

Annual Report & Audited Accounts 2023-24



राष्ट्रीय प्रौद्योगिकी संस्थान, मणिपुर

NATIONAL INSTITUTE OF TECHNOLOGY MANIPUR

ପଂଚାବନ ଲେଖନୀସହୃଦ୍ଧ ଏବଂ ଶଂଖପଟ୍ଟଟୀ ଲେଖନୀ

From the Director's Desk



*NIT Manipur set up in 2010, is an Institute of National Importance fully funded by Ministry of Education, Government of India. It has come a long way to establish itself as one of the leading technical institutes in the region. NIT Manipur has been ranked 95th in the NIRF-2023 among top engineering institutions in the country (Engineering). The institute has been extending its testing facilities to several academic institutes, PSUs and private companies. The Institute has made considerable improvement in the number of publications in reputed/ refereed international journals. A total of **186** papers were published in top refereed Journals in various fields during the year. 19 Ph. D. degrees were awarded in the 10th Convocation held on 21st of November, 2023. The institute now has around 26 ongoing major sponsored research projects with funding from major sponsoring agencies viz; SERB, AICTE, DST, ISRO, BNRS, TIFAC, UBA, QIP-AICTE, SMDP, NECTOR, OTP-NIDM, INSPIRE Fellowship, GRIDS, ISRO-EQAM, CMR, etc. In addition, various consultancy works are also being taken up by the institute. The institute has completed 13 major consultancy works during the last one year. The Institute has filed 14 Patents which are under various stages.*

The Institute continues to achieve remarkable feat in the placement front with some students drawing the highest pay package in the Institute's history. This year, recruitment of the students was done by around 38 companies through on-campus placement. The placement percentage for the outgoing batch was recorded to be around 85.2 % from among eligible interested students with the highest salary package of Rs. 47 lakhs per annum at Amazon and an average salary of Rs. 11.6 lakhs per annum. Companies such as Amazon, Microsoft, Mahindra & Mahindra, Samsung Display, Deloitte, L& T ECC, TATA ELXSI, Alstrom, Reliance Jio, etc, took part in the recruitment process.

Under All India Council for Technical Education – National Institute of Technology (AICTE-NIT) Faculty Development Programme, NIT Manipur has been recognized as one of the Minor QIP Centre by AICTE.

The Institute has been successfully executing several flagship and outreach programmes of the Government of India including Unnat Bharat Abhiyan. NIT Manipur, Regional coordinating institute (RCI) for Unnat Bharat Abhiyan (UBA) has been actively engaged in various community-driven initiatives, contributing significantly to societal welfare. These programs not only showcase the

institute's commitment to academic excellence but also its dedication to fostering positive change within the broader community.

The institute has been regularly observing various activities from time to time as per the guidelines issued by the Ministry. Some of the activities observed during the year were Har Ghar Tiranga, Azadika Amrut Mahotsav, World No Tobacco Day Pledge taking ceremony, Swachhta Hi Seva Special Campaign 3.0, national Yoga Day, Hindi Diwas, National Vigilance Day, World Environment day, Amrit Kal Campaign, PMKVY Skill Development Programme.

On the infrastructure front, a Girls Hostel and a Boys Hostel constructed under the funding of Ministry of Social Justice and Empowerment, Govt. of India were inaugurated and are fully functional. However, all major construction activities are kept on hold pending finalization of the Revised Detailed Project Report.

The Annual Report provides a glimpse of the various activities conducted by the Institute during the year.

I am pretty confident that with the support of my young dynamic team of faculty, staff, students, other stakeholders, funding agencies and public at large, we will be able to achieve greater heights and reaching newer landmarks in research, innovation and outreach programmes.

Sd/-

Director, NIT Manipur

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1.0 INTRODUCTION

1.1 *Mission*

The Institute has been accorded the status of ‘*An Institute of National Importance*’ and aspires to be a knowledge hub for the region. Through its academic and research activities, the institute is acting as an incubation centre for aspiring technopreneurs. The Institute provides an ideal platform for national integration through emotional integration, as half of the students are from outside the state. It envisions being an Institute producing human resources of a world-class standard that will contribute significantly to the well-being of mankind.

1.2 *Vision*

The Institute aims to provide the best infrastructure and amenities to the students. It envisions being one of the best technical institutions in Southeast Asia. In view of the Act -East Policy of the Government of India, the institute aims to attract students from neighboring Southeast Asian countries. 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 for young entrepreneurs and technocrats to fulfil their dreams and aspirations.
- To encourage faculty and students to conduct research of international standards.
- To produce students of international industry standards.
- To set up Laboratories with the latest equipment and state-of-the-art facilities.
- To set up international standard infrastructure for extracurricular activities.

2.0 AN OVERVIEW

2.1 Profile

The National Institute of Technology (NIT) Manipur has been set up by the Ministry of Education (formerly 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 Science and Technical Education. NIT Manipur started its first session on 2nd August 2010 at Government Polytechnic, Takyel Campus, Imphal. The National Institute of Technology Act, 2007, amended in 2012, declared 20 existing and 10 new NITs as Institutes of National Importance. The institute is governed by the NIT Act 2007 and its statutes and functions under the overall guidance of the Board of Governors and the Hon'ble President of India as the Visitor of the Institute.

In status, it is regarded as equivalent to a central university. Half of the students admitted to NITs are reserved for students from the state where they are located, and the other 50% are taken from the rest of the country through the Central Seat Allocation Board on the basis of their JEE (Main) ranking.

2.2 Temporary Campus

The temporary campus is located at the Government Polytechnic Campus, Takyel, Imphal. Since 2015, most of the facilities have been shifted to the permanent campus, at Langol. At present, only one Girls' Hostel and a few quarters are located on the temporary campus.

2.3 Permanent Campus

The permanent campus is located at the foothills of the picturesque Langol hills at Lamphelpat on the outskirts of Imphal, measuring an area of 341 acres. The permanent campus is hardly 4 km from the main market of Imphal. The Bir Tikendrajit International Airport is located at a distance of 7 km from the campus. It is just a 15-minute drive from the campus and is well-connected by multiple daily flights to Kolkata, Delhi, Bangalore, Hyderabad, Mumbai, and Guwahati.



Imphal can also 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 first Boys Hostel at the permanent campus with a capacity of 150 was inaugurated on 21st Feb 2014 by the then Hon'ble Chief Minister of Manipur. At present, the campus has three boys' hostels on the permanent campus, two private hostels outside the campus, and around 10 staff quarters. The campus also has three workshop blocks, an administrative building and an Academic Block. Except for a Girls Hostel and some staff quarters, the Institute has completely shifted to its permanent campus.

2.4 Administration

The NIT Manipur is an autonomous Institute under the Ministry of Education (MoE), Govt. of India (GoI). The Institute functions under the overall guidance of the Board of Governors (BoG). The other statutory bodies are the Finance Committee (FC), Building and Works Committee (BWC) and the Senate. The Director is the principal academic and executive officer of the Institute.

Administrative Staff (Regular):

Sl. No.	Employee Name	Designation
1.	Prof. Kh. Manglem Singh	Director (i/c)
2.	Prof. Kh. Tomba Singh	Registrar
3.	Samarjit Singh	Executive Engineer
4.	L. Dorendro Singh	Assistant Registrar (Estt.)
5.	Dr. Thongam Khelchandra	Assistant Registrar (i/c Finance)
6.	Dr. Naorem Vidyavati Devi	Assistant Librarian
7.	Kh. Thangkin	Sports Officer
8.	Th. Robita Devi	Stenographer (PA to Registrar)
9.	Fanny Khangembam	Junior Assistant
10.	Md. Amir Hussain	Junior Assistant
11.	Richard Mareem Chothe	Junior Assistant
12.	Ngaihulun Tonsing	Junior Assistant

Administrative Staff (Contractual):

Sl. No.	Employee Name	Designation
1.	Dr. I. Bidhanchandra Singh	Assistant Registrar (Acad)
2.	Kh. Saikya Singh	Technical Officer
3.	Oinam Deepak	Consultant (Accounts Officer)
4.	Laishram Ibocha Singh	Internal Auditor Officer
5.	H. Monorama Devi	Accountant
7.	L. Somokanta	Superintendent (Academic)
8.	L. Jenifer	Junior Assistant
9.	Kh. Narmada Devi	Junior Assistant
10.	Ng. Binoi Singh	Junior Assistant
11.	G. Ranita Devi	Store Keeper
12.	Kh. Jonita	PA to the Director

2.5 Academic Programmes

The Institute offers four years of full-time Bachelor of Technology (B. Tech.) degree courses in Computer Science and Engineering, Electrical Engineering, Electronics and Communication Engineering, Civil Engineering and Mechanical Engineering. In addition, the Institute offers Master of Technology (M.Tech.) and Doctoral programmes in all Engineering branches. Masters and Doctoral degrees are also offered in Physics, Chemistry and Mathematics. The academic session is divided into two semesters, July-Dec and Jan-May. A five-day week period with at least 90 working days in each semester is being followed.

2.6 Admission Procedure

All admissions to the B.Tech. programme at the NIT Manipur are through the Joint Entrance Examination (JEE) Main. Counselling centres are set up throughout the country, including NIT Manipur, so that every aspirant is provided equal opportunity. Online counselling takes place in a very transparent system. The GoI has fixed 50% quota of seats for Manipur and another 50% quota for other states based on their JEE (Main) ranks.

Admission to M.Tech. programmes is through the Graduate Aptitude Test in Engineering (GATE) examination, which is followed by counselling through Centralized Counselling for M. Tech./M. Arch./M. Plan. Admissions (CCMT). Admission to M.Sc. programmes is through the Joint Admission Test for Masters (JAM) entrance exam, which is followed by counselling conducted by Centralized Counselling for M.Sc./M.Sc.(Tech.) (CCMN).

2.7 Examination

The Undergraduate 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' internships and final placements. The T&P Cell regularly organizes industrial tours for the students, thereby providing an opportunity to relate classroom teachings to reality. Workshops are also organized on a regular basis, thereby providing an interface between academia and industry.

2.9 Academic Calendar

The Academic Calendar reflects the timeline of the various activities that are conducted in the Institute in an academic year.

Academic calendar JAN – JUNE 2023		
BTech/ MTech /MSc continuing students		
Sl. No.	Details	Semester (January – June 23)
1	Registration of all continuing UG, PG & PhD students except BTech 1 st Year	16 th - 20 th Jan 2023 (Monday - Friday)
2	Starting of classes of all continuing UG, PG & PhD students except BTech 1 st Year	16 th Jan 2023 (Monday)
3	First I-Project/Thesis Review of BTech/MTech	On or Before 24 th Feb 2023 (Friday)
4	Mid Semester Examination (MSB) Theory	13 th March - 17 th March 2023 (Monday - Friday)
5	Second I-Project/Thesis Review of BTech/MTech	On or Before 31 st March 2023
6	Laboratory End Semester Examination	01 st - 05 th May 2023 (Monday - Friday) During Lab Class Hour Only
7	Last Date of submission of Project Work by BTech/ MTech /MSc students	05 th May 2023 (Friday)
8	Online submission of feedback by students	12 th May 2023 (Friday)
9	Last day of Instruction	19 th May 2023 (Friday)
10	End Semester Examination (ESE) Theory	22 nd May – 02 June 2023 (Friday)
	Last date of evaluation of BTech/MTech/MSc Project	07 June 2023 (Friday)
11	Last date for showing evaluated ESE answer scripts to the students	07 June 2023 (Friday)
12	Last date for seeking clarification of answer scripts by the students	09 th June 2023 (Friday)
13	Last date for submission of grades to Academic Section	14 th June 2023 (Wednesday)
14	Declaration of End Semester Result	19 th June 2023 (Monday)
15	Summer Vacation for continuing BTech / MTech /MSc students except BTech 1 st Year	10 June – 23 rd July 2023 (Saturday - Thursday) (Summer)
16	Summer Back Course Examination Registration	20 th - 23 rd June 2023
17	Finalization of Branch Change (tentative)	30 th June 2023 (Friday)
18	Supplementary Exam	03 rd July – 07 th July 2023 (Monday - Friday)
19	Registration of All Continuing UG, PG & PhD students	24 th - 28 th July 2023 (Monday - Friday)
20	Starting of classes of all continuing UG, PG & PhD students except BTech/ MTech /MSc 1 st Year	24 th July 2023 (Monday)

Revised-Academic calendar JAN –JUNE2023 dt 09-05-2023

BTech/ MTech /MSc continuing students

Sl. No.	Details	Semester (January – June23)
1	Registration of all continuing UG, PG & PhD students except BTech 1 st Year	16 th - 20 th Jan 2023 (Monday - Friday)
2	Starting of classes of all continuing UG, PG & PhD students except BTech 1 st Year	16 th Jan 2023(Monday)
3	First I-Project/Thesis Review of BTech/MTech	On or Before 24 th Feb 2023 (Friday)
4	Mid Semester Examination (MSB) Theory	13 th March - 17 th March 2023 (Monday - Friday)
5	Second I-Project/Thesis Review of BTech/MTech	On or Before 31 st March 2023
6	Laboratory End Semester Examination	01 st - 05 nd May 2023 (Monday - Friday) During Lab Class Hour Only
7	Last Date of submission of Project Work by BTech/ MTech /MSc students	05 th May 2023 (Friday)
8	Online submission of feedback by students	12 th May 2023 (Friday)
9	Last day of Instruction	02 June (Friday)[B Tech 4,6, 8 th sem] 30 June (Friday)[B Tech 2 nd sem]
10	Offline End Semester Examination (ESE) Theory, LAB [B Tech 8 th sem,M Tech and MSc Final year]	05 June 2023 – 10 June 2023 (Saturday)
11	Offline Left over mid Term Exam of B Tech 2 nd	6 th July-7 th July 2023
12	Offline End Semester Examination (ESE) Theory , LAB [B Tech 2 nd , 4 th ,6 th sem, M Tech 2 nd and MSc 2 nd Sem]	10 th July -21 st July 2023(Monday - Friday)
13	Last date of evaluation of BTech/MTech/MSc Project[B Tech 8 th sem,M Tech and MSc Final year]	10 June 2023 (Saturday)
14	Last date for showing evaluated ESE answer scripts to the students[B Tech 8 th sem, MSc Final year]	12 June 2023 (Monday)
15	Last date for seeking clarification of answer scripts by the students[B Tech 8 th sem, MSc Final year]	12 th June 2023 (Monday)
16	Last date for submission of grades to Academic Section[B Tech 8 th sem,M Tech and MSc Final year]	14 th June 2023 (Wednesday)
17	Declaration of End Semester Result[B Tech 8 th sem,M Tech and MSc Final year]	19 th June 2023 (Monday)

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18	Summer Vacation for continuing BTech / MTech /MSc students except [B Tech 8 th sem, M Tech and MSc Final year] in view of present situation in Manipur	09 th May – 02 July 2023 (Tuesday - Sunday) (Summer)
19	Last date for showing evaluated ESE answer scripts to the students[B Tech 2 nd , 4 th ,6 th sem, M Tech 2 nd and MSc 2 nd Sem]	24 th July 2023 (Monday)
20	Last date for submission of grades to Academic Section[B Tech 2 nd , 4 th ,6 th sem, M Tech 2 nd and MSc 2 nd Sem]	25 th July 2023 (Tuesday)
21	Declaration of End Semester Result[B Tech 2 nd , 4 th ,6 th sem, M Tech 2 nd and MSc 2 nd Sem]	26 th July 2023 (Tuesday)
22	Summer Back Course Examination Registration	26 th - 27 th July 2023
23	Finalization of Branch Change(tentative)	01 st Aug 2023 (Tuesday)
24	Offline Supplementary Exam	01 st Aug – 04 th Aug 2023 (Monday - Friday)
25	Registration of <i>All Continuing</i> UG, PG & PhD students	27 th - 28 th July 2023 (Thursday - Friday)
26	Starting of classes of all continuing UG, PG & PhD students except BTech/ MTech /MSc 1 st Year	27 th July 2023(Thursday)

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Academic Calendar for 2nd semester B.Tech students

March 2023- July 2023

S.N.	Detail	Date
1	Registration of B Tech 2 nd semester	6 th - 8 th March 2023
2	Starting of B Tech 2 nd semester Classes	6 th March 2023(Monday)
3	Mid Semester Examination (MSE) Theory	01 st - 05 th May 2023
4	Online submission of feedback by students	20 th June 2023
5	Last day of instruction	23 rd June 2023(Friday)
6	Laboratory End Semester Examination	19 th - 23 rd June 2023
7	End Semester Examination (ESE) Theory B Tech 2 nd semester	26 th - 30 th June 2023
8	Last date for showing evaluated ESE answer scripts to the B.Tech 2 nd semester Students	05 th July 2023
9	Last date of submission of B Tech 2 nd semester grades to Academic Section	06 th July 2023
10	Declaration of B Tech 2 nd semester result	10 th July 2023
11	Finalization of Branch Change(tentative)	20 th July 2023
12	Registration for B Tech 3 rd semester	24 th July to 27 th July 2023
13	Starting of B Tech 3 rd semester classes	24 th July 2023 (Monday) ✓
14	Summer Vacation	01 st July 2023- 23 rd July 2023

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National Institute of Technology Manipur	
Academic Calendar for the <u>ODD Semester</u> of AY 2023 - 2024 (August to December 2023)	
Registration of all continuing UG, PG & PhD	27 July – 4 August (Thursday – Friday)
Starting of classes of all continuing UG, PG & PhD students except BTech/ MTech/ MSc 1st Year	27 July, Thursday
Last date for submission of appeal to HoD by students liable to be terminated for poor academic performance	27 July, Thursday
Last date for submission of recommendation by DUPC on appeal of students liable to be terminated for poor academic performance	28 July, Friday
Last date for submission of recommendation by DPPC on appeal of students liable to be terminated for poor academic performance	31 July, Monday
IUPC meeting to discuss appeal of B.Tech. students liable to be terminated due to poor CPI	2 August, Wednesday
IPPC meeting to discuss appeal of M.Sc./M.Tech./Ph.D. students liable to be terminated due to poor CPI	3 August, Thursday
Registration of new B.tech students	As per CSAB
Induction program B.Tech	22 – 25 August (Tuesday – Friday)
Registration of new M.Tech and M.Sc.	As per CCMT/CCMN
Registration of New Ph.D. Students	10 – 16 August (Thursday – Wednesday)
Starting of classes of all newly admitted PhD students except	10 August, Thursday
First Assignment	30 August, Wednesday
First unit test	30 August, Wednesday
I-Project thesis review of B.Tech./M.Tech.	31 August, Thursday
Second Assignment	1 September, Friday
Second unit test	4 September, Monday
Mid Sem Examination (MSE) Theory	11 – 15 September
Last date for returning evaluated MSE answer script to students	25 September, Monday
II-Project/Thesis Review of B.Tech./M.Tech.	29 September, Friday
Senate meeting	First week of October
Third Assignment	9 October, Monday
Third unit test	10 October, Tuesday
III- Project/Thesis Review of B.Tech./M.Tech.	30 October, Monday
Laboratory End Semester Examination (ESE)	6 – 10 November (Monday – Friday)
Parallel examination registration	6 – 10 November (Monday – Friday)
IUPC meeting	6 November (Monday)
IPPC meeting	8 November (Wednesday)
Last date of submission of project work thesis by B.Tech./M.Tech./M.Sc.	10 November, Friday
Online submission of feedback by students	10 November, Friday

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Last working day of semester	17 November, Friday
End semester Examination Theory	20 November – 1 December (Wednesday – Friday)
Last date of presentation & evaluation of B.Tech./M.Tech./M.Sc. project work	8 December, Friday
Winter vacation for continuing B.Tech./M.Sc. students	9 – 31 December
Winter vacation for faculty	13 December 2023 – 1 January 2024
Last date for seeking clarification of evaluated ESE answer scripts	15 December, Friday
Last date of submission of grades to Academic Section	20 December, Wednesday
Online availability of provisional grade report	21 December, Thursday
Last date of submitting formal appeal to the course instructor(s) by the students against any discrepancy in grading	22 December, Friday
Last date for reporting Change in grade, if any to the Academic Section for the appeal by the students	29 December, Friday
Comprehensive Examination/SOAS	Before 29 December
Issuing notices to students terminated from Academic due to low CPI after back courses	29 December, Friday
Registration of all continuing UG, PG & Ph.D.	2 – 8 Jan 2024

गुरुवर

PAF
18/10/2023

A. Hujit Sir

Chm
B. J. J.

S. Lohia dn



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NOTIFICATION

Imphal, the 2nd of May, 2024

NITM.3/(21-Acad)/A-Calendar/2022/65/ : In supersession of the earlier Notification No.NITM.3/(3-Acad)/Notice/2023/525 dated 05/01/2024, it is hereby notified the Revised Academic Calendar for the Academic session (Jan-December 2024) is as below:

Registration of all continuing UG, PG & PhD	2 – 8 Jan.2024 (Tue – Mon)	15 July – 19 Aug. 2024 (Mon – Fri)
Last date for submission of appeal to HoD by students liable to be terminated for poor academic performance	2 Jan, 2024(Tue)	15 July, 2024 (Mon)
Last date for submission of recommendation by DUPC on appeal of students liable to be terminated for poor academic performance	3, 2024 Jan (Wed)	16 July, 2024 (Tue)
Last date for submission of recommendation by DPPC on appeal of students liable to be terminated for poor academic performance	3 Jan, 2024 (Wed)	16 July, 2024 (Tue)
IUPC meeting to discuss appeal of B.Tech. students liable to be terminated due to poor CPI	4 Jan, 2024 (Thur)	18 July, 2024 (Thur)
IPPC meeting to discuss appeal of M.Sc./M.Tech./Ph.D. students liable to be terminated due to poor CPI	4 Jan, 2024 (Thur)	18 July, 2024 (Thur)
Registration of new B.tech students	-	As per CSAB
Induction program of New B.Tech	-	As per CSAB
Registration of new M.Tech and M.Sc. students	-	As per CCMT/CCMN
Registration of new PhD students	-	15 – 19 July, 2024 (Mon – Fri)
Starting of classes of all continuing UG, PG, PhD	8 Jan, 2024 (Mon)	22 July, 2024 (Mon)
New PhD students	-	22 July, 2024 (Mon)
Last Date for first Assignment	29 Jan, 2024.(Mon)	22 Aug, 2024 (Thur)
Last Date for first unit test	29 Jan, 2024 (Mon)	22 Aug, 2024 (Thur)
Last Date for I-Project thesis review of B.Tech./M.Tech./M.Sc.	2 Feb, 2024 (Fri)	26 Aug, 2024 (Mon)
Last Date for second Assignment	29 Feb, 2024 (Thur)	19 Sept, 2024 (Thur)
Last Date for second unit test	29 Feb, 2024 (Thur)	19 Sept, 2024 (Thur)
Mid Sem Examination (MSE) Theory	4 – 8 March, 2024 (Mon – Fri)	23 – 27 Sept, 2024 (Mon – Fri)
Last date for returning evaluated MSE answer script to students	18 March, 2024 (Mon)	11 Oct, 2024 (Fri)
Last Date for II-Project/Thesis Review of B.Tech./M.Tech./M.Sc.	27 March, 2024 (Wed)	14 Oct, 2024 (Mon)
Last Date for third Assignment	19 April, 2024 (Fri)	21 Oct, 2024 (Mon)
Last Date for third unit test	19 April, 2024 (Fri)	21 Oct, 2024 (Mon)
Parallel examination registration	22 - 26 April, 2024 (Mon – Fri)	21 – 25 Oct, 2024 (Mon – Fri)
Laboratory End Semester Examination (ESE)	29 April - 3 May, 2024 (Mon – Fri)	8 – 14 Nov, 2024 (Fri – Thur)



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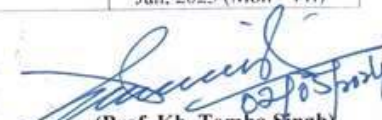
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Last working day of semester	3 May, 2024 (Fri)	14 Nov, 2024 (Fri)
Online submission of feedback by students	3 May, 2024 (Fri)	14 Nov, 2024 (Fri)
End semester Examination Theory	6-17, 2024 May (Mon - Fri)	18 - 29, 2024 Nov (Mon - Fri)
IUPC meeting	20 May, 2024 (Fri)	2 Dec, 2024 (Mon)
IPPC meeting	21 May, 2024 (Tue)	3 Dec, 2024 (Tue)
Last date of submission of project work thesis by B.Tech./M.Tech./M.Sc.	22 May, 2024 (Wed)	6 Dec, 2024 (Fri)
Last date of presentation & evaluation of B.Tech./M.Tech./M.Sc. project work	22 May, 2024 (Wed)	6 Dec, 2024 (Fri)
Last date for seeking clarification of evaluated ESE answer scripts	22 May, 2024 (Wed)	6 Dec, 2024 (Fri)
Vacation for continuing B.Tech./M.Sc. students	23 May - 21 July, 2024 (Thur - Sun)	7 Dec, 2024 - 1 Jan, 2025 (Sat - Wed)
Vacation for faculty	24 May to 30 June, 2024 (Fri - Sun)	11 Dec, 2024 - 1 Jan, 2025 (Wed - Wed)
Last date of submission of grades to Academic Section	6 June, 2024 (Thur)	12 Dec, 2024 (Thur)
Online availability of provisional grade report	7 June, 2024 (Fri)	13 Dec, 2024 (Thur)
Tentative requisition of Branch change application	10 June (Mon) - 1 st July, 2024 (Mon)	-
Last date of submitting formal appeal to the course instructor(s) by the students against any discrepancy in grading	11 June, 2024 (Tue)	16 Dec, 2024 (Mon)
Last date for reporting Change in grade, if any to the Academic Section for the appeal by the students	14 June, 2024 (Fri)	19 Dec, 2024 (Thur)
Finalisation of Branch Change	9 July, 2024 (Tue)	-
Issuing notices to students terminated from Academic due to low CPI after back courses	12 July, 2024 (Fri)	30 Dec, 2024 (Mon)
Registration of all continuing UG, PG & Ph.D.	-	30 Dec, 2024 - 10 Jan, 2025 (Mon - Fri)

This issues with the approval of the Competent Authority.


(Prof. Kh. Tomba Singh)
Registrar
NIT Manipur

NITM.3/(21-Acad)/A-Calendar/2022/ 651

Date: 02/05/2024

Copy to:

1. PS to the Director for kind information.
2. Dean (AA) for information.
3. All HODs for information.
4. Controller of Examinations.
5. Technical Officer for uploading on the Institute's Website.
6. Accounts Section.
7. All Notice Boards.


(Prof. Kh. Tomba Singh)
Registrar
NIT Manipur

2.10 Students

The Institute attracts students from various parts of the country, giving it a national character. The Institute encourages students to actively participate in all cultural programmes so that they get exposure to the culture and traditions of other parts of the country. The students also regularly participate in cultural festivals organized by various NITs and Indian Institute of Technology (IIT)s.

1. Chippalapally Spoorthi (21107023), a student of Mechanical Engineering Department, participated in the National Cultural Conference 2024 from 19th to 21st March 2024, in Bhubaneswar.

2.11 Games & Sports

The Institute is keen to provide opportunities for the students' overall development. Equal importance is given to the students' overall personality development, and sports play an important role.

The Institute organises the 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. The Institute regularly sends various teams to participate in the inter-NIT sports meet held at different NITs.

1. The 11th Annual Sports Meet 2023 of NIT Manipur was held from 1st April to 3rd April, 2023.
2. The students of NIT Manipur participated in the All India Inter NIT Basketball & Badminton Tournament at Malaviya NIT, Jaipur which was held from 14th October to 16th October, 2023.
3. The students of NIT Manipur participated in the All India Inter NIT football & Power Lifting Tournament at NIT Durgapur which was held from 3rd November to 5th November, 2023. Karam Birjit Singh (20107012), a student of the Mechanical Engineering Department, won the gold medal in the bodybuilding competition.
4. The students of NIT Manipur participated in the All India Inter Volleyball Tournament from 1st March to 3rd March 2024 at NIT Kurukshetra.

2.12 STAFF POSITION AS ON 31.03.2023

The staff position (both teaching and non-teaching) as on 31st March, 2023 of the Institute is tabulated as under:

TEACHING

<i>Sl. No.</i>	<i>Cadre</i>	<i>Sanctioned</i>	<i>In Position</i>	<i>Vacant</i>
1	Professor	54	39	15
2	Associate Professor			
3	Assistant Professor			
	Total (A)	54	39	15

NON-TEACHING

<i>Sl. No</i>	<i>Cadre</i>	<i>Sanctioned</i>	<i>In Position</i>	<i>Vacant</i>
1	Registrar	1	1	0
2	Asst. Registrar	2	1	1
3	Deputy Librarian/Asst. Librarian	1	1	0
4	Nurse	1	0	1
5	Sports Officer	1	1	0
6	Executive Engineer	1	1	0
7	Technical Assistant	15	0	15
8	Technical Assistant/Junior Engineer	1	0	1
9	Superintendent/ Accountant	4	0	4
10	Stenographer	1	1	0
11	Junior Assistant	7	4	3
12	Technician	16	1	15
13	Multitasking Staff	8	0	8
Total (B)		59	11	48

3.0 ACADEMIC STATISTICS

3.1 Courses Offered

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

- Physics
- Chemistry
- Mathematics

(iv) In addition, Ph.D. programmes in Computer Science & Engineering, Electronics and Communication Engineering, Mechanical Engineering, Civil Engineering, Electrical Engineering, English, Physics, Chemistry, Mathematics are also offered.

3.2 Admission Details

Branch –wise Strength:

B.Tech.

Sl. No.	Batch	CSE	EE	ECE	ME	CE	Total
1.	2020-21	58	23	24	23	25	153
2.	2021-22	83	31	34	27	32	207

3.	2022-23	80	32	36	31	27	206
4.	2023-24	77	35	35	28	27	202
Grand Total		298	121	129	109	111	768

M.Tech.

Sl. No	Batch	CSE	EE	ECE	ME	CE	Total
1.	2022-23	4	4	2	2	16	28
2.	2023-24	4	4	2	2	23	35
Grand Total		8	8	4	4	39	63

M.Sc.

Sl. No.	Batch	Physics	Chemistry	Mathematics	Total
1.	2022-23	14	14	12	40
2.	2023-24	15	10	16	41
Grand Total		29	24	28	81

Ph.D

Sl. No.	Batch	CE	CHEMISTRY	CSE	ECE	EE	ENG	MATHS	ME	PHYSICS	Grand Total
1	2015-16	6	8	2	1	0	3			1	21
2	2016-17	8	3	6	1			1	11	1	31
3	2017-18	5	1	8	4	3		4	7	3	35
4	2018-19	5	5	2	6	4		10	7	10	49
5	2019-20	2	3	1	5	3	1		3	9	27
6	2020-21	3	7	4	4	2		6	14	1	41

7	2021-22	4	6	4	5	4		5	4	10	42
8	2022-23	5		2	2	2	3	1	5	3	23
9	2023-24	10	2	2	12	8	1	4		3	42
10	Grand Total	48	35	31	40	26	8	31	51	41	311

4. Departmental Reports

4.1 DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

(A) Head of the Department: Dr. Khundrakpam Johnson Singh

(B) Brief Introduction of the Department

The Department of Computer Science and Engineering was established in 2010. It conserves an excellent teaching and research environment with a team of qualified faculty members. The curriculum is regularly updated to be at par with modern industrial demand and state-of-the-art research. Since its establishment, the department has consistently fulfilled its role of producing IT industry-ready engineers.

The departmental research is focused in the areas of Image Processing and Computer Vision, Soft Computing, Intelligent System Design, Speech Processing, IoT, Medical Image Processing, Information Security, Cryptography, Watermarking, Steganography, Cyber Security, Artificial Intelligence & Robotics, and Pattern Recognition. The department has state-of-the-art laboratories and research facilities. The department attracts various talented students from all parts of the country. Placements for our graduates are the best sought-after in the institute.

Most alumni are pursuing successful careers in the industry, and some have opted for higher studies. To further the department's development, alumni remain in constant touch with it and contribute actively. The department has 11 experienced and sincere faculty members and 4 non-faculty members.

(C) Highlight of Research Activities

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

(D) Faculty Members (Regular): 06

Sl. No.	Name of the Faculty	Designation	Qualification	Email
1.	Prof. Khumanthem Manglem Singh	Professor	PhD	manglem@gmail.com
2.	Dr. Yambem Jina Chanu	Associate Professor	PhD	jina.yambem@gmail.com
3.	Dr. Khelchandra Thongam	Assistant Professor	PhD	thongam@gmail.com
4.	Dr. Khundrakpam Johnson Singh	Assistant Professor	PhD	Johnkh34@gmail.com
5.	Dr. Oinam Bidyapati Chanu	Assistant Professor	PhD	obidyapatichanu@gmail.com
6	Dr. Yumnam Surajkanta	Assistant Professor	PhD	ysurajkanta@gmail.com

(E) Faculty Members (Contractual): 05

Sl. No.	Name of the Faculty	Designation	Qualification	Email
1.	Dr. Chingakham Neeta Devi	Assistant Professor	PhD, Assam University	neeta.chingakham@gmail.com
2.	Dr. Anuradha Laishram	Assistant Professor	PhD, NIT Manipur	annu0286@gmail.com
3.	Dr. Maibam Mangalleibi Chanu	Assistant Professor	PhD, NIT Manipur	bbrobes.felix@gmail.com
4.	Teressa Longjam	Lecturer	PhD Thesis Defended, PhD, NIT Durgapur	teressalongjam@gmail.com
5.	Sanabam Bineshwar Singh	Lecturer	Pursuing PhD, NIT Manipur	bineshworsanabam@gmail.com

(F) Non-Teaching Staff (Contractual): 04

Sl. No.	Name of Staff	Designation	Qualification	Email
1.	Khaidem Panthoi Meetei	Technical Assistant	MCA	panthoimeetei@yahoo.co.in

		(system)		
2.	Ksh. Merina Devi	Technical Assistant	Ph.D. Pursuing	merylkshetri@gmail.com
3.	Sanasam Renubala Devi	Technical Assistant	M.Tech	devisanasam@gmail.com
4.	Nirvana Thokchom	Technical Assistant	M. Tech	nirvana.thokchom@gmail.com

(G) Trainee Teachers (if any): Sushma Thiyam (PhD Thesis Defended, IIT Guwahati)

Academic Activities

(I) Students Enrolment

Name of the Course	1 st Year	2 nd Year	3 rd Year	4 th Year	Total
B.Tech	69	82	83	58	292
M.Tech	4	4	-	-	8

(II) PhD Program.

	2023-24
No. of Full Time	2
No. of Part Time	0
Total	2
Degree Awarded during 2023-24	3

(III) Research Information

(A) Sponsored Research Projects form Govt./Semi Govt.

Sl. No	Name of the Project	Funding Agency	Project Amount	Project PI
1	Development of AI	High Court	Rs.	Dr. Khelchandra

	Translation Software from English to Meitei Mayek (script) and Roman Alphabet	of Manipur	16,52,000/-	Thongam
2	Identifying the best practices for the High Court and District Court functioning, technical specification, technical evaluation and training of IT team	High Court of Manipur		Dr. Khelchandra Thongam
3	To Develop an Artificial Intelligence (AI) based Meiteilon Speech to Meitei Mayek Script System.	DST Manipur	Rs. 90,000/-	Dr. Yambem Jina Chanu
4.	Speech Technologies in Indian Languages (Northeastern Languages)	MeiTy	Rs 24,00000/-	Dr. Yambem Jina Chanu
5	A Novel TDNN-LiGRU approach for CS ASR Meiteilon/Manipuri English	(CRG) SERB, DST	Rs. 24,49832/-	Dr. Yambem Jina Chanu
6	Manipuri sign language recognizer based on AI.	DST Manipur	Rs. 1,20,000/-	Dr. Oinam Bidyapati Chanu
7	Mao Language Automatic Speech Recognition (ASR)	IIT Bhilai Innovation and Technology Foundation (IBITF)	Rs. 34,02,000/-	Dr. Yambem Jina Chanu
8	Developing printed Meitei Mayek recognition system and converting to speech to bridge generation gap of the language,	DST Manipur	130000	Dr. Kh. Johnson Singh,

(B) Patent Details if any:

Sl. No.	Inventors(s)	Patent Title	Date of Granted/Published
1.	Dr. Khelchandra Thongam, Dr. Anuradha Laishram	A process for automatic detection and classification of dental types and anomalies using OPG images and faster R-CNN	202331035951,
2.	Anuradha Laishram, Jayakumar L, Ngangbam Herojit Singh, Khelchandra Thongam	Optimal Path Planning for Mobile Robot Navigation	202023104093 (Granted 25/10/2023)
3	Usham Sanjota Chanu, Khundrakpam Johnson Singh, Yambem Jina Chanu, Khumanthem Manglem Singh	Dynamisches Funktionsauswahlsystem zur Erkennung von DDoS-Angriffen (Distributed Denial of Service)	202024101251 (Granted 09/04/2024)
4	Hoomexsun Pangsatabam, Yambem Jina Chanu, Khumanthem Manglem Singh	A Method for Building a Working Pronunciation Dictionary for Meitei/Meetei Mayek	202331002999

(C) Publications in Journals (2023-24)

Sl. No.	Author Names	Details of Publication
1	Tutu Raja Ningthoukhongjam, Sursita Devi Heisnam and Khumanthem Manglem Singh	“Medical Image Encryption Through Chaotic Asymmetric Cryptosystem”, IEEE Access, vol. 12, pp. 73879-73888, 2024, doi: 10.1109/ACCESS.2024.3404088.
2	Angom Buboo Singh, Khumanthem Manglem Singh	“Application of error level analysis in image spam classification using deep learning model”, PLoS One. 2023 Dec 14;18(12):e0291037. doi: 10.1371/journal.pone.0291037.

3	Kshetrimayum Merina Devi, Maibam Mangalleibi Chanu, Ngangbam Herojit Singh & Khumanthem Manglem Singh	“Classification of unsegmented phonocardiogram signal using scalogram and deep learning”, Soft Computing 27, 12677–12689 (2023). https://doi.org/10.1007/s00500-023-08834-1 .
4	Diana Laishram, N. Tutu Raja Singh and Khumanthem Manglem Singh	“Protection of COVID-19 images using multiple elliptic curve cryptography”, The Imaging Science Journal, 1–13, 2023 https://doi.org/10.1080/13682199.2023.2229698 .
5	Sanabam Bineshwor Singh, Anuradha Laishram, Khelchandra Thongam, Kh Manglem Singh	“A Random Forest-based Automatic Classification of Dental Types and Pathologies using Panoramic Radiography Images”. Journal of Scientific & Industrial Research. 83. 2024. 10.56042/jsir.v83i5.3994.
6	M Sheetal Singh, Khelchandra Thongam , Prakash Choudhary , P K Bhagat	“An Integrated Machine Learning Approach for Congestive Heart Failure Prediction”, Diagnostics, 2024;14(7):736. https://doi.org/10.3390/diagnostics14070736
7	Maibam Mangalleibi Chanu, Ngangbam Herojit Singh, Chiranjeevi Muppala, R. Thandaiah Prabu, Ngangbam Phalguni Singh & Khelchandra Thongam	“Computer-aided detection and classification of brain tumor using YOLOv3 and deep learning”, Soft Computing, 27, 9927–9940 (2023). https://doi.org/10.1007/s00500-023-08343-1
8	Sinam Ajitkumar Singh, Ningthoujam Dinita Devi, Khuraijam Nelson Singh, Khelchandra Thongam, Balakrishna Reddy D & Swanirbhar Majumder	“An ensemble-based transfer learning model for predicting the imbalance heart sound signal using spectrogram images”, Multimedia Tools and Application, 83, 39923–39942 (2024). https://doi.org/10.1007/s11042-023-17186-9
9	Hidangmayum Satyajeet Sharma & Khundrakpam Johnson Singh	“Intrusion detection system: a deep neural network-based concatenated approach”, The Journal of Supercomputing, 80, 13918–13948 (2024). https://doi.org/10.1007/s11227-024-05994-1
10	Hidangmayum Satyajeet Sharma & Khundrakpam Johnson Singh	“A feed forward deep neural network model using feature selection for cloud intrusion detection system.” Concurrency and Computation: Practice and

		Experience , 36 (2023): doi.org/10.1002/cpe.8001.
11	Khundrakpam Johnson Singh, Debabrata Maisnam & Usham Sanjota Chanu	“Intrusion Detection System with SVM and Ensemble Learning Algorithms”, SN Computer Science. 4, 517 (2023). 10.1007/s42979-023-01954-3.
12	Naorem Karline Singh, Yambem Jina Chanu, Hoomexsun Pangsatabam	“MECOS: A bilingual Manipuri–English spontaneous code-switching speech corpus for automatic speech recognition”, Computer Speech & Language, Volume 87, 2024, 101627, ISSN 0885-2308, https://doi.org/10.1016/j.csl.2024.101627 .
13	Thiyam Susma Devi and Pradip K. Das	“Disambiguation of Isolated Manipuri Tonal Contrast Word Pairs Using Acoustic Features.” ACM Trans. Asian Low-Resour. Lang. Inf. Process. 23, 3, Article 44 (March 2024), 18 pages. https://doi.org/10.1145/3643830
14	Usham Sanjota Chanu, Yambem Jina Chanu, Kh Johnson Singh	A dynamic feature selection technique to detect DDoS attack, Journal of Information Security and Applications, Volume 74, 2023, 103445, ISSN 2214-2126, https://doi.org/10.1016/j.jisa.2023.103445 .

(D) Publication in Conferences (2023-24)

1. Singh, Naorem Karline, Yambem Jina Chanu, and Hoomexsun Pangsatabam. *"A Study of Various Audio Augmentation Methods and Their Impact on Automatic Speech Recognition."* International Conference on Science, Technology and Engineering. Singapore: Springer Nature Singapore, 2023.
2. Pangsatabam, H., Chanu, Y. J., & Singh, N. K. *"Design and Evaluation of Speech Processing Systems for Meetei/Meitei Mayek"* In International Conference on Science, Technology and Engineering (pp. 347-354). Singapore: Springer Nature Singapore.
3. Chingakham Neeta Devi, *"Meetei Mayek Natural Scene Character Recognition using CNN"*, Soft Computing and Its Engineering Applications. icSoftComp 2022. Communications in Computer and Information Science, vol 1788. Springer, Cham. https://doi.org/10.1007/978-3-031-27609-5_33. March, 2023.
4. Teressa Longjam, Dakshina Ranjan Kisku, Rengshai R Lungleng, Somipem Chamroy, Chitheimi A Shimray, Phaorei Kashung, *"A Multi-scripted Signature Verification System using Transfer Learning"*, ICSTE-23, NIT Manipur.
5. Thiyam Susma Devi and Pradip K. Das. *"Speech Dataset Development for a Low-Resource Tibeto-Burman Tonal Language."* 2023 26th Conference of the Oriental COCOSA

- International Committee for the Co-ordination and Standardisation of Speech Databases and Assessment Techniques (O-COCOSDA), Delhi, India, 2023, pp. 1-6, doi: 10.1109/OCOCOSDA60357.2023.10482932. <https://ieeexplore.ieee.org/document/10482932>.
6. Khan, W., Singh, **Khundrakpam Johnson Singh** (2024). Computerized Sensing of Diabetes Retinopathy with Fundus Images Using CNN. In: Swain, B.P., Dixit, U.S. (eds) Recent Advances in Electrical and Electronic Engineering. ICSTE 2023. Lecture Notes in Electrical Engineering, vol 1071. Springer, Singapore. https://doi.org/10.1007/978-981-99-4713-3_37
 7. Kumar, S., Singh, **Khundrakpam Johnson Singh** (2024). Intrusion Detection System Using Supervised Machine Learning. In: Swain, B.P., Dixit, U.S. (eds) Recent Advances in Electrical and Electronic Engineering. ICSTE 2023. Lecture Notes in Electrical Engineering, vol 1071. Springer, Singapore. https://doi.org/10.1007/978-981-99-4713-3_38
 8. Sharma, H.S., Singh, **Khundrakpam Johnson Singh** (2024). An Efficient Intrusion Detection System Using Feature Selection and Long Short-Term Memory (LSTM). In: Swain, B.P., Dixit, U.S. (eds) Recent Advances in Electrical and Electronic Engineering. ICSTE 2023. Lecture Notes in Electrical Engineering, vol 1071. Springer, Singapore. https://doi.org/10.1007/978-981-99-4713-3_51
 9. Anand, N., Singh, **Khundrakpam Johnson Singh** (2024). A Comprehensive Study of DDoS Attack on Internet of Things Network. In: Swain, B.P., Dixit, U.S. (eds) Recent Advances in Electrical and Electronic Engineering. ICSTE 2023. Lecture Notes in Electrical Engineering, vol 1071. Springer, Singapore. https://doi.org/10.1007/978-981-99-4713-3_56
 10. Kamei, D., Singh, **Khundrakpam Johnson Singh** (2024). A Matrix Factorization Algorithm for Movie Recommendation. In: Swain, B.P., Dixit, U.S. (eds) Recent Advances in Electrical and Electronic Engineering. ICSTE 2023. Lecture Notes in Electrical Engineering, vol 1071. Springer, Singapore. https://doi.org/10.1007/978-981-99-4713-3_57
 11. K. S. Singh and **Khundrakpam Johnson Singh**, "Network Intrusion Detection System Using Decision Tree and KNN Algorithm," *IEEE 2024 3rd International conference on Power Electronics and IoT Applications in Renewable Energy and its Control (PARC)*, Mathura, India, 2024, pp. 275-280, doi: 10.1109/PARC59193.2024.10486386.
 12. Vishwakshena Vishnu Simha Dingari, Ganapathi Kosanam, Devi Sri Shankar Chavatapalli, Chingakham Neeta Devi, A Printed Character Recognition System for Meetei-Mayek Script Using Transfer Learning. Recent Advances in Electrical and Electronic Engineering. ICSTE 2023. Lecture Notes in Electrical Engineering, vol 1071. Springer, Singapore. https://doi.org/10.1007/978-981-99-4713-3_50, Oct 2023.
 13. Chingakham Neeta Devi, Nella Kartheek, Bokka Purna Manikanta, Motha Ysaswini Saisree, Manjeet, Meetei Mayek, Hindi, and English Text Detection from Natural Scene Images using YOLO. Recent Advances in Electrical and Electronic Engineering. ICSTE 2023. Lecture Notes in Electrical Engineering, vol 1071. Springer, Singapore. https://doi.org/10.1007/978-981-99-4713-3_31, Oct 2023.

(E) Publication in books/book Chapters (2023-24)

1. Computer Fundamentals and Computer Networks by T.Romen Singh, Kh Manglem Singh, BFC Publications ISBN 978 03 5632 3834.

(F) Short Term Course/ Workshop/ Seminar/ Conference Conducted by the Department:

SL No.	Short Term Course/ Workshop/ Seminar/ Conference	Funding Agency	Coordinator
1.	PyMaster: Python Mastery Training Program(Programming Technologies) Under Category 3 of NECB 2.0 Project)	Meity	Dr. Kh Johnson Singh

(G) Internship or Industrial Visits:

Sl. No.	Enrollment Number	Name of the Student	Company/ Internship / Industrial Visits
1.	20103001	Maddikonda Sri Sourya Avinash	Skylark Drones Pvt. Ltd.
2.	20103003	Sagar	Nibrus Technologies Pvt. Ltd.
3.	20103004	Boyapati shree Harsha	Newgen Software Technologies Ltd.
4.	20103005	Komal Reddy K	Devtron Inc
5.	20103007	Bareddy Ravi Kiran Reddy	Crisp Analytics Pvt. Ltd. Company
6.	20103010	Jayanath Reddy	Teachnook
7.	20103011	Arnav Pareek	Teachnook
8.	20103023	Thandu Jnana Ysaswini	Srikakula power Pvt. Ltd.
9.	20103032	Neeraj Kumar Gupta	Nibrus Technologies Pvt. Ltd.
10	20103035	Laiphangbam Guneshwor	Academor Cornpany
11	20103054	Guimariabou Pamai	Teachnook

Name of B.Tech. Students who graduated in 2023-24:

Sl. No.	Enrolment No.	Name of the Student	Final CPI
1.	20103001	Maddikonda Sri Sourya Avinash	8.49
2.	20103003	Sagar	9.04
3.	20103004	Boyapati Shree Harsha	9.04
4.	20103005	Koukuntla Komal Reddy	9.43
5.	20103006	Delina Soubam	9.18
6.	20103007	Bareddy Ravi Kiran Reddy	7.60
7.	20103008	Kalapala Venkata Surya Teja	8.66
8.	20103009	Balabhadra Chakrinya Sri Rama Sai Eswar	8.08
9.	20103010	G Jayanth Reddy	8.64
10.	20103011	Arnav Pareek	8.32
11.	20103013	Pasupuleti Sai Pramod Ram	8.97
12.	20103014	Kagithala Vamshivardhan	8.08
13.	20103015	Harshit Patel	8.5
14.	20103016	Sangyam Bharat Kumar	7.2
15.	20103017	Ayush Kumar	8.28
16.	20103018	Yeduri Kishore	7.54
17.	20103019	Abhishek Gupt	8.76
18.	20103020	Kanugula Akshay Kumar	8.68
19.	20103022	Moirangthem Suraj Singh	8.57
20.	20103023	Thandu Jnana Ysaswini	8.58
21.	20103025	Nongdamba Thounaojam	8.19
22.	20103026	Deepank	8.51
23.	20103027	Khumbongmayum Belona Devi	8.5

24.	20103028	Preceela Chanu Irengbam	8.9
25.	20103029	Kritya	8.55
26.	20103030	Preety Sylvia Angom	8.52
27.	20103031	Yalla Snehith	8.91
28.	20103032	Neeraj Kumar Gupta	9.05
29.	20103033	Chabungbam Ranbir Singh	9.04
30.	20103034	Thoudam Siyabeti Devi	8.59
31.	20103035	Laiphangbam Guneshwor	8.6
32.	20103038	Karnipu Vamsi	8.45
33.	20103039	Koppera Madhu Kishore	8.38
34.	20103040	Sugam Kumari	7.89
35.	20103041	Shougaijam Neroda Devi	9.23
36.	20103042	Royal Philem	8.28
37.	20103043	Angom Watson	7.67
38.	20103044	N Ajay	7.92
39.	20103045	Ramavath Vinod Naik	7.23
40.	20103046	Daniel Lunginlian	7.86
41.	20103048	Lanchungliu Gonmei	7.37
42.	20103049	Joshua Khupmuanlian Tunlut	7.65
43.	20103050	Langmuanmung Tonsing	8.64
44.	20103051	Pounairei Kamei	7.84
45.	20103052	Banothu Akhila	8.28
46.	20103053	Donald Suiniba Rn	8.79
47.	20103054	Guimariabou Pamai	7.71

48.	20103055	Geri Ori	8.21
49.	20103056	Themyui Ningshen	8.27
50.	20103057	Catherine Nembiakching	8.39
51.	20103058	Aldrin Lalrosang	8.1
52.	20103059	Solan Keishing	7.92
53.	20103060	Mohd Kaif	8.96
54.	20103061	Gaurav Sahu	8.03
55.	20103062	Sujal Bisani	9.09
56.	20103063	Koppaka Yeswanth	9.17
57.	20103064	Chintada Jagan Mohanrao	8.94
58.	20103065	Chalumuri Harshitha	8.9

Name of M.Tech. Students who graduated in 2023-24

Sl. No.	Enrolment No.	Name of the Student	Final CPI
1.	22203002	Paul Nehminthang Haokip	7.63
2.	22203003	Thangsabam Bikumar Singh	8.55
3.	22203004	Thiyam Akuvan	8.52
4.	22203005	Boyai Salam	8

Name of Ph.D. Students who graduated in 2023-24:

Sl. No.	Enrolment No.	Name of the Student	Thesis Name	Name of the Supervisor/Co-Supervisors	Date of Defence
1.	19403001	Usham Sanjota Chanu	A Machine learning Approach for Detection of Distributed Denial of Service attack using dynamic and	Dr. Yambem Jina Chanu, Prof. Khumanthem Manglem Singh	2/06/2023

			Ensembled feature Selection technique		
2.	17403005	Diana Laishram	A New Algorithm for tamper resistant Medical Image Watermarking scheme	Prof. Khumanthem Manglem Singh	17/11/2023
3.	14PCS003	Angom Buboo Singh	Spam Analysis and Campaign Detection using Machine Learning and Deep Learning Techniques	Prof. Khumanthem Manglem Singh	22/12/2023

No. of GATE/NET Qualified students in 2023-24:

Sl. No.	Name of the student	GATE/NET	GATE Category	Percentile
1.	Irengbam Preceela Chanu	GATE (CS)	OBC	95.38
2.	Irengbam Preceela Chanu	GATE(DA)	OBC	86.84
3.	Chabungbam Ranbir Singh	GATE (CS)	OBC	92.9
4.	Shougaijam Neroda Devi	GATE (CS)	SC	91.6

No. of Students who have enrolled for higher studies (Foreign/National)

Sl. No.	Name of the Student	Course/Programme	Name of the Institute	Country
1	Irengbam Preceela Chanu	MTech	NIT Silchar	India
2	Shougaijam Neroda Devi	MTech	NIT Surat	India

No. of Students who have been placed in 2023-24:51

Sl.No.	Companies	No. of Job offers	CTC (LPA)
1	Veritas technologies	1	16.8
2	Skylark Drones Pvt. Ltd.	1	16
3	Hexaware	1	15
4	TA Digital	1	13
5	Newgen	1	10

6	Devtron	1	10
7	HCLTech	1	10
8	Nibrus Technologies Pvt Ltd.	2	9
9	TCS	1	9
10	Trianz	1	9
11	cdacpune	1	8.5
12	Genpact	19	8
13	LumiQ	1	8
14	Cubastion Consulting Pvt. Ltd.	1	7.8
15	MuSigma	1	7.5
16	Wayspire	2	7
17	Teachnook EdTech	3	6
18	Srikakula Power Pvt. Ltd.	1	6
19	Academor	1	6
20	ANORA	1	6
21	Vodafone	6	5
22	ODOO	1	5
23	Axiphyl Pvt. Ltd.	2	3.5
Total		51	

Other Activities:

1. Details of NEP Activity conducted by the Department in 2023-24

- New Syllabus is being framed based on the guidelines of NEP.
- Credit system is revised as per the guidelines of NEP.
- Select NPTEL courses are earmarked and included in the programs offered by the department.
- Incorporate provisions for transfer of credits in the UG/PG programs for MOOCs courses as per NEP guideline.
- Included courses from multiple domains to make the revised syllabus more multidisciplinary and aligned with the NEP guidelines.
- Frame guidelines for multiple entry and exit options as per the vision of NEP.

2. Details of Faculty Achievements in 2023-24.: None

Sl. No.	Name of the Faculty/Staff/students	Title of Award	Awarding body	Date of Award
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3. Details of Students Achievement in 2023-24: None

Sl. No.	Name of the students	Title of Award	Paper ID	Date of Award
1				

4. Details of Awards/ Recognition received by Faculty/Staff/Students in 2023-24: None

Sl. No.	Name of the Faculty/Staff/students	Awards/ Recognition	Awarding body	Date of Award
1				

5. Details of contribution to the society:

- Demonstration of laboratory equipments to school children.
- Projects are taken up from funded agency for solving the problems faced by differently abled persons.
- Projects are taken up to solve day to day problems faced in the society.

6. Steps take for popularization of Science and Technology among the Students of Manipur

Identification of potential schools, colleges, Universities, etc and share the benefits of current technologies. The knowledge is basically for lifestyle improvement designed to satisfy real needs through the use of science and technology. Few of the knowledge may range from basic computer knowledge to face recognition, cyber security, cybercrimes, artificial intelligence, etc.

Any other information: NIL

4.2 DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

(A) Head of Department : Prof. Aheibam Dinamani Singh

(B) Brief Introduction of the Department

The Department of Electronics and Communication Engineering was established in the year 2010. It is a full-fledged academic department offering courses for B.Tech., M. Tech. in Communication and Signal Processing and VLSI and Embedded Systems, as well as Doctor of Philosophy. The Department provides an outstanding teaching-learning and research environment. The syllabi of the courses are continuously updated to keep in pace with the changing world. The Department is also equipped with

laboratories suitable for training undergraduate and postgraduate students. There are a few specialized laboratories, such as the 5G Used Case laboratory and Microelectronics and Nano Electronics Laboratory, which cater to the needs of the research activities. The Department also has high-end simulation computers, software, and laboratories for the welfare of students and researchers in the field of electronics and communication.

AIMS: The Department aims to produce quality Engineers to meet the nation's sustainable developmental goals.

OBJECTIVES: The Department's objective is to produce quality engineers to meet the ever-growing demand for technical manpower in communication technology and the industrial arena.

(C) Highlight of Research Activities

The faculty members of the department are actively involved in research activities. The broad areas of research being carried out in the department are listed below:

1. Wireless communication, Fading Channels, Image Processing, Fuzzy Logic, Signal Processing, antenna array, and Millimeter-wave antennas.
2. Embedded systems, Semiconductor nanotechnology
3. Analog Circuit Design
4. VLSI design, VLSI DSP, Digital Electronics and Communications, and
5. Microstrip Antenna Design and Frequency Selective Surface (FSS)
6. Electrical characterization, modelling and simulation of micro/ nanoelectronic devices New Device Physics Semiconductor Opto-electronic Devices Sensors Advanced CMOS device reliability, Computational Analysis based on machine learning.

(D) Faculty Members (Regular)

Sl No.	Name of the Faculty	Designation	Qualification	Email
1	Dr. Aheibam Dinamani Singh	Professor	Ph.D	ads@nitmanipur.ac.in
2	Dr. Ashish Ranjan	Associate Professor	Ph.D	ashish.ism@rediffmail.com, ashish.ece@nitmanipur.ac.
3	Dr. Loitongbam Surajkumar Singh	Assistant Professor	Ph.D	surajloi@yahoo.co.in
4	Dr. Kalyan Mondal	Assistant Professor	Ph.D	kalyankgec@gmail.com
5	Dr. Manoj Kumar	Assistant Professor	Ph.D	manojara400@gmail.com
6	Dr. Wangkheirakpam	Assistant	Ph.D	wvandana.ece@gmail.com

	Vandana Devi	Professor		
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(E) Faculty Members (Contractual)

Sl No.	Name of the Faculty	Designation	Qualification	Email
1	Dr. Keisham Pritamdas	Assistant Professor	Ph.D	das1948@gmail.com, connect2tarunh@gmail.com
2	Dr. Chitrlekha Ngangbam	Assistant Professor	Ph.D	ng.chitra@gmail.com
3	Dr. Kharibam Jilenkumari Devi	Assistant Professor	Ph.D	Jilenkumari@gmail.com, jilenkumari@nitmanipur.ac.in
4	Dr. Huirem Tarunkumar	Assistant Professor	Ph.D	tarun_huirem@nitmanipur.ac.in, connect2tarunh@gmail.com
5	Dr. Samom Jayananda Singh	Assistant Professor	Ph.D	jayanandmetal.inc@gmail.com, jayananda@nitmanipur.ac.in
6	Mr. Thingujam Churchil Singh	Lecturer	Ph.D pursuing	churchil.khumancha@gmail.co
7	Ms. Salam Devayani Devi	Lecturer	Ph.D pursuing	devu2.sd@gmail.com
8	Mr. Richard Ningthoujaam	Lecturer	Ph.D pursuing	richard.ningthoujam@gmail.com

(F) Non Teaching Staff (Regular/Contractual)

Sl No.	Name of the Staff	Designation	Qualification	Email
1	Dr. Yumnam Shantikumar Singh	Technical Assistant	PhD	yshantikumar99@gmail.com
2	Ms. Anupa Hijam	Technical Assistant	M.Tech	anupahijam@gmail.com
3	Mr. Salam Nonglenkhomba	Technical Assistant	M.Tech	Khomba.salam@gmail.com
4	Ms. Debala Nameirakpam	Technical Assistant	M.Tech pursuing	debala0103@gmail.com
5	Mr. Robert Okram	Technician	B.Tech	robertsinghokram@gmail.com

(G) Trainee Teachers (if any): NONE

Academic Activities

(I) Students Enrolment

Name of the Course	1 st Year	2 nd Year	3 rd Year	4 th Year	Total
B.Tech	35	34	34	24	127
M.Tech	3	2	-	-	5

(II) PhD Program.

	2023-24
No. of Full Time	7
No. of Part Time	4
Total	11
Degree Awarded during 1 st April,2023-31 st March, 2024	2

(III) Research Information

(A) Sponsored Research Projects form Govt./Semi Govt.

Sl. No.	Name of the Project	Funding Agency and date of sanction	Project Amount	Project PI
1.	"Smart Energy Meter with IOT capabilities and localized power conditioning"	MeitY, GoI 14/09/2023	109.5 Lakhs	Dr. L. Surajkumar Singh

(B) Patent Details if any:

Sl. No.	Inventor(s)	Patent Title	Date of Granted/Published no.
1	Dr. Vandana Wangkheirakpam, Brinda Bhowmick	"A Tunnel Field Effect Transistor (TFET) Based Optical Sensor Device with Photosensitive Gate"	Published No. 20 2023 107 715 (2024)

(C) Publications in Journals (1st April, 2023-31st March, 2024)

Sl. No.	Author names	Publication in Journals
1.	Prof. Aheibam Dinamani Singh	Laishram Mona Devi, Aheibam Dinamani Singh, " Effect of Channels Estimation Error on the System Performance of 2-MRC Receiver over Fluctuating Two-Ray (FTR) Fading Model for 5G mmWave Communication." Wireless Personal Communications [Springer], pp-1-13, March 2024, DOI: https://doi.org/10.1007/s11277-024-10936-4 Sisira Hawaibam, Aheibam Dinamani Singh, "Outage probability and ABER over shadowed Beaulieu-Xie fading channels under the dual-SC scheme." International Journal of Electronics Letters [Taylor & Francis],

		pp-1-12, January 2024, DOI: https://doi.org/10.1080/21681724.2024.2302332. Laishram Mona Devi, Aheibam Dinamani Singh, "Bit error rate analysis of MRC diversity receiver over shadowed Beaulieu-Xie fading channels for mmWave communications." International Journal of Communication System [John Wiley & Sons Ltd], pp-1-12, January 2024, DOI: https://doi.org/10.1002/dac.5719. Sisira Hawaibam, Aheibam Dinamani Singh*, "Performance evaluation of L-Maximal Ratio Combining Diversity with Estimation Error for Shadowed Beaulieu-Xie Fading Channels." International Journal of Communication System [John Wiley & Sons Ltd], pp-1-12, October 2023, DOI: 10.1002/dac.5666.
2.	Dr. Ashish Ranjan	Rajkumari Joshana, Yumnam Shantikumar Singh and Ashish Ranjan, "An Electronically Tunable Fractional Order Inductor Employing VD-EXCCII", AEU-International Journal of Electronics and Communications, Volume 174, January 2024, 155055, https://doi.org/10.1016/j.aeue.2023.155055.
3.	Dr. Loitongbam Surajkumar Singh	M Paul, S Adhikari, L Surajkumar, AV Parekkattil, "A novel technological system for enhancing the learning capabilities of intellectually challenged children using electrical stimulations," Journal of Intelligent & Fuzzy Systems, vol. 46, no. 1, pp. 1735-1752, 2024.DOI: 10.3233/JIFS-236583 <i>YB Singh, D Biswas, R Mondal, L Surajkumar, S Chattopadhyay, "Effect of Zn doping on optical properties and electrical conductivity-mechanism of Sb-Ge-Se chalcogenide glassy systems," Materials Today Communications, Volume 38, 108002, March 2024. https://doi.org/10.1016/j.mtcomm.2023.108002</i>
4.	Dr. Manoj Kumar	Manoj Kuamr, "Design and implementation of Digital Low Pass FIR and IIR Filters Using VHDL for ECG Denoising," International Journal of Engineering Trends and Technology, Volume 72 Issue 1, 252-265, January 2024. https://doi.org/10.14445/22315381/IJETT-V72I1P125.
5.	Dr. Kalyan Mondal	<i>Kalyan Mondal, Biplab Bag and P.P. Sarkar, "Axial Ratio Bandwidth Improvement of Compact Planar Monopole Antenna with Dual-Band and Dual-Sense," International Journal of Communication Systems,</i>

		Vol.37, ID.e5688, ISSN: 1099-1131,07 December 2023,https://doi.org/10.1002/dac.5688 Kalyan Mondal, "Polarization-insensitive Large Scanning Angle Broadband-Stop Frequency Selective Surface for Electromagnetic Shielding," <i>International Journal of Computational Electronics</i>, Vol. 23, pp. 153 - 159, ISSN 1572 - 8137, 13 November 2023, https://link.springer.com/article/10.1007/s10825-023-02111-y Kalyan Mondal, Biplab Bag, Lakhindar Murmu and P.P. Sarkar, "Stable Scanning Angle, Polarization – Insensitive Band-Stop Frequency Selective Surface for Wireless Communication," <i>International Journal of Sadhana</i>, Vol. 49, Article ID: 27, 2024.ISSN 0973-7677,18 January 2024, https://link.springer.com/article/10.1007/s12046-023-02330-w Kalyan Mondal, Biplab Bag, Lakhindar Murmu and Tapan Mandal, "Dual Band, Reduced Size, Enhanced Gain Frequency Selective Surface Based Monopole Antenna for Wireless Communications,"<i>International journal of Wireless Personal Communications</i>, Vol. 131, pp. 2797- 2810, 2023, ISSN 0929-6212,10 July 2023,https://link.springer.com/article/10.1007/s11277-023-10580-4. Biplab Bag, KalyanMondal,SnehasishSaha and ParthaPratimSarkar, "Wideband monopole antenna: enhanced gain and circular polarization for satellite communication,"<i>International Journal of Wireless Networks</i>," Vol. 29, pp. 2717- 2731, 28 April 2023, ISSN 1572-8196. https://link.springer.com/article/10.1007/s11276-023-03338-0. Deepak Kumar Barik, Kalyan Mondal and Mohd Azharuddin, "A Broad Axial Ratio Bandwidth and Wide Angle Coverage Circularly Polarized Monopole Antenna for Wireless Communication,"<i>Microwave and Optical Technology Letters</i>, Vol. 65, pp. 2384 - 2391, 07 April 2023, ISSN 1098-2760, https://onlinelibrary.wiley.com/doi/10.1002/mop.33707. Deepak Kumar Barik, Kalyan Mondal and Mohd Azharuddin, "Broad Axial Ratio Bandwidth Circularly Polarized with Wide Angle Coverage Planar Monopole Antenna," <i>International Journal of Electronics and Communication</i>, Vol. 164, ID: 154627, May 2023, ISSN: 1099-1131,
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		https://doi.org/10.1016/j.aeue.2023.154627
7.	Dr. W. Vandana Devi	Puja Ghosh, S. Tripathi and Vandana Devi Wangkheirakpam , "An extended dual source double-gate TFET-based optical sensor for near-infrared-sensing applications" <i>Applied Physics</i> vol. 129 , no. 781, 18 October 2023,doi: 10.1007/s00339-023-07071-5.
8.	Dr. Kharibam Jilenkumari Devi	Roy, Bappa, Shuma Adhikari, Subir Datta, K. Jilenkumari Devi , Aribam Deleena Devi, Faisal Alsaif, Sager Alsulamy, and Taha Selim Ustun. "Deep learning based relay for online fault detection, classification, and fault location in a grid-connected microgrid." <i>IEEE Access</i> 11, pp: 62674-62696, 13 June 2023, DOI: 10.1109/ACCESS.2023.3285768.

(D) Publication in Conferences (1st April, 2023-31st March, 2024)

1. P Agrawal, **V D Wangkheirakpam**, D Vaithyanathan, Hetero-Stacked Source Tunnel FET-Driven Biosensing Application with Enhanced Sensitivity, 2024 Fourth International Conference on Advances in Electrical, Computing, Communications and Sustainable Technologies (ICAECT), 11-12 January 2024, Date Added to IEEE Xplore: 21 March 2024, Bhilai, India, DOI: 10.1109/ICAECT60202.2024.10469105.

2. **Richard N, K Pritamdas**, LS Singh, Comparative study on Yolo v2 object detection based on various pretrained networks, Recent Advances in Electrical and Electronic Engineering, pp: 187-198, 03 October 2023, https://doi.org/10.1007/978-981-99-4713-3_18.

3. Deepak kumar Barik, Sh. Chinglemba Singh and **Kalyan Mondal**, "A Broad Impedance Bandwidth with Dual Sense Triple Band Circular Polarized Printed Antenna," IEEE Wireless, Antenna and Microwave Symposium (WAMS 2024), Feb 29 - Mar 03, 2024, Raghu Engineering College, Visakhapatnam, India

4. Sh. Chinglemba Singh, Deepak kumar Barik, Mahdazharuddin and **Kalyan Mondal**, "Open Ended slot loaded dual band Monopole Antenna for WiMAX/ISM band/WLAN/sub - 6GHz Applications," IEEE Wireless, Antenna and Microwave Symposium (WAMS 2024), Feb 29 - Mar 03, 2024, Raghu Engineering College, Visakhapatnam, India.

5. **Kalyan Mondal**, Sh. Chinglemba Singh, Deepak kumar Barik and Mahdazharuddin, "A Compact Triple Band FSS Based Microstrip Antenna for 2.4/4/5.8 GHz Applications," IEEE Wireless, Antenna and Microwave Symposium (WAMS 2024), Feb 29 - Mar 03, 2024, Raghu Engineering College, Visakhapatnam, India.

6. T.B. Singh, **A. Ranjan** and V. Bhatt, "Implementation of Low-Pass Filter Using Only MOS Transistors", In 2023 IEEE 2nd International Conference on Industrial Electronics: Developments & Applications (ICIDeA), pp. 657-661, Sep 29 2023.

7. K. Pinky, B. Shougaijam and **A. Ranjan**, "Chevronic TiO₂ Thin Film Fabrication Using E-Beam Evaporation for UV Photodetection Applications", In International Conference on Science, Technology and Engineering, pp. 69-82, Singapore: Springer Nature Singapore, 02 August 2023, https://doi.org/10.1007/978-981-99-3844-5_9.
8. P. Rana, **A. Ranjan** and T.S. Arora, "Resistorless Wave Filter Design employing DXCCDITA", In 2023 International Conference on Computer, Electronics & Electrical Engineering & their Applications (IC2E3)-IEEE, pp. 1-6, June 2023.
9. Roy, Bappa, Shuma Adhikari, Aribam Deleena Devi, and **Kharibam Jilenkumari Devi**, "Real-Time Simulation of an Islanded Mode Solar PV System with New Elman NN-Based MPPT." In *International Conference on Science, Technology and Engineering*, pp. 49-58. Singapore: Springer Nature Singapore, 03 October 2023, https://doi.org/10.1007/978-981-99-4713-3_5.
10. Devansh Gahlawat, Manu Agarwal, Syamantak Gupta, **Vandana Devi Wangkheirakpam**, "From Sensors to Insights: Navigating the Data Landscape for OT-IT Fusion in Industry 4.0," Advances in Sensors, Control and Safety Networks (ASCSN), NIT Puducherry, 3rd November, 2023. (*Best Paper Award*)
11. Priyanshu Agrawal, **Vandana Devi Wangkheirakpam**, Dhandapani Vaithiyanathan, "Hetero-Stacked Source Tunnel FET-Driven Biosensing Application with Enhanced Sensitivity," accepted in 4th International Conference on Advances in Electrical, Computing, Communications and Sustainable Technologies (ICAECT), 12th January, 2024. (*Best Paper Award*)

(E) Publication in books/book Chapters (1st April, 2023-31st March, 2024)

1. **Vandana Devi Wangkheirakpam**, Brinda Bhowmick, Puspa Devi Pukhrambam and Ghanshyam Singh, "Optically Gated Vertical TFET for Near-Infrared Sensing Application," pp. 237-255 (19), **Bentham Science, October, 2023**, doi: 10.2174/9789815136623123010012

Name of Book: Nanoelectronics Devices: Design, Materials and Applications

(F) Short Term Course/ Workshop/ Seminar/ Conference Conducted by the Department:

SL No.	Short Term Course/ Workshop/ Seminar/ Conference	Coordinator
1.	Short Term course on "Cutting-Edge Technologies, Innovations and Application" Topic: Advanced Semiconductor Devices and their sensing applications	Dr. W. Vandana Asst. Prof. ECE Deptt. NIT Manipur

(G) Internship or Industrial Visits:

Sl No.	Enrollment Number	Name of the Student	Company/ Internship / Industrial Visits
1	20105019	Mutum Rajesh Meitei	Final year study at IIT Madras
2	20105018	K. Chorjit Singh	Internship through Institute placement cells

3	20105029	Zianlu Agape Gonmei	Internship through Institute placement cells
4	20105003	Gulshan Khangembam	Internship through Institute placement cells
5	20105008	Rohit Singh	Internship through Institute placement cells
6	20105010	Ramineni Mohan	Internship through Institute placement cells
7	20105001	Gumpula Vamsidhar Reddy	Internship through Institute placement cells
8	20105007	Karthik Ayyala	Internship through Institute placement cells

Name of B.Tech Students who graduated in 2023-24:

Sl. No.	Enrolment No.	Name of the Student	Final CPI
1	20105001	Gumpula Vamsidhar Reddy	7.57
2	20105002	Rallapalli Aditya	8.17
3	20105003	Gulshan Khangembam	7.51
4	20105005	Huirem Nikhil Singh	7.3
5	20105006	Kambam Taibangnganba	8.17
6	20105007	Karthik Ayyala	8.14
7	20105008	Rohit Singh	8.81
8	20105009	Manisha Sinha	8.85
9	20105010	Ramineni Mohan	7.52
10	20105011	Ringchamdinliu Ngaomei	8.02
11	20105013	Chanesh Kumar Channu	8.04
12	20105014	Pratik Kumar Verma	7.94
13	20105017	Gyanendrajit Thokchom	8.26
14	20105018	Kangujam Chorjit Singh	7.59
15	20105019	Mutum Rajesh Meitei	8.94
16	20105020	Nikita Kshetrimayum	8.51
17	20105021	Anvesh Gera	7.53
18	20105022	Jupalli Abhishek	7.78
19	20105023	Banothu Vamshi	7.47
20	20105024	Machut Chiphang	7.25
21	20105025	Vanlalmangaihsanga	8.11
22	20105026	Gaipulan Remei	7.21
23	20105027	Swity Kebi Rangamei	6.68
24	20105029	Zianlu Agape Gonmei	7.87

Name of M.Tech. Students who graduated in 2023-24

Sl. No.	Enrolment No.	Name of the Student	Final CPI
1	22205001	YL Rerinthemhorngam	8.31
2	22205002	Oken Khuman Laishram	8.11

Name of Ph.D. Students who graduated in 2023-24:

Sl. No.	Enrolment No.	Name of the Student	Thesis Name	Name of the Supervisor/Co-Supervisors	Date of Defence
1	18405004	R. K. Nanao Ningthemcha	“Investigation of Structural, Optical and Electrical Properties of Semiconducting and Ionic Glass Nanocomposites”	Dr. L. Surajkumar Singh	26-07-2023
2	19405002	Yumnam Shantikumar Singh	“An Implementation of Active Inductor Employing Advance Active Building Block”	Dr. Shuma Adhikari (Principal Supervisor) Dr. Benjamin A Shimray (Co-Supervisor)	24-05-2023

No. of GATE/NET Qualified students in 2023-24:

Sl. No.	Name of the Student	GATE/NET	Percentile for GATE	Category
1	Swity Kebi Rangamei	GATE	18.0	ST
2	Alok Raj Hans	GATE	25.67	OBC
3	Vamsi Satya Sai Illa	GATE	22.67	OBC
4	Saikumar Jatothu	GATE	22.0	ST
5	Gangumolla Purna Sai Vijaya Lakshmi	GATE	23.0	GEN (EWS)
6	Harshita Devi Thonta	GATE	23.33	OBC
7	Sri Rangam Kumar Sundram	GATE	26.0	GEN (EWS)
8	Abhishek Kumar	GATE	20.0	ST

No. of Students who have enrolled for higher studies (Foreign/National)

Sl. No.	Name of the Student	Course/Programme	Name of the Institute	Country
1	Sougaijam Chinglemba Singh	Ph.D (July 2023)	NIT MANIPUR	INDIA
2	Pheiroijam Robin Luwang	Ph.D (January 2024)	NIT MANIPUR	INDIA

No. of Students who have been placed in 2023-24: 14 nos. (Fourteen)

Other Activities:

1. Details of NEP Activity conducted by the Department in 2023-24

- New Syllabus has been revised in line with NEP 2020
- A list of Books has been submitted for purchase to the Institute Library in connection with NEP 2020
- A series of Departmental meetings were conducted

2. Details of Faculty Achievements in 2023-24.

Sl. No.	Name of the Faculty/Staff/students	Title of Award	Awarding body	Date and Year of Awarded
1	Dr. W. Vandana Devi	Best Paper Award	NIT Poducherry	1 st November, 2023
2	Dr. W. Vandana Devi	Best Paper Award	ICAECT	12 th January, 2024

3. Details of Students Achievement in 2023-24: N A

Sl. No.	Name of the students	Title of Award	Paper ID	Date of Award
1	NA			

4. Details of Awards/ Recognition received by Faculty/Staff/Students in 2023-24

Sl. No.	Name of the Faculty/Staff/students	Awards/ Recognition	Awarding body	Date and Year of Awarded
1	Dr. W. Vandana Devi	Best Paper Award	NIT Poducherry	1 st November, 2023
2	Dr. W. Vandana Devi	Best Paper Award	ICAECT	12 th January, 2024

5. Details of contribution to the society:

- Students interaction program conducted
- Attended “ Technology and Bharatiya Bhasha Summit” at Dr. Ambedkar International Centre, Janpath Road, New Delhi w.e.f 29/09/23 to 01/10/23
- Organized World Entrepreneurship Day on 24th August 2023 at Institute Auditorium

- Nominate Prof. A. Dinamani Singh, Deptt. Of ECE as members of the Programme Advisory Group (PAG) for Technology Enabling Centre, Tezpur University
- Attended workshop on 5G at IIT_Guwahati on 12-13/02/2024 by Prof. A. Dinamani and Dr. kalyanMondal, ECE Deptt.
- Prof. A.Dinamani attended FDP on selecting Research Area, Drafting funding proposal & IPR at NIT Arunachal Pradesh.
- One month duration of Industrial Training/Internship for B.Tech Students of ECE visited during summer vacation at DDK Imphal, AIR Imphal and TulihalImphal Airport.

6. Steps take for Popularisation of Science and Technology among the Students of Manipur.

Sl. No.	Name of the Faculty	Purpose of visit	Place of Visit
1	Dr. W. Vandana Devi	Science Magazine Program, Topic: Semiconductor based Nano devices and its applications	All India Radio, Imphal

Any other information: NIL

4.3 DEPARTMENT OF ELECTRICAL ENGINEERING

(A) Head of the Department: Dr. Benjamin A Shimray

(B) Brief Introduction of the Department

The Department of Electrical Engineering is established as one of the major departments of the NIT Manipur. Since the inception of the institute in 2010, the Department of Electrical Engineering has been actively engaged in teaching and research in diverse fields of Electrical Engineering. The Department of Electrical Engineering offers undergraduate (B.Tech.) and postgraduate (M.Tech.) in Power & Control and research (Ph.D.) programmes.

(C) Highlight of Research Activities

Control Systems & its application, Renewable energy, Energy planning, soft computing applications, cyber physical systems, Power System Dynamics and Control; Power Electronics and Drives, Signal, Image and Video Processing.

(D) Faculty Members (Regular)

Sl No.	Name of the Faculty	Designation	Qualification	Email
1	Dr. Benjamin A. Shimray	Associate Professor	Ph.D(NIT Manipur)	benjaminshimray@nitmanipur.ac.in
2	Dr. Shuma Adhikari	Assistant Professor	Ph.D(NIT Manipur)	shumaadhikari@gmail.com
3	Dr. Mrinal Kanti Sarkar (On Lien)	Assistant Professor	Ph.D. (NIT Durgapur)	mrinal.ee@nitmanipur.ac.in itsmrinal2u@gmail.com
4	Dr. Kundan Kumar	Assistant Professor	Ph.D(University of PADOVA, Italy)	kundankumar.nitm@gmail.com
5	Dr. Manash Kumar Mishra	Assistant Professor	Ph.D(IIT BHU)	manashkmishra.ee@nitmanipur.ac.in

(E) Faculty Members (Contractual)

Sl No.	Name of the Faculty	Designation	Qualification	Email
1	Dr. Ingudam Chitrasen Meitei	Assistant Professor	Ph.D (NIT Arunachal Pradesh)	alwayschitrasen@gmail.com
2	Mr. Simon Tongbram	Lecturer	Ph.D (Pursuing)	simontongbram@gmail.com
3	Mrs. Laishram Khumanleima Chanu	Lecturer	Ph.D (Pursuing)	khumanleimac@gmail.com
4	Mr. Lukram Dhanachandra Singh	Lecturer	Ph.D (Pursuing)	dhana.lukram0@gmail.com
5	Mrs. Rajkumari Malemnganbi	Lecturer	Ph.D (Pursuing)	rajkumarimalemnganbi@gmail.com
6	Mr. Devakishore Phurailatpam	Lecturer	Ph.D (Pursuing)	Dev@nitmanipur.ac.in

(F) Non Teaching Staff (Regular/Contractual)

Sl. No.	Name of the Staff	Designation	Qualification	Email
1	Paonam Shantibala Devi	Technical Assistant	M.Tech	sarjoo.09@gmail.com

(G) Trainee Teachers (if any): None

Academic Activities

I. Students Enrolment

Name of the Course	1 st Year	2 nd Year	3 rd Year	4 th Year	Total
B.Tech	35	33	31	23	122
M.Tech / M. Sc	4	4	-	-	8

II. PhD Program.

	2023-24
No. of Full Time	6
No. of Part Time	9
Total	15
Degree Awarded during 2023-24	1

(III) Research Information

(A) Sponsored Research Projects form Govt./Semi Govt.

Sl. No.	Name of the Project	Funding Agency	Project Amount	Project PI
1	Development of mHealth	IIT Bhilai	Rs. 40.34 Lakh	Dr. Benjamin A

	Solution in Remote Tribal Areas of Manipur through a Customized Mobile solution	Innovation And Technology Foundation (IBITF)		Shimray (PI)
2	Smart Energy Meter with IOT capabilities and localized power conditioning.	MeitY	Rs.109.5 Lakh	Dr. Benjamin A Shimray (Co-Chief Investigator)

(B) Patent Details if any: None

Sl. No.	Inventor(s)	Patent Title	Date of Granted/Published
1			

(C) Publications in Journals (2023-24)

Sl No.	Author Names	Publication in Journals
1	K.V.V.S.R. Chowdary, K. Kumar , and B. Nayak	A comprehensive examination of shielding and core influence through finite element analysis for the dynamic wireless charging magnetic coupler, e-Prime - Advances in Electrical Engineering, Electronics and Energy, vol. 7. Elsevier BV, p. 100462, Mar. 2024. doi: 10.1016/j.prime.2024.100462.
2	P. Kumar , Y. Kumar, K.K. Ahirwari, A.K. Yadav, K. Kumar , S.K. Suman, and T. Shrivastava,	Dual-Sided Involvement of Energy Optimization and Strategic Bidding in Wind-PV System to Maximize Benefits for Customers and Power Providers, IEEE Access, vol. 12, pp. 15884-15901, 2024. DoI: 10.1109/ACCESS.2024.3355009.
3	K. Kumar	Loss Assessment and Experimentation of Gallium Nitride based Integrated Charger for Electric Vehicles, International Journal of Powertrains, vol. 13, no. 2. Inderscience Publishers, 2024. doi: 10.1504/ijpt.2024.10061623.
4	B. A. Kumar, M K Sarkar, and K Kumar ,	Design and practical implementation of non-fragile controller for non-isolated on-board battery charger for electric vehicle, International Journal of Circuit Theory and Applications, vol. 52, no. 7. Wiley, pp. 3439–3462, Jan. 12, 2024. doi: 10.1002/cta.3916.

5	B. A. Kumar, M K Sarkar, and K Kumar	Robust non-fragile control of DC–DC buck converter, <i>Electrical Engineering</i> , vol. 106, no. 1. Springer Science and Business Media LLC, pp. 983–991, Sep. 28, 2023. doi: 10.1007/s00202-023-02017.
6	K.V.V.S.R. Chowdary, K. Kumar , B. Nayak, A Kumar, and M. Bertoluzzo	Dynamic Wireless Charging Performance Enhancement for Electric Vehicles: Mutual Inductance, Power Transfer Capability, and Efficiency, <i>Vehicles</i> , vol. 5, no. 4. MDPI AG, pp. 1313–1327, Oct. 02, 2023. doi: 10.3390/vehicles5040072.
7	Bappa Roy, Shuma Adhikari , SubirDatta, K. Jilenkumari Devi, AribamDeleena Devi, Faisal Alsaif, Sager Alsulamy, and TahaSelimUstun	<i>Deep Learning Based Relay for Online Fault Detection, Classification, and Fault Location in a Grid-Connected Microgrid</i> , <i>IEEE Access</i> , vol. 11. Institute of Electrical and Electronics Engineers (IEEE), pp. 62674–62696, 2023. doi: 10.1109/access.2023.3285768.
8	Milner Paul, Shuma Adhikari , Loitongbam Surajkumar Singh; Adarsh V. Parekkattil, and George Athappilly	<i>A novel technological system for enhancing the learning capabilities of intellectually challenged children using electrical stimulations</i> , <i>Journal of Intelligent & Fuzzy Systems</i> , vol. 46, no. 1. IOS Press, pp. 1735–1752, Jan. 10, 2024. doi: 10.3233/jifs-236583.
9	Dipankar Biswas, Bidyut Kumar Ghosh, Ashok Das and Soumya Kanti Hazra, Anindya Sundar Das, Rittwick Mondal, Soumyajyoti Kabi, and Shuma Adhikari	<i>Effect of the iron content on the thermal and dielectric relaxation process of sodium zinc-phosphate quaternary glassy systems</i> , <i>Journal of Non-Crystalline Solids</i> , vol. 629. Elsevier BV, p. 122882, Feb. 2024. doi: 10.1016/j.jnoncrysol.2024.122882.
10	Bidyut Kumar Ghosh, DipankarBiswas, SauravGanguly, AjitDebnath, Debabrata Mandal, Sk. Shahrurukh, Shuma Adhikari , Rittwick Mondal, Soumyajyoti Kabi, Anindya Sundar Das	<i>Effect of the inclusion of Fe₂O₃ on the optical and electrical transport properties into sodium-zinc-phosphate quaternary glassy systems</i> , <i>Materials Today Communications</i> , vol. 38. Elsevier BV, p. 107785, Mar. 2024. doi: 10.1016/j.mtcomm.2023.107785.
11	Lukram Dhanachandra	<i>Advancing Hardware Security: A Review and Novel Design of</i>

	Singh , Preetisudha Meher	<i>Configurable Arbiter PUF with DCM-Induced Metastability for Enhanced Resource Efficiency and Unpredictability, TuijinJishu/Journal of Propulsion Technology, ISSN: 1001-4055, February 2024, Vol. 45 No. 1, 3804-3816, https://doi.org/10.52783/tjjpt.v45.i01.4934.</i>
12	Lukram Dhanachandra Singh , Preetisudha Meher, Amit Kumar Panda	Dual Arbiter PUF with Shift Register Based TRNG on Basys-3 FPGA Board and its Performance Analysis on Uniqueness, Reliability and Randomness, Int J IntellSystApplEng, vol. 12, no. 1s, pp. 51 – 60, Sep. 2023.

(D) Publication in Conferences (2023-24)

1. O. Waikhom and **B. A. Shimray**, ‘Power Quality Improvement In Three-Phase Distribution Line Using DSTATCOM’, 2023 IEEE 3rd International Conference on Sustainable Energy and Future Electric Transportation (SEFET). IEEE, Aug. 09, 2023. doi: 10.1109/sefet57834.2023.10245017.
2. T. S. D. Singh, **B. A. Shimray**, and S. N. Meitei, ‘Performance Assessment of a Grid-Connected Solar PV System in North-Eastern India, Manipur’, 2023 IEEE 2nd International Conference on Industrial Electronics: Developments & Applications (ICIDEA). IEEE, Sep. 29, 2023. doi: 10.1109/icidea59866.2023.10295254.
3. **K. Kumar**, K. V. V. S. R. Chowdary, and B. Nayak, “Comprehensive Exploration of Coil Sizing, Airgap Distance, and Intra-Coil Spacing in Dynamic Wireless Power Transfer System for Electric Vehicles,” 2024 3rd International conference on Power Electronics and IoT Applications in Renewable Energy and its Control (PARC), Mathura, India, 2024, pp. 118-122, doi: 10.1109/PARC59193.2024.10486378.
4. K.V.V.S.R. Chowdary, **K. Kumar**, B. K. Nayak, and V. Mali, “Decoding the Magnetic Coupler Characteristics for the Implementation of Dynamic Wireless Charging Scheme for Electric Vehicles” in Proc. of 2023 IEEE 3rd International Conference on Smart Technologies for Power, Energy and Control (STPEC 2023), Bhubaneswar, India, 10-13, Dec. 2023, pp.1-6.
5. R.R. Kumar, M. Manna, G. Sharma, S. Chanda, and **K. Kumar**, “Design and Characteristic Evaluation of a Light Weight Interpole Assisted Dual Stator Permanent Magnet Synchronous Motor for Electric Vehicle Application,” in Proc. of 49th IEEE Industrial Electronics Society Conf. (IECON-2023), Singapore, 16-19, Oct. 2023, pp. 1-6.

6. **K. Kumar**, K.V.V.S.R. Chowdary, B. K. Nayak, "A Study on the Implications of Parameter Variation Involved with Dynamic Wireless Charging System for Vehicular Application," in Proc. of 49th IEEE Industrial Electronics Society Conf. (IECON-2023), Singapore, 16-19, Oct. 2023, pp. 1-6. *ISSN: 1941-0115*
7. **K. Kumar**; S. Garlapati, M. S. Devi, and T.R. Choudhury, "Estimation of Power Losses in Interleaved Buck Boost Converter for Electric Vehicles Charging Applications," 2023 IEEE 2nd International Conference on Industrial Electronics: Developments & Applications (ICIDeA-2023), Manipur, India, 2023, pp 107-111.
8. V. Mali; B. Tripathi, and **K. Kumar**, "Experimental Self-Discharge Performance of Supercapacitor for Electric Vehicle Application," 2023 IEEE 2nd International Conference on Industrial Electronics: Developments & Applications (ICIDeA-2023), Manipur, India, 2023, pp 662-666.
9. R.R. Kumar, R. Mondal; A. Ansary, G. Sharma, **K. Kumar**, and S. Rai, "Assessment of Performance and Characteristics of a Hybrid Charging Scheme for Electric Vehicle Battery," 2023 IEEE 2nd International Conference on Industrial Electronics: Developments & Applications (ICIDeA-2023), Manipur, India, 2023, pp 667-672.
10. **M. K. Mishra** and V. N. Lal, 'A PLL-free Roboust Control Scheme for Harmonic Current Compensation of Grid-Interfaced PV System Under Distorted Grid Voltages', 2023 IEEE 3rd International Conference on Smart Technologies for Power, Energy and Control (STPEC). IEEE, Dec. 10, 2023. doi: 10.1109/stpec59253.2023.10430721.
11. **M. K. Mishra**, V. N. Lal, S. K. Parida, and V. K. Bussa, 'Self-Synchronizing Robust Control Scheme for Harmonic Current Supression of Grid-Interfaced PV System Under Distorted Grid Voltages', 2023 IEEE International Conference on Energy Technologies for Future Grids (ETFG). IEEE, Dec. 03, 2023. doi: 10.1109/etfg55873.2023.10407627.
12. **M. K. Mishra**, 'An Enhanced Approach for Reactive Power Management of Grid Connected Photovoltaic System', 2023 IEEE 2nd International Conference on Industrial Electronics: Developments & Applications (ICIDeA). IEEE, Sep. 29, 2023. doi: 10.1109/icidea59866.2023.10295243.
13. M. Kumar, Saifatullah, and **S. Tongbram**, "Development of IoT Based Home Automation System Using Smartphone", 2023 5th International Conference on Energy, Power and

Environment: Towards Flexible Green Energy Technologies (ICEPE). IEEE, Jun. 15, 2023. doi: 10.1109/icepe57949.2023.10201558.

14. ShokhayuiChithung, **Ingudam Chitrasen Meitei**, “WangkheirakpamMalemnganba, NengneithemTouthang. “Whale Optimization of Hybrid Renewable Energy Enhancing Techno-economic Feasibility”, The 3rd International Symposium on Sustainable Energy and Technological Advancements (ISSETA 2024), Feb. 23, 2024. (presented)
15. **S. Tongbram, B. A. Shimray**, L.S. Singh, “A Comparative study of k-means clustering based Image Segmentation methods”, in the 4th International Conference on Advances and Application of Artificial Intelligence and Machine Learning (ICAAAIML-2023), December 28th -29th, 2023. (presented)

(E) Publication in books/book Chapters (2023-24)

1. H. Kashung and **B. A. Shimray**, ‘A Multi-criteria Decision-Making (MCDM) Approaches for Systematic Analysis and Ranking of Solar Power Plant Site Using ANN’, Lecture Notes in Electrical Engineering. Springer Nature Singapore, pp. 39–48, Oct. 03, 2023. doi: 10.1007/978-981-99-4713-3_4.
2. Y. S. Singh, A. Ranjan, **S. Adhikari**, and **B. A. Shimray**, ‘Floating Inductance Simulator with EXCCTAs’, Lecture Notes in Electrical Engineering. Springer Nature Singapore, pp. 91–100, Oct. 03, 2023. doi: 10.1007/978-981-99-4713
3. **Kumar, K.**, Maisnam, N. (2024). Analysis and Simulation of Misalignment Issues in Dynamic Wireless Charging for Electric Vehicles. In: Swain, B.P., Dixit, U.S. (eds) Recent Advances in Electrical and Electronic Engineering. ICSTE 2023. Lecture Notes in Electrical Engineering, vol 1071. Springer, Singapore. ISBN: 978-981-99-4713-3, https://doi.org/10.1007/978-981-99-4713-3_14
4. Saxena, V.K., **Kumar, K.** (2024). Comparative Analysis of Gate Driver Circuits for GaN MOSFET-Based Class E Resonant Inverter. In: Swain, B.P., Dixit, U.S. (eds) Recent Advances in Electrical and Electronic Engineering. ICSTE 2023. Lecture Notes in Electrical Engineering, vol 1071. Springer, Singapore. ISBN: 978-981-99-4713-3, https://doi.org/10.1007/978-981-99-4713-3_2

(F) Short Term Course/ Workshop/ Seminar/ Conference Conducted by the Department:

SL No.	Short Term Course/ Workshop/ Seminar/ Conference	Funding Agency	Coordinator
1	One week Short Term Training Program on Recent Trends in Modeling and Control of Grid interfaced Photovoltaic and Electric Vehicle Systems”	Self-sponsored	Dr. Manash Kumar Mishra Dr. Kundan Kumar
2	2023 IEEE 2 nd International Conference on Industrial Electronics: Developments & Applications (ICIDeA 2023) during 29 th – 30 th September 2023 at NIT Manipur in Imphal.	IEEE	Dr. Kundan Kumar Dr. Benjamin A Shimray

(G) Internship or Industrial Visits:

Sl No.	Enrollment Number	Name of the Student	Company/ Internship / Industrial Visits
1	20104004	Khumanthem Wanglemba Khumancha	Wayspire, Ed-Tech Private Limited
2	20104005	Lokendra	Rinex
3	20104006	MundruVenkatesh	Vallhabha Milk Pvt Ltd.
4	20104017	Naresh Keisham	Teachnook
5	20104019	Raghunath Longjam	Rinex
6	20104023	Nawang Chhering	Wayspire, Ed-Tech Private Limited
7	20104024	Hs Chuirinngam	Teachnook

Name of B.Tech Students who graduated in 2023-24:

Sl. No.	Enrollment No.	Name of the Student	Final CPI
1	20104001	Rajkumar Daniel	9.02
2	20104002	Jadumani Thoudam	7.69
3	20104003	Wangkheirakpam Malemnganba	7.75
4	20104004	Khumanthem Wanglemba Khumancha	8.27

5	20104005	Lokendra	8.43
6	20104006	Mundru Venkatesh	8.7
7	20104007	Raushan Kumar Dubey	7.63
8	20104009	Pyare Lal	7.75
9	20104010	Virat Singh	8.63
10	20104011	Roushan Kumar	8.93
11	20104014	Ankur Verma	8.15
12	20104015	Yumnam Bonny Mangang	8.96
13	20104016	Ural Oinam	9.1
14	20104017	Naresh Keisham	7.54
15	20104018	Thoudam Tikendra Singh	8.63
16	20104019	Raghunath Longjam	8.05
17	20104020	Khongbantabam Diana Devi	8.49
18	20104022	Vrukshal Jagatpal Ganvir	7.8
19	20104023	Nawang Chhering	7.44
20	20104024	Hs Chuirinngam	8.53
21	20104026	Ramngashan Kharay	8.56
22	20104027	Shokhayui Chithung	9
23	20104028	Nengneithem Touthang	8.04

Name of M.Tech Students who graduated in 2023-24

Sl. No.	Enrollment No.	Name o f the Student	Final CPI
1.	22204003	Mamata Takhellambam	8.95

Name of PhD Students who graduated in 2023-24:

Sl. No.	Enrolment No.	Name of the Student	Thesis Name	Name of the Supervisor/Co-Supervisors	Date of Defence
1	20404001	B. Anil Kumar	Some Aspects Of Controller Design For On-Board Battery Charger Of Electric Vehicles	Dr. Mrinal Kanti Sarkar Dr. Kundan Kumar	08/02/2024

No. of GATE/NET Qualified students in 2023-24:

Sl. No.	Name of the Student	GATE/NET	GATE Score	Category
1.	Rajkumar Daniel	GATE-2024	486	OBC-NCL
2.	Roushan Kumar	GATE-2024	464	OBC-NCL
3.	Avishek Bhakta	GATE-2024	297	SC
4.	Sonimla L. Ningshen	GATE-2024	288	ST
5.	Rizatwung R Shimray	GATE-2024	292	ST

No. of Students who have enrolled for higher studies (Foreign/National)

Sl. No.	Name of the Student	Course/Programme	Name of the Institute	Country
1	Naorem Rudra	M.Tech	NIT Manipur	India
2	Mohd Sartaj Ahmed Sheikh	M.Tech	NIT Manipur	India
3.	Ngangoiba Maisnam	PhD	NIT Meghalaya	India
4.	Orison Waikhom	PhD	Tezpur University	India
5	Badugu Varshini	PhD	Texas A&M University	US
6	Malemnganba Sanasam	PhD	IIT Guwahati	India

No. of Students who have been placed in 2023-24

Sl. No.	Enrolment No.	Name of the Student	Name of Company
1	20104004	Khumanthem Wanglemba Khumancha	Wayspire
2	20104005	Lokendra	Genpect

4	20104006	Mundru Venkatesh	Genpact
5	20104007	Raushan Kumar Dubey	Deepsight AI Labs
6	20104011	Roushan Kumar	L&T
7	20104015	Yumnam Bonny Mangang	Hitachi Energy
8	20104016	Ural Oinam	Alstom
9	20104017	Naresh Keisham	Teachnook
10	20104019	Raghunath Longjam	Rinex
11	20104023	Nawang Chhering	Wayspire
12	20104024	H. S. Chuirinngam	Academor
13	20104026	RamngashanKharay	Ashok Leyland
14	20104018	ThoudamTikendra Singh	Tata Power

Other Activities:

1. Details of NEP Activity conducted by the Department in 2023-24

- A new syllabus is being framed based on NEP guidelines.
- Attended NEP-related workshops.
- Organised a two-day National Conference on the theme “Bharatiya Knowledge System: Research for Resurgence (NEP – 2020)” in collaboration with BharatiyaShikshan Mandal, Manipur University, Dhanamanjuri University, and the Directorate of Education, Government of Manipur on the 20th and 21st of March 2024 at the Court Hall of Manipur University.

2. Details of Faculty Achievements in 2023-24.

Sl. No.	Name of the Faculty/ Staff/ students	Title of Award	Awarding body	Date of Award
1	Mr. Lukram Dhanachandra Singh	Participated in a webinar on “Guidelines on Information Security Practices for Government Entities”	C-DAC Centre in North East	20 th Dec 2023
2	Mr. Lukram	Online Course on “Introduction to	Simplilearn	2 nd Feb

	Dhanachandra Singh	Generative AI Studio”		2024
3	Mr. Lukram Dhanachandra Singh	Online Course on “Getting Started with Machine Learning Algorithms”	Simplilearn	2 nd Feb 2024
4	Mr. Lukram Dhanachandra Singh	Online Course on “Introduction to Ethical Hacking: Beginner’s Guide to Cyber Security”	Simplilearn	5 th Feb 2024
5	Mrs. Rajkumari Malemnganbi	Participated Two-day National Conference on the theme “Bharatiya Knowledge System: Research for Resurgence (NEP – 2020)”	Bharatiya Shikshan Mandal, Manipur	20 th - 21 st March 2024

3. Details of Students Achievement in 2023-24:

Sl. No.	Name of the students	Title of Award	Paper ID/Events	Date of Award
1	Vikram Kumar Saxena	IEEE Region 10 Ethics Champion Kolkota Section	IEEE	24/04/2024

4. Details of Awards/ Recognition received by Faculty/Staff/Students in 2023-24

Sl. No.	Name of the Faculty/ Staff/ students	Awards/ Recognition	Awarding body	Date of Award
1	Dr. Kundan Kumar	Session Chair, Technical Session, Track # 14:	2023 IEEE 2 nd International Conference on Industrial Electronics: Developments & Applications (ICIDeA 2023) during 29 th – 30 th September 2023 at NIT Manipur, Imphal.	29 th – 30 th September 2023
2	Dr. Kundan Kumar	Session Chair “Technical Session: SS020.1:	Impacts and Challenges in the Technology Advancements on Electric Vehicles” in the 2023 49th IEEE Industrial Electronics Society Conf. (IECON), Singapore, 16-19, Oct. 2023.	16 th -19 th , Oct. 2023.
3	Dr. Shuma Adhikari	Session Chair, Technical	2023 IEEE 2 nd International Conference on Industrial Electronics: Developments & Applications	29 th – 30 th September

		Session	(ICIDeA 2023) during 29 th – 30 th September 2023 at NIT Manipur, Imphal.	2023
4	Dr. Ingudam Chitrasen Meitei	Organizing Committee Member	Two-day National Conference on the theme “Bharatiya Knowledge System: Research for Resurgence (NEP – 2020)”	20 th -21 st March 2024
5	Dr. Ingudam Chitrasen Meitei	Session Chair, Technical Session, Track # 13 [Real Time Monitoring & Diagnosis] Track # 6 [Artificial Intelligence]	2023 IEEE 2 nd International Conference on Industrial Electronics: Developments & Applications (ICIDeA 2023) during 29 th – 30 th September 2023 at NIT Manipur, Imphal.	29 th – 30 th September 2023
6	Dr. Ingudam Chitrasen Meitei	Reviewer	Innovative ideas received under the INSPIRE-MANAK, 2023-24, National Innovative Foundation - India	11 th Dec 2023
7	Mr. Simon Tongbram	Organizing Committee Member	Two-day National Conference on the theme “Bharatiya Knowledge System: Research for Resurgence (NEP – 2020)”	20 th -21 st March 2024
8	Mr. Simon Tongbram	Reviewer	Innovative ideas received under the INSPIRE-MANAK, 2023-24, National Innovative Foundation - India	11 th Dec 2023
9	Mr. Lukram Dhanachandra Singh	Reviewer	Innovative ideas received under the INSPIRE-MANAK, 2023-24, National Innovative Foundation - India	11 th Dec 2023
10	Mr. Lukram Dhanachandra Singh	Co- convenor, Organizing Committee	Two-day National Conference on the theme “Bharatiya Knowledge System: Research for Resurgence (NEP – 2020)”	20 th -21 st March 2024
11	Mrs. Rajkumari Malemnganbi	Reviewer	Innovative ideas received under the INSPIRE-MANAK, 2023-24,	11 th Dec 2023

			National Innovative Foundation - India	
12	Mrs. Laishram Khumanleima Chanu	Reviewer	Innovative ideas received under the INSPIRE-MANAK, 2023-24, National Innovative Foundation - India	11 th Dec 2023

5. Details of contribution to the society:

- 2023 IEEE 2nd International Conference on Industrial Electronics: Developments & Applications (ICIDeA 2023) during 29th – 30th September 2023 at NIT Manipur in Imphal.

6. Steps taken for popularization of Science and Technology among the Students of Manipur.

Sl. No.	Name of the Faculty	Purpose of visit	Place of Visit
1	Dr. Benjamin A Shimray	Resource person for “Awareness on Science Education and scientific applications as a future career for SC/ST Population of Ukhrul and Thoubal District Manipur”	Unity Park, Khangabok, Thoubal District, Manipur

Any other information:

4.4 DEPARTMENT OF CIVIL ENGINEERING

(A) Head of the Department Prof. Bakimchandra Oinam

(B) Brief Introduction of the Department

The Department of Civil Engineering, established in 2013, stands as a pivotal academic hub for aspiring Civil Engineers. Renowned for its exceptional teaching and research environment, the department offers a comprehensive 4-year B.Tech. course with an intake of 38 students annually. Additionally, the department also offered postgraduate (M. Tech.) & Ph.D. programs in various specializations. The M.Tech. programs are offered in the areas of Environmental- Water Resource Engineering and Structural Engineering, and there is an intake capacity of 19 students in each specialization annually. Recognized and funded by the MoE, GoI, the Civil Engineering department is committed to producing top-tier engineers equipped to meet the increasing demand for skilled professionals in the Civil Engineering domain. Emphasizing a broadened scope of education and research, we integrate disciplines such as geomatics, chemical, mechanical, and materials engineering, alongside geological,

biological, geography, and computer sciences. Moreover, we engage actively with social and management sciences to address complex societal, economic, and environmental challenges.

AIMS: The Department aims to produce quality Engineers to meet the nation's sustainable developmental goals.

OBJECTIVES: The Department's objective is to produce quality engineers to meet the ever-growing demand for technical manpower in the civil sector and the industrial arena.

(C) Highlight of Research Activities

From 2015 to the present, the faculty of the Department of Civil Engg, NIT Manipur, has been conducting sponsored research projects from the government/Semi-Govt. agencies, such as DST, NECTAR, ISRO, SERB, PHRI, etc.

The Civil Engineering Department is contributing 40.41% of the total Sponsored Research Project of the institute. At the same time, the department also contributes 89.22% of consultancy Project received by the institute.

(D) Faculty Members (Regular)

Sl No.	Name of the Faculty	Designation	Qualification	Email
1	Dr. ing. Bakimchandra Oinam	Professor	PhD IWS, University of Stuttgart, Germany	bakim@nitmanipur.ac.in
2	Dr.P. Albinokumar	Professor	PhD, IIT Guwahati	albino@nitmanipur.ac.in
3	Dr. Thiyam Tamphasana Devi	Associate Professor	PhD, IIT Guwahati	tamphasananit@nitmanipur.ac.in ; thiyam85@gmail.com
4	Dr. Ngangbam Romeji	Associate Professor	PhD, IIT Roorkee	romeji@nitmanipur.ac.in ; ngromezi@gmail.com
5	Dr. Mayengbam Sunil Singh	Associate Professor	Ph.D, NIT Silchar	sunil@nitmanipur.ac.in
6	Dr. Adani Azhoni	Associate Professor	PhD (Cranfield University, UK)	azhoni@nitmanipur.ac.in
7	Dr. Kh Sachidananda	Assistant professor	Ph.D , IIT Guwahati	khsachidananda@gmail.com

(E) Faculty Members (Contractual)

Sl No.	Name of the Faculty	Designation	Qualification	Email
1	Dr. W. Victory	Assistant professor	PhD, NIT Silchar	victory@nitmanipur.ac.in
2	D. S. Pipileima	Assistant professor	PhD, NIT Manipur	spipileima@gmail.com
3	Mr. M. Nongthouba	Lecturer	Pursuing PhD	nongthouba@gmail.com

(F) Non Teaching Staff (Regular/Contractual)

Sl No.	Name of the Staff	Designation	Qualification	Email
1	N. Bidyamani Chanu	Technical Assistant	Pursuing M.Tech	bidyamani@nitmanipur.ac.in
2	Polem Jesiada	Technical Assistant	Pursuing M.Tech	jesiada@nitmanipur.ac.in
3	I.Bigyananda Singh	Technical Assistant	M.Tech	bigyananda@nitmanipur.ac.in
4	L.Koroungamba	Technical Assistant	Pursuing PhD	korou@nitmanipur.ac.in
5	Kh. Jayalalita Devi	Technical Assistant	M.Tech	jayalalita@nitmanipur.ac.in
6	A. Bijen Singh	Lab Assistant	Graduate	bijenayek1@gmail.com
7	S. Bldyasagar	Lab Assistant	Graduate	shamulailatpambldyasagar@gmail.com
8	L. Arnold	Lab Assistant	Master	arnoldlai57@gmail.com

(G) Trainee Teachers (if any):

Sl no.	Name of the Faculty	Designation	Qualification	Email
1	Dr. Nabajit Sarkar	Trainee Teacher	PhD, IIT Guwahati	nbjt17.11@gmail.com

Academic Activities

I. Students Enrolment

Name of the Course	1 st Year	2 nd Year	3 rd Year	4 th Year	Total
B.Tech.	32	27	32	25	116
M.Tech. / M. Sc.	23	18			41

II. Ph.D. Program.

	2023-24
No. of Full Time	24
No. of Part Time	4
Total	28
Degree Awarded during 2023-24	2

III. Research Information

A. Sponsored Research Projects form Govt./Semi Govt./PSUs

Sl. No.	Name of the Project	Funding Agency	Project Amount & Month/Year Sanctioned	Project PI
1.	Planning & Design of Drainage System for Military Hospital Site incl. Hydro-Geological Investigations at Leimakhong Military Stn.	869 EWS, Military Engineer Services, Ministry of Defence	₹ 9,20,400/- * [*under sanction process] (03/2024)	Dr. Ngangbam Romeji
2.	Structural Stability Assessment of Dharmasala Building, RIMS, Imphal	RIMS under MoH&FW	₹ 8,51,702/- (01/2024)	Dr. Mayengbam Sunil Singh & Dr. Ngangbam

				Romeji
3.	Hydro-Geological Investigations & Assessments for Springshed Management in 13 districts of Manipur under WDC-PMKSY 2.0	Dept. of Land Reforms (DoLR), Govt. of India vis. State Level Nodal Agency (SLNA) – Watershed Management, Dept. of Planning, Govt. of Manipur	₹ 7,27,640/- (12/2023)	Dr. Ngangbam Romeji
4.	Sedimentation Budgeting and Modelling of Rivers (Thoubal River) in Manipur under National Hydrology Project (NHP)	Water Resources Department (WRD), Govt. of Manipur (GoM) under vis. Ministry of Jal Shakti, Government of India – World Bank	₹ 76,82,640/- (11/2023)	Dr. Ngangbam Romeji
5.	Evaluating the Impact of Swachh Bharat Abhiyan for Plastic Waste Management in Five States of North-East India	ICSSR-MoE	₹ 20,00,000/- (2023)	Dr. A. Azhoni
6.	Flood Early Warning Systems–Manipur (FLEWS–Mn) PoA Project	NESAC (North Eastern Space Applications Centre)/ ISRO & NEC (North Eastern Council), MoDONER [vis. MARSAC]	40,00,000/- (NIT Manipur share: 32,00,000/-) (04/2023)	Dr. Ngangbam Romeji
7.	Characterization of Manipur Bamboos as a sustainable material for construction	DST Manipur	₹1,30,000/- (One lakh thirty thousands only)	Dr. Kh Sachidananda
8.	A geospatial based approach for the identification and assessment of watershed health condition in Loktak Lake, Manipur, India.	SERB, Govt. of India	Rs. 35,36,082	Prof.(Dr.-Ing) Bakimchandra Oinam, Professor

9.	Construction of Low Cost Water Treatment Plan based on roughing & biosand filters for Lamsang Villages under Imphal West District, Manipur.	North East Centre for technology Application and Reach (NECTAR), DST , Ministry of Science and Technology, Government of India.	17 Lakhs	Prof. P. Albino Kumar
10.	Computational Fluid Dynamics Modelling for Optimization of Sedimentation Tanks	SERB, DST, New Delhi	Rs.30,32,820/-	Dr.Thiyam Tamphasana Devi

B. Consultancy Research Projects from Govt./Semi Govt./PSUs

Sl. No	Principal Investigator (P.I) & Co P.I	Project Title	Funding Agency / Client	Sanctioned Amt [Rs]	Remarks
1	Dr. Ngangbam Romeji	Feasibility Study for Water Supply to upcoming Imphal Railway Station at Changangei/Bamdiar site	NorthEast Frontier Railways (NFR), Ministry of Railways	16,78,000/-	Completed (06/2023)
2	Dr. Ngangbam Romeji	Concurrent Evaluation of CADWMP works under Thoubal Multipurpose Project (Phase-III) & Dolaithabi Barrage Project, Manipur	Command Area Development Department (CADD), Govt of Manipur	19,87,300/-	<i>in progress</i> (1 st phase completed)
3	Dr. Ngangbam Romeji Maisnam Nongthouba	Structural Soundness Test of Main & Link Corridors of RIMS Old Hospital Building, Imphal, Manipur	Regional Institute of Medical Sciences (RIMS), Imphal, under MoH&FW	5,48,700/-	Completed (09/2023)

	(Co-PI)				
4	Dr. Ngangbam Romeji Maisnam Nongthouba (Co-PI)	Structural Stability Assessment of RIMS Hospital–Old Building Blocks and Link Corridors	Regional Institute of Medical Sciences (RIMS), Imphal, under MoH&FW	8,86,180/-	<i>in progress</i> (1 st phase completed)

C. Patent Details if any:

Sl. No.	Inventor(s)	Patent Title	Date of Granted/Published
1	Manu, Nair and Azhoni	Method for De-Emulsions	19/06/2024

D. Publications in Journals (2023-24)

Sl. no.	Author names	Publication in Journals
1	Azhoni , Holman and Jude	Climate change adaptation attributes across scales and inter-institutional networks: insights from national and state level water management institutions in India. <i>Mitigation and Adaptation Strategies for Global Change</i> Springer (accepted for publication)
2.	Rehman, S and Azhoni A.	Appraisal of Flood Susceptibility of Hooghly basin, India using Shannon Entropy (SE) and Fuzzy Analytical Hierarchy Process (FAHP). <i>Environmental Modeling and Assessment</i> , Springer (Accepted for publication)
3.	Yu, S., Peng, J. Xia, P. Wang, Q., Grabowski, RC., Azhoni, A.	Network analysis of water-related ecosystem services in search of solutions for sustainable catchment management: A case study in Sutlej-Beas River systems, India. <i>Ecosystem Services</i> (2023) 63, 101557. https://doi.org/10.1016/j.ecoser.2023.101557
4.	Rehman and Azhoni, A.	Analyzing landslide susceptibility, health vulnerability and risk using Multi Criteria Decision Making Analysis in Arunachal Pradesh, India. <i>Acta Geophysica</i> . 71, 101–128 (2023).

		https://doi.org/10.1007/s11600-022-00943-z
5.	Rehman, S. and Azhoni, A.	Multi-hazard Assessment of the Sutlej-Beas River Basin Using Bivariate Statistical Frequency Ratio (FR) Model and Management Barriers of Land-River Interface. <i>Environmental Modeling and Assessment</i> , Springer 28, 673–692 (2023). https://doi.org/10.1007/s10666-023-09886-1
6.	Rehman, S., Azhoni, A. and Pooja, C.	Livelihood vulnerability assessment and climate change perception analysis in Arunachal Pradesh, India. <i>GeoJournal</i> 88, 1427–1447 (2023). https://doi.org/10.1007/s10708-022-10703-7
7.	Azhoni , Holman and Jude	Climate change adaptation attributes across scales and inter-institutional networks: insights from national and state level water management institutions in India. <i>Mitigation and Adaptation Strategies for Global Change</i> Springer (accepted for publication)
8.	Kirpa Hirom and Thiyam Tamphasana Devi	“A computational fluid dynamics study on the optimisation of a circular sedimentation tank using perforated inlet baffles. Brazilian Journal of Chemical Engineering. https://doi.org/10.1007/s43153-024-00488-2 .
9.	Kirpa Hirom and Thiyam Tamphasana Devi	“Examining the effects of longitudinal inclined plates and perforated inlet baffle on the settling efficiency of a rectangular sedimentation tank: A computational fluid dynamics study", <i>Water Air Soil Pollution</i> , 235 , 73 (2024). https://doi.org/10.1007/s11270-024-06891-2 .
10	Mk Raeesh, Thiyam Tamphasana Devi , Kirpa Hirom (2023).	“Recent Developments on Application of Different Turbulence and Multiphase Models in Sedimentation Tank Modelling - A Review", <i>Water, Air & Soil Pollution</i> , Springer Nature, 234, 05. DOI: 10.1007/s11270-022-06007-8 .
11	Bidyarani, N.C., Oinam, B	Assessment of crop yield and water footprint of kharif paddy production under different rainfall years. <i>Songklanakarin J. Sci. Technol.</i> 45 (3), 451–455, May –Jun. (2023)
12	Bidyarani, N.C., Oinam, B	The impact of rice cultivation in green and blue water on the economic productivity of the valley region of Manipur, India. <i>Remote Sensing Letters</i> , 14(10), 1073–1084. (2023). https://doi.org/10.1080/2150704X.2023.2264494

13	Bidyarani, N.C., Oinam, B	Water Footprint Assessment towards Food Sustainability for the Valley Region of Manipur, North East India. Current Science. Vol 125, No 5, Pages: 544-550. (2023). https://doi.org/10.18520/cs%2Fv125%2Fi5%2F544-550
14	Robertson, N.C., Oinam, B	Mustard Crop Suitability Mapping Using Analytical Hierarchy Process In the Imphal–iril River Sub-catchment, Manipur, India. Current Science. Vol 126, No 6, Pages: 721-730. (2024). https://doi.org/10.18520/cs%2Fv126%2Fi6%2F721-730
15	Robertson, N., Oinam, B	Comparative assessment of land use land cover at different temporal scales in Imphal-Iril river catchment, Manipur, India. Remote Sensing Letters, 15(6), 655–666. https://doi.org/10.1080/2150704X.2024.2365810
16	Anand, V., Oinam, B. , Wieprecht, S.	Synergistic impact of climate and land use land cover change dynamics on the hydrological regime of Loktak Lake catchment under CMIP6 scenarios, Journal of Hydrology: Regional Studies, Volume 53. (2024). https://doi.org/10.1016/j.ejrh.2024.101851 .
17	Anand, V., Oinam, B. , Wieprecht, S., Singh, S.K., Srinivasan, R.	Enhancing hydrological model calibration through hybrid strategies in data-scarce regions. Hydrological Processes, 38(2), e15084. (2024). https://doi.org/10.1002/hyp.15084
18	Swapna Talukdar, Somnath Bera, Mohd Waseem Naikoo, GV Ramana, Santanu Mallik, Potsangbam Albino Kumar, ATIQUUR RAHMAN	Optimisation and interpretation of machine and deep learning models for improved water quality management in Lake Loktak , Journal of Environmental Management, 2024-02., 351, 119866 (SCI)
19	Arun Prasun , Anshuman Singh, Potsangbam Albino Kumar, Aftab Alam and Amit Kumar,	Removal of Phenol from Biomedical Waste via an Adsorption Process, (2023) Eng. Proc. 2023, 37, 30. (Scopus)

20	Victoria Ningthoujam, and Ngangbam Romeji.	<i>“A GIS based Hydrological Modelling of Two Adjoining Sub-Tropical Catchments: Iril and Thoubal of the Manipur River Basin–IHR, India”, Current Science, Springer, ISSN 0011-3891, Bengaluru, India.</i> <i>[SCIE indexed]</i>
21	Maisnam Bipinchandra Singh, Ngangbam Romeji, Thiyam Tamphasana Devi	<i>“Field Investigations of Hydraulic Jumps in Natural Channels with Discrepancy Corrections for Experimental-based Formulations”, Current Science, Springer, ISSN 0011-3891, Bengaluru, India.</i> <i>[SCIE indexed]</i>
22	Victoria Ningthoujam, and Ngangbam Romeji	<i>“SWAT Model Calibration and Validation with Remotely Sensed Evapotranspiration data in Maklang-Tuyungbi-Taret lok Ungauged Basin in Manipur, India”, Iranian Journal of Science and Technology: Transactions of Civil Engineering, Springer, Electronic ISSN 2364-1843, Print ISSN 2228-6160.[SCIE indexed]</i>
24	Maisnam Bipinchandra Singh, Ngangbam Romeji Singh, Thiyam Tamphasana Devi	<i>Experimental Analysis of Dependence of Aeration Efficiency on Sequent Depth Ratio and Roller Length of a Classical Hydraulic Jump, Jl. Science & Technology Asia, Vol.28 (2), April – June 2023, pp. 143-151, P-ISSN 2586-9000, E-ISSN 2586-9027.</i> <i>[Scopus indexed]</i>
25	Manisana, R., Mayengbam, S.S.	"Inter-Storey Drift for Base Isolated R.C. Frame Buildings". <i>J. Inst. Eng. India Ser. A</i> . https://doi.org/10.1007/s40030-024-00819-z .
26	Arun Kumar and M. Sunil Singh.	"Back Analysis of Rock Support and Final-Lining Recommendation for Rock Class C1 of a Tunnel". International Journal of Engineering Trends and Technology. Volume 71, Issue 1, pp 79-93.

E. Publication in Conferences (2023-24)

- 1) Kirpa Hirom, Ningombam Bishwajit Singh, Mk Raesh and **Thiyam Tamphasana Devi (2023)**. A numerical study on the effects of vertical perforated inlet baffles in a circular wastewater sedimentation tank, The 10th International and 50th National Conference on Fluid Mechanics and Fluid Power (FMFP), December, 20-22, 2023, IIT Jodhpur, Rajasthan, India.
- 2) Mk Raesh, Kirpa Hirom, Ningombam Bishwajit Singh and **Thiyam Tamphasana Devi (2023)**. “Analysing the effects of baffles on the settling efficiency of a sedimentation tank by

- Computational Fluid Dynamics”, The 10th International and 50th National Conference on Fluid Mechanics and Fluid Power (FMFP), December, 20-22, 2023, IIT Jodhpur, Rajasthan, India.
- 3) **Oinam, B.**, Anand, V., Sana, R. N., and Wieprecht, S.: Satellite remote sensing-based approach for water quality monitoring in a data sparse region, EGU General Assembly 2023, Vienna, Austria, 24–28 Apr 2023, EGU23-15535, <https://doi.org/10.5194/egusphere-egu23-15535>, 2023.
 - 4) Lairenlakpam Helena, Suraj Chingkhmayum and **Potsangbam Albino Kumar**, "Removal of COD in leachates through coagulation and adsorption using magnetic iron oxide-activated nano adsorbent." SATEM, December 20 - 22,2023, IEST, Shibpur.
 - 5) Sudhakar Ningthoujam, Potsangbam **Albino Kumar**, "Assessment of water quality and evaluation of water quality index of Loktak Lake" SATEM, December 20 - 22 ,2023, IEST, Shibpur.
 - 6) Potshangbam Janshi Devi, Akanksha Srivastava, **Potsangbam Albino Kumar**, "Leachate treatment using low-cost adsorbents: A comparative study" SATEM, December 20 - 22 ,2023, IEST, Shibpur.
 - 7) Malvika Thangjam, **Potsangbam Albino Kumar**, Ankit Dubey Prakashvir, "Assessment of HRT's impact on COD reduction of leachate through lab-scale UASB" SATEM, December 20 - 22 ,2023, IEST, Shibpur.
 - 8) Numerical and Experimental Study on Energy Dissipation in Hydraulic Jump: A Comparison between Horizontal and Sloping Rough Channel Bed, Koroungamba Laishram, **Thiyam Tamphasana Devi, Ngangbam Romeji Singh & Potsangbam Albino Kumar**. 9th International Symposium on Hydraulic Structures Roorkee, India 24-27 October 2022, ISBN 978-1-958416-07-5
 - 9) Nungshithoi K., **Sachidananda K.** (2024) The performance of buildings with different shapes of square and rectangular column. International Conference on Natural Disaster: Risk Analysis, Management and mitigation NDRAMM 2024, March 23-24, 2024 NIT Silchar.

F. Publication in books/book Chapters (2023-24)

- (1) Sandhip Khundrakpam and **Thiyam Tamphasana Devi (2024)**. “Flood Modeling Using the AHP Method in a GIS Environment of the Iril River Catchment, Manipur, India”, In book: Agri-Tech Approaches for Nutrients and Irrigation Water Management. DOI: [10.1201/9781003441175-16](https://doi.org/10.1201/9781003441175-16)
- (2) Denish Okram and **Thiyam Tamphasana Devi (2024)**. Agricultural Drought Modelling Through Drought Indices in the Thoubal District, Manipur, India”, In book: Agri-Tech Approaches for Nutrients and Irrigation Water Management. DOI: [10.1201/9781003441175-17](https://doi.org/10.1201/9781003441175-17)
- (3) Bidyapati Haobam and **Thiyam Tamphasana Devi (2023)**. "Groundwater Vulnerability Mapping Using Modified DRASTIC Model:A GIS-Based Case Study of Imphal East District, Manipur, India" *River, Sediment and Hydrological Extremes: Causes,Impacts and Management*,

- Disaster Resilience and Green Growth* (eds. Pandey et al.), Springer Nature, Chapter 3, pp: 41-63. DOI:10.1007/978-981-99-4811-6_3
- (4) Denish Okram and **Thiyam Tamphasana Devi (2023)**. "Drought Modeling Through Drought Indices in GIS Environment: A Case Study of Thoubal District, Manipur, India" *River, Sediment and Hydrological Extremes: Causes, Impacts and Management, Disaster Resilience and Green Growth* (eds. Pandey et al.), Springer Nature, Chapter 13, pp: 235-256. DOI:10.1007/978-981-99-4811-6_13
 - (5) Sandhip Khundrakpam and **Thiyam Tamphasana Devi (2023)**. "Flood Modeling Using MIF Method with GIS Techniques: A Case Study of Iril River Catchment, Manipur, India", *River, Sediment and Hydrological Extremes: Causes, Impacts and Management, Disaster Resilience and Green Growth* (eds. Pandey et al.), Springer Nature, Chapter 1, pp: 3-22. DOI:10.1007/978-981-99-4811-6_1
 - (6) Kirpa Hirom, Mk Raesh and **Thiyam Tamphasana Devi (2023)**. "CFD study on finding optimum number of inclined plates and settling efficiency in a novel sedimentation tank (lamella clarifiers) of wastewater treatment unit", *Fluid Mechanics and Fluid Power (Vol. 1), Lecture Notes in Mechanical Engineering* (eds. Bhattacharyya and Chattopadhyay), Springer, Singapore, Chapter 19, pp.111 - 116. DOI:10.1007/978-981-19-7055-9_19
 - (7) **Sarkar, N.**, Dasgupta, K. (2023). Importance of Epistemic Uncertainty on Seismic Analysis of RC Wall-Frame Buildings. In: Shrikhande, M., Agarwal, P., Kumar, P.C.A. (eds) Proceedings of 17th Symposium on Earthquake Engineering (Vol. 2). Lecture Notes in Civil Engineering, vol 330. Springer, Singapore. DOI: 10.1007/978-981-99-1604-7_46
 - (8) Assessment and Treatment of Iron from Industrial Wastewater Using Parkia Speciosa Pod as Activated Carbon. Wairokpam Reenarani, **Kumar, P.A.** Springer Proceedings in Earth and Environmental Sciences, 2023, Part F1447, pp. 117–130
 - (9) Adsorption of Fluoride onto PANI-Cl Jute Fibre: Designing a Higher-Flow-Rate and Higher-Initial-Concentration Column Reactor from a Batch Reactor, Pipileima, S., **Kumar, P.A.**, Purwar, A.K., Springer Proceedings in Earth and Environmental Sciences, 2023, Part F1447, pp. 27–37
 - (10) Helena, L., **Kumar, P.A.** (2023). Activated Carbon Developed from Phumdi Biomass and Deccan Hemp for the Adsorption of Methylene Blue. In: Mazumder, D. (eds) Sustainable Advanced Technologies for Industrial Pollution Control. ATIPC 2022. Springer Proceedings in Earth and Environmental Sciences. (September 2023), Springer.
 - (11) Dahasahastra, A., Helena, L., **Kumar, P.A.** (2023). Effective Adsorption of Arsenic from Synthetic Water Sample Using Activated Sunflower Seed Shells. In: Swain, B.P. (eds) Recent Advances in Materials. ICSTE 2023. Springer Proceedings in Materials, vol 25. August 2023, Springer.
 - (12) Leihaothabam, R.S., **Sachidananda, K.** (2023). Chemical Compositions of Ground and Unground Rice Husk Ash Produced by Uncontrolled Burning. In: Swain, B.P. (eds) Recent Advances in Materials. ICSTE 2023. Springer Proceedings in Materials, vol 25. Springer, Singapore. https://doi.org/10.1007/978-981-99-3844-5_1
 - (13) Singh, L.I., **Sachidananda, K.** (2023). Metal Additive Manufacturing Technique in Construction Industry: A Review Paper. In: Swain, B.P. (eds) Recent Advances in Materials. ICSTE 2023. Springer Proceedings in Materials, vol 25. Springer, Singapore. https://doi.org/10.1007/978-981-99-3844-5_5

G. Short Term Course/ Workshop/ Seminar/ Conference Conducted by the Department:

SL No.	Short Term Course/ Workshop/ Seminar/ Conference	Funding Agency	Coordinator
1.	Skill Development Programme under PMKVY 4.0 (Soap Making) Dt: 18 th to 22 nd September, 2023	National Skill Development Corporation (NSDC), MoSDE	Dr. Ngangbam Romeji

H. Internship or Industrial Visits:

1. Summer Internship for 5 B.Tech (Civil Engg) VI Sem Students at Hindustan Shipyard Ltd-reg (1st to 30th June 2023).
2. Winter Internship for 12 B.Tech 3rd semester and 19 BTech 5th Semester students at Imphal Railway Station construction sites.
3. Summer Internship at IIT Madras (15th May to 15th July, 2023).

Name of B.Tech Students who graduated in 2023-24:

Sl. No.	Enrolment No.	Name of the Student	Final CPI
1	20101001	Neppali Jaya Kishore	7.9
2	20101003	Naorem Priyokumar Meitei	8.2
3	20101004	Thounaojam Raj	8.7
4	20101005	Naredla Janesh Srinivas	8.4
5	20101006	Lamabamayum Kripa Singh	8.3
6	20101007	Vinay Kumar	8.2
7	20101008	Shankar Kumar Chaudhary	7.86
8	20101009	Suhel Kanghujam	7.7
9	20101010	Gudapati Verlee Daniel	7.9
10	20101011	Nongmaithem Jasbir Singh	8
11	20101014	Sanabam Heithoiba Mangang	8.1
12	20101015	Nelson Khoinaijam	8.2

13	20101016	Meenika Thoudam	9.2
14	20101017	Bintoo Rajkumar	8.2
15	20101018	Khundongbam Preety Devi	8.9
16	20101019	Thounaojam Suzen Chanu	9
17	20101020	Firstson Kumar Leichombam	7.87
18	20101022	Ravindra Kumar	7.78
19	20101023	Jashobanta Heisnam	8.1
20	20101024	Kadupolla Sai Kiran	7.34
21	20101025	Singleiyam Raikhan	8.2
22	20101026	K Angrungkham	7.9
23	20101027	As Okpeingam Shimray	7.7
24	20101028	Francis K Suanliansang	8
25	20101029	Eesala Pravalika	7.9

Name of M.Tech. Students who graduated in 2023-24

Sl. No.	Enrolment No.	Name of the Student	Final CPI
1	22201015	Malvika Thangjam	8.53
2	22201011	Potshangbam Janshi Devi	8.26
3	22201019	Sandy Thingujam	7.91
4	22201016	Kanshaouwa Leiku Aphom	7.64
5	22201013	Thoudam Banita Devi	6.77
6	22201014	Aribam Priya Devi	7.87
7	22201017	Sapam Ksheroda devi	8.34
8	22201001	Vilander Naoroibam	9.59

9	22201002	Pradyumna Arambam	8.87
10	22201003	Diana Brahmacharimayum	8.04
11	22201006	Archita Tonjam	8.89
12	22201007	Thokchom Romita Devi	8.42
13	22201008	N. Tolika Chishi	8.47
14	22201009	Rickyish Mayanglambam	7.92
15	22201010	Konthoujam Nungshithoi	8.43
16	22201011	Jennifer Nongthombam	8.02

Name of Ph.D. Students who graduated in 2023-24:

Sl. No.	Enrolment No.	Name of the Student	Thesis Name	Name of the Supervisor/Co-Supervisors	Date of Defence
1	15PCE001	Ngangom Robertson	A GIS based modelling approach for the agricultural crop land suitability assessment in Imphal-Iril river catchment, Manipur, India	Dr.ing. Bakimchandra Oinam	21 March 2024
2	16401004	Rohit Kumar	Experimental Investigation on Blended Geopolymer Composite	Dr. Mayengbam Sunil Singh	07.10.2023

No. of GATE/NET Qualified students in 2023-24:

Sl. No.	Name of the Student	GATE/NET	Marks for GATE	Category
1	Thounaojam Raj	GATE	31.06	OBC
2	Singleiyam Raikhan	GATE	26.67	ST

3	AS Okpeingam Shimray	GATE	17.95	ST
4	Gudapati Verlee Daniel	GATE	26.17	OBC
5	Vinay Kumar	GATE	44.44	OBC
6	Khundongbam Preety Devi	GATE	27.67	OBC
7	Bintoo Rajkumar	GATE	34.66	OBC

No. of Students who have enrolled for higher studies (Foreign/National)

Sl. No.	Name of the Student	Course/Programme	Name of the Institute	Country
1	Singleiyam Raikhan	Mtech	IIT Dhanbad	India
2	Khundongbam Preety Devi	Mtech	IIT Gandhinagar	India
3	Bintoo Rajkumar	Mtech	IIT Gandhinagar	India

No. of Students who have been placed in 2023-24:

Other Activities:

1. Details of NEP Activity conducted by the Department in 2023-24

2. Details of Faculty Achievements in 2023-24.

Sl. No.	Name of the Faculty/Staff/students	Title of Award	Awarding body	Date of Award
1	NIL			

3. Details of Students Achievement in 2023-24:

Sl. No.	Name of the students	Title of Award	Paper ID	Date of Award
1				

4. Details of Awards/ Recognition received by Faculty/Staff/Students in 2023-24

Sl. No.	Name of the Faculty/Staff/students	Awards/ Recognition	Awarding body	Date of Award
1	NIL			

5. Details of contribution to the society: NIL

6. Steps take for popularization of Science and Technology among the Students of Manipur.

Sl. No.	Name of the Faculty	Purpose of visit	Place of Visit
1	Dr. Adani Azhoni	Career Guidance Workshop	Jawahar Navodaya Vidyalaya Yakuki, Kohima. Nagaland

Any other information: NIL

4.5 DEPARTMENT OF MECHANICAL ENGINEERING

A. Head of the Department: Dr. Anil kumar Birru

B. Brief Introduction of the Department

With the aim of catering to the needs of the nation in the field of technological advancement, the Department of Mechanical Engineering was established in the year 2013. Our department is committed to the development of humankind through scientific and intellectual knowledge. Through the reformist mixing of various cultures, races, and ethnicities, we seek to develop a state-of-the-art learning environment for our Undergraduate, Postgraduate and Ph.D. scholars. Several government agencies have sponsored various projects in our Department, enhancing the academic and research capabilities of our associates. Over the years, we have developed a world-class infrastructure for studying Thermal Fluid Science, Manufacturing Science, and Design Engineering. Our students are placed in top multi National Companies. As faculties are pillars of the intuitions, with broader research areas, the department is promoting interdisciplinary areas.

AIMS: The Department aims to produce quality Engineers to meet the sustainable developmental goal of the nation and world.

OBJECTIVES: The Department's objective is to produce quality engineers to meet the ever-growing demand for technical manpower in communication technology and the industrial arena.

C. Highlight of Research Activities

The faculty members of the department are actively involved in research activities. The broad areas of research being carried out in the department are listed below:

- A. Design of Bio-enabled Structures., Additive Manufacturing of Complex and Composite Materials, Vibration, Rotor Dynamics, Faults identification in the rotor system, Applications of Active Magnetic Bearings, etc.
- B. Heat Transfer, Film cooling, Supersonic Film cooling, Alternative Fuels, Renewable Energy, Solar Energy, etc.
- C. Die casting, Composite Materials, Ceramics, Sand Casting, Welding, Quality Function Deployment, Biomedical Equipment and Implants, Advanced Machining Processes, Optimization Techniques, etc.

D. Faculty Members (Regular)

Sl. No.	Name of the Faculty	Designation	Qualification	Email
1	Prof. Rajesh Kumar Bhushan	Professor	PhD	rkbnitm@gmail.com
2.	Dr. Anil Kumar Biru	Associate Professor	PhD (IIT Roorkee)	anilbiru@nitmanipur.ac.in
3.	Dr. Dushyant Singh (on lien)	Associate Professor	PhD (IIT Delhi)	dushyant@nitmanipur.ac.in
4.	Dr. Huirem Neeranjana Singh	Assistant Professor	PhD (NIT Durgapur)	nrjanh@nitmanipur.ac.in
5.	<u>Dr. Sabindra Kachhap</u>	Assistant Professor	PhD (NIT Patna)	sabindra.05@gmail.com
6.	<u>Dr. Prabhat Kumar</u>	Assistant Professor	PhD (IIT Guwahati)	prabhat.kumar@nitmanipur.ac.in
7.	Dr. Ashutosh Kumar Singh	Assistant Professor	PhD (IIT Guwahati)	ashutoshsingh@nitmanipur.ac.in

E. Faculty Members (Contractual)

Sl No.	Name of the Faculty	Designation	Qualification	Email
1	Dr. Khundrakpam Nimo Singh	Assistant Professor	PhD (IKGPTU)	nimspn@nitmanipur.ac.in
2.	Dr. Thokchom Subhaschandra Singh	Assistant Professor	PhD (NIT Manipur)	th.s.singh@nitmanipur.ac.in
3.	Dr. Maibam Bindya Devi	Assistant Professor	PhD (NIT Manipur)	mbindya@nitmanipur.ac.in

F. Non-Teaching Staff (Regular/Contractual)

Sl No.	Name of the Staff	Designation	Qualification	Email
1	Thiyam Lakshmi Devi	Technical Assistant	M. Tech	laxmidevithiyam@gmail.com
2	Laishram Birjit Singh	Technical Assistant	M. Tech	birjitlai@gmail.com
3	Oinam Adeep Meitei	Technical Assistant	M. Tech	adeepoinam@gmail.com
4	Takhellambam Satyajit Singh	Technical Assistant	M. Tech	satyajitsingh558@gmail.com
5	Hidangmayum Manoranjan	Lab. Attendant	Diploma	bungobi.sharma@gmail.com
6	Thokchom Kamaljit Singh	Lab. Attendant	ITI	kamaljitthokchom39@gmail.com

G. Trainee Teachers (if any): **NONE**

Academic Activities**I. Students Enrolment**

Name of the Course	1 st Year	2 nd Year	3 rd Year	4 th Year	Total
B.Tech.	32	32	27	24	115
M.Tech.	02	06	----	----	08

II. Ph.D. Program.

	2023-24
No. of Full Time	16
No. of Part Time	04

Total	20
Degree Awarded during 2023-24	02

III. Research Information

(A) Sponsored Research Projects form Govt./Semi Govt.

Sl. No.	Name of the Project	Funding Agency	Project Amount	Project PI
1.	Novel cooling techniques for substrate exposed to very high temperature	Core Research Grant (CRG) under SERB - DST, New Delhi.	Rs. 47.16 Lakhs	Dr. Dushyant Singh
2.	Fabrication of customized mouth guard by fused deposition method	Dr. Anil Kumar Birru	Rs. 1.3 Lakhs	Dr. Anil Kumar Birru
3.	Mechanical properties and microstructural evaluation of underwater friction stir additive manufactured AA6082 Aluminum	Dr. Anil Kumar Birru	Rs. 8 Lakhs	Dr. Anil Kumar Birru

(B) Patent Details if any:

Sl. No.	Inventor(s)	Patent Title	Date of Granted/ Published
1	P Vicky Kumar, Anil Kumar Birru , Nelson Muthu, Amandeep Kaur	Negative Pressure Irrigation system integrating irrigation and aspiration for safe and effective endodontic treatment.	Filed (2023) German Patent
2	P Vicky Kumar, Anil Kumar Birru , Nelson Muthu, Amandeep Kaur	Player-friendly dental mouth guard design.	Filed (2023) German Patent
3	P Vicky Kumar, Nagesh Ch, Kanchana Katta, Anil Kumar Birru	Preparation method of magnesium titanate-integrated hydrid polymer ceramic scaffold and application thereof.	Published (2024) Indian Patent
4.	Dr. Sabindra Kachhap , Abishek Ms, Dharendra Kumar, Petta Avinash, Dr. Vineet Kumar Bhagat, Dr. Pankaj Kumar	Novel Mechanical Framework for Spirulina Super Food Production Machine.	Granted-29 th March 2024

(C) Publications in Journals (2023-24)

Sl No.	Author names	Publication in Journals
1	TK Singh, Anil Kumar Birru , KN Singh	“Optimizing the printing parameters for dimensional accuracy of distal femur bone by using Taguchi’s method,” <i>Journal of Engineering and Applied Science</i> , V. 71, No. 1, 2024. (Scopus)
2.	KS Pulisheru, Anil Kumar Birru , PK Bannaravuri, BR Golla	“Wear and Corrosion Behavior of Electromagnetic Stir Casted Al-5Cu-2Ni/(0–5 wt%) FeNb Alloy Composites,” <i>Transactions of the Indian Institute of Metals</i> , V. 77, No. 1, 2023, pp. 133–43. (SCIE)
3.	SR Meenuga, DA Babu, B Majumdar, Ani Kumar Birru , K Guruvidyathri, MM Raja.	“A comparative study on nanocrystalline soft magnetic Fe-Si-B-Nb-Cu alloys made of pure elements and ferro-alloys,” <i>Journal of Magnetism and Magnetic Materials</i> , V. 584, 2023, p. 171087., (SCIE)
4.	KS Pulisheru, PK Bannaravuri, KC Apparao, Anil Kumar Birru	“Comparative Study on Metallography and Mechanical Properties of Al–Cu–Ni/FeNb Composites Fabricated by Electromagnetic Stir Casting Processes via Sand and Metal Mold System,” <i>Journal of the Institution of Engineers (India) Series D/Journal of the Institution of Engineers (India) Series D</i> , 2023. (Scopus)
5.	PV Kumar, Anil Kumar Birru , N Muthu	“Evaluation OfZr, Ni-Cr, And Au-Ag Applied Materials Using Fem On Prosthetic Crowns,” <i>Malaysian Journal of Science</i> , V. 42, No. 2, 2023, pp. 41–6. (Scopus)
6.	BokkaSyamBabu, Anil Kumar Birru , Netai Chandra Dey	“An ergonomic study of skill development by Posture correction using Rapid Upper Limb Assessment for training purpose in India,” <i>Eur. Chem. Bull.</i> 2023,12 (Special Issue 1, Part-B), pp. 3680-3695. (Scopus)
7	Kumara Swamy Pulisheru, Praveen Kumar Bannaravuri, K Ch Apparao, Anil Kumar Birru ,	“Comparative Study on Metallography and Mechanical Properties of Al–Cu–Ni/FeNbComposites Fabricated by Electromagnetic Stir Casting Processes via Sand and Metal Mold System”, <i>Journal of The Institution of Engineers (India): Series D</i> , 1-11 (2023).DOI: https://doi.org/10.1007/s40033-023-00519-1 . ((Scopus)
8	Praveen Kumar Bannaravuri, Gadudasu Baburao, K Ch Appa Rao, P Srinivas Rao, Anil Kumar Birru , K Samuel Charan Kumar, T Ravi	“Agriculture waste composites 6.1 Effect on density and hardness of aluminum metal matrix composite with the addition of bamboo leaf ash”, <i>Waste Residue Composites</i> vol. 16, 135-151 (2023).DOI: https://doi.org/10.1515/9783110766523-009 . (SCIE)

9	Rajesh Kumar Bhushan	Analysis of chip formation mechanism in turning of AA 7075/SiCp MMCs, Aircraft Engineering and Aerospace Technology, ISSN: 0002-2667, July 2023, Emerald
10	Rajesh Kumar Bhushan	GA Approach for Optimization of Parameters in Machining Al Alloy SiC Particle Composite for Minimum Cutting force, Journal of Alloys and Metallurgical Systems SCI (Q2) , Vol 1, pp 1-23, ISSN:2949-9178, Elsevier , Apr 2023
11	Rajesh Kumar Bhushan	Impact of SiC particle size and weight % on tool life while machining of AA7075/ SiC composite, Journal of Alloys and Metallurgical Systems, Vol 3, pp 1-20, ISSN:2949-9178, Elsevier , June 2023
12	M. R. Khan and H. N. Singh	Swan Eggshell Derived CaO as a Heterogeneous Catalyst for Biodiesel Production from Castor Oil,” in Springer Proceedings in Materials, vol. 25, B. P. Swain, Ed. Singapore: Springer Nature Singapore, 2023, pp. 189–199. https://doi.org/10.1007/978-981-99-3844-5_21 .
13	W. R. Singh and H. N. Singh	“Potential of Mango Shell Powder as a Bio Filler in Flax-Jute Hybrid Epoxy Composites: Mechanical and Wear Characterization” Journal of Polymer Engineering, 44.4 (2024): 275-290 (SCIE).
14	Avinash Petta and Sabindra Kachhap	“Potential of Mango Shell Powder as a Bio Filler in Flax-Jute Hybrid Epoxy Composites: Mechanical and Wear Characterization” Journal of Polymer Engineering, 44.4 (2024): 275-290 (SCIE).
15	Abishek, M. S., Sabindra Kachhap , Upendra Rajak, Thokchom Subhaschandra Singh , and Tikendra Nath Verma.	"Analysis and optimization of Guizotia abyssinica (L.) with alumina, titanium and diesel blends on DI engine combustion and emissions." Environment, Development and Sustainability (2024): 1-26. (SCIE)
16	M. S. Abishek, Sabindra Kachhap , Upendra Rajak, Tikendra Nath Verma, Nimay Chandra Giri, Kareem M. AboRas and Ali ELrashidi,	“Exergy-energy, Sustainability and emissions assessment of Guizotia abyssinica (L.) fuel blends with metallic nano additives” Scientific Reports – Nature, 14, no. 1, 1-16, 2024. (SCIE).
17	Dhirendra Kumar, Sabindra Kachhap , Subhaschandra Singh Thokchom ,	“Numerically comparative assessment of different biodiesel & its blends on performance, combustion and emission characteristics”, Industrial Crops and Products, Volume 209, 2024, 117900, (SCIE)
18	Abhishek MS, Sabindra Kachhap , Upendra Rajak, Tikendra Nath Verma,	“Guizotia abyssinica (L.) Biodiesel; Nanoparticle Syntheses; diesel engine; Performance; Combustion” Sustainable Energy Technologies and Assessments,

	Thockchom Subhaschandra Singh , Saboor Shaik, Erdem Cuce, and C Ahamed Saleel	Accepted (SCIE)
19	Sabindra Kachhap , Pabitra Kumar Sahu and Punyapriya Mishra	, 2023 “Investigation and optimization of wire EDM process parameters for Al 5454 alloy machining” Materials Today: Proceedings, https://doi.org/10.1016/j.matpr.2023.08.021 (Scopus)
20	Prabhat Kumar	Dynamic analysis and identification in a cracked and unbalanced rigid rotor with two offset discs and one middle disc mounted on foil bearings”, International Journal of Dynamics and Control, 2024, Springer
21.	Prabhat Kumar and Rajiv Tiwari	A Review: Multiplicative Faults and Model based Condition Monitoring Strategies for Fault Diagnosis in Rotary Machines”, Journal of the Brazilian Society of Mechanical Sciences and Engineering, 45(5), p.282, 2023, Springer.
22	Thangulen Mangte, Ashutosh Kumar Singh , and Dushyant Singh	Effect of Different Flame Deflectors Plate Geometry on Supersonic Jet Impingement Flow and Heat Characteristics from Rocket Exhaust.” Heat Transfer Engineering, March, 1–12. doi:10.1080/01457632.2024.2332108.
23	Gaurav Kumar, Ashutosh Kumar Singh , Kuldeep Singh, Dushyant Singh	Experimental and Numerical Investigation of Cylindrical and Shaped Cooling Holes With Forward and Reverse Injection.” Heat Transfer Engineering, February, 1–11, 2024. doi:10.1080/01457632.2024.2317612.
24	Ashutosh Kumar Singh , Saurabh Kumar, Kuldeep Singh	Experimental and Numerical Study on the Combined Jet Impingement and Film Cooling of an Aero-Engine Afterburner Section", <i>Aerospace</i> 2023
25	Ashutosh Kumar Singh , Kuldeep Singh, Dushyant Singh, and Niranjana Sahoo	Experimental and Numerical Study of the Effect of Double Row Slot Injection Locations on Film Cooling Performance of a Corrugated Surface." <i>Experimental Heat Transfer</i> (2023): 1-27. https://doi.org/10.1080/08916152.2023.2204338

(D) Publication in Conferences (2023-24)

1. Jitendra Rajput, Rajesh Kumar Bhushan, Azhar Jamil, Numerical Simulation of Sandwiched Composite Armor Subjected to Velocity Impact, International Conference on Science, Technology and Engineering (ICSTE 2023) Published in Recent Advances in Materials, pp

- 347–352, 02 August 2023, DOIhttps://doi.org/10.1007/978-981-99-3844-5_36, Publisher Springer, Singapore, Online ISBN 978-981-99-3844-5.
2. Ajeesh M Kurup, Rajesh Kumar Bhushan, Estimation of Life and Wear Rate of Tibial Insert for Total Knee Arthroplasty (TKA) Using Finite Element Method Approach, International Conference on Science, Technology and Engineering(ICSTE 2023) Published in Recent Advances in Materials, pp 317–325, 02 August 2023, DOIhttps://doi.org/10.1007/978-981-99-3844-5_3, Publisher Springer, Singapore, Online ISBN 978-981-99-3844-5.
 3. Abishek, M. S., Sabindra Kachhap, and Tikendra Nath Verma. "Validation and optimization of Spirulina microalgae biodiesel using different metallic nano-additives numerically." *AIP Conference Proceedings*. Vol. 2821. No. 1. AIP Publishing, 2023.
 4. Chatterjee, A., Roy, P., Anil Kumar Birru and Goutam Sutradhar (2023). A comprehensive review on tribological and mechanical properties of metal matrix composites. *AIP Conference Proceedings*. <https://doi.org/10.1063/5.0146914>
 5. Syam Babu Bokka, **Anil Kumar Birru**, Netai Chandra Dey, and Amandeep Kaur (2023). Rapid Upper Limb Assessment (RULA) Technique for Posture Correction in Worker Reducing Musculoskeletal Disorders and Enhancing Work Efficiency.” at the 6th IEOM Bangladesh Conference.
 6. Syam Babu Bokka, **Anil Kumar Birru**, Netai Chandra Dey, (2024) Effect Of Covid-19 On Psychosocial Behaviour Of Automobile Workers Performance - An Ergonomic Study, Proceedings On Engineering Sciences, Doi: 10.24874/Pes.Si.25.03b.010
 7. Sunil Kumar Pulluru, **Anil Kumar Birru**, Goutam Sutradhar, (2023) “Mechanical and Wear Behavior of A713–Al₂O₃–CaCO₃Aluminum Hybrid Metal Matrix Composites”, *International Conference on Science, Technology and Engineering*, vol. 25, 219-227 (2023).DOI: https://doi.org/10.1007/978-981-99-3844-5_24.

(E) Publication in books/book Chapters (2023-24)

1. Jitendra Rajput, Rajesh Kumar Bhushan, Azhar Jamil, Numerical Simulation of Sandwiched Composite Armor Subjected to Velocity Impact, Published in Recent Advances in Materials, pp 347–352, 02 August 2023, DOIhttps://doi.org/10.1007/978-981-99-3844-5_36, Publisher Springer, Singapore, Online ISBN 978-981-99-3844-5.
2. Ajeesh M Kurup, Rajesh Kumar Bhushan, Estimation of Life and Wear Rate of Tibial Insert for Total Knee Arthroplasty (TKA) Using Finite Element Method Approach, Published in Recent Advances in Materials, pp 317–325, 02 August 2023, DOIhttps://doi.org/10.1007/978-981-99-3844-5_3, Publisher Springer, Singapore, Online ISBN 978-981-99-3844-5.
3. Prabhat Kumar; “Condition Monitoring of Mechanical and Electrical Faults in Stationary and Rotating Equipments: A Review”; *Recent Advances in Materials*; 2023; Springer.
4. Prabhat Kumar, Maruvada Sanket, Suyash Srivastva and Tanmay Dinesh Madav; “Vibrational nature of an unbalanced rigid rotor system with three discs secured by two active magnetic bearings”; *Recent Advances in Materials*; 2023; Springer.
5. Prabhat Kumar and Rajiv Tiwari, Identification in a Magnetically Levitated Rigid Rotor System Integrated with Misaligned Sensors and Active Magnetic Bearings”; *Vibration Engineering and*

Technology of Machinery, Volume I, Mechanism and Machine Science, pp. 1-24, 2023, Springer, Singapore

6. Praveen Kumar Bannaravuri, Gadudasu Baburao, K Chappa Rao, P Srinivas Rao, **Anil Kumar Birru**, K Samuel Charan Kumar, T Ravi, Effect on density and hardness of aluminum metal matrix composite with the addition of bamboo leaf ash, *Waste Residue Composites* 16, 135.

(F) Short Term Course/ Workshop/ Seminar/ Conference Conducted by the Department:

SL No.	Short Term Course/ Workshop/ Seminar/ Conference	Funding Agency	Coordinator
1.	Five day short term course on “ The applications of Engineering Concept and Practices to Medical Fraternity for Future generations	Self sponsored	Dr. Anil Kumar Birru
2	National Colloquium on Estrogen-Related Receptor Gamma (ERRy) As a Potential Biomarker and Therapeutic for Various Cancer	Self sponsored	Dr. Anil Kumar Birru
3.	Advancement in Renewable Energy, Design, and Manufacturing- 30th October to 03rd November 2023.	Self sponsored	Dr. Sabindra Kachhap
4.	Advancement in Renewable Energy, Design, and Manufacturing- 30th October to 03rd November 2023.	Self sponsored	Convenor - Dr Prabhat Kumar
5.	Advancement in Renewable Energy, Design and Manufacturing- 30th October to 03rd November 2023.	Self sponsored	Convenor - Dr Ashutosh Kumar Singh

(G) Internship or Industrial Visits:

Sl No.	Enrollment Number	Name of the Student	Company/ Internship / Industrial Visits
1	20107006	Mr.Kanamarlapuddi Charan Datta	Bharat Dynamics Limited, Hyderabad
2	20107007	Mr. Challa Dhanush Sri Karthik Reddy	Bharat Dynamics Limited, Hyderabad
3	20107008	Mr. Lanka Naga Durga Jagadeesh	Bharat Dynamics Limited, Hyderabad
4	20107027	Miss. Maile Charith Rushmi	Bharat Dynamics Limited, Hyderabad
5	21107006	Mr. Rakshak Khaleng	NHPC Loktak Power Station, Manipur
6	21107028	Mr.Yarsomi Zimik	NHPC Loktak Power Station, Manipur
7	21107005	Mr.Varemi Shiyang	NHPC Loktak Power Station, Manipur
8	21107029	Mr. Apollos Marakpa	NHPC Loktak Power Station, Manipur
9	21107010	Mr. Srikanth	Dr. APJ Abdul Kalam Missile Complex
10	21107017	Mr. Lokesh	DRDO, Hyderabad
11	21107019	Mr.Pavan Kumar	Dr. APJ Abdul Kalam Missile Complex
12	21107028	Mr.Bhanu Prakash	DRDO, Hyderabad

13	21107026	Mr. Himanshu	25 Border Roads Task Force, Imphal
14	21107021	Mr. Akash Babu	25 Border Roads Task Force, Imphal
15	21107008	Mr. Rahul Das	25 Border Roads Task Force, Imphal
16	21107028	Mr. A. Yarsomi Zimik	25 Border Roads Task Force, Imphal
17	21107015	Mr. Naga Anirudh	Hindustan Ship Yard Limited, Visakhapatnam
18	21107025	Mr. Harsha Vardhan	Hindustan Ship Yard Limited, Visakhapatnam
19	21107009	Mr. Gurumayum Durjeet Sharma	Mahindra Shivz Autotech, Ghari, Imphal
20	21107007	Mr. Laishram Thoithoi Singh	Mahindra Shivz Autotech, Ghari, Imphal
21	22107022	Mr. Diouf Saikhom	Gun and Shell Factory, Cossipore, Kolkatta
22	22107024	Mr. Rajiv Choudhary	Gun and Shell Factory, Cossipore, Kolkatta
23	22107019	Mr. Jhaljit Loitongbam	Gun and Shell Factory, Cossipore, Kolkatta
24	22107034	Miss. Athokpam Linthoingambi	Gun and Shell Factory, Cossipore, Kolkatta
25	22107003	Miss. Laimayam Annapriya Sharma	Gun and Shell Factory, Cossipore, Kolkatta
26	22107035	Mr. Dickson Sairem	Gun and Shell Factory, Cossipore, Kolkatta
27	22107007	Miss. Thingrik Ruivah	Gun and Shell Factory, Cossipore, Kolkatta
28	22107004	Mr. Hidam Lipun	Gun and Shell Factory, Cossipore, Kolkatta
29	22107022	Mr. Diouf Saikhom	Shivz Autotech Mahindra Imphal
30	22107019	Mr. Jhaljit Loitongbam	Shivz Autotech Mahindra
31	22107034	Miss. Athokpam Linthoingambi Chanu	Shivz Autotech Mahindra
32	22107003	Miss. Laimayum Annapriya Sharma	Shivz Autotech Mahindra
33	22107006	Miss. Angom Lyndasana	Shivz Autotech Mahindra
34	22107021	Miss. Sparshika Hirekhan	NIT Calicut
35	22107011	Mr. Manukonda John William	CITD Balangar, Hyderabad
36	22107016	Mr. Rigalson Ahanthem	CITD Balangar, Hyderabad
37	22107031	Mr. Bhukya Sunil Naik	CITD Balangar, Hyderabad
38	22107029	Mr. Kodeti Manikanta	CITD Balangar, Hyderabad

Name of B.Tech. Students who graduated in 2023-24:

Sl. No.	Enrolment No.	Name of the Student	Final CPI
1	20107002	Tammima Sri Bharathi	9.00
2	20107004	Bonbiaraj Chabungbam	8.37
3	20107005	Lenin Thoudam	7.32

4	20107006	Kanamarlapuddi Charan Datta	8.09
5	20107007	Challa Dhanush Sri Karthik Reddy	9.04
6	20107008	Lanka Naga Durga Jagadeesh	7.89
7	20107010	Marri Jithendra Sai Srikanth	7.57
8	20107011	Laishram Rakesh Singh	8.2
9	20107012	Karam Birjit Singh	8.49
10	20107013	Md Niyaz Sharif	7.87
11	20107014	Lanjenthoba Leishangthem	7.97
12	20107015	Gorremuchu Chandu	7.39
13	20107017	Voggu Lokesh	6.91
14	20107018	Thangjam Tenzing	7.82
15	20107019	D Pavan Kumar	7.68
16	20107020	Urapam Angkang	8.1
17	20107021	Samuel Dongkhanhau	7.68
18	20107022	Paulian Tonsing	7.94
19	20107024	Worchuingam Shaiza	8.3
20	20107025	Withubou Moita	8.19
21	20107026	Tindeichong Kilong	8.62
22	20107027	Maile Charith Rushmi	9.04
23	20107028	Tapa Bhanu Prakash	7.79

Name of M.Tech Students who graduated in 2023-24

Sl. No.	Enrolment No.	Name of the Student	Final CPI
1	21207001	Wahengbam Maniketan Singh	8.85
2	21207002	Silinbou Newmai	8.6
3	21207003	Thangjam Seemashwori Devi	8.89
4	21207004	Mairembam Frankko Singh	8.95
5	21207005	Ganta Venkateswararao	8.19
6	22207002	Irom Bhogen Singh	8.15

Name of Ph.D. Students who graduated in 2023-24:

Sl. No.	Enrolment No.	Name of the Student	Thesis Name	Name of the Supervisor/Co-Supervisors	Date of Defence
1.	1847002	Mrs. Arpita Chatterjee	Finite element analysis and validation of Sic/Graphite Hybrid Aluminum metal matrix composite for resilient brake rotor component for light weight vehicle	Dr. Anil Kumar Birru (Associate Professor, NIT Manipur, Prof Goutam Sutradhar (	17 th January 2024

				Director NIT Jamshedpur)	
2.	18407004	Mr. Kumara Swamy Pulisheru	Characterization and strengthening of Al-Cu-Ni/FeNbComposites through Laser Surface Melting	Dr. Anil Kumar Birru	27 th February 2024

No. of GATE/NET Qualified students in 2023-24: 02

Sl. No.	Name of the Student	GATE/NET	Percentile for GATE	Category
1	Challa Dhanush Sri Karthik Reddy	2024	Rank 9565	Gen.
2.	Maile Charith Rushmi	2024	Rank-10179	Gen.

No. of Students who have enrolled for higher studies (Foreign/National)

Sl. No.	Name of the Student	Course/Programme	Name of the Institute	Country
1	NIL			

Other Activities:

1. Details of NEP Activity conducted by the Department in 2023-24

- A new syllabus is being framed based on NEP guidelines.
- Attended NEP-related workshops.
- Faculty attended various workshops and Conferences in India and Abroad

2. Details of Faculty Achievements in 2023-24

Sl. No.	Name of the Faculty/Staff/students	Title of Award	Awarding body	Date of Award
1	Dr. Anil Kumar Birru	Appracation for NIRF-2023 as a capacity of Secretary	NIT Manipur	May-2023
2	Rajesh Kumar Bhushan	Listed among the Top 2% Scientist in The World for year-2023	Stanford University, California, and Elsevier BV	May 2023
3	Rajesh Kumar Bhushan	Appreciation for improving NIRF rank of NIT Manipur from 108 to 95 for year 2023	Director NIT Manipur	May 2023

4	Rajesh Kumar Bhushan	Appreciation For successfully organizing 1 st international conference on Sci/Tech and Engineering (ICSTE-2023).	Director Manipur	NIT	Feb 2023
5	Rajesh Kumar Bhushan	Appreciation for delivering expert talk	Director Manipur	NIT	Apr 2024

3. Details of Students' Achievement in 2023-24:

Sl. No.	Name of the student	Title of Award	Paper ID	Date of Award
1	Mr. Lanjenthoba Leishangthem	Best Futuristic award Model, IIT Guwahati	New Gen IEDC	16 th September 2023
2	Mr. Karam Birjit Singh	Best Futuristic award Model, IIT Guwahati	New Gen IEDC	16 th September 2023
3	Mr. BonBiaraj Chabungbam	Best Futuristic award Model, IIT Guwahati	New Gen IEDC	16 th September 2023
4	Laishram Rakesh Singh	Best Futuristic award Model, IIT Guwahati	New Gen IEDC	16 th September 2023
5	Mr. Lenin Thoudam	Best Futuristic award Model, IIT Guwahati	New Gen IEDC	16 th September 2023

4. Details of Awards/ Recognition received by Faculty/Staff/Students in 2023-24

Sl. No.	Name of the Faculty/Staff/student	Awards/ Recognition	Awarding body	Date of Award
1	NIL	-----	-----	----

5. Details of contribution to the society:

- **Dr. Thokchom Subhaschandra Singh**, Asst. Prof. (ME), has been elected as Honorary Secretary of The Institution of Engineers (India) Manipur State Centre for the session (2023-25).

6. Steps take for popularization of Science and Technology among the Students of Manipur.

Sl. No.	Name of the Faculty	Purpose of visit	Place of Visit
1	Dr. Anil Kumar Birru	Helcare Hackathon, IIT Guwahati	Guwahati

Any other information: *Dr. Maibam Bindya Devi successfully organized a national colloquium “Estrogen related receptor gamma as a potential bio-marker and therapeutic target for various cancer” on 22nd March 2024 as an organizing secretary*

4.6 DEPARTMENT OF PHYSICS

(A) **Head of the Department:** Dr. Ibetombi Soibam

(B) **Brief introduction of the Department**

The Department was started in 2010, and since then, we have been actively involved in research activities and teaching at various levels. The department has well-equipped laboratories (both experimental and computational), and the facilities are constantly being developed to compete internationally. Currently, experimental research is carried out in the areas of condensed matter physics, and theoretical/computational research, a wide area in soft-matter physics is actively pursued. We vigorously promote research collaboration at the local level as well as national and international levels. Our faculty members publish their research work in reputed journals. The achievements and the potential for excellence in research are recognised in the form of research grants (from DST, ISRO, and other funding agencies) and awards (DST-INSPIRE Faculty Award) given to our faculty members.

Academic members of the department comprise of 6 faculties and 2 non-teaching staff, and currently we offer M. Sc. and B. Tech. teaching programme alongside PhD programme.

AIM: To become one of the leading departments in research and teaching in Physical Sciences.

OBJECTIVES:

- To promote advanced research and innovation among PhD students, focusing on collaboration and ethical practices to tackle global challenges.
- To provide master’s students with advanced knowledge, practical skills and industry experience through interdisciplinary learning and innovation.

(C) **Highlight of Research Activities**

The faculty members of the department are actively involved in research activities. The broad areas of research being carried out in the department are listed below:-

1. Ferrites and their composites for photocatalysis and hyperthermia applications

2. Ferrites for high frequency, high power and electromagnetic shielding applications
3. Piezoelectric ceramics for capacitor, energy storage and energy harvester applications
4. Glacier boundary and velocity estimation using synthetic aperture radar data
5. Waste water treatment: Adsorption, photocatalysis, peizocatalysis, electrocatalysis and advanced oxidation process.
6. Self-power generation: tribo electric nanogenerator.
7. Electrochemical energy storage system.
8. Synthesis and characterization of 2D materials (Graphene, MXene, hBNetc) and their nanocomposites
9. Superhard coating by physical vapour deposition and chemical vapour deposition
10. Energy generation (Photovoltaics) and energy storage (supercapacitor)
11. Synthesis and characterization of Nanowires (Si-NWs, GaN NWs, GaP NWs, ZnO NWs, SiN NWs etc)
12. Amorphous semiconductors
13. 0-D nanomaterials
14. Modelling of Advanced GAAFET
15. Polymer, transport properties of complex systems, study of ionic liquids, study of size poly-disperse 2D fluids and study of soft colloidal systems

(D) Faculty Members (Regular)

Sl. No.	Name of the Faculty	Designation	Qualification	Email
1.	Dr. Ibetombi Soibam	Associate Professor	PhD. Manipur University.	ibetombi96@gmail.com ibetombi96@nitmanipur.ac.in
2.	Dr.Bibhu Prasad Swain	Associate Professor	PhD, IIT Bombay	bpswain@nitmanipur.ac.in bibhuprasad.swain@gmail.com
3.	Dr. Mamata Maisnam	Associate Professor	PhD(Physics) Manipur University. UGC-Post Doctoral Fellow, UGC Delhi (2012-2014)	m_maisnam@yahoo.co.in
4.	Dr.Loushambam Herojit Singh	Associate Professor	Ph.D., HomiBhabha National Institute, Anushakti Nagar, Mumbar (IGCAR-Chapter)	herojit@nitmanipurac.in , loushambam@gmail.com
5.	Dr.Shagolsem Lenin Singh	Associate Professor	PhD (Physics), 2013,Leibniz Institute	lenin.shagolsem@nitmanipur.ac.in

			of Polymer Research Dresden, Germany & Technische Universität at Dresden, Germany	
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(E) Faculty Members (Contractual)

Sl.No.	Name of the Faculty	Designation	Qualification	Email
1.	Dr.Thoudam Diana	Assistant Professor	PhD, Manipur University	dianathoudam@gmail.com

(F) Non-Teaching Staff (Regular/ Contractual)

Sl.No.	Name of the Faculty	Designation	Qualification	Email
1.	Mr. Jimpaul Samukcham	Technical Assistant	M.Sc Manipur University	samukchamjimpaul@gmail.com
2.	Dr. Sujata Tongbarm	Technical Assistant	PhD Assam University	sujata@nitmanipur.ac.in

(G) Teacher Trainees' Details

Sl.No.	Name of staff	Designation	Qualification	Email

Academic Activities

I. Students Enrolment

Name of the Course	1 st Year	2 nd Year	3 rd Year	4 th Year	Total
B.Tech	----	----			
M.Sc	15	14			

II. Ph.D. Program.

	2023-24
No. of full time	23
No. of part time	2
Total	25
Degree awarded during 2023-24	7

III. Research information:

(A) Sponsored Research Projects from Govt./Semi Govt

SI. No.	Name of the project	Funding agency	Project amount	Project PI
1.	Study of multiferroicnanocomposites with Dy substituted BFO as one of its constituent phase.	UGC-DAE-CRS Kolkata Centre	Rs. 45000	Dr. Ibetombi Soibam
2.	Ti2C2Tx/ Graphene nanocomposites for supercapacitor electrode application	DST Manipur	1.34 lakhs	Dr.Bibhu Prasad Swain
3.	Synthesis of spinel structured lithium based soft ferrimagnets for application in satellite communication.	ISRO-RAC	15.64 LAKHS	Dr.MamataMaisnam (PI)
4.	Behavioural changes of oral Mucosa in Oral Squamous cell carcinoma (OSCS) Progression: An Electrical characterisation.	SERB-DST	Rs. 40,73,740/-	Dr.MamataMaisnam(Co-PI) and Dr. Ashish Ranjan (PI)
5.	Carbon decorated mixed metal oxides for photo and electro catalytic degradation of organic dyes and pesticides	DST-SERB, India	Rs. 22,17,355/-	Dr.LoushambamHerojit Singh

(B) Patent Details if any: NIL

(C) Publication in Journals (2023-24):

SI. No.	Author's Name	Publication in journals
1.	Ayekpam Kiranjit Singh & Ibetombi Soibam	Kiranjit, A., & Ibetombi, S. (2023). Magnetic Studies of Nanocomposites of La-Substituted Bismuth Ferrite and Zn-Substituted Lithium Ferrite. <i>Iranian Journal of Science</i> , 47(3), 979-985. DOI: https://doi.org/10.1007/s40995-023-01454-2
2.	Daniel Cliff Gonmei, Ibetombi Soibam	Soaking time effect on the properties of perovskite structure bismuth ferrite. <i>Indian Journal of Physics</i> , 97(8), 2433-2437. DOI: https://doi.org/10.1007/s12648-023-02595-1
3.	Daniel Cliff Gonmei,	MH Loop and PE Loop Study for Ni Substitution in Perovskite

	Ibetombi Soibam	Bismuth Ferrite. <i>Iranian Journal of Science</i> , 1-5. DOI: https://doi.org/10.1007/s40995-024-01581-4
4.	Jena S., Madhuri A., Gupta M., Swain B.P. ,	Comparative assessment and experimental analysis of atomic coordination and mechanical properties of sputter deposited Ti-rich TiN, TiC, and TiCN thin films, <i>Journal of Alloys and Compounds</i> , 1002, (2024) 175217, DOI: 10.1016/j.jallcom.2024.175217, ISSN:9258388
5.	Jena S., Laha S., Swain B.P.	Ti2NTx MXene/rGOnanocomposites: Optical tuning, functional bonding and electrochemical analysis for supercapacitor electrode application, <i>Applied Surface Science</i> , 666 (2024)160403, 10.1016/j.apsusc.2024.1, ISSN: 60403
6.	Rai S., Chettri S., Bhujel R., Mondal M.K., Kabi S., Swain B.P. , Biswas J.	Fabrication of graphene oxide/silicon nanowires heterojunction and investigation of its optical and electrical properties, <i>Journal of Materials Science: Materials in Electronics</i>
7.	Nongthombam S., Swain B.P.	Hydrothermal synthesis of rGO-TiO2 nanocomposites for electrochemical performance, <i>Journal of Applied Electrochemistry</i> , 54, 4, (2024) 809-821, DOI: 10.1007/s10800-023-01998-6, ISSN:0021891X
8.	Jena S., Madhuri A., Dutta S., Swain B.P.	Investigation of structural, phonon modes and electronic environment of GaP:Si nanostructure thin films, <i>Physica B: Condensed Matter</i>
9.	Chanu S.N., Devi P.S., Swain B.P.	Structural and electrochemical properties of manganese oxide/rGO/PCL nanofiber for supercapacitor electrode material, <i>Journal of Materials Science: Materials in Electronics</i> , 35,9(2024)646, DOI: 10.1007/s10854-024-12411-z, ISSN: 9574522
10.	Saini A., Madhuri A., Sahoo S.K., Devi P.S., Jena S., Laha S., Swain B.P.	Investigation of microstructural, chemical bonding and optical properties of Fe-Cu/rGOnanocomposites, <i>Journal of Alloys and Metallurgical Systems</i> , 5(2024)100053, DOI: 10.1016/j.jalmes.2023.100053, ISSN:29499178
11.	Chanu S.N., Jha S., Devi P.S., Swain B.P.	Structural, electrochemical and corrosion resistance properties of ZnO/rGOnanocomposite for supercapacitor electrode material, <i>Bulletin of Materials Science</i>
12.	Bhujel R., Rai S., Das S., Tiwari A., Chattopadhyay S., Swain B.P. , Deka U.	Unlocking the plasma advantage in elevating the performance of silicon nanowires/ poly(3,4-ethylenedioxythiophene): Poly(styrenesulfonate) hybrid solar cell, <i>Thin Solid Films</i>
13.	Kumar D., Das S., Swain B.P. , Guha S.	Unveiling the multifaceted impact of C2H2 flow on SiCN CVD coatings: Mechanical mastery and beyond, <i>Ceramics</i>

		International50,4(2024)6526-6542, DOI:10.1016/j.ceramint.2023.11.399, ISSN:
14.	Madhuri A., Jena S., Dutta S., Swain B.P.	Evolution of Electroless Cu/CuxO Nanostructured Thin Films: Study of Surface Fractal, Tuning Band Gap and Electronic Structure, Arabian Journal for Science and Engineering, 2024, DOI: 10.1007/s13369-024-09283-0, ISSN: 2193567X
15.	Ghadai R.K., Shanmugasundar G., Vanitha M., Čep R., Das S., Swain B.P.	Investigation of mechanical properties of silver-doped diamond-like carbon coating by varying deposition temperature, Frontiers in Mechanical Engineering, 10(2024)1354903, DOI: 10.3389/fmech.2024.1354903,
16.	Madhuri A., Jena S., Gupta M., Swain B.P.	Tweaking the mechanical stability of Al _{1-x} W _x N ternary nitride alloys for hard coating applications, and study on their structural, photoluminescence and surface chemical analysis, Journal of Alloys and Compounds 968 (2023)171854, DOI: 10.1016/j.jallcom.2023.171854, ISSN: 9258388
17.	Sahoo S.K., Madhuri A., Saini A., Jena S., Devi P.S., Laha S., Swain B.P.	Correlation of microstructural and chemical bonding of FeNi-rGOnanocomposites, Journal of Alloys and Metallurgical Systems
18.	Bhujel R., Rai S., Biswas J., Swain B.P.	Investigation of structural, chemical bonding and electrochemical performance of rGO–PEDOT:PSS nanocomposites, Bulletin of Materials Science, 46, 4(2023)204, DOI: 10.1007/s12034-023-03045-8, ISSN: 2504707
19.	Devi P.S., Chanu N., Laha S., Swain B.P.	Effect of Silver Content on Structural, Electronic Network, and Electrochemical Properties of rGOAg-PCL Electrospun Nanofiber Brazilian Journal of Physics,53(6) (2023)142, DOI: 10.1007/s13538-023-01355-0, ISSN: 1039733
20.	Madhuri A., Jena S., Gupta M., Swain B.P.	Nitrogen flow rate dependent atomic coordination, phonon vibration and surface analysis of DC magnetron sputtered nitrogen rich-AlN thin films, Physica B: Condensed Matter, 666 (2023)415141, DOI: 10.1016/j.physb.2023.415141, ISSN:9214526
21.	Rai S., Tamang S., Chettri A., Bhujel R., Mondal M.K., Ghosh P., Bhattacharyya N.K., Swain B.P. , Biswas J.	Simultaneous reduction of graphene oxide and incorporation of cobalt oxide using Eupatorium glandulosumKunth, Bulletin of Materials Science,
22.	Chanu S.N., Devi P.S., Swain B.P.	Photoluminesce, phonon vibrations and structural properties of electrospun V2O5/rGO/PCL nanofibers and their application for

		supercapacitor electrode material, Inorganic Chemistry Communications, 155 (2023) 110978DOI: 10.1016/j.inoche.2023.110978, ISSN:13877003
23.	Jena S., Madhuri A., Gupta M., Swain B.P.	Investigation of Interfacial and Interdiffusion Study of Ti ₂ N MXene Phase from TiN/Ti multilayers, Thin Solid Films 780(2023)139969, DOI: 10.1016/j.tsf.2023.139969, ISSN:406090
24.	Tamang S., Rai S., Bhujel R., Bhattacharyya N.K., Swain B.P. , Biswas J.	A concise review on GO, rGO and metal oxide/rGO composites: Fabrication and their supercapacitor and catalytic applications,
25.	Devi P.S., Chanu S.N., Laha S., Swain B.P.	Structural, photoluminescence and electrochemical properties of rGO/La ₂ O ₃ nanocomposites for supercapacitor electrode application, Applied Physics A: Materials Science and Processing
26.	Tamang S., Rai S., Mondal M.K., Bhattacharyya N.K., Swain B.P. , Biswas J.	Microwave-assisted reduction of graphene oxide using Artemisia vulgaris extract for supercapacitor application, Journal of Materials Science: Materials in Electronics 34, 7(2023)575, DOI: 10.1007/s10854-023-09995-3, ISSN: 9574522
27.	Nongthombam S., Laha S., Swain B.P.	Chemically synthesized rGO/SiCnanocomposites and their electrochemical performance for supercapacitor electrode, Physica B: Condensed Matter 652(2023)414622, DOI: 10.1016/j.physb.2022.414622, ISSN: 9214526
28.	Rai S., Bhujel R., Biswas J., Swain B.P.	Silicon Nanowires/Graphene Oxide Heterojunction for Photovoltaics Application, Materials Horizons: From Nature to Nanomaterials
29.	Rizal U., Swain B.P.	Structural, chemical network and optoelectronic properties of Ag catalyzed CVD grown gallium nitride nanowires in reduced atmosphere, Materials Today: Proceedings74(2023)874-880, DOI: 10.1016/j.matpr.2022.11.273, ISSN: 22147853
30.	Nongthombam S., Aruna Devi N., Sinha S., Ishwarchand Singh W., Swain B.P.	Analysis of structural defects with the chemical composition of rGO/GaNnanocomposites using Raman spectroscopy, Materials Today: Proceedings, 74(2023)744-749
31.	M Maisnam , NP Devi, O Babynanda, N Nilima, C Prakash	The effect of ZnO and MnO ₂ as sintering aids in the preparation of potassium sodium niobate ceramics and electrical characterizations, January 2024, Ferroelectrics 618(1):200-210, DOI: 10.1080/00150193.2023.2271326 .

32.	ChiranjitChaliha, Mamata Maisnam	Structural, Electrical Studies of $K_{0.47}Na_{0.47}Li_{0.06}NbO_{3+(x)}Bi_{0.5}Na_{0.5}ZrO_3$ Composites January 2024, Ferroelectrics 618(1):173-185 , DOI: 10.1080/00150193.2023.2271324
33.	AthikhoHrishu, Mam ata Maisnam	Structural and electrical conduction properties of Y ³⁺ ions substituted Li-Zn-Ti ferrites January 2024, Ferroelectrics 618(1):211-218 , DOI: 10.1080/00150193.2023.2271327
34.	HaobamSamamnanda Singh, Mamata Maisnam	Study of structural and electrical properties of oxides added K _{0.47} Na _{0.47} Li _{0.06} NbO ₃ ceramics, December 2023, Ferroelectrics 617(1):83-92 , DOI: 10.1080/00150193.2023.2271138
35.	ThongamNingthouba Singh, Mamata Maisnam	Magnetic 97rapheme97al nature of Ti ⁴⁺ substituted lithium zinc manganese ferrite,December 2023, Ferroelectrics 617(1):74-82 , DOI: 10.1080/00150193.2023.2271136 .
36.	Irom Monika Aniz, Mamata Maisnam	The effect of ZnO and MnO ₂ as sintering aids in the preparation of potassium sodium niobate ceramics and electrical characterizations, Ferroelectrics 618(1):200-210 DOI: 10.1080/00150193.2023.2271326
37.	N. Kirtimala Devi, Boris Wareppam, Loushambam Herojit Singh	Cationic migration effect on the dielectric and magnetic properties of CoFe ₂ O ₄ /ZnO composites, <i>Physica B: Condensed Matter</i> 679 (2024) 415794
38.	KonthoujamPriyanan da Singh, Boris Wareppam, Ningthoujam Joseph Singh, Subhadip Pal, NingthoujamSomorjit Singh and Loushambam Herojit Singh	<i>Probing the structural transformation of ZIF-L to ZnO for sustainable congo red dye removal</i> , <i>PhysicaScripta</i> 99 (2024) 035951.
39.	Flossie B F 97rapheme, W Joychandra Singh, DeepjyotiMahanta, NibeditaKapil, ProbinPhanjom, Herojit Singh	<i>Degradation of methylene blue through atmospheric pressure glow discharge plasma treatment</i> , <i>PhysicaScripta</i> 99 (2024) 015601.

	Loushambam, Smruti R Mohanty and NgangomAomoa	
40.	Boris Wareppam, N. Joseph Singh, K. Priyananda Singh, N. Aomoa, and L. Herojit Singh	<i>Imidazole-functionalized plasma-treated ZnO and α-Fe₂O₃ composites for catalytic degradation of dye, International Journal of Modern Physics B</i> 33 (2024) 2450331.
41.	Boris Wareppam, K. Priyananda Singh, N. Joseph Singh, Subrata Ghosh, N. Aomoa, V. K. Garg, A. C. Oliveira, L. Herojit Singh	<i>Variation in defects and properties in composite of ZnO and α-Fe₂O₃ for sustainable wastewater treatment, Journal of Applied Physics</i> 133 (2023) 235305.
42.	KonthoujamPriyananda Singh, Boris Wareppam, KarkalaGururajRaghavendra, Ningthoujam Joseph Singh, Aderbal Carlos de Oliveira, Vijayendra Kumar Garg, Subrata Ghosh, Loushambam Herojit Singh	<i>Heterophase Grain Boundary-Rich Superparamagnetic Iron Oxides/Carbon Composite for Cationic Crystal Violet and Anionic Congo Red Dye Removal, Advanced Engineering Materials</i> 25 (2023) 2300354
43.	Meitei, Thokchom Premkumar, and Lenin S. Shagolsem.	"Transport properties of polydisperse hard-sphere fluid: effect of distribution shape and mass scaling." <i>Pramana</i> 98.2 (2024): 1-11.
44.	Pame, Jackson, and Lenin S. Shagolsem.	"Transport properties of 2D Lennard–Jones fluid: effect of particle size polydispersity." <i>Molecular Physics</i> (2024): e2337283
45.	Singh, K. D., Yi, X., Shagolsem, L. S. , &Toijam, J.	Assessing Green Features of “Phumdi” as a Sustainable Material: A Comparative Analysis with Bamboo, Wood, Metal, and Plastic. <i>Sustainability</i> 16.2 (2024): 637
46.	Samukcham, Jimpaul, and Lenin S. Shagolsem	"Tracer dynamics in dense soft colloidal suspensions: from free diffusion to hopping." <i>Indian Journal of Physics</i> 98.1 (2024): 249-258.

(D) Publication in Conferences (2023-24):

1. Mustafa Z., Bhujel R., Rai S., Sharma A., Pradhan B.B., Swain B.P. Investigation of morphological, structural, vibrational and electrochemical properties of polyaniline for supercapacitor applications, AIP Conference Proceedings, 2786, 2023, 50006, DOI: 10.1063/5.0146756, ISSN: 0094243X.
2. AishwaryaMadhuri, Sanketa Jena, Sumitra Dutta, Bibhu Prasad Swain – “Substrate dependent fractal behaviors of Hot Wire Chemical Vapor Deposited Hydrogenated Silicon Thin Films” International Conference on Advanced Functional Materials and Devices (AFMD-2024) organized by Nanotechnology Research Centre (NRC), SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu, India, held during, February 26-29, 2024.
3. AishwaryaMadhuri, Mukul Gupta, Bibhu Prasad Swain – “DC magnetron sputtered Al_{1-x}W_xN ternary nitride alloys for hard coating applications” - Three Days National Workshop on Recent Advancements in Semiconductor Devices (NWRASD) 2024 organized by the Department of Electronics and Communication Engineering, PDPM Indian Institute of Information Technology, Design and Manufacturing, Jabalpur, India. held from July 1 st to July 3 rd , 2024.
4. Sanketa Jena, AishwaryaMadhuri, Sumitra Dutta, Bibhu Prasad Swain, Electrochemical and Optoelectronic Properties of Magnetron Sputtered Deposited TiN:C films, Conference name International Conference on Advanced Functional Materials and Devices (AFMD) 2024 Organizer Nanotechnology Research Center (NRC), SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu, India, Date February 26-29 (2024) Conference type Poster presentation
5. KaranjitLeiphrakpam, MamataMaisnam – “Gamma Spectroscopy Studies of Rice Samples Grown in Imphal Valley of Manipur, August 2023, DOI: [10.1007/978-981-99-3844-5_23](https://doi.org/10.1007/978-981-99-3844-5_23)
6. Moirangthem, Premjit M., and Lenin S. Shagolsem. "Phase and Order Behavior of Charged Asymmetric Diblock-Copolymer Melts in Bulk." *Macromolecular Symposia*. Vol. 413. No. 1. 2024.

(E) Publications in Books/Book Chapters (2023-24):

1. Swain B.P., Dixit U.S. Preface 2024 Lecture Notes in Electrical Engineering 1071 LNEE v vi 18761100
2. Swain B.P., Dixit U.S. Preface 2024 Lecture Notes in Civil Engineering 431 LNCE v vi 23662557
3. Swain B.P. Preface 2023 Springer Proceedings in Materials 25 v 26623161
4. Swain B.P. Preface 2023 Materials Horizons: From Nature to Nanomaterials Part F1208v vii 25245384
5. Bhujel R., Rai S., Swain B.P. Fabrication and Characterization of Silicon Nanowire Hybrid Solar Cells 2023 Materials Horizons: From Nature to Nanomaterials Part F1208121 14210.1007/978-981-99-3866-7_525245384
6. Madhuri A., Jena S., Swain B.P. Transition Metal Nitrides as Energy Storage Materials 2023 Materials Horizons: From Nature to Nanomaterials Part F1208 57 75 10.1007/978-981-99-3866-7_225245384
7. KangjamDevishri, RajkumarKamaljit Singh, KhoisnamNanaoba Singh, MamataMaisnam- “Rathong glacier’s Line-Of-Sight (LOS) Velocity Measured Using the Modified Four-Pass

DInSARTechniqueAugust 2023,DOI: [10.1007/978-981-99-4665-5_21](https://doi.org/10.1007/978-981-99-4665-5_21), In book: Lecture Notes in Civil Engineering,Publisher: Springer, Singapore

8. ChiranjitChaliha, HaobamSamananda Singh, Irom Monika Aniz, , MamataMaisnam – “Exploring Lead-Free Piezoelectric Ceramics for Enhanced Energy Harvesting Applications, Next generation materials for sustainable Engineering, DOI: 10.4018/979-83693-1306-0.ch011, March 2024, IGI Global, pg. 94-125., Pennsylvania, USA
9. HaobamSamananda Singh, Irom Monika Aniz, ChiranjitChaliha, MamataMaisnam – “Lead-Free Alkali Niobate Piezoelectric Materials: Synthesis and Characterizations, Next generation materials for sustainable Engineering, DOI: 10.4018/979-83693-1306-0.ch05, March 2024, IGI Global, pg. 220-243, Pennsylvania, USA

(F) Short Term Course / Workshops / Seminar / Conference conducted by the department (2023-24):

Sl.No.	Name	Duration		Name of the organizer
		From	To	
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(G) Internship or Industrial Visits: NIL

Name of B.Tech students who graduated in 2023-24: N.A

Sl.No.	Enrolment No.	Name of the student	Final CPI

Name of M.Sc. students who graduated in 2023-24:

Sl. No.	Enrollment No.	Name of the student	Final CPI
1	22309001	Chandra Sekhar mahapatra	8.35
2	22309002	Gaurav Pachauri	7.77
3	22309003	Priti Sajjan	7.97
4	22309004	Nisha sharma	7.66
5	22309006	Abhay Pratap Singh	7.57
6	22309007	Rakesh Angom	7.81
7	22309008	Khoneesh Ningthoujam	9.07
8	22309009	Micheal Koijam	7.62
9	22309010	Wahengbam Jibankumar Singh	6.93
10	22309011	Heikham Jacob Singh	7.42
11	22309012	Ranjan Thiyam	7.62
12	22309013	Pukhrambam Sarita Devi	7.24
13	22309014	Wanglemba Thokchom	7.18

14	22309015	Kangujam Thajamanbi chanu	6.9
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Name of Ph.D. students who graduated in 2023-24:

Sl. No.	Enrolment No.	Name of the student	Thesis Name	Name of the Supervisor/ Co-Supervisor	Date of defence
1.	18409004	Daniel Cliff Gonmei	Study of structural, electrical and magnetic properties of perovskite and spinel ferrite	Dr. Ibetombi Soibam	06/01/2024
2.	19409008	S. NonganbiC hanu	Transition metal oxide doped reduced 101rapheme oxide and polymer nanocomposites for supercapacitor applications	Dr.Bibhu Prasad Swain	28/11/2023
3.	19409007	P. Sushama Devi	Investigation of reduced 101rapheme oxide, metal, metal oxide and polymers-based interaction for supercapacitor applications	Dr.Bibhu Prasad Swain	15/01/2024
4.	18409007	Sumitra Nongthomb am	High Bandgap Semiconductor / rGOnanocomposite for Supercapacitor applications	Dr.Bibhu Prasad Swain	16/01/2024
5.	18409002	KhoisnamN anaoba Singh	Studies of Polar Ice Using SCATSAT-1 Data	Dr.Mamata Maisnam and Dr. Rajkumar Kamaljit Singh	15-01-2024
6.	18409001	Boris Wareppam	Role of defects in metal oxides, ZIFs and their composites for sustainable water treatment	Dr.Loushambam Herojit Singh	31/10/2023
7.	18409003	ThoudamVi lip Singh	Investigations on the nature of coil-globule transition, identity ordering and folding kinetics of a model heteropolymer	Dr.Shagolsem Lenin Singh	06/07/2023

No. of GATE/NET qualified students in 2023-24:

Sl. No.	Name of the student	GATE/NET	Percentile for GATE	Category
1.	Nisha Sharma	GATE	33.33	EWS
2.	Chandra SekharMahapatra	GATE	32.0	EWS

No. of students who have enrolled for higher studies (Foreign/National):

Sl. No.	Name of the student	Course/Programme	Name of the Institute	Country

No. of students who have been placed in 2023-24: NIL

Other Activities:

1. Details of NEP activities conducted by the Department in 2023-24:

- A new syllabus is being framed based on NEP guidelines.
- Attended NEP related workshops (Dr. Lenin)

2. Details of Faculty achievement in 2023-24: NIL

3. Details of Student Achievement in 2023-24:

Sl. No.	Name of the students	Title of Award	Paper ID	Date of Award
1	Mr. Konthoujam Priyananda Singh	Best Poster Award in the International conference on functional materials, IIT Kharagpur		11/01/2024

4. Details of Award/Recognition received by Faculty/Staff/Students in 2023-24: NIL

5. Details of contribution to society: NIL

6. Steps taken for popularization of Science and Technology among the students of Manipur:

Sl. No.	Name of the Faculty	Purpose of visit	Place of Visit
1	Dr. L. Herojit Singh	Motivate the students related to science subjects	JNV, Khumbong, Imphal West
2	Dr. L. Herojit Singh	Motivate the students related to science subjects	JNV, Yaratpat, Imphal East

Any other information: NIL

4.7 DEPARTMENT OF CHEMISTRY

(A) **Head of the Department :** Dr. Nagarajan S

(B) **Brief Introduction of the Department**

The department started its journey in 2010 as Basic Sciences and Humanities and became an independent, full-fledged department in 2016. Over the last two years, we have grown our expertise and potential in the core Chemical Sciences curriculum and research. We have a postgraduate program in the Department of Chemistry, including an M.Sc. and Ph.D. in Chemistry. The sanctioned students' strengths M.Sc. is 18 per year including newly introduced Economically Waaker Section reservation, which has a scope to increase. At present, 18 students have enrolled on Ph.D. programme, and one has been awarded the degree. Our department offers a career-oriented P.G. course, and the primary goal of our curriculum is to develop the students with a scientific mind, to promote their problem-solving skills and innovation of new technologies. The department offers a large number of elective courses to provide a broad spectrum of options to the students to pursue their interests. The course contents are often updated to introduce new scientific developments. M.Sc. projects are designed by the faculty members to promote the students with research attitude and extract publications from their work. Passed-out students are well-trained in contemporary and modern methodologies and techniques and have been placed in several reputed institutes for Ph.D. programmes.

Vision: The vision of the Department of Chemistry, NIT Manipur, is to encourage young minds to align themselves with international standards of excellence in education, learning and innovation.

Mission: To equip the department to deliver excellence in quality teaching and research by creating an energetic and dedicated environment.

- Healthy and self-governing concepts, transfer of knowledge between faculties and students,
- Promoting innovation and passion for science,
- Use of latest technological tools in learning process, and
- International standard high-quality research.

(C) **Highlight of Research Activities**

Active research groups of the Department of Chemistry are motivated to conduct challenging, collaborative and interdisciplinary research. We are able to build up state-of-the-art research facilities to support our academic programs and research. Externally funded projects sponsored by SERB, BRNS, DST Govt. of India and DST Govt. of Manipur, ICMR and MoE-STARS is estimated to be around 2.5

crore. Consultancy projects are also undertaken at our department. Faculty members and research scholars of our department with excellent academic credentials have several distinguished records in both teaching and research. They are awarded with many prestigious awards at national and international levels. Several faculty members are on the editorial boards of national and international journals. Prestigious GIAN courses in collaboration with foreign faculties have been organized by our faculty members.

(D) Faculty Members (Regular)

Sl No.	Name of the Faculty	Designation	Qualification	Email
1	Dr. Th. David Singh	Associate Professor	Ph.D., (Nagaland Univ.)	davidthiyam@gmail.com
2	Dr. Mithun Roy	Associate Professor	Ph.D., Post Doc. (IISc Bangalore)	mithunroy.iisc@gmail.com
3	Dr. Chandi Charan Malakar	Associate Professor	Ph.D. (Ludwig Maximilians Univ. Munich, Germany)	chdeepm@gmail.com
4	Dr. Nagarajan S.	Assistant Professor	Ph.D., Post Doc. (National Chemical Laboratory Pune)	nagarajan.sankar84@gmail.com

(E) Faculty Members (Contractual)

Sl No.	Name of the Faculty	Designation	Qualification	Email
1	Dr. Henam Premananda Singh	Assistant Professor	Ph.D. (Delhi Univ.)	henam_boynao@yahoo.co.in
2	Dr. W. Sujata	Assistant Professor	Ph.D., Post Doc. (Manipur University)	wangkheimayums@yahoo.com

(F) Non-Teaching Staff (Regular/Contractual)

Sl No.	Name of the Staff	Designation	Qualification	Email
1	Ngasepam Bhogenjit Singh	Technical Assistant	M.Sc., (Chemistry)	bhogenjitn@yahoo.com

(G) Trainee Teachers (if any): **NONE**

Academic Activities

I. Students Enrolment

Name of the Course	1 st Year	2 nd Year	3 rd Year	4 th Year	Total
B.Tech	-	--	-	-	-
M. Sc	10	14	-	-	24

II. Ph.D. Program.

	2023-24
No. of Full Time	17
No. of Part Time	1
Total	18
Degree Awarded during 2023-24	1

III. Research Information

(A) Sponsored Research Projects form Govt./Semi Govt.

Sl. No.	Name of the Project	Funding Agency	Project Amount	Project PI
1	Synthesis and Decoration of Drug-like Molecules using Transition Metal-Catalyzed C(sp ²)-H/C(sp ³)-H Bond Activation Approach	SERB, Govt. of India	38.84 Lakhs	Dr. Chandi C. Malakar
2	Investigation on Metal-Free Approaches towards C-C and C-Heteroatom Bond Formation for the Synthesis of Carbocycles and Heterocycles	SERB, Govt. of India	35.77 Lakhs	Dr. Chandi C. Malakar
3	Investigation of Novel Therapeutic Compounds for Inhibitors of the Protein Kinase Family to Treat Cancer: Synthesis and Evaluation of Biological	MoE, Govt. of India	15.94 Lakhs	Dr. Chandi C. Malakar

	Activity	Proposal No. 2023-0928		
4	Computational studies on investigation of the potential role of metal-based compounds as the inhibitors of SARS-CoV-2 as well as other aggressive mutant strains of SARS-CoV-2	SERB, DST, Govt. of India	20,18,632/-	Dr. Mithun Roy
5	Novel Cobalt(III)-based bio-reductive product modeling for hypoxia selective chemotherapeutic steering of hypoxia inducible factors(HIF) as an alternative source of treatment stratagem for breast cancer.	Indian Council of Medical Research (ICMR)	33,50,000	Dr. Mithun Roy
6.	Development of Mordants for Painting, Printing and Dyeing	DST, Govt. of Manipur	Rs. 90,000/-	Dr. Th. David Singh

(B) Patent Details if any:

Sl. No.	Inventor(s)	Patent Title	Date of Granted/Published
1	M. Loya, A. K. Atta, C. C. Malakar	“Bis-Pyrene Derivative Chemosensors for Quantifying Gold (III) Ions in Aqueous Medium and Process of Preparation Thereof” Indian Patent, Application number: 202331046716. Application date: 11.07.2023.	Journal no. 35/2023, Vol. 4, date 01.09.2023 , page no. 58089

(C) Publications in Journals (2023-24)

- (1) V.P. R. K. Putta, S. Polina, R. Gujjaraappa, P. S. Kishore, **C. C. Malakar**, P. P. Pujar “Efficient Synthesis of 4H-3,1-Benzothiazin-4-ones via C-N/C-S Bond Forming Reactions Polycyl. Arom. Comp. **2023**, 43, 7416-7425, <https://doi.org/10.1080/10406638.2022.2136220>.
- (2) L. S. Singh, S. Banerjee, I.Saha, **C. C. Malakar** “Organocatalyzed-Aerobic Oxidation of Arylboronic Acids toward the Synthesis of Phenolic Derivatives” Lett. Org. Chem. **2023**, 20, 533-540, <http://dx.doi.org/10.2174/1570178620666221128121925>.

- (3) Vaishali, **C. C. Malakar**, V. Singh “A Cascade A3 Coupling Strategy towards Regioselective Synthesis of β -Carboline N-fused Pyrrole Derivatives with Pyridine Tethers New J. Chem.**2023**, 47, 1186-1196, <https://doi.org/10.1039/D2NJ04620B>.
- (4) **C. C. Malakar**, L. Dell'Amico, W. “Dual Catalysis in Organic Synthesis: Current Challenges and New Trends” Eur. J. Org. Chem.**2023**, 26, e202201114, <https://doi.org/10.1002/ejoc.202201114>.
- (5) S. Sharma, D. Singh, S. Kumar, R. Jamra, N. Banyal, Deepika, **C. C. Malakar**, V. Singh , “An Efficient Metal-free and Catalyst-free C-S/C-O Bond Formation Strategy: Synthesis of Pyrazole Conjugated Thioamides and Amides” Beilstein J. Org. Chem.**2023**, 19, 231-244, <https://doi.org/10.3762/bjoc.19.22>.
- (6) A.K.Kabi, M.Pal, R. Gujjarappa, **C. C. Malakar**, Mithun Roy “Overview of Hydroxychloroquine and Remdesivir on severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Heterocycl. Chem.**2023**, 60, 165-182, <https://onlinelibrary.wiley.com/doi/full/10.1002/jhet.4541>.
- (7) M. Shtaiwi, M. Al-Refa'I, L. Al-Najjar, N. Al-jaar, **C. C. Malakar**, A. Shtaiwi, M. A. Sini, “Design, Synthesis, Biological Activity, and Molecular Modeling of Novel Spiroquinazoline Derivatives as Acetylcholinesterase Inhibitors for Alzheimer Disease” Polycycl. Arom. Comp. **2023**, 43, 8082-8095, <http://dx.doi.org/10.1080/10406638.2022.2144911>.
- (8) K. Kant, S. Banerjee, C. K. Patel, S.Kalita, R. Reetu, P. Nayak, N. Al-Jaar, **C. C. Malakar** “Advances on Catalytic Approaches towards the Synthesis of Quinoline Derivatives using Povarov Reaction” Heterocycles**2023**, 106, 925-967, <http://dx.doi.org/10.3987/REV-23-1004>.
- (9) N. Al-jaar, M. M. Ibrahim, E. A. Younes, M. Al-Noaimi, K. A. Abu-Safieh, B. F. Ali, K. Kant, **C. C. Malakar**, “Strategies towards the Synthesis of 2-Ketoaryl Azole Derivatives using C-H Functionalization Approach and 1,2-Bis-Nucleophile Precursors” Asian J. Org. Chem. **2023**, 12, e202300036, <https://doi.org/10.1002/ajoc.202300036>.
- (10) E.Pinky Devi, S.Polina, K. Kant, A. K. Kabi, N. Al-Zaqri, N.Aljaar, **C. C. Malakar** “N-Alkylation of Azoles with Enones Assisted by P(III) or Fe₂O₃-nanoparticles as Recyclable Catalyst” Heterocycles**2023**, 106, 1023-1038, <https://doi.org/10.3987/COM-23-14833>.
- (11) C. K. Patel, R. Gujjarappa, K. Kant, S. Ghanta, V. Singh, A. K. Kabi, N. Al-Zaqri, **C. C. Malakar** “Copper-Catalyzed C(sp³)-Functionalization and Annulation of 2-Bromoaryl Oximes with Active Methylene Compounds towards Synthesis of Isoquinoline N-Oxides” Adv. Synth. Catal.**2023**, 365, 2203-2210, <https://doi.org/10.1002/adsc.202300217>.
- (12) M. Singh, Deepika, S. Kumar, Jyoti, N. Kumar, B. Bhudalkoti, **C. C. Malakar**, V. Singh Transition Metal-free Cascade C-N Bond Formation: An Effective Strategy for the Synthesis of

- β*-Carboline N-Fused Imidazolium Acetates and Estimation of their Light Emitting Properties” *Synthesis* **2023**, 55, 3329-3341, 10.1055/s-0041-1738447.
- (13) S. Kumar, R. Kumar, **C. C. Malakar**, V. Singh, “Copper catalysed regioselective synthesis of pyrimidine substituted Indolizino[8,7-b]indole derivatives via cascade A3 annulation” *Tetrahedron* **2023**, 142, 133547, <https://doi.org/10.1016/j.tet.2023.133547>.
- (14) D.Dhillon, A. K. Paul, **C. C. Malakar**, A. Bansal, V. Singh, “DABCO Mediated Sulfur Activation-Intramolecular De-nitration Strategy for the Synthesis of Novel Dihydrothiochromeno[4,3-c]pyrazoles”, *Asian J. Org. Chem.* **2023**, 12, e202300289, <https://doi.org/10.1002/ajoc.202300289>.
- (15) C. K. Patel, S. Banerjee, K. Kant, R. Sengupta, N. Aljaar, **C. C. Malakar**, “Roles of Alkali Metals tert-Butoxide as Catalysts and Activators in Organic Transformations” *Asian J. Org. Chem.* **2023**, 12, e202300311, <https://doi.org/10.1002/ajoc.202300311>.
- (16) L. S. Singh, K. Kant, S. Banerjee, R. Sengupta, A. A AlObaid, M. Pal, S. Dutta, N. Aljaar, **C. C. Malaka**, “The γ -Valerolactone (GVL) as Innocuous Reaction Media for the Synthesis of 2-Aryl-2H-Indazoles via C-N and N-N Bond Formation under Cu(I)-Catalyzed Ligand and Base Free Conditions” *Polycyl. Arom. Comp.* **2023**, <https://doi.org/10.1080/10406638.2023.2257846>.
- (17) E. P. Devi, K. Kant, D. Kaldhi, S. Ghanta, R. Sengupta, N. Al-Zaqri, V. Singh, **C. C. Malakar**, “Metal- and Hazardous Reagent-Free Transamidation Process: the $\text{NH}_2\text{OH}\cdot\text{HCl}$ Promoted N-Formylation and N-Acylation Reaction under Solvent-Less Conditions” *Polycyl. Arom. Comp.* **2023**, <https://doi.org/10.1080/10406638.2023.2257841>.
- (18) Y. A Teli, R. Reetu, P. G. Singh, M. J. Patel, S. Dash, S. Paine, P. S. Prabhakar, V. Singh, K. S Keremane, N. Al-Zaqri, K. Mukherjee, S. Dutta, **C. C. Malakar**, “Synthesis and Characterization of Novel Pd@rGO–CuFe₂O₄ Magnetic Nanoparticles: A Recyclable Catalyst for C–C Coupling Reaction in Biomass-Derived Organic Solvent, *Asian J. Org. Chem.* **2023**, 12, e202300481, <https://doi.org/10.1002/ajoc.202300481>.
- (19) K. Kant, C. K Patel, S. Banerjee, P. Naik, A. K Atta, A. K Kabi, **C. C. Malakar**, “Recent Advancements in Strategies for the Synthesis of Imidazoles, Thiazoles, Oxazoles, and Benzimidazoles”, *ChemistrySelect* **2023**, 8, e202303988, <https://doi.org/10.1002/slct.202303988>.
- (20) R. Reetu, R. Gujjarappa, Y. A. Teli, M. J. Patel, S. Kalita, S. Dash, S. Ghanta, K. S Keremane, V. Singh, A. El-marghany, **C. C. Malakar**, “Transformation of Unactivated Alkenes into Iodohydrins and β -Iodoethers using Iodine-DMSO as a Reagent Combination, *ChemistrySelect* **2024**, 9, e202304426, <https://doi.org/10.1002/slct.202304426>.

- (21) N. Banyal, **C. C. Malakar**, R. Kumar, V. Singh, “*DIPEA-Assisted Efficient One-Pot Three-Component Synthesis of Novel β -Carboline Tethered Pyran Derivatives*”, *ChemistrySelect***2024**, 9, e202304751, <https://doi.org/10.1002/slct.202304751>.
- (22) R. Reetu, S. Kalita, S. Dash, **C. C. Malakar**, “*Iodine and DMSO as Surrogate of Hazardous Metal and Non-Metal Reagents in Organic Synthesis*”, *ChemistrySelect***2024**, 9, e202303845, <https://doi.org/10.1002/slct.202303845>.
- (23) P. S. Kishore, R. Gujjarappa, M. J. Patel, S. Polina, VP R. K. Putta, V. Singh, **C. C. Malakar**, P. P. Pujar, “*A Metal-Free KO^tBu-Mediated Protocol towards the Synthesis of Quinolines, Indenoquinolines and Acridines*”, *ChemistrySelect***2024**, 9, e202304897, <https://doi.org/10.1002/slct.202304897>.
- (24) D. Singh, S. Sharma, R. K. Thakur, S. Nain, **C. C. Malakar**, Virender Singh, “*Cu-catalysed diversity-oriented synthesis of isoxazole and imidazo[1,2-a]azine conjugates*”, *Tetrahedron* **2024**, 152, 133809, <https://doi.org/10.1016/j.tet.2023.133809>.
- (25) Y. A. Teli, R. Reetu, R. Gujjarappa, S. Banerjee, S. Ghanta, M. J. Patel, V. Singh, N. Al-Zaqri, R. Sengupta, **C. C. Malakar**, “*B(OH)₃-Catalyzed Dual Friedel-Crafts Type Reaction of Anilines and Aldehydes to Access Di- or Triarylmethanes (TRAMs)*”, *J. Org. Chem.***2024**, 27, e202301086, <https://doi.org/10.1002/ejoc.202301086>.
- (26) M. Shtaiwi, A. H. A. Sarhan, N. Aljaar, A. Shtaiwi, M. Abu-Sini, M. Alwahsh, L. Hamadneh, **C. C. Malakar**, K. A. Abu-Safieh, “*Enamino Barbiturates as Antiproliferative and Antimicrobial Agents: Studies on Synthesis, Biological Activities, and Molecular Modeling*”, *ChemistrySelect***2024**, 9, e202400626, <https://doi.org/10.1002/slct.202400626>.
- (27) N. Aljaar, H. F. Aboalrub, M. Shtaiwi, A. H. A. Sarhan, E. A. Younes, M. Al-Noaimi, A. Shtaiwi, L. H. Tahtamouni, K. A. Abu-Safieh, A. A. AlObaid, **C. C. Malakar**, “*Cu-Catalyzed Synthesis of 4H-benzo[4,5]thiazolo[3,2-a]pyrimidin-4-ones: Molecular Docking Studies and Anti-Proliferative Activities Against HepG2 Hepatocellular Carcinoma Cells*”, *Asian J. Org. Chem.***2024**, 13, e202400065, <https://doi.org/10.1002/ajoc.202400065>.
- (28) N. Banyal, **C. C. Malakar**, R. Kumar, V. Singh, “*Transition Metal-Free Diastereoselective Synthesis of β -Carboline Tethered Dihydrofurocoumarin Derivatives*”, *Asian J. Org. Chem.* **2024**, 13, e202300639, <https://doi.org/10.1002/ajoc.202300639>.
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- (30) K. Kant, C. K. Patel, R. Reetu, Y. A. Teli, P.Naik, S. Some, C. K.Hazra, N.Aljaar, A. K. Atta, **C. C. Malakar** “*Comprehensive Strategies on the Synthesis of Ene-Yne Derivatives*” *Synthesis* **2024**, DOI: 10.1055/a-2317-7262.
- (31) A. K. Kabi, R.Gujjarappa, A.Garg, A.Sahoo, A. Roy, S. Gupta,**C. C. Malakar** , “*Biological Impacts of Imidazoline Derivatives*” *Chemical Papers***2024**, CHPA-D-22-02838R2 (Accepted for publication).
- (32) C. K. Patel, K. Kant, Y. A. Teli, S. Banerjee, P.Naik, V. Sharma, K. S. Keremane, M. K. Al-Sadoon, V. Singh, **C. C Malakar**, “*Reductive C-N Bond Formation of Nitroarenes using Pd@rGO-CuFe₂O₄ Magnetic Nanoparticles in Water towards the Synthesis of N-Aryl Formamide and Azole Derivatives*” *Asian J. Org. Chem.* **2024**, 13,e202400255, <https://doi.org/10.1002/ajoc.202400255>.
- (33) K. Kant, C. K. Patel, S. Banerjee, P.Naik, A.Padhi, V. Sharma, V. Singh, R.Almeer, K. S. Keremane, A. K. Atta, **C. C Malakar**, “*HFIP-Mediated Cyclodesulfurization Approach for the Synthesis of 2-Aminobenzoxazole and 2-Aminobenzothiazole Derivatives*”, *Asian J. Org. Chem.* **2024**, 13,e202400223, <https://doi.org/10.1002/ajoc.202400223>.
- (34) Y. A. Teli, R.Reetu, S. A.Chanu, K. S. Keremane, R. Almeer, V. Singh, **C. C. Malakar**. “*HFIP-Mediated Dual C(Ar)-Alkylation Process towards the Regioselective Synthesis of Triarylmethanes (TRAMs)*”*Chemistry – An Asian J.*,**2024**,asia.202400635R1.
35. C. K. Patel,K. Kant, S. Banerjee,S.Kalita,A. K. Atta, **C. C. Malakar**,“*Skeletal Editing Through Single Atom Insertion: An Insight into A New Era of Synthetic Organic Chemistry*” *Synthesis*,**2024**,SS-2024-06-0263-FA.
36. K. Kant, P.Naik, C. K. Patel, S. Some, S. Banerjee, A.Padhi, N.Aljaar, A. K. Atta, **C. C. Malakar** “*Organocatalytic Approaches towards the Synthesis of Asymmetric Tetrahydroquinoline (THQ) Derivatives*” *Synthesis*,**2024**,SS-2024-05-0231-R.R1.
37. B. Dey, S. Ghosh, **C. C.Malakar**, A. K. Atta“*Review on pyrene-based fluorometricchemosensing materials for picric acid and their AIE properties*” *Microchemical Journal*,**2024**,200, 110486.
38. M. Pal, A. Panwar, S. Wahengbam, D. Musib, M. Roy,, “*In Silico Analysis of Ferrocenyl-Analogs as the Potential Drugs Against Aggressive UK-Based Strain of SARS-CoV-2 Novel Coronavirus*”, Springer Proceedings in Materials, 2023, 25, 229–234. <https://doi.org/10.1007/978-981-99-3844-5>
39. D. Musib, A. Upadhyay, M. Pal, M.K. Raza, I. Saha, A. Kunwar, M. Roy, “*Red light-activable biotinylated copper(II) complex-functionalized gold nanocomposite (Biotin-Cu@AuNP) towards targeted photodynamic therapy*”, *J. Inorg. Biochem.*, 2023, 243, 112183.

40. D. Musib, M. Mukherjee, **M. Roy**, “Emerging trends of La(III)-based compounds as the strategic tools for photodynamic therapy”, *Inorganica Chim. Acta*, 2023, 558, 121751.
41. G. Bag, D. Musib, M.K. Raza, A. Castonguay, **M. Roy**, “Recent advances on the photo-chemotherapeutic potential of manganese carbonyl complexes”, *Polyhedron*, 2024, 249, 116778.
42. M. Pal, A. Upadhyay, N. Masarkar, A. Bera, S. Mukherjee, **M. Roy**, “Folate-assisted targeted photocytotoxicity of red light-activable iron(III) complex co-functionalized gold nanoconjugates (Fe@FA-NPs) against HeLa and triple-negative MDA-MB-231 cancer cells”. *Dalton Trans.*, 2024, 53, 2108–2119.
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47. Effect of Citrate on Morphological and Structural Properties of Hydroxyapatite Nanoparticles Synthesized by Wet Chemical Precipitation Method, Thoudam Chanchan Devi, Ngasepam Bhogenjit Singh, and **Thiyam David Singh**, *Colloid Journal*, 86(3), 2024, 456-465, DOI: 10.1134/S1061933X24600027
48. Realizing high performance tunable sensing mode and selectivity of metal ions based on carbon dot Lamabam Rebika Devi, Henam Sylvia Devi, Henam Premananda Singh, and **Thiyam David Singh**, *Chemnanomat*, 10(2) 2024. doi.org/10.1002/cnma.202300456
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50. Evaluation of potential antioxidant and effect of biomimetic nanoscale silverparticles on opportunistic fungi, Naorem Manglembi Devi , Ngasepam Bhogenjit , Henam Premananda

Singh , Chingakham Brajakishor Singh ,**Sankaranarayanan Nagarajan**, Journal of the Indian Chemical Society, 100,100894, 2023.

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52. DurgaMalathi, AjmalKoyaPulikkal, MT Ramesan, **S Nagarajan**Bio-fiber recovery from industrially discarded shoot waste (Cymbopogonnardus): a comprehensive study for reinforcement in sustainable compositesBiomass Conversion and Biorefinery 2023, 1-12
53. AyyarManikandan S. Saranya, S. Dhanapandian, S. Suthakaran, **S. Nagarajan**, N. Krishnakumar, S. Dinesh, A. MuthukrishnarajNickel-Manganese bimetallic Selenide as an electrode for supercapacitor applicationsSustainable Energy Technologies and Assessments, 2023, 59, 103376.

(D) Publication in Conferences (2023-24)

(A) Publication in books/book Chapters (2023-24)

- (1) A. K. Kabi, S. Sravani, R. Gujjarappa, A. Garg, N. Vodnala, U. Tyagi, D. Kaldhi, R. Velayutham, S. Gupta, C. C. Malakar
“An Introduction on Evolution of Azole Derivatives in Medicinal Chemistry” Springer Nature, Singapore, 2022, http://dx.doi.org/10.1007/978-981-16-8399-2_4.
- (2) R. Gujjarappa, A. K. Kabi, S. Sravani, A. Garg, N. Vodnala, U. Tyagi, D. Kaldhi, V. Singh, S. Gupta, C. C. Malakar
“Overview on Biological Activities of Thiazole Derivatives” Springer Nature, Singapore, 2022, http://dx.doi.org/10.1007/978-981-16-8399-2_5.
- (3) R. Gujjarappa, A. K. Kabi, S. Sravani, A. Garg, N. Vodnala, U. Tyagi, D. Kaldhi, R. Velayutham, V. Singh, S. Gupta, C. C. Malakar
“Overview on Biological Activities of Imidazole Derivatives” Springer Nature, Singapore, 2022, http://dx.doi.org/10.1007/978-981-16-8399-2_6.
- (4) A. K. Kabi, S. Sravani, R. Gujjarappa, A. Garg, N. Vodnala, U. Tyagi, D. Kaldhi, V. Singh, S. Gupta, C. C. Malakar
“Overview on Biological Activities of Pyrazole Derivatives” Springer Nature, Singapore, 2022, http://dx.doi.org/10.1007/978-981-16-8399-2_7.
- (5) A. K. Kabi, S. Sravani, R. Gujjarappa, A. Garg, N. Vodnala, U. Tyagi, D. Kaldhi, R. Velayutham, V. Singh, S. Gupta, C. C. Malakar
“An Overview on Biological Evaluation of Tetrazole Derivatives” Springer Nature, Singapore, 2022, http://dx.doi.org/10.1007/978-981-16-8399-2_8.

- (6) A. K. Kabi, S. Sravani, R. Gujjarappa, A. Garg, N. Vodnala, U. Tyagi, D. Kaldhi, V. Singh, S. Gupta, C. C. Malakar
"An Overview on Biological Activity of Benzimidazole Derivatives" Springer Nature, Singapore, 2022, http://dx.doi.org/10.1007/978-981-16-8399-2_9.
- (7) R. Gujjarappa, S. Sravani, A. K. Kabi, A. Garg, N. Vodnala, U. Tyagi, D. Kaldhi, V. Singh, S. Gupta, C. C. Malakar
"An overview on Biological Activities of Oxazole, Isoxazoles and 1,2,4-oxadiazoles Derivatives" Springer Nature, Singapore, 2022, http://dx.doi.org/10.1007/978-981-16-8399-2_10.
- (8) A. K. Kabi, S. Sravani, R. Gujjarappa, A. Garg, N. Vodnala, U. Tyagi, D. Kaldhi, V. Singh, S. Gupta, C. C. Malakar
"An Overview on Biological Activities of 1,2,3-Triazole Derivatives" Springer Nature, Singapore, 2022, http://dx.doi.org/10.1007/978-981-16-8399-2_11.
- (9) A. K. Kabi, R. Gujjarappa, A. Garg, A. Roy, A. Sahoo, S. Gupta, C. C. Malakar
"Overview on Medicinal Impacts of 1,2,4-Triazole Derivatives" Springer Proceedings in Materials, 2022, Springer International Publishing, DOI : 10.1007/978-981-19-2572-6_5
- (10) A. K. Kabi, R. Gujjarappa, A. Garg, A. Roy, A. Sahoo, S. Gupta, C. C. Malakar
"Overview on Diverse Biological Activities of Benzisoxazole Derivatives" Springer Proceedings in Materials, 2022, Springer International Publishing, DOI: 10.1007/978-981-19-2571-9
- (11) A. K. Kabi, R. Gujjarappa, A. Garg, A. Roy, A. Sahoo, S. Gupta, C. C. Malakar
"Highlights on Biological Activities of 1,3,4-Thiadiazole and Indazole Derivatives" Springer Proceedings in Materials, 2022, Springer International Publishing, DOI: 10.1007/978-981-19-2572-6.
12. M. Pal, S. Wahengbam, M. Roy, *"Identification of Hypoxia-Targeting Drugs in the Tumor Microenvironment and Prodrug Strategies for Targeting Tumor Hypoxia, Hypoxia in Cancer: Significance and Impact on Cancer Therapy"* , 2023, 369–401. https://doi.org/10.1007/978-981-99-0313-9_17 (Book chapter)

(B) Short Term Course/ Workshop/ Seminar/ Conference Conducted by the Department:

SL No.	Short Term Course/ Workshop/ Seminar/ Conference	Funding Agency	Coordinator
1.			

(C) Internship or Industrial Visits: 7

Sl No.	Enrollment Number	Name of the Student	Company/ Internship / Industrial Visits
1	22302003	Aditya Padhi	BARC Mumbai
2	22302011	S. Aleena Chanu	IICB Kolkata
3	23302001	Gracy Salam	INST Mohali
4	23302002	Raviyasingamayum	IEST Shibpur
5	23302010	Laikhuramsusmita Devi	IEST Shibpur
6	23302007	John Laishram	Calcutta University
7	23302008	Ng Shereinai Bliss	IICB Kolkata

Name of B.Tech Students who graduated in 2023-24:

Sl. No.	Enrolment No.	Name of the Student	Final CPI
1			

Name of M.Sc. Students who graduated in 2023-24: 11

Sl. No.	Enrollment No.	Name of the Student	Final CPI
1	22302001	Ashwani Kumar	7.74
2	22302002	Karthick T	7.99
3	22302003	Aditya Padhi	8.15
4	22302004	Shivani	8.92
5	22302006	Harsh Soni	8.25
6	22302007	Sarojit mandal	6.83
7	22302008	Subham Panigrahi	8.94
8	22302009	Irungbam Karankumar	7.6
9	22302011	Soubam Aleena Chanu	8.33
10	22302012	Baby Ashma	6.83
11	22302013	Shantithoibi Shagolshem	7.59
12	22302015	Paonam Bebika Devi	7.76
13	22302016	Swati Tibriwala	8.59
14	22302017	Achom Arvind Singh	7.16

Name of PhD Students who graduated in 2023-24: 1

Sl. No.	Enrolment No.	Name of the Student	Thesis Name	Name of the Supervisor/Co-Supervisors	Date of Defence
1	15PCH004	Thiyam Samrat Singh	Comparative Absorption And Spectral Analysis of 4f-4f Transitions For The Interaction Of Pr(III)/Nd(III) with Amino Acid/ Some Selected N-N/N-O/N-S Doner Ligands In Presence Of Zn(II)/Ca(II).	Dr. Th. David Singh	06/11.2023

No. of GATE/NET Qualified students in 2023-24:

Sl. No.	Name of the Student	GATE/NET	Percentile for GATE	Category
1				

No. of Students who have enrolled for higher studies (Foreign/National)

Sl. No.	Name of the Student	Course/ Programme	Name of the Institute	Country
1	Ms. Yumnam Nganthoinganbi	PhD Chemistry	National Taiwan Normal University	Taiwan
2	Mr. Sourav Banerjee	PhD Chemistry	Perdue University, USA	USA
3	Mr. Deep Lahan	PhD Chemistry	IISER Kolkata	India
4	Ms. Moubani Mukherjee	PhD Chemistry	IISER Bhopal	India
5	Nicolous Thongam	PhD Chemistry	IIT Hyderabad	India

No. of Students who have been placed in 2023-24:

2

Other Activities:

1. Details of NEP Activity conducted by the Department in 2023-24

- New Syllabus is being framed based on the guidelines of NEP for B. Tech

2. Details of Faculty Achievements in 2023-24.

Sl. No.	Name of the Faculty/Staff/students	Title of Award	Awarding body	Date of Award
1				

3. Details of Students Achievement in 2023-24:

Sl. No.	Name of the students	Title of Award	Paper ID	Date of Award
1				

4. Details of Awards/ Recognition received by Faculty/Staff/Students in 2023-24

Sl. No.	Name of the Faculty/Staff/students	Awards/ Recognition	Awarding body	Date of Award
1				

5. Details of contribution to the society:**6. Steps take for popularization of Science and Technology among the Students of Manipur.**

Sl. No.	Name of the Faculty	Purpose of visit	Place of Visit
1			

Any other information: NIL

4.8 DEPARTMENT OF MATHEMATICS

(A) Head of the Department: Dr. Sanasam Surendra Singh

(B) Brief Introduction of the Department

The Department of Mathematics and Computing came into existence in 2014. It has qualified and devoted faculty members with specializations in Pure and Applied Mathematics. Presently, the department offers an M. Sc. and Ph. D. program. The M. Sc. program offers Mathematics and

Computing. It is our goal to become one of the leading Departments in research and teaching. We strongly promote research collaboration at the local, national, and international levels.

AIMS: **The Department of Mathematics at NIT Manipur has always strived to become a centre of excellence in mathematics and computing through teaching, research and training.**

OBJECTIVES: **The Department intends to provide the highest-quality mathematics education required to strengthen the backbone of all Engineering Departments and be a center of advanced research.**

(C) Highlight of Research Activities

Most of the research is focused on Applied and Pure Mathematics. Thrust areas of research are Cosmology, finite element method, Biomathematics, and Cryptography. In Pure Mathematics, research mainly focuses on fixed point theory, Algebraic Topology, Complex Analysis, and Numerical Analysis. Many articles have been published in highly qualified peer-reviewed journals.

(D) Faculty Members (Regular):

Sl. No.	Name of Faculty	Designation	Qualification	Email
1.	Dr. Chanam Barchand Singh	Professor	Ph. D. (Jamia Milia Islamia, New Delhi)	barchand_2004yahoo.com
2.	Dr. Sanasam Surendra Singh	Associate Professor	Ph. D (Manipur University)	ssuren.mu@gmail.com
3.	Dr. Sunil Panday	Associate Professor	Ph. D (MNIT Bhopal)	sunilpanday@hotmail.co.in
4.	Dr. Konthoujam Somorjit Singh	Assistant Professor	Ph.D.(Delhi University)	ksomorjitmaths@gmail.com
4.	Prof. Yumnam Rohen Singh	Professor (on lien)	Ph D (Manipur University)	ymnehor2008@yahoo.com

(E) Faculty Members (Contractual): Nil

Sl. No.	Name of Faculty	Designation	Qualification	Email
1.	Dr. Thangjam Bimol Singh	Guest Faculty	Ph D	btsalun29@gmail.com

2.	Dr. Thiyam Thadoi Devi	Guest Faculty	Ph. D	thadoi11@gmail.com
3.	Prof. N. Ibotombi Singh	Guest Faculty	Ph. D	ibotombi.ningombam@gmail.com

(F) Non-Teaching Staff (Contractual):

Sl. No.	Name of Staff	Designation	Qualification	Email
1.	Mutum Pritya Devi	Office attendant	12 th Class	soibampriya@gmail.com

(G) Trainee Teachers (if any): Nil

Academic Activities

I. Student Enrolment

Name of the Course	1 st Year	2 nd Year	3 rd Year	4 th Year	Total
B.Tech					
M.Tech / M.Sc	16	10			26

II. Ph D Program

	2023-24
No. of Full Time	17
No. of Part Time	2
Total	19
Degree awarded during 2023-24	1

III. Research Information

(A) Sponsored Research Project from Govt./Semi Govt: Nil

(B) Patent Details if any: Nil

(C) Publication in Journals (2023-24)

Sl. No.	Authors names	Publication in Journals
1.	Nirmal Kumar Singha and Barchand Chanam	Some refinements on lower bound estimates for polynomial with restricted zeros, Rendiconti del Circolo Matematico di Palermo Series 2, (2024), https://doi.org/10.1007/s12215-023-00992-3 . [SCOPUS]
2.	Nirmal Kumar Singha and Barchand Chanam	Inequalities for Integral Mean Estimate of Polynomials, Nonlinear Functional Analysis and Applications, Vol. 29 (1) (2024), pp.275-293, https://doi.org/10.22771/nfaa.2024.29.01.17 . [SCOPUS]
3.	Nirmal Kumar Singha and Barchand Chanam	On Turán-Type Integral Mean Estimate of a Polynomial, Mathematical Foundations of Computing, (2023), https://doi.org/10.3934/mfc.2023048 . [SCOPUS]
4.	Nirmal Kumar Singha, Reingachan Ngamchui, Maisnam Triveni Devi and Barchand Chanam	Improvement and Generalization of Polynomial Inequality due to Rivlin, Nonlinear Functional Analysis and Applications, Vol. 28(3)(2023), pp.813-830, https://doi.org/10.22771/nfaa.2023.28.03.15 . [SCOPUS]
5.	Maisnam Triveni Devi, Thangjam Bikramjit Singh and Barchand Chanam	Refinement of Turán-type inequality for a polynomial, Far East Journal of Mathematical Sciences (FJMS) [PEER REVIEWED], 140(3), 2023, 245-256.
6.	Mayanglambam Singhajit Singh and Barchand Chanam	On Extensions and Generalizations of Rivlin's Inequality, Applied Mathematics E-Notes, 24(2024), 27-34, http://www.math.nthu.edu.tw/_amen/ . [SCOPUS]
7.	Mayanglambam Singhajit Singh, Reingachan Ngamchui, Khangembam Babina Devi, Maisnam Triveni Devi, and Barchand Chanam	L_γ Inequalities for the Polar Derivative of Polynomials, Malaysian Journal of Mathematical Sciences 17(3): 333–347 (2023) https://doi.org/10.47836/mjms.17.3.06 . [SCOPUS]
8.	Robinson Soraisam, Nirmal Kumar Singha, Barchand Chanam	Improved Bounds of Polynomial Inequalities with Restricted Zero, Nonlinear Funct. Anal. Appl., vol. 28, no. 2, (2023), 421-437. [SCOPUS]

9.	Robinson Soraisam, Mayanglambam Singhajit Singh, Barchand Chanam	Turán-type L^r - norm inequalities for polar derivative of polynomials, Nonlinear Funct. Anal. Appl., vol. 28, no. 2 (2023), 813-830. [SCOPUS]
10.	Istayan Das, Robinson Soraisam, Mayanglambam Singhajit Singh, Nirmal Kumar Singha, Barchand Chanam	Inequalities for complex polynomial with restricted zeros, Nonlinear Funct. Anal. Appl., vol. 28, no. 4 (2023), 943-956. [SCOPUS]
11.	Robinson Soraisam, Mahmood Bidkham, BarchandChanam	Turán-type Inequalities for polynomials, Publ. Inst. Math. (Beograd) (N.S.), vol. 114, no. 128 (2023), 91-101. [SCOPUS]
12	Reingachan N., Khangembam Babina Devi and Barchand Chanam	Growth of the sth derivative of a polynomial with restricted zeros, International Journal of Nonlinear Analysis and Application, In press, 1–9. http://dx.doi.org/10.22075/ijnaa.2023.27169.3521 . [SCOPUS]
13	Reingachan N., Maisnam Triveni Devi and Barchand Chanam	Generalization and Sharpening of Zygmund–Type Inequality for Polar Derivative of a Polynomial, IAENG International Journal of Applied Mathematics. 53-4, IJAM_53_4_31. [SCOPUS]
14	Reingachan N., M. Singhajit Singh, Nirmal Kumar Singha, Khangembam Babina Devi and Barchand Chanam	Lr Inequalities for Polynomials, Nonlinear Funct. Anal. Appl. 29(2), 451-460. [SCOPUS]
15	Reingachan N., M. Singhajit Singh and Barchand Chanam	Lr Inequalities for Polynomials with Restricted Zeros, Annals of Mathematics and Computer Science. 21, 123-135. [SCOPUS]
16	Khangembam Babina Devi, Reingachan N and Barchand Chanam	Inequalities Concerning the Rate of Growth of Polynomials Involving the Polar Derivative, IAENG International Journal of Applied Mathematics, vol. 54, no. 6, pp1210-1215, 2024. [SCOPUS]
17	Hemant Kumar and Konthoujam Somorjit	Elementary abelian group actions on a

	Singh	product of spaces of cohomology type (a,b), Filomat. Vol. 37, No. 26 (2023), pages: 8969-8973[SCI]
18	Amit Samaddar, S. Surendra Singh	“Qualitative stability analysis of cosmological parameters in $f(T, B)$ gravity”, Eur. Phys. J. C 83, 283 (2023).
19	L. Anajana Devi, S. Surendra Singh, Md Khurshid Alam	“Anisotropic solutions in $f(Q)$ gravity with hybrid expansion”, Zeitschrift fur Naturforschung A 78(7) (2023).
20	Amit Samaddar, S. Surendra Singh, Md Khurshid Alam	“Dynamical system approach of interacting dark energy models with minimally coupled scalar field”, Int. J. of Modern Phys. D 32 (09) (2023).
21	Md Khurshid Alam, S. Surendra Singh	“Hyperbolic behavior of anisotropic Bianchi type-I cosmological model”, Modern Physics Letter A, 38, 2350065 (2023).
22	L. Anajana Devi, S. Surendra Singh, Md Khurshid Alam	“Cyclic anisotropic universe in modified gravity with variable deceleration parameter of third degree”, AfrikaMatematika 34(3) (2023).
23	Md Khurshid Alam, S. Surendra Singh, L. Anajana Devi	“Renyi holographic dark energy and Its behaviour in $F(G)$ gravity”, Astrophysics (2023).
24	Amit Samaddar, S. Surendra Singh	“Qualitative stability analysis of cosmological models in $f(T, \phi)$ gravity”, Gen RelativGravit 55, 111 (2023).
25	L. Anajana Devi, S. Surendra Singh, Md Khurshid Alam	“Phase transition of Bianchi-type I cosmological model in $f(T)$ gravity”, New Astronomy, 107, 102156.
26	Shivangi Rathore, S. Surendra Singh	“Dynamical system analysis of interacting dark energy in LRS Bianchi type I cosmology”, Scientific reports, 13(1), 1-13.
27	S. Surendra Singh, Leisingham Kumrah, Md Khurshid Alam, Laishram Kapil Singh, L. Anajana Devi	“Causal viscous Universe in Sáez–Ballester theory”, Canadian Journal of Physics, 102 1 (2024).

28	Sreelakshmi Pillai, S. Surendra Singh	“Stability analysis of anisotropic Bianchi type I cosmological model”, AfrikaMatematika 35, 23 (2024).
29	Amit Samaddar, S. Surendra Singh	“Dynamical system method of viscous fluid in $f(T)$ gravity theory”, Phys. Scr. 99 (2024) 035219.
30	Shivangi Rathore, S. Surendra Singh	“Stability aspects of an LRS Bianchi type-I cosmological model in $f(Q)$ gravity”, Gen RelativGravit 56, 25 (2024).
31	Amit Samaddar, S. Surendra Singh	“Dynamical System Approach and Thermodynamical Perspective of Hořava-Lifshitz Gravity”, Fortschr. Phys. (2024), 2400006.
32	G Thangkhenpau, Sunil Panday, Bhavna Panday, Carmen E. Stoenoiu, Lorentz Jäntschi	Generalized high-order iterative methods for solutions of nonlinear systems and their applications, AIMS Mathematics 2024, Volume 9, Issue 3: 6161-6182. doi: 10.3934/math.2024301
33	Ekta Sharma, Shubham Kumar Mittal, J. P. Jaiswal and Sunil Panday	An Efficient Bi-Parametric With-Memory Iterative Method for Solving Nonlinear Equations, Applied Math 3 (4), 1019-1033 2023
34	Ekta Sharma, Sunil Panday, Shubham Kumar Mittal, Dan-Marian Joi, Lavinia Lorena Pruteanu, Lorentz Jäntschi	Derivative-free families of with-and without-memory iterative methods for solving nonlinear equations and their engineering applications, Mathematics 11 (21), 4512, 2023
35	G Thangkhenpau, Sunil Panday, Liviu C. Bolundut and Lorentz Jäntschi	Efficient Families of Multi-Point Iterative Methods and Their Self-Acceleration with Memory for Solving Nonlinear Equations. Symmetry 2023, 15, 1546. https://doi.org/10.3390/sym15081546
36	G Thangkhenpau,; Sunil Panday,; Waikhom Henarita Chanu	New efficient bi-parametric families of iterative methods with engineering applications and their basins of attraction, Results in Control and Optimization Volume 12, September 2023, 100243 https://doi.org/10.1016/j.rico.2023.100243
37	G Thangkhenpau, Sunil	Efficient Families of Multipoint Iterative Methods for Solving

	Panday	Nonlinear Equations, Engineering Letters 31 (2) 2 2023
38	G Thangkhenpau, Sunil Panday, Shubham Kumar Mittal and Lorentz Jäntschi	Novel Parametric Families of with and without Memory Iterative Methods for Multiple Roots of Nonlinear Equations, Mathematics 2023, 11(9), 2036 https://doi.org/10.3390/math11092036

(D) Publication in Conferences (2023-24):

Sl. No.	Author names	Publication in Conferences
1	Waikhom Henarita Chanu, Sunil Panday, Shubham Kumar Mittal & G Thangkhenpau	An Optimal Fourth-Order Iterative Method for Multiple Roots of Nonlinear Equations International Conference on Science, Technology and Engineering, ICSTE 2023.
2	G Thangkhenpau, Sunil Panday & Shubham Kumar Mittal	New Derivative-Free Families of Four-Parametric with and Without Memory Iterative Methods for Nonlinear Equations International Conference on Science, Technology and Engineering, ICSTE 2023.
3	Waikhom Henarita Chanu.; Sunil Panday	An iterative method of fourth order for multiple roots of nonlinear equations AIP Conference Proceedings 2728, 030012 (2023)
4	Ravendra Singh.; Sunil Panday	Efficient optimal eighth order method for solving nonlinear equations AIP Conference Proceedings 2728, 030013 (2023)

(E) Publication in books/book chapters (2023-24): Nils

(F) Short term Course/Workshop/Seminar/Conference Conducted by the Department: Nil

(G) Internship or Industrial Visits: NIL

Name of B.Tech. students who graduated in 2023-24 : N.A

Sl. No.	Enrolment Number	Name of the student	Final CPI
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Name of M. Tech. students who graduated in 2023-24 : N.A

Sl. No.	Enrolment Number	Name of the student	Final CPI
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Name of M.Sc. students who graduated in 2023-24

Sl. No.	Enrollment No.	Name of the Student	Final CPI
1	22308002	Raj Kumar Sharma	7.58
2	22308003	Neeraj sharma	8.25
3	22308005	Upasana Sarkar	7.28
4	22308007	Baruna Jana	6.78
5	22308008	Neha Rani	6.76
6	22308010	Ayana Maiti	8.53
7	22308011	Ng. Soniya Shahni	7.37
8	22308012	Yumnam Lakshmi Devi	7.28
9	22308013	Bharat Singh	7.22
10	22308014	Naorem Raina Devi	5.91

Name of Ph.D. students who graduated in 2023-24

Sl. No.	Enrolment Number	Name of the student	Thesis name	Name of the supervisor/Co-supervisor	Date of Defence
1.	18408009	Lambamayum Anjana Devi	Some exact solutions of anisotropic cosmological models in modified theories of gravity	Dr. Sanasam Surendra Singh.	25/01/2024

Name of GATE/NET qualified students in 2023-24

Sl. No.	Name of the student	GATE or NET	Percentile for GATE	Gen/ OBC/ SC/ST
1.	Bharat Singh	GATE-2024	16.67	SC
2.	Sreelaxmi	GATE 2024	28.67	GEN

Name of the students (2023-24), who have been placed : Nil

SN	Name of the students	Name of the company	Annual package (Rs)

No. of student who have enrolled for higher studies (Foreign/National)

Sl. No.	Name of the students	Course/Programme	Name of the Institute	Country
1.	Keshav Singh	Ph.D	NIT Hamirpur	India
2.	ShanuPoddar	Ph.D	Shiv Nadar University, Noida	India
3.	Ishtan Das	Ph. D	NIT Silcher	India
4.	Paras	Ph. D	BITS Pilani, Rajasthan	India

No. of students who have been placed in 2023-24 : Nil**Other Activities:**

1. Details of NEP Activity conducted by the Department in 2023-24 : Nil
2. Details of faculty Achievement in 2023-24 : Nil
3. Details of Students Achievement in 2023-24 : Nil
4. Details of Awards/ Recognition received by Faculty/staff/Students in 2023-24: Nil
5. Details of contribution to the society: Nil
6. Steps taken for popularisation of Science and Technology among the students of Manipur

Any other information: NIL

4.9 DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

(A) Head of the Department : (Prof.) Dr. Ch. Barchand Singh

(B) Brief Introduction of the Department

The HSS department has an interdisciplinary orientation and expertise in three disciplines: Basic Communication Skills, Engineering Economics, and Management. It has been an integral part of the institute. The inclusion of the study ensures that our quest within the frontiers of Science and Technology takes place in an informed manner. The department also offers a number of core and elective courses.

AIMS: The aim of the department is to bring a humane touch to technology, to assist the engineers in developing themselves within the social context and to inspire and enrich soft skills and enhance their employability skills.

OBJECTIVES: The department's objectives are to sensitise the students to the broader social, cultural, economic, ethical, and human issues involved in social changes. The department also helps expand the students' outlook by developing their communication and technological skills.

(C) Highlight of Research Activities

The faculty members of the department are actively involved in research activities. The broad areas of research being carried out in the department are listed below:-

1. African Literature
2. Indian Writing in English.
3. North-East Literature.
4. Dalit Literature.
5. Postcolonial Literature.

(D) Faculty Members (Regular)

Sl. No.	Name of the Faculty	Designation	Qualification	Email
1	Dr.Sangeeta Laishram	Associate Professor	MA, Ph.D	Sangeetalaishram7@gmail.com

(E) Faculty Members (Contractual)

Sl. No.	Name of the Faculty	Designation	Qualification	Email
---------	---------------------	-------------	---------------	-------

1	Diana Rajkumari	Assistant Professor	MA, Ph.D	diana10rkin@gmail.com
2	H. Soni Devi	Assistant Professor	MBA, Ph.D	Soni12imphal@gmail.com

(F) Non-Teaching Staff (Regular/Contractual)

Sl No.	Name of the Staff	Designation	Qualification	Email
1	Sapam Tampha Devi	Attendant	12th	

(G) Trainee Teachers (if any): NONE

Academic Activities

I. Students Enrolment

Name of the Course	1 st Year	2 nd Year	3 rd Year	4 th Year	Total
B.Tech	-	-	-	-	-
M.Tech/ M. Sc	-	-	-	-	-

II. PhD Program.

	2023-24
No. of Full Time	5
No. of Part Time	1
Total	6
Degree Awarded during 2023-24	1

IV. Research Information

(A) Sponsored Research Projects form Govt./Semi Govt. : Nil

Sl. No.	Name of the Project	Funding Agency	Project Amount	Project PI
1				

(B) Patent Details if any: Nil

Sl. No.	Inventor(s)	Patent Title	Date of Granted/Published
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1			
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(C) Publications in Journals (2023-24)

Sl.no	Authors	Publication in Journals
1.	Gunibala, Khumanthem and Dr. Sangeeta Laishram	“Revisiting Identity Through the Representation of Culture and Religion: A Study of Mamang Dai’s <i>The Legend of Pensam</i> and Temsula Ao’s <i>These Hills Called Home</i> ”. Dhristi: The Sight. XII. II. Nov.2023.122-127. Print. (UGC Care List I) ISSN: 2319-8281
2.	Yumnam, Veronica and Dr. Sangeeta Laishram	“ <i>The Black Woman in America: The Search for Identity in Chimamanda Ngozi Adichie’s Americanah</i> ”. IIS University Journal of Arts. Vol.12 (3&4). 368-381. (UGC Care List I) ISSN:2319-5339 (P) & 25837591 (O)
3.	Gunibala, Khumanthem and Dr. Sangeeta Laishram	“ <i>Cultural Recovery from Folklores, Folktales and Myths: A Study of Select Poems of Temsula Ao</i> ”. Journal of Harbin Engineering University; 44.8. August 2023: 1736-1741. Web (Scopus Indexed Journal) ISSN: 1006-7043

(D) Publication in Conferences (2023-24)

(E) Publication in books/book Chapters (2023-24)

(F) Short Term Course/ Workshop/ Seminar/ Conference Conducted by the Department:

SL No.	Short Term Course/ Workshop/ Seminar/ Conference	Funding Agency	Coordinator
1.			

(G) Internship or Industrial Visits : Nil

Sl No.	Enrollment Number	Name of the Student	Company/ Internship / Industrial Visits
1			

Name of B.Tech. Students who graduated in 2023-24 : N.A

Sl. No.	Enrolment No.	Name of the Student	Final CPI
1			

Name of M.Tech. Students who graduated in 2023-24 : N.A

Sl. No.	Enrolment No.	Name of the Student	Final CPI
1			

Name of Ph.D. Students who graduated in 2023-24:

Sl. No.	Enrolment No.	Name of the Student	Thesis Name	Name of the Supervisor/Co-Supervisors	Date of Defence
1	15PEN003	Khundrakpam Nirupama	Black Feminist Discourse: A Study of Toni Morrison's Selected Novels	Dr. Sangeeta Laishram	21 st June, 2023.

No. of GATE/NET Qualified students in 2023-24: Nil

Sl. No.	Name of the Student	GATE/NET	Percentile for GATE	Category
1				

No. of Students who have enrolled for higher studies (Foreign/National) : Nil

Sl. No.	Name of the Student	Course/Programme	Name of the Institute	Country
1	NIL			

No. of Students who have been placed in 2023-24 : Nil

Other Activities:

1. Details of NEP Activity conducted by the Department in 2023-24

- New Syllabus is being framed based on the guidelines of NEP.

2. Details of Faculty Achievements in 2023-24 : Nil

Sl. No.	Name of the Faculty/Staff/students	Title of Award	Awarding body	Date of Award
1				

3. Details of Students Achievement in 2023-24: Nil

Sl. No.	Name of the students	Title of Award	Paper ID	Date of Award
1				

4. Details of Awards/ Recognition received by Faculty/Staff/Students in 2023-24 : Nil

Sl. No.	Name of the Faculty/Staff/students	Awards/ Recognition	Awarding body	Date of Award
1				

5. Details of contribution to the society : Nil

6. Steps taken for popularization of Science and Technology among the Students of Manipur.

Sl. No.	Name of the Faculty	Purpose of visit	Place of Visit
1			

Any other information: NIL

5.0 CENTRALIZED SERVICES

5.1 TRAINING AND PLACEMENTS

PLACEMENT SESSION 2023-24

Sl.No.	Company Name	No. of Jobs Offers	CTC (LPA)
1	Veritas technologies	1	16.8
2	Skylark Drones Pvt. Ltd.	1	16
3	Hexaware	1	15
4	TA Digital	1	13
5	Devtron	1	10
6	HCLTech	1	10
7	Newgen	1	10
8	Mahindra & Mahindra	1	9
9	Nibrus Technologies Pvt Ltd.	2	9
10	TCS	1	9
11	Trianz	2	9
12	cdacpune	1	8.5
13	AM-NS	1	8.5
14	Genpact	25	8
15	Lumiq	1	8
16	Cubastion Consulting Pvt. Ltd.	2	7.8
17	Deloitte	2	7.6
18	MuSigma	1	7.5
19	Vallhabha milk	1	7.5
20	Copperpod IP	1	7
21	GSR Engineering Services	2	7
22	MGB Motors and Auto Agencies pvt.ltd	1	7
23	Wayspire	6	7
24	ALSTOM	2	6.8
25	Tata Power	1	6.67
26	Academor	5	6
27	ANORA	2	6
28	Ashok Leyland	3	6
29	Kec International	3	6
30	L&T	1	6
31	Srikakula Power private limited	1	6
32	TEACHNOOK	1	6
33	TeachnookEdTech	3	6
34	TECH INTERN HUB	1	6
35	Rinex technology private limited	2	5.2

36	SLG AGRO PVT LTD	1	5
37	Vodafone	6	5
38	ODOO	1	5
39	TATA Consulting Engineers	1	4.5
40	Axiphyl Pvt. Ltd.	4	3.5
	Total	95	

5.2 CENTRAL LIBRARY, NIT MANIPUR

Year of Establishment	4 th March, 2011
Strength of the staff	07 (05-Library professional, 02– non –professional)
Total no. of Volumes procured 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 th 2016
Online Journals and Online Books available in NIT Manipur	Elsevier eBooks 2013, Springer eBooks 2013, CRC eBooks 2013, PEARSON eBooks 2014
Total number of online Books available in National Institute of Technology Manipur	8109
Newspapers	05(both national and local)
Internet connectivity	Available

5.3 STUDENTS RESIDENTIAL FACILITIES

The Institute is a fully residential institute. The institute has 3 (three) Boys Hostels and 2 (two) Girls hostels (one at the temporary campus, Takyel and the other at the permanent campus, Langol). Games and Sports facilities are available inside the campus.

6.0 BoG, FINANCE COMMITTEE, BUILDING AND WORKS COMMITTEE, SENATE

6.1 BOARD OF GOVERNORS

1	Shri Bajrang Lal Bagra	Chairperson
2	Prof. D V L N Somayajulu, Director, NIT Manipur	Ex-Officio Member
3	Joint Secretary dealing with Technical Education or his representatives, Dept. of Higher Education, Ministry of Education, Government of India	Member
4	Financial Advisor or his/her representatives, Dept. of Higher Education, Ministry of Education, Government of India	Member
5	Prof. Uday Shanker Dixit IIT Guwahati	Member
6	NIT Council Nominee	Member (vacant)
7	NIT Council Nominee	Member (vacant)
8	State Govt. Nominee	Member (vacant)
9	State Govt. Nominee	Member (vacant)
10	Prof. Ch. Barchand Singh Mathematics Department, NIT Manipur	Member (Senate Nominee)
11	Dr. Anil Kumar Birru Associate Professor, Mechanical Engineering Department, NIT Manipur	Member (Senate Nominee)
12	Prof. Kh. Tomba Singh Registrar, NIT Manipur	Secretary

6.2 FINANCE COMMITTEE

1	Shri Bajrang Lal Bagra	Chairperson
2	Prof. Khumanthem Manglem Singh, i/c Director, NIT Manipur	Ex-Officio Member
2.	Joint Secretary dealing with Technical Education or	Member

	his representatives, Dept. of Higher Education, Ministry of Education, GoI.	
3.	Financial Advisor or his/her representatives, Dept. of Higher Education, Ministry of Education, GoI.	Member
4.	Prof. Ch. Barchand Singh, Mathematics Department, NIT Manipur	Member
5.	Dr. Anil Kumar Birru, Associate Professor, Department of Mechanical Engineering, NIT Manipur	Member
6.	Prof. Kh. Tomba Singh, Registrar, NIT Manipur	Member Secretary

6.3 BUILDING AND WORKS COMMITTEE

1	Prof. Khumanthem Manglem Singh, i/c Director, NIT Manipur	Chairman
2	Director or Deputy Secretary or his representative dealing with National Institute of Technology in the Ministry of Education, Govt. of India	Member
3	Director or Deputy Secretary or his representative dealing with Finance, Dept. of Higher Education, Ministry of Education, Govt. of India	Member
4	Dr. Th. Tamphasana Devi, Dean (P & D), NIT Manipur	Member
5	Registrar, NIT Manipur	Member Secretary

6.4 SENATE

1	Prof. Khumanthem Manglem Singh, i/c Director, NIT Manipur	Chairman
2	Prof. Memcha Loitongbam, MIMS, Manipur University	Nominated member
3	Prof. Debasish Bhattacharya, NIT Agartala	Nominated member
4	Prof. Kh. Manglem Singh, NITMN	Member
5	Prof. Rajesh Kumar Bhushan, NITMN	Member

6	Prof. P. Albino Kumar, NITMN	Member
7	Dr. L. Herojit Singh, Dean (AA), NITMN	Member
8	Dr. Kh. Johnson Singh, HoD, CSE, NITMN	Member
9	Prof. Ch. Barchand Singh, HoD, HSS, NITMN	Member
10	Prof. Bakimchandra Oinam, HoD, CE, NITMN	Member
11	Dr. Nagarajan S., HoD, Chemistry, NITMN	Member
12	Dr. Anil Kumar Birru, HoD, ME, NITMN	Member
13	Dr. Ibetombi Soibam, HoD, Physics, NITMN	Member
14	Dr. S. Surendra Singh, HoD, Maths Deptt., NITMN	Member
15	Dr. Benjamin A. Shimray, HoD, EE Dept., NITMN	Member
16	Dr. A. Dinamani, HoD, ECE Dept., NITMN	Member
17	Prof. Kh. Tomba Singh, Registrar, NIT Manipur	Secretary

Audited Accounts 2023-24

NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

INCOME AND EXPENDITURE FOR THE YEAR 2023-24

INCOME		Schedule	Current Year	Previous Year
1	Academic Receipts	9	2,81,19,640.56	2,88,97,326.00
2	Grant & Subsidies :			
	a) Received (less refund)	10		
	(i) Maintenance (31)		18,91,26,055.00	5,07,92,624.00
	(ii) Salary (36)		13,80,38,952.00	11,13,25,109.00
	b) Add : Opening balance available for Revenue Exp			
	c) Less : Capital Expenses			
	d) Balance available for Revenue Exp		32,71,65,007.00	16,21,17,733.00
3	Income from Investment	11	97,333.37	-
4	Interest Earned	12	52,92,112.00	39,17,956.00
5	Other Income	13	1,08,14,148.60	1,40,47,032.00
6	Depreciation written back	4	-	20,70,000.00
7	Prior Period Adjustments	23	-	-
	Total (A)		37,14,88,241.53	21,10,50,047.00
EXPENDITURE				
1	Staff Payment & Benefit (Establishment Exp)	15	13,80,43,001.50	12,21,07,489.00
2	Academic Expenses	16	5,03,97,444.00	3,92,79,497.00
3	Administrative & General Expenses	17	10,06,86,061.00	9,02,30,362.00
4	Transport Expenses	18	20,31,743.00	21,11,501.00
5	Repair & Maintenance	19	3,15,40,376.00	2,05,90,092.00
6	Finance Cost	20	27,268.00	70,771.69
7	Depreciation			
	a) Depreciation for the year (SLM)	4	8,04,50,295.51	8,08,68,856.00
	b) Excess Depreciation in the previous years adjusted	4		
8	Other Expenses	21	25,50,731.00	31,10,228.00
9	Prior Period exp	22	-	-
	Total (B)		40,57,26,920.01	35,83,68,796.69
Balance being excess of income over Expenditure			-3,42,38,678.48	-14,73,18,749.69
BALANCE being the excess of expenditure over income				
Transfer to/ from designated Fund				
Others (Specify)				
Balance being Surplus (Deficit) carried to Capital Fund			-3,42,38,678.48	-14,73,18,749.69
Significant Accounting Policies		23		
Contingent Liabilities & Notes on Account		24		

Imphal

Date

NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

BALANCE SHEET AS AT 31.3.2024

SOURCES OF FUND	Schedule	Current Year	Previous Year
1 CAPITAL FUND	1	2,21,91,12,938.32	2,25,33,51,616.80
2 Designated / Earmarked/ Endowment Funds	2	-	-
3 Current Liabilities & Provisions	3	27,38,59,903.91	24,86,24,201.73
		2,49,29,72,842.23	2,50,19,75,818.53
APPLICATION OF FUNDS			
1 Fixed Assets	4		
a) Tangible Assets		45,11,72,212.02	50,89,77,230.13
b) Intangible assets		75,14,165.61	75,08,783.00
c) Capital Work in Progress		1,80,37,08,437.00	1,78,44,81,017.00
2 Investments from Earmarked/ Endowment Funds	5		
a) Long Term			
b) Short Term			
3 Investments - Others	6	-	5,04,905.07
4 Current Assets	7	21,97,32,794.60	19,07,25,975.32
5 Loans & Advances	8	1,08,45,233.01	97,77,908.01
		2,49,29,72,842.23	2,50,19,75,818.53

Significant Accounting Policies 24

Contingent liabilities & Notes on Account 25

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Date

NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR
RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31.3.2024

RECEIPTS	Current year	Previous Year	PAYMENTS	Current year	Previous Year
I			I Expenses -		
Opening Balance			a) Staff Payments & Benefit	13,80,43,001.50	12,21,07,489.00
a) Cash balances i/c DD in hand	2,39,800.00	4,29,190.00	b) Academic Expenses	5,03,97,444.00	3,92,79,497.00
b) Bank Balances -			c) Administrative Expenses	10,06,86,061.00	9,02,30,362.00
i) In Current Account	77,48,134.18	96,47,514.62	d) Transportation Expenses	20,31,743.00	21,11,501.00
ii) In Deposit Accounts	-	-	e) Repairs & Maintenance	3,15,40,376.00	2,05,90,092.00
iii) In Savings Account	18,27,38,041.14	27,01,78,976.39	f) Finance Cost	27,268.00	70,771.69
	19,07,25,975.32	28,02,55,681.01	f) Other Expenses	25,50,731.00	31,10,228.00
Grants Received -				32,52,76,624.50	27,74,99,940.69
II a) From Government of India			II Payments made against Earmarked/		
(i) Maintenance (31)	19,26,00,000.00	5,07,92,624.00			
(ii) Salary (36)	13,96,00,000.00	11,13,25,109.00	Endowment funds		
b) From State Government					
(Nominal Value of land)	-	-	III Payments against Sponsored Projects		
c) From Other sources :			Projects/ Schemes		
Academic Receipts	2,81,19,640.56	2,88,97,326.00	Others	2,35,06,727.39	1,76,80,554.70
Receipts against Earmarked/			CSAB	1,46,76,386.00	1,47,31,650.00
IV Endowment Fund	-	-	IV Payments against Sponsored		
			Fellowship/ Scholarship	-	-
V Receipts against Sponsored Projects					
/Schemes			V Investments and Deposits made		
Schedule 3(a)			a) Out of Earmarked/ Endowment		
CSAB	3,20,21,386.00	90,96,204.00	b) Out of own Funds		
Income on Investments from	1,40,28,352.00	1,54,11,450.00			
a) Earmarked /Endowment Fund			VI Term Deposits with Schedule Banks		
b) Other Investments	97,333.37	-	VII Expenditure on Fixed Assets		
Interest Received on			and Capital Work in Progress		
a) Bank Deposits			a) Fixed Assets i/c advance	2,26,50,660.00	1,12,65,277.00
b) Loans & Advances			b) Capital Work in progress	1,92,27,420.00	1,67,27,420.00
c) Savings Bank Account	52,92,112.00	39,17,956.00	VIII Other Payments including		
			Statutory payments	23,00,620.00	21,38,411.00
Total Carried over	60,24,84,799.25	49,96,96,350.01	Total Carried over	40,76,38,437.89	34,00,43,253.39

Total Carried forward	60,24,84,799.25	49,96,96,350.01	Total Carried forward	40,76,38,437.89	34,00,43,253.39
IX Investments encashed	5,04,905.07	-	IX Refund of Grants	50,34,993.00	-
X Term Deposits with Scheduled Banks	-	-	X Deposits and Advances	1,32,33,983.69	1,17,58,274.00
XI Other Income (including Prior period income)	1,08,14,148.60	1,40,47,032.00	XI Other Payments		
			a) Refund of Caution Deposit	14,40,000.00	1,55,000.00
			b) Remittances of deductions	3,59,26,236.00	3,51,67,995.00
			c) Payment of sundry creditors	(14,891.00)	30,27,141.00
XII Deposits and Advances			d) Other Current Liabilities	3,41,32,569.00	2,89,09,077.20
Caution Money	29,34,673.00	42,75,000.00	e) Refundables & Payables	15,32,222.00	5,36,908.00
Deduction awaiting remittance	3,75,49,410.50	3,27,90,029.50	f) Other Receivable	1,14,000.00	69,100.00
Refundable & Payables	25,36,520.00	19,85,196.00			
Recovery of advances	1,07,34,446.00	80,58,869.00			
XIII Miscellaneous Receipts including Statutory Liability Receipts (GST)	29,90,413.00	21,54,672.00	XII Closing balances		
Sundry Creditors		15,92,039.00	a) Cash in hand i/c fund in transit	1,79,900.00	2,39,800.00
Current Liability & Provisions	4,80,19,582.56	4,50,35,003.40	b) Bank Balances -		
XIV Any Other Receipts			i) in Current Account	6,03,280.81	77,48,134.18
Other Receivables	1,26,710.00	7,58,533.00	ii) in Savings Account	21,88,74,876.59	18,27,38,041.14
Reduction in value of assets on adjustment	-	-	iii) in Deposit Accounts		
Prior period Adjustments - Sch 23	-	-			
Total	71,86,95,607.98	61,03,92,723.91	Total	71,86,95,607.98	61,03,92,723.91

Date

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NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.3.2024

SCHEDULE -1 : CORPUS/ CAPITAL FUND	Current Year 2023-24	Previous Year 2022-23
1 Balance as at the beginning of the year (from HRD and Others) Add :During the year for Capital Expenses	2,22,63,50,616.80	2,37,36,69,366.49
2 Capital Grant from Other Ministry-MOBC b/fd	2,70,00,000.00	2,70,00,000.00
3 State Govt. - nominal value of land allotted b/fd	1,000.00	1,000.00
TOTAL	2,25,33,51,616.80	2,40,06,70,366.49
4 Add : Assets purchased out of Sponsored Projects where Ownership vests in the Institute capitalised	-	-
5 Add : Assets Donated / Gifts Received in Project		
6 Add : Other Additions		
7 Less : Revenue Expenditure considered out of the Grant		
8 Add/ (Deduct) : Surplus (Deficit) transferred from Income and Expenditure Account	-3,42,38,678.48	-14,73,18,749.69
9 Balance at the end of the year	2,21,91,12,938.32	2,25,33,51,616.80

NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR
SCHEDULE - 2 : DESIGNATED / EARMARKED / ENDOWMENT FUNDS

Refer Schedule 3(a)

A	Current Year 2023-24	Previous Year 2022-23
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
- bl Investments
- c) Interest Accrued but not due
- d) Others (Specify)

TOTAL

NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

SCHEDULE-3 : CURRENT LIABILITIES & PROVISIONS	Current Year 2023-24	Previous Year 2022-23
A CURRENT LIABILITIES		
1 Deposit from Staff		
2 Deposits from Students Caution deposit	1,18,29,673.00	1,03,35,000.00
3 Sundry Creditors		
a) For Goods & services	12,63,78,580.00	12,76,79,389.00
b) Others (CSAB)	28,84,773.00	35,32,807.00
4 Deposit Others (including Earnest Money & Security Deposit)	2,71,57,367.00	2,62,08,651.00
5 Statutory Liabilities remittable deductions (GPF,TDS,WC Tax, GIS, NPS)		
a) Taxes and others	33,60,813.16	10,92,787.15
b) Others : NPS	2,27,013.25	2,27,013.25
6 Other Current Liabilities		
a) Salary/ Pension/ NPS		
b) Receipts against sponsored projects		
c) Receipts against sponsored fellowship & scholarships	1,21,438.00	
d) Unutilised grants (Sponsored project)	1,71,38,081.00	90,21,084.39
e) Sponsored Projects TEQIP - Balance	9,78,296.00	6,86,296.00
f) Grants in advance		
g) Stale Cheque A/c	71,49,181.00	71,49,181.00
h) Other liabilities		
(i) for Expenses	-	-
(ii) Other Liabilities	6,15,56,969.50	4,76,14,273.94
(ii) Other Liability - Grant recived for remittance to others		
TOTAL (A)	25,87,82,184.91	23,35,46,482.73
B PROVISIONS		
1 For Taxation		
2 Gratuity	54,29,530.00	54,29,530.00
3 Supeannuation/ Pension		
4 Leave & Pension Contribution	10,28,825.00	10,28,825.00
6 Accumulated Leave Encashment	86,19,364.00	86,19,364.00
7 Trade Warrantees/ Claims		
8 Others (Specify)		
Total (B)	1,50,77,719.00	1,50,77,719.00
Total (A+B)	27,38,59,903.91	24,86,24,201.73

NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

SCHEDULE -5 : INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS

Particulars	Current Year 2023-24	Previous Year 2022-23
A Long Term Investments	-	-
1 In Central Government Securieties	-	-
2 In State Government Securities	-	-
3 Other Approved Securities	-	-
4 Shares	-	-
5 Debenture & Bonds	-	-
6 Term Deposits with Banks	-	-
7 Others	-	-
Total	-	-

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

SCHEDULE 6 - INVESTMENT OTHERS	Current Year 2023-24	Previous Year 2022-23
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 (9842.204 units)	-	5,04,905.07
NAV as at 31.3.2022		
	-	5,04,905.07

NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

SCHEDULE 7- CURRENT ASSETS	Current Year 2023-24	Previous Year 2022-23
1 Stock : a) Stores and spares b) Loose Tools c) Publications d) Laboratory Chemicals, Consumables & Glassswares 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		
3 Cash balances in hand(including cheques/ drafts and imprest) and remittance in transit	1,79,900.00	2,39,800.00
4 Bank Balances (to be further classified as pertaining to earmarked fund or otherwise) a) With Scheduled Banks in Current Accounts in Term Deposit Accounts in Savings Accounts b) With Non-Scheduled Banks in Current Accounts in Term Deposit Accounts in Savings Accounts	6,03,280.81 21,88,74,876.59	77,48,134.18 18,27,38,041.14
5 Post Office - Savings Accounts		
6 TDS on Projects	74737.2	
	21,97,32,794.60	19,07,25,975.32

ANNEXURE : Details of Bank Accounts

NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

SCHEDULE -11 : INCOME FROM INVESTMENTS	Current Year 2023-24	Previous Year 2022-23
1 Interest		
a) On Govt securities		
b) Other Bonds/ Debenture		
c) Others : Mutual Funds	97,333.37	-
d) Mutual Fund Investments		
Less : transfer to designated fund accounts		
2 Interest on Term deposits	-	-
3 Income accrued but not due on Term Deposits/ Interest bearing	-	-
4 advances to employees (where Revolving Fund has been constituted)	-	-
5 Others (Specify)	-	-
	97,333.37	-

SCHEDULE 12 : INTEREST EARNED	Current Year 2023-24	Previous Year 2022-23
1 On Savings bank Accounts with Schedule Banks	52,92,112.00	38,29,676.00
2 Interest on RD		31,921.00
2 On Loans		
a) Employees (if Revolving Funds have not been constituted for such advance)	-	-
b) Others		
3 On Debtors and Other Receivables	-	-
Total	52,92,112.00	38,61,597.00

NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

SCHEDULE -13 : OTHER INCOME		2023-24	2022-23
A	Income from Land & Buildings		
	1. Hostel Room Rent	34,63,000.00	31,55,000.00
	2. License and Permit Fee	23,825.00	23,825.00
	3. Hire Charge of Auditorium/Play ground/ Convention Centre etc	-	-
	4. Electricity & Water Charges recovered	12,73,500.00	12,56,000.00
	5. Quarter Rent	13,06,982.00	14,73,972.00
	6. TEQIP 3		
	7. Non- IRG :Student Medical & Insurance fee	2,35,500.00	11,07,000.00
	8. Guest House Earning	-	-
	Total(A)	63,02,807.00	70,15,797.00
B	Sale of Institute's Publication (included under schedule 9-D)		-
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 (C)		-
D	Others		
	1. Income from Consultancy	21,16,278.50	61,32,568.00
	2. RTI fees	-	-
	3. Income from Royalty	-	-
	4. Sale of Application Form (recruitment)	-	-
	5. Misc receipts XRD Sample Charge, (sales of 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	63,000.00	26,950.00
	b) Other Receipts	14,85,534.71	-
	c) Overhead from Projects (Net)	8,46,528.39	6,52,717.00
	d) Staff Recruiting		2,19,000.00
	c) Donation/ Sponsor	-	-
	Total(D)	45,11,341.60	70,31,235.00
	GRAND TOTAL (A +B+C+D)	1,08,14,148.60	1,40,47,032.00

NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

SCHEDULE-18 : TRANSPORTATION EXPENSES	Current Year 2023-24	Previous Year 2022-23
1 Own Vehicles		
a) Running Expenses	7,76,154.00	9,50,440.00
b) Repairs & Maintenance		
c) Insurance		
2 Vehicle taken on rent/ lease		
a) Rent/ lease expenses		
3 Vehicle (taxi) hiring Expenses	12,55,589.00	11,61,061.00
Total	20,31,743.00	21,11,501.00
SCHEDULE-19 : REPAIRS AND MAINTENANCE	2023-24	2022-23
1 Buildings	1,80,60,950.00	89,63,889.00
2 Furniture & Fixture	6,97,460.00	88,050.00
3 Plant & Machinery		-
4 Office Equipments		-
5 Computer Maintenance & Accessories	38,76,163.00	16,47,796.00
6 Laboratory & Scientific Equipment		3,67,776.00
7 Roads & Bridges		4,75,729.00
8 Cleaning materials & services		3,000.00
9 System Maintenance	60,33,415.00	87,48,851.00
10 Campus Maintenance	13,800.00	63,160.00
11 Estate Maintenance		-
12 Others Assets	24,82,605.00	24,380.00
13 House-Keeping materials	3,75,983.00	2,07,461.00
Total	3,15,40,376.00	2,05,90,092.00
SCHEDULE -20 : FINANCE COST	2023-24	2022-23
1 Bank Charges	27,268.00	70,771.00
2 Others (Specify)		
Total	27,268.00	70,771.00
SCHEDULE -21 : OTHER EXPENSES	2023-24	2022-23
1 Provision for Bad & Doubtful Debts/ Advances		
2 Irrecoverable Balances written off		
3 Grants / Subsidies to Other Institutes/ organisations		
4 Others (specify)		
a) Donation to PM Care fund	-	-
b) Insurance for students (Non IRG)		9,43,150.00
c) Share of Consultancy Fee	24,50,731.00	20,67,078.00
d) Donation & Sponsorship	1,00,000.00	1,00,000.00
Total	25,50,731.00	31,10,228.00
SCHEDULE - 22 :PRIOR PERIOD EXPENSES		
1 Student scholarship	-	-
Others	-	-
Misc Debit balances w/o	-	-
Total	-	-

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SCHEDULE -2 : DESIGNATED / EARMARKED / ENDOWMENT FUNDS

2023-24

		DASA	NMEICT	DST project for Basic Science	DST Project for Civil Dept	TOTAL Current Year	TOTAL 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)						
	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						
bi)	Investments	NIL	NIL	NIL	NIL	NIL	NIL
c)	Interest Accrued but not due						
d)	Others (Specify)						

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**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)	9	10	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

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2023-24

SCHEDULE -3 (a) SPONSORED PROJECTS

Sl No	Name of the project	Opening balance		Receipts/ Recoveries, Interest during the	Total	Expenditure During the year	Closing balance		Previous Year
		Credit	Debit				Credit	Debit	
1	Dr Ibetombi UGC Project	45,000.00	-	42,000.00	87,000.00	87,000.00	-	-	45,000.00
2	SERB -EMRF Dr. Ibetombi	2,06,391.00	-	-	2,06,391.00	2,06,391.00	-	-	2,06,391.00
3	ISRO (RAC-S) Ms Mamata	40,973.00	-	3,02,112.00	3,43,085.00	3,33,800.00	9,285.00	-	40,973.00
4	SERB 2nd Proj DR Chandi	2,01,231.00	-	9,00,452.00	11,01,683.00	11,00,110.00	1,573.00	-	2,01,231.00
5	SERB 2nd Project Dr Lenin	1,02,688.00	-	8,71,823.00	9,74,511.00	8,16,032.00	1,58,479.00	-	1,02,688.00
6	R & D Project Dr Shuma	611.00	-	-	611.00	353.00	258.00	-	611.00
7	DST Complex Fluid Flow -Lenin Physics	14,671.00	-	-	14,671.00	-	14,671.00	-	14,671.00
8	Surface Oxygen & its effect- Nagarajan	11,40,065.00	-	-	11,40,065.00	-	11,40,065.00	-	11,40,065.00
9	DST SERB Dr Tamphasana	-	-13,464.00	5,91,540.00	5,78,076.00	5,31,278.00	46,798.00	-	-13,464.00
10	Dev of New Hybrid- A K Biru	75,000.00	-	-	75,000.00	-	75,000.00	-	75,000.00
11	DST project- S Binita Chanu	11,690.00	-	-	11,690.00	-	11,690.00	-	11,690.00
12	DST- CCP Dr Ng. Romanji	-	-3,04,704.00	-	-3,04,704.00	-	-	-3,04,704.00	-3,04,704.00
13	DST Inspire Ng. Joseph Singh	1,06,248.00	-	-	1,06,248.00	1,06,248.00	-	-	1,06,248.00
14	DST Inspire Dr Birla	1,24,842.00	-	-	1,24,842.00	-	1,24,842.00	-	1,24,842.00
15	ISRO - EOAM Dr Romenji	71,430.00	-	-	71,430.00	-	71,430.00	-	71,430.00
16	Improvising stability -L Herojit	2,29,448.00	-	-	2,29,448.00	2,29,448.00	-	-	2,29,448.00
17	GRIDS ACA Support/ Innovation	2,91,539.00	-	-	2,91,539.00	-	2,91,539.00	-	2,91,539.00
18	SERB - Premkumar L	12,911.00	-	5,959.00	18,870.00	-	18,870.00	-	12,911.00
19	CMR Proj. Dr Mithun	3,60,258.00	-	8,96,938.00	12,57,196.00	10,75,405.00	1,81,791.00	-	3,60,258.00
20	UBA - 2019	-	-	10,50,000.00	10,50,000.00	7,46,437.00	3,03,563.00	-	-
21	SMDP: Suraj	2,543.39	-	-	2,543.39	2,543.39	0.00	-	2,543.39
22	OTP-NIDM Dr Dinamani	2,270.00	-	-	2,270.00	-	2,270.00	-	2,270.00
23	QIP- AICTE Dr Bankim	25,867.00	-	-	25,867.00	25,867.00	-	-	25,867.00
24	Randum Verification	12,844.00	-	-	12,844.00	-	12,844.00	-	12,844.00
25	SARS - Project DR Mithun	3,81,041.00	-	3,11,939.00	6,92,980.00	5,59,625.00	1,33,355.00	-	3,81,041.00
26	SERB - Dr Mithun 3rd Project	2,34,098.00	-	8,76,313.00	11,10,411.00	7,84,260.00	3,26,151.00	-	2,34,098.00
27	SERB- Dr Dushyant 2nd Project	28,64,298.00	-	-	28,64,298.00	28,64,298.00	-	-	28,64,298.00
Sub-Total carried over		65,57,957.39	-3,18,168.00	58,49,076.00	1,20,88,865.39	94,69,095.39	29,24,474.00	-3,04,704.00	62,39,789.39

Sl No	Continuation Schedule-3(a)	Opening balance		Receipts/ Recoveries,	Total	Expenditure During the year	Closing balance		Previous Year
		Credit	Debit				Credit	Debit	
28	Total Carried forward	65,57,957.39	-3,18,168.00	58,49,076.00	1,20,88,865.39	94,69,095.39	29,24,474.00	-3,04,704.00	62,39,789.39
29	SERB - Dr Herojit 2nd Project	68,805.00	-	2,03,939.00	2,72,744.00	2,05,693.00	67,051.00	-	68,805.00
30	SERB- Dr Miral 2nd Project	-	-	-	-	-	-	-	-
31	SERB - Dr Jina	1,61,522.00	-	6,56,341.00	8,17,863.00	6,34,492.00	1,83,371.00	-	1,61,522.00
32	DST R&D Project - Dr BP Swan	1,34,000.00	-	-	1,34,000.00	-	1,34,000.00	-	1,34,000.00
33	SERB - Dr Ashish Ranjan	8,29,000.00	-	37,413.00	8,66,413.00	7,67,254.00	99,159.00	-	8,29,000.00
34	Meity Dr Y. Jina	-	-	5,51,364.00	5,51,364.00	5,80,604.00	-	-29,240.00	-
35	DST R & D Dr Th. David	90,000.00	-	-	90,000.00	23,000.00	67,000.00	-	90,000.00
36	DST R & D Dr Y. Jina	90,000.00	-	-	90,000.00	90,000.00	-	-	90,000.00
37	SERB INAE - Dr Bankim	-	-	5,000.00	5,000.00	5,000.00	-	-	-
38	TIFAC - Dr Benjamin A Shimray	1,62,247.00	-	1,69,696.00	3,31,943.00	1,21,943.00	2,10,000.00	-	1,62,247.00
39	DST-IIT GHY - Dr Anilkumar Biru	-	-	8,00,000.00	8,00,000.00	-	8,00,000.00	-	-
40	DST-Manipur- Dr Anilkumar Biru	-	-	3,90,000.00	3,90,000.00	-	3,90,000.00	-	-
41	IBITF-Dr Jina	-	-	22,00,000.00	22,00,000.00	-	22,00,000.00	-	-
42	Hydro Geological Springshed Project- Dr Rome	-	-	2,91,056.00	2,91,056.00	2,75,000.00	16,056.00	-	-
43	ISRO MARSAC-Dr Romeji	-	-	30,00,000.00	30,00,000.00	17,31,852.00	12,68,148.00	-	-
44	NESAC-Dr Romeji	-	-	7,50,000.00	7,50,000.00	5,50,000.00	2,00,000.00	-	-
45	NHP Thoubal-Dr Romeji	-	-	16,27,678.00	16,27,678.00	-	16,27,678.00	-	-
46	RIMS Dharashala-Dr Romeji	-	-	3,60,891.00	3,60,891.00	3,60,891.00	-	-	-
47	DST Inspire-DR Hemojit	-	-	22,00,000.00	22,00,000.00	15,95,052.00	6,04,948.00	-	-
48	IBITF-Dr Benjamin & Dr Khelchandra	-	-	21,42,000.00	21,42,000.00	6,98,823.00	14,43,177.00	-	-
49	ICBIC SERB	-	-	1,79,606.00	1,79,606.00	1,79,606.00	-	-	-
50	ICSSR-Dr Azhoni	-	-	15,00,000.00	15,00,000.00	-	15,00,000.00	-	-
51	ICSSR-Dr Pratakson	-	-	1,98,500.00	1,98,500.00	1,86,000.00	12,500.00	-	-
52	MHC- Dr Khel	-	-	14,00,000.00	14,00,000.00	5,03,067.00	8,96,933.00	-	-
53	NECTOR -Dr Albino	-	-	7,73,044.00	7,73,044.00	7,73,044.00	-	-	-
54	R&D Proj Dr Bidyapati	-	-	1,20,000.00	1,20,000.00	-	1,20,000.00	-	-
55	SERB A Deepak	-	-	5,95,102.00	5,95,102.00	-	5,95,102.00	-	-
56	Meity L Surajkumar	-	-	32,55,000.00	32,55,000.00	32,55,000.00	-	-	-
57	STARS Dr Chandi	-	-	6,87,000.00	6,87,000.00	-	6,87,000.00	-	-
58	Bank Interest on Project a/c pending allocation	1,30,954.00	-	1,63,931.00	2,94,885.00	-	2,94,885.00	-	1,30,954.00
1	Total (A)	82,24,485.39	-3,18,168.00	3,01,06,637.00	3,80,12,954.39	2,20,05,416.39	1,63,41,482.00	-3,33,944.00	79,06,317.39
2	DASA	6,35,000.00	-	10,000.00	6,45,000.00	10,000.00	6,35,000.00	-	6,35,000.00
3	NMEICT	1,61,599.00	-	-	1,61,599.00	-	1,61,599.00	-	1,61,599.00
4	Total (B)	7,96,599.00	-	10,000.00	8,06,599.00	10,000.00	7,96,599.00	-	7,96,599.00
5	Total (A+B)	90,21,084.39	-3,18,168.00	3,01,16,637.00	3,88,19,553.39	2,20,15,416.39	1,71,38,081.00	-3,33,944.00	87,02,916.39

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SCHEDULE -3 (b) SPONSORED FELLOWSHIP AND SCHOLARSHIPS

2023-24

Sl No	Name of the project	Opening balance		Receipts/ Recoveries during the year	Total	Expenditure During the year	Closing balance		Previous Year
		Credit	Debit				Credit	Debit	
1	H Samananda Fellowship Grant	-	-	9,43,174.00	9,43,174.00	8,26,527.00	1,16,647.00	-	-
2	Ms Sharmila Fellowship Inspire	-	-	5,82,553.00	5,82,553.00	5,77,762.00	4,791.00	-	-
	Total	-	-	15,25,727.00	15,25,727.00	14,04,289.00	1,21,438.00	-	-

Year 2023-24

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

A	Government of India	A/C -31 (General)	A/C-36(Salary)	A/C- 35 (Capital Exp)	Total 2023-24	Total 2022-23
1	Unutilised Balance brought forward	35,44,64,073.73	23,15,56,363.64	-85,65,94,605.13	-27,05,74,167.76	-15,04,23,259.07
	Less:Refund for Previous Year	33,70,822.00	15,61,048.00		49,31,870.00	
2	Grant Received During the Year	19,26,00,000.00	13,96,00,000.00	-	33,22,00,000.00	27,18,00,000.00
3	Total	54,36,93,251.73	36,95,95,315.64	-85,65,94,605.13	5,66,93,962.24	12,13,76,740.93
4	Less : Refund	1,03,123.00	-	-	1,03,123.00	10,96,82,267.00
5	Balance to be Utilised :	54,35,90,128.73	36,95,95,315.64	-85,65,94,605.13	5,65,90,839.24	1,16,94,473.93
5.a	Total Expenses as per Income & Exp. /Receipts & Payment A/c	19,80,83,589.00	13,96,04,049.50	-	33,76,87,638.50	27,74,99,940.69
5.b	Decrease (increase) in Liability	(3,61,661.00)	(12,67,488.50)	-	-16,29,149.50	14,35,075.00
5.c	Increase (Decrease) in Advance	13,62,900.00	-	-	13,62,900.00	33,33,626.00
5.d	Total Expenses Paid (5a+5b+5c)	19,90,84,828.00	13,83,36,561.00	-	33,74,21,389.00	28,22,68,641.69
6	Unutilised / overutilised Balance (3-5d)	34,45,05,300.73	23,12,58,754.64	-85,65,94,605.13	-28,08,30,549.76	-27,05,74,167.76

Note : 1 ** During the year capital expenses for Rs 4,18,78,080 was incurred.An Amount of Rs 10029875/- was paid from A/c 31 General. The remaining expenses was paid out of IGR as no grant was received under head -35. Hence the expenditure is not reflected

Note :2 The shortfall in the grant fund is made up from Internal generated Revenue

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SCHEDULE 8 - LOANS, ADVANCES & DEPOSITS	Current Year 2023-24	Previous Year 2022-23
1 Advances to Employees		
a) Salary		
b) Festival		
c) Medical Advance		
d) Others (to be specified)		
(i) LTC		
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	3,60,360.00	3,13,060.00
c) Others	99,24,595.00	87,99,498.00
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) Interest Accrued on Term Deposits		
d) Others - Student Fees		
includes income due unrealised		
7 Other - Current Assets :		
a) Receivables from Sponsored Projects TEQIP		
b) Debit balances in sponsored Projects	3,33,944.00	3,18,168.00
c) Debit Balances in Fellowship & scholarship		
d) Grants Receivable		
e) Other Receivables & Recoverables	2,26,334.01	2,52,616.01
8 Claims receivable (TDS on Consultancy fee)	-	94,566.00
Total (1 to 8)	1,08,45,233.01	97,77,908.01

SCHEDULE -9 : ACADEMIC RECEIPTS		Current Year 2023-24	Previous Year 2022-23
FEE FROM STUDENTS			
A Academic			
1. Tuition Fee		1,67,57,523.56	1,84,81,409.00
2. Admission fee		3,15,000.00	3,16,500.00
3. Enrolment Fee			-
4. Library Admission Fee			-
5. Laboratory Fee		66,400.00	91,200.00
6. Institutional Development Fee		22,30,000.00	25,75,000.00
7. Registration Fee			
8. Other Academic Fee		24,31,000.00	29,13,177.00
Total (A)		2,17,99,923.56	2,43,77,286.00
B Examinations			
1. Admission Test Fee		-	-
2. Annual Examination Fee		41,500.00	11,67,250.00
3. Mark Sheet, Certificate, Migration etc		14,68,399.00	3,69,080.00
4. Entrance Examination Fee		-	-
Total (B)		15,09,899.00	15,36,330.00
C Other Fees			
1. Identity Card Fee		2,24,200.00	2,08,860.00
2. Fine and Misc Fee		1,77,000.00	84,000.00
3. Medical & Insurance Fee		-	-
4. Transportation Fee		-	-
5. Hostel Admission Fee		1,19,500.00	2,63,500.00
6. Placement & Training		3,06,000.00	
7. Student activity, Sports, Arts & Culture		19,39,000.00	19,40,200.00
Total (C)		27,65,700.00	24,96,560.00
D Sale of University publication etc			
1. Sale of Admission Forms		11,92,218.00	37,750.00
2. Sale of Syllabus & Question Paper		-	-
3. Sale of Prospectus		60,000.00	63,400.00
Total (D)		12,52,218.00	1,01,150.00
E Other Academic Receipts			
1. Skill Development Fee		7,45,000.00	3,86,000.00
2. Registration fee for workshops programmes etc.		46,900.00	-
Total (E)		7,91,900.00	3,86,000.00
GRAND TOTAL (A+B+C+D+E)		2,81,19,640.56	2,88,97,326.00

Note :

1 None of the fees received is in the nature of capital receipts and hence not capitalised

2 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.

SCHEDULE 14- PRIOR PERIOD INCOME		Disclosed separately under Schedule 24 Note -9	
		Current Year 2023-24	Previous Year 2022-23
1 Academic Receipts		-	-
2 Income form Investments		-	-
3 Interest Earned		-	-
Total		-	-

SCHEDULE -15 : STAFF PAYMENTS & BENEFITS		Current Year 2023-24	Previous Year 2022-23
1 Salaries & Allowances			
a) Salary on Regular Faculty		10,60,20,407.00	9,36,07,330.00
b) Salary on Regular Non-faculty		1,51,00,215.50	1,16,36,337.00
		12,11,20,622.50	10,52,43,667.00
2 Leave Salary Contribution/ Leave encashment		13,043.00	96,600.00
3 Contribution to Employees Provident Fund			
4 Contribution to CPF of staff on deputation			
5 Retirement & Terminal Benefits : NPS Contribution		1,17,67,943.00	1,23,16,639.00
6 LTC Facility		9,89,793.00	7,03,704.00
7 Medical Facility		11,42,936.00	12,09,605.00
8 Children Education Allowance		12,15,000.00	14,78,250.00
9 Honorarium			
10 Professional Development Expenses		17,93,664.00	10,59,024.00
11 Others (Specify)			
a) NSDL Service Charge			
b) Transfer Allowance			
c) Gratuity contribution			
Total		13,80,43,001.50	12,21,07,489.00

SCHEDULE 15 A - EMPLOYEES RETIREMENT AND TERMINAL BENEFITS

Opening Balance as on 1.4.2021		
Addition : Capitalised value of contribution received from other organisations		
Total (a)		
Less : Annual Payments during the year		
Balance available on 31.3.2022 (c) = (a-b)		
Provision required on 31.3.2022 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]		

Actuarial Valuation on the retirement benefits has not been obtained and the capitalised value has not been calculated

SCHEDULE -16 : ACADEMIC EXPENSES		Current Year 2023-24	Previous Year 2022-23
1	Laboratory Expenses	12,21,377.00	2,87,420.00
2	Field Work / conference/ Faculty Development/ Training		
3	Expenses on Seminar,workshop & short term course	25,808.00	7,580.00
4	Payments to Visiting Faculty		
5	Examination		
6	Student Insurance & Medical		
7	Professional Dev Expenses	-	65,383.00
8	Convocation Expenses	19,12,281.00	16,64,847.00
9	Academic Support	34,228.00	1,04,192.00
10	Stipend/ Means cum-merit Scholarship, Ph.D Stipend	4,18,04,651.00	3,21,62,487.00
11	Subscription, Periodical Expenses	45,016.00	19,924.00
12	Others (Specify)		
	a) Placement, Career Dev. Exp	37,128.00	-22,000.00
	b) Sports & Other Activities	11,35,644.00	1,04,252.00
	c) M. Tech Scholarship	11,01,121.00	16,69,455.00
	d) Hostel Exp	79,529.00	1,69,337.00
	e) Festival & Celebrations	15,34,195.00	17,46,671.00
	f) Others : Trainee Teacher Scheme	-	19,159.00
	g) Phd Contingency Charges	14,66,466.00	12,80,790.00
		5,03,97,444.00	3,92,79,497.00
SCHEDULE -17 : ADMINISTRATIVE AND GENERAL EXPENSES			
A Infrastructure			
1	Electricity and Power	59,64,367.00	54,26,604.00
2	Water Charges	31,30,829.00	17,91,345.00
		90,95,196.00	72,17,949.00
B Communication			
1	Postage & Telegrams	17,895.00	1,95,625.00
2	Telephone, Fax & Internet Charges	1,82,238.00	25,51,160.00
		2,00,133.00	27,46,785.00
C Others			
1	Contract Staff Salary	4,16,52,897.00	3,79,60,473.00
2	Leave & Pension Contribution	-	-
3	E.P.F. Employers Contribution	19,43,040.00	21,20,400.00
4	E.P.F. Administration Charges	1,68,203.00	1,76,700.00
5	E.P.F. Penalty	-	12,74,890.00
6	Printing & Stationery	33,76,723.00	4,83,094.00
7	Traveling & Conveyance	44,01,593.00	33,86,616.30
8	Honorarium	25,94,650.00	29,97,947.00
9	Hospitality & Refreshment	4,29,562.00	4,74,335.70
10	Internal Audit +GST		
11	Professional Charges	7,77,015.00	7,33,500.00
12	Advertisement & Publicity	11,08,121.00	10,44,437.00
13	Others (Specify)		
	a) Guest House Exp	7,00,000.00	3,50,000.00
	b) Staff Recruiting Expenses	5,37,200.00	4,36,120.00
	c) Meeting Expenses	13,617.00	5,08,759.00
	d) Security and House Keeping Exp	3,30,37,940.00	2,73,21,366.00
	e) Consultancy & Outsource	50,731.00	84,889.00
	f) Contingency	5,80,373.00	9,12,101.00
	g) Functions & Celebration	19,067.00	-
	Total	9,13,90,732.00	8,02,65,628.00
Total A+B+C		10,06,86,061.00	9,02,30,362.00

NATIONAL INSTITUTE OF TECHNOLOGY , MANIPUR

2023-24

SCHEDULE - 4A:

ASSETS		G R O S S V A L U E			D E P R E C I A T I O N				N E T B L O C K		
	Opening Balance 1.4.2023	Additions	sold/ discard/ Transfer/ Adjst - ment	TOTAL 31.3.2024	Rate %	Opening balance	Depreciation for the year	Excess (short) Depreciation adjusted	Total Depreciation	31.3.2024	31.3.2023
4A	Tangible assets										
1	Freehold land	1,000.00	-	1,000.00	0%	-	-	-	-	1,000.00	1,000
2	Land Development	3,01,76,987	58,73,184	3,60,50,171	0	-	-	-	-	3,60,50,171	3,01,76,987
3	Buildings	7,83,69,304	40,44,118	8,24,13,422	2%	1,02,62,497	16,48,268		1,19,10,765	7,05,02,657	6,81,06,807
4	Playground	2,89,06,367		2,89,06,367	2%	23,12,508	5,78,127		28,90,635	2,60,15,732	2,65,93,859
5	Roads, drains & culverts	2,10,84,478	58,54,363	2,69,38,841	2%	25,78,993	5,38,777		31,17,770	2,38,21,071	1,85,05,485
6	Tubewell & Water Supply	43,07,519	8,54,772	51,62,291	2%	5,24,428	1,03,246		6,27,674	45,34,617	37,83,091
7	Electrical Equipment/ Installat	2,30,66,342	9,76,925	2,40,43,267	5%	93,28,216	12,02,163	-	1,05,30,379	1,35,12,888	1,37,38,126
8	Computers & Peripheral	10,65,33,181	7,26,407	10,72,59,588	20%	10,26,52,862	1,45,281		10,27,98,143	44,61,445	38,80,319
9	General Equipment	1,81,55,740		1,81,55,740	7.5%	1,46,19,180	13,61,681		1,59,80,861	21,74,879	35,36,560
10	Audio Visual Equipment	64,59,679	12,17,760	76,77,439	7.5%	34,97,228	5,75,808		40,73,036	36,04,403	29,62,451
11	Books	3,23,56,175		3,23,56,175	10%	2,88,29,679	32,35,618		3,20,65,297	2,90,878	35,26,496
12	Workshop/ Lab Equipment	70,56,29,038		70,56,29,038	8%	45,71,50,092	5,64,50,323		51,36,00,415	19,20,28,623	24,84,78,946
13	Sports Equipment	7,29,660		7,29,660	7.5%	6,58,384	-		6,58,384	71,276	71,276
14	Furniture & Fixture	10,71,05,967	29,83,605	11,00,89,572	7.5%	6,14,07,438	82,56,718		6,96,64,156	4,04,25,416	4,56,98,529
15	Vehicles	48,55,203	-	48,55,203	10%	42,31,480	4,85,520		47,17,000	1,38,203	6,23,723
16	Other Assets	29,01,854	-	28,92,880	7.5%	21,00,570	2,16,966		23,17,536	5,75,344	8,01,284
	Total 4A	1,17,06,38,494	2,25,31,134.00	1,19,31,60,654		70,01,53,555	7,47,98,496	-	77,49,52,051	41,82,08,603	47,04,84,939
4B	Intangible Assets										
10	Computer Soft ware	21,83,77,358	-	21,83,77,358	40%	21,35,67,559	-		21,35,67,559	48,09,799	48,09,799
11	E- Books & Journal	6,94,69,462	-	6,94,69,462	40%	6,77,32,725	-		6,77,32,725	17,36,737	17,36,737
	Total 4B	28,78,46,820	-	28,78,46,820		28,13,00,284	-	-	28,13,00,284	65,46,536	65,46,536
4C	Patent	3,16,945	1,28,500	4,45,445	11%	1,76,443	48,999		2,25,442	2,20,003	1,40,502
4D	Assets under 100% Depn	9,35,525	-	9,35,525	100%	9,35,525			9,35,525	-	-
	Total carried over	1,45,97,37,784	2,26,59,634	1,48,23,88,444		98,25,65,807	7,48,47,495	-	1,05,74,13,302	42,49,75,142	47,71,71,977

	Total Carried forward	1,45,97,37,784	2,26,59,634	8,974	1,48,23,88,444		98,25,65,807	7,48,47,495	-	1,05,74,13,302	42,49,75,142	47,71,71,977
4E	Assets under Project											
(a)	Tangible Assets											
1	Computer	28,04,270	-		28,04,270	20%	25,03,087	2,31,076		27,34,163	70,107	3,01,183
2	Equipment	89,47,152			89,47,152	8%	31,76,591	7,15,772		38,92,363	50,54,789	57,70,561
(b)	Intangible Assets											
1	Computer Software	35,93,373	-		35,93,373	40%	35,03,539	10,780		35,14,319	79,054	89,834
	Total 4E	1,53,44,795	-	-	1,53,44,795		91,83,217	9,57,628	-	1,01,40,845	52,03,950	61,61,578
4D	TEQIP Assets											
(a)	Tangible Assets											
1	Equipment	4,62,16,586			4,62,16,586	8%	1,48,01,331	36,97,327		1,84,98,658	2,77,17,928	3,14,15,255
2	Computer	48,31,423			48,31,423	20%	38,26,131	8,84,506		47,10,637	1,20,786	10,05,292
(b)	Intangible Assets											
1	e-Books	2,38,69,522			2,38,69,522	40%	2,32,72,784	-		2,32,72,784	5,96,738	5,96,738
2	Software	32,65,200			32,65,200	40%	31,30,027	63,339		31,93,366	71,834	1,35,173
	Total 4F	7,81,82,731	-	-	7,81,82,731		4,50,30,273	46,45,172	-	4,96,75,445	2,85,07,286	3,31,52,458
	Total (4A to 4F)	1,55,32,65,310.13	2,26,59,634.00	8,974.00	1,57,59,15,970.13		1,03,67,79,297.00	8,04,50,296	-	1,11,72,29,593	45,86,86,377.62	51,64,86,013.13
	Total Tangible	1,23,43,73,450.13	2,25,31,134.00	8,974.00	1,25,68,95,610.13		72,53,96,220.00	8,03,27,178	-	80,57,23,398	45,11,72,212.02	50,89,77,230.13
	Total Intangible	31,88,91,860.00	1,28,500.00	-	31,90,20,360.00		31,13,83,077.00	1,23,117	-	31,15,06,194	75,14,165.61	75,08,783.00
	Previous Year	1,54,72,25,075	1,12,65,277	52,25,042	1,55,32,65,310.13		95,79,80,441	8,08,68,856	20,70,000	1,03,67,79,297	51,64,86,013.13	58,92,44,634.13

Residual value has been kept for Computer 2.5% E-books -2.5% , Software 2.2% , Project software -2.5% , Vehicle -5% of the gross value
Depreciation on TEQIP assets is cumulative since 2018-19

NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

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

A	Govt of India	General (31)	Salary (36)	Capital Exp (35)	TOTAL 2023-24	Salary (36)	General (31)	Capital Exp (35)	TOTAL 2022-23
		2023-24	2023-24	2023-24		2022-23	2022-23	2022-23	
1	Opening balance	35,44,64,073.73	23,15,56,363.64	(85,65,94,605.13)	(27,05,74,167.76)	24,23,38,743.64	46,38,32,602.42	(85,65,94,605.13)	(15,04,23,259.07)
2	Grant Received Less Refund	18,91,26,055.00	13,80,38,952.00	-	32,71,65,007.00	11,13,25,109.00	5,07,92,624.00	-	16,21,17,733.00
3	Total	54,35,90,128.73	36,95,95,315.64	(85,65,94,605.13)	5,65,90,839.24	35,36,63,852.64	51,46,25,226.42	(85,65,94,605.13)	1,16,94,473.93
4	Payments as shown below ##	19,90,84,828.00	13,83,36,561.00	-	33,74,21,389.00	12,21,07,489.00	16,01,61,152.69	-	28,22,68,641.69
5	Balance of Fund	34,45,05,300.73	23,12,58,754.64	(85,65,94,605.13)	(28,08,30,549.76)	23,15,56,363.64	35,44,64,073.73	(85,65,94,605.13)	(27,05,74,167.76)
# Payments									
a.	As per Income & Expenditure Account	19,80,83,589.00	13,96,04,049.50	-	33,76,87,638.50	12,21,07,489.00	15,53,92,451.69	-	27,74,99,940.69
b.	Decrease (Increase) in Liability	(3,61,661.00)	(12,67,488.50)	-	(16,29,149.50)	-	14,35,075.00	-	14,35,075.00
c.	Increase(Decrease) in Advances	13,62,900.00	-	-	13,62,900.00	-	33,33,626.00	-	33,33,626.00
	Cash Payments (a+b+c)	19,90,84,828.00	13,83,36,561.00	-	33,74,21,389.00	12,21,07,489.00	16,01,61,152.69	-	28,22,68,641.69

B State Govt and other Agencies :

MOBC : For Construction of Hostel

1	Opening balance	-	-	-	-	-
2	Received during the year	-	-	-	-	-
3	Payments	-	-	-	-	-
4	Balance	-	-	-	-	-

Note 1 : No grant has been received from the MHRD under the head -35 : Capital Expenses from the year 2017-18.. Thus the capital expenditure of Rs 53,82,703 has been during the year incurred from Internal Revenue Generated (IRG). Hence the expenditure is not reported.

Note 2 : The balance of fund is supported

A Cash and Bank balance i/c Mutual Fund Investment

B	LESS :	2023-24	2022-23
1.	MOBC Fund included in above balance	21,96,58,057.40	19,12,30,880.39
2.	IRG Fund	85,00,000.00	85,00,000.00
3.	Refundable and Payables	32,96,88,734.39	34,78,84,076.42
4.	Other Restricted Fund of Projects	13,30,49,807.91	8,49,25,839.94
5.	CCB Fund	1,82,37,815.00	90,21,084.39
6.	Remittable Deductions	28,84,773.00	35,32,807.00
7.	Slale Cheque Account	9,78,296.00	7,92,059.40
8.	Current Liabilities	71,49,181.00	71,49,181.00
	Total B	50,04,88,607.30	46,18,05,048.15
	Balance of Fund of Grant (A-B)	-28,08,30,549.90	-27,05,74,167.76

NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

Annexure to Schedule 7 : 2023-24

Sl No.	Name of Bank	Opening Balance 1.4.2023		ClosingBalance 31.03.2024	
		Current Account	Savings Bank A/c	Current Account	Savings Bank A/c
1	ICICI Bank Ltd	77,48,134.18		-	
2	SBI 6413		1,66,83,474.40		3,01,57,834.84
3	SBI -3589	-			6,87,000.00
4	Bank of India		5,56,123.00		-
5	Canara SB		-		3,03,563.00
6	Central Bank of Ind		5,52,752.00		5,52,634.00
7	Syndicate Bank		10,29,546.93		-
8	Syndicaqte Project		2,543.39		-
9	Yes Bank		6,02,780.81	6,03,280.81	
10	BOB SB21096		8,20,09,130.74		10,44,87,599.57
11	BOB Project A/c		71,65,507.25		1,31,41,513.56
12	BOB DDO		75,714.30		5,33,476.30
13	BOB IRG		6,52,50,803.02		4,35,07,433.02
14	BOB -RD 1		2,61,921.00		-
15	BOB-RD 2		11,70,000.00		15,30,000.00
16	BOB-1062 PMFS		16,30,636.10		57,40,016.10
17	RBI (31)		33,70,822.00		-
18	RBI (36)		15,61,048.00		-
19	BOB -ICSTE -01432		8,15,238.20		5,56,383.20
20	BOB-01601 (Pratakson & Adjoni)				15,12,500.00
21	BOB-ICIDEA-1543				2,79,569.00
22	BOB-Sustainability				1,50,89,272.00
23	BOM-Inspired Project				7,61,386.00
24	RBI Meity(Dr Suraj)				17,000.00
25	RBI Meity(Dr Jina)				17,696.00
	Total	77,48,134.18	18,27,38,041.14	6,03,280.81	21,88,74,876.59

NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

STAFF PROVIDENT FUND ACCOUNT

RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31.3.2024

RECEIPTS	Amount (Rs)	PAYMENTS	Amount (Rs)
Contribution to General Provident Fund	78,336.00		
Receivable contribution for March 2022	-		
Interest on Bank Account	7,240.00		
	<u>85,576.00</u>		
Opening bank balance : BOB 603301000001062	3,22,018.00	Closing bank balance BOB 603301000001062	4,07,594.00
	<u>4,07,594.00</u>		<u>4,07,594.00</u>

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31.3.2024

EXPENDITURE	Amount (Rs)	INCOME	Amount (Rs)
Excess of Income over expenditure - being	7,240.00	Interest on bank account	7240
Interest credited to Fund Account	<u>7,240.00</u>		<u>7,240.00</u>

BALANCE SHEET AS AT 31.3.2024

FUND & LIABILITIES	Amount (Rs)	ASSETS	Amount (Rs)
Provident Fund Account :			
Opening balance	3,30,394.00	Cash at bank BOB 603301000001062	4,07,594.00
Addition during the year by contribution	78,336.00	Receivable from NIT for deduction of March 2022	8,376.00
Contribution for the month of March 2023	7,240.00		
Add : excess of income over expenditure	<u>4,15,970.00</u>		<u>4,15,970.00</u>

SCHEDULE 24: 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 are taken into account.

- c) Retirement Benefits

The liability for 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 except as disclosed in the Notes on Account.

- d) Retirement Pension for the staff other than those covered under NPS is to be accounted on accrual basis.

- e) Interest on Special Term Deposits with Bank compounded up to end 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 is recognised as expresses and the related liability thereof is 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 not treated income of the institution but accounted as Current Liability. 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 capital expenditure component is treated as capital grant and treated accordingly.
- 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 both revenue and capital are charged to the Fund. However, the value of the assets created out of the grant is treated as 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. Internal Revenue Generated (IRG)

The academic fees received from the students and other income earned by the institution is treated as revenue receipt and credited to income and Expenditure Account. Any expenditure of capital nature incurred out of IGR is treated as Assets forming part of fixed assets.

4. Treatment of expenditure renovation of, addition & alteration and extension on existing building 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.

5. Valuation of Inventory of Consumable

The consumable items which are normally purchased for instant use and not intended to carry a substantial quantity thereof regularly are charged in full to the expenditure of the year. However, in case of purchases in bulk for consumption for a significant duration and stock of significant quantity is regularly carried in hand, the balance lying in stock is recognised as inventory under current asset. In such a case the valuation is made at cost or realisable value whichever is less.

6. Fixed Assets

- a) 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
- b) Assets received by way of Non- monetary grants are accounted with corresponding credit to the Corpus (Capital) Fund Account at the value declared by the donor.
- c) The value of the assets created out of the grants under Earmarked Fund/ Restricted Fund (sponsored project) is capitalized with corresponding credit of Corpus (Capital) fund Account.
- d) Where the funding agency reserves, in terms of sanction order of the grant, the right to ownership/ control over the assts like equipment, furniture, books etc. created out of the grant. Given for research activities the expenses are not taken into in Fixed Assets Group of the Financial Statement. Such assets will be taken into the fixed asset only after grant of the permission of ownership by the funding agency. In such a case the value of the assets is to taken after notional depreciation worked out at the rate applicable to the class of the asset. The assets acquired out of the grant but not capitalized are disclosed separately in the Notes on Account.
- e) Where the funding agency has not reserved any right to ownership/ control over the assets created in due course of the research activity, the value of such assets is capitalized and taken in the relevant group of assets in the financial statement.
- f) Assets received as gifts are valued al price indicated by the donor and where such price is not indicated the value is assessed on the prevailing market price.

7. Fixed Assets and Depreciation

- a) 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.
- b) Assets received by way of Non- monetary grants are accounted at the value declared by the donor with corresponding credit to the Capital Fund Account.
- c) Depreciation on the assets is charged at the rate prescribed in the format of accounts issued by Ministry of Human Resource Development. Depreciation for full year is provided on the assets purchased during the year.
- d) A reasonable residual value is kept for assets which is fully depreciated
- e) No depreciation is charged on the assets till the asset is ready for use.
- f) No Depreciation is charged in the year of sale or disposal
- g) Change In the method of Depreciation

Depreciation on fixed assets is provided on written down value method upto 31.03.2024 however from FY 2014-15 onwards, 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.

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 Transactions

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.

SCHEDULE -25: Contingent Liabilities and Notes on Account

1. There is contingent liability for about of Rs 3.00 lakh arising from claims made by a consultant firm
2. The financial statements are presented on the format prescribed by Ministry of Human Resource Development, Govt. of India.
3. The Government of Manipur has allotted 341 acres of land at Langol in favour of the Institute free of cost. The value of land has been recognised in financial statement at a nominal amount of Rs 1000.00

4. 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.

5. The residual value of the assets after expiry of useable life in respect Computer & Peripheral, e- books, intangible assets are taken at of the original cost and vehicles at 5%.
6. Other receipts/ grants : The institute received grants for conducting research activities the project-wise funds received and expenditure incurred are reflected in Schedule 3(a). The unspent balance (Rs 1,71,38,081.00) is shown under Current Liability (Schedule 3) and the debit balance in the fund (Rs 3,33,944.00) under current assets in the Balance Sheet (Schedule 8).
7. At the year-end there was no significant stock of inventory of lab. consumables and hence in accordance with para 5 of the Significant Accounting Policies the value of the inventory is not considered as current asset.
8. State Cheque Account- under current liability Rs71,49,181 (Prev. year Rs71,49,181)

The amount pertains to 42 cheques issued on or before 31.3.2020 whose validity has already expired.

9. Deposit works with CPWD, Education Department, MOBC, Govt of Manipur

The amount deposited with the agencies 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. In respect of MOBC works - construction of 2 hostels the construction has reportedly been completed but the final settlement of actual expenditure has not been made the liability has not been provided on the works. The value of the work to the extent paid / deposited is placed under work in progress.

10. Retirement benefits

- a) The provision for gratuity was made by applying a formula of 15 days salary for every year of service completed - over six months period rounding up to 1 year. Provision was made upto the year 2017-18

- b) Provision for leave encashment is worked out on the basis of unavailed leave remaining outstanding at the end of the year 2017-18. The provision after that year has not been made'
- c) Payment for leave, pension contribution and gratuity of the staff has been made according to claims raised by the respective parent department in respect of staff on deputation and thus provision has not been made for the year towards pension and leave contribution.
- d) The staff on regular appointment 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) No plan assets are funded or maintained to meet future leave encashment gratuity obligation. As the Institute has not engaged the services of Actuarial valuer provision for gratuity and leave encashment has not been made after 2017-18.

11. Foreign Exchange Transaction

There is no foreign exchange transaction during the year

- 12. The facility of General Provident Fund contribution is not applicable to the employees of the Institute except one member of staff. The statement of affairs of General Provident Fund account of the staff is separately presented.

Date:

Place: Imphal



No. PAG(Au)/AB/20/SAR-NITM/2024-25/36

Date: 15.05.2025

To

The Addl. Secretary and Financial Advisor,
Department of Secondary and Higher Education,
Ministry of Human Resource Development,
Shastri Bhavan, New Delhi - 110 001.

Subject: Separate Audit Report on the accounts of the National Institute of Technology,
Manipur for the year 2023-24.

Sir/Madam,

I am to forward herewith the Separate Audit Report (SAR) on the Accounts of the
National Institute of Technology, Manipur, Imphal for the year 2023-24 and to request the
Government to make necessary arrangements to place the SAR before the Parliament.

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

Encl: As stated above.

Yours faithfully,

Sd/-

Sr. Deputy Accountant General (Audit)

Memo No. PAG(Au)/AB/20/SAR-NITM/2024-25/37

Date: 15.05.2025

Copy forwarded to:

- ✓ The Director, National Institute of Technology, Manipur, Langol, Imphal West - 795004
with a copy of the Separate Audit Report on the Accounts.

[He is requested to make necessary arrangements to submit the 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 SAR 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 SAR placed before
the Parliament may be forwarded to this Office. The Report may be kept confidential till it is
placed before the Parliament.]

A. Town Sharma

Sr. Audit Officer (AMG-I)

**Separate Audit Report on the accounts of the National Institute of
Technology, Imphal, Manipur for the year ended 31 March 2024**

1. We have audited the attached Balance Sheet of National Institute of Technology (NIT), Manipur as of 31 March 2024 and the Income & Expenditure Account for the year ended on that date under Section 19 (2) of the Comptroller & Auditor General's Duties, Powers and Conditions of Service (DPC) Act, 1971 read with Section 22 (2) of the NIT Act, 2007. These Financial Statements are the responsibility of the Institute's management. Our responsibility is to express an opinion on these Financial Statements based on our audit.
2. This Separate Audit Report contains the comments of the Comptroller & Auditor General of India (CAG) on the accounting treatment only with regard to classification, conformity with the best accounting practices, accounting standards, 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 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. The audit includes examining, on a test basis, evidences supporting the amounts and disclosure in the Financial Statements. The 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 beliefs were necessary for the purpose of our audit;
 - ii. The Balance Sheet and Income & Expenditure Account dealt with by this report have been drawn up in the format prescribed by the Ministry of Education;
 - iii. In our opinion, proper books of accounts and other relevant records have been maintained by the NIT, Manipur, as required under the Rules in so far as it appears from our examination of such books.
 - iv. We further report that:

A. BALANCE SHEET

A.1 Application of fund

Loans, Advances and Deposits: ₹ 1,08,45,233 [Schedule-8]

During 2015-16, NIT Manipur deposited a sum of ₹ 5,93,341 being the security deposit for new electricity connection for NIT, Manipur Langol. However, instead of booking under Current assets, the above was booked under Expenditure during the year 2015-16.

This has resulted in understatement of the above head by ₹ 5,93,341 while Corpus fund is understated by the same amount.

A.2 Fixed Assets [Schedule-4]

(a) Tangible Assets: ₹ 45,11,72,212

The Institute incorrectly capitalized ₹ 7,23,629 being the cost of repairs and maintenance of wall under the head 'Buildings' instead of treating the same as recurring expenditure in Income & Expenditure Account.

This has resulted in overstatement of fixed assets and understatement of deficit by ₹ 7,09,156 (₹ 7,23,629 – depreciation @ 2% ₹ 14,472) each.

B. INCOME AND EXPENDITURE ACCOUNT

B. 1 Expenditure

Administrative and General Expenses [Schedule-17]

(c) Others

Guest House Expense - ₹ 7,00,000

The above includes ₹ 3,50,000 being the Institute's annual contribution for running NIT Transit House at New Delhi pertaining to the previous year 2022-23. This has resulted in overstatement of the above head by ₹ 3,50,000 with the corresponding understatement of prior period expenses to the same extent.

C. GENERAL

C. 1 General Comment

As per accounting policy 1(c), NIT has created the liability for expenses on retirement benefit of the staff – gratuity, leave salary estimated on the basis of number of years of service and number of days of un-availed leave at the year end is provided and accounted on accrual basis. It was noticed the provision for gratuity and leave encashment were made upto the year 2017-18 only. Hence, NIT was not making the provision on retirement benefit on the basis of actuarial valuation as prescribed in AS 15 and it also is in contravention of format prescribed by MoE. Non provision of retirement benefit as per actuarial valuation will have huge impact on deficit of the Institute.

D. Grants-in-Aid

Out of the total available fund of ₹ 9131.85 lakh which is inclusive of opening balance of ₹ 5860.20 lakh and Grants-in-Aid received during the year amounting to ₹ 3271.65 lakh, the National Institute of Technology, Manipur utilized a sum of ₹ 3374.21 lakh leaving a balance of ₹ 5757.64 lakh at the end of 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 our information and according to the explanations given to us, the said financial statements read together with the Accounting Policies and Notes on Accounts, and subject to the significant matters stated above and other matters mentioned in *Annexure* to this Audit Report give a true and fair view in conformity with accounting principles generally accepted in India.
 - (a) In so far as it relates to the Balance Sheet of the state of affairs of the National Institute of Technology, Manipur as at 31 March 2024; and
 - (b) In so far as it relates to Income & Expenditure Account of the deficit for the year ended on that date.

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



**Principal Accountant General (Audit),
Manipur**

**Place: Imphal
Date: 15.05.2025**

ANNEXURE TO AUDIT REPORT

Internal Checks and Internal Controls Mechanism

1. Adequacy of Internal Audit

Internal audit, as an independent entity, examines and evaluates the level of compliance of the organization with financial rules and regulations thereby ensuring effectiveness in implementation of various programmes, projects or any activities and providing assurance to the management on the adequacy or otherwise, of the existing internal controls.

NIT, Manipur does not have resident Internal Auditor/ Internal Audit Officer which deprive the Institute of timely identification of flaws, feedbacks and corrective actions so far as the accounting and the financial transactions in the authority are concerned.

2. Adequacy of Internal Control System

The internal control is not adequate as there was wrong capitalization of revenue expenditure.

3. System of Physical verification of Stores/Fixed Assets

As per provisions contained in **Rule 213 (1) of General Financial Rules, 2017**, Fixed Assets should be verified at least once in a year and the outcome of the verification recorded in the corresponding register. Discrepancies, if any, shall be promptly investigated and brought to account. Audit revealed that the Institute did not conduct fixed assets verification during 2023-24.

4. Regularity in payment of statutory dues

NIT, Manipur is regular in deposit of statutory dues.

A. Tamm Sharma
Sr. Audit Officer (AMG-I)