeO}_3$  and  $\text{Ni}_{0.8}\text{Zn}_{0.2}\text{Fe}_2\text{O}_4$ , Angom Devadatta Mani, **Ibetombi Soibam**, Physica B, Vol 507, 21-26 (2017)
7. Sintering effect on the structural and electrical properties of  $\text{Li}_{0.4}\text{Ni}_{0.2}\text{Fe}_{2.4}\text{O}_4$  prepared by citrate precursor method Sanatombi S, Sumitra P, **Ibetombi S.**, International Journal of Applied Engineering Research, (RIP) 12, 4, 482-487 (2017).
8. "Defect-induced magnetism in liquid sodium-exposed stainless steel as studied by Mössbauer and positron annihilation spectroscopic techniques" Alaka Panda, **L. Herojit Singh**, R. Govindaraj, S. Abhaya, Ravi Kumar Yadav, S. Rajagopalan, G. Venugopal Rao, V. Ragunathan and G. Amarendra, International Journal of Modern Physics B, 30, 1750033 (2016)
9. "Mössbauer study of pH dependence of iron-intercalation in montmorillonite" E. Kuzmann, V. K. Garg, **H. Singh**, A. C. de Oliveira, S. S. Pati, Z. Homonnay, M. Rudolf, Á. M. Molnár, E. M. Kovács, E. Baranyai, S. Kubuki, N. M. Nagy, J. Kónya, December, Hyperfine Interactions 2016, 237:106 DOI: 10.1007/s10751-016-1314-5
10. "Fine structure of gold nanoparticles stabilized by buthlyldithiol: Species identified by Mössbauer spectroscopy", E. Kuzmann, E. Csapó, S. Stichleutner, V.K. Garg, A.C. de Oliveira, S.W.da Silva, **L. H. Sing**, S.S. Pati, E.M. Guimaraes, A. Lengyel, I. Dékány, K. Lázár, Colloids and Surfaces A: Physicochemical and Engineering Aspects, 504, 260-266 (2016).
11. "Magnetic chitosan-functionalized  $\text{Fe}_3\text{O}_4@Au$  nanoparticles: Synthesis and characterization" S. S. Pati, **L Herojit Singh**, E. M. Guimaraes, J. Mantilla, J. A. H. Coaquira, Aderbal C. Oliveira, V. K. Sharma, V.K. Garg, J. Alloys and Comp. 684, 68-74 (2016).
12. "Synthesis, structure, morphology and stoichiometry characterization of cluster and nano magnetite", **L. Herojit Singh**, S.S. Pati, E. M. Guimaraes, P.A.M. Rodrigues, Aderbal C. Oliveira, V.K. Garg, Mat. Chem. Phys., 178, 182-189 (2016).
13. "Magnetic interactions in cubic iron oxide magnetic nanoparticle bound to zeolite" **L. Herojit Singh**, S. S. Pati, J.A.H. Coaquira, John Matilla, E. M. Guimaraes, A. C. de Oliveira and V. K. Garg, J. Magn. Mag. Mat. 416, 98-102 (2016).
14. "Stability and magnetic interactions between magnetite nanoparticles dispersed in zeolite as studied using Mossbauer spectroscopy" **L. Herojit Singh**, R. Govindaraj, R. Mythili and G. Amarendra, J. Magn. Mag. Mat. 418, 248-252 (2016).
15. "Mössbauer study of the effect of rare earth substitution into montmorillonite", E. Kuzmann, **L. H. Singh**, V. K. Garg, A. C. de Oliveira, E. M. Kovács, Á. M. Molnár, Z. Homonnay, P. Kónya, N. M. Nagy and J. Kónya, Hyperfine interactions. 237, , 2 (2016).
16. "Mössbauer, XRD and TEM Study on the Intercalation and the Release of Drugs in/from Layered Double Hydroxides", E. Kuzmann, A. C. de Oliveira, A. C. de Oliveira, **L. Herojit Singh**, S. S. Pati, E. M. Guimaraes, Tatiane O. dos Santos, M. Ádok-Sipiczki, P. Sipos, I. Pálkó, Croatia Chemica Acta, 2015, 88, 4
17. "Diblock-copolymer thin films under shear", **Shagolsem, L.S.**, Kreer, T., Galuschko, A., and Sommer, J.-U. , J. Chem. Phys. Vol. 145, 164908 (2016).
18. "Particle dynamics in fluids with random interactions" **Shagolsem, L.S.**; Rabin, Y. J. Chem. Phys. Vol, 144, 194504, (2016).



**Paper in Conference Proceedings:**

1. High Energy Ball Milling Synthesis of  $V_2O_5$ - $Na_2SiO_3$  Added Lithium Ferrite Ceramics and Characterization for their Structural and magnetic Properties. Jangkhohao Touthang and Mamata Maisnam Proceedings (Bonfrings), National Conference in Advances in Research and Innovations in mechanical Engineering, Material Science, Industrial and Management. 12-13 Dec, Department of Mechanical Engineering, NIT Manipur, 2016 pp.20-22.
2. Preparation of Spinel nanoferrites ( $MFe_2O_4$ :  $M = Li, Ni, Zn, Mn$ ) by Chemical Sol-gel Method with High Energy Ball Milling and Characterizations, Ningthoujam Puinapati Devi, Jangkhohao Touthang, Huidrom Surjalata Devi and Mamata Maisnam, Proceedings (Bonfrings), National Conference in Advances in Research and Innovations in mechanical Engineering, Material Science, Industrial and Management. 12-13 Dec, Department of Mechanical Engineering, NIT Manipur, 2016 pp.6-8.
3. Improved Properties of Microwave Sintered Li-Ni-Co ferrites, Nandeibam Nilima, Mamata Maisnam and Sumitra Phanjoubam, Proceedings (Bonfrings), National Conference in Advances in Research and Innovations in mechanical Engineering, Material Science, Industrial and Management. 12-13 Dec, Department of Mechanical Engineering, NIT Manipur, 2016 pp.1-5.
4. Synthesis of Nickel Doped Yttrium Manganites ( $Y_{1-x}Ni_xMnO_3$ ) by sol-gel Auto Combustion Method and a Study of their structural and Electrical Properties, Kshetrimmayum Sangeeta, Mamata Maisnam and Sumitra Phanjoubam, Proceedings (Bonfrings), National Conference in Advances in Research and Innovations in mechanical Engineering, Material Science, Industrial and Management. 12-13 Dec, Department of Mechanical Engineering, NIT Manipur, 2016 pp. 23-27.
5. Structural, Electrical and Magnetic Studies of Sol-Gel Processed Li-Co Ferrites, Maisnam Victory, Mamata Maisnam and Sumitra Phanjoubam, Proceedings (Bonfrings), National Conference in Advances in Research and Innovations in mechanical Engineering, Material Science, Industrial and Management. 12-13 Dec, Department of Mechanical Engineering, NIT Manipur, 2016 pp. 28-30.
6. Synthesis and dielectric studies of Gd doped  $BiFeO_3$ , Angom Devadatta Mani, A. Kiranjit Singh, Ibetombi Soibam, NCARIMMIEM-2016-05, 12<sup>th</sup> -13<sup>th</sup> Dec. 2016 NIT Manipur (Bonfring) 2017
7. Effect of Cu substitution on Li-Zn ferrite synthesized by citrate precursor method, N. Aruna Devi, Angom Devadatta Mani, Ibetombi Soibam, NCARIMMIEM-2016-04, 12<sup>th</sup> -13<sup>th</sup> Dec. 2016 12<sup>th</sup> -13<sup>th</sup> Dec. 2016 NIT Manipur (Bonfring) 2017
8. Role of sintering on tuning the electrical properties of Mn-Zn ferrite, Elangbam Chitra Devi, Ibetombi Soibam, NCARIMMIEM-2016-13, 12<sup>th</sup> -13<sup>th</sup> Dec. 2016. NIT Manipur (Bonfring) 2017
9. Effect of sintering on the structural studies of Li Ni ferrites, Sanatombi S, Sumitra P, Ibetombi S NCARIMMIEM-2016-36, 12<sup>th</sup> -13<sup>th</sup> Dec. 2016 (Bonfring) NIT Manipur (2016)
10. Structural and optical characterization of  $MnFe_2O_4$  nanoparticles Elangbam Chitra Devi, Ibetombi Soibam, ICMTECH 2016, 1<sup>st</sup> -4<sup>th</sup> March 2016, DU (VBRI Press). Advanced material Proceedings. 2, 2, 93-96, 2017
11. Comparative studies of the structural and electrical studies of conventional and microwave sintered  $Li_{0.35}Ni_{0.1}Mn_{0.1}Zn_{0.2}Fe_{2.35}O_4$  synthesized by the citrate precursor method. Sanatombi S, Sumitra P, Ibetombi S, ICMTECH 2016, DU (VBRI Press). Advanced material Proceedings 2, 1, 67-70, 2017

12. FT-IR study of Cu substituted Ni-Zn ferrites prepared by citrate precursor method, BijuThangjam, **Ibetombi Soibam**, ICMTECH 2016, DU (VBRI Press). Advanced material Proceedings 2, 3, 205-208, 2017
13. Effect on the B-H loop and complex permeability with nickel substitution on Li-Zn ferrite synthesized by the citrate precursor method, **Ibetombi Soibam**, Sanatombi S, 2<sup>nd</sup> International conf. on mining, material and metallurgical engineering. ICMME 2017, 17<sup>th</sup> -19<sup>th</sup> March 2017. IOP Conf. Series: Materials Science and Engineering (Institute of Physics) 191 (2017) 012018

### (III) Paper Presented in Conferences/Seminar

1. Synthesis of  $V_2O_5$ - $Na_2SiO_3$ -Lithium ferrite ceramics and characterization for their structural and electromagnetic properties. Jangkhohao Touthang and **Mamata Maisnam**, International Conference on Technologically Advanced Materials and Asian Meeting on Ferroelectricity (ICTAM-AMF10), University of Delhi, 7-11 Nov 2016.
2. Comparative studies of structural and electrical properties of yttrium iron manganites prepared by ceramic method and sol-gel auto combustion method. **Mamata Maisnam**, J. Touthang, Kshetrimayum Sangeeta and Sumitra Phanjoubam International Conference on Technologically Advanced Materials and Asian Meeting on Ferroelectricity (ICTAM-AMF10), University of Delhi, 7-11 Nov 2016.
3. Fine grain approach for Li-Mn-Ti ferrite spinel ceramics with  $V_2O_5$  - $Na_2SiO_3$  addition and microwave processing.  
Jangkhohao Touthang and **Mamata Maisnam**, National Conference in Recent Advances in Nanoscience and Nanotechnology(NCRANNT-16), Department of Nanoscience and Nanotechnology, NEHU, Shillong-793022, Meghalaya, India.
4. Structural and Electrical Properties of Nanosized Yttrium Iron Manganites Synthesized by Sol-gel Autocombustion Method, **Mamata Maisnam**, J. Touthang, Kshetrimayum Sangeeta and Sumitra Phanjoubam, Second International Conference on Materials Science and Technology (ICMST 2016) 5 – 8 June 2016, St.Thomas College, Pala, Kerala.
5. Synthesis and characterization of manganese nanoferrite by co-precipitation method for ferrofluid applications, M. Victory, **M. Maisnam**, and S. Phanjoubam,, Second International Conference on Materials Science and Technology (ICMST 2016) 5 – 8 June 2016, St. Thomas College, Pala, Kerala.
6. Magnetic properties and A. C. conductivity of Li-Ni-Co ferrite/ $SiO_2$  nanocomposites prepared by Sol-Gel Method. N Nilima, **M Maisnam**, S Phanjoubam, Second International Conference on Materials Science and Technology (ICMST 2016) 5 – 8 June 2016, St.Thomas College, Pala, Kerala.
7. "Structural, electrical and magnetic behavior of Sol-Gel derived  $SiO_2$  and Li-Ni-Co nano composites" Nandeibam Nilima, **Mamata Maisnam**, Sumitra Phanjoubam, International Conference on Materials Science & Technology (ICMTECH 2016), 1-4 March 2016, University of Delhi, Delhi
8. "Electrical and magnetic characterization of sol-gel prepared Li-Co-Y ferrites" W. Surchandra, M. Victory, **M. Maisnam** and S. Phanjoubam, International Conference on Materials Science & Technology (ICMTECH 2016), 1-4 March 2016, University of Delhi, Delhi.
9. "Structural and magnetic properties of sol-gel derived Li-Co nanoferrites heated by conventional and microwave technique"  
M. Victory, **M. Maisnam**, W. Surchandra and S. Phanjoubam, International Conference on Materials Science & Technology (ICMTECH 2016), 1-4 March 2016, University of Delhi, Delhi



10. A comparative studies of the structural and electrical properties of microwave and conventional sintered yttrium nickel manganites” Kshetrimayum Sangeeta, **Mamata Maisnam**, Sumitra Phanjoubam International Conference on Materials Science & Technology (ICMTECH 2016), 1-4 March 2016, University of Delhi, Delhi
11. Synthesis and dielectric studies of Gd doped  $\text{BiFeO}_3$ , Angom Devadatta Mani, A. Kiranjit Singh, **Ibetombi Soibam**, NCARIMMIEM-2016-05, 12<sup>th</sup> -13<sup>th</sup> Dec. 2016 NIT Manipur
12. Effect of Cu substitution on Li-Zn ferrite synthesized by citrate precursor method, N. Aruna Devi, Angom Devadatta Mani, **Ibetombi Soibam**, NCARIMMIEM-2016-04, 12<sup>th</sup> -13<sup>th</sup> Dec. 2016 12<sup>th</sup> -13<sup>th</sup> Dec. 2016, NIT Manipur
13. Role of sintering on tuning the electrical properties of Mn-Zn ferrite, Elangbam Chitra Devi, **Ibetombi Soibam**, NCARIMMIEM-2016-13, 12<sup>th</sup> -13<sup>th</sup> Dec. 2016. NIT Manipur
14. Effect of sintering on the structural studies of Li Ni ferrites, Sanatombi S, Sumitra P, **Ibetombi S**
15. NCARIMMIEM-2016-36, 12<sup>th</sup> -13<sup>th</sup> Dec. 2016, NIT Manipur.
16. Structural and optical characterization of  $\text{MnFe}_2\text{O}_4$  nanoparticles Elangbam Chitra Devi, **Ibetombi Soibam**, ICMTECH 2016, 1<sup>st</sup> -4<sup>th</sup> March 2016, DU.
17. Comparative studies of the structural and electrical studies of conventional and microwave sintered  $\text{Li}_{0.35}\text{Ni}_{0.1}\text{Mn}_{0.1}\text{Zn}_{0.2}\text{Fe}_{2.35}\text{O}_4$  synthesized by the citrate precursor method. Sanatombi S, Sumitra P, **Ibetombi S**, ICMTECH 2016, DU
18. FT-IR study of Cu substituted Ni-Zn ferrites prepared by citrate precursor method, Biju Thangjam, **Ibetombi Soibam**, ICMTECH, 2016, DU.
19. Effect on the B-H loop and complex permeability with nickel substitution on Li-Zn ferrite synthesized by the citrate precursor method, **Ibetombi Soibam**, Sanatombi S, 2<sup>nd</sup> International conf. on mining, material and metallurgical engineering. ICMMME 2017, 17<sup>th</sup> -19<sup>th</sup> March 2017.
20. Li effect on the Structural Transformation in Barbosalite, **L. Herojit Singh**, S. S. Pati, A. C. Oliveira and V. K. Garg, International Conference on Advances in Functional materials' from 6<sup>th</sup> to 8<sup>th</sup> January, 2017 at Anna University, Chennai
21. Fluids with Random Interactions: Pairinteraction ordering and particle dynamics, **Lenin S. Shagolsem**, Yitzhak Rabin, Soft Matter Young Investigators Meet 2016, 16-18 December 2016, Goa organized by IIT Bombay
22. Copolymer nanocomposite thin-films under shear: Flow profile and Macroscopic response, **Lenin S. Shagolsem**, Torsten Kreer, Jens-Uwe Sommer, 2nd International Conference on Soft Materials (ICSM-2016) at Malaviya National Institute of Technology, Jaipur, 12 - 16, December, 2016.

**(IV) Workshop/Short-term course attended: Nil**

**(V) Research projects undertaken: 4**

- 1) Dr. Ibetombi Soibam: “Preparation and the structural, electrical and magnetic characterization of multiferroic composites”, DST-SERB Govt. of India, Ministry of Science and Technology. 3 years, 2017(Total Fund: Rs. 16, 71, 560.00).
- 2) Dr. Shagolsem Lenin Singh: “Thin Film of linear/cyclic copolymer mixtures under shear: Role of chain topology”, 3 years 2016. (Total Fund: Rs. 35, 00, 000.00)
- 3) Dr. L. Herojit Singh: “Improvising the stability and capacity of spinel ferrites for Li batteries”, 3 years, 2017 Total Fund: (Rs. 28, 76, 263.00).

- 4) Dr. Mamata Maisnam/Dr. R. K. Kamaljit Singh: “Signature analysis, monitoring ice calving event and marginal changes using ScatSat-1 data over the Antarctica” at Space Applications Centre, ISRO, Ahmadabad, 3 years, 2017.( Total Fund: Rs. 21, 50, 000.00).

(VI) Short-term course organized: Nil

(Dr. Mamata Maisnam)  
HOD  
Department of Physics  
NIT Manipur

### Annual Report (1<sup>st</sup> April, 2016 to 31<sup>st</sup> March 2017)

#### DEPARTMENT OF CHEMISTRY

#### NATIONAL INSTITUTE OF TECHNOLOGY MANIPUR

#### LANGOL, IMPHAL

1. Number regular faculty and staff with PhD and without PhD separately

Faculty : 4

Staff : NIL

| Sl. No. | Name                      | Designation         | Qualification | Category |
|---------|---------------------------|---------------------|---------------|----------|
| 1       | Dr. Th. David Singh       | Assistant Professor | M.Sc. & Ph.D. | OBC      |
| 2       | Dr. Mithun Roy            | Assistant Professor | M.Sc & Ph.D.  | General  |
| 3.      | Dr. Chandi Charan Malakar | Assistant Professor | M.Sc & Ph.D.  | General  |
| 4       | Dr. Nagarajan S.          | Assistant Professor | M.Sc & Ph.D.  | General  |



## 2. Contract faculty and staff with PhD and without PhD separately

Contract Faculty (Lecturer) with Ph.D. : 3

Contract Faculty (Lecturer) without Ph.D. : 0

Contract Staff with Ph.D. : 0

Contract Staff without Ph.D. : 2

## Details:

| Sl. No. | Name                    | Designation         | Year of joining | Present Consolidated pay per month | Category |
|---------|-------------------------|---------------------|-----------------|------------------------------------|----------|
| 1       | Dr. H. Premananda Singh | Lecturer            | 2014            | 35,000/-                           | OBC      |
| 2       | Dr. L. Ronibala Devi    | Lecturer            | 2015            | 35,000/-                           | OBC      |
| 3       | Dr. W. Sujata           | Lecturer            | 2015            | 35,000/-                           | General  |
| 4       | Ng. Bhogenjit Singh     | Technical Assistant | 2014            | 23,000/-                           | General  |
| 5       | Longjam Reena Devi      | Technical Assistant | 2014            | 23,000/-                           | General  |

## 3. Publications in Journals of the faculty and technical staff (SCI, SCIE, AHCI, Scopus, SSCI, Google Scholar) and Scopus indexed conferences:

SCI/SCIE : 23

SCOPUS : 2

## A. Dr. Th. David Singh

1. A Benign Approach for Synthesis of Silver Nanoparticles and Their Application in Treatment of Organic Pollutant

Henam Sylvia Devi, N. Rajmuhon Singh and Th. David Singh, *Arab J Sci Eng*, 41(6)(2016)2249-2256. (SCIE)

2. Cu-Zn and Cu-Ni Bimetallic Particles Fabricated Using Ascorbic Acid and Its Role in Photodegradation of Methyl Orange

Henam Sylvia Devi and Thiyam David Singh, *Asian Journal of Chemistry*, 28(10) (2016)2255-2260. (Scopus)

3. Fabrication and catalytic activity of mono and bimetallic NiO-Ag alloy nanoparticle for reductive degradation of methyl violet,

Henam Sylvia Devi, **Thiyam David Singh** and N. Rajmuhon Singh. *Journal of Material Research*, 31(21), 2016, 3459-3471. (SCIE)

4. Optically understanding the dependence of catalysis kinetics on work function of nanocatalyst.

Henam Sylvia Devi, **Thiyam David Singh** and Henam Premananda Singh. *Bulletin of Materials Science*, 40(1)(2017)163-170. (SCIE)

5. Green synthesis and catalytic activity of composite NiO-Ag nanoparticles for photocatalytic degradation of methyl violet and methyl orange.

Henam Sylvia, **Thiyam David Singh** and N. Rajmuhon Singh. *Journal of Indian Chemical Society*, 94(2)159-169. (SCIE)

6. Degradation of m-Cresol by Silver Nanoparticles Synthesized Using Night Jasmine (*Nyctanthes arbor-tristis*) Leaf Extracts Through Ultrasonic-Assisted Approach

Sylvia Devi Henam, **David Singh Thiyam** and Rajmuhon Singh Nongmaithem, *Environmental Engineering Science*, 34(6)(2017) 433-442. (SCIE)

7. Synthesis of  $\text{Mn}_2\text{O}_3$  nanoparticles using choline chloride-Ethylene glycol deep eutectic solvent: A green solvent

Henam Sylvia Devi and **Thiyam David Singh**, *Integrated Ferroelectrics*, Accepted, Date of acceptance, 16<sup>th</sup> March, 2017. (SCIE)

8. Multicolour and nearly white light emission in  $\text{YPO}_4: 0.2\text{O}_4: \text{Sm}^{3+}$  nanorods: Controlled energy transfer

N. Shanta Singh, Ranjoy Wangkhem, Takhe Yaba, Suman Devi, M. Niraj Luwang, N. Yaiphaba, H. Sylvia Devi, **Th. David Singh**, *Journal of Alloys and Compounds*, 726 (2017) 1161-1167. (SCIE)

9. Green Synthesis, Growth and catalytic activity of Silver Nanoparticles.

H. Sylvia Devi, (Web of Science) and Goutam Singh, *Green Materials*, Accepted, (Dt of acceptance – 18<sup>th</sup> October, 2017) (SCIE)

10. Fabrication of Spherical Magneto-Luminescent Hybrid  $\text{MnFe}_2\text{O}_4 @ \text{YPO}_4: 5 \text{Eu}^{3+}$  Nanoparticles for Hyperthermia Application

Farida Devi Heikham and **David Singh Thiyam**, *Chemistry Select*, Accepted (Dt. of Acceptance 16<sup>th</sup> October, 2017) (SCIE)

**B. Dr. Chandi Charan Malakar**

- (11) N. Vodnala, D. Kaldhi, S. Polina, V.P. R. K. Putta, R. Gupta, S. C. P. Promily, R. K. Linthoinganbi, V. Singh, **C. C. Malakar**  
*"Pd-Catalyzed Domino Reactions of Nitroaromatics: A Surrogate Access towards the Saturated N- heterocycles"*, *Tetrahedron Letters*, **2016**, 57, 5695 – 5699. (SCIE)
- (12) N. Vodnala, D. Kaldhi, R. Gupta, S. Polina, V.P. R. K. Putta, S. C. P. Promily, R. K. Linthoinganbi, V. Singh, **C. C. Malakar**  
*"Novel Domino Routes for the Synthesis of N-Heterocycles via Reductive Cyclization of  $\beta$ -(N-2-Nitroaryl)- $\alpha,\beta$ -unsaturated Ketones"*, *ChemistrySelect*, **2016**, 1, 5784 – 5788. (SCIE)
- (13) N. Devi, D. Singh, R. K. Sunkaria, **C. C. Malakar**, Saloni Mehra, R. K. Rawal, V. Singh  
*"An  $\text{In}(\text{OTf})_3\text{-HBF}_4$  assisted multicomponent approach for one-pot synthesis of pyrrazolopyridinone fused imidazopyridines"*, *ChemistrySelect*, **2016**, 1, 4696 – 4703. (SCIE)
- (14) D. Singh, N. Devi, V. Kumar, **C. C. Malakar**, S. Mehra, S. Rattan, R. K. Rawal, V. Singh  
*"Natural products inspired design and synthesis of beta-carboline and gama-lactone based molecular hybrid"*, *Org. Biomol. Chem.*, **2016**, 14, 8154 – 8166. (SCIE)
- (15) D. Singh, N. Devi, V. Kumar, **C. C. Malakar**, S. Mehra, R. K. Rawal, B. S. Kaith, V. Singh  
*"A metal free 1,3-dipolar cycloaddition approach towards regioselective synthesis of beta-carboline and isoxazole based molecular hybrid"*, *RSC Advances*, **2016**, 6, 88066 – 88076. (SCIE)
- (16) N. Devi, D. Singh, G. Kaur, S. Mor, V. P. R. K. Putta, S. Polina, **C. C. Malakar**, V. Singh  
*" $\text{In}(\text{OTf})_3$  – assisted synthesis of beta-carboline-C3-tethered imidazo[1,2-a]azine derivatives"*, *New Journal of Chemistry*, **2017**, 41, 1082 – 1093. (SCIE)
- (17) D. Singh, V. Kumar, N. Devi, **C. C. Malakar**, R. Shankar, V. Singh  
*"Meta-free decarboxylative amination: An alternative approach towards regioselective synthesis of beta-carboline-N-fused imidazoles"*, *Adv. Synth. Catal.*, **2017**, 359, 1 – 15. (SCIE)

**C. Dr. Mithun Roy**

- (18) S. Binita Chanu, Samya Banerjee, Mithun Roy\*  
*"Potent anticancer activity of photo-activated oxo-bridged diiron(III) complexes"* *Eur. J. Med. Chem.*, **2017**, 125, 816-824. (SCIE)
- (19) Subhadeep Roy, Sibasish Paul, **Mithun Roy**, RajenKundu, Luca Monfregola and Marvin H. Caruthers,  
*"Pyridinium Boranephosphonate Modified DNA Oligonucleotides"* *J. Org. Chem.*, **2017**, DOI:10.1021/acs.joc.6b02599(SCIE)

**D. Dr. Henam Premananda Singh**

- (20) Green Synthesized urchin like Pt/Cu bimetallic photocatalysts : Understanding Composition Effect,

Henam Sylvia Devi, Henam Premananda Singh, **Thiyam David Singh**, *Material Research Bulletin*, 86(2017)277-286. (SCIE)

- (21) In-situ Generation of Au Nanostructures During Enzyme Free Oxidation of Uric Acid: A New Recognition at an Old Problem

Henam Premananda Singh, *Colloid and Interface Science Communications*, 19 (2017) 5-8. (SCIE)

**E. Dr. L. Ronibala Devi**

- (22) Facile Synthesis of Octahydroxanthenes by One-Pot Reaction under Solvent-Free Condition

L. Ronibala Devi, L. Vartima Chanu, I. Harimala Chanu and O. Mukherjee Singh, *Asian Journal of Chemistry*, 28(7) (2016)1528-1530. (Scopus)

- (23) Synthesis of Functionalized Benzo[f] 2H-Chromenes and Evaluation of Their Antimicrobial Activities

Irom Harimala Chanu, laishram Ronibala Devi, Nonibala Khumanthem, N. Irabanta Singh, Dalip Kumar and Okram Mukherjee Singh, *Russian Journal of Bioinorganic Chemistry*, 43(2)(2017)177-185. (SCIE))

**F. Dr. W. Sujata Devi**

- (24) Screening and comparison of two edible macrofungi of *Auricularia* spp.

Sujata Devi Wangkheirakpam and Joshi Devi Datt, *Current Science*, 112(3)(2017)460-463. (SCIE).

- (25)  $K_2Fe(SCN)_6$  from *Crassocephalum crepidioides* (Benth.) Moore. with X-ray florescence spectrometry and X-ray powder diffractometry

Sujata D. Wangkheirakpam and Warjeet Laitonjam, *Indian Journal of Natural Products and Resources*. 8(2)(2017)167-171.(SCIE)



## 4. Projects with amount:

| Sl. No. | Principal Investigator/Mentor | Title of the Project   | Funded By   | Amount          | Duration |
|---------|-------------------------------|--|---|-----------------|----------|
| 1       | Dr. Chandi Charan Malakar     | Synthesis and Decoration of Drug-like Molecules using Transition Metal-Catalyzed C(sp <sup>2</sup> )-H/C(sp <sup>3</sup> )-H Bond Activation Approach                    | Department of Science and Technology, SERB, Govt. of India                                | Rs. 38,85,000/- | 3 years  |
| 2       | Dr. Mithun Roy                | Modular Approach to DNA-based Catalyst   | Department of Science and Technology, SERB, Govt. of India                                | Rs.29,92,000/-  | 3 years  |
| 3       | Dr. Nagarajan S               | Sub-Surface Oxygen and Its Effect on Catalytic Process towards Application in Environmental Pollution  | Department of Science and Technology, SERB, Govt. of India                                | Rs. 2970000/-   | 3 years  |
| 4.      | Dr. Th. David Singh           | Multifunctional Magnetic Luminescent Hybrid Phosphate And Fluoride Nanomaterials Prepared Through Different Organic Solvent for Hyperthermia Application In Cancer Cells | Department of Science and Technology, SERB, National Post Doctoral Fellow, Govt. of India | Rs. 14,40,000/- | 2 years  |

5. Patents : NIL
6. Library purchase - hard copy, soft copy, journals, conference proceeding, ebooks with amount, software for plagiarism etc : NIL
7. Number of GATE/NET qualified students : NIL
8. Number of students who have got in placement, and in Govt jobs : NIL
9. Number of students who have taken admission in PG studies:

|           | No. of Students Admitted | Left the course | Pass Out   | Pass Percent |
|-----------|--------------------------|-----------------|------------|--------------|
| 2014-2015 | 12                       | 2               | 10         | 100%         |
| 2015-2016 | 15                       | 3               | 12         | 100%         |
| 2016-2017 | 14                       | 0               | Continuing | -            |
| 2017-2018 | 15                       | 0               | Continuing | -            |

10. Number of faculty and staff who have attended and presented papers in Conferences. : 7 nos.

**Dr. Th. David Singh :**

- (1) Presented a paper "Green routes for the fabrication of inorganic nanoparticles and some of its application in treatment of organic pollutants" in National Conference on Recent Advances in Nanoscience and Nanotechnology (NCRANNT-2016) during September 8-9, 2016 at Department of Nanotechnology, NEHU, Meghalaya.
- (2) Presented a paper entitled, "Synthesis, Characterisation and Application of Activated Bamboo Charcoal Nanoparticles" in International Conference on "Recent Trends of Chemical & Biological Sciences in Medicine, Natural Product and Drug Discovery (IC-RTCBMNPDD)-2017" at P. G. Dept. of Chemistry, Berhampur University Odisha, India, during Marche 03-05, 2017.

**Dr. Chandi Charan Malakar :**

- (1) D. Kaldhi, N. Vodnala, R. K. Linthoinganbi, S. C. Pinky Promily, C. C. Malakar : "A Metal-free Approach towards C(sp)-H Functionalization of Terminal Alkynes" International Conference on Nature Inspired Initiatives in Chemical Trends (NIICT), Organic Synthesis 2016, at Indian Institute of Chemical Technology (CSIR-IICT), Hyderabad, 19 – 20 September, 2016  
This poster has been selected for Best Poster Award
- (2) R. Gupta, N. Vodnala, D. Kaldhi, R. Gujjarappa, A. K. Kabi, S. K. Maity, R. K. Linthoinganbi, S. C. Pinkny Promily, V. Singh, C. C. Malakar "A Surrogate Protocol for the Synthesis of Naphthoxazoles using Inexpensive Fe-catalyzed C-Arylation Approach" RAFAS 2016, at Lovely Professional University, Jalandhar, 25 – 26 November, 2016
- (3) R. Gupta, N. Vodnala, D. Kaldhi, R. Gujjarappa, A. K. Kabi, S. K. Maity, C. C. Malakar, "Seeking towards Novel Method for the Synthesis of Heterocycles using Easy Available Nitro-compounds", 35<sup>th</sup> Annual Conference of the Indian Council of Chemists at Department of Chemistry, H. V. Desai College, Pune on 22 – 24 December, 2016.

**Dr. Mithun Roy**

1. Presented a poster on "**Tumor ablative activity of the selected iron (III) complexes**" in Symposium on Advanced Biological Inorganic Chemistry Conference, Kolkata, January 7-11, 2017.
2. Delivered lecture on "**Translation of Green Metals into Medicines**" in **Global Initiative of Academic Network (GIAN)** at NIT Manipur, 28-03 March 2017.
11. Number of faculty and staff who have attended workshop and training in other institutes.
  - (a) **Dr. Th. David Singh** attended in the "Workshop on Application of Electron Microscopy in Material Science and related Fields" during June 7-9, 2016 held at Sophisticated Analytical Instrument Facility, North eastern Hill University, Shillong sponsored by DST, Govt. of India.
  - (b) **Dr. H. Premananda Singh** attended Workshop on "Novel catalysts for industrial use" August 24<sup>th</sup>-26<sup>th</sup>, 2016, Indian Institute of Technology, Guwahati, India.
12. Seminar, Conference, workshop or training programme organised in department:

| Sl. No. | Title  | Sponsored by         | Convener/Coordinator      | Date                        |
|---------|--|----------------------|---------------------------|-----------------------------|
| 1       | "Effective Hands-on Training Workshop on Scientific Software", during at NIT Manipur   | NIT Manipur          | Dr. Chandi Charan Malakar | April 4-8, 2016             |
| 2       | Organized workshop on "Training Programme on Reaxys and Medicinal Chemistry Module" during.  | NIT Manipur          | Dr. Chandi Charan Malakar | 14-15 July 2016             |
| 3       | Organized an "Awareness Program on NPTEL Online Courses" on at NIT Manipur   | NIT Manipur          | Dr. Chandi Charan Malakar | 15 February 2017            |
| 4       | Organized GIAN Course entitled "Organic Synthesis and Catalysis towards Greener Horizons: Challenges and Scope", during at NIT Manipur | MHRD, Govt. of India | Dr. Chandi Charan Malakar | 27 February - 3 March, 2017 |



13. Number of faculty and staff who have given invited talks in other institutes and offices. : 2

**Dr. Chandi Charan Malakar**

- (1) *"First Immobilized Catalysts for Iridium-Catalyzed Asymmetric Allylic Amination – Rate Enhancement by Immobilization"*  
5<sup>th</sup> Annual International Conference on Chemistry, Chemical Engineering and Chemical Process (CCECP 2017), Singapore, March 6-7, 2017.  
(Achieved best Research Paper Award)

- (2) "Seeking towards Novel Platform in Sustainable Chemical Synthesis" on the Occasion of Golden Jubilee Lecture Series at Panskura Banamali College, West Bengal, on 12 March 2017.

14. Number of ladies faculty and staff as members, heads, chairman etc in BOG, Senate, other administrative posts: NIL

15. Number of B Tech, M Tech, MSc and PhD students who have been awarded degrees and pass percentages in BTech, MTech and MSc

| Course | Year | Pass Out | Pass Percent |
|--------|------|----------|--------------|
| M.Sc   | 2017 | 12       | 100%         |
| Ph.D.  | 2017 | 0        |              |

16. Amount of purchase in the department for major equipments, devices, instruments, software, hardware, PCs, computer:

| Sl. No. | Equipment   | Manufacturer | Qty | Rate        | Equivalent INR |
|---------|---|--------------|-----|-------------|----------------|
| 1       | Ice making Machine                                  | Cole -Parmer | 1   | 219000/-    | 219000/-       |
| 2       | Fire view gel documentation system with accessories | MLSPL        | 1   | 443898/-    | 443898/-       |
| 3       | Gaussian 09, Ligand Scout, Chemdraw 15              | SCUBE        | 3   | 41,00,000/- | 41,00,000/-    |



|    |  |              |   |             |             |
|----|--|--------------|---|-------------|-------------|
| 4  | Rexys site license along with medicinal chemistry module, DATA Base system from Elsevier | Elsevier     | 1 | 33,00,000/- | 33,00,000/- |
| 5  | Powder-X-Ray Deractometer  | BRUKER       | 1 | 11989000/-  | 11989000/-  |
| 6  | Analytical High Performance Liquid Chromatography  | Thermofisher | 1 | 1,240,190/- | 1,240,190   |
| 7  | Thermo Gravimetric Analyse/DTA   | Perkin Elmer | 1 | 27,480 USD  | 27,480 USD  |
| 8  | 3KVA UPS with 30 min back up for HPLC  | Thermofisher | 1 | 55000/-     | 55000INR    |
| 9  | Analytical digital balance   | DENVER       | 3 | 86135/-     | 2,58,405    |
| 10 | De-ionise water purifier   | Thermofisher | 1 | 5,89,980/-  | 5,89,980    |

(Dr. Th. David Singh)  
 Head, Department of Chemistry  
 NIT Manipur

**Annual Report – April, 2016–March, 2017****Name of Department: Mathematics****A. Academic Information****(1) Faculty**

| <b>Faculty</b>      | <b>April, 2016– March, 2017</b> |
|---------------------|---------------------------------|
| Professor           | NIL                             |
| Associate Professor | NIL                             |
| Assistant Professor | 5                               |
| On contract         | NIL                             |
| Teaching Assistant  | 2                               |
| <b>Total</b>        | <b>7</b>                        |

| <b>Sl. No.</b>     | <b>Name of the Faculty</b> | <b>Designation</b>  | <b>Qualification</b> | <b>Subject Specialization</b>                                       |
|--------------------|----------------------------|---------------------|----------------------|---|
| <b>MATHEMATICS</b> |                            |                     |                      |   |
| 1                  | Dr. Yumnam Rohen Singh     | Assistant Professor | M.Sc., Ph.D.         | Fixed Point Theory, Manifolds, Special Functions                    |
| 2                  | Dr. Chanam Barchand Singh  | Assistant Professor | M.Sc., Ph.D.         | Complex Analysis, Space Dynamics, Dynamical System                  |
| 3                  | Dr. B.B. Upadhyay          | Assistant Professor | M.Sc., Ph.D.         | Mathematical Optimization   |
| 4                  | Dr. Sanasam Surendra Singh | Assistant Professor | M.Sc., Ph.D.         | Cosmology, Bio-Mathematics  |
| 5                  | Dr. Sunil Panday           | Assistant Professor | M.Sc., Ph.D.         | Finite element modelling, Numerical analysis, Computational Biology |
| 6                  | Dr. L. Binashakhi Devi     | Teaching Assistant  | M.Sc., Ph.D.         | Operation Research  |
| 7                  | Dr. AshemIngocha Singh     | Teaching Assistant  | M.Sc., Ph.D.         | Differential Equation   |

**(2) Non – Faculty Staff**

| <b>Non – Teaching Data</b> | <b>April, 2016 – March, 2017</b> |
|----------------------------|----------------------------------|
| Regular                    | NIL                              |
| On Contract                | 0                                |
| <b>Total</b>               | <b>0</b>                         |

| <b>Sl. No.</b> | <b>Name of the Staff</b> | <b>Designation</b> | <b>Qualification</b> |
|----------------|--------------------------|--------------------|----------------------|
| 1              |                          |                    |                      |

**(3) B. Tech Program**

| No. of students<br>Admitted | 1 <sup>st</sup> year | 2 <sup>nd</sup> year | 3 <sup>rd</sup> year | 4 <sup>th</sup> year |
|-----------------------------|----------------------|----------------------|----------------------|----------------------|
| Admitted                    |                      |                      |                      |                      |
| Intake                      |                      |                      |                      |                      |

**(4) M. Sc. Program**

| No. of students Admitted | 1 <sup>st</sup> year | 2 <sup>nd</sup> year |
|--------------------------|----------------------|----------------------|
| Admitted                 | 15                   | 4                    |
| Intake                   | 15                   | 15                   |

**(5) Ph.D. Program**

|                           | April, 2016 – March, 2017 |
|---------------------------|---------------------------|
| No. of part-time admitted | NIL                       |
| No. of Full-time admitted | 4                         |
| Total                     | 4                         |
| Degree Awarded            | NIL                       |

**List of Ph.D Scholar****A. Mathematics:**

1. L. Shanjit Singh
2. Kh. Bulbul Singh
3. N. Priyobarta Singh
4. M. Saratchandra Singh

**B. Research Information****(1) Faculty Visited Abroad**

|   | April, 2016 – March, 2017         |
|---|-----------------------------------|
| Dr. B. B. Upadhyay visited Tokyo, Japan to attend "International Conference on Continuous Optimization (ICCOPT-16)" | 06 August 2016 to 11 August 2016. |

**(2) Sponsored Research project from Govt. /Semi. Govt. Agencies**

| Sponsored Research project | April, 2016 – March, 2017  | Rs. (in lakhs)   |
|----------------------------|--|------------------|
|                            | Modelling of cosmic acceleration from $f(R)$ theory of gravitation (DST)-Dr. Sanasam Surendra Singh  | 6 lakh (approx.) |
|                            | 'Towards New Platform on Generalized Vector Variational inequalities: Scope in Optimization and Bilevel Programming' (DST) -Dr. B. B. Upadhyay | 15,87,000.       |

(3) **Research Publication (SEE Annexure)**

| <b>Publication</b>       | <b>April, 2016 – March, 2017</b> |
|--------------------------|----------------------------------|
| National Journal         | 0                                |
| International Journals   | 7                                |
| National Conference      | 7 (presented)                    |
| International Conference | 2(presented)                     |
| No. of Book published    | Nil                              |

**Industry Institute Interaction Information**(1) **Short Term Course/ Workshop/ Seminar/Conference conducted by Faculty)**

|            | <b>April, 2016-March, 2017</b>                                 |
|------------|--|
| STTP       | Nil  |
| Workshop   | Nil  |
| Seminar    | Nil  |
| Conference | 1 {Conference on History of Mathematical Sciences (CHMS-2016)} |
| Symposia   | Nil  |

## (2)

| <b>Patents</b>          | <b>April, 2016-March, 2017</b> |
|-------------------------|--------------------------------|
| No. of patents acquired | Nil                            |

## (3)

| <b>Record of result in various competitive examination like (GATE/GRE/CAT, etc)</b> | <b>April, 2016-March, 2017</b> |
|---|--------------------------------|
| <b>GATE</b>   | Nil                            |
| <b>GRE</b>  | Nil                            |
| <b>CAT</b>  | Nil                            |



## (4) Sponsored Research projects from Industry

| Sponsored Research projects | April, 2016-March, 2017 |     |
|-----------------------------|-------------------------|-----|
|                             | No.                     | Rs. |
|                             |                         | Nil |

## LIST OF PUBLICATIONS

## International conference (Presented)

1. Yumnam Rohen Singh attended and present paper in CONIAPS XIX at Kumaun University, Nainital during 17-19 October, 2016.
2. Talk delivered in "International Conference on Continuous Optimization (ICCOPT-16)" held in Tokyo from 06 August 2016 to 11 August 2016,

## National Conference

1. Yumnam Rohen, "Generalization of Metric Space and Fixed Points", CHMS-2016, NIT Manipur, Langol during 18-20 November, 2016.
2. A. Ingocha Singh, "Burgers Equation: A Brief History and its Importance", CHMS-2016, NIT Manipur, Langol during 18-20 November, 2016.
3. Barchand Chanam, "Maximum Modulus of Polynomials" CHMS, CHMS-2016, NIT Manipur, Langol during 18-20 November, 2016.
4. S. Surendra Singh, "Power law cosmology with anisotropic fluid in Lyra's manifold", CHMS-2016, NIT Manipur, Langol during 18-20 November, 2016.
5. B. B. Upadhyay, "Sufficient Optimality Conditions and Duality for Non smooth Multi objective Problems via Higher-Order Strong Convexity", CHMS-2016, NIT Manipur, Langol during 18-20 November, 2016.
6. Sunil Pandey, "Some Efficient New Eighth Order Iterative Methods for Finding Simple Roots of Nonlinear Equations", CHMS-2016, NIT Manipur, Langol during 18-20 November, 2016.
7. L. Binashakhi Devi, "A mathematical study to measure the crude-death rate: A fuzzy rule-based approach", CHMS-2016, NIT Manipur, Langol during 18-20 November, 2016.

## International Journal

1. Laishram Shanjit, Yumnam Rohen, Th. Chhatrajit and P. P. Murthy, Coupled fixed point theorems in partially ordered multiplicative metric space and its application, *International Journal of Pure and Applied Mathematics*, **108(1)** (2016) 49-62, (SCOPUS).
2. Bulbul Khomdram, Yumnam Rohen and Thockchom Chhatrajit Singh, Coupled fixed point theorems in  $G_b$ -metric space satisfying some rational contractive conditions, *SpringerPlus* (2016) 5:1261(SCIE).
3. Yumnam Rohen and P.P. Murthy, Some remarks on related fixed point theorems, *International Journal of Pure and Applied Mathematics*, **109(2)** (2016) 257-278, (SCOPUS).
4. Bulbul Khomdram and Yumnam Rohen, Quadruple common fixed point theorems in  $G_b$ -metric spaces, *International Journal of Pure and Applied Mathematics*, **109(2)** (2016) 279-293, (SCOPUS).

5. N. Priyobarta, **Yumnam Rohen** and B. B. Upadhyay, Some fixed point results in fuzzy cone metric spaces, *International Journal of Pure and Applied Mathematics*, **109(3)** (2016) 573-582, (SCOPUS).
6. Laishram Shanjit, **Yumnam Rohen** and P. P. Murthy, Some fixed point theorems of R-weakly commuting mappings in multiplicative metric spaces, *Gazi University Journal of Science*, **29(4)** (2016) 855-687, (ESCI, SCOPUS)
7. A. Ingocha Singh, "Burgers Equation: A study using method of lines", *Journal of Information & Optimization Sciences*, **37(4)** (2016), 641-652. DOI: 10.1080/02522667.2016.1184454. (ESCI).

**WORKSHOP/TUTORIALS ATTENDED**

1. Yumnam Rohen Singh attended CONIAPS XIX at Kumaun University, Nainital during 17-19 October, 2016.
2. Dr. Sunil Panday attended STTP on "Discrete mathematics and its applications" at NITTTR Kolkatta during 16-20 January, 2017.

Submitted by

**Dr. Yumnam Rohen Singh**  
HOD Mathematics,  
NIT Manipur.

**Annual Report – April, 2016– March, 2017****Name of Department:** Department of Humanities and Social Sciences**C. Academic Information****(6) Faculty**

| <b>Faculty</b>      | <b>April, 2016 – March, 2017</b> |
|---------------------|----------------------------------|
| Professor           | NIL                              |
| Associate Professor | NIL                              |
| Assistant Professor | 1                                |
| on contract         | NIL                              |
| Teaching Assistant  | 2                                |
| <b>Total</b>        | <b>3</b>                         |

| <b>Sl. No.</b> | <b>Name of the Faculty</b> | <b>Designation</b>  | <b>Qualification</b> | <b>Subject Specialization</b> |
|----------------|----------------------------|---------------------|----------------------|-------------------------------|
| 1              | Dr. Sangeeta Laishram      | Assistant Professor | M.A.<br>Ph.D         | CommonWealth Literature       |
| 2              | Dr. H.Soni Devi            | Teaching Assistant  | M.B.A., Ph.D.        | MBA                           |
| 3              | Dr. R.K. Diana             | Teaching Assistant  | M.A., Ph.D.          | Economics                     |

**(7) Non – Faculty Staff**

| <b>Non – Teaching Data</b> | <b>April, 2016 – March, 2017</b> |
|----------------------------|----------------------------------|
| Regular                    | NIL                              |
| On Contract                | NIL                              |
| <b>Total</b>               | <b>0</b>                         |

**(8) Ph.D. Program**

|                           | <b>April, 2016 – March, 2017</b> |
|---------------------------|----------------------------------|
| No. of part-time admitted | 1                                |
| No. of Full-time admitted | 3                                |
| <b>Total</b>              | <b>4</b>                         |
| Degree Awarded            | NIL                              |

**List of Ph.D. Scholar****A. English**

5. Longjam Bedana
6. Kshetrimayum Momo
7. Khumanthem Gunibala Devi
8. Khundrakpam Nirupama

**9. Faculty Visited Abroad**

|  |                                  |
|--|----------------------------------|
|  | <b>April, 2016 – March, 2017</b> |
|--|----------------------------------|

**(3) Sponsored Research project from Govt. /Semi. Govt. Agencies**

|                                   |                                  |                |
|-----------------------------------|----------------------------------|----------------|
| <b>Sponsored Research project</b> | <b>April, 2016 – March, 2017</b> |                |
|                                   | Nil                              | Rs. (in lakhs) |
|                                   |                                  |                |

**(3) Research Publication (SEE Annexure)**

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Publication</b>             | <b>April, 2016- March, 2017</b> |
| National Journal               | Nil                             |
| International Journals         | 6                               |
| International Seminar          | 1 (Presented)                   |
| International Conferences      | 2 (Presented)                   |
| No. of Book chapters published | 2                               |

**Industry Institute Interaction Information****(5) Short Term Course/ Workshop/ Seminar/Conference conducted by Faculty**

|            |                                |
|------------|--------------------------------|
|            | <b>April, 2016-March, 2017</b> |
| STTP       | Nil                            |
| Workshop   | Nil                            |
| Seminar    | Nil                            |
| Conference | Nil                            |
| Symposia   | Nil                            |

**(6)**

|                         |                                |
|-------------------------|--------------------------------|
| <b>Patents</b>          | <b>April, 2016-March, 2017</b> |
| No. of patents acquired | Nil                            |

**(7)**

|   |                                |
|---|--------------------------------|
| <b>Record of result in various competitive examination like (GATE/GRE/CAT, etc)</b> | <b>April, 2016-March, 2017</b> |
| <b>GATE</b>   | Nil                            |
| <b>GRE</b>  | Nil                            |
| <b>CAT</b>  | Nil                            |

**(8) Sponsored Research projects from Industry**

|                                    |                                |
|------------------------------------|--------------------------------|
| <b>Sponsored Research projects</b> | <b>April, 2016-March, 2017</b> |
|                                    | <b>No.      Rs.</b>            |
|                                    | Nil                            |



**LIST OF PUBLICATIONS****International Journals:**

1. Momo, Kshetrimayum and Dr. Sangeeta Laishram. "Narrating *Things Fall Apart* through the Prism of Language." *International Journal of Advanced Research. IJAR*. V.I. January, 2017: 1259 – 1262.
2. Momo, Kshetrimayum and Dr. Sangeeta Laishram. "The Ideology of Masculinity in Chinua Achebe's *Things Fall Apart*." *Journal of Higher Education and Research Society. JHERSO*. V.I. April, 2017: 63 – 70.
3. Nirupama, Khundrakpam and Dr. Sangeeta Laishram. "Black Values and the Impact of White Standards of Beauty in Toni Morrison's *The Bluest Eyes*." *An International Journal in English. The Criterion*. VII.III. June, 2016: 215 – 220.
4. Nirupama, Khundrakpam and Dr. Sangeeta Laishram. "Gender and Race in Toni Morrison's *Beloved*." *Journal of Higher Education and Research Society*. IV.II. October, 2016: 200 – 208.
5. Devi, Khumanthem Gunibala and Dr. Sangeeta Laishram. "Narrative of Political Violence and Social realities: A Study of Tamsula Ao's *These Hills Called Home: Stories From a War Zone*." *An International Journal of Advanced Research*. IV.IX. Sep., 2016: 917 - 920.
6. Devi, Khumanthem Gunibala and Dr. Sangeeta Laishram. "Conflicts of Violence and its Impact on Women: A Reading of Select Works of Tamsula Ao and Indira Goswami." *International Journal of English Language, Literature in Humanities*. V.VIII. August, 2017: 141 – 151.

**International Seminar (Presented):**

1. Devi, Khumanthem Gunibala and Dr. Sangeeta Laishram. "Disruption of Culture and Identity Assertion in the Select Poetic Voices from Northeast India" in *International Seminar on Orality: The Quest for Meaning*. (26-27<sup>th</sup> May, 2016) organized by the Department of English, Bodoland University, Kokrajar, BTAD, Assam.

**International conferences (Presented):**

1. Nirupama, Khundrakpam and Dr. Sangeeta Laishram. "Gender and Race in Toni Morrison's *Beloved*." In *International Conference on Literature, Culture and World Peace*. (23<sup>rd</sup>-24<sup>th</sup> Sep., 2016) organized by Dnyansagar Institute of Management and Research, Pune, Maharashtra.
2. Momo, Kshetrimayum and Dr. Sangeeta Laishram. "The Idea of Masculinity in Chinua Achebe's *Things Fall Apart*." In *International Conference on Literature, Culture and World Peace*. (23<sup>rd</sup>-24<sup>th</sup> Sep., 2016) organized by Dnyansagar Institute of Management and Research, Pune, Maharashtra.

**Book Chapters:**

1. Bedana, Longjam and Sangeeta Laishram. "Quest for Black Woman's Identity in Buchi Emecheta's novel *Kehinde*." *Contesting Gender: History, Politics and Identity*. Eds. Vulli Dhanaraju and Kh. Nagendra Singh. New Delhi: Dominant Publishers and Distribution Pvt. Ltd., 2016. 173 – 184.
2. Nirupama, Khundrakpam and Dr. Sangeeta Laishram. "Decriminalizing Sexual Minorities: Representation of Transgender in Manipuri Cinema." *The Invisible Minority in Literature and Society: Haunting Tragedies*. Eds. Dr. Mohd. Shamim and Dr. Noor Fatima. Aligarh: Vangmaya Books, 2016. 29 – 36.

**WORKSHOP/TUTORIALS ATTENDED/ VISITED**

Submitted by

**Dr. Sangeeta Laishram**  
HOD Dept. of Humanities and Social  
Sciences.  
NIT Manipur.

**NATIONAL INSTITUTE OF TECHNOLOGY MANIPUR****PLACEMENT SESSION 2016-17****9-10 August 2016****1. COMPANY NAME: TECH MAHINDRA (3.25LPA)**

| Sl. No. | Name               | Department |
|---------|--------------------|------------|
| 1       | POUSHALI MUKHERJEE | ECE        |
| 2       | BEEPETA SAI SHARAN | ECE        |
| 3       | ATHARV REVDIKAR    | EEE        |
| 4       | SAURABH JAISWAL    | EEE        |

**22-23 August 2016****2. COMPANY NAME: CGI (3.25LPA)**

| Sl. No. | Name                | Department |
|---------|---------------------|------------|
| 1       | PRASHANT SINGH      | CSE        |
| 2       | PRAKASH KUMAR       | CSE        |
| 3       | SAURABH KUKRETI     | CSE        |
| 4       | BHAWANI SINGH BHATI | ME         |

17-18 September 2016

**3. COMPANY NAME: CAPGEMINI (6.00LPA)**

| Sl. No. | Name               | Department |
|---------|--------------------|------------|
| 1       | PRASHANT SINGH     | CSE        |
| 2       | SAURABH KUKRETI    | CSE        |
| 3       | ABHIGYA PRANSHU    | CSE        |
| 4       | BEEPETA SAI SHARAN | ECE        |
| 5       | SAURABH JAISHWAL   | EEE        |
| 6       | ATHARV REVDIKAR    | EEE        |

27-28 September 2016

**4. COMPANY NAME: WIPRO (3.25 LPA)**

| Sl. No. | Name                | Department |
|---------|---------------------|------------|
| 1       | MAYANK YADAV        | CSE        |
| 2       | FM NURULHUDA PATHAN | CSE        |
| 3       | VADDE KARTHEEK      | CSE        |
| 4       | AMIT SANKHLA        | CSE        |
| 5       | TARUN JOSHI         | CSE        |
| 6       | UTPAL KUMAR         | CSE        |
| 7       | SUNIL PRAJAPATI     | ME         |
| 8       | AZEEZUR RAHMAN      | EE         |



3-4 October 2016

## 5. COMPANY NAME : IBM (3.25LPA)

| Sl. No. | Name                | Department |
|---------|---------------------|------------|
| 1       | NEHA PRIYA          | CSE        |
| 2       | ASHISH KUMAR PATHAK | ECE        |

15-16 October 2016

## 6. COMPANY NAME: INFOSYS (3.2LPA)

| Sl. No. | Name                    | Department |
|---------|-------------------------|------------|
| 1       | KHARIBAM PRIYOJIT SINGH | CSE        |
| 2       | CHANDRESH DHAR DUBEY    | EE         |

13-14 October 2016

## 7. COMPANY NAME: L&amp;T ECC(5.5LPA)

| Sl. No. | Name               | Department |
|---------|--------------------|------------|
| 1       | AZEEZUR RAHMAN     | EE         |
| 2       | JYOTISHRAJ THOUDAM | ME         |
| 3       | ABHITESH MISHRA    | ME         |
| 4       | MUNA KUMAR         | ME         |
| 5       | MONU KUMAR         | ME         |

18-19 November 2016

## 8. COMPANY NAME: SAPIENT NITRO (5.00LPA)

| Sl. No. | Name        | Department |
|---------|-------------|------------|
| 1       | TARUN JOSHI | CSE        |

28-29 November 2016

## 9. COMPANY NAME: CAPGEMINI (6.00LPA)

| Sl. No. | Name            | Department |
|---------|-----------------|------------|
| 1       | SUMIT MEHTA     | CE         |
| 2       | AVINASH KUMAR   | ME         |
| 3       | ABHITESH MISHRA | ME         |
| 4       | SUNIL PRAJAPATI | ME         |

10-12 January 2017

## 10. JOHNSON CONTROL (5.5LPA)

| Sl. No. | Name                       | Department |
|---------|----------------------------|------------|
| 1       | BUKKE SREENIVASULU<br>NAIK | EE         |

17<sup>th</sup> March 2017

## 11. SAP (10LPA)

| Sl. No. | Name           | Department |
|---------|----------------|------------|
| 1       | AMIT SHANKLA   | CSE        |
| 2       | PRAKASH KUMAR  | CSE        |
| 3       | PRASHANT SINGH | CSE        |

**12. BEL (Bharat Electronics Limited)**

| Sl. No. | Name          | Department |
|---------|---------------|------------|
| 1       | JS WUNGCHIPEM | ME         |

15<sup>th</sup> April 2017**13. Rechner Software Pvt. Ltd. (2.04LPA)**

| Sl. No. | NAME                    | DEPARTMENT |
|---------|-------------------------|------------|
| 1       | KISHAN KONTHOUJAM       | CSE        |
| 2       | L SOMORJIT SINGH        | CSE        |
| 3       | BEDITA ARAMBAM          | CSE        |
| 4       | ROHIT KUMAR             | CSE        |
| 6       | BONDHU RAJU             | CSE        |
| 7       | KUNDAN KUMAR            | EE         |
| 8       | RAJEEV KUMAR SAH        | EE         |
| 9       | KSHETRIMAYUM SHALU DEVI | ECE        |
| 10      | RAKESH KUMAR SINHA      | ECE        |
| 11      | SHANTANU BHARGAVA       | EE         |
| 12      | ROJALIN                 | CSE        |
| 13      | RAKESH KUMAR            | ECE        |
| 14      | RUPAWAT PARMESHWAR      | ECE        |
| 15      | K ATHILI                | ME         |
| 16      | MUNA KUMAR              | ME         |
| 17      | VIVEK PRASAD            | ME         |
| 18      | RUTALA GHANGADHAR       | ME         |

|    |                       |     |
|----|-----------------------|-----|
| 19 | RAJENEESH AGGARWAL    | ME  |
| 20 | PRATIK KUMAR          | CE  |
| 21 | RAVAN KUMAR           | CE  |
| 22 | MONU KUMAR            | ME  |
| 23 | NANDOLI JANARDAN BABU | CE  |
| 24 | SANTOSH KUMAR         | ME  |
| 25 | BOCHA VEERENDRA       | ECE |
| 26 | VIVEK KUMAR MISHRA    | ME  |
| 27 | MD. SHAHZAD           | ECE |
| 28 | BHIM PRAKASH          | EE  |
| 29 | RAJEEV KUMAR          | ECE |
| 30 | VIBHAS KUMAR          | CSE |
| 31 | B RAVI TEJA           | ECE |
| 32 | BAIRY RAMU            | ECE |

**14. GREENPEACE (CTC: 2.4 LPA)**

| Sl. No. | Name        | Department |
|---------|-------------|------------|
| 1       | BONDHU RAJU | CSE        |

**15. POWERGRID (CTC: 11.8LPA)**

| Sl. No. | Name                   | Department |
|---------|------------------------|------------|
| 1       | DHANAKUMAR<br>ELANGBAM | EE         |



**16. FIIT-JEE**

| Sl. No. | Name          | Department |
|---------|---------------|------------|
| 1       | SANTOSH KUMAR | ME         |

**17. ASOKA ENGINEER PVT. LTD.**

| Sl. No. | Name                 | Department |
|---------|----------------------|------------|
| 1       | RAJU KUMAR THAKUR    | CE         |
| 2       | DINESH KUMAR JAISWAL | CE         |

**18. BPCL(14.06LPA)**

| Sl. No. | Name            | Department |
|---------|-----------------|------------|
| 1       | SOWUNG ZS       | ME         |
| 2       | AVINASH KUMAR   | ME         |
| 3       | SHYAM KUMAR SAH | ME         |

**19. WRIG NANOSYSTEM (5 LPA)**

| Sl. No. | Name                | Department |
|---------|---------------------|------------|
| 1       | BHAWANI SINGH BHATI | ME         |

\*\*\*\*Placement still in process

| Sl. No. | Department | No. of Students Placed | No. of Eligible Students | Salary            |
|---------|------------|------------------------|--------------------------|-------------------|
| 1       | CSE        | 19                     | 22                       | 2.04 to 10 LPA    |
| 2       | ECE        | 12                     | 12                       | 2.04 to 6 LPA     |
| 3       | EE         | 10                     | 10                       | 2.04 to 12 LPA    |
| 4       | ME         | 16                     | 23                       | 2.04 to 14.06 LPA |
| 5       | CIVIL      | 6                      | 29                       | 2.04 to 6 LPA     |
| Total   |            | 62                     | 96                       |                   |

Date: 17 October 2017

CIVIL & EE: Result for KPTL Power transmission for 2016-17 batch is awaiting

**CENTRAL LIBRARY, NIT MANIPUR****Annual report for the year 2016-2017**

**Year of Establishment** : the 4<sup>th</sup> march, 2011

**Strength of the staff** : 07

(02- Library professional,  
02- non –professional)  
: 03(Apprentice –Professional)

**Total no. of Volumes procured**

o Entered in the Accession Register : 24444

**Award Received**

- (i) **Highest Usage of Science Direct amongst New NITs(2014)**  
 (ii) **Wiley Library awards for upcoming Academic Library Award, January 20<sup>th</sup> 2016**

**Subscription**

- o E-Journal and ebooks

**ONLINE JOURNALS AND ONLINE BOOKS AVAILABLE IN NITM**

| Elsevier eBooks 2013 |                    |
|----------------------|--------------------|
| Subject Collection   | Number of Journals |
| Computer Science     | 415                |
| Engineering          | 473                |
| Total                | 888                |
| Springer eBooks 2013 |                    |
| Computer Science     | 2645               |
| Engineering          | 1763               |
| Total                | 4408               |

| CRC eBooks 2013  |      |
|--|------|
| Chemistry netbase  | 125  |
| Computer Science netbase   | 85   |
| ENGnetbase   | 228  |
| Mathematics  | 98   |
| Physics  | 114  |
| Total  | 640  |
| PEARSON eBooks 2014  |      |
| Computer Science, Engineering, Mathematics, Physics, General, Environmental studies, Business & Economics  | 2173 |
| Details of E-Journal   |      |
| Subscription of e-journals had been discontinued due to the shortage of fund. But approval of the concerned authority to the proposal to renew of subscription is awaited. |      |

- Total number of online Books available in National Institute of Technology Manipur = **8109**

- Magazines : 24
- Newspapers : 05(both national and local)
- Internet connectivity : Available

#### Staff in position- 03(on Contract)

| Sl. No. | Name                             | Designation         | Qualification                 | Remark  |
|---------|----------------------------------|---------------------|-------------------------------|---|
| 1.      | <b>Dr. Naorem Vidyavati Devi</b> | Assistant Librarian | BSc, MLIS, CCCA, PGDCA, Ph.D. | Published work- nearly 30 papers were published in Seminars/Conference Volumes, Journals (including both national and international), Local and Festschrift volume. |



|    |                                 |                    |            |   |
|----|---------------------------------|--------------------|------------|---|
|    |                                 |                    |            | Organized- 03 National Workshop<br><br>Organized-7 Awareness programme(Institutional level) |
| 2. | <b>Moirangthem Rakesh Singh</b> | Library Assistant  | MLIS, CCCA | Published Work- 2 papers (01 in bulletin and 01 in Conference Volume)                       |
| 3. | <b>Chanambam Victoria Devi</b>  | Library Attendant  | BSC, PGDCA | —   |
| 4. | <b>Y.K. Katini</b>              | Library Attendant  | XII, DCA   | —   |
| 5. | <b>R.K. Rajeshwori Devi</b>     | Library Apprentice | MLIS       | Published work- 3 papers  |
| 6. | <b>Kh. Hammerjit Singh</b>      | Library Apprentice | MLIS, DCA  | Published work- 4 papers<br><br>Organized 01 National Workshop as event Manager             |
| 7. | <b>N. Bitankumar Singh</b>      | Library Apprentice | MLIS       | Published work- 2 papers<br><br>Organized 01 National Workshop as event Manager             |

### At a Glance

- The Library, under the illuminating guidance of the Competent Authorities in this short period of time, the Library NIT, Manipur has procured most of the basic Library equipments, furniture and stationary items.
- NIT Manipur, Library has organized 2 day National Author Workshop on the theme “**Inside a Publishers’ Mind**”, 3<sup>rd</sup> & 4<sup>th</sup> July, 2017.
- Those in the higher authority in the Institute are whole heartedly committed in the development of the Library in all possible ways.

- Library, NIT, Manipur, has a large scope of developing its service and provides the same to the users.
- Though Saturday is a holiday for the Institution, the library functions on Saturday for 2-3 hrs, except 2<sup>nd</sup> Saturday, in the interest of the institution in general and of the student community in particulars.
- So far, NIT Manipur, Library has organized two days National\ Workshop, 7 User Awareness cum Demonstration Programme on access to e-resources with subject experts from outside the State to enable both faculty and students of the Institution to use this facilities.
- The NITM Library, under the illuminating guidance of the Director, NITM, had organized a “Three Days (3<sup>rd</sup> to 5<sup>th</sup> October, 2013) BOOK Exhibition Programme” at NITM campus in which 12 book firms participated.

### **5.3 Students Residential Facilities**

The Institute is a fully residential Institute. NIT Manipur is able to provide hostel accommodation to every student on twin sharing basis. The Institute has four Boys Hostels of which one is a two storey Boys Hostel. In addition a Girls Hostel is also located inside the Campus. Games and Sports facilities are provided inside the campus.

### **5.3 Students Mess**

The Institute runs three separate mess for the four boys’ hostels and separate mess for the Girls’ Hostel. Two boys’ hotels at Temporary Campus share a common Mess.

|            |  |                                |
|------------|--|--------------------------------|
| <b>6.0</b> | <b>BOG and Finance Committee</b>   |                                |
| <b>6.1</b> | <b>Board of Governors</b>  |                                |
| 1.         | <b>Shri Ashishkumar Chauhan</b><br>MD & CEO Bombay Stock Exchange                | <b>Chairman</b>                |
| 2.         | <b>Dr. S. Birendra Singh</b><br>Director NIT Manipur                             | <b>Member</b>                  |
| 3.         | <b>Additional / Joint Secretary</b><br>MHRD, Govt. of India                      | <b>Member</b>                  |
| 4.         | <b>Financial Adviser</b><br>Department of Higher Education, MHRD, Govt. of India | <b>Member</b>                  |
| 5.         | <b>Prof. Guru Prem Prasad M</b><br>Dean (Academic Affairs), IIT Guwahati         | <b>Member</b>                  |
| 6.         | <b>State Govt. Nominee (2)</b>   | <b>Member</b>                  |
| 7.         | <b>Council Nominee (2)</b>   | <b>Member</b>                  |
| 8.         | <b>Dr. Th. David Singh</b><br>HOD, Department of Chemistry, NIT Manipur          | <b>Member (Senate Nominee)</b> |
| 9.         | <b>Dr. Ng. Romeji Singh</b><br>Asst. Professor (CE), NIT Manipur                 | <b>Member (Senate Nominee)</b> |
| 10.        | <b>Shri R.K. Lalit Singh</b><br>Registrar, NIT Manipur                           | <b>Member Secretary</b>        |
| <b>6.2</b> | <b>Finance Committee</b>   |                                |
| 1.         | <b>Shri Ashishkumar Chauhan</b><br>MD & CEO Bombay Stock Exchange                | <b>Chairman</b>                |
| 2.         | <b>Dr. S. Birendra Singh</b><br>Director NIT Manipur                             | <b>Member</b>                  |
| 3.         | <b>Additional / Joint Secretary</b><br>MHRD, Govt. of India                      | <b>Member</b>                  |
| 4.         | <b>Financial Adviser</b><br>Department of Higher Education, MHRD, Govt. of India | <b>Member</b>                  |
| 5.         | <b>Dr. Th. David Singh</b><br>HOD, Department of Chemistry, NIT Manipur          | <b>Member (BOG Nominee)</b>    |
| 6.         | <b>Dr. Ng. Romeji Singh</b><br>Asst. Professor (CE), NIT Manipur                 | <b>Member (BOG Nominee)</b>    |
| 7.         | <b>Shri R.K. Lalit Singh</b><br>Registrar, NIT Manipur                           | <b>Member Secretary</b>        |

Annual Report 2016-17

National Institute of Technology Manipur

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**Annual Account Statements  
&  
Audited Report  
2016-17**



**NATIONAL INSTITUTE OF TECHNOLOGY MANIPUR**





OFFICE OF THE ACCOUNTANT GENERAL (AUDIT)  
MANIPUR, IMPHAL-795 001

Phone: 0385-2228523 Fax: 0385-2228525 e-mail: agaumanipur@cag.gov.in

No.AG(AU)/ LB/AB/33/SAR/NIT/16-17/197

Dated: 13.03.2018

To,

The Under Secretary,  
Department of Secondary and Higher Education,  
Ministry of Human Resource Development,  
Shastri Bhavan, New Delhi – 110001

Subject: - Audit Report on the accounts of the National Institute of Technology, Manipur,  
Imphal for the year 2016-17.

Sir,

I am to forward herewith the Audit Report on the Accounts of the National Institute of Technology, Manipur, Imphal for the year 2016-17. I am also to request the Government to make necessary arrangements to place the Audit Report before the Parliament.

The Report may be kept confidential till it is placed before the Parliament.

Encl: As Stated above

Yours faithfully,

Sd/-  
Deputy Accountant General (GS/SS/LB)

Memo No.AG(AU)/ LB/AB/33/SAR/NIT/16-17/198-199

Dated: 13.03.2018

Copy forwarded to:-

1. The Principal Director (AB), O/o the Comptroller and Auditor General of India,  
9, Deen Dayal Upadhyay Marg, New Delhi-110124
2. The Director, National Institute of Technology, Manipur, Imphal with a copy of the Audit Report on the Accounts.

[He is requested to make necessary arrangements to submit the Audit Report to the concerned Ministry of Government of India under section 22(4) of the National Institute of Technology Act, 2007. He is further requested to intimate to this Office the date of placing of the Audit Report before the Parliament. Arrangements may please be made to translate the Report in Hindi and place the Report before the Parliament through the concerned Ministry. 10 (ten) copies of the printed Report placed before the Parliament may be forwarded to this Office. The Report may be kept confidential till it is placed before the Parliament.]

  
Sr. Audit Officer (GS/SS/LB)



**Separate Audit Report of the Comptroller & Auditor General of India on the Annual  
Accounts of the National Institute of Technology, Manipur, Imphal for the year ended  
31<sup>st</sup> March, 2017.**

We have audited the attached Balance Sheet of the National Institute of Technology, Manipur, Imphal as on 31<sup>st</sup> March 2017, the Income & Expenditure Account and Receipts and Payments for the year ended on that date under Section 19(2) of the Comptroller and Auditor General's (Duties, Powers & Conditions of Service) Act, 1971 read with Section 22(2) of the National Institute of Technology Act, 2007. These financial statements are the responsibility of the Autonomous Body's (AB'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 disclosure in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.

4. Based on our audit, we report that:

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

(ii) The Balance Sheet, Income & Expenditure Account and Receipts and Payments dealt with by this report have been drawn up in the format approved by Ministry of Human Resource for Central Educational Institute.

(iii) In our opinion, proper books of accounts and other relevant records have been maintained by the National Institute of Technology, Imphal as required under Section 22 (1) & (2) of the National Institute of Technology Act, 2007 in so far as it appears from our examination of such books.

(iv) Further we report that:

A. **Balance Sheet**

1.1 **Application of Fund**

**Fixed Assets (Schedule 4A)**



#### 1.1.1 Buildings: ₹ 582.13 lakh

(a) The above amount does not include the following:

| Sl.   | Particulars of works taken up   | Amount (in ₹) |
|-------|---|---------------|
| 1     | Construction of NIT Signage at NIT (Eastern Campus)(Logo work and Civil Works)          | 916419        |
| 2     | Construction of RCC signage at NITM, Langol Campus                                      | 913848        |
| 3     | Extension of kitchen store room at Boys hostel, Langol                                  | 236667        |
| 4     | Construction of raised foundation of transformer at NITM, Langol Campus                 | 779130        |
| 5     | Construction of Cafeteria cum Canteen at NITM, Langol (Payment of electrification bill) | 513731        |
| Total |   | 33,59,795     |

The aggregate expenditure of ₹ 33.60 lakh is of capital nature which should have been capitalised under the head "Buildings". However, NITM charged this amount to Income and expenditure under the head "Repair and Maintenance".

This has resulted in understatement of Building and overstatement of Deficit by ₹ 33.60 lakh.

(b) The above included ₹ 57.58 lakh incurred on the fencing around Director's bungalow which was only a part of the work "Construction of compound wall around Director's bungalow viz. foundation work". Accordingly, the amount incurred on construction upto this stage (piling) should have been charged to the head "Capital work in progress" instead of charging to the head "Buildings", till all the components of the work were complete.

This has resulted in understatement of "Capital work in progress" and overstatement of "Buildings" by ₹ 57.58 lakh.

(c) The above included ₹ 118.72 lakh expenditure on the work "Earth filling for construction of Cricket Ground at NIT Campus, Langol" during the year 2016-17. The above expenditure on earth filling should have been charged under the Head "Site development" instead of "Building". This resulted in understatement of Site development and overstatement of Building by ₹ 118.72 lakh

#### 1.1.2 Computers/ Peripherals: ₹ 656.71 lakh

The above includes of ₹ 67.98 lakh incurred by NIT, Manipur towards payment for procurement of computer software "Red Hat Enterprise Linux" from M/s Converge Systems and Services Private Ltd. The same being computer software should have been charged to the head "Intangible Assets: Computer Software".

However, the same has been charged to the head "Tangible Assets: Computers". This resulted in overstatement of Tangible Assets (Computers) by ₹ 67.98 lakh with corresponding understatement of Intangible Assets (Software).

#### 1.1.3 Electrical Equipment/Installation: ₹ 138.49 lakh

The above head does not include ₹ 38.61 lakh incurred on the "Supply and installation of secured power sources and distribution with power protection at Server Room" from M/s Microtech Software Private Ltd. at NIT, Langol, Manipur.



As the work comprised of supply and installation of electrical components like wires/cables, panel distribution boards, earthing etc. the expenditure should have been charged to the head Electrical Equipment/Installation. Audit however noticed that the said amount was charged to the head "Computers".

This has resulted in understatement of "Electrical Equipment/Installation" and overstatement of "Computers" by ₹ 38.61 lakh.

## B. Income and Expenditure Account

### 2.1 Expenditure

#### 2.2.1 Depreciation: ₹ 1507.88 lakh

(i) There was short provision of depreciation on 3 items in the accounts of the Institute amounting to ₹ 9.32 lakh as detailed below:-

| Sl. No. | Item (Head booked)   | Actual Head                       | Value of asset (₹ in lakh) | Depreciation (%) |        | Difference in depreciation (₹ in lakh) (Charged-Actual) |
|---------|--|-----------------------------------|----------------------------|------------------|--------|---|
|         |  |                                   |                            | Charged          | Actual |   |
| 1.      | Earth filling for construction of Cricket Ground at NIT Campus (Building)  | Site Development                  | 118.72                     | 2                | 0      | 2.3744  |
| 2.      | Supply and installation of secured power sources and distribution with power protection at Server Room (Computers) | Electrical equipment/Installation | 38.61                      | 20               | 5      | 5.7915  |
| 3.      | Construction of compound fencing around Director's bungalow (SH: Piling Works)(Building)                           | Capital work in progress          | 57.58                      | 2                | 0      | 1.1516  |
| Total:- |  |                                   |                            |                  |        | 9.3175  |

This resulted in understatement of deficit for year by ₹ 9.32 lakh and overstatement of Fixed Assets to the same extent.

(ii) The Institute had charged an excess depreciation of ₹ (-) 7.94 lakh in the following heads as detailed below:-

| Sl. No. | Item (Head booked)   | Actual Head       | Value of asset (₹ in lakh) | Depreciation (%) |        | Difference in depreciation (₹ in lakh) (Charged-Actual) |
|---------|--|-------------------|----------------------------|------------------|--------|---|
|         |  |                   |                            | Charged          | Actual |   |
| 1.      | Procurement of software from M/s Netcom Solutions (Repair and Maintenance-Income and Expenditure)                | Computer software | 18.18                      | 0                | 40     | -7.272  |
| 2.      | Construction of NIT Signage at NIT (Eastern Campus)(Logo work and Civil Works)(Repair and maintenance)           | Building          | 9.16                       | 0                | 2      | -0.1832   |
| 3.      | Construction of RCC signage at NITM, Langol Campus (Repair and maintenance)                                      | Building          | 9.14                       | 0                | 2      | -0.1828   |
| 4.      | Extension of kitchen store room at Boys hostel, Langol (Repair and maintenance)                                  | Building          | 2.37                       | 0                | 2      | -0.0474   |
| 5.      | Construction of raised foundation of transformer at NITM, Langol Campus (Repair and maintenance)                 | Building          | 7.79                       | 0                | 2      | -0.1558   |
| 6.      | Construction of Cafeteria cum Canteen at NITM, Langol (Payment of electrification bill) (Repair and maintenance) | Building          | 5.13                       | 0                | 2      | -0.1026   |
| Total:- |  |                   |                            |                  |        | -7.9438   |



This resulted in understatement of fixed assets and overstatement of deficit by ₹ 7.94 lakh.

### 2.2.2 Administrative and General Expenses: ₹304.87 lakh

The above amount includes ₹ 22.47 lakh being various administrative expenses for the financial year 2015-16. Details of the expenditure shown in table below:

| Sl    | Payment date | Particular  | Amount (₹) |
|-------|--------------|---|------------|
| 1.    | 11.4.16      | Payment made to M/s Seven Security Force being remuneration and honorarium of outsourced security for March 2016  | 6,15,789   |
| 2.    | 25.4.16      | Payment made MSPDCL being electric bill for the period of 6.2.16 to 5.3.16  | 27,964     |
| 3.    | 27.4.16      | Payment to M/s Manipur service Agency being mess bill for the month of February 2016                              | 6,06,575   |
| 4.    | 27.4.16      | Payment made to M/s Chingaren water supply being payment for supply of drinking water for the month of march 2016 | 2,04,800   |
| 5.    | 3.5.16       | Payment made to M/s Janak Enterprises being mess bill for March 2016  | 6,79,766   |
| 6.    | 3.5.16       | Payment made to MSPDCL being electricity bill for langol hostel for the period 5.3.16 to 31.3.16.                 | 97,991     |
| 7.    | 3.5.16       | Payment made to BP Sahu being legal advisor honorarium for March 2016   | 15,000     |
| Total |              |   | 22,47,885  |

Since the expenditure pertains to the previous financial year, the same should have been separately shown as prior period expenses.

### 2.2.3 Academic expenses: ₹430.27 lakh

The above amount includes ₹13.08lakh being various academic expenses for the financial year 2015-16. Details of the expenditure shown in table below:

| Sl      | Vr. No. & Dt. | Particular  | Amount (₹) |
|---------|---------------|---|------------|
| 1.      | 11.4.16       | Payment for PhD Scholarship for the month of March 2016         | 8,98,600   |
| 3.      | 15.4.16       | Payment for M.Tech scholarship/ stipend for month of March 2016 | 4,09,200   |
| Total:- |               |   | 13,07,800  |

Since the expenditure pertains to the previous financial year, the same should have been separately shown as prior period expenses.

## C. General:

### 3.1 Non-exhibition of value of land in the Balance Sheet

As per Formats of Financial Statements for Central Higher Educational Institutions, gifted/donated assets are valued at the declared value where available; if not available, the value is estimated based on the present market value adjusted with reference to the physical condition of the asset. They are set up by credit to Capital Fund and merged with the Fixed Assets of the Institution.

The Government of Manipur, in January 2011, allotted an area measuring 138.20 hectares in the name of National Institute of Technology (NIT), Manipur. However, the value of land was not exhibited in the Balance Sheet of the Institute.

### **3.2 Effect of audit comments on the accounts**

The net impact of the audit comments is that Fixed Assets as on 31 March 2017 is understated by ₹32.22 lakh and the deficit for the year is overstated by ₹33.24 lakh.

### **3.3 Retirement benefit**

No provision for retirement benefit was made on the basis of accrual valuation as prescribed in Accounting Standard – 15.

### **D. Grants-in-Aid**

The Institute utilized the entire grants-in-aid of ₹ 44.00 crore received during the year.

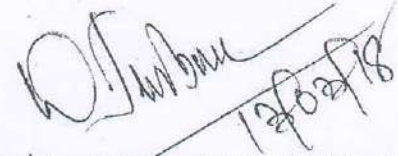
(v) Subject to our observations in the preceding paragraphs, we report that the Balance Sheet and Income & Expenditure Account dealt with by this report are in agreement with the books of accounts.

(vi) In our opinion and to the best of 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 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 National Institute of Technology, Manipur, Imphal as on 31 March 2017; and
- (b) In so far as it relates to the Income & Expenditure Account for the year ended on that date.

Place:- Imphal

Dated:-13.03.2018

  
12/03/18  
**Accountant General (Audit), Manipur**



## Annexure to Audit Report

### 1. Adequacy of Internal Audit System

The Institute did not have its own Internal Audit Wing during the year 2016-17. Existence of an Internal Audit Wing is considered essential for effective control of the financial affairs of the Institute.

### 2. Adequacy of Internal Control System

The Internal Control System in the Institute was weak as there were instances of delay in settlement of advances, non-payment of statutory dues in time and non-existence of internal audit wings, etc.

### 3. System of Physical verification of Fixed Assets and Inventories:

The physical verification of Fixed Assets and Inventories was conducted during the year 2016-17

### 4. Payment of Statutory Dues

The Institute was not regular in payment of statutory dues as on 31.3.2017. The following balances were lying pending for payment as on 31.3.2017:

(₹ in lakh)

| Particulars | Amount payable | Amount actually paid | Amount remaining unpaid as on 31 March 2017 |                                    |
|-------------|----------------|----------------------|---|------------------------------------|
|             |                |                      | Outstanding for less than 6 months          | Outstanding for more than 6 months |
| Income Tax  | 12.13          | 9.04                 | 3.09  | Nil                                |
| Sales Tax   |                |                      |   |                                    |
| 1. Works    | 38.63          | 24.37                | 14.27                                       | Nil                                |
| 2. Others   | 41.80          | 35.64                | 6.16  | Nil                                |
| Labour cess | 11.68          | 9.64                 | 2.04  | Nil                                |

  
Sr. Audit Officer (GS/SS/LB)

# Net impact of Audit Comments

(₹ in lakh)

| Sl. No. | Para No.   | Particulars   | Fixed Assets |              | Deficit for the year |             |
|---------|------------|---------------|--------------|--------------|----------------------|-------------|
|         |            |               | Overstated   | Understated  | Overstated           | Understated |
| 1       | 1.1.1      | Buildings     |              | 33.60        | 33.60                |             |
| 2       | 2.2.1 (i)  | Depreciation  | 9.32         |              |                      | 9.32        |
| 3       | 2.2.1 (ii) | Depreciation  |              | 7.94         | 7.94                 |             |
|         |            | <b>Total</b>  | <b>9.32</b>  | <b>41.54</b> | <b>42.56</b>         | <b>9.32</b> |
|         |            | <b>Impact</b> |              | <b>32.22</b> | <b>33.24</b>         |             |

The net impact of the audit comments is that Fixed Assets as on 31 March 2017 is understated by ₹32.22 lakh and the deficit for the year is overstated by ₹33.24 lakh.

  
Sr. Audit Officer (GS/SS/LB)



**NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR**

**BALANCE SHEET AS AT 31.3.2017**

| SOURCES OF FUND                               | Schedule | Current Year      | Previous Year     |
|---|----------|-------------------|-------------------|
| 1 CAPITAL FUND                                | 1        | 2,32,43,89,759.95 | 2,13,22,77,520.80 |
| 2 Designated / Earmarked/ Endowment Funds     | 2        | -                 | -                 |
| 3 Current Liabilities & Provisions            | 3        | 18,41,51,743.74   | 11,14,91,781.01   |
|   |          | 2,50,85,41,503.69 | 2,24,37,69,301.81 |
| APPLICATION OF FUNDS                          |          |                   |                   |
| 1 Fixed Assets                                | 4        |                   |                   |
| a) Tangible Assets                            |          | 72,33,61,670.66   | 53,09,86,341.66   |
| b) Intangible assets                          |          | 3,09,66,370.00    | 7,09,01,463.00    |
| c) Capital Work in Progress                   |          | 1,69,82,53,597.00 | 1,52,57,08,922.00 |
| 2 Investments from Earmarked/ Endowment Funds | 5        |                   |                   |
| a) Long Term                                  |          | -                 | -                 |
| b) Short Term                                 |          | -                 | -                 |
| 3 Investments - Others                        | 6        | 3,05,994.12       | 2,51,763.57       |
| 4 Current Assets                              | 7        | 2,15,91,214.44    | 8,39,05,213.11    |
| 5 Loans & Advances                            | 9        | 3,40,62,657.47    | 3,20,15,598.47    |
|   |          | 2,50,85,41,503.69 | 2,24,37,69,301.81 |

Significant Accounting Policies 23  
Contingent liabilities & Notes on Account 24

Imphal

Date 24.6.2017

*Internal Auditor*

**For KUNJABI & CO.**  
Chartered Accountants  
FRN 309115E

**KSH KUNJABI SINGH**  
Partner  
Membership No. 016593



*[Signature]*  
**Accountant**  
National Institute of Technology  
Manipur.

*[Signature]*  
**Engineer**  
National Institute of Technology  
Manipur

*[Signature]*  
**Director**  
National Institute of Technology  
Manipur



# NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

## INCOME AND EXPENDITURE FOR THE YEAR 2016-17

| INCOME  | Schedule | Current Year     | Previous Year    |
|---|----------|------------------|------------------|
| 1 Academic Receipts                                     | 9        | 3,95,39,433.75   | 3,15,03,600.00   |
| 2 Grant & Subsidies :                                   | 10       | 18,00,00,000.00  | 18,45,00,000.00  |
| a) Received   |          |                  |                  |
| b) Add : Opening balance available for Revenue Exp      |          |                  |                  |
| c) Less : Capital Expenses                              |          | 18,00,00,000.00  | 18,45,00,000.00  |
| d) Balance available for Revenue Exp                    |          | 10,82,142.09     | 30,16,299.67     |
| 3 Income from Investment                                | 11       | 9,19,029.00      | 46,40,478.93     |
| 4 Interest Earned                                       | 12       | 35,89,435.00     | 38,51,829.00     |
| 5 Other Income  | 13       | 0                | 0                |
| 6 Prior Period Income                                   | 14       | 22,51,30,039.84  | 22,75,12,207.60  |
| Total (A)   |          |                  |                  |
| <b>EXPENDITURE</b>                                      |          |                  |                  |
| 1 Staff Payment & Benefit ( Establishment Exp)          | 15       | 8,87,92,938.00   | 6,10,34,152.00   |
| 2 Academic Expenses                                     | 16       | 4,30,27,882.00   | 2,92,95,423.45   |
| 3 Administrative & General Expenses                     | 17       | 3,04,87,485.00   | 2,89,50,589.00   |
| 4 Transport Expenses                                    | 18       | 13,09,552.00     | 21,67,586.00     |
| 5 Repair & Maintenance                                  | 19       | 1,00,84,830.00   | 72,56,994.00     |
| 6 Finance Cost  | 20       | 9,908.69         | 1,22,055.00      |
| 7 Depreciation  |          |                  |                  |
| a) Depreciation for the year (SLM)                      | 4        | 15,07,88,763.00  | 14,87,88,778.00  |
| b) Excess Depreciation in the previous years adjusted   | 4        | -                | -                |
| 8 Other Expenses  | 21       | -                | 5,90,284.00      |
| 9 Prior Period exp                                      | 22       | 32,45,01,378.69  | 27,82,05,861.45  |
| Total (B)   |          |                  |                  |
| Balance being excess of income over Expenditure         |          |                  | (5,06,93,653.85) |
| BALANCE being the excess of expenditure over income     |          | (9,93,71,338.85) |                  |
| Transfer to/ from designated Fund                       |          | -                | 0                |
| Others (Specify)  |          | -                |                  |
| Balance being Surplus (Deficit) carried to Capital Fund |          | (9,93,71,338.85) | (5,06,93,653.85) |

Imphal

Date 24.6.2017

*Internal Auditor*

For KUNJABI & CO.

Chartered Accountants

FRN 909115E

KSH KUNJABI SINGH

Partner

Membership No. 016593

Accountant

National Institute of Technology  
Manipur

National Institute of Technology  
Manipur

Director

National Institute of Technology  
Manipur



**NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR**  
**RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31.3.2017**

| RECEIPTS                                   | Current year    | Previous Year   | PAYMENTS  | Current year    | Previous Year   |
|--|-----------------|-----------------|---|-----------------|-----------------|
| I Opening Balance                          |                 |                 | I Expenses -  |                 |                 |
| a) Cash balances i/c DD in hand            | 2,03,10,187.00  | 2,35,399.00     | a) Establishment Expenses                             | 8,87,92,938.00  | 6,10,34,152.00  |
| b) Bank Balances -                         |                 |                 | b) Academic Expenses                                  | 4,30,27,882.00  | 2,92,95,423.45  |
| i) in Current Account                      | 1,07,14,236.56  | 2,84,19,424.74  | c) Administrative Expenses                            | 3,04,87,485.00  | 2,89,50,589.00  |
| ii) In Deposit Accounts                    | 3,25,90,071.43  | 1,71,16,107.00  | d) Transportation Expenses                            | 13,09,552.00    | 21,67,586.00    |
| iii) In Savings Account                    | 1,84,28,826.00  | 71,10,416.00    | e) Repairs & Maintenance                              | 1,00,84,830.00  | 72,56,994.00    |
|  |                 |                 | f) Finance Cost                                       | 9,908.69        | 1,22,065.00     |
| Grants Received -                          |                 |                 | g) Prior Period Expenses                              |                 | 5,90,284.00     |
| a) From Government of India                | 8,20,43,320.99  | 5,28,81,346.74  | II Payments made against Earmarked/ Endowment funds   | 17,37,12,595.69 | 12,94,17,083.45 |
| b) From State Government                   | 44,00,00,000.00 | 72,00,00,000.00 |   |                 |                 |
| c) From Other sources :                    |                 |                 | III Payments against Sponsored Projects               |                 |                 |
| III Academic Receipts                      |                 |                 | Projects/ Schemes                                     | 73,22,369.00    | 4,77,191.00     |
| Receipts against Earmarked/ Endowment Fund | 3,95,39,433.75  | 3,15,03,600.00  | Others  | 62,68,385.00    | 66,03,626.00    |
| IV Receipts against Sponsored Projects     |                 |                 | CSAB  |                 |                 |
| /Schemes                                   |                 |                 | IV Payments against Sponsored Fellowship/ Scholarship |                 |                 |
| Schedule 3(a)                              |                 |                 |   |                 |                 |
| CSAB                                       |                 |                 | V Investments and Deposits made                       |                 |                 |
| Income on Investments from                 |                 |                 | a) Out of Earmarked/ Endowment                        |                 |                 |
| a) Earmarked /Endowment Fund               | 1,90,50,291.98  | 5,80,000.00     | b) Out of own Funds                                   | 54,230.55       | 2,51,763.57     |
| b) Other Investments                       | 54,230.55       | 68,77,336.00    |   |                 |                 |
| VII Interest Received on                   |                 |                 | VI Term Deposits with Schedule Banks                  |                 |                 |
| a) Bank Deposits                           | 10,27,911.54    | 27,64,536.10    | VII Expenditure on Fixed Assets                       |                 |                 |
| b) Loans & Advances                        |                 |                 | and Capital Work in Progress                          |                 |                 |
| c) Savings Bank Account                    | 9,19,029.00     | 46,40,478.93    | a) Fixed Assets i/c advance                           | 29,89,72,833.00 | 27,81,19,259.66 |
|  |                 |                 | b) Capital Work in progress                           | 17,25,44,675.00 | 33,63,18,529.00 |
|  |                 |                 | VIII Other Payments including                         |                 |                 |
|  |                 |                 | Statutory payments (Net)                              | 24,06,921.00    |                 |
|  |                 |                 | Total Carried over                                    | 66,12,82,009.24 | 75,11,87,452.68 |





Director  
 Registrar  
 Accountant  
 National Institute of Technology  
 Manipur



|  |                 |                 |                                      |                 |                 |
|--|-----------------|-----------------|--------------------------------------|-----------------|-----------------|
| Total Carried forward                                    | 58,89,02,602.81 | 81,94,39,061.34 | Total Carried forward                | 66,12,82,009.24 | 75,11,87,452.68 |
| IX Investments encashed                                  |                 | 1,00,00,000.00  | IX Refund of Grants                  |                 | 2,13,99,390.67  |
| X Term Deposits with Scheduled Banks                     |                 |                 | X Deposits and Advances (net)        | 20,47,059.00    | 6,68,000.00     |
| XI Other Income (including Prior period income)          | 35,89,435.00    | 38,51,829.00    | XI Other Payments                    |                 | 1,58,500.00     |
|  |                 |                 | a) Refund of Caution Deposit         |                 | 1,70,51,784.00  |
|  |                 |                 | b) Refund of fee                     |                 |                 |
|  |                 |                 | c) Payment of sundry creditors (net) |                 |                 |
|  |                 |                 | d) Other Liabilities (Net)           | 15,82,759.63    |                 |
| XII Deposits and Advances                                | 4,50,000.00     | 11,48,000.00    | XII Closing balances                 |                 |                 |
| Caution Money (net)                                      | 5,81,143.25     | 47,29,516.00    | a) Cash in hand                      | 2,71,940.00     | 2,03,10,187.00  |
| Deduction awaiting remittance                            | 37,25,270.00    | 10,23,435.00    | b) Bank Balances -                   |                 |                 |
| Refundable & Payables (net)                              |                 |                 | i) in Current Account (net of O/D)   | 17,48,784.03    | 1,07,14,236.56  |
|  |                 |                 | ii) in Savings Account               | 90,87,346.41    | 3,25,90,071.43  |
| XIII Miscellaneous Receipts including Statutory Receipts | 8,90,27,199.25  | 51,13,607.00    | iii) in Deposit Accounts             | 1,04,83,144.00  | 1,84,28,826.00  |
| Sundry Creditors (net)                                   |                 |                 |                                      |                 |                 |
| Current Liability & Provisions Increase                  |                 |                 |                                      |                 |                 |
| XIV Any Other Receipts                                   |                 |                 |                                      |                 |                 |
| Receivable Fees  |                 | 1,43,000.00     |                                      |                 |                 |
| Grants held for remittance                               |                 | 2,70,00,000.00  |                                      |                 |                 |
| Leave salary/ pension contribution                       | 2,27,392.00     |                 |                                      |                 |                 |
| Total  | 68,65,03,042.31 | 87,25,08,448.34 | Total                                | 68,65,03,042.31 | 87,25,08,448.34 |



*Internal Auditor*

For KUNJABI & CO.  
Chartered Accountants  
FRN 309115E

KSH KUNJABI SINGH  
Partner  
Membership No. 018593

Accountant  
National Institute of Technology  
Manipal

Inspector  
National Institute of Technology  
Manipal

Director  
National Institute of Technology  
Manipal



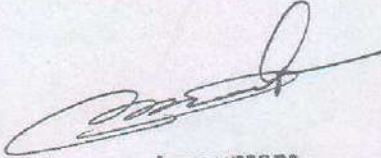
# NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR


## SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.3.2017

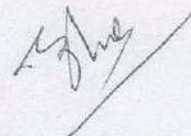
### SCHEDULE -1 : CORPUS/ CAPITAL FUND

|  | Current Year      | Previous Year     |
|--|-------------------|-------------------|
| 1 Balance as at the beginning of the year  | 2,13,22,77,520.80 | 1,64,74,71,174.65 |
| 2 Add : Contribution towards Capital Fund  | 26,00,00,000.00   | 53,55,00,000.00   |
| 3 Add : Grants from Ministry of Social Welfare<br>Utilised for Capital Expenses              | 2,70,00,000.00    | -                 |
| 4 Add : Leave salary & Pension contribution received   | 2,27,392.00       | -                 |
| 5 Add : Assets purchased out of Sponsored Projects where<br>Ownership vests in the Institute | 42,56,186.00      | -                 |
| 6 Add : Assets Donated / Gifts Received in Project   | -                 | -                 |
| 7 Add : Other Additions  | -                 | -                 |
| 8 Less : Revenue Expenditure considered out of the Grant                                     | -                 | -                 |
| 9 Add : Excess of Income over Expenditure transferred from<br>Income and Expenditure Account | -                 | -                 |
| 10 Deduct : Deficit transferred from Income and Expenditure<br>Account                       | -9,93,71,338.85   | -5,06,93,653.85   |
| 11 Balance at the end of the year  | 2,32,43,89,759.95 | 2,13,22,77,520.80 |

  
  
**Internal Auditor**

  
**Accountant**  
 National Institute of Technology  
 Manipur.

  
**Registrar**  
 National Institute of Technology  
 Manipur

  
**Director**  
 National Institute of Technology  
 Manipur



NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

2016-17

SCHEDULE -2 : DESIGNATED / EARMARKED / ENDOWMENT FUNDS

Refer Schedule 3(a)  
Current Year

Previous Year

A

- a) Opening Balance of the funds
- b) Additions during the year
- c) Income from Investments made of the the funds
- d) Accrued Interest on Investments/ Advances
- e) Interest on Savings Bank Account
- f) Other Additions (specify)
  - (i) Subscriptions & recovery of advance
  - (ii) Interest on SB a/c

TOTAL (A)

B

- Utilisation / Expenditure towards objectives of fund
- i) Capital Expenditure
  - ii) Revenue Expenditure

TOTAL (B)

Closing balance at the end of the year (A-B)

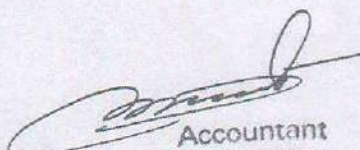
Represented by

- a) Cash and Bank Balance
- b) Investments
- c) Interest Accrued but not due
- d) Others (Specify)

TOTAL



Internal Auditor

  
Accountant  
National Institute of Technology,  
Manipur.

  
Registrar  
National Institute of Technology  
Manipur

  
Director  
National Institute of Technology  
Manipur



SCHEDULE 2 A

ENDOWMENT FUNDS

Sub- Schedule to support the figures in the column "Endowment Funds" in the Schedule 2 forming part of the Balance Sheet

| Sl | Name of the Endowment | Opening Balance |                      | Addition During the Year |          |           | Total     |                      | Expenditure on the object during the year | Closing Balance |                      | Total |
|----|-----------------------|-----------------|----------------------|--------------------------|----------|-----------|-----------|----------------------|---|-----------------|----------------------|-------|
|    |                       | Endowment       | Accumulated Interest | Endowment                | Interest |           | Endowment | Accumulated Interest |   | Endowment       | Accumulated Interest |       |
| 1  | 2                     | 3               | 4                    | 5                        | 6        | 7 = (3+5) | 8 = (4+6) | 11 (10+11)           |   |                 |                      |       |
|    | NIL                   | NIL             | NIL                  | NIL                      | NIL      |           |           |                      |   |                 |                      |       |

6 Supported by

Cash at bank

Investment in Bank STDR

Reinvested Interest

Accrued Interest but not due

Int. Receivable from SBI(TDS)

Receivable - Corpus Fund

Total

Less : Liabilities

*[Signature]*



*Subimal Auditors*

*[Signature]*

Accountant

National Institute of Technology  
Manipur

*[Signature]*

Registrar

National Institute of Technology  
Manipur

*[Signature]*

Director  
National Institute of Technology  
Manipur



# NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

2016-17

## SCHEDULE-3 : CURRENT LIABILITIES & PROVISIONS

### A CURRENT LIABILITIES

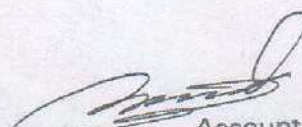
|   | Current Year                 | Previous Year   |
|---|------------------------------|-----------------|
| 1 Deposit from Staff  | -                            | -               |
| 2 Deposits from Students                                      | Caution deposit 35,00,000.00 | 30,50,000.00    |
| 3 Sundry Creditors  |                              |                 |
| a) For Goods & services                                       | 11,94,70,594.25              | 3,04,43,395.00  |
| b) Others (CSAB)  | 7,51,621.00                  | 7,51,621.00     |
| 4 Deposit Others (including Earnest Money & Security Deposit) | 2,56,26,422.00               | 2,19,01,152.00  |
| 5 Statutory Liabilities(GPF,TDS,WC Tax, CPF,GIS, NPS)         |                              |                 |
| a) Taxes and others   | 35,75,902.89                 | 59,82,823.89    |
| b) Others : deduction awaiting remittance                     | 37,17,401.25                 | 31,36,258.00    |
| 6 Other Current Liabilities                                   |                              |                 |
| a) Salary/ Pension/ NPS                                       | 2,43,672.00                  | 2,43,672.00     |
| b) Receipts against sponsored projects                        |                              | -               |
| c) Receipts against sponsored fellowship & scholarships       |                              | -               |
| d) Unutilised grants ( Sponsored project)                     | 1,26,44,785.98               | 9,16,863.00     |
| e) Grants in advance  |                              | -               |
| f) Refundable & Payables                                      |                              |                 |
| g) Other liabilities  |                              |                 |
| (i) for Expenses  | 3,62,000.00                  | 96,80,428.00    |
| (ii) Other Liabilities  | 77,35,668.37                 |                 |
| (ii) Other Liability - Grant recived for remittance to others | -                            | 2,70,00,000.00  |
| (iii) Cheque issued in excess of balance with SBI             | -                            | 18,61,892.12    |
| TOTAL (A)   | 17,76,28,067.74              | 10,49,68,105.01 |


### B PROVISIONS

|                                |              |              |
|--------------------------------|--------------|--------------|
| 1 For Taxation                 | 24,66,115.00 | 24,66,115.00 |
| 2 Gratuity                     | -            | -            |
| 3 Supeannuation/ Pension       | 10,28,825.00 | 10,28,825.00 |
| 4 Leave & Pension Contribution | 30,28,736.00 | 30,28,736.00 |
| 6 Accumulated Leave Encashment | -            | -            |
| 7 Trade Warrantees/ Claims     | -            | -            |
| 8 Others (Specify)             | -            | -            |
| Total (B)                      | 65,23,676.00 | 65,23,676.00 |

Total (A+B)

18,41,51,743.74      11,14,91,781.01

  
Accountant  
National Institute of Technology  
Manipur

  
  
Internal Auditor  
  
Registrar  
National Institute of Technology  
Manipur

  
Director  
National Institute of Technology  
Manipur



NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

SCHEDULE -3 (a) SPONSORED PROJECTS

2016-17

| SI No | Name of the project                        | Opening balance |        | Receipts/<br>Recoveries,<br>Interest during the<br>year | Total          | Expenditure<br>During the year | Closing balance |        | Previous Year |
|-------|--|-----------------|--------|---|----------------|--------------------------------|-----------------|--------|---------------|
|       |  | Credit          | Debit  |   |                |                                | Credit          | Debit  |               |
| 1     | DST Project - Basic Science Ibetombi       | 1,55,362.00     | -      | 1,70,000.00   | 3,25,362.00    | 1,55,362.00                    | 1,70,000.00     | -      | 1,55,362.00   |
| 2     | DST Project - Civil Dept                   | -               | -98.00 | -   | -              | -                              | -               | -98.00 | -98.00        |
| 3     | Land Degradation Risk Assmt                | -               | -      | 9,59,460.00   | 9,59,460.00    | 5,01,900.00                    | 4,57,560.00     | -      | -             |
| 4     | SERB - Generalised Vector....BB Upadhaya   | -               | -      | 2,27,500.00   | 2,27,500.00    | -                              | 2,27,500.00     | -      | -             |
| 5     | ISRO Project                               | -               | -      | 3,50,000.00   | 3,50,000.00    | 20,000.00                      | 3,30,000.00     | -      | -             |
| 6     | Preparation Activated Bamboo               | -               | -      | 96,000.00   | 96,000.00      | 27,900.00                      | 68,100.00       | -      | -             |
| 7     | Synthesis & Decoration of Drug (Chandi)    | -               | -      | 18,24,000.00  | 18,24,000.00   | 2,59,331.00                    | 15,64,669.00    | -      | -             |
| 8     | Air Mist Jet Impingement -Dushayant        | -               | -      | 29,00,000.00  | 29,00,000.00   | -                              | 29,00,000.00    | -      | -             |
| 9     | Complex Fluit Flow -Lenin Physics          | -               | -      | 7,00,000.00   | 7,00,000.00    | 24,000.00                      | 6,76,000.00     | -      | -             |
| 10    | Surface Oxygen & its effect- Nagarajan     | -               | -      | 14,66,000.00  | 14,66,000.00   | -                              | 14,66,000.00    | -      | -             |
| 11    | SERB - Modular Approach to DNA- Mithun Roy | -               | -      | 13,96,000.00  | 13,96,000.00   | 1,94,833.00                    | 13,96,000.00    | -      | -             |
| 12    | SERB - David                               | -               | -      | 7,20,000.00   | 7,20,000.00    | -                              | 5,25,167.00     | -      | -             |
| 13    | Modelling of Cosmic Acceleration Surendra  | -               | -      | 3,80,000.00   | 3,80,000.00    | -                              | 3,80,000.00     | -      | -             |
| 14    | GIAN COURSE                                | -               | -      | 5,93,500.00   | 5,93,500.00    | 5,93,500.00                    | -               | -      | -             |
| 15    | Improvising stability -L Herojit           | -               | -      | 10,85,185.00  | 10,85,185.00   | -                              | 10,85,185.00    | -      | -             |
| 16    | SMDP                                       | -               | -      | 59,97,646.98  | 59,97,646.98   | 53,75,653.00                   | 6,21,993.98     | -      | -             |
|       | Total (A)                                  | 1,55,362.00     | -98.00 | 1,88,65,291.98  | 1,90,20,653.98 | 71,52,479.00                   | 1,18,68,174.98  | -98.00 | 1,55,264.00   |
| 1     | DASA                                       | 6,10,000.00     | -      | -   | 6,10,000.00    | -                              | 6,10,000.00     | -      | 6,10,000.00   |
| 2     | NMEICT                                     | 1,51,599.00     | -      | 10,000.00   | 1,61,599.00    | -                              | 1,61,599.00     | -      | 1,51,599.00   |
| 3     | Annup Bharat Abhiyan                       | -               | -      | 1,75,000.00   | 1,75,000.00    | 1,69,890.00                    | * 5,110.00      | -      | -             |
|       | Total (B)                                  | 7,61,599.00     | -      | 1,85,000.00   | 9,46,599.00    | 1,69,890.00                    | 7,76,709.00     | -      | 7,61,599.00   |
|       | Total (A+B)                                | 9,16,961.00     | -98.00 | 1,90,50,291.98  | 1,99,67,252.98 | 73,22,369.00                   | 1,26,44,883.98  | -98.00 | 9,16,863.00   |
|       | Net Balance                                | 9,16,863.00     | -      | -   | -              | 1,17,27,922.98                 | 1,26,44,785.98  | -      | -             |

SCHEDULE -3 (b) SPONSORED FELLOWSHIP AND SCHOLARSHIPS

| SI No | Name of the project | Opening balance |       | Receipts/<br>Recoveries during<br>the year | Total | Expenditure<br>During the year | Closing balance |       | Previous Year |
|-------|---------------------|-----------------|-------|--|-------|--------------------------------|-----------------|-------|---------------|
|       |                     | Credit          | Debit |  |       |                                | Credit          | Debit |               |
|       |                     | NIL             | NIL   | NIL  | NIL   | NIL                            | NIL             | NIL   | NIL           |

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National Institute of Technology  
Manipur

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National Institute of Technology  
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NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

2016-17

SCHEDULE 3 (c) UNUTILISED GRANTS FROM GOVERNMENT OF INDIA AND STATE GOVERNMENTS

|   | Current Year    | Previous Year   |
|---|-----------------|-----------------|
| A Plan Grants : Government of India     |                 |                 |
| Balance brought forward                 | 44,00,00,000.00 | 72,00,00,000.00 |
| Add : Receipts during the year          | 44,00,00,000.00 | 72,00,00,000.00 |
| Total (a)                               |                 |                 |
| Less : Refunds                          | 17,37,12,595.69 | 12,88,26,799.45 |
| Less : Utilised for Revenue Expenditure | 47,15,17,508.00 | 61,44,37,788.66 |
| Less : Utilised for Capital expenses    | 64,52,30,103.69 | 74,32,64,588.11 |
| Total (b)                               | NIL             | NIL             |
| Unutilised Carried Forward (a-b)        |                 |                 |
| B Grants from State Government          | NIL             | NIL             |
| Balance brought forward                 |                 |                 |
| Add : Receipts during the year          |                 |                 |
| Total (c)                               |                 |                 |
| Less : Refunds                          |                 |                 |
| Less : Utilised for Revenue Expenditure |                 |                 |
| Less : Utilised for Capital expenses    |                 |                 |
| Total (d)                               | NIL             | NIL             |
| Unutilised Carried Forward (c-d)        |                 |                 |


Note :

Unutilised grants includes advances on capital account

Unutilised grants include grants received in advance for the next year

Unutilised grants are represented on the Assets side by Bank balances, short term Deposits with banks and Advances on capital account

|                  | Current Year    | Previous Year   |
|------------------|-----------------|-----------------|
| Capital Grant    | 26,00,00,000.00 | 53,55,00,000.00 |
| Other Revenue    | 8,00,00,000.00  | 6,07,00,000.00  |
| Salary Component | 10,00,00,000.00 | 12,38,00,000.00 |
|                  | 44,00,00,000.00 | 72,00,00,000.00 |

  
Accountant  
National Institute of Technology  
Manipur.



  
Auditor  
National Institute of Technology  
Manipur

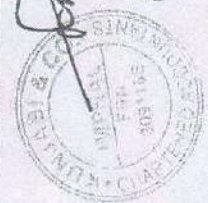
  
Director  
National Institute of Technology  
Manipur



# NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

SCHEDULE - 4A:

| Sl     | ASSETS                             | GROSS VALUE                 |              |                   | DEPRECIATION                 |           |                    |                              | NET BLOCK                                  |                       |                 |              |
|--------|------------------------------------|-----------------------------|--------------|-------------------|------------------------------|-----------|--------------------|------------------------------|--|-----------------------|-----------------|--------------|
|        |                                    | Opening Balance<br>1.4.2016 | Additions    | old/<br>discarded | Closing balance<br>31.3.2017 | Rate<br>% | Opening<br>balance | Depreciation for<br>the year | Excess (short)<br>Depreciation<br>adjusted | Total<br>Depreciation | 31.3.2017       | 31.3.2016    |
| 4A     | Tangible assets                    |                             |              |                   |                              |           |                    |                              |  |                       |                 |              |
| 1      | Buildings                          | 2,50,48,349                 | 3,48,64,580  |                   | 5,99,12,929                  | 2%        | 5,00,967.00        | 11,98,259                    |  | 16,99,226             | 5,82,13,703     | 2,45,47,382  |
|        | Tubewell & Water Supply            |                             | 24,55,325    |                   | 24,55,325                    | 2%        | -                  | 49,107                       |  | 49,107                | 24,06,218       |              |
| 2      | Electrical Equipment/ Installation | 1,47,68,949                 | 14,12,127    |                   | 1,61,81,076                  | 5%        | 15,23,047          | 8,09,055                     |  | 23,32,102             | 1,38,48,974     | 1,32,45,902  |
| 3      | Roads                              | 53,99,701                   | 55,17,273    |                   | 1,09,16,974                  | 2%        | 1,07,994           | 2,18,339                     |  | 3,26,333              | 1,05,90,641     | 52,91,707    |
| 3      | Computers                          | 6,83,17,363                 | 4,36,77,572  |                   | 11,19,94,935                 | 20%       | 2,42,48,574        | 2,20,75,370                  |  | 4,63,23,944           | 6,56,70,991     | 4,40,68,789  |
| 4      | General Equipment                  | 1,50,32,818                 | 12,71,372    |                   | 1,63,04,190                  | 7.5%      | 52,51,859          | 12,22,814                    |  | 64,74,673             | 98,29,517       | 97,80,959    |
| 5      | Audio Visual Equipment             | 34,87,283                   | 10,76,703    |                   | 45,63,986                    | 7.5%      | 2,61,546           | 3,42,299                     |  | 6,03,845              | 39,60,141       | 32,25,737    |
| 6      | Books                              | 2,73,28,903                 | 20,44,418    |                   | 2,93,73,321                  | 10%       | 67,85,716          | 29,37,333                    |  | 97,23,049             | 1,95,50,272     | 2,05,43,187  |
| 7      | Workshop/ Lab Equipment            | 42,10,32,953                | 16,60,79,290 |                   | 58,91,12,243                 | 8%        | 6,94,97,612        | 4,71,28,979                  |  | 11,66,26,591          | 47,24,85,652    | 35,15,35,341 |
| 8      | Sports Equipment                   | 7,29,660                    | -            |                   | 7,29,660                     | 7.5%      | 2,75,309           | 54,725                       |  | 3,30,034              | 3,99,626        | 4,54,351     |
| 9      | Furniture & Fixture                | 6,23,72,247                 | 1,39,06,786  |                   | 7,62,79,033                  | 7.5%      | 99,38,791          | 57,20,927                    |  | 1,56,59,718           | 6,05,19,315     | 5,24,33,456  |
| 10     | Vehicles                           | 48,55,203                   | -            |                   | 48,55,203                    | 10%       | 13,20,429          | 4,85,521                     |  | 18,05,950             | 30,49,253       | 35,34,774    |
| 11     | Other Assets                       | 29,01,854                   | -            |                   | 29,01,854                    | 7.5%      | 5,77,037           | 2,17,639                     |  | 7,94,736              | 21,07,118       | 23,24,757    |
|        | Total (A)                          | 65,12,75,283                | 27,43,05,446 | -                 | 92,55,80,729                 |           | 12,02,88,941       | 8,24,60,367                  | -  | 20,27,49,308          | 72,28,31,420.66 | 53,09,86,342 |
| 4C     | Intangible Assets                  |                             |              |                   |                              |           |                    |                              |  |                       |                 |              |
| 10     | Computer Software                  | 19,25,73,812                | 1,57,57,479  |                   | 20,83,31,291                 | 40%       | 13,61,06,275       | 5,14,26,445                  |  | 18,75,32,720          | 2,07,98,571     | 5,64,67,537  |
| 11     | E- Books & Journal                 | 6,05,59,554                 | 89,09,908    |                   | 6,94,69,462                  | 40%       | 4,62,36,631        | 1,53,15,370                  |  | 6,15,52,001           | 79,17,461       | 1,43,22,923  |
|        | Total (C)                          | 18,35,57,867                | 2,46,67,387  |                   | 27,78,00,753                 |           | 18,23,42,906       | 6,67,41,815                  | -  | 24,90,84,721          | 2,87,16,032     | 7,07,90,460  |
| 4C (1) |                                    |                             |              |                   |                              |           |                    |                              |  |                       |                 |              |
| 12     | Patent                             | 1,51,720                    | -            |                   | 1,51,720                     | 11%       | 40,717             | 16,689                       |  | 57,406                | 94,314          | 1,11,003     |
| 4D     | Assets under 100% Depreciation     | 8,95,026                    | -            |                   | 8,95,026                     | 100%      | 8,95,026           | -                            |  | 8,95,026              | -               | -            |
| 4E     | Assets under Project               | -                           | 6,62,813     |                   | 6,62,813                     | 20%       | -                  | 1,32,563                     |  | 1,32,563              | 5,30,250        | -            |
|        | Computer                           | -                           | 35,93,373    |                   | 35,93,373                    | 40%       | -                  | 14,37,349                    |  | 14,37,349             | 21,56,024       | -            |
|        | Computer Software                  | -                           | 42,56,186    |                   | 42,56,186                    |           | -                  | 15,69,912                    |  | 15,69,912             | 26,86,274       | -            |
|        | Total (A+B+C)                      | 83,58,79,896                | 30,32,29,019 | -                 | 1,20,86,84,414               |           | 30,35,67,590       | 15,07,88,783                 | -  | 45,43,56,373          | 75,43,28,040.66 | 60,18,87,805 |
|        | Previous Year                      | 62,73,36,135                | 27,81,19,280 |                   | 90,54,55,395                 |           | 15,47,78,812       | 14,87,88,778                 |  | 30,35,67,590          | 60,18,87,805    | 47,25,57,323 |



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## SCHEDULE -5 : INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS

|                                    | Current Year | 2016-17<br>Previous Year |
|------------------------------------|--------------|--------------------------|
| A Long Term Investments            |              |                          |
| 1 In Central Government Securities | NIL          | NIL                      |
| 2 In State Government Securities   | -            | -                        |
| 3 Other Approved Securities        | -            | -                        |
| 4 Shares                           | -            | -                        |
| 5 Debenture & Bonds                | -            | -                        |
| 6 Term Deposits with Banks         | -            | -                        |
| 7 Others                           | -            | -                        |
| Total                              | NIL          | NIL                      |

## SCHEDULE -5(A) : INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS (FUNDWISE)

| Current Year | Previous Year |
|--------------|---------------|
| NIL          | NIL           |

## SCHEDULE 6 - INVESTMENT OTHERS

- 1 In Central Government Securities
- 2 In State Government Securities
- 3 Other Approved Securities
- 4 Shares
- 5 Debenture & Bonds
- 6 Others ( to be specified)

Mutual Fund - ICICI Prudential

3,05,994.12

2,51,763.57

3,05,994.12

2,51,763.57



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Accountant  
National Institute of Technology  
Manipur

National Institute of Technology  
Manipur

*[Signature]*  
Director  
National Institute of Technology  
Manipur



# NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

2016-17

## SCHEDULE 7- CURRENT ASSETS

Current Year

Previous Year

### 1 Stock :

- a) Stores and spares
- b) Loose Tools
- c) Publications
- d) Laboratory Chemicals, Consumables & Glasswares
- e) Building materials
- f) Electrical Materials
- g) Stationery
- h) Water Supply materials

### 2 Sundry Debtors:

- a) Debts Outstanding for a period exceeding six months
- b) Others      Receivable fee

### 3 Cash balances in hand (including cheques/ drafts and imprest) and remittance in transit

2,71,940.00

2,03,10,187.00

### 4 Bank Balances ( to be further classified as pertaining to earmarked fund or otherwise)

#### a) With Scheduled Banks

in Current Accounts

17,48,784.03

1,25,76,128.68

in Term Deposit Accounts

1,04,83,144.00

1,84,28,826.00

in Savings Accounts

90,87,346.41

3,25,90,071.43

#### b) With Non-Scheduled Banks

in Current Accounts

-

in Term Deposit Accounts

-

in Savings Accounts

-

### 5 Post Office - Savings Accounts

-

2,15,91,214.44

8,39,05,213.11

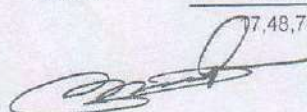
## ANNEXURE : Details of Bank Accounts

Current Year

|                   | Current Deposit     | Savings Bank        |
|-------------------|---------------------|---------------------|
| ICICI Bank Ltd    | 10,86,808.68        |                     |
| PNB               |                     | 90,657.00           |
| SBI               |                     | 57,96,088.46        |
| BOI               |                     | 4,71,575.00         |
| Canara SB         |                     | 7,01,103.00         |
| CBI               |                     | 5,52,165.00         |
| Syndicate Bank    |                     | 8,53,763.97         |
| Syndicate Project |                     | 6,21,993.98         |
| Yes Bank          | 6,61,975.35         |                     |
|                   | <u>17,48,784.03</u> | <u>90,87,346.41</u> |

Previous Year 2015-16

|  | Current Deposit       | Savings Bank          |
|--|-----------------------|-----------------------|
|  | 58,46,528.68          |                       |
|  |                       | 90,657.00             |
|  |                       | 4,53,125.00           |
|  |                       | 6,73,674.00           |
|  |                       | 3,05,52,165.00        |
|  |                       | 8,20,450.43           |
|  | <u>67,29,600.00</u>   |                       |
|  | <u>1,25,76,128.68</u> | <u>3,25,90,071.43</u> |



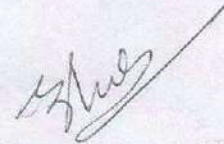
Accountant

National Institute of Technology  
Manipur

Manipur



Registrar  
National Institute of Technology  
Manipur



Head of Technology  
Manipur



# NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

2016-17

## SCHEDULE 8 - LOANS, ADVANCES & DEPOSITS

Current Year      Previous Year

### 1 Advances to Employees

- a) Salary
- b) Festival
- c) Medical Advance
- d) Others ( to be specified)
  - (i) LTC
  - (ii)

-      -  
-      -  
-      -

### 2 Long Term Advances to Employees ( interest bearing)

- a) Vehicle Loan
- b) Home Loan
- c) Others ( to be specified)

-      -  
-      -  
-      -

### 3 Advances and other amounts recoverable in cash or in kind or for value to be received

- a) On Capital Account
- b) to Suppliers
- c) Others

2,37,28,978.47      2,37,28,978.47  
2,36,268.00      1,86,268.00  
1,00,33,211.00      80,30,952.00

### 4 Prepaid Expenses

- a) Insurance
- b) Other Expenses

### 5 Deposits

- a) Telephone
- b) Lease Rent
- c) Electricity
- d) AICTE (if applicable)
- e) Others ( to be specified)

-  
-  
-  
-  
-

### 6 Income Accrued

- a) On investments from Earmarked / Endowment Funds
  - b) On Investments Others
  - c) Loans & Advances
  - d) Others - Student Fees
- includes income due unrealised

64,200.00      69,400.00

### 7 Other - Current Assets Receivables from Sponsored Projects


- a) Debit balances in sponsored Projects
- b) Debit Balances in Fellowship & scholarship
- c) Grants Receivable
- d) Other Receivables from UGC

-  
-  
-  
-

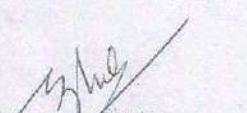
### 8 Claims receivable

Total (1 to 8)

3,40,62,657.47      3,20,15,598.47

  
Accountant  
National Institute of Technology  
Manipur.

  
Internal Auditor  
  
National Institute of Technology  
Manipur.

  
Director  
National Institute of Technology  
Manipur.

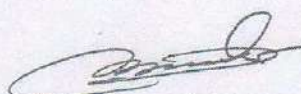


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|   |   | 2016-17               |                       |
|---|---|-----------------------|-----------------------|
| SCHEDULE -9 : ACADEMIC RECEIPTS                           |   | CURRENT YEAR          | PREVIOUS YEAR         |
| <b>FEE FROM STUDENTS</b>                                  |   |                       |                       |
| <b>A Academic</b>   |   |                       |                       |
| 1. Tuition Fee *  | [ Total amount of fee directly deposited by the students in the Yes Bank amounting to Rs 220,15,846.75 during the period Jan.- March 2017 could not be bifurcated into different components and thus credited to Tuition fee] | 3,47,02,342.75        | 2,45,00,000.00        |
| 2. Admission fee  |   | 2,12,000.00           | 2,47,000.00           |
| 3. Enrolment Fee  |   |                       |                       |
| 4. Library Admission Fee                                  |   |                       |                       |
| 5. Laboratory Fee   |   | 28,400.00             | 47,200.00             |
| 6. Institutional Development Fee                          |   |                       | 17,45,000.00          |
| 7. Registration Fee                                       |   |                       |                       |
| 8. Other Academic Fee                                     |   | 18,11,400.00          | 14,37,300.00          |
| Total (A)   |   | 3,67,54,142.75        | 2,79,76,500.00        |
| <b>B Examinations *</b>                                   |   |                       |                       |
| 1. Admission Test Fee                                     |   | -                     | -                     |
| 2. Annual Examination Fee                                 |   | 6,28,547.00           | 8,12,800.00           |
| 3. Mark Sheet, Certificate etc                            |   | 1,500.00              | 63,500.00             |
| 4. Entrance Examination Fee                               |   | -                     | -                     |
| Total (B)   |   | 6,30,047.00           | 8,76,300.00           |
| <b>C Other Fees</b>                                       |   |                       |                       |
| 1. Identity Card Fee                                      |   | 1,39,600.00           | 1,33,400.00           |
| 2. Fine and Misc Fee                                      |   | 1,77,844.00           | 1,53,000.00           |
| 3. Medical & Insurance Fee                                |   | 7,68,600.00           | 6,94,800.00           |
| 4. Transportation Fee                                     |   |                       | -                     |
| 5. Hostel Fee   |   | 88,000.00             | 88,000.00             |
| 6. Affiliation & Recognition Fee                          |   |                       | -                     |
| 7. Student activity, Sports, Arts & Culture               |   | 6,83,000.00           | 11,92,000.00          |
| Total (C)   |   | 18,56,844.00          | 22,61,200.00          |
| <b>D Sale of University publication etc</b>               |   |                       |                       |
| 1. Sale of Admission Forms                                |   | 36,400.00             | 91,900.00             |
| 2. Sale of Syllabus & Question Paper                      |   |                       | -                     |
| 3. Sale of Prospectus including admission forms           |   | -                     | 41,700.00             |
| Total (D)   |   | 36,400.00             | 1,33,600.00           |
| <b>E Other Academic Receipts</b>                          |   |                       |                       |
| 1. Registration fee for workshops programmes , Skill Dev. |   | 2,62,000.00           | 2,56,000.00           |
| 2. Registration fee (Academic Staff College)              |   | -                     | 0                     |
| Total (E)   |   | 2,62,000.00           | 2,56,000.00           |
| <b>GRAND TOTAL (A+B+C+D+E)</b>                            |   | <b>3,95,39,433.75</b> | <b>3,15,03,600.00</b> |

Note :

- None of the fees received is in the nature of capital receipts and hence not capitalised
- The academic year / period for which the fees are collected does not coincide to financial year. The income is recognised on actual basis and any fee received for the period covering beyond the financial year is not treated as advance fee received. In other way the outstanding fees i.e. due but not received are not recognised as income.

  
 Accountant  
 National Institute of Technology  
 Manipur

  
 Director  
 National Institute of Technology  
 Manipur



# NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

2016-17

## SCHEDULE -10 : GRANTS /SUBSIDIES (Irrevocable Grants & Subsidies Received)

|   |                    |                  |
|---|--------------------|------------------|
|   | Govt of India      |                  |
| Balance brought forward *                     | -14,24,24,910.03 ✓ | 3,02,18,740.08   |
| Add: Receipts during the year                 | 44,00,00,000.00    | 72,00,00,000.00  |
| Total   | 29,75,75,089.97    | 75,02,18,740.08  |
| Less : Refunds                                |                    |                  |
| Balance brought forward                       |                    |                  |
| Less : Utilised for Capital Expenditure(A)    | 47,15,17,508.00    | 61,44,37,788.66  |
| Balance brought forward                       |                    |                  |
| Less : Utilised for Revenue Expenditure (B) * | 17,37,12,595.69    | 27,82,05,861.45  |
| Balance (C) - Carried forward                 | -34,76,55,013.72   | -14,24,24,910.03 |
| Other grant from other sources                |                    |                  |
|   | -34,76,55,013.72   | -14,24,24,910.03 |

- A Appears as addition to Capital Fund as well as additions to Fixed Assets during the year  
 B Appears as Income and Expenditure Account  
 C (i) Appears under Current Liabilities in the Balance Sheet and will become the opening balance next year  
 (ii) Represented by bank balances, Investments and Advances on the Asset side

|                  | Capital Expenses | Revenue Exp    | Salaries        | Total            |
|------------------|------------------|----------------|-----------------|------------------|
| Grant Received   | 26,00,00,000.00  | 8,00,00,000.00 | 10,00,00,000.00 | 44,00,00,000.00  |
| Carried forward  |                  |                |                 |                  |
| Total            | 26,00,00,000.00  | 8,00,00,000.00 | 10,00,00,000.00 | 44,00,00,000.00  |
| Utilised         | 46,72,61,322.00  | 8,49,19,657.69 | 8,87,92,938.00  | 64,09,73,917.69  |
| Balance of grant | -20,72,61,322.00 | -49,19,657.69  | 1,12,07,062.00  | -20,09,73,917.69 |



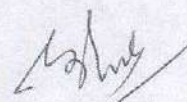
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Manipur.



Registrar  
National Institute of Technology  
Manipur



Internal Auditor



Director  
National Institute of Technology  
Manipur



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## SCHEDULE -11 : INCOME FROM INVESTMENTS

2016-17

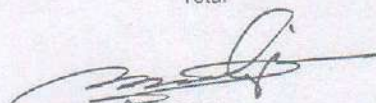
|  |              |              |
|--|--------------|--------------|
| 1 Interest   |              |              |
| a) On Govt securities  |              |              |
| b) Other Bonds/ Debenture  |              |              |
| c) Others : Mutual Funds   |              |              |
| d) Mutual Fund Investments   | 54,230.55    | 2,51,763.57  |
| Less : transfer to designated fund accounts  |              |              |
| 2 Interest on Term deposits  | 10,27,911.54 | 27,64,536.10 |
| 3 Income accrued but not due on Term Deposits/ Interest bearing advances to employees ( where Revolving Fund has been constituted) |              |              |
| 4 Interest on Savings Bank Accounts  |              |              |
| 5 Others (Specify)   |              |              |
|  | 10,82,142.09 | 30,16,299.67 |

## SCHEDULE 12 : INTEREST EARNED


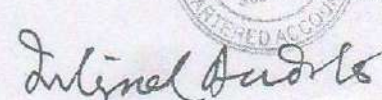
|   |             |              |
|---|-------------|--------------|
| 1 On Savings bank Accounts with Schedule Banks                                | 9,19,029.00 | 46,40,478.93 |
| 2 On Loans  |             |              |
| a) Employees ( if Revolving Funds have not been constituted for such advance) |             |              |
| b) Others   |             |              |
| 3 On Debtors and Other Receivables  |             |              |
| Total   | 9,19,029.00 | 46,40,478.93 |
| Note  |             |              |

## SCHEDULE -13 : OTHER INCOME

|  |              |              |
|--|--------------|--------------|
| A Income from Land & Buildings   |              |              |
| 1. Hostel Room Rent  | 14,94,288.00 | 24,28,925.00 |
| 2. License and Permit Fee  |              |              |
| 3. Hire Charge of Auditorium/Play ground/ Convention Centre etc            |              |              |
| 4. Electricity & Water Charges recovered                                   | 4,80,000.00  | 6,17,000.00  |
| 5. Quarter Rent  | 5,03,987.00  | 3,17,354.00  |
| 6. Guest House Earning   |              | 0            |
| Total  | 24,78,275.00 | 33,63,279.00 |
| B Sale of Institute's Publication (included under schedule 9-D)            | 0            | 0            |
| C Income from holding events   |              |              |
| 1. Gross Receipts from annual functions/ 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 on Educational Tours                                     |              |              |
| Less : Direct expenditure incurred on the Educational Tours                |              |              |
| 4. Others (to be specified and separately disclosed)                       |              |              |
| Total  |              |              |

  
 Accountant  
 National Institute of Technology  
 Manipur

  
 Registrar  
 National Institute of Technology  
 Manipur

  
 Director  
 National Institute of Technology  
 Manipur  
  
  
 Internal Auditor



# NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

2016-17

## D Others

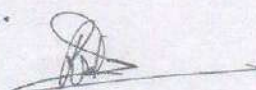
|  |              |              |
|--|--------------|--------------|
| 1. Income from Consultancy   | 6,18,848.00  | 52,710.00    |
| 2. RTI fees  | -            | -            |
| 3. Income from Royalty   | -            | -            |
| 4. Sale of Application Form ( recruitment)   | 1,57,050.00  | 91,650.00    |
| 5. Misc receipts (sales of tender form, waste paper)                                 | -            | -            |
| 6. Profit on sale/ disposal of Assets  |              |              |
| a) Owned Assets  |              |              |
| b) Assets acquired out of grants or received free of cost                            |              |              |
| 7. Grants/ Donations from Institutions, Welfare Bodies & International Organisations |              |              |
| 8 Others (Specify)   |              |              |
| a) Sale of Tender Form   | 45,000.00    | 1,36,000.00  |
| b) Other Receipts  | 81,262.00    | 43,190.00    |
| c) Donation/ Sponsor   | 2,09,000.00  | 1,65,000.00  |
| Total  | 11,41,160.00 | 4,88,550.00  |
| GRAND TOTAL (A +B+C+D)   | 35,89,435.00 | 38,51,829.00 |

## SCHEDULE 14- PRIOR PERIOD INCOME

- 1 Academic Receipts
- 2 Income form Investments
- 3 Interest Earned
- 4 Other Income

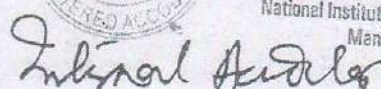


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NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

2016-17

SCHEDULE -15 : STAFF PAYMENTS & BENEFITS (ESTABLISHMENT EXPENSES)

|  |                |                |
|--|----------------|----------------|
| 1 Salaries & Allowances                    | 8,17,37,486.00 | 5,58,96,202.00 |
| 2 Allowances and Bonus                     |                | -              |
| 3 Contribution to Employees Provident Fund | 26,32,320.00   | 11,17,440.00   |
| 4 Contribution to NPS                      | 31,46,794.00   | 23,46,505.00   |
| 5 Contribution to Other Funds (Specify)    |                | -              |
| 6 Staff Welfare Expenses                   |                | -              |
| 7 Retirement & Terminal Benefits           |                | -              |
| 8 LTC Facility                             | 3,02,235.00    | 93,895.00      |
| 9 Medical Facility                         | 12,707.00      | 8,727.00       |
| 10 Children Education Allowance            | 1,30,462.00    | 63,037.00      |
| 11 Honorarium                              | 4,20,950.00    | 3,81,700.00    |
| 12 Others (Specify)                        |                |                |
| a) EPF Expenses                            | 130205         | 1,30,205.00    |
| b) Transfer Allowance                      |                | 11,271.00      |
| c) Gratuity                                |                | 9,85,170.00    |
| d) Leave Encashment/ Salary                |                | -              |
| Total                                      | 8,87,92,938.00 | 6,10,34,152.00 |

SCHEDULE 15 A - EMPLOYEES RETIREMENT AND TERMINAL BENEFITS

Pension Gratuity

Opening Balance as on 1.4.2016

Addition : Capitalised value of contribution received  
from other organisations

Total (a)

Less : Annual Payments during the year

Balance available on 31.3.2016 (c) = (a-b)

Provision required on 31.3.2016 as per actuarial valuation (d)

A. Provision to be made in the Current Year (d-c)

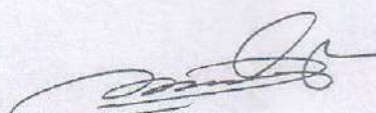
B. Contribution to New Pension Scheme


C. Medical Reimbursement to Retired Employees

D. Travel to Hometown on Retirement

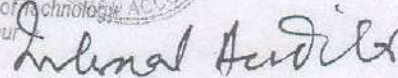
E. Deposit Linked Insurance Payments

TOTAL (A+B+C+D+E) [ to appear in schedule 15 item No. 6]

  
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National Institute of Technology  
Manipur



  
Internal Auditor

  
Director  
National Institute of Technology  
Manipur



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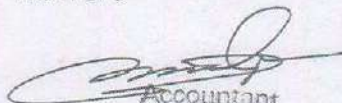
2016-17

**SCHEDULE -16 : ACADEMIC EXPENSES**

|  |                       |                       |
|--|-----------------------|-----------------------|
| 1 Laboratory Expenses  | 32,65,788.00          | 12,32,225.00          |
| 2 Field Work / conference/ Faculty Development/ Training     | 53,90,210.00          | 8,88,827.00           |
| 3 Expenses on Seminar,workshop & short term course           | 42,20,705.00          | 23,13,696.00          |
| 4 Payments to Visiting Faculty                               |                       | -                     |
| 5 Examination  |                       | -                     |
| 6 Student Welfare Expenses i/c Insurance & Medical           | 6,02,988.00           | 5,49,780.00           |
| 7 Admission Expenses   |                       | -                     |
| 8 Convocation Expenses                                       | 35,68,040.00          | 35,03,439.00          |
| 9 Academic Support   |                       | -                     |
| 10 Stipend/ Means cum-merit Scholarship                      | 1,29,89,948.00        | 75,04,432.00          |
| 11 Subscription, Periodical Expenses                         | 1,03,730.00           | 20,000.00             |
| 12 Others ( Specify)   |                       |                       |
| Placement, Career Dev. Exp                                   | 28,52,563.00          | 9,25,146.00           |
| Sports & Other Activities                                    | 4,95,347.00           | 49,03,674.00          |
| M. Tech Scholarship  | 65,85,227.00          | 34,98,040.00          |
| Hostel Exp   | 1,71,814.00           | 2,88,613.00           |
| Festival & Celebrations ( net of income earned of Rs 524900) | 27,81,522.00          | 34,11,585.00          |
| Others   |                       | 2,55,966.45           |
|  | <u>4,30,27,882.00</u> | <u>2,92,95,423.45</u> |

**SCHEDULE -17 : ADMINISTRATIVE AND GENERAL EXPENSES**

|  |                       |                       |
|--|-----------------------|-----------------------|
| <b>A Infrastructure</b>                                |                       |                       |
| 1 Electricity and Power                                | 34,42,067.00          | 47,69,171.00          |
| 2 Water Charges  | 30,46,500.00          | 20,02,650.00          |
| 3 Insurance  |                       | -                     |
| 3 Rates,Service & Other Taxes (including property tax) | 14,93,561.00          | -                     |
|  | <u>79,82,128.00</u>   | <u>67,71,821.00</u>   |
| <b>B Communication</b>                                 |                       |                       |
| Postage & Telegram                                     | 2,62,552.00           | -                     |
| Telephone, Fax & Internet Cahrges                      | 11,68,001.00          | 10,05,935.00          |
|  | <u>14,30,553.00</u>   | <u>10,05,935.00</u>   |
| <b>C Others</b>  |                       |                       |
| Printing & Stationery                                  | 27,21,356.00          | 51,85,618.00          |
| Traveling & Conveyance                                 | 18,87,740.00          | 16,61,838.00          |
| Hospitality  |                       | -                     |
| Auditor's Remuneration (CAG)                           |                       | -                     |
| Internal Audit   | 80,000.00             | 93,710.00             |
| Professional Charges                                   |                       | -                     |
| Advertisement & Publicity                              | 20,58,082.00          | 28,88,476.00          |
| Megazine & Journal                                     |                       | -                     |
| Others ( Specify)                                      |                       | -                     |
| a) Guest House Exp                                     | 5,00,000.00           | -                     |
| b) Staff Recruiting Expenses                           | 3,45,453.00           | 12,40,727.00          |
| c) Meeting Expenses                                    | 5,79,866.00           | 7,98,964.00           |
| d) Security and House Keeling Exp                      | 1,15,41,373.00        | 72,26,504.00          |
| e) Consultancy & Outsource                             | 1,10,183.00           | 1,35,785.00           |
| f) Contingency   | 6,32,137.00           | 5,94,093.00           |
| g) Functions   | 6,18,614.00           | 13,47,118.00          |
| Total  | <u>2,10,74,804.00</u> | <u>2,11,72,833.00</u> |
| Total A+B+C  | <u>3,04,87,485.00</u> | <u>2,89,50,589.00</u> |

  
**Accountant**  
National Institute of Technology,  
Manipur,

  
**Internal Auditor**  
National Institute of Technology,  
Manipur

  
**Director**  
National Institute of Technology  
Manipur



# NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

2016-17

## SCHEDULE-18 : TRANSPORTATION EXPENSES

|                                  |                     |                     |
|----------------------------------|---------------------|---------------------|
| 1 Own Vehicles                   |                     |                     |
| a) Running Expenses              | 9,22,997.00         | 13,92,826.00        |
| b) Repairs & Maintenance         | -                   | -                   |
| c) Insurance                     | -                   | 48,724.00           |
| 2 Vehicle taken on rent/ lease   |                     |                     |
| a) Rent/ lease expenses          | -                   | -                   |
| 3 Vehicle (taxi) hiring Expenses | 3,86,555.00         | 7,26,036.00         |
|                                  | <u>13,09,552.00</u> | <u>21,67,586.00</u> |

## SCHEDULE-19 : REPAIRS AND MAINTENANCE

|                                     |                       |                     |
|-------------------------------------|-----------------------|---------------------|
| 1 Buildings                         | 45,08,027.00          | 42,74,247.00        |
| 2 Furniture & Fixture               | -                     | -                   |
| 3 Plant & Machinery                 | 97,325.00             | -                   |
| 4 Office Equipments                 | 32,200.00             | -                   |
| 5 Computers                         | 51,46,710.00          | 12,810.00           |
| 6 Laboratory & Scientific Equipment | -                     | 24,22,259.00        |
| 7 Audio Visual Equipment            | -                     | -                   |
| 8 Cleaning materials & services     | 1,15,043.00           | -                   |
| 9 Book Binding charges              | -                     | -                   |
| 10 Campus Maintenance               | 1,85,525.00           | 4,200.00            |
| 11 Estate Maintenance               | -                     | 10,850.00           |
| 12 Others - House Keeping           | -                     | 5,32,628.00         |
|                                     | <u>1,00,84,830.00</u> | <u>72,56,994.00</u> |

## SCHEDULE -20 : FINANCE COST


|                    |                 |                    |
|--------------------|-----------------|--------------------|
| 1 Bank Charges     | 9,908.69        | 1,22,055.00        |
| 2 Others (Specify) | -               | -                  |
|                    | <u>9,908.69</u> | <u>1,22,055.00</u> |

## SCHEDULE -21 : OTHER EXPENSES

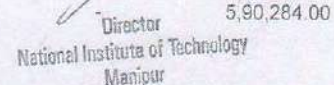
|   |   |
|---|---|
| 1 Provision for Bad & Doubtful Debts/ Advances          | - |
| 2 Irrecoverable Balances written off                    | - |
| 3 Grants / Subsidies to Other Institutes/ organisations | - |
| 4 Others (specify)                                      | - |

## SCHEDULE - 22 : PRIOR PERIOD EXPENSES

|   |             |
|---|-------------|
| 1 Student scholarship                                   | 5,90,284.00 |
| Others  |             |
| - Due date expired cheque/ DDs deposited but unrealised |             |

  
**Accountant**  
 National Institute of Technology

  
**Registrar**  
 National Institute of Technology

  
**Director**  
 National Institute of Technology  
 Manipur

  
**Internal Auditor**



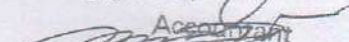
SCHEDULE 23 : SIGNIFICANT ACCOUNTING POLICIES

1. Accounting Convention

- a) The accounts are maintained and financial statements are prepared on the basis of historical cost convention.
- b) Recognition of revenue and related assets and liabilities  
The Institute normally follows the cash basis of accounting. However for presentation of financial statements the liabilities and assets which are ascertained and disclosed hereunder have been taken into account.
- c) The Retirement Benefits  
The liability for the expenses on retirement benefit of the staff – gratuity, leave salary estimated on the basis of number of years service and number of days of unavailed leave at the year end is provided and accounted on accrual basis and charged to expenses.
- d) Retirement Pension is to be accounted on accrual basis.
- e) Interest on Special Term Deposits with Bank compounded upto last quarter of the year is accounted on accrual basis.
- f) Fees received from the students are accounted on actual receipt basis. Thus the fees received covering the period beyond the financial year is treated as Income in the year of receipt. However fees short paid by the students at the time of admission is treated as receivable fees
- g) The value of the work bills which have been passed for payment but not paid has been taken into account and liability thereof has been provided.
- h) Works in progress physically measured / unmeasured but not billed is not taken into the statement of account as the realistic value cannot be estimated
- i) Deposits for the execution of the works made with the executing agencies are treated as work in progress to form part of fixed assets which shall be reversed to works value on the completion of the work.
- j) Security deposit received from the students  
The security deposit is treated as current liabilities. Any non-refunded security deposit lying after expiry of three years from the due date of refund is considered as unclaimed liability and accordingly treated as Income of the Institute
- k) Income received for other purpose  
Any receipt not relating to normal activity of the Institution obtained from any source which has to be spent for the specific purpose is treated as Earmarked Fund. Accordingly the expenditure incurred out of such receipts is not treated as normal expenditure of the Institute. The difference between the receipt and expenditure is directly taken in the balance sheet as balance of fund.

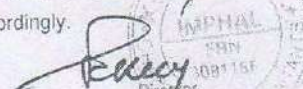
2. Apportionment of grant into revenue and capital grant

- a) The grants are treated either revenue receipt or capital receipt according to the direction of the granting authority. The capital grants are directly credited to General (Capital) Fund and the revenue grants are credited to Income and Expenditure Account. However if such apportionment has not been made by the granting authority the whole amount of grant received is credited to Income and expenditure Account. In case the grant is received in accordance with the proposal initiated by the Institute the amount to the extent of capital expenditure component is treated as capital grant and treated accordingly.

  
Accountant  
National Institute of Technology  
Manipur

  
Registrar  
National Institute of Technology  
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Director  
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Manipur



- b) In respect of grants and contribution received under earmarked fund for special purposes or research works by the Departments the whole amount of grant is credited to the fund account and the expenses either revenue or capital are charged to the Fund. However the value of the assets created out of the grant is taken into the fixed assets by giving corresponding credit to Capital Fund account as these assets acquired out of the grant form part of the assets of the Institute
- c) Other grants which are received other than specific purpose of creating capital assets are directly treated as revenue receipts and capital grants are directly credited to Capital Fund Account
3. **Treatment of expenditure renovation of, addition & alteration and extension on existing buildings not owned by the Institute.**  
A portion of facilities of the Institute is accommodated on the land and buildings owned by the Govt of Manipur with a right to use as a temporary campus. However to meet its requirements expenses are incurred by way of renovation, partitions, addition & alterations on the existing buildings which result in some cases creation of new immovable asset. However these assets, being immovable, have to be left behind when the institution shifts to its new campus. Therefore the expenditure has been treated as revenue expenditure
4. **Valuation of Inventory of consumables**  
The consumable items are normally purchased for instant use and no stock of significant quantity is carried in hand. Therefore the cost of consumables items purchased during is charged in full to expenditure of the year
5. **Fixed assets**
- Fixed Assets are stated at cost of acquisition inclusive of all direct expenses related to acquisition. In respect of projects involving construction related pre-operative expenses are absorbed into the cost of the assets
  - Assets received by way of Non- monetary grants are accounted with corresponding credit to the Corpus (Capital) Fund Account.
  - The value of the assets created out of the grants under Earmarked Fund (sponsored project) is capitalized with corresponding credit of Corpus(Capital) fund Account.
7. **Fixed Assets and Depreciation**
- Fixed assets are stated at cost of acquisition/construction less accumulated depreciation. The cost of assets comprises its purchase price and directly attributable cost of bringing the assets to working condition for its intended use i.e. cost of acquisition of assets including inter-alia interest on borrowing and incidental expenditure during construction incurred up to the date of commissioning.
  - Assets received by way of Non- monetary grants are accounted with corresponding credit to the Capital Fund Account.
  - Depreciation for full year is provided on the assets purchased during the year
  - No depreciation is charged on the assets till the asset is ready for use
  - Change in the Method of Depreciation**  
Depreciation on fixed assets is provided on written down value method upto 31.3.2014. However during the year in compliance with the direction of the Ministry of Human Resource Development the method of depreciation has been changed to Straight Line Method. The excess/ shortfall arising from the change in the method (taking retrospective effect) has been charged to Income and Expenditure Account.

  
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Director  
National Institute of Technology  
Manipur





**8 Capital Work in Progress**

Capital work in progress includes cost of construction expenditure, deposits and advances made for such construction, interest on funds deployed on capital work in progress and other indirect preoperative expenditure incidental and related to acquisition of assets.

**9 Restricted Funds [ Special Purpose Funds]**

- a) Any income by way of grant, donation, contribution, bank interest and income earned from investment is credited directly to the Fund and any outgoing towards revenue or capital expenses is charged to the fund. The net balance is treated as balance of the fund at the end of the year.
- b) Such fund is independently and distinctly shown under a separate head in the balance sheet
- c) The non-recurring expenses are treated in the fund account as expended and the value of the assets is taken in the general account under the group head of Fixed Assets with corresponding credit to Corpus/ Capital Fund.

**10 Staff Retirement Benefits**

The present retirement benefits are gratuity, leave encashment and pension. The benefits are worked out on the assumption:

- a) The members of the staff shall continue in the services of the Institution to be eligible for retirement benefits.
- b) With the number of years service earned the staff retires on the last date of the accounting year.
- c) The provision so made is to be reversed on the actual payments

**11 Loans & Advances for expenses**

- a) The payments in the nature of advance for meeting expenses are booked under the head " Advances". These advances are charged to expenses only when the activity for which the advance is drawn is accomplished and the related documents have been approved and passed by the competent authority
- b) The loans and advances as shown in the statement of account are considered good and recoverable by way of expenses or otherwise and as such no provision for loss is made in the accounts

**12 Foreign Exchange Transaction**

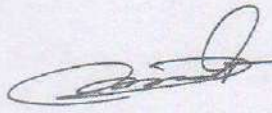
The transactions involving foreign exchange directly entered into by the Institute or foreign exchange earned is disclosed separately under Notes on Account.

**13 Capital Commitment**

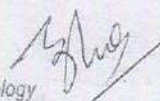
The ascertained capital commitment in respect of capital works contracts but not completed is disclosed separately under Notes on Account

**14 Contingent Liability**

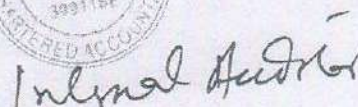
It is disclosed separately under Notes on Account

  
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Director  
National Institute of Technology  
Manipur



  
Internal Auditor



#### SCHEDULE -24 : Contingent Liabilities and Notes on Account

1. The financial statements are presented on the format prescribed by Ministry of Human Resource Development, Govt of India
2. There is contingent liability for about of Rs 3.00 lakh arising from claims made by a consultant firm
3. Loans & Advances  
The loans and advances as shown in the statement of account are considered good and recoverable by way of expenses or otherwise and as such no provision for loss is made in the accounts
4. Effect of Change in the method of Depreciation  
The institute has been following the written down value method since inception (2010-11). However to comply with the new format of financial statement prescribed by the Ministry the depreciation has been worked out at Straight Line Method applying the prescribed rate. Full effect of such change has been given. Where the life of the group of asset has expired the residual value is maintained at Rs 100%.
5. Other receipts/grants  
The institute received the grants for conducting research activities the project-wise funds received and expenditure incurred are reflected in Schedule 3(a). The unspent balance is shown under Current Liability in the Balance Sheet (Schedule 3).
6. Deposit works with CPWD, Education Department, Govt of Manipur  
The amount has been treated as Capital Work in Process under the head "Fixed Assets". Value of the work completed has to be finalised with the executing agencies.
7. Retirement benefits
  - a) Further provision for leave encashment has not been worked for the year and thus no additional provision has been made. As the existing provision of Rs 30,28,736 is reflected in the accounts
  - b) No claim for leave and pension contribution has been raised by their respective parent department in respect of staff on deputation and thus provision has not been made for the year.
  - c) The provision for gratuity has been to be made by applying a formula of 15 days salary for every year of service completed – over six months period rounding up to 1 year. No new provision has been made for the year
  - d) For retirement benefits the regular staff has joined the NPS and the contributions of the Institute along with the subscription of the staff are remitted regularly
  - e) For the contract staff the Institute has participated the scheme of Employees Provident Fund under The Employees Provident Fund and Miscellaneous Provisions Act, 1952 and both the employees subscriptions and Institute's contributions are remitted regularly
  - f) The above provisions are not as per actuarial valuation. Such actuarial valuation has not been obtained considering the small strength of staff and length of service completed.
8. Foreign Exchange Transaction  
There is no foreign exchange transaction during the year except the opening foreign letter of credit through dealer bank

  
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National Institute of Technology  
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Director  
National Institute of Technology  
Manipur



  
Internal Auditor



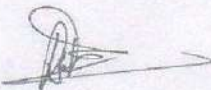
9. The quantitative information as on 31.3.2016 is furnished as under

|    |                               |                             |
|----|-------------------------------|-----------------------------|
| a) | Number of students            | 856                         |
| b) | Number of students passed out | 258                         |
| c) | Number of Faculty             | 73 ( male 46 and female 27) |
| d) | Number of Non- Faculty        | 89 (male 60 and female 29)  |
| e) | Number of hostel              | 5 ( Boys -4, Girls -1)      |

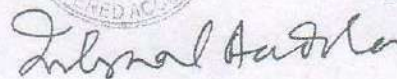
Date 24.6.2017  
Imphal



Accountant  
National Institute of Technology  
Manipur



Registrar  
National Institute of Technology  
Manipur



Director  
National Institute of Technology  
Manipur