

CHAPTER 1

INTRODUCTION

1.1 Vision

- To serve the societal needs of the country in particular and the world in general through achieving excellence in innovative scientific and technical education and cutting edge research.

1.2 Mission

- To impart and enhance quality technical and scientific education to young men and women.
- To promote research in both fundamental and applied knowledge for the betterment of the society.

1.3 Objectives

- To offer modern Under Graduate (UG) programmes in various branches of Engineering, viz., Civil Engineering, Mechanical Engineering, Electrical & Electronics Engineering, Electronics & Communication Engineering, Computer Science & Engineering, etc.
- To initiate new Post Graduate (PG) programmes in Civil Engineering, Mechanical Engineering, Electrical & Electronics Engineering, Electronics & Communication Engineering, Computer Science & Engineering, Mathematics, Physics, Chemistry, Humanities and Social Sciences, Management, etc.
- To provide facilities for research in all Engineering departments, Basic and Applied Sciences, Humanities and Social Sciences and Management leading to doctoral degree.

1.4 Education System

Education means overall development of an individual. An education system should attempt to provide the teaching and training of an individual in order to induce professional competence and ability, personality development, provide leadership to team work, concern for human values towards colleagues and subordinates, respect for superior, behave in a

disciplined way and exercise the habits of punctuality, sincerity, devotion, hard work, integrity, honesty and concern for the people, society and nation.

The education system in National Institute of Technology Mizoram envisages achieving the above mentioned qualities by undertaking an integrated and balanced blend of curricular, co-curricular and extra-curricular activities among students, teachers and supporting staff and by creating congenial and close relations among all.

National Institute of Technology Mizoram, at present, offers (a) UG courses leading to B. Tech. degree in 5 (five) branches of engineering, viz., Electrical & Electronics Engineering, Electronics & Communication Engineering, Computer Science & Engineering, Mechanical Engineering and Civil Engineering, (b) PG courses leading to M. Tech. degree in 4 (four) branches of engineering, viz., Electrical & Electronics Engineering, Electronics & Communication Engineering, Computer Science and Engineering and Mechanical Engineering and (c) PG courses leading to Ph. D. degree in 5 (five) branches of engineering, viz., Electrical & Electronics Engineering, Electronics & Communication Engineering, Computer Science & Engineering, Mechanical Engineering, Civil Engineering and Physics, Chemistry, Mathematics and Humanities and Social Sciences. The Institute follows a credit based system for academic evaluation. It offers industrial training and project as a part of the education system.



Anunaad – the Cultural Fest 2018

CHAPTER 2 AN OVERVIEW

2.1 Historical Background

National Institute of Technology Mizoram is one of the 10 (ten) new NITs set up by the Government of India in 2009 to meet the demand for technical and scientific education and to ensure every state in India having its own NIT. NIT Mizoram was established vide Ministry of Human Resource Development, Govt. of India order no. F-23-13/2009/TS-III dated 30th October, 2009. The Institute started functioning from the camp Nagpur under the mentorship of VNIT Nagpur and the academic activities started w.e.f. July 2010 with a total of 63 students in three branches of engineering, viz., Electrical & Electronics Engineering, Electronics & Communication Engineering and Computer Science & Engineering.

NIT Mizoram started functioning from its Mizoram campus from July 2011. VNIT Nagpur was the mentor institute till 1st December, 2011.

The Institute is now governed by the National Institute of Technology (Amendment) Act, 2012, No. 28 of 2012 (An Act to Amend the National Institute of Technology, 2007) and henceforth designated as an Institute of National Importance.

2.2 Location

NIT Mizoram is, at present, situated at Chaltlang, Aizawl. Aizawl is the capital city of Mizoram. Mizoram is situated at 23° 30" N latitude and 20° 52" E longitude. Mizoram has a mild and pleasant climate. The temperature varies from a minimum 7° C in the winter season to 29° C in the summer season. The area has an approximate annual rainfall of 254 cm (100 in) per annum.

2.3 Campus

The Institute is, at present, functioning from temporarily hired buildings at Chaltlang, Aizawl. The permanent campus of the Institute is coming up at Lengpui, Aizawl, near airport. At present, 5 (five) buildings are on hire at Chaltlang and its vicinity for accommodating 1 (one) Administrative Block and 4 (four) Academic blocks for conducting classes and laboratories. Another 4 (four) buildings are on hire for 3 (three) boys hostel and 1 (one) girls hostel.

2.4 Administration

The Institute is being administered by the Director of the Institute with direct supervision of the Board of Governors (BOG) headed by Chairman. The Director of the Institute is ex-officio Member of the BOG.

2.5 Academic Programmes

The Institute, at present, offers UG programmes leading to the degree of Bachelor of Technology (B. Tech.) in Electrical and Electronics Engineering, Electronics and Communication Engineering, Computer Science & Engineering, Mechanical Engineering and Civil Engineering and PG programmes leading to M. Tech. degree in Electrical and Electronics Engineering, Electronics and Communication Engineering, Computer Science and Engineering and Mechanical Engineering. The Institute also offers PG programmes leading to Ph. D. degree in 5 (five) branches of engineering, viz., Electrical & Electronics Engineering, Electronics & Communication Engineering, Computer Science & Engineering, Mechanical Engineering and Civil Engineering and Basic Sciences and Humanities and Social Sciences (BS & HSS) (Physics, Chemistry, Mathematics, English and Economics).

2.6 Courses Offered

(a) Currently the Institute offers courses in 5 (five) branches of engineering leading to B. Tech. Degree of 4 – years duration, viz.,

- Electrical & Electronics Engineering (EEE)
- Electronics & Communication Engineering (ECE)
- Computer Science & Engineering (CSE)
- Mechanical Engineering (ME)
- Civil Engineering (CE)

(b) PG courses leading to M. Tech. degree of 2 – years duration in

- Electrical & Electronics Engineering (EEE)
- Electronics & Communication Engineering (ECE)
- Computer Science and Engineering (CSE)
- Mechanical Engineering (ME)

(c)PG courses leading to Ph. D. degree in departments, viz.,

- Electrical & Electronics Engineering (EEE)
- Electronics & Communication Engineering (ECE)
- Computer Science & Engineering (CSE)
- Mechanical Engineering (ME)
- Civil Engineering (CE)
- Basic Sciences and Humanities and Social Sciences (BS & HSS) (Physics, Chemistry, Mathematics, English and Economics).

2.7 Admission Procedure

The admission to 1st year B. Tech. course is made through the Joint Entrance Examination (JEE) Main conducted by Central Seat Allocation Board (CSAB)/ Joint Seat Allocation Authority (JoSAA) and as per the guidelines of the Ministry of Human Resource Development, Govt. of India.

The admission to 1st year M. Tech. course is made through the Centralised Counselling for M. Tech./M. Arch./M. Plan. Admissions, CCMT.

The Institute acts as one of the Counselling and Help centres both for B. Tech. and M. Tech. admissions.

2.8 Students

The intake of the Institute for the B. Tech. course is, at present, 30 seats per branch. Out of the total intake, 50 percent of the seats are reserved for the host state and the rest 50 percent is open to students from all parts of the country. For the M. Tech. course, the intake is 10 seats per branch. Reservation of seats for Scheduled Caste (SC), Scheduled Tribe (ST), Other Backward Class (OBC) and Persons with Disability (PWD) candidates are as per Government of India norms.

2.9 Examination and Evaluation

Since the beginning the Institute has been conducting examinations for the UG and PG courses. The Examination Section centrally conducts Mid-semester and End-semester examination in respect of theory components of the subjects unless otherwise permitted. The results are declared in terms of Semester Grade Point Average (SGPA) and Cumulative

Grade Point Average (CGPA) on 10 (ten) point scale. As per national standard, results are declared after one week of the completion of the examination.

There is a continuous assessment of the students' performance throughout the semester and grades are awarded by the concerned teacher. In case of theoretical subjects, the evaluation is based on class assessment (attendance, class tests, assignments, quizzes, etc.), mid-semester examination and end-semester examination. The respective weightage for these subcomponents are as below:

Sl. No.	Subcomponent	Weightage
1.	Class Assessment	20 %
2.	Mid-semester Examination	30 %
3.	End-semester Examination	50 %

In case of sessional subjects (Laboratory, Design, Practical, Workshop, etc.), the evaluation is based on the basis of attendance, assessment of tasks assigned and the end-semester test/viva.

2.10 Games and Sports

The students of the Institute actively participate in Games and Sports, Cultural and Technical Fests, Quizzes, Debates and other co-curricular and extra-curricular activities. Sport is a compulsory subject for all the first year students.



Shaurya – the Sports Fest 2018

CHAPTER 3 STAFF POSITION

3.1 Academic Staff (Teaching)

Sl. No.	Post	Sanctioned Strength	In Position
1.	Professor	5	1
2.	Associate Professor	11	3
3.	Assistant Professor	22	14 Regular, 5 Contractual, 4 Adhoc, 11 Temporary
4.	Trainee Teacher		05

3.2 Non-Academic Staff (Non-Teaching)

Sl. No.	Post	Sanctioned Strength	In Position
1.	Registrar	1	1
2.	Deputy Registrar (F&A)	-	1 (Adjusted against the post of Asst. Registrar)
3.	Assistant Registrar	1	
4.	Sports Officer	1	Nil
5.	Executive Engineer	1	1
6.	Dy./ Asst. Librarian	1	1
7.	Superintendent/ Accountant	2	1 – O.S. 1 – Accountant (Adhoc)
8.	Technical Assistant	4	3 – Regular 6 – Adhoc
9.	Junior Engineer	1	1
10.	Stenographer	1	Nil
11.	Technician/Lab Assistant/Instructor	6	4 – Regular 1 – Adhoc
12.	Nurse/ Matron	1	1
13.	Junior Assistant	4	3
14.	Multi Tasking Staff	2	2

3.3 Training Status

NIT Mizoram encourages its faculty members to actively participate and present their research papers/findings in International and National Seminars/Conferences. A separate fund is allocated for this purpose under Professional Development Allowance (PDA) to all the faculty members as per the norms approved by BOG.



International Yoga Day 2018

CHAPTER 4
DEPARTMENTS: ACADEMIC STAFF AND FACILITIES

4.1 Department of Electrical and Electronics Engineering

Designation	Name	Qualifications
Professor	Prof. Saibal Chatterjee	Ph. D.
Associate Professor	-	-
Assistant Professor (Regular)	Dr. Pabitra Kumar Biswas	Ph. D.
Assistant Professor (Contractual)	Mr. Suman Majumder	M. Tech
	Ms. Krishnarti De	M. Tech
	Mr. Ramesh Kumar	M. Tech
	Mr. Anagha Bhattacharya	M. Tech
Assistant Professor (Adhoc)	Mr. Sukanta Debnath	M. Tech
	Ms. Upama Das	M. Tech
Assistant Professor (Temporary)	Dr. Bidhan Malakar	Ph. D.
	Dr. Asadur Rahman	Ph. D.

4.1.1 Laboratories/ Workshops

- a. Basic Electrical Engineering Lab
- b. Electrical & Electronics Measurement lab
- c. Electrical Machines Lab
- d. Power Electronics and Drives Lab
- e. Control Systems Lab
- f. Power System Simulation Lab
- g. Instrumentation Lab
- h. Switch Gear and Protection Lab

4.2 Department of Electronics and Communication Engineering

Designation	Name	Qualifications
Professor	-	-
Associate Professor	-	-
Assistant Professor (Regular)	Dr. Rudra Sankar Dhar	Ph. D.
	Dr. Chaitali Koley	Ph. D.
	Dr. Anumoy Ghosh	Ph. D.
Assistant Professor (Adhoc)	Mr. Pragati Singh	M. Tech
	Ms. Remika Ngangbam	M. Tech
Trainee Teacher	Mr. Sushanta Borodoloi	M. Tech
Assistant Professor (Temporary)	Dr. Salam Shuleenda Devi	Ph. D.
	Dr. Bijit Choudhuri	Ph. D.
	Mr. Satyabrata Dash	M. Tech

4.2.1 Laboratories/ Workshops

- a. Digital Circuits Lab
- b. Analog Circuits Lab
- c. Microprocessors & Microcontrollers Lab
- d. Analog Communication Lab
- e. Digital Communication Lab
- f. DSP Lab
- g. VLSI Lab
- h. Embedded Systems Lab

4.3 Department of Computer Science and Engineering

Designation	Name	Qualifications
Professor	-	-
Associate Professor	-	-
Assistant Professor (Regular)	Dr. Partha Pakray	Ph. D.
	Dr. Ranjita Das	Ph. D.
Assistant Professor (Contractual)	Mr. Sandeep Kumar Dash	M. Tech
Assistant Professor (Temporary)	Dr. Ngangbam Herojit Singh	Ph. D.
	Ms. Dipanwita Debnath	M. Tech.
	Mr. Amit Chakaraborty	M. Tech.
Trainee Teacher	Mr. Lenin Laitonjam	M. Tech.

4.3.1 Laboratories/ Workshops

- a. Programming & Network Lab.
- b. Programming & Database Lab.

4.4 Department of Civil Engineering

Designation	Name	Qualifications
Professor	-	-
Associate Professor	-	-
Assistant Professor (Regular)	Dr. Bijayananda Mohanty	Ph. D.
Trainee Teacher	Ms. Sanasam Vipej Devi	M. Tech.
	Mr. Ricky Lalthazuala	M. Tech.
Assistant Professor (Temporary)	Ms. Esther Vanlalmawii	M. Tech.
	Mr. Nirban Laskar	M. Tech.

4.4.1 Laboratories/ Workshops

- a. Surveying Lab.
- b. Concrete Technology Lab.
- c. Hydraulics Lab.

4.5 Department of Mechanical Engineering

Designation	Name	Qualifications
Professor	-	-
Associate Professor	-	-
Assistant Professor (Regular)	Dr. Bidesh Roy	Ph. D.
	Dr. Bachu Deb	Ph. D.
	Dr. H. Lalhmingsanga	Ph. D.
	Dr. Basil Kuriachen	Ph. D.
	Dr. Abhijit Sinha	Ph. D.
Assistant Professor (Temporary)	Dr. Anal Ranjan Sengupta	Ph. D.
Trainee Teacher	Mr. Saurav Suman	M. Tech.

4.5.1 Laboratories/ Workshops

- a. Engineering Mechanics Lab.
- b. Mechanical Workshop
- c. Fluid Mechanics Lab. I & II
- d. Dynamics of Machinery Lab. I & II
- e. Strength of Materials Lab.
- f. Manufacturing Lab. I, II & III
- g. Thermal Lab. I, II & III

4.6 Department of BS & HSS(Physics)

Designation	Name	Qualifications
Professor	-	-
Associate Professor	Dr. Alok Shukla	Ph. D.
Assistant Professor		

4.6.1 Laboratories/ Workshops

- Physics Lab.

4.7 Department of BS & HSS (Chemistry)

Designation	Name	Qualifications
Professor	-	-
Associate Professor	Dr. P. Ajmal Koya	Ph. D.
Assistant Professor		

4.7.1 Laboratories/ Workshops

- Chemistry Lab.

4.8 Department of BS & HSS (Mathematics)

Designation	Name	Qualifications
Professor	-	-
Associate Professor	-	-
Assistant Professor (Regular)	Dr. Vinay Singh	Ph. D.
	Dr. Surender Ontela	Ph. D.

4.9 Department of BS & HSS (Economics and English)

Designation	Name	Qualifications
Professor	-	-
Associate Professor (Economics)	Dr. Konthoujam Gyanendra Singh	Ph. D.
Assistant Professor (English) (Regular)	Dr. Shuchi	Ph. D.

4.9.1 Laboratories/ Workshops

- Language Lab.

CHAPTER 5

TEACHING PROGRAMMES

5.1 Courses Offered

(a) The Institute offers 4 – years B. Tech. degree courses, viz.,

- Electrical & Electronics Engineering (EEE)
- Electronics & Communication Engineering (ECE)
- Computer Science & Engineering (CSE)
- Mechanical Engineering (ME)
- Civil Engineering (CE)

(b) PG courses leading to M. Tech. degree of 2 – years duration in

- Electrical & Electronics Engineering (EEE)
- Electronics & Communication Engineering (ECE)
- Computer Science & Engineering (CSE)
- Mechanical Engineering (ME)

(c) PG courses leading to Ph. D. degree in departments, viz.,

- Electrical & Electronics Engineering (EEE)
- Electronics & Communication Engineering (ECE)
- Computer Science & Engineering (CSE)
- Mechanical Engineering (ME)
- Civil Engineering (CE)
- Basic Sciences and Humanities and Social Sciences (BS & HSS) (Physics, Chemistry, Mathematics, English and Economics).

5.2 Course Wise Enrolment by Sex and Category

The following table shows the B. Tech. course wise enrolment by sex and category:

Semester (Batch)	Branch	Open		OBC		SC		ST		PWD		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
1 st & 2 nd (2018)	CE	3	1	5	1	4	0	7	5	0	0	26
	CSE	6	2	7	2	3	1	3	3	0	0	27

Batch)	ECE	10	2	9	2	3	0	2	0	0	0	28
	EEE	4	1	12	0	3	1	6	1	0	0	28
	ME	7	2	6	1	3	0	2	0	0	0	21
Sub-Total		30	8	39	6	16	2	20	9	0	0	130

5.3 Admission Statistics

The B. Tech. course wise total enrolment of the students in NIT Mizoram is given below:

Sl. No.	Branch	No. of Students (UG)
1.	CE	26
2.	CSE	27
3.	ECE	28
4.	EEE	28
5.	ME	21
Total		130

The M. Tech. and Ph. D. course wise total enrolment of the students in NIT Mizoram for 2018-19 is given below:

M.Tech			
Deptt.	Female	Male	Total
CSE	0	1	1
ECE	0	0	0
EEE	0	2	2
ME	0	3	3
Total	0	6	6

*Total M.Tech Strength during 2018-19 = 20

Ph.D.			
Deptt.	Female	Male	Total
BS & HSS	2	2	4
CE	0	0	0
CSE	0	0	0
ECE	0	1	1
EEE	0	1	1
ME	0	0	0
Total	2	4	6

*Total Ph.D. Strength during 2018-19= 63

The state wise enrolment of B. Tech. students in NIT Mizoram is given below:

Sl. No.	State	2018 Batch
1.	Mizoram	36
2.	Uttar Pradesh	19
3.	Maharashtra	1
4.	Rajasthan	9
5.	Jharkhand	2
6.	Delhi	1
7.	Bihar	25
8.	Andhra Pradesh	17
9.	Madhya Pradesh	1
10.	West Bengal	2
11.	Haryana	1
12.	Telangana	12
13.	Gujarat	1
14.	Jammu & Kashmir	1
15.	Kerala	1
16.	Nagaland	1

5.4 Students' Total Strength

The total strength of the B. Tech. students in NIT Mizoram is given below:

Sl. No.	Course Year	No. of Students (UG)
1.	First Year (2018)	130
2.	Second year (2017)	116
3.	Third year (2016)	65
4.	Fourth year (2017)	86
Total		397

5.5 Hostels

At present there are 3 (three) boys hostel and 1 (one) girls hostel which accommodate approximately 250 students (230 boys and 20 girls). The Hostels are located at Tanhril and Durtlang, which are about 10 – 15kms. away from the academic buildings. The Institute has

hired 7 (seven) buses for free transportation of the students to and fro from hostels to academic buildings.

5.6 Scholarships/ Assistantships

The students of this Institute are awarded various types of scholarships by various agencies and central and state governments. The details are given below:

Sl. No.	Name of the Student	Name of the Agency	Amount of Scholarship (Rs.)	
1.	RAJESH PRAKASH	MINISTRY OF SOCIAL JUSTICE AND EMPOWERMENT	214,100.00	
2.	RAJU KUMAR		214,100.00	
3.	SANJEEV KUMAR		214,100.00	
4.	BISHAL DAS		214,100.00	
5.	RAHUL KUMAR KANNAUJIYA		72,050.00	
6.	GUGULOTHU GANESH		6,350.00	
7.	RATHNAVATH PRASAD		6,350.00	
8.	SABAVATH HANMANTHU CHOWHAN		6,350.00	
9.	ATUL GAUTAM		214,100.00	
10.	PRADEEP KUMAR		214,100.00	
11.	MEKALA VINAY	214,100.00		
12.	KRISHNA KR. BHARGAV	216,970.00		
13.	AJUPA DAS	205,500.00		
14.	SOURAV KUMAR MAJI	102,750.00		
15.	PAPU BHAGAT	MINISTRY OF SOCIAL JUSTICE AND EMPOWERMENT	214,100.00	
16.	PANGKU BHAGAT		214,100.00	
17.	VINAY KR. SHAKYAWAR		205,500.00	
18.	AMAR KUMAR SAFI		214,100.00	
19.	GOVINDA NAMO SUDRO		107,050.00	
20.	GAURAB SINGH		205,500.00	
21.	KETHAVATH SHIVA SHANKER		MINISTRY OF TRIBAL AFFAIRS SCHOLARSHIP DIVISION	70,750.00
22.	DHARAVATH NAVEEN KUMAR			203,400.00
23.	SOORAJ SINGH			203,400.00
24.	JOSEPH VENLALPEKA			211,800.00
25.	VANLALNUNPUIA ROYTE	211,800.00		
26.	SUNDAY LALBIAKNIA	211,800.00		
27.	LALRUATKIMA	76,650.00		
28.	ANDY LIANSANGLAWMA	76,650.00		
29.	LALRUATSANGA	76,650.00		
30.	LALROHLUA	76,650.00		
31.	VANLALHRIATA	76,650.00		
32.	RUPANTAR CHAKMA	76,650.00		
33.	LALREMPUII CHHAKCHHUAK	76,650.00		
34.	H. LALBIAKHLUA	76,650.00		
35.	VANLALNGILNEIHA	76,650.00		
36.	BHUKYA NAVEEN	76,650.00		

37.	ANINDYA CHAKMA	MINISTRY OF TRIBAL AFFAIRS SCHOLARSHIP DIVISION	76,650.00
38.	LALDINENGA		76,650.00
39.	MARIA LALNUNPUII		76,650.00
40.	LALTHAFAMKIMI		6,350.00
41.	LALHMINGMAWIA		6,350.00
42.	LALROPUIA		6,350.00
43.	BISHU KOL		6,350.00
44.	MALSAWMDAWNGZELI		6,350.00
45.	VANLALRUATIFELI		6,350.00
46.	ROHAN CHAKMA		6,350.00
47.	SONU KUMAR MEENA		6,350.00
48.	PRADEEP KUMAR MEENA		6,350.00
49.	LALMALSAWMA		6,350.00
50.	IMANUEL LALHRUAITLUANGA		6,350.00
51.	BIAKSIAMA		6,350.00
52.	LALHRIATZUALA		6,350.00
53.	C. VANLALHRUAI		6,350.00

State government scholarships received:

Sl. No.	Name of the Student	Name of the Agency	Amount of Scholarship (Rs.)
1.	VIJAY KUMAR	SARAN (BIHAR)	60,880.00
2.	RANJEET KUMAR	DELHI	25,000.00
3.	VISHAL KUMAR	VAISHALI (BIHAR)	70,000.00
4.	RAKESH KUMAR RAWAT	JAMUI (BIHAR)	45,550.00
5.	SANNI KUMAR	ARWAL (BIHAR)	70,000.00
6.	DESHRATNA KUMAR	SUPAUL (BIHAR)	61,000.00
7.	GAUTAM KUMAR	BEGUSARAI (BIHAR)	70,000.00
8.	NIRAJ KUMAR	SAHARSA (BIHAR)	70,000.00
9.	RANJAN KUMAR	LAKHISARAI (BIHAR)	70,000.00
10.	ANKIT KUMAR	NALANDA (BIHAR)	35,000.00
11.	KUNDAN KUMAR	NALANDA (BIHAR)	70,000.00
12.	DHANANJAY KUMAR	NALANDA (BIHAR)	35,000.00
13.	PRASHANT KUMAR SUMAN	JAMUI (BIHAR)	45,550.00
14.	ASHUTOSH KUMAR	NALANDA (BIHAR)	70,000.00
15.	PIYUSH RAJ	NAWADA (BIHAR)	41,850.00
16.	NITISH KUMAR	NAWADA (BIHAR)	41,850.00
17.	PIYUSH RAJ	NAWADA (BIHAR)	41,850.00
18.	NAUSAD ANSARI	BHABHUA (BIHAR)	70,000.00
19.	VIMLESH KUMAR	PATNA (BIHAR)	41,850.00
20.	SAURABH KUMAR	PATNA (BIHAR)	41,850.00
21.	RANJEET KUMAR	DELHI	20,000.00

5.7 Games and Sports

Every year the Institute organises games and sports under the banner '*Shaurya*'. The following matches took place during the academic session:

- Cricket
- Football
- Table Tennis
- Volleyball
- Carom
- Chess
- Sprint/ Race

Among the computer games, Need for Speed and Counter Strike was organised within the hostel premises among the students.

Beside games and sports the Institute also organises Cultural and Technical cum-Fresher's Social annually under the banner '*Anunaad*' for the students.

5.8 Examination Details

The Examination Section centrally conducts Mid-semester and End-semester examination in respect of theory components of the subjects unless otherwise permitted. The results are declared in terms of Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) on 10 (ten) point scale. As per national standard, results are declared after one week of the completion of the examination. There is a continuous assessment of the students' performance throughout the semester and grades are awarded by the concerned teacher. In case of theoretical subjects, the evaluation is based on class assessment (attendance, class tests, assignments, quizzes, etc.), mid-semester examination and end-semester examination. The respective weightage for these subcomponents are as below. In case of sessional subjects (Laboratory, Design, Practical, Workshop, etc.), the evaluation is based on the basis of attendance, assessment of tasks assigned and the end-semester test/viva.

Sl. No.	Subcomponent	Weightage
1.	Class Assessment	20 %
2.	Mid-semester Examination	30 %
3.	End-semester Examination	50 %

Results of the Undergraduate Examination:**Degree: Bachelor of Technology**

Dept.	Semester	Total No. Of Students	Total Pass Students After Re-Exam	Total Students Fail	Pass %
CE	I	33	25	8	75.76
	III	29	13	16	44.83
	V	28	24	4	85.71
	VII	26	26	0	100.00
CSE	I	37	33	4	89.19
	III	28	23	5	82.14
	V	14	14	0	100.00
	VII	12	12	0	100.00
ECE	I	33	27	6	81.82
	III	21	15	6	71.43
	V	16	12	4	75.00
	VII	14	14	0	100.00
EEE	I	36	29	7	80.56
	III	25	16	9	64.00
	V	11	11	0	100.00
	VII	8	8	0	100.00
ME	I	21	16	5	76.19
	III	21	13	8	61.90
	V	14	14	0	100.00
	VII	16	16	0	100.00

Degree: Master of Technology

Dept.	Semester	Total No. Of Students	Total Pass Students After Re-Exam	Total Students Fail	Pass %
CSE	I	1	1	0	100.00
	III	3	3	0	100.00
ECE	III	5	5	0	100.00

	IV	1	1	0	100.00
EEE	I	2	2	0	100.00
	III	6	6	0	100.00
ME	I	3	3	0	100.00

5.9 Training and Placement

It is mandatory for the students of NIT Mizoram to undergo industrial training after their 5th semester. The Training and Placement section of the Institute arranges for such training and the students are sent to various firms/industries. Some of the names of the firms/industries where the Students were sent are NDPL Corporate Office, New Delhi; Steel Authority of India Limited, Jharkhand; Jindal, New Delhi; Defence and Development Organisation, Hyderabad; Bharat Heavy Electricals Limited, Noida and Bhopal; Oil India Limited, Duliajan; Indian Institute of Technology Guwahati; National Institute of Technology Silchar; National Institute of Electronics and Information Technology, Aizawl.

The placement cell of the Institute is very active. The overall picture is given in the table below:

SL. NO.	NAME	GENDER	BRANCH	CGPA	NAME OF THE COMPANY	PACKAGE CTC (APPROX)
1	ABHISHEK SHARMA	MALE	CSE	8.83	YODLEE ENVESTNET	8.7LPA
2	NARAYANA REDDY	MALE	CSE	9.09	CAPGEMINI	6LPA
3	DEV NATH PANDEY	MALE	ME	9.40	L&T ECC	6.27LPA
4	ANMOL KARTIKEYA	MALE	ME	8.95	L&T ECC	6.27LPA
5	SURAJ BARNAWAL	MALE	ME	8.98	L&T ECC VEDANTA	6.27LPA 7.95LPA
6	VIKHYAT PARASHAR	MALE	CE	9.00	L&T ECC	6.27LPA
7	NARESH SINGH	MALE	CE	9.00	L&T ECC	6.27LPA
8	RANJEET KUMAR	MALE	CSE	8.82	INFOSYS	4.1LPA
9	ROHIT KUMAWAT	MALE	CSE	8.25	INFOSYS IBM	4.1LPA 4.1LPA
10	RAKHEE VISHWAKARMA	FEMALE	CSE	9.23	INFOSYS FIRST AMERICAN	4.1LPA 7LPA
11	KRISHNA KR.	MALE	ECE	8.37	INFOSYS	4.1LPA

	BHARGAV					
12	SHUBHAM SWARAJ	MALE	ECE	7.40	IBM	4.1LPA
13	SUSHIL KUMAR	MALE	ECE	8.07	IBM	4.1LPA
					VIRTUSA	5LPA
14	JAYA A K	FEMALE	CSE	8.36	IBM	4.1LPA
15	INUMULA MANOJ KUMAR	MALE	ECE	9.05	IBM	4.1LPA
16	DEBJANI DEY	FEMALE	ECE	7.62	IBM	4.1LPA
					VEDANTA	7.95LPA
17	BHARTI RANI	FEMALE	EEE	8.47	IBM	4.1LPA
					VEDANTA	7.95LPA
18	MADHUSUDHAN KUMAR	MALE	ME	8.43	VEDANTA	7.95LPA
19	PRAMOD KUMAR RAM	MALE	CSE	7.41	RELIANCE JIO	4.50LPA
20	PASUPULETI SAI SRUJAN	MALE	CSE	7.96	RELIANCE JIO	4.50LPA
21	RASHIKA PANDEY	FEMALE	CSE	6.47	RELIANCE JIO	4.50LPA
22	ANKIT KUMAR	MALE	ECE	8.17	RELIANCE JIO	4.50LPA
23	VINOD KUMAR SINGH	MALE	EEE	7.99	RELIANCE JIO	4.50LPA
24	GAUTAM KUMAR	MALE	CSE	6.52	EDGISTIFY	3.50LPA
25	RUPANTAR CHAKMA	MALE	EEE	7.67	POWER GRID CORPORATION OF INDIA LTD.	12.00LPA

Total no of students	Total eligible students	Total student placed	Average Salary Package (CTC)
76	54	26	7.11LPA
Total Placed Percentage ECE= 66.66%			
Total Placed Percentage EEE= 75.00%			
Total Placed Percentage CSE= 100.00%			
Total Placed Percentage ME= 28.57%			
Total Placed Percentage CE = 10.52%			
Overall Placed Percentage=56.15%			

CHAPTER 6

RESEARCH AND DEVELOPMENT

6.1 Ph. D. Programmes

NIT Mizoram has started Ph. D. Programme in the departments of Computer science and Engineering, Electrical and Electronics Engineering, Physics, Chemistry and Humanities and Social Sciences. It proposes to start the programme in other departments of Engineering from the next academic session.

6.2 Research Projects

Research projects details of the Institute:

Sl. No.	Name of the Research Project	Department	Funding Agency	Amount (Rs.)
1.	Economic Valuation of Loktak Lake for Sustainable Use (PI: Dr. K. Gyanendra Singh)	BS &HSS	Indian Council of Social Science Research (ICSSR), New Delhi	6,00,000.00
2.	Physicochemical Properties of Amphiphilic Drugs: Effects of Addition of Organic Solvents (PI: Dr. P. Ajmal Koya)	Chemistry	DST-SERB, Govt. of India	22,98,000.00
3.	Design, Synthesis and invitro DNA Binding Studies of Novel Peptide Derivatives and their Metal Complexes (PI: Dr. A. Jamsheera)	Chemistry	DST-SERB, Govt. of India	32,65,000.00
4.	An Application of Textual Entailment and Semantic Similarity in Scientific Document Retrieval System (PI: Dr. Partha Pakray)	CSE	DST-SERB, Govt. of India	18,31,000.00
5.	Textual Instructions to Virtual Action (PI: Dr. Partha Pakray)	CSE	DST-DAAD	18,90,000.00
6.	Special Manpower development programme for Chips to System Design (PI: Chaitali Koley)	ECE	MeitY	1,00,00,000.00
7.	Analysis, Design and Control of Active Magnetic Bearing	EEE	DST-SERB, Govt. of India	15,72,800.00

	for High Speed Application (Dr. Pabitra Kumar Biswas)			
8.	Technology Gap Analysis Study for the (i) Baktawng Wood Carpentry Cluster, Mizoram, (ii) Bairabi Bamboo Cluster, Mizoram, and (iii) Seling Bamboo Cluster, Mizoram (PI: Dr. Bidesh Roy)	ME	TIFAC	10,45,000.00
9.	Numerical modeling, simulations and experimental investigations to improve the surface tribological properties of Ti-6Al-4V through developing wire electrical discharge alloying (PI: Dr. Basil Kuriachen)	ME	DST-SERB, Govt. of India	22,94,600.00
10.	Development of Bi-based nano sized electronic materials for multiferroic applications (PI: Dr. Alok Shukla)	Physics	DST-SERB, Govt. of India	38,82,560.00
11.	On recent problems on optimization and Its applications (Dr. Vinay Singh)	Mathematics	DST-SERB, Govt. of India	15,86,300.00

6.3 Proposed Plan for Research

In order to enhance research activity each faculty member is requested to propose their research plan in their field of specialisations and interests.

6.4 Institute-Industry Collaboration

The aim of Institute-Industry collaboration is to orient the academic programmes towards providing trained human resource to industry needs through meaningful and practical education to the students. The Institute is in the process of exploring the linkages and interaction with industries, other institutes of repute and R & D laboratories, etc.

CHAPTER 7

THE COUNCIL AND BOG

7.1 Board of Governors

The following are the members of the Board of Governors (BOG) of NIT Mizoram:

Sl. No.	Name and Designation	Will serve as
1.	Prof. Rajat Gupta, Director, NIT Mizoram	Chairperson
2.	Prof. Rajat Gupta, Director, NIT Mizoram	Member (Ex-Officio)
3.	Additional Secretary or Joint Secretary (Technical) Department of Higher Education Ministry of Human Resource Development, Govt. of India	Member
4.	Financial Advisor Department of Higher Education Ministry of Human Resource Development, Govt. of India	Member
5.	Mr. Manoj Saraf Managing Director M/s Brahmaputra Udyog Pvt. Ltd. Guwahati, Assam	Member
6.	Er. Vanlallianzuala, Chief Engineer (Retd.) Khatla South, Aizawl, Mizoram	Member
7.	Prof. Gopal Das Dean (R & D), IIT Guwahati	Member
8.	Dr. P. K. Ray Professor, Department of Industrial & System Engg. IIT Kharagpur	Member
9.	Prof. Memcha Loitongbam Director, Manipur Institute of Management Studies Manipur University, Imphal	
10.	Dr. K. Gyanendra Singh Associate Professor, Department of BS &HSS (Economics), NIT Mizoram	Member
11.	Dr. Lalthanchami Sailo, Registrar, NIT Mizoram	Secretary

7.2 Finance Committee

The following are the members of the Finance Committee of NIT Mizoram:

Sl. No.	Name and Designation	Will serve as
1.	Prof. Rajat Gupta, Director, NIT Mizoram	Chairman & Member (Ex-Officio)
2.	Joint Secretary or his nominee Deptt. of Higher Education, MHRD, Govt. of India	Member
3.	Financial Advisor or his nominee Department of Higher Education, MHRD, Govt. of India	Member
4.	Dr. P. K. Ray, Professor Department of Industrial & System Engg., IIT Kharagpur	Member

7.3 Building and Works Committee

The following are the members of the Building & Works Committee of NIT Mizoram:

Sl. No.	Name and Designation	Will serve as
1.	Prof. Rajat Gupta, Director, NIT Mizoram	Chairman & Member (Ex-Officio)
2.	Director (TE) Deptt. of Higher Education, MHRD, GoI	Member
3.	Director (IFD), Deptt. of Higher Education, MHRD, GoI	Member
4.	Prof. Anjan Dutta, Professor, Department of Civil Engineering, IIT Guwahati	Member (BOG Nominee)
5.	Prof. P. S. Choudhury Department of Civil Engineering, NIT Silchar	Member (BOG Nominee)
6.	Dr. J. H. Ansari, Former Director, SPA, New Delhi	Member (BOG Nominee)
7.	Shri C. H. Lalnunchama, Executive Engineer (Electrical), PWD Govt. of Mizoram	Member
8.	Prof. Saibal Chatterjee Department of Electrical and Electronics Engineering NIT Mizoram and Dean (P & D)	Member

7.4 Senate

The following are the members of the Senate of NIT Mizoram:

Sl. No.	Name and Designation	Will serve as
1.	Prof. Rajat Gupta, Director, NIT Mizoram	Ex-Officio Chairman
2.	Prof. A. T. Khan, Deptt. Of Chemistry, IIT Guwahati	Member
3.	Prof. Sukumar Nandi Department of Computer Science & Engineering IIT Guwahati	Member
4.	Prof. Sudeshna Purkayastha Department of History Assam University, Silchar	Member
5.	Prof. Saibal Chatterjee Department of Electrical and Electronics Engineering NIT Mizoram	Member
6.	Dr. Lalthanchami Sailo, Registrar, NIT Mizoram	Secretary



National Education Day, 11th November 2018

CHAPTER 8

CONCESSION FOR SC, ST, OBC AND PERSONS WITH DISABILITY

8.1 Concession for Students

Admission to 1st year of B. Tech. Course is made through JEE Main conducted by CSAB and reservation of seats for SC, ST, OBC and Physically Handicapped (PH) category of candidates is followed as per the guidelines framed by Ministry of Human Resource Development, Govt. of India, Department of Higher Education.

The reservation of seats is as follows:

Course	Type of Concessions	Category of Students	Magnitude
B. Tech.	Reservation at admission stage	SC	15 %
		ST	7.5 %
		OBC	27 %
		PWD	3 %

8.2 Concession for Staff

The Institute also follows reservations in appointment at entry level to SC, ST, OBC and PWD category of candidates as per Government of India rule. Concession in application fee is also applicable as the rule of the Government of India.



Cleanliness Drive in the Institute

CHAPTER 9
FINANCIAL STATUS

9.1 Analysis of Plan, Non-Plan and OSC Grants

(Figures in Rs. Lakhs)

Sl. No.	Year	Grants-in-aid from MHRD, Govt. of India				IRG	Total
		Plan	Non-plan	Plan (OSC)			
				Recurring	Non-recurring		
1.	2009-10	140.00	-	140.00	-	-	140.00
2.	2010-11	250.00	-	-	250.00	21.75	271.75
3.	2011-12	500.00	-	500.00	-	76.76	576.76
4.	2012-13	1500.00	-	1100.00	400.00	148.23	1648.23
5.	2013-14	1500.00	-	200.00	1300.00	316.24	1816.24
6.	2014-15	5300.00	-	897.32	4402.68	381.57	5681.57
7.	2015-16	6594.65	-	830.40	5764.25	561.93	7156.58
8.	2016-17	5500.00	-	413.00	5087.00	579.85	6079.85
9.	2017-18	7316.00	-	2600.00	4716.00	1826.26	9142.26
10.	2018-19	2050.00	-	2050.00	-	381.59	2431.59
Total		30,650.65	-	8730.72	21919.93	4294.18	34,944.83

9.2 Sources of Fund

The Ministry of Human Resource Development, Government of India is source for providing funds to this Institute.

9.3 Expenditure Position

The expenditure position is given in the Annexure in the Audit Report.

CHAPTER 10

CENTRAL FACILITIES AND SERVICES

10.1 Library

The Institute has a central library which approximately consists of 14,200 books. Out of this about 13,400 books belong to general textbooks for use in regular classes and about 800 books are for reference section. The Institute has further sent orders for acquisition of about 2000 books to meet the requirements of the coming semesters. Apart from this, the Library also has 5438 titles of E – books from Elsevier, Tata McGraw, Springer belonging to various departments of the Institute. Besides a good number of journals like IEEE-IEL Growth Plan, Springer Nature, Science Direct and JSTOR, reports, magazines and national and regional newspapers are stacked in the Institute Library. The Institute has also purchased anti-plagiarism software viz., Turnitin for the fraternity of the Institute.

10.2 Workshops

The Institute has one central workshop with good number of machines and instruments. The various shops available are Carpentry, Fitting, Welding and Machine shop.

10.3 Internet Service

The Institute buildings are well connected with both wired and wireless internet connection. The Institute has 1Gbps internet connectivity (24X7) under National Knowledge Network (NKN), Govt. of India, connected through redundant fiber cables. Apart from this, the institute is also having a 2Mbps leased line internet connection from BSNL as redundant connectivity. As a whole the institute is connected and properly networked via cisco router and switches.

10.4 Laboratories

Each department in the Institute has various laboratories with well equipped instruments and machines.

CHAPTER 11

TECHNICAL QUALITY IMPROVEMENT PROGRAMME (TEQIP)

11.1 TEQIP

NIT Mizoram has been selected for TEQIP-III under Subcomponent 1.1 with objectives to bridge the gap of the Institutions in the Central, eastern and north-eastern region and hill states with specific interventions. Under TEQIP Phase III, Sub-Component 1.1 (For strengthening institutions to improve learning outcomes and employability of graduates) IIT Kharagpur is the mentor institute of NIT Mizoram. NIT Mizoram has received Rs. 15 Crore divided under the following subheads:

a) Procurement of Goods: 9 Crore, b) Academic Process: 4.5 Crore, c) Operating Cost: 1.5 Crore.

After TEQIP-III is implemented, a number of conferences, research works, internship and many other benefits were funded by TEQIP-III for the faculty, staff and students of NIT Mizoram.

The details are as follows:

For students:

- National Institute of Technology Mizoram being a new Institution, the adequate facilities and equipments for research work are not available and most of the PhD students from the Department of Mechanical Engineering, ECE & CE had carried out their research related work in reputed Institutions such as CSIR-CMERI, Durgapur, IIT Guwahati, CSIR-Pilani, IIT Bhubaneswar etc. through TEQIP-III Fund.
- Due to less number of faculty members, 12 external faculties for various departments- CSE, EEE, ECE & CE were engaged under TEQIP-III Fund for the completion of B.Tech & M.Tech courses in these respective departments. Further, Remedial classes for B.Tech students in basic sciences subjects such as Mathematics, Physics & Chemistry as well as English were also taken for the weaker students.
- The B.Tech, M.Tech & PhD students presented their research papers and attended International and National Conferences in different parts of India by utilizing TEQIP-III Funds. They had also attended Short Term Course, Workshop, Hands-On training etc. which is funded by TEQIP-III.
- B.Tech & M.Tech Students from all the engineering branches had undergone Internship in various reputed Institutions & Industries such as Naresh Technologies,

Hyderabad/Eastern Coalfields Limited, Kolkata/Equifin United Technologies, Gurugram/ IIT BHU, Varanasi/ONGC, New Delhi/PWD/BSRDCL, WB/RCD Bihar/Gawar construction Ltd, Haryana/IOCL, Bihar/Power & Electricity Dept, Mizoram/Cochin Shipyard Limited/ BEL/ HCFAB/IIT Patna/IIT Bombay/ Makxenia Engineering resource Pvt. Ltd/HMT Machine Tools Ltd/NFC/ MSME Tool Room, Kolkata .

- Three B.Tech students have been selected for Internship MITACS Globallink Internship Programme (R&D of TEQIP-III), Canada for 12 weeks.
- Research Assistantship for 16 regular PhD students is being provided through TEQIP-III Fund.
- B.Tech, M.Tech & Ph.D students had applied and gave their NPTEL Online courses exam, where registration fee are reimbursed through TEQIP-III. Likewise, for B.Tech students who appear for their GATE exam, their registration fee is reimbursed through TEQIP after GATE result is declared.
- Employability Training has been provided to B.Tech final & pre-final year students through TEQIP-III.
- Induction Programme for the 1st Year B.Tech for 21 days was also organized which is mandatory under TEQIP-III.

For Faculties:

- National Level Seminars, Short Term Course, Faculty Development Programme were conducted for the students & Faculty of NIT Mizoram. Further, Workshops on Good Governance for the Faculty & Staff of NIT Mizoram were also conducted.
- Professional Development Training Programme & Stress Management Training has been attended by Faculties.
- Industry Consultation Committee has also been constituted for the first time at NIT Mizoram for all the five engineering branches of engineering.
- The Faculty & Staff of NIT Mizoram had also attended International & National Conferences and presented their research papers, further, they had also attended Workshops, Short Term Courses, FDP, training on Pedagogy etc. under TEQIP-III.

Procurement:

- A number of Purchase Order was issued which will be completed by March, 2020 approximately.

- **Project Duration** : 3 years (April, 2017 to March, 2020)
- **Total Sanction Amount** : Rs. 15 crore (Procurement: 9 crore, Academic: 4.5 crore, Operating Cost: 1.5 crore)
- **Utilized Amount: Rs. 25,902,148.00 (Upto March 2019)**

Sl.No.	Name of Procured Equipment/learning resources	Procurement Status	Amount (INR)
1	UPS	Procured	19,90,826.00
2	Microsoft Campus Agreement License	Procured	14,74,301.00
3	Science Direct e-Journal	Procured	62,32,790.00
TOTAL			96,97,917.00



CHAPTER 11

EVENTS AT NIT MIZORAM

11.1 ANUNAAD

This year NIT Mizoram celebrated its cultural fest “ANUNAAD 2K18”, fifth of its kind on 3rd November 2018. The program started with lightning the lamp by respected Director, NIT Mizoram, Prof. Rajat Gupta, Mrs. Krishnarti De, President, Cultural society along with other faculty members. Prof. Rajat Gupta encouraged the students of the cultural society for their months of preparations for the day and inspired them to keep up the good work. He also congratulated the entire team to organize the program and make it a success.

At the onset, Aditya Raj Mangalam just blew the fire with his splendid classical dance dedicated to lord Shiva. Cultural society has done tremendous hard work, and all that was seen in all the performances. Some students filled the atmosphere with the echo of the guitar and their melodious voice. Various societal issues have also been roused through drama and street play. Cheraw the tribal dance of Mizoram got a huge round of applause from everyone present. Hosts of the event kept on flooding several in-between acts like games and confessions from students for other students and faculties, to intact the whole event in unison. Engineers on the ramp show have concluded the event with their confident walk and poses and at the last students enjoyed to the fullest by dancing on the DJ floor, forgetting all the day long tiredness.



11.2 SHAURYA

Shaurya 2k18 is the Sports Festival of NIT Mizoram held annually to improve and judge the sportsmanship of students as well as faculties. It was held from 8th November 2018 to 12th November 2018 under supervision and direction of Prof. Rajat Gupta (Director NIT Mizoram). Mr. Saurav Suman & Mr. Ricky Lalthazuala (Sport's Faculty I/C) managed the sports fest with the support of Mr. Vikhyat Parashar & Lalrohlu (Secretary). The programme was inaugurated by Dean Academics Prof. Saibal Chatterjee and Dr. Lalthanchami Sailo, Registrar NIT Mizoram.



11.3 Anti-Terrorism Day

NIT Mizoram organized Anti-Terrorism Day on 21st May 2018. Dr. P. Ajmal Koya was the coordinator of the program. The program started with Pledge Taking at Library Extension Hall on the day at 10.10 AM under the leadership of Honourable Director Prof. Rajat Gupta. An anti-terrorism rally was arranged from Academic Block-II to Chanmari and back to the Institute. The Director, faculties, staffs and students of the Institute participated in the rally with great enthusiasm holding placard against terrorism in their hand in order to create awareness among the public. Refreshment was provided at Academic Block-II to all those participated in the event around 11.30 AM. Poster Competition on the topic ‘Anti-Terrorism’ was conducted at Library extension Hall around 12.00 noon wherein Dr. Basil Kuriachen (Asst. Professor, ME) and Mr. Ricky Lalthazuala (Trainee Teacher, CE) were the judges to decide the best. The posters drawn by Mr. Akash Gangwar (BT16ME013), Mr. Anish Ranjan Jha (BT14ME004) and Mr. Amish Kumar (BT16ME011) were selected by the judges for first, second and third prizes, respectively. Further, a debate competition was conducted on the topic ‘Role of Youth in National Security & Growth’ at Virtual class Room, Academic Block-III. Dr. Surrender Ontela (Asst. Professor, Maths), Mr. Saurav suman (Trainee Teacher, ME) and Mr. Sushanta Bordoloi (Trainee Teacher, ECE) were the judges for the competition and following students won the first (Mr. Anish Ranjan Jha, BT14ME004) , second (Mr. Surender Patel, DT16ME005) and third (Mr. Akash Gangwar BT16ME013) prize for the competition. Prize distribution ceremony was held at Academic Block-III around 3.00 PM on the same day.



11.4 Rashtriya Ekta Diwas (National Unity Day)

Celebrated Rashtriya Ekta Diwas (National Unity Day): National Institute of Technology Mizoram celebrated the Rashtriya Ekta Diwas (National Unity Day) on 31st October 2018 to commemorate the birth anniversary of Sardar Vallabhbhai Patel. The day provide us an opportunity to re-affirm the inherent strength and resilience of our nation to withstand the actual and potential strength to the unity, integrity and security of the country. On the day, National Unity Day Pledge was taken by the faculties, staffs and students in the ceremony held at Library Extension Hall. Institute also organized a Run for Unity to permeate the message of national unity to the society. Refreshments were provided to all after the program. The program was organized by a committee consisting of Dr. P. Ajmal Koya (Chemistry), Mr. Saurav Suman(ME) and Mr. Ricky Lalthazuala,(CE).



11.5 Free Science Education

Free science education classes were conducted by the departmental faculties to the selected class XII students from various schools in Aizawl district. Institute received 75 applications and based on the written test conducted by the Institute, shortlisted 60 students. The free coaching classes were taken on all Saturdays during the period 19/05/2018 to 27/10/2018. Physics and Chemistry subjects were handled by Dr. Alok Shukla and Dr. P. Ajmal Koya and the mathematics were taught by Dr. Vinay Singh and Dr. Surrender Ontela. In order to encourage the students, Institute provided free lunch/refreshments to all the students.



11.6 Orientation Programme

Conducted 21 days induction program for the first semester students: National Institute of Technology Mizoram successfully conducted the 21 days induction programme, for the students who have chosen their career in technical education of various branches, with kind cooperation and support from the faculties and staffs of the Institute. The program was financially supported by the TEQIP-III cell, NIT Mizoram.

The program was conducted during 01-21 August 2018. Activities like interaction with faculty members, interaction with senior students in the presence of faculty members, interaction session with counsellor, lecture on presentation skill, analytical ability in science, basic computer training, presentation by students on any general topic, departmental visits and interaction, visit to villages adopted under Unnat Bharat Abhiyan (UBA), English proficiency, lectures on socio-economic issues, power of internships, human value, presentation by T&P cell, fine arts and cultural activities, yoga, sports activities, regular mild physical exercises (under the guidance of external fitness trainer) and local sightseeing trips were conducted for the benefit of our students.

Prof. Rajat Gupta, Director, NIT Mizoram took his lecture and interacted with first semester students for earmarking almost 2 hrs from his busy schedule. In addition, the experts invited from other institutes gave their lectures on the topic such as psychological wellbeing of the students (Prof. Zokaitluangi; Deptt. of Psychology, Mizoram University), Personality and Skill Development (Prof. Sashikumar Sharma, Deptt. of Management, Mizoram University), Lecture on Engineers role in society (Prof. V.S. Sapkal, Head, Deptt. of Chem. Tech., SGB, Amravati University, Former Acting Vice-Chancellor, SGB, Amravati University, Former Vice Chancellor, Rastra Sant Tukdogi Maharaj Nagpur University & Chairman, AICTE's All India Board of Postgraduate Education & Research in Engineering & Technology, New Delhi).







National Seminar

CHAPTER 12 NOTABLE ACHIEVEMENTS

12.1 Chapters Contributed in Edited Books (International)

Name of the Faculty	Title of the Chapter	Name of Book	Name of Publisher	Year	Page Nos.	ISBN/doi
Dr. Pabitra Kumar Biswas Department of Electrical & Electronics Engg.	A state of the art review on solar powered energy efficient PMSM drive smart electric vehicle for sustainable development	Advances in Greener Energy Technologies		2019		1865-3529
Dr. H. Lalhmingsanga Department of Mechanical Engg.	Simulation of low cost automation and life cycle cost analysis for special purpose machine	Mechanical Design, Material and Manufacturing	NOVA	2019	8	978-1-53614-791-9
Dr. Abhijit Sinha Department of Mechanical Engg.	Recent developments in latent heat energy storage systems using phase change materials (PCMs)—A review	Green Buildings and Sustainable Engineering			25-37	https://doi.org/10.1007/978-981-13-1202-1_2
Dr. P. Ajmal Koya Department of Basic Sciences & HSS	Graphene family materials for the removal of pesticides from water	A New Generation Material Graphene: Applications in Water Technology	Springer International Publishing AG, part of Springer Nature	2019	309-327	978-3-319-75484-0 (doi: https://doi.org/10.1007/978-3-319-75484-0)
Dr. Surender Ontela Department of Basic Sciences & HSS	Laminar mixed convection flow of Cu–Water nanofluid in a vertical channel with viscous dissipation	Numerical Heat Transfer and Fluid Flow - Select	Proceedings of NHTFF 2018, SPRINGER, Singapore	2018	637-648	https://doi.org/10.1007/978-981-13-1903-7_73
	Navier slip effects on mixed convection flow of Cu–Water nanofluid in a vertical channel	Numerical Heat Transfer and Fluid Flow - Select	Proceedings of NHTFF 2018, SPRINGER, Singapore	2018	211-222	https://doi.org/10.1007/978-981-13-1903-7_25

12.2 Publication in International Journals

<i>Department of Computer Science & Engineering</i>							
Name of the Faculty	Title of the Paper	Journal	Vol.	No.	Year	Page Nos.	ISSN/doi
Dr. Ranjita Das	Extracting context of math formulae contained inside scientific documents	Computacion y Sistemas	23	3	2019	803-818	2007-9737/
	Aggregation of multi-objective fuzzy symmetry-based clustering techniques for improving gene and cancer classification	Soft Computing	22	18	2018	5935-5954	10.1007/s00500-017-2865-3
	Exploring differential evolution and particle swarm optimization to develop some symmetry-based automatic clustering techniques: application to gene clustering	Neural Computing and Applications	30	3	2018	735-757	10.1007/s00521-016-2710-0
Sandeep Kumar Dash	Generating image captions through multimodal embedding	Journal of Intelligent and Fuzzy Systems	36	5	2019	4787-4796	0.3233/JIFS-179027
Dr. Ngangbam Herojit Singh	Neural network-based approaches for mobile robot navigation in static and moving obstacles environments	Intelligent Service Robotics	12		2019	55-67	1861-2784/10.1007/s11370-018-0260-2
Dr. Partha Pakray	English-Mizo machine translation using neural and statistical approaches	Neural Computing and Applications	30	169	2018	1-17	https://doi.org/10.1007/s00521-018-3601-3
	Neural machine translation for indian languages	Journal of Intelligent Systems	28	3	2018	465-477	https://doi.org/10.1515/jisys-2018-0065
	A formula embedding approach to math information retrieval	Computación y Sistemas Journal	22	3	2018	819-833	10.13053/CyS-22-3-3015, ISSN: 2007-9737
<i>Department of Electronics & Communication Engineering</i>							
Name of the Faculty	Title of the Paper	Journal	Vol.	No.	Year	Page Nos.	ISSN/doi

Dr. Chaitali Koley	Hardware implementation of adaptive feedback based reversible image watermarking for image processing application	Microsystem Technologies, Springer	-	-	2018	1550039-1 to 1550039-17	DOI:10.1007/s00542-018-4024-x, 2018
Department of Electrical & Electronics Engg.							
Name of the Faculty	Title of the Paper	Journal	Vol.	No.	Year	Page Nos.	ISSN/doi
Dr. Saibal Chatterjee	Impulse performance of synthetic esters based-nanofluid for power transformer	Materials Research Express	5	12	2018		10.1088/2053-1591/aae237
	Review on the techno-commercial aspects of wind energy conversion system	IET Renewable Power Generation	12	14	2018		10.1049/iet-rpg.2018.5197
	A novel speed sensor-less vector control of Dual Stator Induction machine with space vector based advanced 9-zone hybrid PWM for grid connected wind energy generation system	Electric Power Systems Research	163		2018		10.1016/j.epsr.2018.02.021
	Analysis of thermophoresis and Brownian motion effect in heat transfer for nanofluid immersed distribution transformer	Electrical Engineering	100	3	2018		10.1007/s00202-017-0676-2
	Stator flux-oriented vector control of dual stator induction generator with time optimised 11-zone hybrid PWM for grid connected wind energy generation system	IET Electric Power Applications	13	11	2019		10.1049/iet-epa.2018.5311
	GIS augmented computational intelligence technique for rural cluster electrification through prioritized site selection of micro-hydro power generation system	Renewable Energy	142		2019		10.1016/j.renene.2019.04.125

Dr. Pabitra Kumar Biswas	Performance optimization for closed loop control strategies towards simplified model of a permanent magnet synchronous motor drive by comparing with different classical and fuzzy intelligent controllers	International Journal of Automation and Control, Inderscience Publications			2018		10.1504/IJAAC.2020.10020855
	Analysis and simulation of different type of power amplifiers used in electromagnetic levitation system	Journal of Power Technologies	98	02	2018		2083-4187
	A comparative study between load and no-load condition of brushless DC motor drives by using MATLAB	Journal of Power Technologies	98	03	2018		2083-4195
Suman Majumder	A green public transportation system using e-buses: a technical and commercial feasibility study	Sustainable cities and Societies	51		2019		10.1016/j.scs.2019.101789
	Analysis of different inverter topologies for utilization of renewable energy for grid support	International Journal of Computational Intelligence & IoT	1	2	2018		ISSN: 1556-5068
Krishnarti De	Analysis of the resilience of an electric-based transportation system	IET Electrical Systems in Transportation					10.1049/iet-est.2018.5087
Upama Das	Performance analysis for open loop brushless dc motor drive	International Journal of Engineering and Advanced Technology	8	6	2019		2249-8958
Sukanta Debnath	Force analysis of single axis actuator used in active magnetic bearing (AMB)	International Journal of Innovative Technology and Exploring Engineering	9	2	2019		2278-3075
Department of Mechanical Engg.							
Name of the Faculty	Title of the Paper	Journal	Vol.	No.	Year	Page Nos.	ISSN/doi

Dr. H. Lalmingsanga	Prediction of equations for higher heating values of biomass using proximate and ultimate analysis	IEEE			2019		10.1109/EPETSG.2018.8658984
Dr. Abhijit Sinha	Energy consumption pattern of indian transportation sector and its thermodynamic analysis	International Journal of Energy Technology and Policy			2019		(In Press)
<i>Department of Civil Engg.</i>							
Name of the Faculty	Title of the Paper	Journal	Vol.	No.	Year	Page Nos.	ISSN/doi
Dr. Bijayananda Mohanty	Microwave Heating and Acid Leaching Processes for Recovery of Gold and other Precious Metals from E-waste	Current Science	116	3	2019	463-468	10.18520/cs/v116/i3/463-468
<i>Department of Basic Sciences & HSS</i>							
Name of the Faculty	Title of the Paper	Journal	Vol.	No.	Year	Page Nos.	ISSN/doi
Dr. Alok Shukla	Structural, electrical and multiferroic characteristics of lead-free multiferroic: Bi (Co _{0.5} Ti _{0.5})O ₃ – BiFeO ₃ solid solution	RSC Advances	8	-	2018	36939-36950	2046-2069
	Structural, electrical and ferroelectric characteristics of Bi (Fe _{0.9} La _{0.1})O ₃	Ceramics International	44	-	2018	21330-21337	0272-8842
	Structural, bulk permittivity and impedance spectra of electronic material: Bi(Fe _{0.5} La _{0.5})O ₃	Journal of Materials Science: Materials in Electronics	30	2	2019	1919-1926	0957-4522
Dr. P. Ajmal Koya	Phase separation of amphiphilic drug amitriptyline hydrochloride in the presence of additives: Role of ethanol	J. Chem. Eng. Data	63	10	2018	3829–3838	0021-9568/DOI: 10.1021/acs.jced.8b00463
Dr. Surender Ontela	Natural Convective Fully Developed Micro Polar Nano Fluid Flow in a Vertical Channel	Journal of Advanced Research in Dynamical and Control Systems	10	-	6/2018	2468-2476	1943-023X

12.3 Publication in National Journals

<i>Department of Basic Sciences & HSS</i>							
Name of the Faculty	Title of the Paper	Journal	Vol.	No.	Year	Page Nos.	ISSN/doi
Dr. Alok Shukla	Structural and electrical characteristics of Bi(Fe _{0.95} Y _{0.05})O ₃ ceramic	Journal of International Academy of Physical Sciences	22	2	2018	153-160	0974-9373

12.4 Seminars/ Conferences organized

<i>Department of Mechanical Engg.</i>							
Name of the Faculty	Role	Name of Seminar/ Conference	Sponsored by/ Support received from	Venue	From	To	Duration
Dr. H. Lalhmingsanga	Coordinator	2nd Mizoram Science Congress, a National Conference		PUC, Aizawl	04/10/2018	05/10/2018	2 Days
Dr. H. Lalhmingsanga	Coordinator	National Conference on Waste to Energy Conversion	TEQIP III	NIT Mizoram	28/12/2018	29/12/2018	2 Days
Dr. Abhijit Sinha	Organizing Secretary	National Conference on Waste to Energy	KIT-TEQIP III	Aizawl	28/12/2018	29/12/2018	2 Days
<i>Department of Basic Sciences & HSS</i>							
Dr. P. Ajmal Koya	Coordinator	National Seminar on Technical Education: Quality not Quantity – Need of the Nation (NSTEQNN-2018)	TEQIP-III	NIT Mizoram	25/06/2018	26/06/2018	2 Days

12.5 Workshops/STTP/FDP organized

<i>Department of Electronics & Communication Engineering</i>							
Name of the Faculty	Role	Title of FDP/STTP/ Workshop	Sponsored by/ Support Received from	Venue	From	To	Duration
Dr. Chaitali Koley	Coordinator	VLSI Design using	E&ICT	NIT	05/03/2018	11/03/2018	5 Days

		FPGA Tools	Academy, IIT Guwahati, Sponsored by MeitY	Mizoram			
--	--	------------	--	---------	--	--	--

12.6 Seminars/ Conferences attended or participated

<i>Department of Computer Sci. & Engg.</i>							
Name of the Faculty	Title of Paper presented	Title of Seminar/ Conference	Organized by	From	To	Place	Details of Publication, if any
Sandeep Kumar Dash	Visually aligned text embedding model for identification of spatial roles	1st International Conference on Recent Trends on Electronics Computer Science (ICRTECS 2019)	NIT Silchar	18/03/2019	19/03/2019	NIT Silchar	
Lenin Laitonjam	Transliteration of english loanwords and named-entities to manipuri: phoneme vs grapheme representation	In Proceedings of the 22nd International Conference on Asian Language Processing (IALP)	Chinese and Oriental Languages Information Processing Society (COLIPS)	15/11/2018	18/11/2018	Bandung, Indonesia	
<i>Department of Electronics & Communication Engineering</i>							
Name of the Faculty	Title of Paper presented	Title of Seminar/ Conference	Organized by	From	To	Place	Details of Publication, if any
Dr. Chaitali Koley	Data hiding on colour images	International	Amity	6/7/ 2019	7/7/2019	Amity	ISBN- 81-

	based on adaptive threshold technique	conference on Microelectronics, Circuits and System (Micro 2019)	University			University, Kolkata	85824-46-4.
Dr. Chaitali Koley	Analytical study of breakdown characteristics in AlGaN/GaN HEMT	International conference on Microelectronics, Circuits and System (Micro 2019)	Amity University	6/7/ 2019	7/7/2019	Amity University, Kolkata	ISBN- 81- 85824-46-4.
Remika Ngangbam	An improved clustering based hierarchical protocol for extending wireless sensor network lifetime – EG LEACH	2018 IEEE International Conference on System, Computation, Automation and Networking (ICSCA)	MVIT, Pondicherry, India	06/07/2018	07/07/2018	Pondicherry, Tamil Nadu, India - 605107	DOI: 10.1109/ICSCAN.2018.8541241
Sushanta Bordoloi	Current Collapse Reduction Technique Using N-Doped Buffer Layer into the Bulk Region of a Gate Injection Transistor	VLSI Design 2019	IEEE	05/01/19	09/01/19	New Delhi	
<i>Department of Electrical & Electronics Engg.</i>							
Name of the Faculty	Title of Paper presented	Title of Seminar/ Conference	Organized by	From	To	Place	Details of Publication, if any
Anagha Bhattacharya	A low cost air pollution monitoring system using zigbee based wireless sensor networks	Information and Communication Technology for Intelligent Systems	Springer	04/04/2018	06/04/2018	Ahmedabad	pp 71-82 indexed by Springer

Dr.Pabitra Kumar Biswas	Voltage variation effect on speed and torque of brushless DC motor drives on no-load condition	International Conference on Inventive Systems and Control (ICISC 2019)	IEEE	10/01/2019	11/01/2019	Coimbatore	
Department of Mechanical Engg.							
Name of the Faculty	Title of Paper presented	Title of Seminar/ Conference	Organized by	From	To	Place	Details of Publication, if any
Dr. H. Lalmingsanga	Experimental study of rice bran based bio oil as lubricant in turning operation	International Conference on Energy, Water and Environmental Sciences	American University of Ras Alkhaimah, UAE	13/11/2018	15/11/2018	Ras Al Khaimah, UAE	
Department of Basic Sciences & HSS							
Name of the Faculty	Title of Paper presented	Title of Seminar/ Conference	Organized by	From	To	Place	Details of Publication, if any
Dr. Surender Ontela	Mixed convection micropolar nanofluid flow in a porous channel: entropy generation analysis	National Conference on Computational Modelling of Fluid Dynamics Problems (CMFDP-2019)	Dept. of Mathematics, NIT Warangal	18/01/2019	20/01/2019	NIT Warangal	N/A

12.7 Workshops/STTP/FDP attended or participated

Department of Computer Sci. & Engg.							
--	--	--	--	--	--	--	--

Name of the Faculty	Title of FDP/STTP/ Workshop	Organized by	Venue	From	To	Duration
Sandeep Kumar Dash	One week Workshop on Design and Deployment of Cyber Physical Systems	Dept. of CSE, NIT Silchar	Dept. of CSE, NIT Silchar	17/09/2018	21/09/2018	5 Days
Department of Electronics & Communication Engineering						
Name of the Faculty	Title of FDP/STTP/ Workshop	Organized by	Venue	From	To	Duration
Dr. Chaitali Koley	Workshop on Equity Action Plan (EAP)	NPIU-SPIU	Hotel Swosti Premium, Jaydev Vihar	30/11/2018	30/11/2018	1 Day
Dr. Chaitali Koley	Project Review Steering Group-II (PRSG II)	MeitY	NIT Manipur	24/09/2018	25/09/2018	2 Day
Dr. Chaitali Koley	Summer Training	NPIU	IIT Mumbai	11/06/2018	15/06/2018	5 Days
Sushanta Bordoloi	Five day TEQIP – III Summer Training Program on Active Learning Workshop under the ‘Knowledge Incubation under TEQIP (KITE)	An initiative of the MHRD, Govt. of India on the theme “Pedagogy and Research”	IIT Bombay	11/06/2018	15/06/2018	5 Days
Sushanta Bordoloi	Short Term Course on “Modeling and Simulation of Nano-Transistors”	Dept. of Electrical Engg., Indian Institute of Technology Kanpur, U.P. - 208016,	IIT Kanpur	21/01/19	25/01/19	5 Days
Department of Electrical & Electronics Engg.						
Name of the Faculty	Title of FDP/STTP/ Workshop	Organized by	Venue	From	To	Duration
Saibal Chatterjee	Professional	NPIU, IIM	IIM Indore	28/01/2019	01/02/2019	5 Days

	Development Training	Indore				
Ramesh Kumar	TEQIP-III Summer Training Program on Active Learning	MHRD, Govt. of India	IIT Bombay	11/06/2018	15/06/2019	5 Days
Anagha Bhattacharya	TEQIP-III Summer Training Program on Active Learning	MHRD, Govt. of India	IIT Bombay	11/06/2018	15/06/2019	5 Days
Suman Majumder	TEQIP-III Summer Training Program on Active Learning	MHRD, Govt. of India	IIT Bombay	11/06/2018	15/06/2019	5 Days
Krishnarti De	TEQIP-III Summer Training Program on Active Learning	MHRD, Govt. of India	IIT Bombay	11/06/2018	15/06/2019	5 Days
Dr. P. Ajmal Koya	Faculty Development Programme on Smart Nanomaterials: Fundamentals to Applications (SNFA-2019) (25 March 2019 to 29 March 2019)	National Institute of Technology Calicut, Kerala	NIT Calicut	25/03/2019	29/03/2019	5 Days
Dr. Surender Ontela	One Day Workshop on Social Media - Use and Effects	AICTE, DELHI	AICTE, DELHI	10/05/2018	10/05/2018	1 Day
Dr. Surender Ontela	TEQIP - III Summer Training Program on Active Learning	IIT Bombay	IIT Bombay	11/05/2018	15/06/2018	5 Days

12.8 Sponsored Research Projects Completed (during the financial year):

Sl. No.	Name of Principal Investigator	Title of Project	Sponsored By	Amount Sanctioned (₹)	Date of		Duration
					Start	Completion	Years

1	Dr. Partha Pakray Deptt. of CSE	An application of textual entailment and semantic similarity in scientific document retrieval system	DST-SERB	18,31,000.00	01/04/2016	31/03/2019	3
2		Textual instructions to virtual action	DST-DAAD	18,90,000.00	22/07/2016	21/07/2018	2
3	Dr. A. Jamsheera	Design, synthesis and in-vitro DNA binding studies of novel peptide derivatives and their metal complexes	DST-SERB	32,65,000.00	01/09/2015	31/08/2018	3

12.9 Sponsored Research Projects Ongoing:

Sl. No.	Name of Principal Investigator	Title of Project	Sponsored By	Amount Sanctioned (₹)	Date of		Duration
					Start	Completion	Years
1	Dr. Chaitali Koley Deptt. of ECE	(i) Board level implementation of Air quality monitoring system. (as a part of cluster project) (ii) An FPGA based adaptive feedback based reversible watermarking by difference expansion algorithm.	MeitY	200000.00	01/06/2015	01/06/2020	5
2		Special man power development program for chips to system design	MeitY	10,000,000.00	15/05/2015	14/05/2020	5
3	Dr. Pabitra Kumar Biswas Deptt. of EEE	Analysis, design and control of active magnetic bearing for high speed application	DST-SERB	15,72,800.00	17/03/2017	17/03/2020	3

4	Dr. Basil Kuriachen, Deptt. of ME	Numerical modelling, simulations and experimental investigations to improve the surface tribological properties of Ti-6Al-4V through developing wire electrical discharge alloying	DST-SERB	22,93,000.00	11/01/2017	10/01/2020	3
5	Dr. Alok Shukla Deptt. of BS & HSS	Development of modified Bi-based nanosized electronic materials for multiferroic applications	DST-SERB	38,82,000.00	15/12/2016	31/12/2019	3
6	Dr. Vinay Singh Deptt. of BS & HSS	On recent problems on optimization and its applications	SERB, DST	15,86,300.00	16/03/2018	15/03/2021	3

12.10 Any other achievements of the Department:

<i>Department of Computer Science & Engg.</i>		
Sl. No.	Name of Faculty	Achievement
1	Dr. Ranjita Das	“LSTM Neural Network Based Math Information Retrieval”, Second International Conference on Advanced Computational and Communication Paradigms (ICACCP-2019), Sikkim, India, IEEE, This paper received Best paper recognition
2	Sandeep Kumar Dash	Got Best Paper award in the Track and the Conference, 1st International Conference on Recent Trends on Electronics Computer Science (ICRTECS 2019) held during March 2019
<i>Department of Electrical & Electronics Engg.</i>		
3	Dr.Pabitra Kumar Biswas	Assignment of Proctor for Student Learning Assessment, BMS College Of Engineering, Bangalore