



राष्ट्रीय प्रौद्योगिकी संस्थान सिक्किम
National Institute of Technology Sikkim

Annual Report 2024-2025



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National Institute of Technology Sikkim

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Superintendent



Institute's Vision

- (i) To contribute to society through excellence in scientific and technical education and research.
- (ii) To serve as a valuable resource for industry and society.



Institute's Mission

- (i) To generate new knowledge by engaging in cutting-edge research and to promote academic growth by offering state-of-the-art undergraduate, postgraduate, and doctoral programmes.
- (ii) To identify, based on an informed perception of Indian, regional, and global needs, areas of specialization upon which the institute can concentrate.
- (iii) To undertake collaborative projects which offer opportunities for long-term interaction with academia and industry.
- (iv) To develop human potential to its fullest extent so that intellectually capable and imaginatively gifted leaders can emerge in a range of professions.





Message from the Director

It is my privilege to present the Annual Report for the financial year 2024–2025. The year has been marked by remarkable progress driven by innovation, resilience, and creativity. Despite the challenges of operating from a temporary campus in a remote location, National Institute of Technology Sikkim has continued to excel in academics and research by adopting advanced pedagogical methodologies and fostering a culture of excellence.

NIT Sikkim offers four-year B.Tech. programs in six disciplines, two-year M.Tech. and M.Sc. degrees, and Ph.D. programs in Engineering, Sciences, and Humanities. With a commitment to global education, the Institute actively participates in initiatives such as Study in India (SII), ICCR, and DASA, welcoming students from diverse backgrounds. During the year, 204 new students were enrolled, bringing the total student strength to nearly 800.

In alignment with the National Education Policy (NEP) 2020, the Institute has revised its curriculum to support the Multiple Entry and Exit Policy. Collaboration with institutions such as IIT Gandhinagar, DRDO, has further strengthened research and academic synergy.

The Institute organised its Seventh Convocation Ceremony on 17 November 2024 at Tathagata Tsal (Buddha Park), Ravangla, celebrating the academic achievements of its 2024 graduating batch. The ceremony was graced by the Hon'ble Governor of Sikkim, Shri Om Prakash Mathur, who delivered the Convocation Address, and Retired Air Chief Marshal Shri Arup Raha as the Guest of Honour. Shri Ramesh Kumar Saraogi, Chairman of the Board of Governors, presided over the ceremony. During the ceremony, degrees were awarded to 144 B.Tech. graduates, 4 Ph.D. scholars,

1 M.Tech. graduate, 9 M.Sc. graduates, and 1 Post Graduate Diploma holder. In recognition of exceptional academic performance, 8 Gold Medals were conferred, including Departmental Gold Medals, the Institute Gold Medal, and the Director's Gold Medal.

The Training and Placement Cell at NIT Sikkim achieved a remarkable milestone in the academic year 2024–25, recording the best-ever placement record of 86.6% for eligible students, alongside 100% internship participation for the B.Tech. batch. This achievement underscores the Institute's growing recognition in industry and the increasing preparedness of its students for global career opportunities. The year witnessed exceptional individual placements, including a student selected by Nvidia (package of 31.45 LPA), Anglo-Eastern Ship Management (24 LPA), Platform9 (18 LPA), several selections in Globalization Partners (15 LPA), Cummins India (13 LPA), Infosys (13 LPA), Tata Electronics (12 LPA), and Accenture India (11.89 LPA). These benchmark achievements reflect the high caliber of NIT Sikkim graduates and the effectiveness of the T&P Cell's strategic initiatives.

Several academic and student-centric initiatives were undertaken during the year. The Induction Program helps new B.Tech. students integrate smoothly into the academic environment, while the Peer Group Learning program ensures mentoring support from senior students. Academic records have been digitized through the National Academic Depository (NAD), and the Academic Bank of Credit (ABC) ensures seamless credit transfer across programs.

The year 2024 began on an inspiring note with the installation and inauguration of Sikkim's first-ever Doppler Weather Radar (DWR) in April, established

in collaboration with the Defence Geoinformatics Research Establishment (DGRE), DRDO. This landmark achievement holds immense scientific and strategic value, enhancing national research infrastructure and advancing weather forecasting capabilities in the Eastern Himalayas.

In May 2024, NIT Sikkim organised a Faculty Development Programme on Entrepreneurship and Skill Development under the aegis of the Entrepreneurship Development Centre and iHUB Spoke Centre, featuring eminent speakers from academia, industry, and start-ups. The programme enabled faculty to explore innovative pedagogical approaches and engage with the evolving entrepreneurial ecosystem. During this period, the Institute also signed several Memoranda of Understanding (MoUs) with leading institutions and organisations to strengthen research collaboration, academic exchange, and student internship opportunities—key steps toward enhancing NIT Sikkim's academic and research outreach nationally and globally.

The Institute further observed World Environment Day with tree plantation drives, awareness talks, and student-led sustainability campaigns. International Yoga Day on June 21 saw enthusiastic participation from students, faculty, and staff in early morning yoga sessions promoting holistic well-being and mindfulness. The Yoga activities were followed by a seminar on Drug Abuse and Mental Health, fostering awareness of mental wellness and substance abuse prevention among youth.

The 76th Independence Day in August 2024 was celebrated with great enthusiasm at NIT Sikkim. The event began with a patriotic Prabhat Pheri under the Har Ghar Tiranga campaign, where students, faculty, and staff marched across the campus carrying the tricolour and singing patriotic songs, reaffirming the ideals of

unity and freedom. The month also witnessed the successful organisation of the Annual Sports Meet 2024, which brought together students from all departments to participate in track and field events, games, and team sports, fostering teamwork, leadership, and resilience. In September 2024, the Institute observed Hindi Pakhwada with essay writing, debates, poetry recitations, and quiz competitions promoting the use of Hindi in academic and official contexts, reflecting NIT Sikkim's commitment to linguistic and cultural inclusivity.

NIT Sikkim hosted the Second International Symposium on Artificial Intelligence (ISAI-2025), which brought together eminent researchers and industry experts from India and abroad to discuss advancements in AI and data-driven innovation. As part of the NEP Saarthi Initiative, the Institute conducted outreach activities such as quizzes, signature campaigns etc. on the National Education Policy, alongside donating desktop computers to ITI Kewzing—an initiative promoting digital empowerment and community development in alignment with the vision of inclusive growth.

Reflecting upon these diverse achievements, I am deeply encouraged by the dedication and enthusiasm of our faculty, staff, and students who continue to uphold the Institute's values of excellence, integrity, and innovation. As we look to the future, NIT Sikkim reaffirms its resolve to advance knowledge, foster creativity, and contribute meaningfully to the nation's progress through education, research, and service. With this immense happiness, I present the Annual Report of the Institute to you.

Jai Hind

Prof. Mahesh Chandra Govil
Director

Introduction

Sikkim is situated in an exotic Northeastern state in the abode of the Eastern Himalayas. Founded in the 17th century as the Buddhist Kingdom by Nyingma lamas, the school of Tibetan Buddhism, Sikkim undoubtedly takes pride in its rich and unique cultural heritage.

During its inception, it was populated by the Bhutias who migrated from Tibet as well as the Lepchas who were the original inhabitants of Sikkim and who are also described as “one of the most primitive communities of the world”. The etymological name of Sikkim is derived from two Limbu words: Su meaning ‘new’ and Khyim meaning ‘palace’ or ‘house’. Today, Sikkim has gained recognition and praise from all over the world for being the world’s first 100% organic state. Earning the title of “Organic State” and receiving praise from around the world has undoubtedly brought recognition to the nation. Sikkim added more feathers to its glory as it surpassed 50 other nominated policies to win the Gold Award for its State Policy on Organic Farming (2004) and Sikkim Organic Mission (2010), enabling it to become the first 100% Organic State in the world. The endeavor to win recognition by keeping alive the traditional unique methods of farming in compatibility with the modern mechanism of farming is indeed commendable. Organic farming is believed to be the agricultural system that appears most similar to the traditional Sikkimese farming

practice, which is rain-fed, uses few outside inputs, and entirely excludes the use of chemicals.

The splendor and diversity of Sikkim’s art, literature, rituals, culture, and dance are distinct and unique in their kind. The word Sikkim perhaps connotes a mystic land of diverse culture and multifarious ethnic communities existing in oneness and peace owing to its identical cognitive development grounded on its rich cultural heritage. Nepali is the lingua franca of the state, but different communities speak different languages. Sikkim has eleven official languages viz, Nepali, Bhutia, Lepcha, Tamang, Limbu, Newari, Rai, Gurung, Mangar, Sunwar and English. The predominant religions are Hinduism and Buddhism; however, there are people who also follow Christianity, Islam, and Jainism. The Lepchas consider Munism as their traditional religion, which coexists with Buddhism and Christianity. Perhaps, Sikkim fulfils the concept of unity in diversity by looking beyond the petty rituals of cultural disparity as it embraces the innate primary consciousness of its unique culture and tradition.

Sikkim remained a kingdom for a long time and the protectorate state of India before its merger in 1975 as the 22nd State. The Government of India has ventured

to foster innovation and creativity in the North-Eastern States of India. Hence, the Government of India took an important decision to establish such institutions in this region along with other States of India. NIT Sikkim is an outcome of such an endeavor that aims to impart quality technical education to students by providing world class infrastructure and advanced pedagogical tools.

The National Institute of Technology (NIT) Sikkim is a premier educational institution dedicated to delivering high-quality technical education in the state of Sikkim. Established in 2010 under the 11th Five-Year Plan, it is one of the ten newly sanctioned NITs set up by the Government of India through an Act of Parliament. The objective of this establishment is to impart technical education of excellence and quality and also to foster research and development activities in the field of Science and Technology to produce quality human resources. The Government of India has accorded the status of “An Institute of National Importance” keeping in view its role in developing human resources of highest skill and caliber in the field of Science and Technology.

Governed by the NIT Council, the Institute has four statutory bodies, namely, the Board of Governors, the Finance Committee, the Building and Works Committee and the Senate. The Institute is fully funded by the Ministry of Education, Government of India, New Delhi. The Institute enjoys full financial and academic autonomy.

Since its inception in August 2010, the Institute has been operating from a temporary campus, situated at Ravangla, South Sikkim. The Institute has been able to overcome the initial difficulties and has made slow but steady progress in its quest for academic excellence in spite of many obstacles, including an extreme climate, inadequate transportation, and a small temporary campus. The Institute believes that rural development is essential for balanced development of the nation; in this view the Institute makes every possible effort



to enable unhindered exchange of knowledge as well as the benefit of Science and Technology to the poor and underprivileged. The Faculty Members, Staff and Students are engaged in extending help to other academic institutions across the state by being actively involved in social developmental activities. A remarkable feature of the Institute is its endeavor to bestow a sense of societal responsibility and belongingness to the people associated with it. This has paved the way to a slew of initiatives by the Students, Faculty Members and Staff of NIT Sikkim for transforming the underprivileged into sound, empowered souls of the Nation.

National Institute of Technology Sikkim started its journey with three (3) Undergraduate Programs in Computer Science & Engineering, Electronics & Communication Engineering, and Electrical & Electronics Engineering with an intake of thirty (30) students each. Presently, around a thousand (1000) students are enrolled in NIT Sikkim. The Institute offers Undergraduate Programs in Civil Engineering, Computer Science & Engineering, Electrical & Electronics Engineering, Electronics & Communication Engineering, and Mechanical Engineering. The Postgraduate Programs are offered in Computer Science & Engineering, Electrical Engineering

(Control, Power, and Electric Drives), Electronics & Communication Engineering, and Chemistry. The Institute also offers Ph.D. Programs in all Engineering disciplines, Basic Sciences, and Humanities.

The Institute is committed to the holistic development of its students by providing them with knowledge on how to foster a strong interest in extracurricular and co-curricular activities such as literary, cultural, technical, and sporting activities. Under the guidance and able leadership of Staff and Faculty Members, events like

Abhyantran – the Annual Technical Event, Udgam– the Annual Cultural Event and the Annual Sports have been organized. These events showcase the diverse talents of the institute's vibrant student community and foster the emergence of new ideas in Science and Technology, all within an environment that encourages learning through innovation. An exhibition is held during the technical event where the students display prototype working models. Several workshops on emerging technologies and seminars by experts from industry and academia are organized during the event and otherwise. NIT Sikkim empowers the youth of the country through education and encourages them to participate in the holistic development of the nation, which is an absolute necessity of the time.

As an Institute of higher learning, along with imparting technical knowledge, the Institute instills moral values so that the graduating students become good citizens and good human beings benefiting society and the nation. It is interesting to note how the cultural diversity and traditional and religious heterogeneity of the state could exert an impact on developing the intellectual capacity of the learners. Embracing such diversities of culture and tradition could lead to the germination of innovative ideas and excellence, and also sharpen their intellect through holistic development. Students at the institute have displayed such growth as they have adapted to the physical environment of Sikkim with its extreme weather conditions and diversity in culture. The Institute justifies the concept of complete learning by developing an aptitude of living in amity with new surroundings. Besides, its cultural diversity exposes them to the world of flora and fauna and gradually trains their mind to appreciate nature and acknowledge its value. which is a great need for this generation of students. In the fast-changing world of technology and rapid modernization, it is but commendable to develop in students a judgment of living with and not without our rich biodiversity. The Institute thus dispels the misconception that technical institutions fail to address the needs of biodiversity and nature preservation by providing a platform for students to appreciate and preserve nature in addition to the educational programs they offer.



Location

Sikkim is an ever-enchanting state with its elegant natural beauty of snowing mountains, luxuriant forests with exotic flora and fauna, pristine waterfalls, sacred lakes, holy caves, medicinal hot springs and gentle streams. The snowcapped greenery with accessible mist and clouds magnify the spectacular beauty of the place. Sikkim is home to the world's third-highest peak, Mount Khangchendzonga, revered as the Guardian Deity of the state. Since its establishment in 2010, NIT Sikkim has been operating from a temporary campus located in Ravangla, South Sikkim.

Ravangla is a small town situated at an elevation of 2100 m in Namchi District of the Indian state of Sikkim. The region exhibits a sub-alpine climate, marked by cool temperatures, altitude-dependent weather variability, and the presence of snow and ice across higher terrains. Ravangla witnesses snowfalls during winter which can dip the temperature to sub-zero levels. The serene, tiny semi-urban agglomeration is situated at 80 kms from Gangtok, the capital city of Sikkim. The small town has been widely acclaimed for the construction of one hundred and thirty (130) feet high statue of Lord Gautam Buddha at 'Buddha Park'.

The nearest railway station to the campus is New Jalpaiguri Railway Station, West Bengal, which is approximately one hundred and eighteen (118) kms away from the campus. Air connectivity is available from Bagdogra & Pakyong Airport which are approximately one hundred and thirty-two (132) kms & seventy-four (74) kms respectively away from the Campus. The Institute has been successfully carrying out academic and research activities from the temporary campus, confronting various obstacles placed by its physiography and other factors.

Campus

National Institute of Technology Sikkim at Ravangla is based on a campus that initially served as a 'rehabilitation centre for the citizens. This shelter home posed several teething challenges in getting transformed into a campus of 'An Institute of National Importance'. However, the Institute has carved a niche by establishing a name and reputation despite the limited resources that it had to make use of. Overcoming such hurdles of limited resources and hardships of space and environment through strong determination and reformative measures to enhance its aura and growth, NIT Sikkim is definitely an inspiration.

NIT Sikkim has invested arduous efforts to renovate existing structures into instructional buildings, administrative blocks, hostels, residence for Faculty and Staff etc. by compromising the size of each building to accommodate different branches of learning within the limited space. It is to be noted that due to the locational disadvantages, poor infrastructural facilities and minimum required living amenities in the campus and in

Ravangla town such as improper housing facilities, lack of medical facilities, schools, and other basic essential services, retention of Faculty and Staff has been a huge challenge before the Institute administration. Over the years, the number of faculty and staff leaving the Institute has steadily increased. In recent times, however, the Institute has made concerted efforts to retain quality faculty and staff by providing basic living facilities, even if these do not yet meet the minimum desirable standards.

The Institute, within its limited campus area, is equipped with outdoor playgrounds, medical units, and a gymnasium for boys and girls, along with other obligatory establishments. The present temporary campus of the Institute fails to accommodate all the students within the Institute's premises, due to the increase in student intake. Therefore, the Institute has hired several well-constructed and semi-furnished buildings in the Ravangla town and are using them as Hostels. The Institute has a total of fourteen

building blocks which accommodate six hundred and twenty-seven students in one hundred and seventy-three rooms utilized as Boys' Hostel & Girls' Hostels. Four building blocks, which consist of twenty-four apartments, are utilized as faculty and staff quarters.

A separate well-built Academic Building consisting of Classrooms, Computer Laboratory, Faculty Rooms and the Office of the Dean Student Welfare and the Dean Academic finds place within the campus. The first ever supercomputer in Sikkim, "Param Kanchenjunga," is also situated in the old Academic Building. The Training and Placement Cell of the Institute are also housed in the same Block. However, the Super-computer Center is now old and is in need of upgradation. The classrooms are now converted into smart classrooms and are equipped with room heaters and projectors.

The Administrative Building of the Institute has been recently renovated and houses the Director's Office and Secretariat, the Registrar Office, Office of the Dean



Administration, Accounts Section, Conference/ Meeting Room, Examination Cell and a Pantry Room. Adjacent to the Administrative Building, the Central Store and offices of the Executive Engineer, Junior Engineer Civil and Electrical are now fully functional.

The Institute, previously, was unable to provide even the basic Laboratory facilities compelling the students to travel to distant educational institutions to complete their Laboratory Courses. Laboratories are the crux of the curricula of any technical institution; the Institute has created sheds and is able to increase the build-up space in the temporary campus to mitigate the problem of paucity of space for Laboratory facilities and classrooms. However, given the rapid overall growth and the Ministry's vision to diversify the Institute's branches and departments, these temporary arrangements remain inadequate. The temporary campus hinders the growth of the Institute. The establishment of the permanent campus for the Institute is the only viable solution to solve these long pending issues. A permanent campus with state-of-the-art facilities and World Class Infrastructure will not only take the Institute to new heights but also aid in human-capital formation and steer our students to world leaders.

At present, a total area of 98.97 acres of land out of the 100 acres allocated by the Government of Sikkim

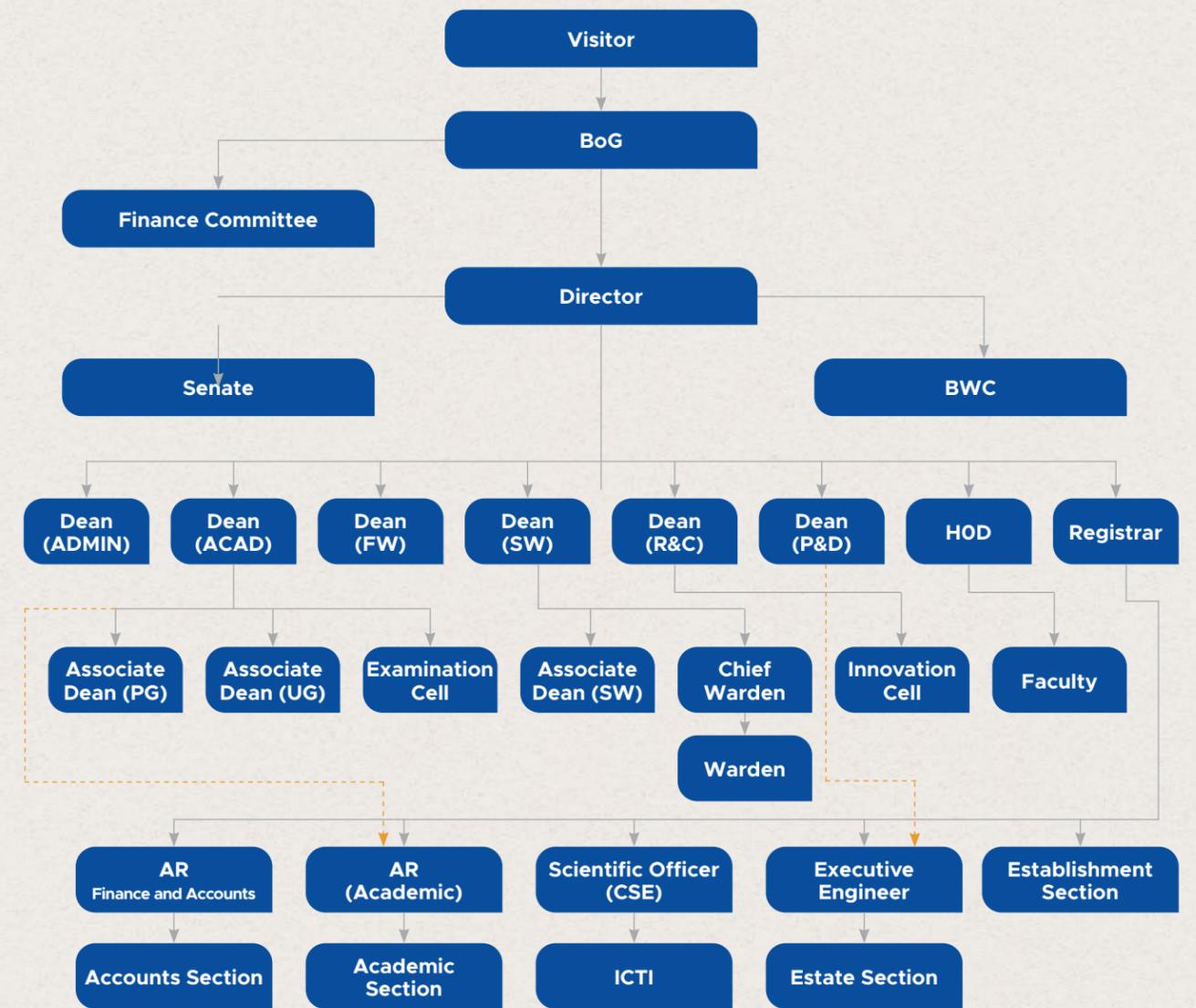
for the construction of the permanent campus of NIT Sikkim at Dung Dung Block, Khamdong, Gangtok District, Sikkim has been handed over to the Institute. The BoG of the Institute has selected NBCC as the PMC for the construction of the permanent campus. The Institute awaits the fully developed campus to deliver more to technical education and contribute to the development of the country with full caliber which the present temporary campus prohibits From undertaking. However, strenuous efforts are made to provide adequate facilities to students to maintain the quality of learning.

The town of Ravangla is located just 2.5 km from the campus. Although the town provides essential services such as banks, post offices, and a primary health centre, its small size means that amenities and healthcare facilities remain limited. The Institute is housed in a picturesque location with abundance of natural and scenic beauty. Kanchenjunga, Mt. Pandim, Mt. Siniolchu, Mt. Kabru are just a few of the major peaks that are clearly visible from Ravangla. The climate at this place is severe and extremely varied largely due to the variation in altitude. Moreover, the remote location and inadequate infrastructure pose huge challenges to the management of the Institute through its temporary campus.

Administration

NIT Sikkim has been an autonomous institution under the Government of India since 2010. As per the NITSER Act 2007, the Institute is headed by the Director and administered by a Board of Governors. In the Board, there are representatives from the Government of India, the Government of Sikkim, industries, other institutions and the faculty members. The Director is the Principal Academic and Executive Officer of the Institute. He is assisted in his day-to-day work by Deans, Heads of the different Departments, Registrar, and other officers and various committees of the Institute.

Organizational Structure



The Institute provides certain opportunities for for students to administer their own affairs affecting the co-curricular residential and recreational activities through various committees, such as Institute Canteen Committee, Student's Aid Welfare Committee, Hostels and Mess Committee etc.

The BoG and Other Administrative Committees

The BoG is the highest statutory body of the Institute. It is constituted under Section 14 of the NIT Act 2007. All the major decisions related to administrative matters are considered and approved by the BoG. The Constitution of BoG is given below:

Board of Governors

Members	
Shri Ramesh Kumar Saraogi Chairperson, BoG NIT SIKKIM Director, Saraogi Udyog Private Limited (SUPL), Kolkata, West Bengal, India	Email: chairman@nitsikkim.ac.in ramesh@sarogiudyog.com
Prof. Mahesh Chandra Govil Director, NIT Sikkim Ex-officio Member Ravangla, South Sikkim 737139	Email: director@nitsikkim.ac.in govilmc@gmail.com
Shri G. P. Upadhyaya, IAS Advisor, Mines and Geology Department Govt. of Sikkim (Rtd.) State Nominee-1	Email: gpupadhyaya@gmail.com
Shri Ugyen Chopel Director, Yuksom Breweries Ltd. State Nominee-2	Email: ugyenchopel@gmail.com
Dr. Aurobinda Panda Assistant Professor, NIT Sikkim	Email: aurobind.panda@nitsikkim.ac.in
Dr. Anindya Biswas Associate Professor, NIT Sikkim	Email: anindya@nitsikkim.ac.in
Joint Secretary to the Government of India Dealing with Technical Education	Email: nit.edu@nic.in
Joint Secretary & Financial Advisor Finance Department of Secondary & Higher Education, MoE	Email: jsfa.edu@gov.in
NIT Council Nominee – 1	Email:
NIT Council Nominee (Woman) – 2	Email:
Director IIT Guwahati/His Nominee Director, IIT Guwahati	Email: director@iitg.ac.in
Dr. Ranjan Basak Registrar (I/c) & Secretary, NIT Sikkim Ravangla, South Sikkim	Email: registrar@nitsikkim.ac.in

The Meetings of the BoG were convened on the following dates during 2024-25:



Finance Committee

Name	Contact Details
Shri Ramesh Kumar Saraogi Chairperson, BoG NIT SIKKIM Director, Saraogi Udyog Private Limited (SUPL), Kolkata, West Bengal, India	Email: chairman@nitsikkim.ac.in ramesh@sarogiudyog.com
Prof. Mahesh Chandra Govil Director, NIT Sikkim Ex-officio Member-cum Chairman	Email: director@nitsikkim.ac.in govilmc@gmail.com
Shri G. P. Upadhyaya IAS BoG Nominee Advisor, Mines and Geology Department Govt. of Sikkim (Rtd.)	Email: gpupadhyaya@gmail.com
Dr. Anindya Biswas BoG Nominee, Associate Professor Department of Physics	Email: anindya@nitsikkim.ac.in
Joint Secretary Government of India Department of Secondary & Higher Education, Ministry of Education Shastri Bhawan, New Delhi – 110 001	Email: nit.edu@nic.in
Joint Secretary and Financial Advisor Department of Secondary and Higher Education, Ministry of Education Shastri Bhawan, New Delhi – 110 001	Email: jsfa.edu@gov.in
Dr. Ranjan Basak Registrar (I/c) & Member Secretary, NIT Sikkim Ravangla, South Sikkim 737139	Email: registrar@nitsikkim.ac.in

The Meetings of the FC were convened on the following dates during 2024-25:



Building and Works Committee

Name	Contact details
Prof. Mahesh Chandra Govil Director, NIT Sikkim Ex-officio Member-cum Chairman	Email: director@nitsikkim.ac.in
Shri Manish Kumar Jindal Chief Executive Officer (CEO), Quality Control of India	Email: manishjindal.hsbte@gmail.com

Name	Contact details
Shri Raj Kumar Mittal Jt. Director General, CE Central Command, Lucknow	Email: rkmittal123@gmail.com
Shri B. B. Sharma Additional Chief Engineer (TOPA) Energy and Power Department Govt. of Sikkim	
Dr. Aurobinda Panda Dean Planning and Development, NIT Sikkim	Email: dpd@nitsikkim.ac.in
Dr. Ranjan Basak Registrar (I/c) & Secretary, NIT Sikkim Ravangla, South Sikkim 737139	Email: registrar@nitsikkim.ac.in

Members of the Senate

	Director	
A	Prof. Mahesh Chandra Govil Director, NIT Sikkim, Ex-officio Chairman	Chairman
B	Prof. Virendra Singh Professor, IIT Bombay	Member
	Prof. Adrijit Goswami Department of Mathematics, IIT Kharagpur	Member
C	Prof. Lalit K. Awasthi Vice Chancellor, S P University, Mandi & Professor CSE, NIT Hamirpur	Member
	Prof. Nupur Tandon Dept. of Humanities & Social Science, MNIT Jaipur	Member
D	All HoDs & Deans, NIT Sikkim	Member
E	Dr. Ranjan Basak Registrar (I/c), NIT Sikkim	Secretary

Registrar

Dr. Ranjan Basak Registrar (I/c) NIT Sikkim, Ravangla, Namchi District, Sikkim 737139	Email: registrar@nitsikkim.ac.in
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DEANs & HoDs

Dean Academic	Dr. Ranjan Basak
Dean Administration	Dr. Achintesh Narayan Biswas
Dean Faculty Welfare	Dr. Dhananjay Tripathi
Dean Student Welfare	Dr. Sourav Mallick
Dean Research & Consultancy	Dr. Pratyay Kuila
Dean Planning & Development	Dr. Aurobinda Panda
Associate Dean Academic (PG)	Dr. Molay Roy
Associate Dean Student Welfare	Dr. Debajit Saha
HoD Computer Science and Engineering	Dr. Pratyay Kuila

HoD Electronics and Communication Engineering	Dr. Sanjay Kumar Jana
HoD Electrical and Electronics Engineering	Dr. Aurobinda Panda
HoD Mechanical Engineering	Dr. Anil Lal S
HoD Civil Engineering	Dr. Joy Pal
HoD Mathematics	Dr. Ravi Srivastava
HoD Physics	Dr. Md. Nurujjaman
HoD Chemistry	Dr. Achintesh N. Biswas
HoD Humanities and Social Sciences	Dr. Dhananjay Tripathi

Faculty-in-Charges (FICs)

S. No.	Name of the Committee/ Cell/ Section	Faculty/ Officer in-Charge
1	Examination Cell	Dr. Sumit Saha
2	Health Care Services	Dr. Om Prakash
3	Games and Sports	Dr. Jai Gopal Gupta
4	Cultural Activities	Dr. Richa Mishra & Dr. Kriti Tewari
5	Central Library	Dr. Taraknath Kundu
6	Entrepreneurship and Innovation Cell	Dr. Hemant Kr. Kathania
7	External Relations and outreach Activities	Dr. Anindya Biswas
8	Training and Placement Cell	Dr. Dhananjay Tripathi
9	Store and Purchase Section	Mr. Sahil Minda
10	Alumni Affairs Cell	Dr. Md. Sarfaraj Alam Ansari
		Dr. Pratyay Kuila, Coordinator, Computing Devices
		Dr. Md. Sarfaraj Alam Ansari, Coordinator, Campus Wide Networking
11	ICTI (FIICTI shall be the Convener/Chief Coordinator)	Dr. Pankaj Kr. Keserwani, Advisor, Institute Website Development & Maintenance Mr. Gajendra S. Shekhawat, Coordinator, Institute Website Development & Maintenance
12	Publication and Printing	Dr. Dhananjay Tripathi
13	Community Development and Awareness Programme (CDAP)	Dr. Pankaj Kr. Keserwani
14	Promotion of Indian Language	Dr. Dhananjay Tripathi
15	Vehicle and Transport Management Cell	Dr. Sourav Mallick
16	Landscaping, Gardening and Environmental Protection Cell	Dr. Anjan Kumar Ray
17	Chief Warden	Dr. Ravi Srivastava
18	Swachh Bharat Abhiyan and Fit India Movement	Dr. Om Prakash
19	Fit India Movement and Ek Bharat Shrestha Bharat	Dr. Sanjay Kumar Jana Dr. Pratyay Kuila
20	Outsource Manpower	Dr. Nimai Charan Patel Dr. Ankit Bhardwaj
21	Estate - Electrical	Dr. Pradeep Kumar
22	Estate - Civil	Mr. Rewa Nath Sharma
23	Annual Report	Dr. Dhananjay Tripathi

Internal Complaints Committee

Committee Members

1.	Dr. Reshmi Dhara	Presiding Officer
2.	Dr. Nupur Tandon	External Member
3.	Mr. Jaslal Pradhan	External Member
4.	Dean Student Welfare	Member
5.	Dean Faculty Welfare	Member
6.	Ms. Chandra Kumari Rai	Member
7.	Mrs. Nishita Chettri	Member

List of Faculty Members

S. No.	Name of the Employee	Department
1	Dr. Joy Pal	
2	Dr. Anirban Banik	
3	Dr. Ankit Bhardwaj	Civil Engineering
4	Dr. Krishna Kumar Maurya	
5	Dr. Pratyay Kuila	
6	Dr. Sangram Ray	
7	Dr. Md. Sarfaraj Alam Ansari	
8	Dr. Pankaj Kumar Keserwani	Computer Science & Engineering
9	Dr. Krishna Kumar	
10	Dr. Bam Bahadur Sinha	
11	Dr. Sanjay Kumar Jana	
12	Dr. Hemant Kumar Kathania	
13	Dr. Reshmi Dhara	Electrical and Communication Engineering
14	Dr. Jitendra Singh	
15	Dr. Vishal Vishnoi	
16	Dr. Varun Gupta	
17	Dr. Anjan Kumar Ray	
18	Dr. Sourav Mallik	
19	Dr. Aurobinda Panda	
20	Dr. Nimai Charan Patel	Electrical & Electronics Engineering
21	Dr. Pradeep Kumar	
22	Dr. Molaroy Roy	
23	Dr. Abhishek Rajan	
24	Dr. Vivek Kumar	

S. No.	Name of the Employee	Department
25	Dr. Anil Lal S	
26	Dr. Ranjan Basak	
27	Dr. Shambhunath Barman	
28	Dr. Jai Gopal Gupta	Mechanical Engineering
29	Dr. Debajit Shaha	
30	Dr. Biswajit Roy	
31	Dr. Achintesh N. Biswas	
32	Dr. Taraknath Kundu	Chemistry
33	Dr. Sumit Saha	
34	Dr. Dhananjay Tripathi	Humanities and Social Sciences
35	Dr. Ravi Srivastava	
36	Dr. Om Prakash	Mathematics
37	Dr. Md. Nurujaman	
38	Dr. Anindya Biswas	Physics

List of Staff Members

S. No.	Name of the Employee	Designation
1	Mr. Ram Prasad Nepal	Assistant Registrar (Academics, Student Welfare and Establishment)
2	Mr. Sahil Minda	Assistant Registrar (Finance & Accounts and Stores and Purchases)
3	Mr. Gajendra Singh Shekhawat	Scientific Officer
4	Mr. Rewa Nath Sharma	Executive Engineer, Estate – Civil
5	Mr. Amrit Sharma	Assistant Engineer, Estate – Electrical
6	Mr. Amit Tamang	Senior Technical Assistant, Dept. of ECE
7	Ms. Deepika Chettri	Senior Technical Assistant, Dept. of EEE
8	Mr. Bhaskar Bhattarai	Senior Technical Assistant, Estate – Civil
9	Mr. Rahul Kumar Byahut	Senior Superintendent, Finance & Accounts
10	Ms. Chandra Kumari Rai	Senior Superintendent, Finance & Accounts
11	Mr. Vishnu Kumar Sharma	Superintendent, Office of the Director
12	Mr. Anil Gurjar	Technical Assistant, Dept. of EEE
13	Mr. Pawan Kumar Kathaniya	Technical Assistant, Dept. of EEE
14	Mr. Sumit Kumar	Technical Assistant, Dept. of CE
15	Mr. Suneel Kumar Kushawaha	Technical Assistant, Dept. of ME
16	Mr. Bapi Mondal	Senior Assistant, Office of the Director
17	Mr. Bharat Pradhan	Senior Assistant, Finance & Accounts and Stores & Purchases
18	Mrs. Nishita Chettri	Senior Assistant, Student Welfare

S. No.	Name of the Employee	Designation
19	Mrs. Tshering Zangmo Bhutia	Senior Assistant, Establishment and Office of the Registrar
20	Mrs. Chanda Moktan	Senior Technician, Dept. of CE
21	Mr. Tapan Chhetri	Senior Technician, Dept. of CSE
22	Mr. Sidharth Pradhan	Senior Technician, Dept. of ECE
23	Mr. Manish Kumar	Senior Technician, Dept. of EEE
24	Mr. Amit Maity	Senior Technician, Dept. of ME
25	Mr. Suman Pathak	Senior Technician, Dept. of Chemistry
26	Mrs. Chandrama Majumdar	Senior Technician, Dept. of Chemistry
27	Mr. Happy Mondal	Senior Technician, Dept. of Physics
28	Mr. Rajesh Kumar Gupta	Junior Assistant, Office of the Registrar and Establishment
29	Mrs. Sonam Choden Tamang	Junior Assistant, Academic
30	Mr. Mahaveer Gurjar	Technician, Dept. of EEE
31	Mr. Saikat Mistry	Technician, Dept. of EEE
32	Mrs. Punam Singh	Senior Office Attendant, Office of the Registrar
33	Mr. Arvind Gupta	Senior Office Attendant, Finance & Accounts
34	Mr. Bhavesh Chettri	Senior Office Attendant, Office of the Director
35	Ms. Dil Kumari Chettri	Senior Office Attendant, Dept. of CSE

Academic Programs and Award of Degrees



Academic Programs

The Institute offers Four-year Undergraduate Programs leading to the Bachelor of Technology (B.Tech.) Degree in five disciplines, Two-year Full-time Postgraduate Programs in specialized areas in the field of Engineering and Science leading to the Master of Technology (M. Tech.) and Master of Science (M.Sc.) Degrees. Similarly, Full-time/Part-time Research Programs leading to Ph.D. Degree in the areas of Engineering/Technology/Sciences/Humanities and Social Sciences are also offered.

Table-1: Department wise Programs offered

S. No	Departments	UG Programs	PG Programs	Ph.D. Programs
1	Civil Engineering	B. Tech. in Civil Engineering		Ph.D. in Civil Engineering
2	Computer Science & Engineering	<ul style="list-style-type: none"> ■ B. Tech. in Computer Science & Engineering ■ B.Tech. in Artificial Intelligence and Machine Learning 	M. Tech. in Artificial Intelligence and Machine Learning	Ph.D. in Computer Science & Engineering
3	Electronics & Communication Engineering	B. Tech. in Electronics and Communication Engineering	<ul style="list-style-type: none"> ■ M. Tech. in VLSI and Embedded System. ■ M. Tech. in Communication and Signal Processing 	Ph.D. in Electronics & Communication Engineering
4	Electrical and Electronics Engineering	B. Tech. in Electrical and Electronics Engineering	<ul style="list-style-type: none"> ■ M. Tech. in Electrical Engineering (Power and Energy Systems) ■ M. Tech. in Electrical Engineering (Power Electronics and Drives) 	Ph.D. in Electrical and Electronics Engineering
5	Mechanical Engineering	B. Tech. in Mechanical Engineering		Ph.D. in Mechanical Engineering
6	Chemistry		M.Sc. in Chemistry	Ph.D. in Chemistry
7	Mathematics			Ph.D. in Mathematics
8	Physics			Ph.D. in Physics
9	Humanities and Social Science			Ph.D. in English/Economics

These Programs are planned and overseen by the Senate of the Institute. The Senate is the highest academic decision-making body of the Institute. The Senate is assisted by the Senate Standing Committee (SSC), the Senate Undergraduate Board (SUGB), and the Senate Postgraduate Board (SPGB) which also help in implementing the decisions of the Senate. The Programs are periodically reviewed by the departments in consultation with the Expert Committees constituted by the Senate. The Expert Committees review and moderate the curriculum, syllabi, evaluation process, etc. of the Programs. The medium of instruction and evaluation of all the Programs are done in English. All the Academic activities are carried out as per the Academic Calendar approved by the Senate.

There was a delay in new admission for UG and PG programs by two-three months as compared to the normal situation, through Centralized Counselling for M.Tech. (CCMT), Centralized Counselling for M.Sc. (CCMN) and Central Seat Allocation Board (CSAB) 2022.



Admission Procedure:

Bachelor of Technology (B.Tech.): Admission to the B.Tech. Programs are done as per the Common Policy of the Government of India for CFTIs/NITs, based on merit in a National Level Test, namely, Joint Entrance Examination (JEE) Mains, conducted by the National Testing Agency (NTA). The seats are allocated by the Joint Seat Allocation Authority (JoSAA)/ (CSAB) with 50% of the sanctioned seats filled under Home State Quota from the state of Sikkim and the remaining 50% from candidates of other States, purely based on merit/ranking in JEE Main Examination through a Centralized Counseling System devised by the MoE, Govt. of India. Furthermore, a specified number of seats for foreign nationals/NRIs, selected under the policies laid down by the Government of India (DASA, ICCR, SII, etc.), are reserved for direct admission to the 1st year of the Programs. Seats are also reserved for candidates belonging to the Scheduled Castes, Scheduled Tribes, Persons with Disabilities (PwD), Other Backward Classes and Economically Weaker Sections as per the guidelines issued by the MoE.

Master of Technology (M.Tech.): Admission to M.Tech. Degree Programs for the GATE qualified candidates are made through a Common Admission Process

called Central Counselling for Master's of Technology (CCMT). Admission for sponsored candidates from the Government Organisations/Industry/CFTIs, etc., through a Test/Interview/GATE Score, on a full-time basis, is also available. Sponsored candidates in M.Tech. Programs are not eligible to receive a scholarship even if they qualify for GATE. Seats remaining vacant after the CCMT allocation are filled through an Institute Admission Test (IAT) conforming to the eligibility criteria set by the CCMT.

Master of Science (M.Sc.): The Admission to the M.Sc. course is made based on the IIT-JAM score through the process of Centralized Counselling for M.Sc. in NITs (CCMN). Seats remaining vacant after the CCMN allocation are filled through an Institute Admission Test (IAT) conforming to the eligibility criteria set by the CCMN.

Doctoral Programs (Ph.D.): Admissions to Ph.D. Programs (Regular/Part-time/Sponsored) are done through Institute Level Test/ Personal Interview conducted by the respective Departments.

Admission of Foreign Students: NIT Sikkim also consider application from foreign students for the following schemes:

- a. Study in India (SII): <https://www.studyinindia.gov.in/>
- b. Indian Council for Cultural Relations (ICCR): <https://www.iccr.gov.in/>
- c. Direct Admission of Student Abroad (DASA): <https://dasanit.org/dasa2023/>

During 2023-24 one (1) students through DASA was admitted, similarly three (3) students joined through ICCR in 2022-23.

1.1. Admission Data 2024-25:

Table-2: Students Admitted in the Academic Year 2024-25

S. No	Departments	B. Tech.		M. Tech.		M.Sc.		Ph.D.
		Intake Strength	Actual Admission	Intake Strength	Actual Admission	Intake Strength	Actual Admission	Actual Admission
1	Civil Engineering	30	23					1
2	Computer Science and Engineering	40	36	15	12			4
3	Artificial Intelligence and Machine Learning in CSE Department.	30	28					
4	Electronics & Communication Engineering	30	28	15	3			4
5	Electrical and Electronics Engineering	30	28	15	6			4
6	Mechanical Engineering	30	26					0
7	Chemistry					15	14	5
8	Physics							1
9	Mathematics							1
10	Humanities and Social Science							1
TOTAL		190	169	45	21	15	14	21

Chart-1: Chart showing the Intake Strength and Actual Admission in 2024-25

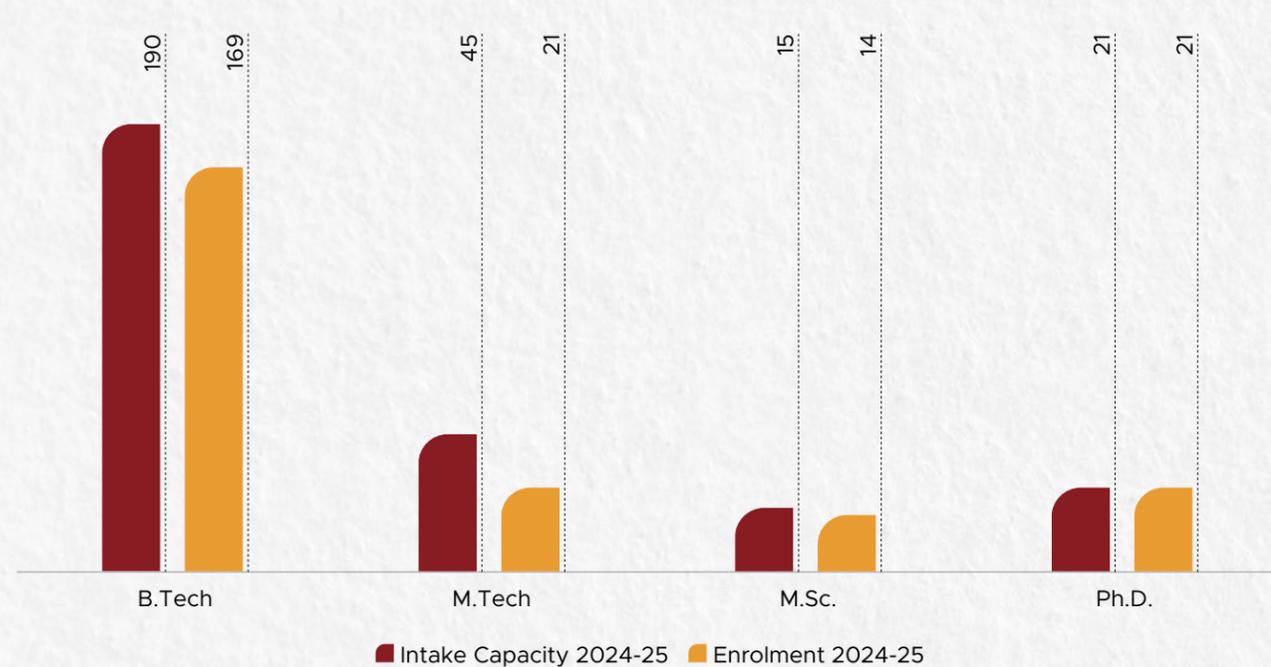


Table-3: Category and Gender wise breakup of Admission in the Academic Year 2024-25

Programs	Departments	Actual Admission in 2024-25	Category					Gender		Special Category	
			SC	ST	OBCNCL	EWS*	GEN	Total	Male	Female	PwD
B. Tech.	CE	23	3	4	9	NA	7	23	19	4	0
	CSE	36	5	4	15	NA	12	36	29	7	0
	AIML	28	4	2	12	NA	10	28	24	4	0
	ECE	28	5	3	11	NA	9	28	22	6	0
	EEE	28	5	3	11	NA	9	28	23	5	0
	ME	26	4	2	10	NA	10	26	22	4	0
M.Tech.	CSE	12	3	0	3	NA	6	12	11	1	0
	ECE	3	2	0	0	NA	1	3	2	1	0
	EEE	6	2	2	0	NA	2	6	4	2	0
M.Sc.	Chemistry	14	2	1	3	NA	8	14	5	9	0
Ph.D.	All Dept.	21	1	2	2	NA	16	21	16	5	0
TOTAL		225	36	23	76	NA	90	225	177	48	0

*Reservation of EWS to the Admission in B.Tech., M.Tech. & M.Sc. Programs in the year 2024-25 were not considered as it is exempted for the NIT Sikkim by the MoE.

Chart-2: Category wise number of admission in 2024-25 across the programs

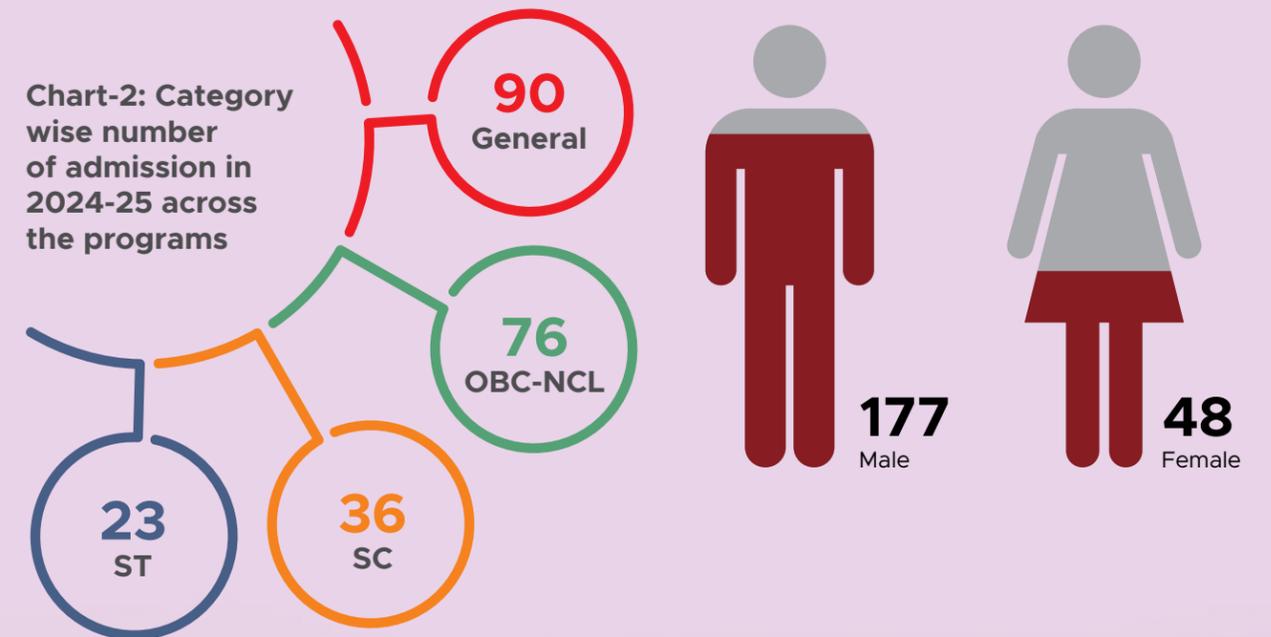
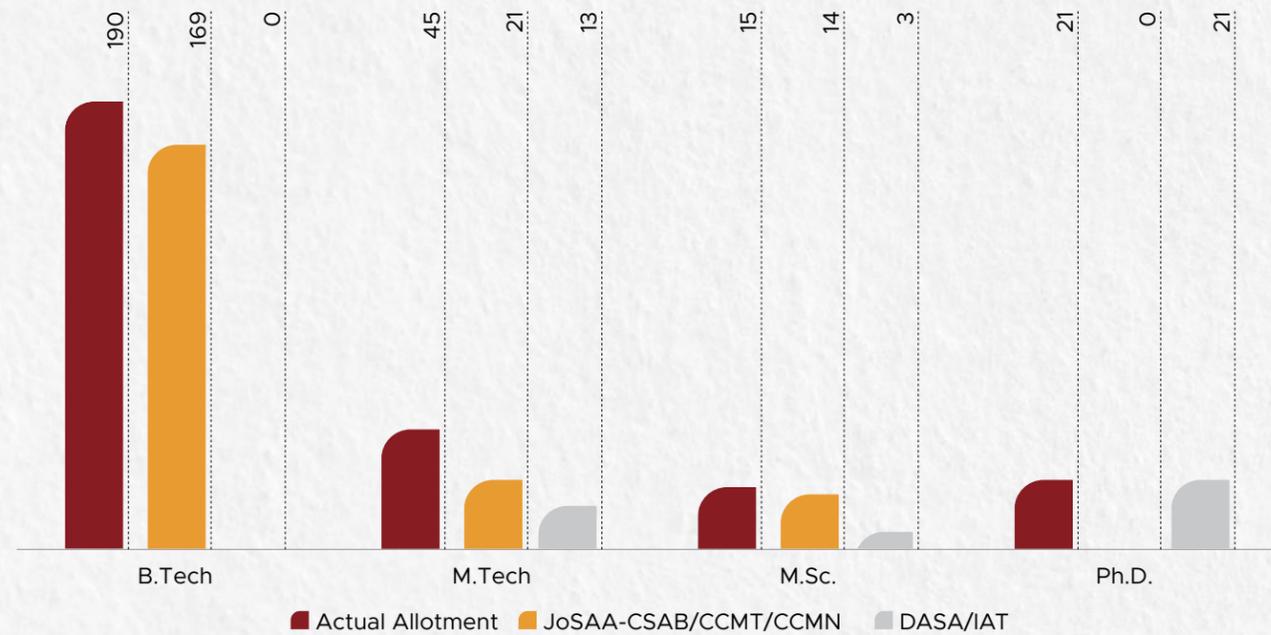


Chart-4: Modes of Admission in various Program

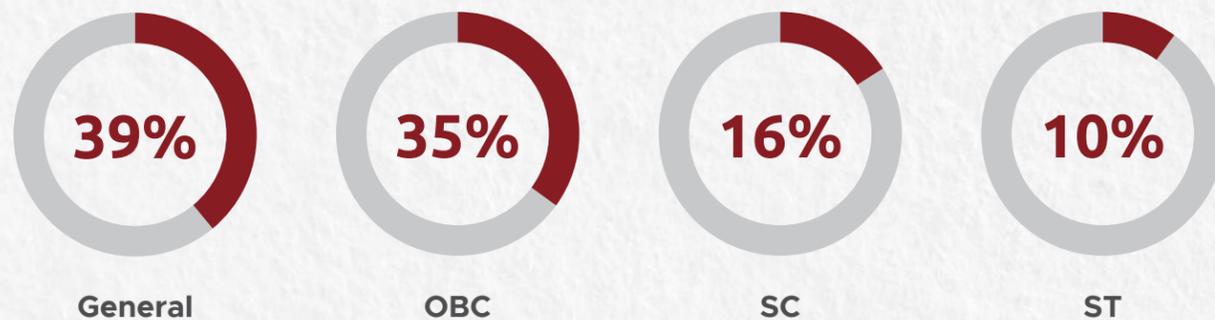


1.2. Total Students on Roll in the year 2024-25:

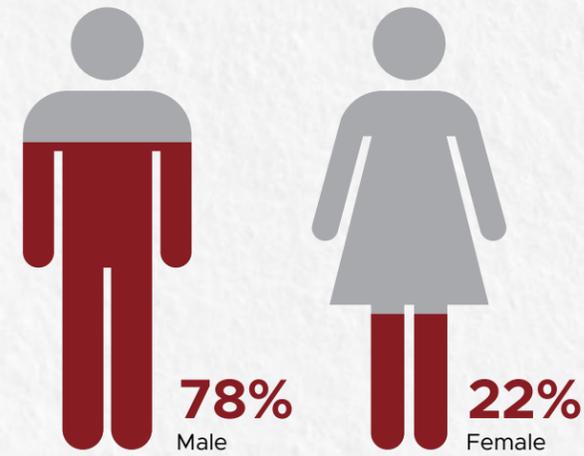
Table-4: Cumulative Strength of the Students during 2024-25

Program	Category				TOTAL	Gender		PWD
	SC	ST	OBC	GEN		Male	Female	
B.Tech.	95	65	223	206	589	475	114	4
M.Tech.	10	4	8	14	36	30	6	0
M.Sc.	3	2	7	9	21	7	14	0
Ph.D.	13	5	22	60	100	75	25	0
TOTAL	121	76	260	289	746	587	159	2

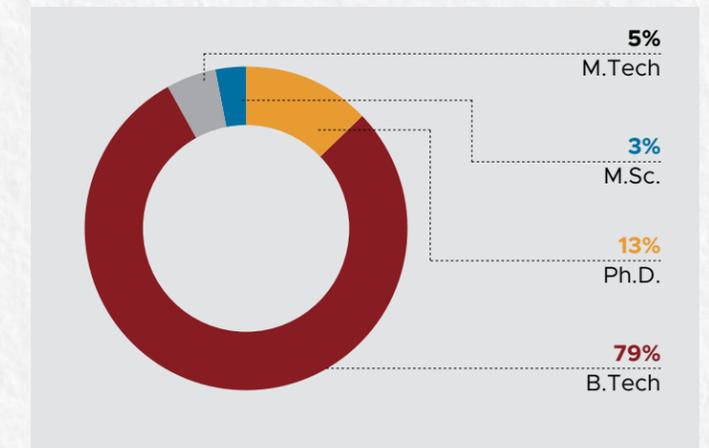
Category



Gender



Program



1.3. Academic Calendar:

The Academic Calendar is prepared in such a way that all the curricular, co-curricular and other related activities/ Programs of the Students are well distributed over the Semester Period.

The Senate approves the Academic Calendar prepared by the Academic Office. The significant activities of the Academic Calendar for the 2024-25 Academic Sessions are:

Table 5: Academic Calendar of Odd Semester 2024-25.

Sl. No	Activities	B. Tech. 2 nd , 3 rd , 4 th year (III/V/VII Sem), M. Tech. and M. Sc. 2 nd year (III Sem)	B.Tech., M.Tech. & M.Sc. 1 st Year
1	Orientation/ Induction Program		August 15 (Thursday)-23 (Friday), 2023
2	Commencement of Class	July 29, 2024	August 26, 2024
3	First Mid-Term Examination	September 9-11, 2024	October 16-18, 2024
4	Semester Break	October 07-11, 2024	October 07-11, 2024
5	Second Mid-Term Examination	October 23-25, 2024	November 25-27, 2024
6	Last Day of Teaching	November 20, 2024	December 06, 2024
7	End-Term Theory Examination	November 25- December 07, 2024	December 12-20, 2024
8	Practical/ Sessional Examination	December 09-14, 2024	December 23, 2024-December 27, 2024
9	Declaration of Result	December 20, 2024	December 26, 2024
10	Supplementary Examination	January 20-25, 2025	January 20-25, 2025
11	Physical Reporting	January 22-23, 2025	January 22-23, 2025
12	Commencement of Even Semester	January 24, 2025	January 24, 2025

Table 5: Academic Calendar of Odd Semester 2024-25.

Sl. No	Activities	B. Tech. 1 st , 2 nd , 3 rd , 4 th year (II, IV/VI/VIII Sem), M. Tech. and M. Sc. 1 st & 2 nd year (II and IV Sem)
1	Commencement of Class	January 24, 2025
2	First Mid-Term Examination	March 05-07, 2025
3	Semester Break	March 10-14, 2025
4	Second Mid-Term Examination	April 14-16, 2025
5	Last Day of Teaching	May 15, 2025
6	End Term Theory Examination	May 19-30, 2025
7	Practical/Sessional Examination	June 02-05, 2025
8	Declaration of Result	June 09, 2025
9	Summers course and Supplementary Examination	June 09 -July 26, 2025
10	Physical Reporting	July 28-29, 2025
11	Commencement of Odd Semester	July 28, 2025

1.4. Institute Fees for 2024-25 Academic Session (per Semester):

Table-7

Programs	General/OBC {Annual Family Income 5 lakh and above} (in Rs.)	General/OBC {Annual Family Income between 1 to 5 lakh}** (in Rs.)	General/OBC {Annual Family Income less than 1lakh}** (in Rs.)	SC/ST/PwD** (in Rs.)
B.Tech.	70,945.00	29,279.00	8,445.00	8,445.00
M.Tech.	43,201.00	NA	NA	8,201.00
M.Sc.	15,701.00	NA	NA	8,201.00
Ph.D.	16,154.00 (FT) / 15,184.00 (PT)	NA	NA	7,850 .00 (FT) / 7,684.00 (PT)

FT= Full time, PT= Part-time

Note: The above fee doesn't include the Hostels / Mess Charges

**Tuition fee Waiver/Remission: The tuition fees of B. Tech. Students belonging to SC, ST and PwD categories are fully waived as per MOE guidelines. Further, the General/ OBC Students whose Annual Family Income is less than one lakh get full tuition fee waiver and with Annual Family Income bracket between one lakh to five lakh get 2/3rd of the tuition fees remission from 2016 onward as per MOE notification no. 33-4/2014-TS.III.

The GATE-qualified M.Tech. Students receive Fellowships, as do Ph.D students. A significant fraction of the remaining students of the Institute also receive Scholarships from NSP, State Governments and other various Agencies.

1.5. Beneficiaries of Tuition Fee Exempted, Full Waivers, 2/3rd Fee Remission Categories of Students across the Programs:

Table-8

Programs	Full Tuition Fee Exempted		Full Tuition Fee Waiver	2/3 rd Tuition Fee Remission	Tuition Fee Charged fully
	No. of SC/ST Students	No. of PwD Students	No. of OBC-NCL/GEN Students {Annual Family Income less than 1lakh}	No. of OBC-NCL/GEN Students {Annual Family Income between 1 to 5 lakh}	No. of OBC-NCL/GEN Students {Annual Family Income 5 lakh and above}
B.Tech.	169	04	188	103	133
M.Tech.	14	00	NA*	NA*	22
M.Sc.	05	00	NA*	NA*	16
Ph.D.	18	00	NA*	NA*	82

1.6. Examination and Evaluation:

All Undergraduate, Postgraduate Examinations and Ph.D. Course Work of the Institute are conducted by the respective Departments and centrally monitored by the Academic Section/ Examination Cell. The medium of examination for all examinations including dissertations and thesis is in English.

The performance of a student is evaluated in terms of two indices viz; the Semester Grade Point Average (SGPA) for a Semester and Cumulative Grade Point Average (CGPA) which is the Grade Point Index for all the completed Semesters at any point of time. The Semester Grade Point Average (SGPA) is calculated based on Grades obtained in all courses in a Semester and Cumulative Grade Point Average (CGPA) is calculated based on Pass Grades in all completed Semesters.

For each course, a Grade is awarded based on Continuous Internal Assessment, Mid-Term Examinations, and End-Term Examinations for theory subjects with weightage of 20%, 30%, and 50% respectively. The concerned Course Instructor of the Department does the paper setting and evaluation. All evaluated answer scripts are shown to the students by the respective Course Instructors before submission of Grades to the Examination Cell.

Award of Degrees

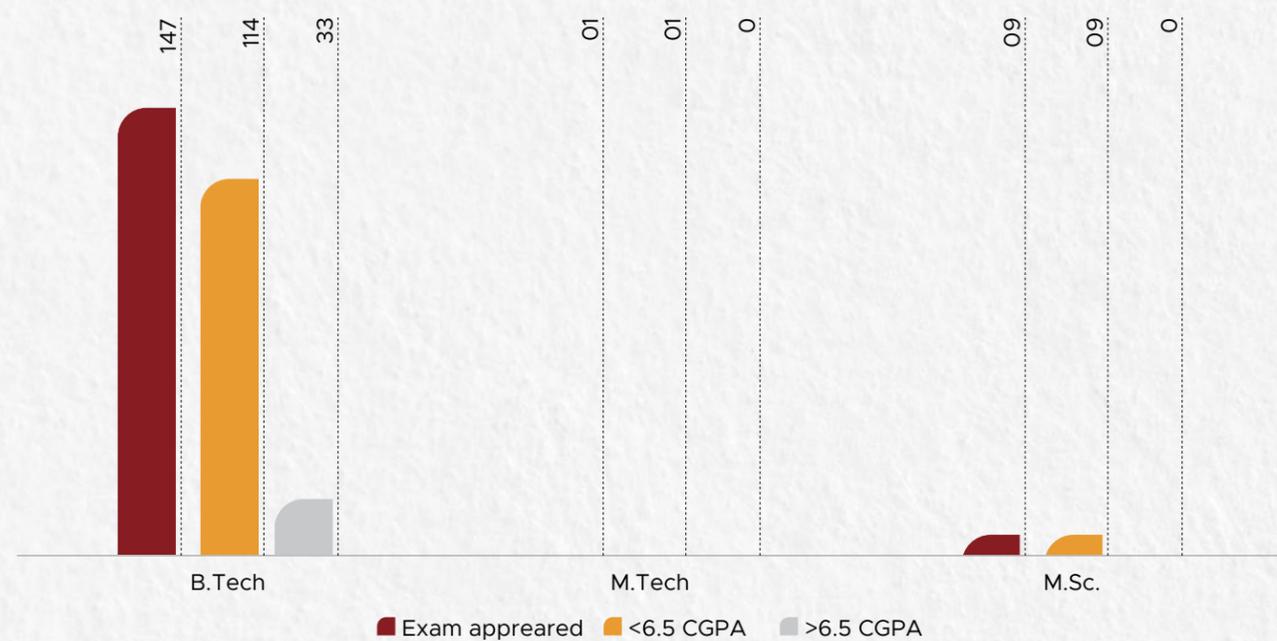
2.1. Final Year Result (June 2024):

Table-9

S. No.	Program and Departments	Exam Appeared	Scored MORE than 6.5 CGPA	Scored LESS than 6.5 CGPA	Total Pass	Pass Percentage
1	B.Tech. in Civil Engineering	24	16	8	24	97.28%
2	B.Tech. in Computer Science & Engineering	40	34	6	39	
3	B.Tech. in Electronics & Communication Engineering	27	21	6	27	
4	B.Tech. in Electrical & Electronics Engineering	28	21	7	26	
5	B.Tech. in Mechanical Engineering	28	22	6	27	
B.Tech. Total		147	114	33	143	

S. No.	Program and Departments	Exam Appeared	Scored MORE than 6.5 CGPA	Scored LESS than 6.5 CGPA	Total Pass	Pass Percentage
6	M. Tech in Computer Science & Engineering	NA	NA	NA	NA	
7	M. Tech in Microelectronics & VLSI Design	NA	NA	NA	NA	100%
8	M. Tech in Electrical Engineering (Control, Power and Electric Drives)	1	1	0	1	
M. Tech. Total						
9	M.Sc. in Chemistry	9	9	0	9	100%
M.Sc. Total						

Chart-6: Examination Appeared and Pass Outcomes in 2024



2.2. Award of Ph.D. Degree in April 2024- March 2025

S. No.	Department	Name	Title of Thesis
1	Computer Science and Engineering	Mr. Vivek Kumar	Design of Efficient and Secure Authentication Schemes Using Identity Based Cryptography (IBC) and Behavioral Biometric.
2	Physics	Mr. Srijan Narayan Choudhary	Homogeneous and Molecular Catalysts for Dioxygen Reduction
3	Chemistry	Mr. Panjo Lepcha	Molecular Catalysts Based on Abundant First-Row Transition Metals for Water Oxidation
4	Mechanical Engineering	Mr. Aditya Kumar Singh	Experimental Investigation to Find the Effect of Blending of Biodiesel and Alcohol with Diesel on VCR Engine
5	Electrical and Electronics Engineering	Mr. Rajanikanta Sahoo	Design, Implementation, and Control of Advanced Multilevel Inverter Topologies for Industrial Applications

Other Academic Activities

3.1. Implementation of National Education Policy -2020:

The National Education Policy 2020 (NEP 2020), which was approved by the Union Cabinet of India on 29 July 2020, outlines the vision of India's new Education System. The Institute is committed to implementing the National Education Policy 2020 as envisioned by the Government of India. The activities undertaken since 2022 are as follows:



- Identification of thematic area and report prepared by refining the short-term and long-term goals for the implementation mechanism on NEP
- Implemented Multiple Entry and Exit Policy for UG and PG Programmes.
- Revision of Curriculum and Syllabi in of UG and PG Programmes.
- Introduction of new courses i.e. B.Tech. and M.Tech. in AIML.
- Established academic and research collaborations with other reputed Institutions/Universities such as IIT Gandhinagar, IIT Delhi, IIT Roorkee, IIT Bombay, DRDO, NHIDCL etc. through MoU.
- Faculty Development Program (FDP).
- Adoption of ONE course initiated by 'The Art of Living' based on the concept of Lok Vidya for promotion of traditional arts.
- Introduction of ONE credit courses of Entrepreneurship and Start-Ups in the UG curriculum.
- Introduction of Professional Practice courses in UG Programmes
- Implementation of Academic Bank of Credit (ABC), AAPAR for transfer of credits.
- Collaborating with Kanchenjunga State University, Sikkim, for the implementation of NEP outreach activities, jointly organized a workshop.
- Promotion of NEP 2020 through NEP SAARATHI.



3.2. Induction Program:

The Induction program 2024 was inaugurated on 15th August 2024 by Shri Ramesh Kumar Saraogi, Chairman of NIT Sikkim, in the esteemed presence of Director, Prof. M. C. Govil, along with other Deans, Heads of Departments, faculty members, and staff. A total of 168 newly inducted undergraduate students attended the ceremony. Spanning nine days, from 15th to 23rd August, the Induction Programme serves as a vital event to welcome new students to the institution and prepare them for their academic journey. The primary objectives of the programme are to help students form strong bonds with their peers and faculty members, instill a sense of purpose, and encourage self-exploration.

The program includes a series of activities such as assessments of students' literary abilities, departmental induction sessions, lectures on managing peer pressure and embracing universal human values, as well as extracurricular engagements like yoga and meditation. It also features talks by eminent personalities from reputed industries, social activists, and entrepreneurs.

The Hon'ble Minister of Education, Government of Sikkim Shri Raju Basnett graced the valedictory of Induction program on the occasion of National Space Day and addressed the newly inducted students.



3.3. Peer Group Learning:

The Institute has launched a novel initiative of Peer Group Learning wherein the senior Students/ Alumnus are invited to teach/ mentor the junior Students. The initiative has been envisaged to develop aspects of professionalism in student tutors, supplement the regular teaching-learning process and contribute to the development of fellowship in the student community.

3.4. Professional Practice:

Professional Practice forms an integral part of the Undergraduate B.Tech. Curriculum. To broaden the students' horizons, experts from various professional organizations have been invited to deliver lectures to students as part of this course. The initiative is likely to enhance the employability of the students in professional organizations.

3.5. Memorandum of Understanding (MOUs):

The Institute is striving to expand its horizons for the growth and development of Academic and Research in diverse fields of science and technology. From the past Institute has signed many Memorandum of Understanding (MoU) for Academic Research and Collaborations with reputed academic institutions and organizations viz, ♦ IIT Bombay ♦ IIT Bhubairpur ♦ IIT Guwahati ♦ IIT Delhi ♦ IIT Roorkee ♦ IIT Gandhinagar ♦ MNIT Jaipur ♦ The Chatterjee Group (TCG) Lifesciences, Kolkata, ♦ NHIDCL ♦ DRDO ♦ SIST ♦ NIPER Kolkatta ♦ VNIT Nagpur ♦ Bureau of Indian Standards



3.6. Digitization of Academic Awards under National Academic Depository (NAD):

The academic awards of the students in the form of grade sheets and degree certificates for pass out batches of UG and PG programs and existing students up to the year 2024 has been published in the National Academic Depository (NAD) through Digi-locker platform under the Ministry of Electronics and Information Technology (MeitY). This will facilitate the students to access the true certified copy of their awards as and when required. NIT Sikkim hosted a workshop on NAD, DigiLocker, and ABC for all educational institutions in Sikkim, aimed at sensitizing stakeholders to digital empowerment, academic transformation, and the mandates of the National Academic Depository as envisioned in NEP 2020. Between 2024 and 2025, a total of 8,786 academic awards were issued, and 2,366 ABC data sets were generated using AAPAR IDs



3.7. Educational Exposure for School Students:

The Institute invites School Students for educational tours/exposure visits from across the state of Sikkim. The purpose of this activity is to inspire and motivate students of the state to take up higher learning in Science and Engineering. The Technical Staffs of the Institute take them on a guided tour of the campus including various Laboratories and Workshops, the Super Computer and Smart Classrooms. The Faculty Members also interact with School Students and apprise them of the numerous opportunities available in the fields of Science and Engineering, as well as the entrance examinations that lead to these opportunities.



3.8. Science Exhibition, Awareness Generation and career counselling on STEM studies, JEE Mains Examination for School Students:

Realizing the needs and interest of the school students, NIT Sikkim has developed and distributed the posters, banners and leaflets to all the higher secondary schools of Sikkim with readymade information on the Joint Entrance Examination (JEE), admission procedure in the CFTIs/ University in the higher technical education. The information also contains professional advice on a student's career path based on their academic performance, aptitude, and interests. Furthermore, with the objective to inspire and motivate students to pursue STEM fields, the Institute held contests for science exhibitions, inviting them to submit posters and prototype models. The objective is to support the school children to pursuit the education of their aspiration and allows them to better understand their prospects and act accordingly. It gives them a path to walk on and actionable tips to reach their goals.





3.9. Senate Meeting:

The Senate is the highest Academic Body of the Institute. It is constituted under Section 14 of the NIT Act 2007. All the major decisions related to academic matters are considered and approved by the Senate. The Director of the Institute is the Chairman of the Senate. The Meetings of the Senate were convened on the following dates during 2024-25:

28th Senate Meeting on 20th June, 2024

29th Senate Meeting on 27th July, 2024

30th Senate Meeting on 24th September, 2024

31st Senate Meeting on 22nd January, 2025



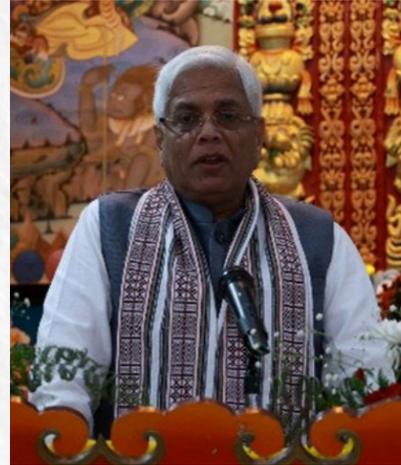
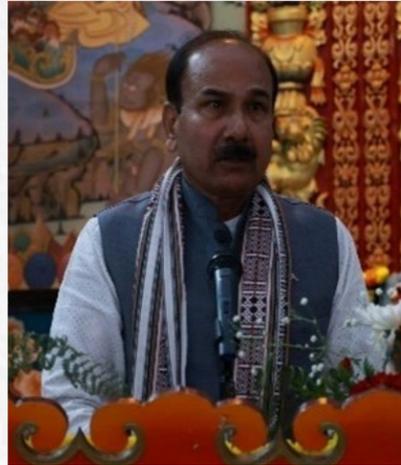
3.10. Convocation:

During the financial year 2024-25, the Institute organized its Seventh Convocation for the graduating students of 2024.

The Seventh Convocation Ceremony was observed on the 17th of November 2024 at Tathagata Tsal (Buddha Park) Ravangla. The event was graced by the Hon'ble Governor of Sikkim, Shri Om Prakash Mathur, as Chief Guest; Retired Air Field Marshal Shri Arup Raha as Guest of Honor; and Shri Ramesh Kumar Saraogi, Chairperson of the Board of Governors.

Degrees were awarded to 144 B.Tech., 1 M.Tech., 9 M.Sc., 1 PG Diploma, and 4 PhD recipients. Top honors included the Institute Gold Medal to Mr. Anirudh Ghildiyal and the Director's Gold Medal to Mr. Arpit Paul, alongside six Department Gold Medals for academic excellence.





Training and Placement Cell

Training and Placement Cell

The Training and Placement Cell (T&P Cell) at the National Institute of Technology (NIT) Sikkim operates year-round with the strategic goal of building a strong and lasting connection between the institute and the corporate sector. This vital liaison serves a dual purpose: equipping students with the knowledge and skills demanded by top organizations, and preparing them to meet the evolving challenges of the global job market.

To this end, the T&P Cell maintains regular and proactive engagement with a wide range of companies. It focuses on enhancing students' technical proficiency while providing them with broad global exposure. The Cell meticulously plans, organizes, and executes initiatives aimed at ensuring students receive comprehensive industrial training and secure placements in organizations aligned with their career aspirations.

These efforts include forging strategic partnerships with industry and academia, and organizing activities such as expert talks, hands-on workshops, alumni interaction sessions, group discussions, and seminars. Such events are carefully designed to develop both technical and soft skills, contributing to the holistic professional growth of students.

The T&P Cell continuously evaluates and refines its strategies to improve student employability. Its work has helped many students secure positions in top-tier companies. Moreover, it strengthens collaboration among students, alumni, faculty, and industry partners, fostering a supportive and dynamic professional network.

Through its dedicated efforts, the T&P Cell has become a cornerstone of student success at NIT Sikkim, fostering

an environment where academic excellence and career readiness go hand in hand. By bridging the gap between academia and industry, it ensures that students are well-prepared to meet current industry standards and to drive future innovations in their respective fields.

Enhancing Career Prospects of Students

In 2024-25, the initiatives focused on various pivotal endeavors concerning career development and professional opportunities:

- Fostering a strong collaboration between the institute and industry to stay informed about emerging market trends, recruiter expectations, and evolving job requirements.
- Offering career counseling and skill development programs, including workshops, webinars, and training sessions to equip students with the knowledge and competencies needed for professional success.
- Supporting students in obtaining relevant internships that provide hands-on experience and practical insights into their chosen fields.
- Coordinating placement activities by inviting reputable companies and organizations to conduct recruitment drives, enabling meaningful student-employer engagement and career opportunities.



WEBINARS:

The Training and Placement Cell organized the following webinars and talks by eminent academicians and industry experts during the year 2024-25.

Webinar on Preparation for ARMED FORCES

The Training and Placement Cell at NIT Sikkim organized a talk session in collaboration with the Indian Navy. The session was led by Surgeon Captain Marak Pertin, who spoke to students about the wide range of career opportunities available in the Armed Forces. During the interaction, he discussed key topics such as the Services Selection Board (SSB) process and geopolitics, while also addressing students' queries related to life in the Indian Navy, the written examination, and the essential skills required to join the Armed Forces. His talk not only informed but also inspired students to consider a career as officers in the Indian Navy, highlighting the numerous benefits including personal and professional

development, job security, and the honor of serving the nation.





Webinar on Artificial Intelligence and Machine Learning:

The Training and Placement Cell at the National Institute of Technology Sikkim organized an enriching talk session on April 14th, 2024, featuring esteemed speakers Mr. Rithvik Joshi and Mr. Uttaran Nayak. The session aimed to provide valuable insights into current market trends adopted by multinational companies worldwide, the burgeoning growth in Artificial Intelligence and Machine Learning, and strategies for aspiring entrepreneurs to thrive in the contemporary market landscape. Attendees gained invaluable knowledge and inspiration from the speakers' experiences and expertise. The event served as a platform for students to enhance their understanding of market dynamics and entrepreneurial pathways. With engaging discussions and practical insights, the session left a lasting impact on all participants, motivating them to stay focused and ambitious in their career pursuits.

Talk Session by HCL Technologies

The Training and Placement Cell of NIT Sikkim successfully organized a Talk Session by HCL Tech on 24th October 2024 at the Multi-Purpose Hall (MPH), starting at 08:30 AM. The session aimed to provide students with valuable insights into career opportunities, recruitment processes, and growth prospects at HCL Tech. Company representatives engaged with students, offering detailed information and addressing their queries regarding job roles, required skill sets, and career development within the organization. The session saw active participation from students and served as a meaningful step in the

T&P Cell's ongoing efforts to enhance employability by connecting students with reputed industry leaders.

Talk Session by Accenture India

The Training and Placement Cell of NIT Sikkim successfully organized a Talk Session with Accenture India on 29th September 2024 at the Multi-Purpose Hall (MPH), commencing at 01:00 PM. The session aimed to provide students with a comprehensive overview of the diverse job opportunities available at Accenture, enabling them to make informed career decisions. Representatives from the company shared insights into recruitment processes, desired skill sets, and career growth at Accenture, while also addressing students' queries. The event witnessed enthusiastic participation and was a key part of the T&P Cell's continuous efforts to connect students with leading industry players and boost their placement readiness. Additionally, the session promoted environmental consciousness by encouraging students to adopt eco-friendly habits and avoid the use of plastic bags.

Talk Session by Renewable Energy and landscapes by TCE

The Training and Placement Cell of NIT Sikkim successfully organized a TCE ACE Talk Session on Renewable Energy and Landscape by Tata Consulting Engineers (TCE) on 12th December 2024 at 11:00 AM. The session was conducted by Mr. Anupam Roy, Senior General Manager at TCE, who shared valuable insights into the latest advancements and technologies in the

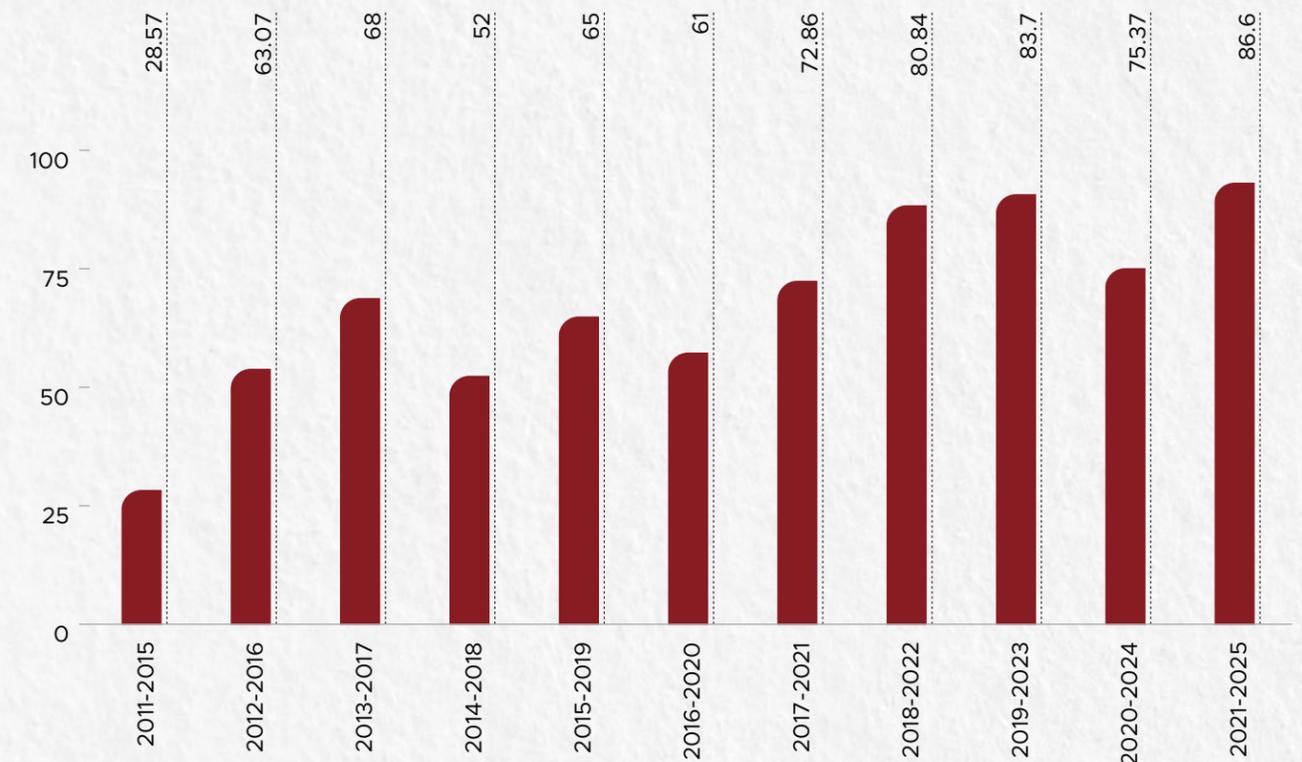
field of renewable energy. Students actively participated in the session, using the opportunity to deepen their understanding and clarify their doubts about sustainable energy solutions and their real-world applications. As part of the ACE Lecture Series initiative, this event aligned with the T&P Cell's objective to keep students informed about current industry trends and promote sustainable engineering practices. The session, held online, proved especially beneficial for students aspiring to build careers in green energy, infrastructure planning, and future-oriented engineering domains.



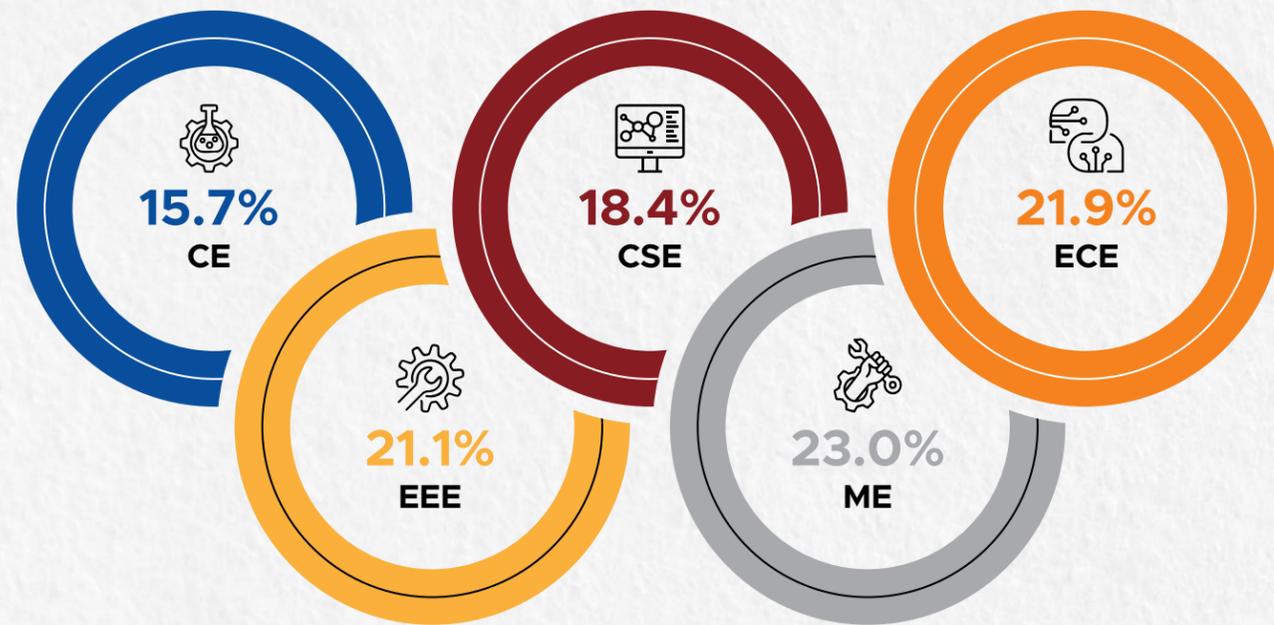
Webinar on Pearson PTE TEST

The Training and Placement Cell of NIT Sikkim organized a webinar on the Pearson PTE Test in collaboration with Pearson India on June 22, 2024, from 2:00 PM to 2:45 PM. The session was conducted by Mr. Joseph Augustine, Client Relationship Manager at Pearson India, and aimed to provide students with detailed insights into the PTE test, including the latest updates and an interactive quiz to clarify their queries. This initiative was part of the Cell's ongoing efforts to support students' academic and career preparedness. Additionally, the Cell scheduled a TCE ACE Talk Session on "Renewable Energy and Landscape," held on December 12, 2024, at 11:00 AM. The session was delivered by Mr. Anupam Roy, Senior General Manager at TCE, and focused on sustainable engineering practices and industry trends to enhance students' exposure to real-world challenges and solutions.

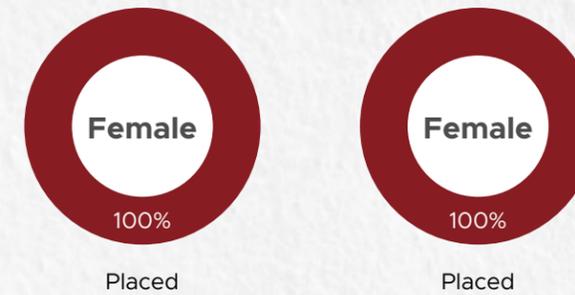
Placement Statistics Year-wise:



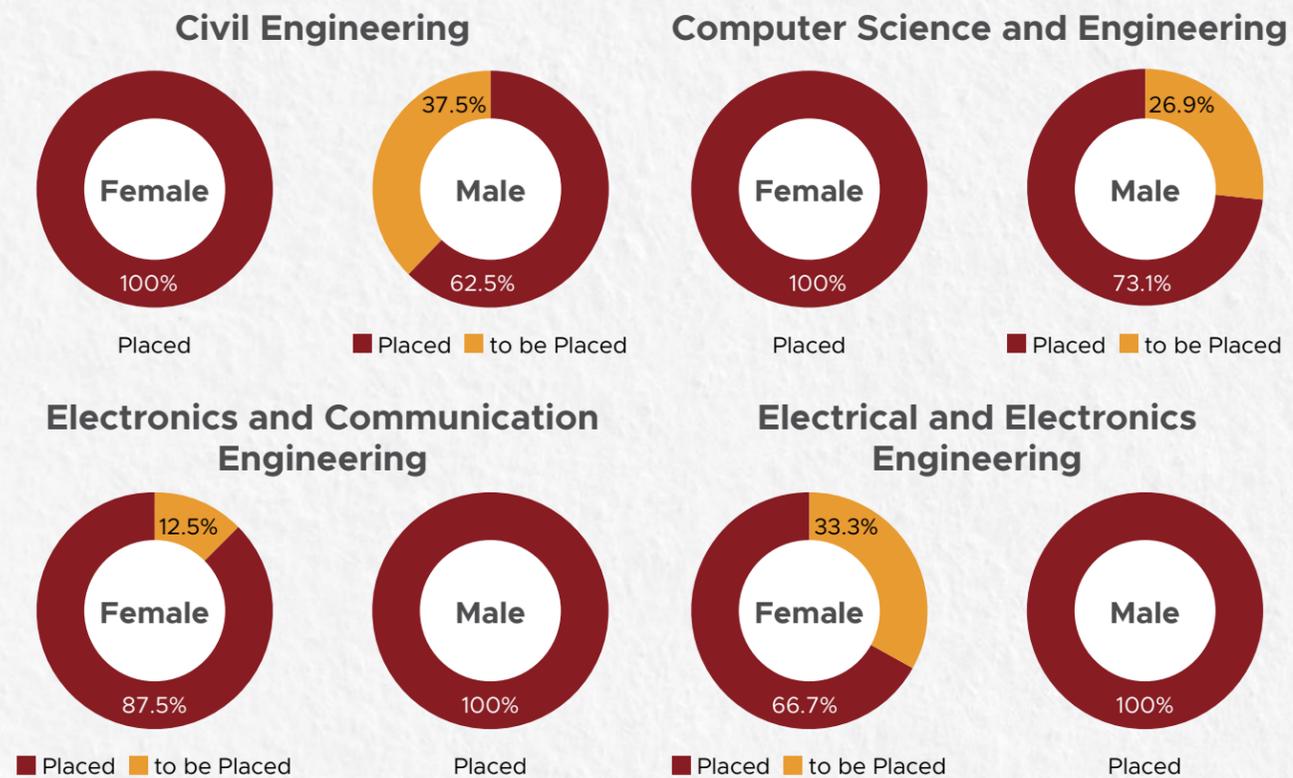
Percentage vs Branch:



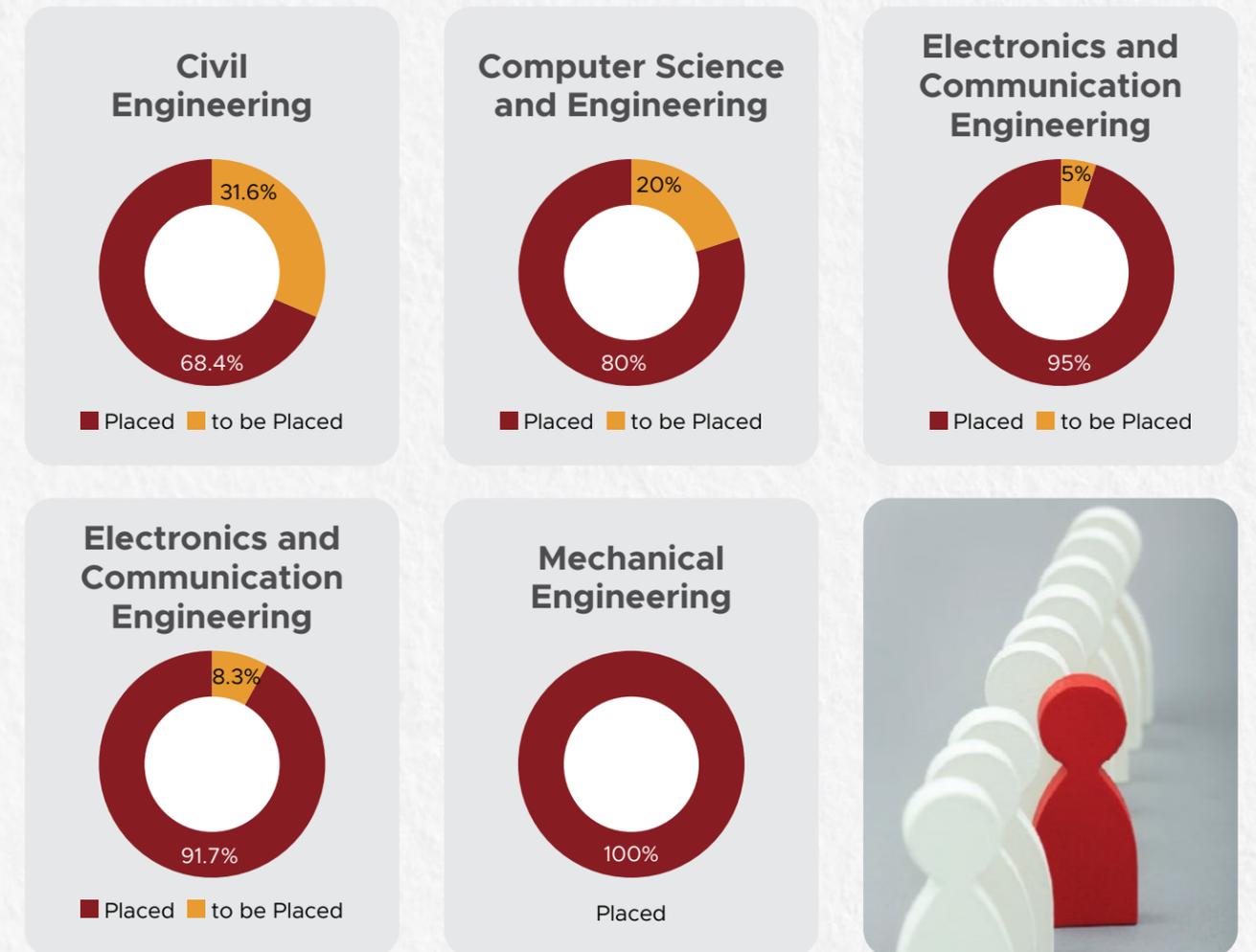
Mechanical Engineering



Placement Statistics Gender wise:



B.Tech Placement Statistics



Detailed Placement Statistics 2024-25

Course	Branch	Total No. of Students	Number of Placed Students
B. Tech.	Civil Engineering	19	13
B. Tech.	Computer Science and Engineering	35	28
B. Tech.	Electronics and Communication Engineering	21	20
B. Tech.	Electrical and Electronics Engineering	24	22
B. Tech.	Mechanical Engineering	21	21
M. Tech.	Computer Science and Engineering	8	0
M. Tech.	Electronics and Communication Engineering	2	0
M. Tech.	Electrical and Electronics Engineering	3	0
Total		133	104

Companies from various sectors including those from core engineering domains, IT, consulting and non-technical etc. have recruited students from the Institute. The average package is recorded as 8.85 LPA with 142 Total Placement Offers during the academic year 2024-25.

Benchmark Placement Achievements in the Academic Year 2024-25

- One student got selected for Nvidia with a package of 31.45 LPA.
- Seven students got selected for Cummins India with a package of 13 LPA.
- One student got selected for Accenture India with a package of 11.89 LPA.
- Two students were selected in Globalization Partners with a package of 15 LPA.
- One student got selected for Infosys with a package of 13 LPA.

- Two students got selected for Platform9 with a package of 18 LPA.
- Two students got selected for Tata Electronics with a package of 12 LPA.
- Three students got selected for Anglo-Eastern Ship Management with a package of 24 LPA.

INTERNSHIPS

Internships enable students to gain first-hand experience of working in the industry. It also allows students to improve skills, knowledge, and theoretical practices by implementing their academic learnings. Internships allow students to navigate the intricacies of the professional world. In the Academic year 2024-25, 244 students of B. Tech. (2022-26 batch, 5th & 6th Semester) have undertaken Internships during the Summer and Winter vacations.

S. No	Company	Branch(es)	No. of Students
1	Slis Solutions	CSE, ECE, EEE	3
2	Asquare Infotech Private Limited	CE, ECE, EEE, ME	20
3	mBEDed Systems	ECE, EEE	3
4	Dharaksha Ecosolutions Pvt. Ltd.	ME	3
5	Yanti Innovative Electromotive Solutions	ECE, EEE	1
6	Marmag Infra Private Limited	CE	3
7	DY Infra & Projects	CE, ECE, EEE	4
8	Doorastha Analytics	ECE, EEE	2
9	Karkare Displays	ECE, EEE	4
10	Protomont Technologies	ME	2
11	Stembotix Private Limited	CE, CSE, ECE, EEE, ME	16

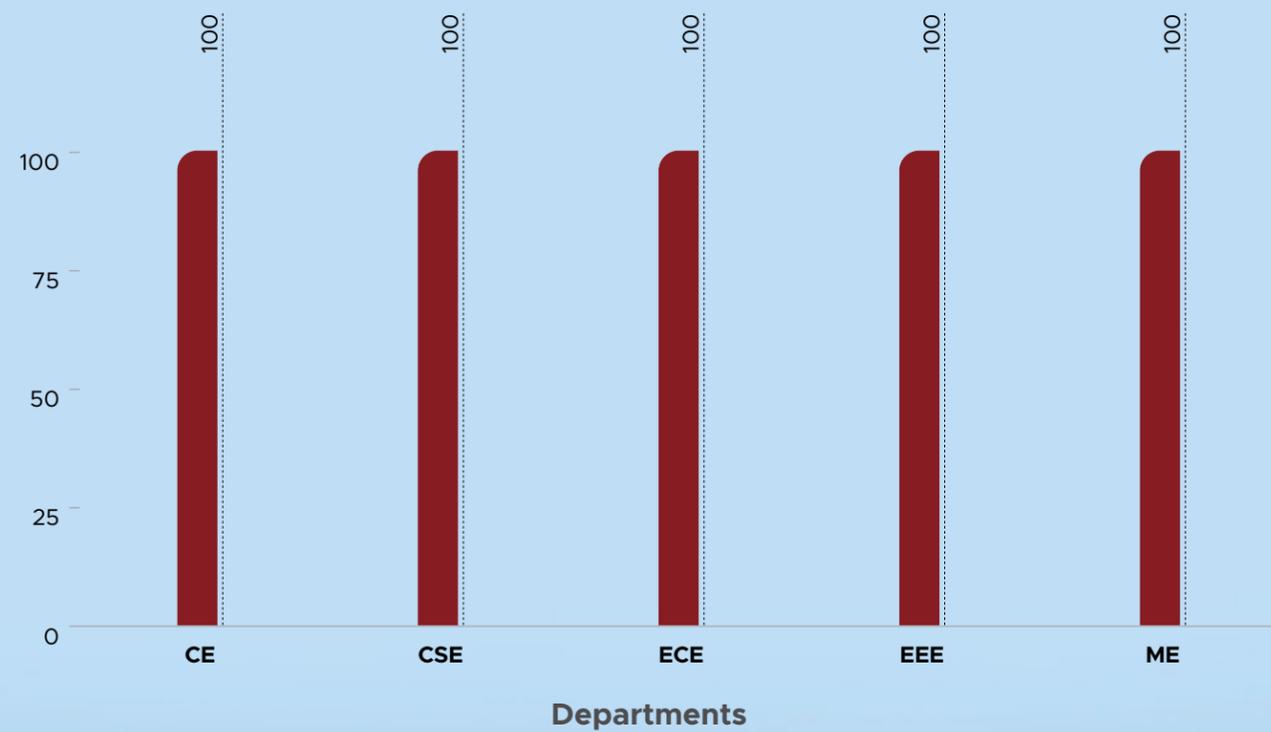
S. No	Company	Branch(es)	No. of Students
12	Space and Tech - Engineering	CE, CSE, ECE, EEE, ME	3
13	Finixia Dedecons	CSE, ECE, EEE	19
14	Redcrix Technologies	CSE	2
15	Cooasis Creative Studios	CSE	1
16	Beasova	CSE, ECE, EEE	4
17	Allied Electro Mechanical	ME	1
18	Arden Telecom	CSE, ECE, EEE	4
19	Ananda Vak Solutions	CSE, ECE, EEE	1
20	Karlo	CE, CSE, ECE, EEE, ME	1
21	Foxiasr	CSE, ECE, EEE	30
22	ADM Solar Power And Infrastructure	ECE, EEE, ME	4
23	IdentifYou	CSE, ECE, EEE	3
24	Chara Automation and Solutions	ECE, EEE, ME	2
25	Pragament Solutions	CE, CSE, ECE, EEE, ME	8
26	Premade Innovations	CE, CSE, ECE, EEE, ME	13
27	Solar Quest	EEE, ME	7
28	Talent Corp	ECE, EEE, ME	19
29	Next Bigg Tech	CSE, ECE, EEE	16
30	Prayanam Industries	CSE, ECE, ME	9
31	Rhino Engineers	CSE, ECE, EEE	4
32	Edustoke	CSE, ECE, EEE	2
33	Aeris Engineers	EEE	7
34	Segnitos Technologies Pvt Ltd	CSE	1
35	Geatpec Electronics	ECE, EEE	2
36	Shabco Properties & Builders	CE	6
37	Trained Mentors	CSE	8
38	Gotisheel Technologies	CSE	5
39	Nava Design and Innovation	ECE, ME	3
40	AI4SEE	CSE, ECE, EEE	3
41	Dimensionless	CSE	1
42	Hecto Networks	CSE	1
43	Hindfratech Private Limited	CE	3
44	Super Engitech	ME	8
45	Bharat Natural Elements	CE, CSE, ECE	1
46	Heta Datain	ECE, EEE	2
47	The Morons	CSE, ECE	1
48	V K Engitech	ME	2
49	Logicboots Pvt Ltd	CSE, ECE, EEE, ME	7
50	Gravitas laboratories pvt Ltd	ME, CE	2

Benchmark Internship Achievements in the Academic Year 2024-25

Branch-wise Winter Internship of (B. Tech 3rd Year) 2022-26 batch (Odd Semester, 2024-25)

Course	Branch	Total Students	Number of students who received internship
B.Tech.	Civil Engineering	15	15
B.Tech.	Computer Science and Engineering	37	37
B.Tech.	Electronics and Communication Engineering	29	29
B.Tech.	Electrical and Electronics Engineering	22	22
B.Tech.	Mechanical Engineering	15	15
Total		118	118

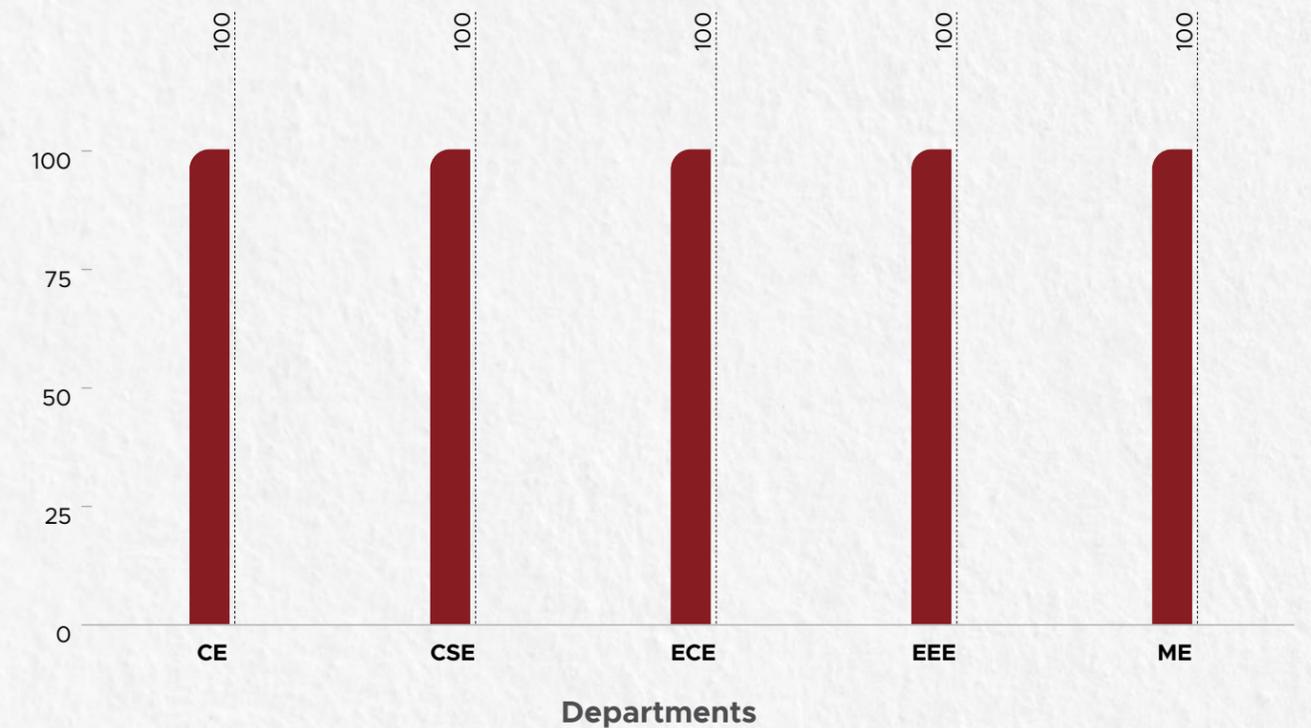
Winter Internship Statistics of 2022-26



Branch-wise Summer Internship of (B. Tech 3rd Year) 2022-26 batch (Even Semester, 2025)

Course	Branch	Total Students	Number of students who received internship
B.Tech.	Civil Engineering	12	12
B.Tech.	Computer Science and Engineering	40	40
B.Tech.	Electronics and Communication Engineering	28	28
B.Tech.	Electrical and Electronics Engineering	27	27
B.Tech.	Mechanical Engineering	19	19
Total		126	126

Summer Internship Statistics of 2022-26



Students Pursuing Higher Studies

S. No.	Name	Achievements
1	Mr. K Prem	Pursuing Masters at the Indian Institute of Technology Madras (IIT Madras).
2	Miss. Choden Tamang	Pursuing Masters in structural engineering at Indian Institute of Technology, Gandhinagar.
3	Mr. Sai Bhavadesh Chandu	Pursuing Masters from Dept of Computer systems and engineering at University of Houston, Texas.
4	Mr. Krishna Chaitanya Nizam	Pursuing Masters at Saint Louis University, Missouri, United States.
5	Mr. Anuj Pratap	Pursuing a Ph.D. at the Indian Institute of Technology Bombay (IIT Bombay).
6	Mr. Bolla Phani Sai Divya Tej	Pursuing Masters in Information Technology at University of Cincinnati.

Student Welfare Initiatives

Student Welfare Initiatives

The roots of education are bitter, but the fruit is sweet." Student life, often regarded as the golden phase of one's journey, weaves together challenges, opportunities, and transformative experiences. It fosters not only academic excellence but also creativity and camaraderie through cultural events, sports, and games, shaping a truly holistic and memorable chapter. To nurture this spirit, the Institute regularly organizes a variety of cultural programs, sports competitions, and cleanliness drives throughout the year, alongside the academic curriculum. Additionally, several initiatives and awareness activities are conducted in alignment with the directives of the Ministry of Education (MoE) and other concerned bodies to ensure the all-round development of students.

Activities and Events:

Various important and multidimensional events like Independence Day, Republic Day, Cultural Fest, Literary Events, Technical fest, Hackathon, Seminars, Annual Games and Sports are organized by the Institute throughout the year. Students are encouraged and provided with the necessary assistance to participate in the Inter-NIT Sports, Cultural and Technical events. Reflecting the spirit of national initiatives including International Yoga Day, the Fit India Movement, Unity Day, Hindi Pakhwada, and a wide spectrum of sports and cultural events, the Institute encourages students to engage in activities that foster health, harmony, and unity. Also, several Departmental Clubs organized diverse student events on different occasions.

Annual Cultural Fest of NIT Sikkim:

UDGAM 2024 – A Celebration of Culture, Creativity, and Unity at NIT Sikkim

The National Institute of Technology Sikkim proudly hosted UDGAM 2024, its annual cultural fest, from 8th to 10th November 2024, celebrating a vibrant medley of art, music, dance, and cultural expression. The much-anticipated three-day event brought together students, faculty, and guests in a spirited celebration of India's rich cultural heritage and youthful creativity.

Festivities began with a prelude on 2nd November, when students took to MG Marg, Gangtok, with a high-energy flashmob performance that fused traditional Sikkimese art forms with modern dance. The dynamic display, set to a custom music mashup, drew crowds of locals and tourists and set the tone for the festivities ahead.

The inaugural ceremony was honoured by the presence of Mr. Rikshal Dorjee Bhutia, Hon'ble MLA of the Ravangla constituency, as Chief Guest, alongside Prof. Mahesh Chandra Govil, Director of NIT Sikkim in presence of SDM Ravangla, eminent guests, Deans, Heads and Faculty. The ceremony began with the lighting of

the ceremonial lamp, followed by a soulful opening song performed by students. In their addresses, both dignitaries stressed the need to promote cultural values and student engagement. A cultural ramp walk featuring ethnic attire from across India served as a centerpiece of the opening night, followed by lively music, dance, and DJ performances.

Over the course of three days, UDGAM 2024 featured a spectrum of events reflecting the diverse interests of the student body:

- Artistic Competitions such as Wall Painting, Rangoli, and an Art Exhibition showcasing traditional and contemporary works by students from across the country.
- Talent-Based Events including Instrumental Music competitions and a crowd-favorite Eating Challenge.
- Gaming Tournaments in Free Fire Max and Valorant, attracting esports enthusiasts from across the region.
- A vibrant Food Fest, celebrating the culinary diversity of India with student-made delicacies, offering visitors a memorable gastronomic journey.





WORLD ENVIRONMENT DAY

NIT Sikkim successfully conducted the Paryavaran Sanrakshan Gatividhi Celebration from July 1 to August 21, 2024, to promote environmental awareness and sustainable practices. The event featured a range of activities, including tree plantation drives, workshops, seminars, cleanliness campaigns, as well as poster and essay competitions. A significant number of students also took part in the National

Students Paryavaran Competition (NSPC) 2024, organized by the Ministry of Education. The initiative educated participants on environmental protection and encouraged eco-friendly habits. Positive feedback highlighted the programme's impact, with many pledging to adopt sustainable lifestyles. The department remains dedicated to continuing such impactful initiatives.



ENCOURAGING POSHAN VATIKAS AND PLANTATION:

As part of the initiative to promote Poshan Vatikas (nutrition gardens), NIT Sikkim organized a series of plantation activities focused on cultivating fruits and vegetables with high nutritional value. This effort aimed to raise awareness about the importance of nutritional self-reliance and healthy eating habits among students, faculty, and staff. Various saplings, including seasonal vegetables and fruit-bearing plants, were planted in designated areas on campus. Beyond promoting sustainable living, the initiative encouraged the NIT Sikkim community to actively engage in cultivating their own food, thereby instilling a deeper appreciation of nutrition, health, and holistic wellness.



INTERNATIONAL DAY OF YOGA:

NIT Sikkim celebrated the 10th International Yoga Day on June 21, 2024, with the theme "Yoga for Self and Society." The event began with a lamp lighting and a welcome address by Director Prof. (Dr.) M.C. Govil, who emphasized yoga's role in achieving work-life balance. Guided by experts Ms. Anjeela Bhutia and Mr. Ram Prasad Poudyal, participants engaged in

breathing exercises, Surya Namaskar, pranayama, and asanas.

The event was a source of inspiration, encouraging faculty, staff, and students alike to integrate yoga into their daily lives. With heartfelt thanks offered to all contributors, the gathering concluded with vibrant enthusiasm and a collective commitment to enriching future celebrations.



INDEPENDENCE DAY:

The 78th Independence Day at NIT Sikkim was celebrated with great enthusiasm, marked by the active participation of students, faculty, and staff. The event commenced with a March Past by the institute's home guards, showcasing discipline and patriotism. This was followed by the hoisting of the National Flag and the singing of the National Anthem, evoking a sense of pride and unity among attendees.

Prof. M.C. Govil, Director of NIT Sikkim, and Shri Ramesh Kumar Saraogi, Chairperson of the Board of Governors, addressed the gathering, emphasizing the significance of Independence Day and the collective responsibility of the academic community in nation-building. They highlighted the roles of faculty, staff, and students in fostering holistic development through education, innovation, and ethical values.

A key highlight of the event was the inauguration of the new basketball court near the admin block, symbolizing the institute's commitment to promoting sports and physical well-being alongside academics. The court is expected to enhance student engagement in extracurricular activities, fostering teamwork and fitness.

The celebration concluded on a spirited note, reaffirming the ideals of freedom, unity, and progress, while motivating the NIT Sikkim community to contribute meaningfully to the nation's development.



REPUBLIC DAY:

The 76th Republic Day was celebrated on 26th January 2025 in the campus with active participation of students, faculty and staff members of the Institute. The day was celebrated with a March Past by the home guards. Prof. M. C. Govil, Director, NIT Sikkim hoisted the National Flag followed by the National Anthem. The Director addressed the gathering about the importance of the day. Students performed cultural dances, and other activities were also organized.



HINDI PAKHWADA:

Hindi Pakhwada was organized at the National Institute of Technology (NIT) Sikkim on 29th September 2024 with the aim of promoting the use and significance of Hindi as the official language and encouraging students, faculty, and staff to embrace and respect the linguistic heritage of India. The event commenced with an inaugural ceremony attended by esteemed faculty members and administrative staff, who emphasized the importance of Hindi in fostering national unity and cultural identity.

The celebrations featured a variety of activities, including essay writing, poetry recitation, and elocution competitions, focused on themes of national integration, pride in language, and contemporary social issues. With spirited participation from students across departments, the events highlighted not only their creativity and oratory skills but also their profound connection with the language, Hindi.



GAMES & SPORTS

Various Games and Sports events are organized by the Institute throughout the year. Students are encouraged and provided with the necessary assistance to participate in the Inter-NIT Sports meet. For regular indoor games and sports activities, every hostel has facilities of Table Tennis and Carrom Board. The campus is further enriched with two playgrounds that provide opportunities for students to enjoy sports such as football, basketball, volleyball, kho-kho, and cricket. A well-maintained indoor Badminton Court is also available inside the old Academic Building. All fields and courts are equipped with proper lighting facilities, allowing games to be played conveniently at night.

ANNUAL SPORTS - NIT SIKKIM (2024-2025)

The 2024-2025 academic year marked significant achievements in sports at NIT Sikkim, showcasing the institute's commitment to athletic excellence and inclusivity. Key highlights included participation in Spardha 2024 at IIT BHU, where a 65-member contingent competed in seven sports, with the historic debut of NIT Sikkim's women's team. The cricket team excelled in the Inter-NIT tournament at NIT Silchar, demonstrating exceptional teamwork.

The campus celebrated Sports Week with an array of competitions, including badminton, carrom, and e-sports, which saw spirited participation from 137 students. The Fit India Movement and National Sports Day celebrations promoted fitness and sportsmanship through cricket matches and football tournaments, fostering unity among students and faculty.



BADMINTON SINGLES TOURNAMENT - FIRST YEAR /SMASH 2025

The inaugural Badminton Singles Tournament at NIT Sikkim was held on 30–31 March 2025 at the campus badminton court, witnessing enthusiastic participation and competitive spirit. With 22 participants across Men's and Women's Singles categories, the tournament followed a knockout format after initial seeding rounds. The matches unfolded with thrilling intensity, as

numerous matches extended into deciding sets, vividly showcasing the players' blend of talent, determination, and sportsmanship. The event marked a successful beginning the annual sports meet at the institute, fostering sportsmanship and encouraging athletic excellence within the student community.



THE ANNUAL INDEPENDENCE DAY FOOTBALL CUP

As part of the Independence Day 2024 celebrations, the annual Independence Day Football Cup was successfully organized on 4th, 10th, 11th, and 15th August at NIT Sikkim. Upholding the region's tradition, the tournament brought together teams comprising students from various academic years and staff members, fostering a spirit of unity, camaraderie, and healthy competition. Matches were played with high energy and enthusiasm, drawing significant support from the campus community. The tournament not only served as a tribute to the spirit of freedom but also promoted physical fitness, teamwork, and bonding among the NIT fraternity, making the event a resounding success.



National Sports Week at NIT Sikkim

The National Sports Week at NIT Sikkim, held from August 26 to August 31, 2024, was a vibrant celebration of sportsmanship and athleticism, organized to honor National Sports Day. The event featured a diverse range of competitions, including Badminton, Carrom, E-Sports (BGMI and MLBB), and FC (24), attracting enthusiastic participation from students.



The event drew an impressive 137 participants, with 126 boys and 11 girls showcasing their talent across different categories. The Sports Council and coordinators ensured smooth execution, fostering a spirit of camaraderie and healthy competition. The week concluded with a resounding success, reinforcing the importance of sports in promoting physical activity and teamwork within the community. The dedication of participants and organizers alike made the National Sports Week a memorable and inspiring event.

NIT SIKKIM'S PARTICIPATION IN SPARDHA 2024 AT IIT BHU

NIT Sikkim marked a significant milestone in its sporting journey with its participation in Spardha 2024, the prestigious annual sports festival hosted by IIT BHU. A contingent of 65 students, accompanied by four faculty members, competed across seven sports categories, including football, volleyball, kho-kho, chess, table tennis, basketball, and lawn tennis.

This year's event was particularly historic as it featured the first-ever participation of NIT Sikkim's women's team, reflecting the institute's commitment to inclusivity

and gender equality in sports. The competition offered athletes valuable exposure to national-level tournaments, helping them cultivate resilience, teamwork, and strategic development.

Beyond the competitive arena, Spardha 2024 strengthened camaraderie among participants and offered opportunities to learn from top-tier athletes across India. The experience not only honed their skills but also inspired them to strive for excellence in future events.



HAR GHAR TIRANGA:

"Prabhat Pheri" under the "Har Ghar Tiranga" program to celebrate the honor of our National Flag was organized on 14th August 2024. The Director, faculty, and students participated enthusiastically, showcasing their patriotism and unity.



INTERNATIONAL DAY AGAINST DRUG ABUSE AND ILLICIT TRAFFICKING:

On June 26th, a seminar on "Drug Abuse and Mental Health" was organised in the occasion of "International Day Against Drug Abuse and Illicit Trafficking". The objective was to raise awareness about the harmful effects of substance abuse and to promote strategies to combat the global drug trade.

The event saw participants take a pledge to "Say Yes to Life, No to Drugs," affirming their resolve to lead healthy lives and contribute to the shared vision of a Drug-Free India, a movement aimed at eradicating drug abuse and its destructive consequences for individuals and communities.



SWACHHATA MISSION:

Institute organized series of events and activities as a part of the #SwachhataHiSeva2024 Abhiyan, with enthusiastic participation from faculty, staff, and students. Director Prof. M.C. Govil monitored all the events, to promote cleanliness and sustainability the best performer on the events are awarded with certificates and mementos.



PEOPLE'S PLAN CAMPAIGN:

A team of students, faculty and staff participated in the Gram Sabha chaired by Shri Anil Rai, Panchayat President, and interacted with villagers, learning about grassroots governance and sharing insights on education and technology. The visit emphasized on promoting higher education and technical, Waste management practices, social welfare schemes, Mission LiFE & Swachhata Hi Seva campaigns.



RBI90 QUIZ STATE-LEVEL:

A student team consisting of Mr. Gulshan Kumar and Mr. Debopriyo Khan, undergraduate students of NIT Sikkim, displayed outstanding knowledge and competitive spirit throughout the event. They secured the 2nd position in the prestigious RBI90 Quiz State-Level Final, held on October 17, 2024, in Gangtok, and were awarded a monetary prize of ₹1,50,000 along with certificates and mementos. The quiz was organized by the RBI Gangtok as part of their RBI90 celebrations, marking 90 years of the institution.



Financial Assistance to Students:

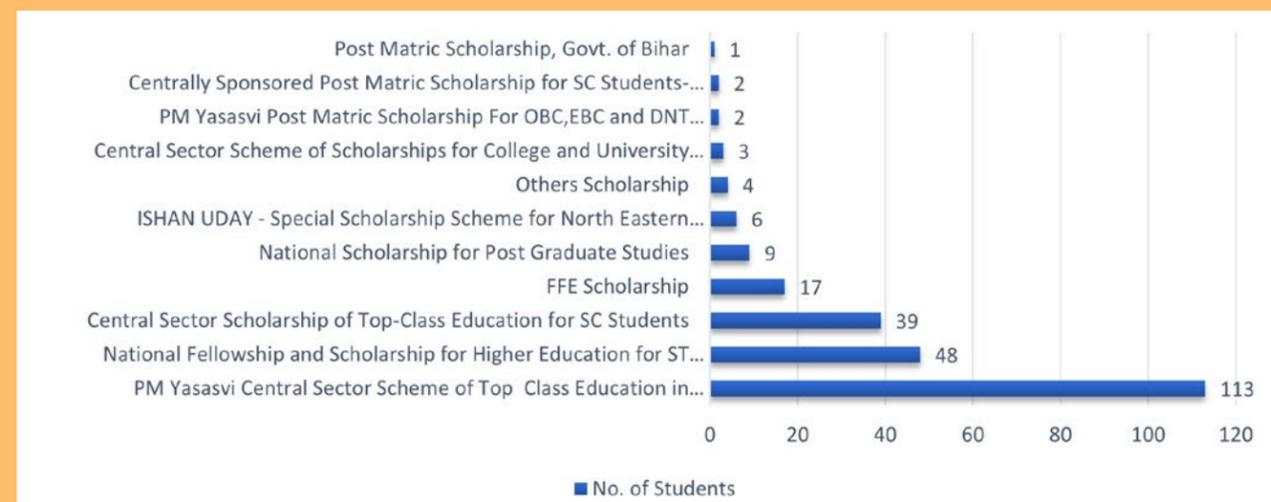
Scholarships:

The Scholarship Section plays a crucial role in this mission by actively educating students of NIT Sikkim about various scholarship schemes available on the National Scholarship Portal (NSP). This includes offering personalized guidance on the application process and ensuring that students are well-informed about the eligibility criteria and benefits of each scholarship. Through these initiatives, NIT Sikkim aims to create a more equitable educational environment that fosters academic excellence and supports the aspirations of all its students.

No. of Students recommended for Scholarship during the year 2024-25 through the Central Schemes, UGC Schemes, respective States schemes & through other sources are given below:

Sl. No.	Scholarship Schemes	No. of Students
1	PM Yasasvi Central Sector Scheme of Top-Class Education in College for OBC, EBC & DNT Students	113
2	National Fellowship and Scholarship for Higher Education for ST Students- Scholarship (Formally Top-Class Education for Schedule Tribe Students)	48
3	Central Sector Scholarship of Top-Class Education for SC Students	39
4	FFE Scholarship	17
5	National Scholarship for Post Graduate Studies	9
6	ISHAN UDAY - Special Scholarship Scheme for North Eastern Region	6
7	Others Scholarship	4
8	Central Sector Scheme of Scholarships for College and University Students	3
9	PM Yasasvi Post Matric Scholarship For OBC, EBC and DNT Students-Sikkim	2
10	Centrally Sponsored Post Matric Scholarship for SC Students-Sikkim	2
11	Post Matric Scholarship, Govt. of Bihar	1
Total		244

Types of scholarship availed by the students in AY 2024-25



Fellowships:

PG students admitted through CCMT with a valid GATE score receive a monthly stipend of ₹12,400. In total, 12 PG students have availed themselves of this financial assistance from the Institute.

Further, full-time Ph.D. scholars having GATE /NET/JRF/ SRF are also benefited with the Institute fellowship. There are a few scholars who are getting fellowships from sponsored project such as CSIR, SDP, etc. A total of 68 Ph.D scholars have availed the Institute fellowship of Rs. 40330 for JRF & Rs. 45780/- for SRF, including HRA per month. Apart from the fellowship Institute facilitated the scholar with high end laboratory facility, library, access to subscribed Journals and other software, ensuring a comprehensive research environment.

Student Credit Card Scheme:

Students from various states are also availing the benefits of student credit card scheme for remitting their education and living expenses. Some students from Bihar and West Bengal are availing this scheme. This scheme provides interest subsidized education loans to students to pursue higher course of study.

In addition to its financial aid programs, the Institute collaborates with banks from peripheral areas to counsel students on educational loans offered at subsidized rates. The Institute facilitates the preparation of required documents and maintains communication with the banks to guarantee timely loan disbursal.

Hostel Accommodation:

The National Institute of Technology Sikkim is currently functioning from a temporary campus at Ravangla, with limited in-campus hostel facilities. Despite space constraints, the Institute provides accommodation for undergraduate (B.Tech), postgraduate (M.Tech, M.Sc.), and Ph.D. girl scholars. Separate hostel blocks for girl students are available within the campus premises.

All hostel rooms are furnished with essential furniture including cots, study tables with chairs, and almirahs. In-campus hostels are equipped with 24x7 Wi-Fi connectivity and supported by basic amenities such as geysers, washing machines, televisions, gymnasiums, and provisions for indoor games, ensuring a comfortable living environment for students.

To manage the accommodation needs of the first-year undergraduate students, three buildings have been hired on a rental basis in Ravangla town. For the ease of commute, a dedicated bus service is arranged to facilitate the daily transportation of students residing in these off-campus hostels.



Mess Facilities:

NIT Sikkim operates three separate student mess facilities to cater to the dietary needs of its students. Two messes are situated within the campus—one each dedicated to in-campus girl and boy students. Additionally, a third mess functions at the off-campus hostel premises, serving students residing in rented accommodations in Ravangla town.

The overall management and monitoring of mess operations are overseen by the Student Mess Committee, working under the guidance of the Chief Warden and supporting Wardens. This committee ensures the efficient functioning of the messes and maintains the quality of food and services provided by the mess contractor.

Students' Medical Insurance:

Considering the unforeseen medical and safety risk likely to occur at any point of time, the Institute has

empanelled Medical Insurance providers with coverage of One Lakh each for.

- Cost of study in the event of the demise of the paying parent/guardian,
- Coverage for the family of the student in case of his/her death or incapacitation/ permanent disability.
- Hospitalization/ home treatment for Epidemic-Pandemic and Mental Disorder in the form of cashless or reimbursement.

Apart from the above, a dedicated medical unit with nurses is also available for the students to avail any medical facility within the campus. Visiting specialists and medical officers attend the medical unit every other day to provide care and consultation. Medical unit and Ambulance facility is available 24/7 for the students and employees of the Institute in case of any emergencies.



Infrastructure Development in the Temporary Campus

Infrastructure Development in the Temporary Campus

The National Institute of Technology Sikkim, functioning from its temporary campus in Ravangla, has made sustained efforts to enhance and expand its infrastructure to support academic excellence, research advancement, and student well-being. In the academic year 2024–2025, there were a number of significant projects and advancements within the fields of utilities, residence halls, and academic buildings.

1. Laying of paver block & Chequered tiles at the approach road of girls' hostel and the staircase towards the department blocks

To improve pedestrian accessibility, safety, and aesthetics, this work involves the laying of paver blocks on the approach road to the girls' hostel and chequered tiles on the staircase leading to department blocks and hostels. These enhancements are crucial for ensuring durable and visually appealing walkways in high-traffic areas of the temporary campus. This enhancement will significantly improve both the functionality and safety of movement areas in the temporary campus. Installing sturdy, non-slip surfaces at these crucial entry points improves the daily commute for both professors and students and is in line with campus development objectives. The photograph of the same is given in Fig.1

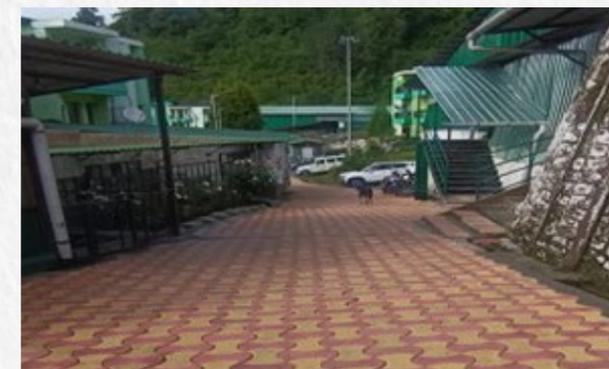


Fig.1

2. Construction of staired classrooms at Shed-III

This project intends to build two standardised classrooms on the grounds of Shed-III in order to support the growing enrolment while also improving the teaching infrastructure. The staired (stepped) design allows better visibility, acoustics, and space optimization for large classes. The construction of two additional staired classrooms at Shed-III is a critical infrastructural step toward expanding academic capacity in the temporary campus. It ensures better space utilization, enhances the teaching-learning experience, and supports the institution's growth in terms of enrolment and program delivery. Fig. 2 shows a representation of the same.



Fig.2

3. The replacement of GI Puff roof panel in the remaining classrooms/ labs of Shed- II

The objective of this task is to replace the damaged or deteriorated GCI sheet with GI PUFF roof panels in the Shed-II, which houses classrooms and laboratories. Following this replacement, the learning environment will be more welcoming and weatherproof owing to improvements in noise insulation, waterproofing, and broader structural integrity. Replacing the GI PUF roof panels in the classrooms and labs of Shed-II is essential for maintaining safety, improving learning conditions, and protecting sensitive equipment of labs. This work ensures long-term reliability and aligns with broader

campus infrastructure improvement goals. Fig. 3 shows the picture of the same.



Fig.3

4. Installing vinyl flooring on the newly fabricated Shed-III mezzanine floor

Laying of Vinyl Flooring at the Newly Fabricated Mezzanine Floor, to provide a durable, easy-to-clean, and aesthetically pleasing floor finish. This project entails installing vinyl flooring on the recently built mezzanine floor at Shed-III. The flooring will enhance the usability of the space, making it suitable for academic, office, or lab purposes. The new mezzanine floor in Shed-III will have vinyl flooring installed, significantly enhancing the area's functionality and appearance. It supports multi-purpose academic use, offering a quick, cost-effective, and long-lasting flooring solution. The photograph of the same is given in Fig.4



Fig.4

5. Furnishing of Newly Constructed Mezzanine Floor at Shed-III

As part of this project, the new mezzanine floor at Shed-III will be fully furnished so that it may be used for offices, labs or classes. The procurement and installation of basic furnishings, such as aluminium walls, storage units for windows and doors, electrical fittings, and other fixtures, are included in the furnishing. The furnishing of the mezzanine floor at Shed-III will transform the

space of the space into a fully equipped, functional unit. It supports a wide range of uses—academic, office, or lab-based—and aligns with the institution's commitment to providing modern, comfortable infrastructure for its students and staff. The photograph of the same is given in Fig.5



Fig.5

6. The protection work of an area surrounding the overhead water tank on the Campus.

Protection and Securing of the Area Surrounding the Overhead Water Tank to ensure safety, accessibility, and structural preservation. This project entails doing protective work around the campus's above water tank in order to guarantee accessibility, safety, and structural preservation. The aim of the work is to prevent unauthorized erosion and weeding, water stagnation, and potential hazards related to the tank's operation and surrounding infrastructure. In order to preserve the integrity of the water supply system, guarantee the security of campus residents and operators, and lower long-term maintenance expenses, the protection measures surrounding the overhead water tank are crucial. This proactive step will safeguard a critical asset and align with institutional safety and sanitation standards. The picture of the same is given in Fig.6



Fig.6

7. Construction of a Shed for the Central Laundry Facility

A Central Washing Machine Facility was built in a special shed to enhance convenience and hygiene for hostel members. The shed is located adjacent to the boys' and girls' hostels for easy access. It is equipped with electrical points, proper drainage, water inlet/outlet connections, and ventilation. Multiple high-capacity automatic washing machines have been installed for student. The structure is built with GI roofing and weather-resistant paint to withstand Ravangla's climatic conditions. To improve hostel living, this program encourages self-service laundry and lessens reliance on outside laundry services. Fig. 7 shows an image of the same.



Fig.7

8. Construction of Parking Space & Repair of Drains in Front of Multi-Purpose Hall (MPH)

To enhance accessibility and safety around the Multi-Purpose Hall (MPH), the following civil infrastructure works were carried out. A dedicated parking space was constructed in front of the MPH to accommodate faculty, staff, and visitor vehicles during events and regular campus operations. The area has been levelled, compacted, and finished with interlocking tiles for

durability. Drainage lines in front of the MPH were repaired and realigned to prevent waterlogging and surface runoff during heavy rainfall. Reinforced concrete drain covers and proper slope alignment were provided to ensure smooth discharge. The photograph of the same is given in Fig.8



Fig.8

Central Library

The Central Library plays a crucial role in the academic and research endeavors of the Institute. In 2012, it was founded as the Knowledge and Information Center (KIC), with the purpose of granting students and researchers access to scholarly information, research assistance, and study resources. Its primary objective is to provide efficient services to users, catering to their educational requirements by offering essential facilities.



Library Collection

The library at the Institute has experienced consistent growth since its inception, offering a diverse range of high-quality learning materials for the academic community. These resources are available in both traditional print and modern digital formats. Both contemporary digital and conventional print formats are offered for these resources. Textbooks, novels, encyclopaedias, dictionaries, reference books, journals, and magazines are all part of the collection.

In addition to the general textbook shelves, the central library has established new collection rooms exclusively for reference books. Furthermore, in collaboration with the Bureau of Indian Standards (BIS), the central library has created a designated area known as the BIS corner.



digital and conventional print formats are offered for these resources. Textbooks, novels, encyclopaedias, dictionaries,

In the financial year 2024-25, the central library has acquired 286 copies of new textbooks and reference materials for various departments of the institute.

The Institute has subscriptions to reputable publications such as IETE Journals, Elsevier Science Direct and IEEE ASPP to meet the requirements of students and



ONOS

In his address to the Nation from the ramparts of the Red Fort on August 15, 2022, the Prime Minister of India emphasized the significance of Research and Development during the Amrit Kaal. He issued a clarion call of "Jai Anusandhan" on this occasion.

The National Education Policy, 2020 (NEP 2020) has recognized research as an essential component for achieving exceptional education and development in our nation.

In alignment with the vision of transforming India into Atmanirbhar and Viksitbharat@2047, the Government of India has sanctioned the One Nation One Subscription scheme. This initiative aims to provide nationwide access to high-impact international scholarly research articles and journal publications for students, faculty,

researchers. Additionally, the central library collaborates with DELNET to provide access to e-books and other electronic resources. Users have the opportunity to explore a wide range of e-resources through DELNET. Furthermore, as part of our proactive approach, we are in the process of establishing an institutional digital repository.

and researchers affiliated with all Higher Education Institutions governed by both the central and state governments, as well as Research & Development Institutions under the central government.

The One Nation One Subscription (ONOS) is designed to secure national licenses for e-journal/database subscriptions from many leading journal publishers. A total of 30 major international journal publishers have been incorporated into ONOS. The participating institutions' researchers, faculty, and students will have access to all journals published by these publishers. The ONOS is scheduled to go into service on January 1, 2025. The first phase of ONOS has been approved for the calendar years 2025, 2026, and 2027. As a member institution, NIT Sikkim also has access to these journals through the ONOS platform.

Publishers	
AAAS- Science	1
ACM Digital Library	104
American Chemical Society Journals	14
American Institute of Aeronautics and Astronautics (AIAA) Journals	1
American Institute of Physics Journals	14
American Mathematical Society Journals	1
American Physical Society - ALL	11
American Society for Microbiology Journals	11
Annual Reviews Journals	11
ASCE Journals Online	14
ASME Journals Online	14
Bentham Science Journals	14
BMI Journals	14
Cambridge University Press Journals	104
Cold Spring Harbor Laboratory Press Journals	1
Elsevier ScienceDirect Journals	104

Emerald Publishing Journals	11
ICE Publishing Journals	14
IEEE Journals	104
IndianJournals.com	104
Institute of Physics Journals	14
Lippincott Williams & Wilkins (Wolters Kluwer) Journals	104
Oxford University Press Journals	104
Project Mase	104
Sage Publishing Journals	104
SPIE Digital Library	14
Springer Nature Journals	104
Taylor and Francis Journals	104
Thieme Journals	14
Wiley Journals	104
Indian Open Access Society Journals*	
CSIR-NISPR	14



Library Services

The Central Library is automated with KOHA library automation software, which is an open-source Integrated Library System (ILS). Patrons can easily search the availability of books and other resources of library using OPAC (Online Public Access Catalogue). Even student can check their own library account using their mobile or PC through OPAC. The circulation process is time efficient as the circulation of books is executed through the barcode scanning system. Books are well organized and arranged according to the DDC classification system, so it is easy to find out the book which is being looked for.

Despite space limitations, special arrangement is made for reading room for students at multi-purpose

hall. Proper room heating facilities are provided for convenience.

The library is well-equipped with photocopying, printing, and scanning facilities. Two big-sized Canon printers cum scanner with a computer are assigned for this regard.

Central Library is providing Book Bank services on limited titles throughout the year. Central Library also consists of books regarding competitive examinations like GATE, CAT and IIT-JEE etc. The library consists reference room separately. CAS, SDI, and referral services are provided here. Students can also access magazine and e newspapers from the library. Students are encouraged to access the NDL (National Digital Library) to access e-resources on their area of interest.



Research & Consultancy

The Institute has started construction of its permanent campus at Khamdong. Overcoming various challenges, such as operating at a temporary campus situated at a remote location, the Institute has built a reasonably good research infrastructure over the years, and attracted research scholars from all regions of the country. In the academic year 2024-25, twenty-one new research scholars have joined. In total, one hundred (100) research scholars, including twenty-five (25) women, are currently pursuing their PhDs in various departments of the Institute. Five (05) research scholars have graduated with PhD degrees in the year 2024-25. The number of research scholars graduating with PhD degrees is expected to grow exponentially over the next few years. The Institute is committed to exploring emerging research areas like Artificial Intelligence, Machine Learning, Semiconductor Devices, Electric Vehicles, Renewable Energy, Quantum Computation, Sustainable Chemistry, etc. Institute has procured necessary equipment for several such laboratories. New classroom-cum-research labs have been set up, having server class machines, GPUs and high-end computer terminals to promote cutting-edge research. The faculty members are encouraged to take up projects for the generation of knowledge and for innovation beneficial to the people of the country. The Institute actively participates in implementation of various manpower development and quality improvement of education projects. Faculty members regularly submit research proposals against calls from funding agencies like SERB, DBT, DST and ISRO. Several faculty members are currently executing research projects funded by external grant agencies. Despite severe scarcity of resources, the faculty members and scholars are pursuing good quality research work, which is evident from their efforts and publications in top-class journals and conferences. During the year 2024-25, the faculty members and research scholars of the Institute have published 106 research articles in prestigious journals, 68 papers in conference proceedings, 12 book chapters, and 01 patents. Several faculty members and research scholars have won best presentation prizes in national and international conferences. Various departments of the Institute have organized several workshops and conferences in the year 2024-25. The Institute needs

to improve its research facilities further to nurture and foster high-quality research. It is envisaged that with proper resources, the research credibility of the Institute will improve, and it will show its worth through global recognition.

The faculty members are also encouraged to take up consultancy projects. The consultancy projects aid the faculty members to enhance their knowledge and expertise of the subject apart from being a source of revenue for the Institute.

The National Institute of Technology Sikkim has consistently enhanced its network of academic, research, and industrial partnerships through strategic Memoranda of Understanding (MoUs) with prominent institutions and organizations. These collaborations play a pivotal role in advancing academic excellence, promoting interdisciplinary research, fostering industry engagement, and driving societal impact. During the financial year 2024-25, several new MoUs were signed, and many existing ones remained active, thereby enabling the Institute to participate in a wide range of collaborative initiatives. These initiatives span across domains such as teaching, research, internships, and student and faculty exchange.

In 2024-25, three significant MoUs were signed with reputed institutions. NIT Sikkim entered into partnerships with the Indian Institute of Public Administration (IIPA), New Delhi on 04th December 2024 for a tenure of five years; Sushil Kar College, West Bengal on 23rd November 2024 for three years; and Brainware University, West Bengal on 24th November 2024 for three years. These collaborations are expected to bolster academic linkages and research outcomes in the coming years.

The highlights of collaborative activities during the year reflect the breadth and depth of the Institute's external engagement. A notable thematic partnership was established with IIPA, focusing on climate change research. This initiative involves policy-relevant and scientifically rigorous work, demonstrating NIT Sikkim's growing role in addressing critical global challenges. Collaboration with the Bureau of Indian Standards (BIS) led to a series of lectures by BIS experts on standardization, the formation of six student chapters

Book Exhibition

The central library organized a two-day book exhibition event in collaboration with M/s Books and Equipment Distributors, Howrah (an empaneled vendor) during March 2025, aimed at all faculty members, students, and research scholars of NIT Sikkim. This exhibition featured a diverse array of books and educational resources that are advantageous for both academic and personal development. It provided an excellent opportunity for everyone to discover new titles, engage with publishers, and expand our knowledge and skills.



"Library is a heart of an institution" -Radhakrishnan, the Second President of India

across core departments, and deliberations on integrating Standardization and Indian Standards into the 1st year B.Tech. course on Health, Safety and Environment.

Further, NIT Sikkim's collaboration with iHUB DivyaSampark at IIT Roorkee enabled faculty members to receive funded research projects, fostering high-end technology development and contributing to capacity building. In partnership with TCG Lifesciences Pvt. Ltd., Kolkata, faculty members from the Department of Chemistry are supervising PhD scholars, thereby strengthening the industry-academia interface and encouraging applied research. Another impactful collaboration was with the Defence Geoinformatics Research Establishment (DGRE), DRDO, which resulted in the installation of a Doppler Weather Radar on campus, supporting both weather forecasting and research activities.

Student mobility and academic advancement continued to be a key focus area. Through existing MoUs with IIT Hyderabad and IIT Delhi, final year B.Tech students of NIT Sikkim have been offered the opportunity to complete their final two semesters at these premier institutions. Over the past two years, three students have availed this opportunity at IIT Hyderabad and have subsequently enrolled in its PhD program. In the academic year 2024-

25, three more students, Mr. Hansraj Singh Rawat and Mr. Dharmendra Prakash Prajapati from the Department of Electrical and Electronics Engineering, and Mr. Ayush Maity from the Department of Mechanical Engineering have successfully joined the IIT Hyderabad program. Additionally, a joint PhD supervision initiative is underway, wherein Dr. Anindya Biswas from the Department of Physics at NIT Sikkim and Dr. Alok Kumar Pan from IIT Hyderabad are jointly guiding Ms. Ritwija Roy in her doctoral research.

Looking ahead, IIT Guwahati has proposed a new program that will allow selected NIT Sikkim students to undertake internships and complete their 7th and 8th semesters at IITG. This initiative includes provisions for direct admission to IITG's PhD program, contingent on meeting eligibility criteria. IIT Guwahati has also expressed interest in deepening research collaborations with NIT Sikkim and other newly established CFTIs in the North-East.

The year 2024-25 has marked significant progress in building strategic and impactful alliances that align with the Institute's vision of academic innovation, industrial relevance, and societal development. These accomplishments reflect NIT Sikkim's growing national presence and its proactive approach to strengthening external engagement.



Medical Unit

Medical Facilities: The primary health care services are available at the Medical Unit of the Institute, which is situated within the campus, between the residential area and the academic zone. The Medical Unit operates regularly for 12 hours each day and remains functional around the clock in emergency cases. Visiting doctors attend the campus four times a week, offering outpatient consultation for a duration of three hours per visit.

The doctors are as follows:

S.No.	Name and Designation of the Doctors.
1	Dr. D. Deokata M.S. Principal Chief Consultant (ORTHO)
2	Dr. Pratik Rasaily, MOTC, DTC

The Medical Unit is staffed with three nurses who provide general medical services, including first aid, wound dressing, suturing, administration of prescribed medication, nebulisation, providing intravenous (IV) fluid administration on an outpatient basis, monitoring vital signs such as pulse rate, blood pressure, SpO2 levels, blood glucose levels, weight measurements and oxygen therapy. Students, employees, and other beneficiaries of the institute- totalling approximately 1,024 members- are entitled to avail free outpatient medical services at the Medical Unit. These services include medical consultation, medications, first aid, wound dressing, nebulisation, and intravenous fluid infusion.

Additionally, the Institute maintains an ambulance equipped with a first aid kit and an oxygen cylinder, available for use by students and employees in case of medical emergencies.



Pic: Ambulance facility at NIT Sikkim

Medical Insurance facilities are available to students for inpatient (IPD) treatment. Recently, a wider range of general medications has been added to the Medical Unit, which has also been equipped with most of the essential instruments required to carry out minor medical procedures.



Pic: Medical Store in Medical Unit

On September 21, 2024, the Medical Unit organised a health check-up for all the Safai Karmacharis of the Institute under the Safai Mitra Suraksha Shivar Initiative.



The camp included primary health screenings for conditions such as high blood pressure, elevated blood glucose levels, and other common illnesses.



However, given the Institute's location in a remote hill station, there is a pressing need to upgrade and strengthen the overall medical facilities to ensure the smooth and effective delivery of healthcare services to all beneficiaries.



Pic: Minor Procedures in the Medical Unit
Dr. Om Prakash (FI-HCS)



Right to Information (RTI) Cell

Introduction:



Dr. Ranjan Basak

Nodal Officer (NO)

Associate Professor, Department
of Mechanical Engineering

Email: basakranjan@nitsikkim.ac.in



Dr. Dhananjay Tripathi

Central Public Information

Officer (CPIO)

Associate Professor, Department of
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Dr. Achintesh Narayan Biswas

First Appellate Authority

(FAA) for RTI

Associate Professor, Department
of Chemistry

Email: dadmin@nitsikkim.ac.in

In accordance with the Suo Moto Disclosure of RTI Act 2005, the Institute is required to provide as much information to the public through various means of communication so that the public has minimal need to use the Act to obtain information.) with proactive disclosure is readily available to the general public.

Section 4(1)(b) of the Act, in particular, requires every public authority to publish the following sixteen categories of information and is required to get its proactive disclosure package audited by a third party every year:

- (i) the particulars of its organization, functions, and duties;
- (ii) the powers and duties of its officers and employees;
- (iii) the procedure followed in the decision-making process, including channels of supervision and accountability;
- (iv) the norms set by it for the discharge of its functions;
- (v) the rules, regulations, instructions, manuals, and records held by it or under its control or used by its employees for discharging its functions;
- (vi) a statement of the categories of documents that are held by it or under its control;

(vii) the particulars of any arrangement that exists for consultation with, or representation by, the members of the public in relation to the formulation of its policy or implementation thereof;

(viii) a statement of the boards, councils, committees and other bodies consisting of two or more persons constituted as its part or for the purpose of its advice, and as to whether meetings of those boards, councils, committees and other bodies are open to the public, or the minutes of such meetings are accessible for the public;

(ix) directory of its officers and employees;

(x) the monthly remuneration received by each of its officers and employees, including the system of compensation as provided in its regulations;

(xi) the budget allocated to each of its agencies, indicating the particulars of all plans, proposed expenditures and reports on disbursements made;

(xii) the manner of execution of subsidy programmes, including the amounts allocated and the details of beneficiaries of such programmes;

(xiii) particulars of recipients of concessions, permits or authorisations granted by it;

- (xiv) details in respect of the information, available to or held by it, reduced in an electronic form;
- (xv) the particulars of facilities available to citizens for obtaining information, including the working hours of a library or reading room, if maintained for public use;
- (xvi) the names, designations and other particulars of the Public Information Officers.

- iii. Transfer Policy and Transfer Orders
- iv. RTI Applications
- v. CAG & PAC paras
- vi. Citizens' Charter
- vii. Discretionary and Non-discretionary grants
- viii. Foreign Tours of PM/Ministers and senior officers

Besides the categories of information enumerated above, the Government has issued guidelines stating that the public authorities may publish the following categories of information:

In compliance with the above, we have been proactively disclosing all relevant information and having it audited annually.

- i. Information relating to procurement
- ii. Public-Private Partnerships

Self-appraisal Report for Year (2024-25)

Auditor Agency: Debdipta Basu (Indian Rubber Materials Research Institute, Autonomous body under The Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce & Industry, Govt. of India, New Delhi)

Ministry Name: Ministry of Education

Department Name: Department of Higher Education

Public Authority Name: National Institute of Technology, Sikkim

Sr. No	Details of disclosure	Category	Marks	Obtained Mark	Remarks	Auditor Category	Auditor Marks	Auditor Remarks/URL
1	Organisation and Function							
1.1	Particulars of its organisation, functions and duties [Section 4(1)(b)(i)]							
1.1.1	Name and address of the Organization	Fully Met	1.28	1.28	https://nitsikkim.ac.in/footer/contact.php	Fully Met	1.28	URLs cited by the Public Authority is correct. Category "Fully Met"
1.1.2	Head of the organization	Fully Met	1.28	1.28	https://nitsikkim.ac.in/institute/administration/director.php	Fully Met	1.28	URLs cited by the Public Authority is correct. Category "Fully Met"
1.1.3	Vision, Mission and Key objectives	Fully Met	1.28	1.28	https://nitsikkim.ac.in/institute/about/visionandmission.php	Fully Met	1.28	URLs cited by the Public Authority is correct. Category "Fully Met"
1.1.4	Function and duties	Fully Met	1.28	1.28	https://nitsikkim.ac.in/institute/administration/organizationStructure.php	Fully Met	1.28	URLs cited by the Public Authority is correct. Category "Fully Met"
1.1.5	Organization Chart	Fully Met	1.28	1.28	https://nitsikkim.ac.in/institute/administration/organizationStructure.php	Fully Met	1.28	URLs cited by the Public Authority is correct. Category "Fully Met"
1.1.6	Any other details-the genesis, inception, formation of the department and the HoDs from time to time as well as the committees/ Commissions constituted from time to time have been dealt	Fully Met	1.28	1.28	https://nitsikkim.ac.in/documents/rti/Form at%20for%20Transperency%20Audit%2024-25_English	Fully Met	1.28	URLs cited by the Public Authority is correct. Category "Fully Met"

Sr. No	Details of disclosure	Category	Marks	Obtained Mark	Remarks	Auditor Category	Auditor Marks	Auditor Remarks/URL
1.2	Power and duties of its officers and employees [Section 4 (1) (b)(ii)]							
1.2.1	Powers and duties of officers (administrative, financial and judicial)	Fully Met	1.92	1.92	https://nitsikkim.ac.in/documents/rti/Form at%20for%20Transperency%20Audit%2024-25_English%2015.5.25.pdf	Fully Met	1.92	URLs cited by the Public Authority is correct. Category "Fully Met"
1.2.2	Power and duties of other employees	Fully Met	1.92	1.92	https://nitsikkim.ac.in/documents/rti/Form at%20for%20Transperency%20Audit%2024-25_English%2015.5.25.pdf	Not Met	0	Category Not Met
1.2.3	Rules/ orders under which powers and duty derived and exercised	Fully Met	1.92	1.92	https://nitsikkim.ac.in/documents/rti/Form at%20for%20Transperency%20Audit%2024-25_English%2015.5.25.pdf	Fully Met	1.92	URLs cited by the Public Authority is correct. Category "Fully Met"
1.2.4	Work allocation	Fully Met	1.92	1.92	https://nitsikkim.ac.in/documents/rti/Form at%20for%20Transperency%20Audit%2024-25_English%2015.5.25.pdf	Partially Met	0.96	URLs cited by the Public Authority is correct. Category "Partially Met"
1.3.1	Process of decision making - Identify key decision-making points	Fully Met	1.54	1.54	https://nitsikkim.ac.in/documents/rti/Form at%20for%20Transperency%20Audit%2024-25_English%2015.5.25.pdf	Fully Met	1.54	URLs cited by the Public Authority is correct. Category "Fully Met"
1.3.2	Final decision-making authority	Fully Met	1.54	1.54	https://nitsikkim.ac.in/documents/rti/Form at%20for%20Transperency%20Audit%2024-25_English%2015.5.25.pdf	Fully Met	1.54	URLs cited by the Public Authority is correct. Category "Fully Met"
1.3.3	Related provisions, acts, rules etc.	Fully Met	1.54	1.54	https://nitsikkim.ac.in/institute/about/information.php	Fully Met	1.54	URLs cited by the Public Authority is correct. Category "Fully Met"
1.3.4	Time limit for taking a decision, if any	Fully Met	1.54	1.54	https://nitsikkim.ac.in/footer/rti.php	Fully Met	1.54	URLs cited by the Public Authority is correct. Category "Fully Met"
1.3.5	Channels of supervision and accountability	Fully Met	1.54	1.54	https://nitsikkim.ac.in/documents/rti/Form at%20for%20Transperency%20Audit%2024-25_English%2015.5.25.pdf	Fully Met	1.54	URLs cited by the Public Authority is correct. Category "Fully Met"
1.4	Norms for discharge of functions [Section 4(1)(b)(iv)]							
1.4.1	Nature of functions/ services offered	Fully Met	1.54	1.54	https://nitsikkim.ac.in/documents/rti/Form at%20for%20Transperency%20Audit%2024-25_English%2015.5.25.pdf	Fully Met	1.54	URLs cited by the Public Authority is correct. Category "Fully Met"
1.4.2	Norms/ standards for functions/ service delivery	Fully Met	1.54	1.54	https://nitsikkim.ac.in/documents/rti/Form at%20for%20Transperency%20Audit%2024-25_English%2015.5.25.pdf	Fully Met	1.54	URLs cited by the Public Authority is correct. Category "Fully Met"
1.4.3	Process by which these services can be accessed	Fully Met	1.54	1.54	https://nitsikkim.ac.in/documents/rti/Form at%20for%20Transperency%20Audit%2024-25_English%2015.5.25.pdf	Fully Met	1.54	URLs cited by the Public Authority is correct. Category "Fully Met"
1.4.4	Time-limit for achieving the targets	Fully Met	1.54	1.54	https://nitsikkim.ac.in/documents/rti/Form at%20for%20Transperency%20Audit%2024-25_English%2015.5.25.pdf	Not Met	0	Category Not Met

Sr. No	Details of disclosure	Category	Marks	Obtained Mark	Remarks	Auditor Category	Auditor Marks	Auditor Remarks/URL
1.4.5	Process of redressal of grievances	Fully Met	1.54	1.54	https://nitsikki m.ac.in/docu ments/rti/Form at%20for%20 Transperency%20 Audit%20 24-25_English %2015.5.25.pdf	Fully Met	1.54	URLs cited by the Public Authority is correct. Category "Fully Met"
1.5	Acts, rules, regulations, instructions, manuals and records for discharging functions [Section 4(1)(b)(v)]							
1.5.1	Title and nature of the record/ manual / instruction.	Fully Met	2.6	2.60	https://nitsikki m.ac.in/docu ments/rti/Form at%20for%20 Transperency%20 Audit%20 24-25_English %2015.5.25.pdf	Fully Met	2.60	URLs cited by the Public Authority is correct. Category "Fully Met"
1.5.2	List of Acts, rules, regulations, instructions, manuals and records.	Fully Met	2.6	2.60	https://nitsikki m.ac.in/docu ments/rti/Form Transperency %20 Audit%20 24-25_English %2015.5.25.pdf	Fully Met	2.60	URLs cited by the Public Authority is correct. Category "Fully Met"
1.5.3	Acts/ Rules/ manuals, etc.	Fully Met	2.6	2.60	https://nitsikki m.ac.in/docu ments/rti/Form at%20for%20 Transperency %20 Audit%20 24-25_English %2015.5.25.pdf	Fully Met	2.60	URLs cited by the Public Authority is correct. Category "Fully Met"
1.6	Categories of documents held by the authority under its control [Section 4(1)(b) (vi)]							
1.6.1	Categories of documents	Fully Met	3.85	3.85	https://nitsikkim. ac.in/docu ments/rti/Form at%20for%20 Transperency%20 Audit%20 24-25_English %2015.5.25.pdf	Partially Met	1.93	URLs cited by the Public Authority is correct. Category "Partially Met"
1.6.2	Custodian of documents/categories	Fully Met	3.85	3.85	https://nitsikkim.ac.in/docu ments/rti/Form at%20for%20 Transperency %20 Audit%20 24-25_English %2015.5.25.p df	Fully Met	3.85	URLs cited by the Public Authority is correct. Category "Fully Met"
1.7	Boards, Councils, Committees and other Bodies constituted as part of the Public Authority [Section 4(1)(b)(viii)]							
1.7.1	Name of Boards, Council, Committee etc.	Fully Met	0.96	0.96	https://nitsikki m.ac.in/institut e/administrati on/ boardOfGo vernors.php	Fully Met	0.96	URLs cited by the Public Authority is correct. Category "Fully Met"
1.7.2	Composition	Fully Met	0.96	0.96	https://nitsikki m.ac.in/institut e/about/inform ation.php	Fully Met	0.96	URLs cited by the Public Authority is correct. Category "Fully Met"
1.7.3	Dates from which constituted	Fully Met	0.96	0.96	https://nitsikki m.ac.in/docu ments/rti/Form at%20for%20 Transperency %20 Audit%20 24-25_English %2015.5.25.pdf	Fully Met	0.96	URLs cited by the Public Authority is correct. Category "Fully Met"
1.7.4	Term/ Tenure	Fully Met	0.96	0.96	https://nitsikki m.ac.in/docu ments/rti/Form at%20for%20 Transperency %20 Audit%20 24-25_English %2015.5.25.pdf	Fully Met	0.96	URLs cited by the Public Authority is correct. Category "Fully Met"
1.7.5	Powers and functions	Fully Met	0.96	0.96	https://nitsikki m.ac.in/institut e/about/inform ation.php	Fully Met	0.96	URLs cited by the Public Authority is correct. Category "Fully Met"
1.7.6	Whether their meetings are open to the public?	Fully Met	0.96	0.96	https://nitsikki m.ac.in/institut e/administrati on/ mom.php	Fully Met	0.96	URLs cited by the Public Authority is correct. Category "Fully Met"
1.7.7	Whether the minutes of the meetings are open to the public?	Fully Met	0.96	0.96	https://nitsikki m.ac.in/institut e/administrati on/ mom.php	Fully Met	0.96	URLs cited by the Public Authority is correct. Category "Fully Met"

Sr. No	Details of disclosure	Category	Marks	Obtained Mark	Remarks	Auditor Category	Auditor Marks	Auditor Remarks/URL
1.7.8	Place where the minutes if open to the public are available?	Fully Met	0.96	0.96	https://nitsikki m.ac.in/institut e/administrati on/ mom.php	Fully Met	0.96	URLs cited by the Public Authority is correct. Category "Fully Met"
1.8	Directory of officers and employees[Section 4(1) (b) (ix)]							
1.8.1	Name and designation	Fully Met	3.85	3.85	https://nitsikki m.ac.in/institut e/administrati on/ people.php m.ac.in/institut e/administrati on/people. php	Fully Met	3.85	URLs cited by the Public Authority is correct. Category "Fully Met"
1.8.2	Telephone , fax and email ID	Fully Met	3.85	3.85	https://nitsikki m.ac.in/institut e/administrati on/ people.php	Fully Met	3.85	URLs cited by the Public Authority is correct. Category "Fully Met"
1.9	Monthly Remuneration received by officers & employees including system of compensation[Section 4(1) (b) (x)]							
1.9.1	List of employees with Gross monthly remuneration	Fully Met	3.85	3.85	https://nitsikki m.ac.in/docu ments/rti/Form at%20for%20 Transperency %20 Audit%20 24-25_English %2015.5.25.pdf	Partially Met	1.93	URLs cited by the Public Authority is correct. Category "Partially Met"
1.9.2	System of compensation as provided in its regulations	Fully Met	3.85	3.85	https://nitsikki m.ac.in/docu ments/rti/Form at%20for%20 Transperency %20 Audit%20 24-25_English %2015.5.25.pdf	Fully Met	3.85	URLs cited by the Public Authority is correct. Category "Fully Met"
1.10	Name, designation and other particulars of Public Information Officers[Section 4(1) (b) (xvi)]							
1.10.1	Name and designation of the Public Information Officers (PIOs), Assistant Public Information Officer(s) & Appellate Authority	Fully Met	3.85	3.85	https://nitsikki m.ac.in/footer/ rti.php m.ac.in/footer/ rti.php	Fully Met	3.85	URLs cited by the Public Authority is correct. Category "Fully Met"
1.10.2	Address, telephone numbers and email ID of each designated official.	Fully Met	3.85	3.85	https://nitsikki	Fully Met	3.85	URLs cited by the Public Authority is correct. Category "Fully Met"
1.11	Number of employees against whom disciplinary action has been proposed/ taken (F No. 1/6/2011- IR dt. 15.4.2013)							
1.11.1	Number of employees against whom disciplinary action has been (i) Pending for minor penalty or major penalty proceedings	Fully Met	3.85	3.85	https://nitsikki m.ac.in/docu ments/rti/Form at%20for%20 Transperency %20 Audit%20 24-25_English %2015.5.25.pdf	Fully Met	3.85	URLs cited by the Public Authority is correct. Category "Fully Met"
1.11.2	(ii) Finalised for minor penalty or major penalty proceedings	Fully Met	3.85	3.85	https://nitsikki m.ac.in/docu ments/rti/Form at%20for%20 Transperency %20 Audit%20 24-25_English %2015.5.25.pdf	Fully Met	3.85	URLs cited by the Public Authority is correct. Category "Fully Met"
1.12	Programmes to advance understanding of RTI (Section 26)							
1.12.1	Educational programmes	Fully Met	1.92	1.92	https://nitsikki m.ac.in/docu ments/rti/Form at%20for%20 Transperency %20 Audit%20 24-25_English %2015.5.25.pdf	Not Met	0	Category Not Met
1.12.2	Efforts to encourage public authority to participate in these programmes	Fully Met	1.92	1.92	https://nitsikki m.ac.in/docu ments/rti/Form at%20for%20 Transperency %20 Audit%20 24-25_English %2015.5.25.pdf	Not Met	0	Category Not Met
1.12.3	Training of CPIO/APIO	Not Met	1.92	0	empty	Not Met	0	Category Not Met

Sr. No	Details of disclosure	Category	Marks	Obtained Mark	Remarks	Auditor Category	Auditor Marks	Auditor Remarks/ URL
1.12.4	Update & publish guidelines on RTI by the Public Authorities concerned	Fully Met	1.92	1.92	https://nitsikki m.ac.in/footer/ rti.php	Partially Met	0.96	URLs cited by the Public Authority is correct. Category "Partially Met"
1.13 Transfer policy and transfer orders[F No. 1/6/2011- IR dt. 15.4.2013]								
1.13.1	Transfer policy and transfer orders[F No. 1/6/2011- IR Dt. 15.4.2013]	Fully Met	7.69	7.69	https://nitsikki m.ac.in/footer/ rti.php	Partially Met	3.85	URLs cited by the Public Authority is correct. Category "Partially Met"
Total			100	98			100	81
2 Budget and Programme								
2.1 Budget allocated to each agency including all plans, proposed expenditure and reports on disbursements made etc.[Section 4(1)(b)(xi)]								
2.1.1	Total Budget for the public authority	Fully Met	10	10.00	https://nitsikki m.ac.in/institut e/about/inform ation.php	Partially Met	5.00	URLs cited by the Public Authority is correct. Category "Partially Met"
2.1.2	Budget for each agency and plan & programmes	Fully Met	10	10.00	https://nitsikki m.ac.in/institut e/about/inform ation.php	Partially Met	5.00	URLs cited by the Public Authority is correct. Category "Partially Met"
2.1.3	Proposed expenditures	Fully Met	10	10.00	https://nitsikki m.ac.in/institut e/about/inform ation.php	Partially Met	5.00	URLs cited by the Public Authority is correct. Category "Partially Met"
2.1.4	Revised budget for each agency, if any	Fully Met	10	10.00	https://nitsikki m.ac.in/docu ments/rti/Form at%20 for%20 Transperency %20 Audit%20 24-25_English %2015.5.25.pdf	Partially Met	5.00	URLs cited by the Public Authority is correct. Category "Partially Met"
2.1.5	Report on disbursements made and place where the related reports are available	Fully Met	10	10.00	https://nitsikki m.ac.in/docu ments/rti/Form at%20 for%20 Transperency %20 Audit%20 24-25_English %2015.5.25.pdf	Partially Met	5.00	URLs cited by the Public Authority is correct. Category "Partially Met"
2.1.6	Information related to procurements- (a) Notice/tender enquires, and corrigenda if any thereon, (b) Details of the bids awarded comprising the names of the suppliers of goods/ services being procured, (c) The works contracts concluded – in any such combination of the above-and, (d) The rate/ rates and the total amount at which such procurement or works contract is to be executed.	Fully Met	10	10.00	https://nitsikki m.ac.in/institut e/tenders.php	Fully Met	10.00	URLs cited by the Public Authority is correct. Category "Fully Met"
2.2 Foreign and domestic tours(F.No. 1/8/2012- IR dt. 11.9.2012)								
2.2.1	Budget	Fully Met	20	20.00	https://nitsikki m.ac.in/docu ments/rti/Form at%20 for%20 Transperency %20 Audit%20 24-25_English %2015.5.25.p df	Fully Met	20.00	URLs cited by the Public Authority is correct. Category "Fully Met"

Sr. No	Details of disclosure	Category	Marks	Obtained Mark	Remarks	Auditor Category	Auditor Marks	Auditor Remarks/ URL
2.2.2	Foreign and domestic tours by ministries and officials of the rank of Joint Secretary to the Government and above, as well as the Heads of the Department.- (a) Places visited, (b) The period of visit, (c) The number of members in the official delegation, (d) Expenditure on the visit	Not Applicable	0	0	empty	Not Met	0	Category Not Met
2.3 Manner of execution of subsidy programme [Section 4(i)(b)(xii)]								
2.3.1	Name of the programme of activity	Not Applicable	0	0	empty	Not Applicable	0	Category Not Applicable
2.3.2	Objective of the programme	Not Applicable	0	0	empty	Not Applicable	0	Category Not Applicable
2.3.3	Procedure to avail benefits	Not Applicable	0	0	empty	Not Applicable	0	Category Not Applicable
2.3.4	Duration of the programme/ scheme	Not Applicable	0	0	empty	Not Applicable	0	Category Not Applicable
2.3.5	Physical and financial targets of the programme	Not Applicable	0	0	empty	Not Applicable	0	Category Not Applicable
2.3.6	Nature/ scale of subsidy /amount allotted	Not Applicable	0	0	empty	Not Applicable	0	Category Not Applicable
2.3.7	Eligibility criteria for grant of subsidy	Not Applicable	0	0	empty	Not Applicable	0	Category Not Applicable
2.3.8	Details of beneficiaries of subsidy programme (number, profile etc)	Not Applicable	0	0	empty	Not Applicable	0	Category Not Applicable
2.4 Discretionary and non-discretionary grants [F. No. 1/6/2011-IR dt. 15.04.2013]								
2.4.1	Discretionary and non-discretionary grants/ allocations to State Govt./ NGOs/ other institutions	Not Applicable	0	0	empty	Not Applicable	0	Category Not Applicable
2.4.2	Annual accounts of all legal entities who are provided grants by public authorities	Not Applicable	0	0	empty	Not Applicable	0	Category Not Applicable
2.5 Particulars of recipients of concessions, permits of authorizations granted by the public authority[Section 4(1) (b) (xiii)]								
2.5.1	Concessions, permits or authorizations granted by public authority	Not Applicable	0	0	empty	Not Applicable	0	Category Not Applicable
2.5.2	For each concessions, permit or authorization granted - (a) Eligibility criteria, (b) Procedure for getting the concession/ grant and/ or permits of authorizations, (c) Name and address of the recipients given concessions/ permits or authorizations, (d) Date of award of concessions/ permits of authorizations	Not Applicable	0	0	empty	Not Applicable	0	Category Not Applicable

Sr. No	Details of disclosure	Category	Marks	Obtained Mark	Remarks	Auditor Category	Auditor Marks	Auditor Remarks/ URL
2.6	CAG & PAC paras [F No. 1/6/2011- IR dt. 15.4.2013]							
2.6.1	CAG and PAC paras and the action taken reports (ATRs) after these have been laid on the table of both houses of the Parliament.	Fully Met	50	50.00	https://nitsikki.m.ac.in/institut e/about/information.php	Fully Met	50.00	URLs cited by the Public Authority is correct. Category "Fully Met"
Total			130	130		150	105	
3	Publicity and Public interface							
3.1	Particulars for any arrangement for consultation with or representation by the members of the public in relation to the formulation of policy or implementation thereof [Section 4(1)(b)(vii)] [F No 1/6/2011-IR dt. 15.04.2013]							
3.1.1	Relevant Acts, Rules, Forms and other documents which are normally accessed by citizens	Fully Met	12.5	12.50	https://nitsikki.m.ac.in/documents/rti/Form at%20for%20Transperency %20Audit%20 24-25_English %2015.5.25.pdf	Not Applicable	0	Category Not Applicable
3.1.2	a) Arrangements for consultation with or representation by members of the public in policy formulation/ policy implementation, (b) Day & time allotted for visitors, (c) Contact details of Information & Facilitation Counter (IFC) to provide publications frequently sought by RTI applicants	Fully Met	12.5	12.50	https://nitsikki.m.ac.in/documents/rti/Form at%20for%20 Transperency %20 Audit%20 24-25_English %2015.5.25.pdf	Not Applicable	0	Category Not Applicable
3.1.3	Public- Private Partnerships (PPP)- Details of Special Purpose Vehicle (SPV), if any	Not Applicable	0	0	empty	Not Applicable	0	Category Not Applicable
3.1.4	Public- Private Partnerships (PPP)- Detailed project reports (DPRs)	Not Applicable	0	0	empty	Not Applicable	0	Category Not Applicable
3.1.5	Public- Private Partnerships (PPP)- Concession agreements.	Not Applicable	0	0	empty	Not Applicable	0	Category Not Applicable
3.1.6	Public- Private Partnerships (PPP)- Operation and maintenance manuals	Not Applicable	0	0	empty	Not Applicable	0	Category Not Applicable
3.1.7	Public- Private Partnerships (PPP) - Other documents generated as part of the implementation of the PPP	Not Applicable	0	0	empty	Not Applicable	0	Category Not Applicable
3.1.8	Public- Private Partnerships (PPP) - Information relating to fees, tolls, or the other kinds of revenues that may be collected under authorisation from the government	Not Applicable	0	0	empty	Not Applicable	0	Category Not Applicable

Sr. No	Details of disclosure	Category	Marks	Obtained Mark	Remarks	Auditor Category	Auditor Marks	Auditor Remarks/ URL
3.1.9	Public- Private Partnerships (PPP) -Information relating to outputs and outcomes	Not Applicable	0	0	empty	Not Applicable	0	Category Not Applicable
3.1.10	Public- Private Partnerships (PPP) - The process of the selection of the private sector party (concessionaire etc.)	Not Applicable	0	0	empty	Not Applicable	0	Category Not Applicable
3.1.11	Public- Private Partnerships (PPP) - All payment made under the PPP project	Not Applicable	0	0	empty	Not Applicable	0	Category Not Applicable
3.2	Are the details of policies / decisions, which affect public, informed to them[Section 4(1) (c)]							
3.2.1	Publish all relevant facts while formulating important policies or announcing decisions which affect public to make the process more interactive - Policy decisions/ legislations taken in the previous one year	Fully Met	16.67	16.67	https://nitsikki.m.ac.in/institut e/administrati on/mom.php	Not Applicable	0	Category Not Applicable
3.2.2	Publish all relevant facts while formulating important policies or announcing decisions which affect public to make the process more interactive - Outline the Public consultation process	Fully Met	16.67	16.67	https://nitsikki.m.ac.in/documents/rti/Form at%20for%20 Transperency %20 Audit%20 24-25_English %2015.5.25.p df	Not Applicable	0	Category Not Applicable
3.2.3	Publish all relevant facts while formulating important policies or announcing decisions which affect public to make the process more interactive- Outline the arrangement for consultation before formulation of policy	Fully Met	16.67	16.67	https://nitsikki.m.ac.in/documents/rti/Form at%20for%20 Transperency %20 Audit%20 24-25_Englis %20 15.5.25.pdf	Not Applicable	0	Category Not Applicable
3.3	Dissemination of information widely and in such form and manner which is easily accessible to the public [Section 4(3)]							
3.3.1	Use of the most effective means of communication - Internet (website)	Fully Met	50	50.00	https://nitsikki.m.ac.in/	Fully Met	50.00	URLs cited by the Public Authority is correct. Category "Fully Met"
3.4	Form of accessibility of information manual/ handbook[Section 4(1)(b)]							
3.4.1	Information manual/ handbook available in electronic format	Fully Met	25	25.00	https://nitsikki.m.ac.in/documents/rti/Form at%20for%20 Transperency %20 Audit%20 24-25_English %2015.5.25.pdf	Fully Met	25.00	URLs cited by the Public Authority is correct. Category "Fully Met"

Sr. No	Details of disclosure	Category	Marks	Obtained Mark	Remarks	Auditor Category	Auditor Marks	Auditor Remarks/ URL
3.4.2	Information manual/ handbook available in printed format	Fully Met	25	25.00	https://nitsikki m.ac.in/documents/rti/Form at%20for%20Transperency %20Audit%20 24-25_English %2015.5.25.p df	Fully Met	25.00	URLs cited by the Public Authority is correct. Category "Fully Met"
3.5 Whether information manual/ handbook available free of cost or not [Section 4(1)(b)]								
3.5.1	List of materials available Free of cost	Fully Met	25	25.00	https://nitsikki m.ac.in/documents/rti/Form at%20for%20Transperency %20Audit%20 24-25_English %2015.5.25.pdf	Fully Met	25.00	URLs cited by the Public Authority is correct. Category "Fully Met"
3.5.2	List of materials available at a reasonable cost of the medium	Fully Met	25	25.00	https://nitsikki m.ac.in/documents/rti/Form at%20for%20Transperency %20Audit%20 24-25_English %2015.5.25.pdf	Fully Met	25.00	URLs cited by the Public Authority is correct. Category "Fully Met"
4 E-Governance			225	225		150	150	
4.1 Language in which Information Manual/Handbook Available [F No. 1/6/2011-IR dt. 15.4.2013]								
4.1.1	Hindi	Fully Met	9.52	9.52	https://nitsikki m.ac.in/documents/rti/Form at%20for%20Transperency %20Audit%20 24-25_English %2015.5.25.pdf	Fully Met	9.52	URLs cited by the Public Authority is correct. Category "Fully Met"
4.1.2	English	Fully Met	9.52	9.52	https://nitsikki m.ac.in/documents/rti/Form at%20for%20Transperency %20Audit%20 24-25_English %2015.5.25.pdf	Fully Met	9.52	URLs cited by the Public Authority is correct. Category "Fully Met"
4.1.3	Vernacular/ Local Language	Fully Met	9.52	9.52	https://nitsikki m.ac.in/documents/rti/Form at%20for%20Transperency %20Audit%20 24-25_English%2015.5.25.pdf	Fully Met	9.52	URLs cited by the Public Authority is correct. Category "Fully Met"
4.2 When was the information Manual/Handbook last updated? [F No. 1/6/2011-IR dt 15.4.2013]								
4.2.1	Last date of Annual Updation	Fully Met	28.57	28.57	https://nitsikki m.ac.in/institut e/about/inform ation.php	Fully Met	28.57	URLs cited by the Public Authority is correct. Category "Fully Met"
4.3 Information available in electronic form[Section 4(1)(b)(xiv)]								
4.3.1	Details of information available in electronic form	Fully Met	9.52	9.52	https://nitsikki m.ac.in/	Fully Met	9.52	URLs cited by the Public Authority is correct. Category "Fully Met"
4.3.2	Name/ title of the document/record/ other information	Fully Met	9.52	9.52	https://nitsikki m.ac.in/	Fully Met	9.52	URLs cited by the Public Authority is correct. Category "Fully Met"
4.3.3	Location where available	Fully Met	9.52	9.52	https://nitsikki m.ac.in/	Fully Met	9.52	URLs cited by the Public Authority is correct. Category "Fully Met"
4.4 Particulars of facilities available to citizen for obtaining information [Section 4(1)(b)(xv)]								
4.4.1	Name & location of the facility	Fully Met	7.14	7.14	https://nitsikki m.ac.in/	Fully Met	7.14	URLs cited by the Public Authority is correct. Category "Fully Met"
4.4.2	Details of information made available	Fully Met	7.14	7.14	https://nitsikki m.ac.in/	Fully Met	7.14	URLs cited by the Public Authority is correct. Category "Fully Met"

Sr. No	Details of disclosure	Category	Marks	Obtained Mark	Remarks	Auditor Category	Auditor Marks	Auditor Remarks/ URL
4.4.3	Working hours of the facility	Fully Met	7.14	7.14	https://nitsikki m.ac.in/documents/rti/Form at%20for%20Transperency %20Audit%20 24-25_English %2015.5.25.pdf	Fully Met	7.14	URLs cited by the Public Authority is correct. Category "Fully Met"
4.4.4	Contact person & contact details (Phone, fax, email)	Fully Met	7.14	7.14	https://nitsikki m.ac.in/footer/ rti.php	Fully Met	7.14	URLs cited by the Public Authority is correct. Category "Fully Met"
4.5 Such other information as may be prescribed under Section 4(i) (b)(xvii)								
4.5.1	Grievance redressal mechanism	Fully Met	4.1	4.10	https://nitsikki m.ac.in/documents/rti/Form at%20for%20Transperency %20Audit%20 24-25_English %2015.5.25.pdf	Fully Met	4.10	URLs cited by the Public Authority is correct. Category "Fully Met"
4.5.2	List of completed schemes/ projects/ Programmes	Fully Met	4.1	4.10	https://nitsikki m.ac.in/resear ches/projects. php	Fully Met	4.10	URLs cited by the Public Authority is correct. Category "Fully Met"
4.5.3	List of schemes/ projects/ Programme underway	Fully Met	4.1	4.10	https://nitsikki m.ac.in/documents/rti/Form at%20for%20Transperency %20Audit%20 24-25_English %2015.5.25.p df	Fully Met	4.10	URLs cited by the Public Authority is correct. Category "Fully Met"
4.5.4	Details of all contracts entered into including name of the contractor, amount of contract and period of completion of contract	Fully Met	4.1	4.10	https://nitsikki m.ac.in/documents/rti/Form at%20for%20Transperency %20Audit%20 24-25_English %2015.5.25.p df	Partially Met	2.05	URLs cited by the Public Authority is correct. Category "Partially Met"
4.5.5	Annual Report	Fully Met	4.1	4.10	https://nitsikki m.ac.in/institut e/about/inform ation.php	Fully Met	4.10	URLs cited by the Public Authority is correct. Category "Fully Met"
4.5.6	Frequently Asked Question (FAQs)	Fully Met	4.1	4.10	https://nitsikki m.ac.in/footer/ rti.php	Fully Met	4.10	URLs cited by the Public Authority is correct. Category "Fully Met"
4.5.7	Any other information such as - (a) Citizen's Charter, (b) Six monthly reports on the performance against the benchmarks set in the Citizen's Charter	Fully Met	4.1	4.10	https://nitsikki m.ac.in/documents/rti/Form at%20for%20Transperency %20Audit%20 24-25_English %2015.5.25.pdf	Partially Met	2.05	URLs cited by the Public Authority is correct. Category "Partially Met"
4.6 Receipt & Disposal of RTI applications & appeals [F.No 1/6/2011-IR dt. 15.04.2013]								
4.6.1	Details of applications received and disposed	Fully Met	14.29	14.29	https://nitsikki m.ac.in/footer/ rti.php	Fully Met	14.29	URLs cited by the Public Authority is correct. Category "Fully Met"
4.6.2	Details of appeals received and orders issued	Fully Met	14.29	14.29	https://nitsikki m.ac.in/footer/ rti.php	Fully Met	14.29	URLs cited by the Public Authority is correct. Category "Fully Met"
4.7 Replies to questions asked in the Parliament[Section 4(1)(b)(xvii)]								
4.7.1	Details of questions asked and replies given	Fully Met	28.57	28.57	https://nitsikki m.ac.in/footer/ rti.php	Fully Met	28.57	URLs cited by the Public Authority is correct. Category "Fully Met"
Total			200	200		200	196	

Sr. No	Details of disclosure	Category	Marks	Obtained Mark	Remarks	Auditor Category	Auditor Marks	Auditor Remarks/ URL
5	Information as may be prescribed							
5.1	Such other information as may be prescribed [F.No. 1/2/2016-IR dt. 17.8.2016, F No. 1/6/2011-IR dt. 15.4.2013]							
5.1.1	Name & details of - (a) Current CPIOs & FAAs, (b) Earlier CPIO & FAAs from 1.1.2015	Fully Met	20	20.00	https://nitsikki.m.ac.in/footer/rti.php	Fully Met	20.00	URLs cited by the Public Authority is correct. Category "Fully Met"
5.1.2	Details of third party audit of voluntary disclosure - (a) Dates of audit carried out, (b) Report of the audit carried out	Fully Met	20	20.00	https://nitsikki.m.ac.in/footer/rti.php	Fully Met	20.00	URLs cited by the Public Authority is correct. Category "Fully Met"
5.1.3	Appointment of Nodal Officers not below the rank of Joint Secretary/ Additional HoD - (a) Date of appointment, (b) Name & Designation of the officers	Fully Met	20	20.00	https://nitsikki.m.ac.in/footer/rti.php	Fully Met	20.00	URLs cited by the Public Authority is correct. Category "Fully Met"
5.1.4	Consultancy committee of key stakeholders for advice on suo-motu disclosure - (a) Dates from which constituted, (b) Name & Designation of the officers	Fully Met	20	20.00	https://nitsikki.m.ac.in/documents/rti/dean_hod_registrar_change_order/Office%20Order_Suo-%20moto_CIC.jpg	Fully Met	20.00	URLs cited by the Public Authority is correct. Category "Fully Met"
5.1.5	Committee of PIOs/ FAAs with rich experience in RTI to identify frequently sought information under RTI - (a) Dates from which constituted, (b) Name & Designation of the Officers	Fully Met	20	20.00	https://nitsikki.m.ac.in/documents/rti/Form at%20for%20Transparency%20Audit%2024-25_English%2015.5.25.pdf	Fully Met	20.00	URLs cited by the Public Authority is correct. Category "Fully Met"
Total			100	100			100	100
6.1.1	Item / information disclosed so that public have minimum resort to use of RTI Act to obtain information	Fully Met	25	25.00	https://nitsikki.m.ac.in/documents/rti/Form at%20for%20Transparency%20Audit%2024-25_English%2015.5.25.pdf	Fully Met	25.00	URLs cited by the Public Authority is correct. Category "Fully Met"
6.2	Guidelines for Indian Government Websites (GIGW) is followed (released in February, 2009 and included in the Central Secretariat Manual of Office Procedures (CSMOP) by Department of Administrative Reforms and Public Grievances, Ministry of Personnel, Public Grievance and Pensions, Govt. Of India)							
6.2.1	Whether STQC certification obtained and its validity	Not Met	12.5	0	empty	Not Met	0	Category Not Met
6.2.2	Does the website show the certificate on the Website?	Not Met	12.5	0	empty	Not Met	0	Category Not Met
Total			50	25			50	25
Grand Total			805	778			750	657

Academic Departments



Department of Computer Science and Engineering

The Department of Computer Science and Engineering (CSE) at the National Institute of Technology Sikkim has been functioning since the inception of the Institute in the year 2010. The Department provides an outstanding teaching environment complemented by excellence in research.

The Department offers a four-year B. Tech degree, a two-year M. Tech degree and Ph.D. in Computer Science and Engineering. The Department has a comprehensive curriculum on topics related to all aspects of Computer Science with special emphasis on applicability that is provided using the latest techniques of engineering. The course structure is up-to-date and includes courses on state-of-the-art curriculum to equip the students and teachers with the latest developments in the field. The Department seeks to initiate interdisciplinary and multidisciplinary projects that draw upon the diverse expertise of its faculty members.

The significant areas of ongoing research in the Department include Artificial Intelligence, Machine Learning, Cryptography, Cyber Security, Parallel-Distributed and High-Performance Computing, Algorithms, Cloud Computing, Wireless and Sensor Networks, Content Centric Network, Internet-of-Things, Blockchain Technology, Post Quantum Cryptography, etc. The Department and the Institute collectively focus on building research groups and leverage the research activities in Sikkim in particular, and the North-East region in general using a coordinated effort of various other organizations working in the field of community development using science and technology. The Department is equipped with state-of-the-art infrastructure, supported by high-speed Ethernet and a robust wireless network.

The faculty members and Students often collaborate on projects, working side-by-side with Researchers from other Departments across the campus, colleges of the North-East region in India and with institutes abroad. In addition to the available excellent environment and quality research opportunities in the Department, there is also a real sense of community and teamwork. The Department enjoys a rich culture of research through various projects under schemes such as Visvesvaraya Ph. D scheme, Research Grants from MeitY and DST, Technology Innovation Hubs of DST, specific developmental projects for North-East region, etc. The Department also contributes towards community development through Unnat Bharat Abhiyan and scientific lifestyle development of local community.

The Department aims to excel in imparting high-quality knowledge and fostering a research attitude in the domains of Computer Science and Engineering, as well as interdisciplinary research to serve humanity. These serviceable attitudes can be developed by imparting knowledge of cutting-edge technologies,

keeping pace with prevailing industry standards, while still fulfilling societal responsibilities steeped in ethics for all professional activities.

Programs / Courses offered by the Department

- B. Tech in Computer Science and Engineering (since 2010)

- B. Tech in Artificial Intelligence and Machine Learning (since 2024)
- M.Tech in Artificial Intelligence and Machine Learning (since 2015 as M.Tech. CSE)
- Ph. D in Computer Science and Engineering (since 2014)

Faculty Details

Prof. Mahesh Chandra Govil

Professor HAG & Director

Ph. D. (IIT Roorkee), M. Tech. (IIT Roorkee), B. Tech. (MNIT Jaipur formerly MREC)

Area of Interest: Real Time Systems, Parallel & Distributed Systems, Fault Tolerant Systems, Cloud Computing, Networks, Internet of Things.

Dr. Pratyay Kuila

Associate Professor & Head, Dean (Research & Consultancy)

Ph.D. (IIT ISM Dhanbad), M. Tech (NITTTR Kolkata), B. Tech (Govt. College of Engg. & Ceramic Tech., Kolkata)

Area of Interest: Artificial Intelligence, Machine Learning, Soft Computing, Evolutionary Algorithms, Computational Complexity, Wireless Sensor Networks, Distributed Computing.

Dr. Sangram Ray

Associate Professor

Ph.D. (IIT ISM Dhanbad), M. Tech. (IIT ISM Dhanbad), M.Sc M&C (IIT ISM Dhanbad), B.Sc. Maths. Hons. (BU), All India Rank – 49 in GATE 2006

Area of Interest: Cryptography, Public Key Infrastructure, Elliptic Curve Cryptography, Content Centric Network, Internet of Things, Cyber Security, Blockchain Technology, Post Quantum Cryptography.

Dr. Md. Sarfaraj Alam Ansari

Assistant Professor (Grade-I)

Ph.D. (NIT Sikkim), M. Tech (NIT Durgapur), B.E (Magadh University)

Area of Interest: Network Technology, Information Security & Risk Management.

Dr. Pankaj Kumar Keserwani

Assistant Professor (Grade-I)

Ph.D. (NIT Sikkim), MS (IIIT, Allahabad), B.Sc. (Ewing Christian College, Allahabad), MCA (UPTU, Lucknow)

Area of Interest: Information Security, Cyber Forensics

Dr. Krishna Kumar

Assistant Professor (Grade-II)

Ph.D. (NIT Patna), M. Tech (NIT Patna), B.Tech. (VTU Belgaum)

Area of Interest: Time-Series Sequential Data Analysis, Brain and Nature Inspired Computing, AI and Machine Learning, Knowledge Based System



A computer would deserve to be called intelligent if it could deceive a human into believing that it was human.

– Alan Turing

Dr. Bam Bahadur Sinha

Assistant Professor (Grade-II)

Ph.D. (NIT Nagaland), M. Tech (NIT Nagaland), B.Tech. (LPU Punjab)

Area of Interest: Artificial Intelligence & Machine Learning, Deep Learning, Optimization Techniques, Recommender Systems**Temporary Faculty Members****Dr. Diksha Rangwani****Mr. Arunangshu Pal****Staff****Mr. Tapan Chhetri**

Technician, MCA

Laboratory Facilities**1. Computer Networks Laboratory (CL-1)**

No. of Computers: 28

Activities and Objectives

- To build an understanding of the fundamental concepts of Computer Networking.
- To describe the general principles of Data Communication, organization of Computer with the concept of Layered Approach (OSI model and TCP/IP).
- To implement a simple LAN with hubs, bridges and switches and describe how packets on the Internet are delivered.
- To introduce the students to advanced networking concepts, preparing the students for advanced courses in Computer Networking.
- To understand basic Computer Network Technology, different types of Network Topologies and Protocols.
- To assess how the choice of Data Structures and Algorithm Design Methods impacts the performance of programs.
- To choose the appropriate Data Structure and Algorithm Design Method for a specific application.
- To solve problems using Data Structures such as linear lists, stacks, queues, hash tables, binary trees, heaps, tournament trees, binary search trees, and graphs and writing programs for these solutions.

Laboratory Courses Conducted:

- Data Communication
- Computer Networks
- Adv. Computer Networks
- Internet of Things
- Wireless Sensor Networks
- Wireless Network Security
- Cyber Forensics
- Blockchain Technology



Inside View of Computer Laboratory 1 (Computer Network Laboratory)

2. Data Science Laboratory (CL-2)

No. of Computers: 27

Activities and Objectives

- To apply Quantitative Modelling and Data Analysis Techniques to the solution of real-world business problems, communicate findings, and effectively present results using Data Visualization Techniques.
- To demonstrate knowledge of Statistical Data Analysis Techniques utilized in business decision-making.

- To apply principles of Data Science to analyze the business problems.
- To develop a basic understanding of the building blocks of Artificial Intelligence as presented in terms of intelligent agents: search, knowledge representation, inference, logic, and learning.
- To apply Algorithms to build machine intelligence.
- To characterize Machine Learning Algorithms as supervised, semi-supervised, and unsupervised.
- To effectively use Machine Learning Toolboxes.



Inside View of Computer Laboratory 2 (Data Science Laboratory)

Laboratory Courses Conducted

- Artificial Intelligence
- Machine Learning
- Deep Learning
- Big Data
- Natural Language Processing
- Data Analytics

3. Computing Laboratory (CL-3)

No. of Computers: 70

Activities and Objectives

- To learn various Computer Programming Languages.

- To analyze the asymptotic performance of Algorithms.
- To understand mathematical formulation, complexity analysis and methodologies to solve recurrence relations for Algorithms.
- To apply important Algorithm Design Paradigms and methods of analysis.
- To design Algorithms using advance data structures.
- To understand Non-deterministic Polynomial (NP) class problems and formulate solutions using standard approaches.
- To provide students with contemporary knowledge in Parallel and Distributed Computing.

- To introduce a variety of methodologies and approaches for reasoning about concurrent and distributed programs.
- To understand Database concepts, structures and query language.
- To understand the E-R model and Relational model.
- To design and build a simple Database system and demonstrate competence with the fundamental tasks involved with modeling, designing, and implementing a DBMS.
- To understand Functional Dependency and Functional Decomposition.

Laboratory Courses Conducted

- Programming in C, Python, JAVA
- Design and Analysis of Algorithms
- Adv. Algorithms
- Data Structure
- Image Processing
- Operating System
- DBMS



Inside View of Computer Laboratory 3 (Computing Laboratory)

4. Simulations & Modeling Laboratory (CL-4)

No. of Computers: 30

Activities and Objectives

- To recognize the concepts and principles of Operating Systems.
- To provide comprehensive introduction to understand the underlying principles, techniques and approaches which constitute a coherent body of knowledge in Operating Systems.
- To introduce Computer Graphics and Image Processing.

- 2D object visualization, Geometrical transformation of 2D objects.
- 3D objects visualization, Projections.

Laboratory Courses Conducted

- Software Modeling and Design
- Soft Computing
- Evolutionary Computing
- Computer Graphics
- Image Processing
- Computer Vision



Inside View of Computer Laboratory 4 (Simulations & Modeling Laboratory)

5. Center for Artificial Intelligence Laboratory (CL-5)

No. of Computers: 60

Activities and Objectives

- To provide hands-on training in Artificial Intelligence, Machine Learning and Related domains.
- To enable students to implement AI models and algorithms using modern programming frameworks.
- To promote research and development in AI, Deep Learning and Data Science.
- To host technical workshops, coding sprints, and model benchmarking challenges on AI/ML topics using GPR-enabled systems.

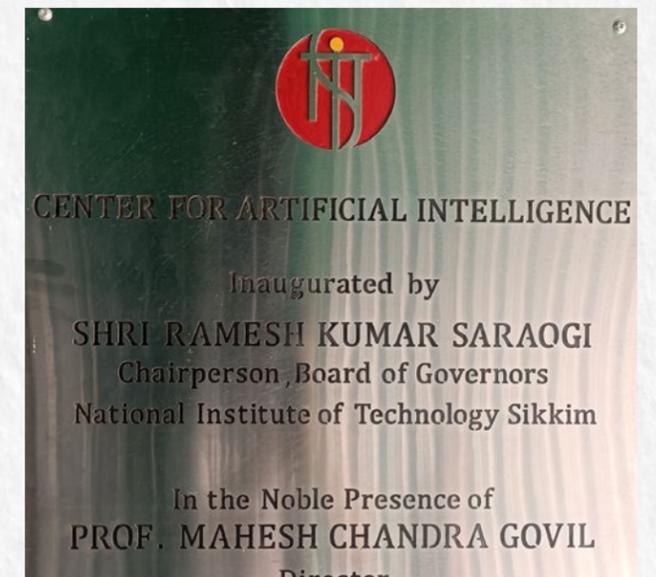
Laboratory Courses Conducted

- Artificial Intelligence Laboratory
- Machine Learning Laboratory
- Deep Learning Laboratory
- Data Preprocessing and Mixing Laboratory
- Image Processing Laboratory
- Advance Algorithm Laboratory
- Cryptography & Network Security Laboratory

System Configuration Details

- **Model:** HP Pro Tower 400 G9 PCI Desktop
- **Operating System:** Dual Boot [Windows 11 Pro and Linux, Mint Debian]

- **Processor:** 13th Gen Intel (R) Core (TM) i7-13700
- **Physical Memory (RAM):** 16 GB
- **Storage:** 1TB (SSD)



Inside View of Computer Laboratory 5 (Center for Artificial Intelligence Laboratory)

6. Advanced Computing and Research Laboratory (HPC)

GPU Facility

No. of GPUs: 08 nos.

Specifications

Processor: Intel Xeon 5122 3.6Ghz, 4C, 16.5MB Cache, 105W

Memory: 64GB (2 X 32GB) DDR4 2666 DIMM ECC REGRAM expandable up to 768GB

Hard Disk: 512GB 2.5in SATA SSD, 2TB 7200 SATA Hard Disk

Graphics: 2*Nvidia 2080TI 11GB

OS: Windows 10 Pro Workstations Plus India

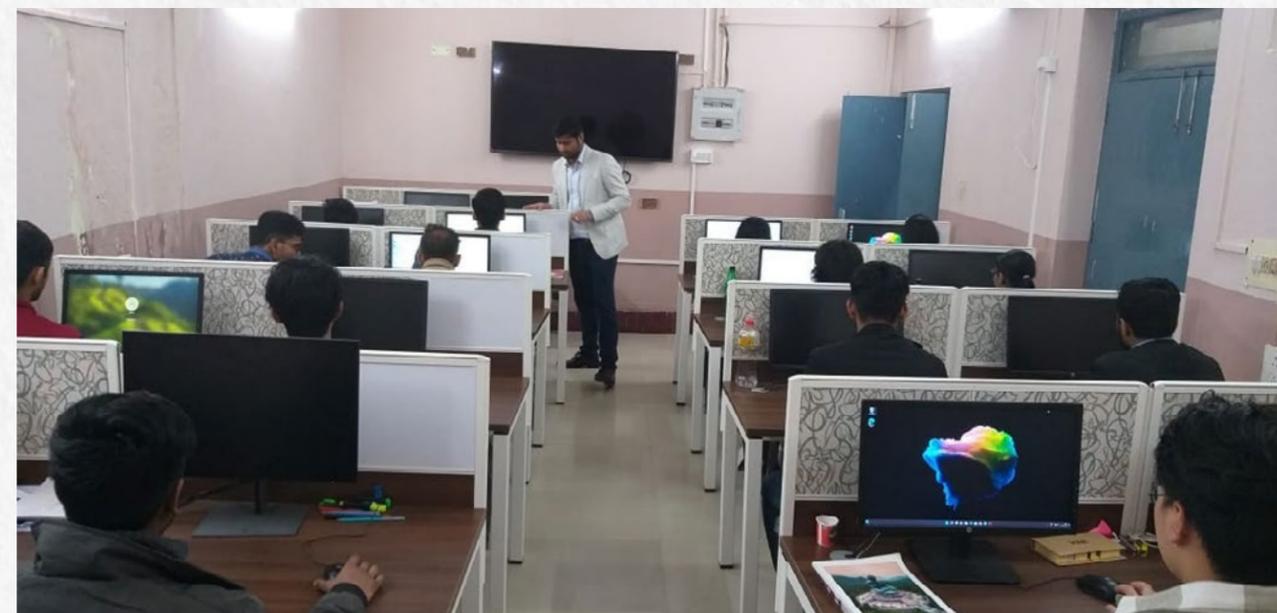
Laboratory Courses conducted

- Fog Computing
- Edge Computing

- Cloud Computing
- Quantum Computing
- Nature-Inspired Computing
- Parallel and Distributed Computing

Activities and Objectives

- To provide HPC PaaS with OpenMP, MPI and Map-Reduce parallel environments
- To select HPC application available as Golden images SuMegha Stack
- IaaS-MPI Cluster, Hadoop Cluster OpenMp servers, virtual servers, virtual storage.
- PaaS-Linux based MPI, Hadoop, OpenMP, GlusterFS, popular programming language and libraries
- SaaS-select applications (e.g. PSE for seasonal forecast model) and sample parallel programs



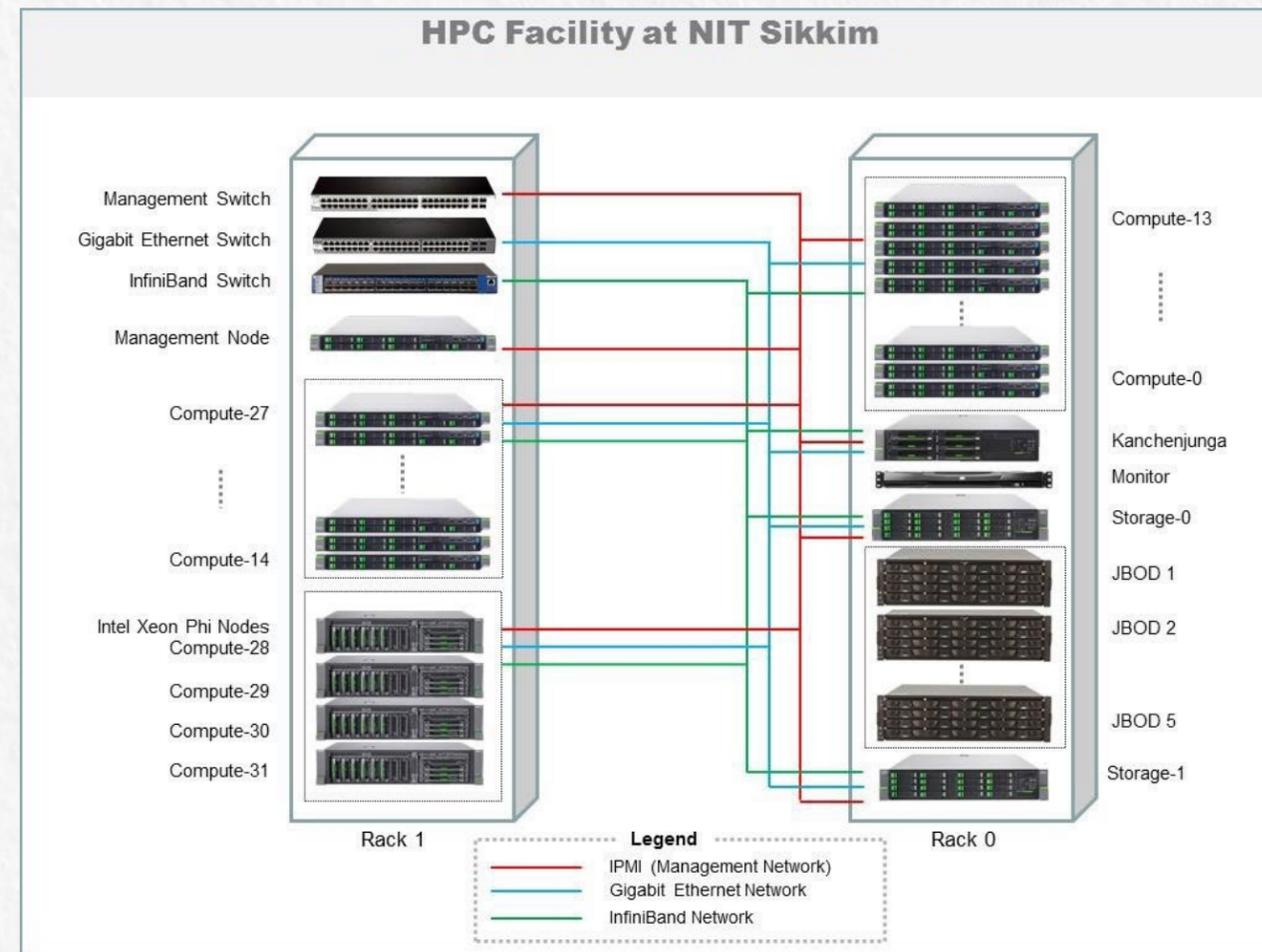
Inside View of Computer Laboratory 5 (Advanced Computing and Research Laboratory)

HPC Specifications

- 66 Number of Intel Xeon Ivy bridge (E5-2650V2) processor
- Peak Performance of 15.02 TFLOPS
- 528 x86_64 based processing cores
- 2.112 TB (2112 GB) of Total Memory (64 GB per Node)
- 6 X 600 GB, 15K RPM, SAS 6GBPS hot-plug HDDs in Master Node
- 2 X 250 GB, 7.2RPM, Enterprise SATA HDDs in Compute Nodes
- 4 X Intel Xeon Phi 5110P Accelerator (8 GB, 60 Co-processing Cores)

- 50 TB of NL-SAS and 20 TB of SAS storage configured as RAID6 Storage
- 36-port 56GBPS 4X FDR InfiniBand as Primary Network
- 48-port Gigabit Ethernet as a Secondary Network
- 48-port Gigabit Ethernet as a Management Network
- Visualization / Management Node

HPC Architecture



R&D Project completed on using HPC: SMDP-C2SD Project at NIT Sikkim

Researchers worked on HPC

1. Dr. George Biswas, Research Scholar, Department of Physics
2. Dr. Nigidata Pradhan, Research Scholar, Department of Electronics and Communications Engineering
3. Dr. Priti Gupta, Project Faculty, Department of Electronics and Communications Engineering
4. Dr. Reshmi Dhara, Research Scholar, Department of Electronics and Communications Engineering

External Organizations carried out research work on HPC at NIT Sikkim

The following organizations are provided access to HPC at NIT Sikkim to carry out their research work:

1. INST Mohali
2. Sikkim University
3. Central University, Punjab
4. Ashutosh College, Kolkata

List of running applications (Software Tools) on HPC System

1. Onama (Parallel Application Suite)
2. CHReME (for HPC Resource Management)
3. ROMS (Regional Ocean Modeling System)
4. Gaussian9 and Gauss View5
5. OpenFOAM (Open-source Field Operation and Manipulation)
6. VASP & WANNIER90
7. Cadence
8. Mentor
9. MATLAB
10. Ansys19R (EM & CFD)
11. Anaconda & Python
12. Intel Parallel Studio (Intel MPI, Fortran, OpenMP compiler)
13. Ganglia (Cluster Monitoring)



PARAM KANCHENJUNGA

Ongoing/Completed R&D Projects / Schemes in the Department

- **Development of Efficient and Secure Content Centric Network (CCN) Architecture with Communication Protocols using Elliptic Curve Cryptography (ECC)**, funded by ICPS Division, DST, Ministry of Science and Technology, Govt. of India (**Rs. 20 lacs**), **Sole PI: Dr. Sangram Ray.**
- **Design of Efficient and Secure Internet of Things (IoT) Communication Framework in context of Content Centric Network (CCN) using Elliptic Curve Cryptography (ECC) – A next generation smart communication technology**, funded by Ministry of Electronics & Information Technology, Govt. of India (**Rs. 68 lacs**), **Sole PI: Dr. Sangram Ray.**
- **Development of IoT based Smart Compact Energy Meter (ISCEM) for Monitoring and Controlling the Power Quality Issues in a Smart Building**, funded by IBITF, Ministry of Science & Technology, Govt. of India (**Rs. 28.1576 lacs**), **Co-PI: Dr. Sangram Ray.**
- **Content Centric Network: Its Security Issues and Some Security Solutions Using Elliptic Curve Cryptography**, funded by Digital India Corporation, Ministry of Electronics and Information Technology, Govt. of India, (**Rs. 30.00 lacs**), **Sole PI: Dr. Sangram Ray.**
- **Smart Chair for Low Back Pain**, funded by iHUB Divyasampark, IIT Roorkee, DST, Govt. of India (**Rs. 26 Lakhs**), **PI: Dr. Md. Sarfaraj Alam Ansari.**
- **Stress and Anxiety detection using voice and facial expressions**, funded by iHUB Divyasampark, IIT Roorkee, DST, Govt. of India (**Rs. 30 Lakhs**), **Co-PI: Dr. Md. Sarfaraj Alam Ansari.**
- **IoT and API enabled system for enhanced monitoring and prediction of air quality index**, funded by iHUB Divyasampark, IIT Roorkee, DST, Govt. of India (**Rs. 10 Lakhs**), **PI: Dr. Pankaj Kumar Keserwani.**
- **Design of an Improved LIDAR system for Autonomous vehicles**, SMDP C2S sponsored by MeitY, Govt. of India, (**Rs. 111 lakhs**), **PI: Prof. M. C. Govil.**

Collaboration with other Departments/ Institutes

- University of Bremen, Germany
- Indian Institute of Technology Kharagpur
- Indian Institute of Technology Guwahati
- Indian Institute of Technology Gandhinagar
- Indian Institute of Technology Hyderabad
- Indian Institute of Technology Delhi
- Indian Institute of Technology Bhilai
- Indian Institute of Technology Bombay
- Indian Institute of Technology Roorkee
- Visvesvaraya National Institute of Technology Nagpur
- Sardar Vallabhbhai National Institute of Technology Surat
- CDAC, Pune
- DRDO India
- Malviya National Institute of Technology, Jaipur
- Dr. B. R. Ambedkar National Institute of Technology, Jalandhar
- Bureau of Indian Standards, Ministry of Consumer Affairs, Food & Public Distributions, Gol
- Sushil Kar College, Kolkata
- Brainware University, Kolkata
- SIST Chisopani, Sikkim

Departmental Committees

Sl. No.	Committee Name	Members
1	Academic Performance Evaluation Committee (APEC)	(i) Dr. Pratyay Kuila, Convener & HoD (ii) Dr. (Md.) Sarfaraj Alam Ansari, Convener DUGC, Member (iii) Faculty Advisor of the concerned student(s), Member (iv) Dr. Bam Bahadur Sinha, HoD Nominee, member (v) Dr. Molay Roy, Nominated by the Dean Academic, Member
2	Departmental Undergraduate Committee (DUGC)	(i) Dr. (Md.) Sarfaraj Alam Ansari, Convener (ii) Dr. Pratyay Kuila, HoD, Member (iii) Dr. Sangram Ray, Convener DPGC, Member (iv) Dr. Krishna Kumar, Member (v) Dr. Bam Bahadur Sinha, Member
3	Departmental Postgraduate Committee (DPGC)	(i) Dr. Sangram Ray, Convener (ii) Dr. Pratyay Kuila, HoD, Member (iii) Dr. (Md.) Sarfaraj Alam Ansari, Convener DUGC, Member (iv) Dr. Pankaj Kumar Keserwani, Member (v) Dr. Krishna Kumar, Member (vi) Dr. Bam Bahadur Sinha, Member (vii) Dr. Sanjay Kumar Jana, Nominated by the Chairperson Senate.
4	Departmental Classes and Examination Committee	(i) Dr. Krishna Kumar, Convener (ii) Dr. Diksha Rangwani, Member (iii) Mr. Arunangshu Pal, Member
5	Departmental Result Committee	(i) Dr. (Md.) Sarfaraj Alam Ansari, Convener (ii) Dr. Bam Bahadur Sinha, Member
6	Coordinator, Community Developments	Dr. Pankaj Kumar Keserwani
7	Coordinator, Departmental Library	Dr. Pankaj Kumar Keserwani

Sl. No.	Committee Name	Members
8	Coordinator, Departmental Website Development	Dr. Pankaj Kumar Keserwani
9	Coordinator, Departmental Training & Placement	Dr. (Md.) Sarfaraj Alam Ansari
10	Coordinator, Reports Preparation, etc.	Dr. Sangram Ray
11	Faculty Advisor, 1 st Year B.Tech. (CSE 2024-28)	Dr. Bam Bahadur Sinha
12	Faculty Advisor, 1 st Year B.Tech. (AI/ML 2024-28)	Dr. Bam Bahadur Sinha
13	Faculty Advisor, 2 nd Year B.Tech. (CSE 2023-27)	Dr. (Md.) Sarfaraj Alam Ansari
14	Faculty Advisor, 3 rd Year B.Tech. (CSE 2022-26)	Dr. Krishna Kumar
15	Faculty Advisor, 4 th Year B.Tech. (CSE 2021-25)	Dr. Pankaj Kumar Keserwani
16	Faculty Advisor, M.Tech. (AI/ML)	Dr. Pratyay Kuila
17	Laboratory In-charge, CL-1 & CL-2	Dr. Pankaj Kumar Keserwani
18	Laboratory In-charge, CL-3 & CL-4	Dr. Krishna Kumar
19	Laboratory In-charge, HPC & Research	Dr. (Md.) Sarfaraj Alam Ansari
20	Laboratory In-charge, AI/ML	Dr. Bam Bahadur Sinha

Administrative Responsibilities of Faculty Members (Institute Level)

Sl. No.	Name of Faculty Member	Institute Level Responsibilities
1	Prof. M. C. Govil	<p>Director and Chairperson, Senate</p> <ul style="list-style-type: none"> Head of the Department, Computer Science and Engineering - 28.07.2023 to present Dean Research & Consultancy - 07.09.2022 to present Faculty In-Charge, Information and Communication Technology (FIICTI)- 09.12.2016 to present
2	Dr. Pratyay Kuila	<ul style="list-style-type: none"> Faculty Coordinator, Computing Devices - 18.08.2021 to present Faculty In-Charge, Fit India Movement and Ek Bharat Shrestha Bharat (EBSB) - 08.09.2022 to present Chief Information Security Officer (CISO)- 28.02.2023 to present Coordinator, PhD Admission- 19.06.2021 to present Nodal Officer, Samarth E-Gov. Suite an initiative of Ministry of Education (MoE)- 07.02.2023 to present
3	Dr. Sangram Ray	<ul style="list-style-type: none"> Faculty In-charge, Malaviya Mission Teacher Training Programme (MMTTP) - 15.05.2024 to present Faculty In-charge, Viksit Bharat @ 2047 - 09.12.2023 to 26.11.2024 Faculty In-charge, Vigyan Jyoti Program, DST - 31.07.2024 to present Member, CGHS Facility - 23.04.2024 to present

Sl. No.	Name of Faculty Member	Institute Level Responsibilities
4	Dr. (Md.) Sarfaraj Alam Ansari	<ul style="list-style-type: none"> Coordinator, Campus Wide Networking - 18.07.2021 to present. Warden, Boys Hostel -1 - 22.02.2023 to present. Faculty In charge, Alumni Affairs Cell - 09.08.2023 to present
5	Dr. Pankaj Kumar Keserwani	<ul style="list-style-type: none"> Faculty In charge, Community Development and Awareness Program - 14.09.2022 to present Member, Fit India Movement and Ek Bharat Shrestha Bharat (EBSB) - 08.09.2022 to present
6	Dr. Krishna Kumar	<ul style="list-style-type: none"> Warden, Outside Hostel - 22.02.2024 to present Faculty In-charge, Scholarship - 04.09.2024 to present CSE Mentor, Bureau of Indian Standards (BIS) - 04.09.2024 to present Warden, Boys Hostel-2 - 22.02.2024 to present
7	Dr. Bam Bahadur Sinha	<ul style="list-style-type: none"> Coordinator, NPTEL - 22.05.2024 to present Faculty In-Charge, Yuvamanthan Mission India @2047 - 17.05.2024 to present Nodal Officer, SWAYAM - 04.10.2024 to present

Conference / Workshop Organized

- “Second International Symposium on Artificial Intelligence - 2025 (ISAI-2025)” at National Institute of Technology Sikkim, Sikkim, India, March 5-7, 2025, and the proceeding is going to be published by Springer in a book series of “Lecture Notes in Networks and Systems” indexed by SCOPUS, INSPEC, WTI Frankfurt EG, ZbMATH, SCImago and Web of Science.
- One Week Workshop on “Next Generation Communication Technology and Cyber Security” at National Institute of Technology Sikkim, Sikkim, India, June 3-7, 2024, funded by Ministry of Electronics and Information Technology, Govt. of India.
- One Week Non-Residential “Entrepreneurship Development Program” at National Institute of Technology Sikkim, Sikkim, India, November 11-15, 2024, funded by the Govt. of India.
- One Week Faculty Development Program on “Entrepreneurship and Skill Development” at National Institute of Technology Sikkim, Sikkim, India, May 27-31, 2024, funded by the Govt. of India.
- One Week “Entrepreneurship Awareness Programs (EAPs)” at National Institute of Technology Sikkim, Sikkim, India, September 19-24, 2024, funded by the Govt. of India.
- “3rd Congress on Smart Computing Technologies (CSCT 2024)” at National Institute of Technology

Sikkim, Sikkim, India, December 14-15, 2024, funded by Soft Computing Research Society, India.

- One Week Advanced Entrepreneurship and Skill Development Programme (Adv.ESDP) on “Renewable Energy Sources in Electric Vehicles and Distributed Generation Systems”, at National Institute of Technology Sikkim, Sikkim, India, February 17-21, 2025, funded by the Ministry of Micro, Small, and Medium Enterprises (MSME), Govt. of India.
- One Week Advanced Entrepreneurship and Skill Development Programme (A-ESDP) on “Recent Trends in VLSI Design, System on Chip, and Embedded Systems”, at National Institute of Technology Sikkim, Sikkim, India, February 24-28, 2025, funded by the Ministry of Micro, Small, and Medium Enterprises (MSME), Govt. of India.
- One Week Faculty Development Programme on “Next-Gen Computing: Exploring Supercomputing, AI, and Quantum Technologies”, at National Institute of Technology Sikkim, Sikkim, India, February 10 - 15, 2025.

Keynote Address / Expert Lectures Organised

- Prof. Partha Pratim Chakraborti, Former Director & Professor, IIT Kharagpur, has delivered an Expert Lecture on March 5, 2025.

- **Prof. Vishnu Priye**, Former Director IIT Ranchi and Retd. Professor, IIT ISM Dhanbad, has delivered an Expert Lecture on March 6, 2025.
- **Dr. Andy Khong**, Associate Professor, NTU Singapore, has delivered an Expert Lecture on March 4, 2025.
- **Shri S. K. Kanojia**, Scientist F & Head, SSD, has delivered an Expert Lecture on November 11, 2024.
- **Dr. Santanu Manna**, Associate Professor, IIT Indore, has delivered an Expert Lecture on March 20, 2025.
- **Prof. Rajiv Srivastava**, Director IIT Ranchi and Professor, IIT BHU, has delivered an Expert Lecture on March 7, 2025.
- **Dr. Girish Mishra**, Scientist F, DRDO, has delivered an Expert Lecture on March 5, 2025.
- **Dr. Mani Madhukar**, IBM, has delivered an Expert Lecture on March 7, 2025.
- **Prof. Sukumar Nandi**, Professor, IIT Guwahati, has delivered an Expert Lecture on June 4, 2024.
- **Dr. Ashwani Sharma**, Associate Professor, IIT Ropar, has delivered an Expert Lecture on June 3, 2024.

Keynote Address / Expert Lectures Delivered

- **Prof. M. C. Govil** has delivered a Keynote Address in AIAIA 2024, a conference on “**Advanced Innovation Augmented with Intelligent Analytics (AIAIA 2024)**” being organized under the aegis of 4th International Convention on Green Environment, Technology & Entrepreneurship through Innovation (ICGETEI 2024).
- **Prof. M. C. Govil** has delivered a Keynote Address for the inaugural function of “**The 12th International Conference on Recent Trends in Computing (ICRTC 2024)**” at SRMIST Delhi-NCR Campus, Modinagar.
- **Prof. M. C. Govil** has delivered an Expert Lectures in “**6th International Conference on Deep Learning, Artificial Intelligence and Robotics (ICDLAIR)-2024**”, in the Department of Computer Science & Engineering, NIT Kurukshetra, during December 6-8, 2024.
- **Prof. M. C. Govil** has delivered an Expert Lecture on “**Entrepreneurship Awareness Programme**” on March 12, 2025 at NIT Sikkim.
- **Prof. M. C. Govil** has delivered an Inaugural Lecture in the A-ESDP programme on “**Renewable**

Energy Sources in Electric Vehicles and Distributed Generation Systems”

- **Prof. M. C. Govil** has delivered an Expert lecture in the AESDP workshop on “**Recent Trends in VLSI Design, System-on-Chip, and Embedded Systems**” during February 24-28, 2025.
- **Prof. M. C. Govil** has delivered a Keynote Address in “**12th International Conference on Recent Trends in Computing (ICRTC 2024)**” during July 5-6, 2024.
- **Dr. Sangram Ray** has delivered Two Expert Lectures at National Institute of Technology Arunachal Pradesh, Jote, Arunachal Pradesh, India, on March 17-21, 2025, in Faculty Development Program on “**Cyber Security: Current Trends and Challenges**”.
- **Dr. Sangram Ray** has delivered Two Expert Lectures at DR SPM International Institute of Information Technology, Naya Raipur, Raipur, Chattisgarh, India, on February 17-21, 2025, in Advanced Entrepreneurship and Skill Development Programme (A-ESDP) on “**Empowering Entrepreneurs: Cyber and Network Security Awareness for Threat Prevention**”.
- **Dr. Sangram Ray** has delivered One Expert Lecture at University of Engineering & Management (UEM) Kolkata, India, on January 17, 2025, in “**Online Expert Lecture Series**”.
- **Dr. Sangram Ray** has delivered an Expert Lecture at Jalpaiguri Government Engineering College, Jalpaiguri, W.B., India, on December 17, 2024, in ATAL Online Faculty Development Programme on “**Smart Computing and Its Applications in Cyber Defense & Digital Forensic**”.
- **Dr. Sangram Ray** has delivered an Expert Lecture at National Institute of Technology Raipur, India, on December 10, 2024, in Workshop on “**IoT-Health: IoT Enabling Technology, Security and its Application on Healthcare**”.
- **Dr. Sangram Ray** has delivered an Expert Lecture at Academy of Technology, Adisaptagram, W.B., India, on December 6, 2024, in ATAL Online Faculty Development Programme on “**Pioneering the Future of Healthcare: Robotics, Deep Learning, and Emerging Tech.**”.
- **Dr. Sangram Ray** has delivered an Expert Lecture at Brainware University, Kolkata, India, on November 16, 2024, in “**Expert Lecture Series**”.
- **Dr. Sangram Ray** has delivered an Expert Lecture at Amity Institute of Information Technology, Amity

University, Kolkata, India, on November 6, 2024, in “**Online Expert Lecture Series**”.

- **Dr. Sangram Ray** has delivered an Expert Lecture at Chaitanya Bharathi Institute of Technology, Hyderabad, India, on June 06, 2024, in Faculty Development Programme on “**Machine Learning Applications for Engineers**”.

List of Research Publications

Journals

- Kundan Kanti Saha, **Sangram Ray** and Mou Dasgupta, “**ECMHP: ECC-Based Secure Handshake Protocol for Multicasting in CCN-IoT Environment**”, **IEEE Transactions on Network and Service Management**, vol. 21, no. 5, pp. 5826-5842, 2024.
- Priyanka Das, Sangram Ray, Dipanwita Sadhukhan, Mou Dasgupta, Ashok Kumar Das and **Mahesh Chandra Govil**, “**LPSRUA-MIoT: Lightweight and Provable Secure Remote User Authentication Scheme for Multi-Gateway framework in Internet of Things**”, **Security and Privacy, Wiley**, 2024.
- Suman Majumder, **Sangram Ray**, Dipanwita Sadhukhan, Mou Dasgupta, Ashok Kumar Das and Youngho Park, “**ECC-PDGPP: ECC-Based Parallel Dependency RFID-Grouping Proof Protocol using Zero Knowledge Property in Internet of Things Environment**”, **IEEE Open Journal of the Computer Society, IEEE**, vol. 5, pp. 329-342, 2024.
- Dipanwita Sadhukhan, **Sangram Ray**, Mou Dasgupta and Muhammad Khurram Khan, “**Development of a provably secure and privacy-preserving lightweight authentication scheme for roaming services in global mobility network**”, **Journal of Network and Computer Applications, Elsevier**, vol. 224, pp. 103831, 2024.
- Anindya Kumar Biswas, Mou Dasgupta and **Sangram Ray**, “**Cryptanalysis and improvement of Q. Peng et al.’s PVSS scheme**”, **Cryptologia, Taylor & Francis**, vol. 48, no. 4, pp. 291-304, 2024.
- Santanu Ghosh, **Pratyay Kuila** “**Quantum GA-Driven Digital Twin for Task Urgency-Aware Partitioning and Offloading in Multi UAV-Aided MEC Systems**”, **Ad Hoc Networks (Elsevier)**, Vol. 176, 103891, (2025).
- Santanu Ghosh, **Pratyay Kuila**, Marlom Bey, Md Azharuddin, “**Quantum-inspired gravitational search algorithm-based low-price binary task offloading for multi-users in unmanned aerial vehicle-assisted edge computing systems**”, **Expert Systems with Applications(Elsevier)**, Vol. 263, 125762, (2025).
- Biswadip Bandyopadhyay, **Pratyay Kuila** and **Mahesh Chandra Govil**, “**Popularity-Conscious Service Caching and Offloading in Digital Twin and NOMA-Aided Connected Autonomous Vehicular Systems**”, **IEEE Transactions on Network and Service Management**, Vol. 21, No. 6, p. 6451-6464 (2024).
- Marlom Bey, **Pratyay Kuila**, and Banavath Balaji Naik, “**Quantum-Inspired Differential Evolution with Decoding using Hashing for Efficient User Allocation in Edge Computing Environment**”, **IEEE Transactions on Emerging Topics in Computing**, Vol. xxx, pp. 1-17, (2024).
- Pintu Kumar Ram and **Pratyay Kuila**, “**Optimization of Dynamic Bi-clustering based on Improved Genetic Algorithm for Microarray Data**”, **Pattern Analysis and Applications (Springer)**, Vol. 27, pp. 97 (2024).
- Sk Md Abidarahaman, Md Azharuddin and **Pratyay Kuila**, “**Efficient Scheduling of Charger-UAV in Wireless Rechargeable Sensor Networks: Social Group Optimization based Approach**”, **Journal of Network and Systems Management (Springer)**, Vol. 32, pp. 55 (2024).
- Biswadip Bandyopadhyay, **Pratyay Kuila**, Marlom Bey and Mahesh Chandra Govil, “**Quantum-Inspired Differential Evolution for Freshness-aware Caching-aided Offloading in Digital Twin-enabled Internet of Vehicles**”, **IEEE Transactions on Intelligent Vehicles**, Vol. X, p. X-X (2024).
- Biswadip Bandyopadhyay, **Pratyay Kuila**, **Mahesh Chandra Govil** and Marlom Bey, “**Delay-Sensitive Task Offloading and Efficient Resource Allocation in Intelligent Edge-Cloud Environments: A Discretized Differential Evolution-Based Approach**”, **Applied Soft Computing(Elsevier)**, Vol. 159, 111637 (2024).
- Subash Harizan, **Pratyay Kuila**, Anil Kumar, Akhileendra Khare and Harshvardhan Choudhary, “**Multi-objective evolutionary algorithms for coverage and connectivity aware relay node placement in cluster-based wireless sensor networks**”, **Wireless Personal Communications (Springer)**, Vol. 135, No. 2, pp. 979-1008 (2024).
- Marlom Bey, **Pratyay Kuila**, Banavath Balaji Naik, Santanu Ghosh, “**Quantum-Inspired Particle Swarm Optimization for Efficient IoT Service Placement in Edge Computing Systems**”, **Expert Systems with Applications (Elsevier)**, Vol. 236, 121270, (2024).
- B Balaji Naik, T Jaya Venkata Rama Reddy, K Rohith Venkata Karthik and **Pratyay Kuila**, “**An SQL query**

generator for cross-domain human language-based questions based on NLP model," **Multimedia Tools and Applications (Springer)**, Vol. 83, pp. 11861–11884 (2024).

- Bipal Khanal, Chandan Kumar, **Md. Sarfaraj AlamAnsari**, "Real-time Anomaly Detection Framework to Mitigate Emerging Threats in Software Defined Networks", *Journal of Network and Systems Management*, Vol. 33 No. (2), pp. 26, 2025.
- Banavath Balaji Naik, Bollu Priyanka and **Md. Sarfaraj AlamAnsari**, "Energy-Efficient task offloading and efficient resource allocation for Edge Computing: A Quantum Inspired Particle Swarm Optimization Approach", *Cluster Computing*, Vol. 28, No. 04, PP 278, 2025.
- Manvendra Singh, **Md. Sarfaraj Alam Ansari**, and **Mahesh Chandra Govil**, "Detection of fractional difference in inter vertebral disk MRI images for recognition of low back pain" *Image and Vision Computing*, Vol. 153, pp. 105333, 2025.
- Arnab Kumar Roy, Hemant Kumar Kathania, Adhitiya Sharma, Abhishek Dey, and **Md. Sarfaraj AlamAnsari**, "ResEmoteNet: Bridging Accuracy and Loss Reduction in Facial Emotion Recognition." *IEEE Signal Processing Letters*, 2024.
- Nairita Sarkar, **Pankaj Kumar Keserwani**, and **Mahesh Chandra Govil**, "A modified PSO based hybrid deep learning approach to predict AQI of urban metropolis" **Urban Climate**, vol. 58, pp. 102212, 2024.
- Kevisino Khate, **B. B. Sinha**, and Arambam Neelima, "A Novel Approach to COVID-19 Diagnosis: Flower Pollination-Enhanced CNN for Chest X-ray Analysis", **The Computer Journal**, Vol. 67, no. 11, 2024, Pp. 3080–3093.
- **B. B. Sinha** and R Dhanalakshmi, "A Multi-Fused Convolutional Neural Network Model for Fruit Image Classification", **International Journal of Cognitive Computing in Engineering**, Vol. 5, 416-424, 2024.
- **B. B. Sinha**, Ramnish Sinha, Vishnu Priye, "Beyond Classical Approaches: Redefining the Landscape of High-Accurate Movie Recommendation using QNN", **The Journal of Supercomputing**, 2024, 81 (347), 1-30.
- Mohammad Ahsan, and **B. B. Sinha**, "An Efficient Rumor Detection Model based on Deep Learning

and Flower Pollination Algorithm", **Knowledge and Information Systems**, 2025, 67, 2691–2719.

- Satyam Kumar, **B. B. Sinha**, and Priyank Khare, "A coherent analytical model to strengthen vehicular communication in VANET using droptail priority queue", **Journal of The Institution of Engineers (India): Series B**, 2025.
- Arti Bahuguna, Gopa Bhaumik, **B. B. Sinha** and **Mahesh Chandra Govil**, "A Hybrid Approach for Static Hand Gesture Recognition: Integrating Directional Adaptive Patterns with Multi-Scale Feature Extraction and Aggregation", **Engineering Applications of Artificial Intelligence**, 2025.

Conferences

- Priyanka Das, **Sangram Ray** and **Mahesh Chandra Govil**, "A Novel and Secure Blockchain-assisted NFC-based e-Wallet Architecture", In 6th International Conference on Recent Advances in Information Technology (RAIT 2025), to be held at Indian Institute of Technology, (ISM) Dhanbad, Dhanbad, Jharkhand, India, during 06-08 March 2025, to be published in **IEEE Explore**.
- Dipanwita Sadhukhan, **Sangram Ray** and Shauraya Ranjan, "Integration of Blockchain to Internet of Things (IoT) Environment", In 4th International Conference on Network Security and Blockchain Technology (ICNSBT)-2025, Haldia Institute of Technology, West Bengal, India, 14-16 January 2025, to be published in **LNNs Springer** Proceedings.
- Shivani Saini, **Sangram Ray**, Priyanka Das, Mou Dasgupta, and **Mahesh Chandra Govil**, "Cryptanalysis of Cross-domain Identity Authentication Scheme based on Blockchain and PKI System", In 11th International Conference on Mathematics and Computing (ICMC)-2025, Indian Institute of Technology Bhilai, India, during 09-11 January 2025, to be published in **Springer** Proceedings.
- Arvind Kumar Singh, **Sangram Ray** and Priyanka Das, "MAKE-IoMT: Mutual Authentication and Key Establishment scheme for IoMT environment", In 6th International Conference on Machine Learning, Image Processing, Network Security and Data Science – 2024 (MIND – 2024), held at National Institute of Technology Goa, India, during 20-21 December, 2024, to be published in **CCIS Springer** Proceedings.

- Kundan Kanti Saha, **Sangram Ray**, Mou Dasgupta, "6G WIRTinX Subnetworks in context of ICN", in IEEE CALCON 2024, held at Jadavpur University, Kolkata during 14-15 December, 2024, to be published in **IEEE Explore**.
- Kota Lokesh, **Sangram Ray** and Priyanka Das, "An Effectual Image based Authentication Scheme for Mobile Device using Machine Learning", In 6th International Electronics Communication Conference (IECC 2024), Kyushu University, Fukuoka, Japan, to be held during 19-21 July 2024, to be published in **ACM International Conference Proceedings**.
- Priyanka Das, **Sangram Ray** and **Mahesh Chandra Govil**, "Zero Trust Network Access (ZTNA) Approach: A Novel Perspective to Cloud Security", In 3rd International Conference on Network Security and Blockchain Technology (ICNSBT)-2024, Jalpaiguri Government Engineering College, West Bengal, India, 06-08 June 2024, to be published in **LNNs Springer** Proceedings..
- Atanu Sarkar and **Sangram Ray**, "Enhancing Healthcare IoT Security: A CCN-Based Approach for FIB Establishment and Content Delivery", In 3rd International Conference on Network Security and Blockchain Technology (ICNSBT)-2024, Jalpaiguri Government Engineering College, West Bengal, India, 06-08 June 2024, to be published in **LNNs Springer** Proceedings.
- Marlom Bey, **Pratyay Kuila**, Banavath Balaji Naik, "Quantum-Inspired Differential Evolution Based Efficient IoT Service Placement in Edge Networks," 15th IEEE ICCCNT 2024, **IEEE Xplore** (2024).
- Aman Saurav, Biswadip Bandyopadhyay, **Pratyay Kuila**, **Mahesh Chandra Govil**, "DQN-based Multi-user Multi-task Offloading in Mobile Edge Computing," 15th IEEE ICCCNT 2024, **IEEE Xplore** (2024).
- Biswadip Bandyopadhyay, **Pratyay Kuila**, **Mahesh Chandra Govil**, "Particle Swarm Optimization for Latency-aware Multi-user Task Offloading in Resource-constrained Fog-cloud Framework," 15th IEEE ICCCNT 2024, **IEEE Xplore** (2024).
- Suman Banerjee, **Pratyay Kuila** and Balaji Naik, "Blockchain-assisted Trust Management in Vehicular Ad-hoc Networks," 15th IEEE ICCCNT 2024, **IEEE Xplore** (2024).
- Biswadip Bandyopadhyay, **Pratyay Kuila**, **Mahesh Chandra Govil**, "A Discretized Particle Swarm Optimization Based Caching and Offloading in

Digital Twin-assisted IoV," 21st IEEE INDICON 2024, **IEEE Xplore** (2024).

- Biswadip Bandyopadhyay, **Pratyay Kuila**, **Mahesh Chandra Govil**, "Priority Deep Q-Network-based Computational Offloading in NOMA-enabled Multi-user Collaborative Multi-Edge Computing Systems," 21st IEEE INDICON 2024, **IEEE Xplore** (2024).
- Biswadip Bandyopadhyay, **Pratyay Kuila** and **Mahesh Chandra Govil**, "Differential Evolution-based Service Caching and Offloading in Digital Twin-enabled ITSs," 6th IEEE RAIT 2025, IIT (ISM) Dhanbad, **IEEE Xplore**.
- Marlom Bey, **Pratyay Kuila**, Banavath Balaji Naik, "Quantum-Inspired PSO Based User Allocation in Edge Computing Systems," 6th IEEE RAIT 2025, IIT (ISM) Dhanbad, **IEEE Xplore**.
- Allu Sudharshan Rao, Bipal Khanal, and **Md. Sarfaraj AlamAnsari**, "Adaptive Switch Migration Strategy for Load Balancing in Distributed Multi-Controller Software Defined Networks", In 17th International Conference on COMMunication Systems & NETWORKS (COMSNET 2025), pp 266-274, **IEEE**, 2025.
- Most Tahia Subah Ankita, Bipal Khanal, Samvedna Gupta, Manvendra Singh, B Balaji Naik, and **Md Sarfaraj AlamAnsari**, "Taming the Monkeypox Outbreak with Deep Learning for Skin Lesion Detection", In Sixth International Conference on Computational Intelligence in Communications and Business Analytics (CICBA 2024), pp. 158-173, 2024, **Springer**.
- Chandan Kumar, Manvendra Singh, Bipal Khanal, **Md Sarfaraj AlamAnsari**, and **Mahesh Chandra Govil**, "Is software-defined smart grid secure? An analysis of security issues and solutions", In Sixth International Conference on Computational Intelligence in Communications and Business Analytics (CICBA 2024), pp. 273-283, **Springer**, 2024.
- Manvendra Singh, Chandan Kumar, **Md. Sarfaraj Alam Ansari**, and **Mahesh Chandra Govil**, "A Comprehensive Review of AI-based Low Back Pain Assessment and Rehabilitation", In Sixth International Conference on Computational Intelligence in Communications and Business Analytics (CICBA 2024), pp. 174–181, **Springer**, 2024.
- S. Das, P. K. Keserwani, and **Mahesh Chandra Govil**, "Detecting Adversarial Samples using Kernel Density Feature Extractor in Medical Image", In Proceedings of the 26th International Conference on Distributed Computing and Networking, pp. 420-425, 2025.

- R. D. Verma, P. K. Keserwani, V. K. Jain, "A CNN Approach to Detect The Anomalies In BGP Traffic", In 2024 15th International Conference on Computing Communication and Networking Technologies (ICCCNT), pp. 1-6, **IEEE**, 2024.
- Amitesh Patel, Aman Kapoor, Mrinmoy Mahato, Subhradeep Raut, and **B. B. Sinha**, "Enhancing rumour Detection: A Hybrid Deep Learning Approach with ELMo Embeddings & CNN", IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation - (IATMSI-2024).
- Arkajit Banerjee, and **B. B. Sinha**, "From Sparsity to Accuracy: Enhancing Recommendation Systems with Item-Based Collaborative Filtering and SVD Matrix Factorization", 4th International Conference on "Emerging Trends and Technologies on Intelligent Systems" - (ETTIS-2024).
- A. Rajhans, T. Das, A. Kumar and **B. B. Sinha**, "Exploring the Impact of Financial News Sentiment on Stock Price Forecasting: A Comparative Deep Learning Approach," 2024 1st International Conference on Communications and Computer Science (InCCCS), Bangalore, India, 2024, pp. 1-6.
- Anirban Porya, Varun Singh, **B. B. Sinha**, "Towards Robust Fake News Detection: An Empirical Investigation of Preprocessing and Modeling Techniques", 2024 International Conference on Computational Intelligence and Computing Applications (ICCICA - 2024).
- Nithish Chouti, Sakshi Kusale, Sanket Mishra, Shashank Rajora, **B. B. Sinha**, Prabhu Prasad B M, Manjunath K V, "Enhancing Multi-Criteria Recommendation Systems with Hot Deck Imputation and User-Specific Similarity Measures", 2nd International Conference on Artificial Intelligence: Theory and Applications (AITA 2024).
- Karan Raaj, Milind Murmu, Shravya N Kanalli, Tanush Korgaokar, Manjunath K V, Prabhu Prasad, **B. B. Sinha**, "Integrating Context and Criteria in Hotel Recommendations: A Deep Learning Perspective", 1st International Conference on Computing, Sciences & Communications – 2024.
- Nithish Chouti, Sakshi Kusale, Sanket Mishra, Shashank Rajora, Prabhu Prasad B M, **B. B. Sinha**, Manjunath K V, "Deep Learning-Based Multi-Criteria Recommender System: Leveraging Autoencoders for Improved Personalization", 1st International Conference on Computing, Sciences & Communications – 2024.
- Kumari Samridhi, **B. B. Sinha**, Trinanjan Das, "Optimizing User Recommendations with Variational Autoencoders: Insights from MovieLens-1M and BookCrossing Datasets", 3rd IEEE International Conference on Computer Vision and Machine Intelligence (IEEE CVMI) – 2024.
- Karan Raaj, Milind Murmu, Shravya N Kanalli, Tanush Korgaokar, **B. B. Sinha**, Manjunath K V, Prabhu Prasad, "CSSVD: A Novel Context-Aware Recommendation Algorithm to Address Cold Start and Data Sparsity", International Conference on Robotics, Control, Automation & Artificial Intelligence (RCAAI 2024).
- Aman Kapoor and **B. B. Sinha**, "Object Detection in Maritime Surveillance: A Data-Centric Comparison of YOLO and Transformer-Based Models", International Conference on Information and Communication Technology (CICT) 2024.
- Sanjeev Singh and **B. B. Sinha**, "Benchmarking Alzheimer's Disease Detection: A Study on VGG16, SVM, and Regularized CNN Models", Information Technology and Artificial Intelligence (ITAI 2025).
- Poornima Bhatt, Alongbar Wary, and **B. B. Sinha**, "CNN-Driven Deepfake Detection: Safeguarding Media Integrity through Advanced Image Analysis", 5th International Conference on Paradigms of Communication, Computing and Data Analytics (PCCDA 2025).
- Allu Sudharshan Rao and **B. B. Sinha**, "Towards Accessible Neurodegenerative Disease Diagnostics: Deep Learning Models for Alzheimer's Detection", IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation (IATMSI-2025).

Book Chapters

- Priyanka Das, **Sangram Ray**, Dipanwita Sadhukhan and **Mahesh Chandra Govil**, "6G Communication Technology for Industry 5.0: Prospect, Opportunities, Security Issues and Future Directions", Secure and Smart Cyber-Physical Systems, **CRC Press, Taylor & Francis**, pp. 104-117, 2024.
- Dipanwita Sadhukhan, Mou Dasgupta and **Sangram Ray**, "Cyber Threat Intelligence: A Standardized Protective Approach for Industrial Cyber Defence", Digital Image Security: Techniques and Applications, **CRC Press, Taylor & Francis**, pp. 178-199, 2024.
- Dipanwita Sadhukhan, **Sangram Ray** and Mou Dasgupta, "Data Fusion in Internet of Medical

Things: Towards Trust Management, Security and Privacy", Data Fusion for Smart Healthcare, **CRC Press, Taylor & Francis**, pp. 281-297, 2024.

- Dev Narula, Shalini Mahato, **B. B. Sinha**, R. Badlishah Ahmad, "Intelligent Heart Disease Prediction using Machine Learning", Artificial Intelligence based Solutions for Industrial Applications, Taylor & Francis, 2024. ISBN 9781032548012.

Patent

S. No	Patent Title	Name of Applicant(s)	Patent No.	Agency/ Country	Status
1	System and model design for keyword searchable CCN router	Kundan Kanti Saha, Sangram Ray and Mou Dasgupta	202331085159	India	Published

Achievements/Awards/Recognitions

- Prof. M. C. Govil** has joined as a **Special Guest**, on Foundation Day of IIT Jodhpur for MoU Signing Ceremony, during August 1-3, 2024.
- Prof. M. C. Govil** has joined as a **Guest of Honour for Induction cum Freshers Programme at Govt. ITI Kewzing** on September 23, 2024.
- Prof. M. C. Govil** has joined as a **Special Guest in 4th International Convention on Green Environment, Technology & Entrepreneurship**. Through Innovation (ICGETEI 2024), September 11-13, 2024, Amity University, Rajasthan.
- Prof. M. C. Govil** has joined as **Chief Guest to the Inaugural ceremony of the second International Conference on Computing and Machine Learning (CML-2025)** organised by the Department of Computer Applications, Sikkim Manipal Institute of Technology (SMIT).
- Dr. Sangram Ray** is selected as **ACM Eminent Speaker** by ACM for the period January 1, 2025 to December 31, 2026.
- Dr. Sangram Ray** is recognised as **2024 Highly Ranked Scholar** and **Top 0.05% of scholars worldwide in Cyber Security** by ScholarGPS.
- Dr. Sangram Ray** received the **Best Paper Award** in the "Network Security" track in the prestigious **6th Springer International Conference MIND - 2024**, held at **National Institute of Technology Goa**, India, from December 20-21, 2024.
- Dr. Sangram Ray** received the **Best Paper Award** in the prestigious **6th ACM International Conference IECC 2024**, held at **Kyushu University, Fukuoka, Japan**, from July 19-21, 2024.

Session Chair in Conferences/Seminars/ Workshops

- Dr. Sangram Ray** has served as a Session Chair in **6th International Conference on Machine Learning, Image Processing, Network Security and Data Sciences (MIND-2024)**, National Institute of Technology Goa, December 20-21, 2024.
- Dr. Krishna Kumar** has served as Session Chair in "2nd International Symposium on Artificial Intelligence (ISAI - 2025)", National Institute of Technology Sikkim, March, 2025.
- Dr. Bam Bahadur Sinha** has served as Session Chair in **TS 04: Emerging Technologies in "3rd Congress on Smart Computing Technologies (CSCT 2024)"**, National Institute of Technology Sikkim, December 14-15, 2024.
- Dr. Bam Bahadur Sinha** has served as Session Chair in **TS 09: Smart Computing Techniques in "3rd Congress on Smart Computing Technologies (CSCT 2024)"**, National Institute of Technology Sikkim, December 14-15, 2024.
- Dr. Bam Bahadur Sinha** has served as Session Chair in "Second International Symposium on Artificial Intelligence (ISAI-2024)", National Institute of Technology Sikkim, March05-07, 2025.
- Dr. Diksha Rangwani** has served as Session Chair in "Second International Symposium on Artificial Intelligence (ISAI-2025)", National Institute of Technology Sikkim, March 05-07, 2025

External Examiner/Expert for PhD/M.Tech. Thesis Review, BOCS, etc.

Sl. No.	Name of Faculty Member	Outreach Activities in Other Institution/University
1	Prof. M. C. Govil	<ul style="list-style-type: none"> Dr. B R Ambedkar National Institute of Technology, Jalandhar (Panjab). National Institute of Technology Srinagar, Hazratbal. National Institute of Technology, Srinagar, Jammu and Kashmir. Graphic Era (Deemed to be university) Dept. of Computer Science and Engineering. Selection Committee in faculty selection process at NIT Patna. Selection Committee in faculty selection process at School of Computer Science and Engineering at SMVDU, Kakryal, Katra. National Institute of Technology, Srinagar, Jammu & Kashmir.
2	Dr. Sangram Ray	<ul style="list-style-type: none"> National Institute of Technology Durgapur, W.B., India. Dr. SPM International Institute of Information Technology, Naya Raipur, Raipur, Chattishgarh, India. GITAM (Deemed to be University), Visakhapatnam, Andhra Pradesh, India. Sambalpur University, Burla, Odisha, India. NIRMA University, Ahmedabad, Gujrat, India. Osmania University, Hyderabad, Telangana, India. Jeppiaar Institute of Technology, Chennai, Tamilnadu, India. Chaitanya (Deemed to be University), Hyderabad, Telangana, India. University of Engineering & Management (UEM) Kolkata, India. Ramachandra College of Engineering, Eluru, A.P., India. Central Institute of Technology, Kokrajhar, Assam, India.
3	Dr. (Md.) Sarfaraj Alam Ansari	<ul style="list-style-type: none"> National Institute of Technology Durgapur, W.B., India.
4	Dr. Bam Bahadur Sinha	<ul style="list-style-type: none"> Member of IEEE

Membership in Professional Bodies

Sl. No.	Name of Faculty Member	Membership in Professional Bodies
1	Prof. M. C. Govil	<ul style="list-style-type: none"> Senior Member, The Institute of Electrical and Electronics Engineers (IEEE) Member, The Institution of Electronics & Telecommunication Engineers (IETE) Life Member, Indian Society for Technical Education, India (ISTE) Member of the Committees of NBA Honorary Director, RKCL Member, Senate, NIT UK Member, BoG of BoPT, Kolkata Member, Board of Studies, JECRC, Member, Board of Studies, MITS Gwalior, MP Member, Sikkim Manipal Institute of Technology (SMIT) Member, Shastri Indo-Canadian Institute's Bi-national Agri-Cluster Nominee of AICTE, in the Academic Council of State Board of Technical Education Sikkim.

Sl. No.	Name of Faculty Member	Membership in Professional Bodies
2	Dr. Sangram Ray	<ul style="list-style-type: none"> Fellow of IETE Chapter Leader of CSTA India Senior Member of IEEE Senior Member of IEEE Computer Society Senior Member of IEEE Communication Society Life Member of CSI Life Member of ISTE Life Member of ISCA Life Member of IEI Life Member of CRSI Life Member of IAENG Member of ACM
3	Dr. (Md.) Sarfaraj Alam Ansari	<ul style="list-style-type: none"> Member of IEEE
4	Dr. Bam Bahadur Sinha	<ul style="list-style-type: none"> Member of IEEE

Reviewer of International/National Journals

Sl. No.	Name of Faculty Member	Journals Name
1	Prof. M C. Govil	<ul style="list-style-type: none"> Cluster Computing, Springer Computers and Security, Springer Computers & Security, Elsevier
2	Dr. Sangram Ray	<ul style="list-style-type: none"> IEEE Transaction on Parallel and Distributed Systems. IEEE Transaction on Information Technology in BioMedicine IEEE Transaction on Emerging Topics in Computational Intelligence IEEE Transaction on Cognitive and Developmental Systems IEEE Transaction on Network and Service Management IEEE Transaction on Information Forensics and Security IEEE Transaction on Intelligent Transportation Systems IEEE Systems Journal IEEE Sensors Journal IEEE Internet of Things Journal IEEE Access IEEE Open Journal of the Communications Society IEEE Open Journal of the Computer Society IETE Journal of Research IET Information Security Information Security Journal: A Global Perspective, IETE Wireless Personal Communications, Springer International Journal of Communication Systems, Wiley Transaction on Emerging Telecommunication Technologies, Wiley. IETE Journal of Research, Taylor & Francis International Journal of Innovation Science, Emerald. Indian Journal of Science and Technology. Security and Communication Networks, Hindawi.

Sl. No.	Name of Faculty Member	Journals Name
3	Dr. Pratyay Kuila	<ul style="list-style-type: none"> ■ International Journal of Electronic Security and Digital Forensics, Inderscience. ■ International Journal of Information and Computer Security, Inderscience. ■ Journal of Ambient Intelligence and Humanized Computing, Springer. ■ Journal of Information Security and Applications, Elsevier. ■ Future Generation Computer Systems, Elsevier. ■ CSI Transaction on ICT, Springer. ■ Clinical Epidemiology and Global Health, Elsevier. ■ Journal of Medical Systems, Springer. ■ Journal of Supercomputing, Springer. ■ SN Computer Science, Springer. ■ Journal of Network and System Management, Springer. ■ Artificial Intelligence in agriculture, Elsevier. ■ Ain Shams Engineering Journal, Elsevier. ■ IGI Global ■ Indonesian Journal of Electrical Engineering and Computer Science ■ Journal of Engineering and Technological Sciences ■ Journal of Healthcare Engineering, Wiley ■ Journal of Network and Computer Applications, Elsevier ■ PLOS ONE Journal ■ TELKOMNICA ■ Peer J Computer Science ■ Journal of Medical Imaging and Health Informatics ■ Frontiers in Computer Science, Frontiers ■ Frontiers in Big Data, Frontiers ■ Physical Science International Journal ■ Big Data Journal ■ Alexandria Engineering Journal, Elsevier ■ Wireless Communication and Mobile Computing, Hindawi ■ Asian Journal of Mathematics and Computer Research ■ Journal of System Architecture, Elsevier ■ Journal of Computer Security, ACM Digital Library ■ Journal of Agriculture and Food Research ■ Journal of Intelligent & Fuzzy System ■ International Journal of Distributed Sensor Networks, Hindawi ■ Cluster Computing, Springer ■ Internet of Things and Cyber-Physical Systems ■ Internet of Things Journal, Elsevier ■ Peer-to-Peer Networking and Applications, Springer ■ International Journal of Information Security, Springer
		<ul style="list-style-type: none"> ■ IEEE Transactions on Industrial Informatics ■ ACM Transactions on Sensor Networks ■ Ad Hoc Networks (Elsevier) ■ Expert System with Applications (Elsevier) ■ Applied Soft Computing (Elsevier) ■ Engineering Applications of Artificial Intelligence (Elsevier) ■ Computer Networks (Elsevier) ■ Int. Journal of Communication Systems (Wiley)

Sl. No.	Name of Faculty Member	Journals Name						
4	Dr. Md. S. Alam Ansari	<ul style="list-style-type: none"> ■ International Journal of Peer-to-peer Networking and Applications, Springer ■ Multimedia Tools and Applications, Springer ■ Future Generation Computer Systems, Elsevier ■ International Journal of Computers and Applications (IJCA), Taylor & Francis ■ International Journal of Computing and Digital Systems(IJCDS), University of Bahrain Scientific PublishingCenter ■ IEEE Internet of Things Journal, IEEE 						
		5	Dr. Pankaj Kumar Keserwani	<ul style="list-style-type: none"> ■ Cluster Computing, Springer ■ Computers and Security, Springer ■ Machine Learning and Cybernetics, Springer ■ Machine Learning and Cybernetics Elsevier ■ Computers & Security, Elsevier 				
				6	Dr. Bam Bahadur Sinha	<ul style="list-style-type: none"> ■ Cluster Computing, Springer ■ Analog Integrated Circuits and Signal Processing, Springer ■ International Journal of Computational IntelligenceSystems, Springer ■ Knowledge and Information Systems, Springer ■ Neural Processing Letters, Springer 		
						7	Dr. Diksha Rangwani	<ul style="list-style-type: none"> ■ Peer-to-Peer Networking and Applications, Springer ■ Discover Internet of Things, Springer ■ Scientific Reports, Springer ■ The Journal of Supercomputing, Springer ■ Cluster Computing, Springer ■ Microsystem Technologies, Springer ■ Wireless Personal Communications, Springer ■ Journal of Reliable Intelligent Environments, Springer ■ Physical Communication, Elsevier

Google Scholar Citations

Sl. No.	Name of Faculty Member	Citations	Sl. No.	Name of Faculty Member	Citations
1	Prof. M. C. Govil	Total Citations – 2115 h-index – 23 i10-index – 51	5	Dr. Pankaj Kumar Keserwani	Total Citations – 443 h-index – 9 i10-index – 9
2	Dr. Sangram Ray	Total Citations – 1308 h-index – 19 i10-index – 30	6	Dr. Krishna Kumar	Total Citations – 110 h-index – 3 i10-index – 2
3	Dr. Pratyay Kuila	Total Citations – 3281 h-index – 27 i10-index – 46	7	Dr. Bam Bahadur Sinha	Total Citations – 1004 h-index – 11 i10-index – 12
4	Dr. (Md.) Sarfaraj Alam Ansari	Total Citations – 174 h-index – 8 i10-index – 6	8	Dr. Diksha Rangwani	Total Citations – 153 h-index – 5 i10-index – 4

Internship Achievements

The students from the department of CSE got 100% internship offers in various esteemed organizations. The organizations include Platform9 Systems, ZS Associates, GRAB, Samsung Research etc.

Placement Achievements

The students from the department of CSE got placement offers in various esteemed organizations. The organizations include Platform9 Systems, ZS Associates, GRAB, Samsung Research etc. 80% of outgoing students of the department got placed through the campus interview. The highest placement offer received is 24 LPA.

B.Tech. (CSE) Degree Awarded

SL No	Name of the Student	Title of the Project Report	Supervisor(s)
1.	Most. Tahia Subah Ankita	AI-based Diagnostic System for Medical Image Analysis and Disease Detection	Dr. (Md.) Sarfaraj Alam Ansari
2.	Amar Kumar Sharma	Detecting Malicious Traffic in a IoT Network	Dr. (Md.) Sarfaraj Alam Ansari
3.	Zameer Ahmad Ansari	Trust Based Security Protocol for Sea Ad-hoc Network (SANET)	Dr. Sangram Ray
4.	Suruchi Sharma	Energy Optimized Cluster Head Selection in Software Defined Wireless Sensor Networks	Dr. (Md.) Sarfaraj Alam Ansari
5.	Abhishek Majumder	"IoT Service Placement in Fog Computing Using Genetic Algorithm"	Dr. Pratyay Kuila
6.	Samir Chauhan	"An Efficient and Robust HGR System Using SoftMax-Based Voting"	Prof. Mahesh Chandra Govil
7.	Shubham Kumar Sharma	Detection and Mitigation of DDoS Attack in SDN Environment Using Machine Learning	Prof. Mahesh Chandra Govil
8.	Rinchen Lhamu Sherpa	NIT Sikkim examination portal	Prof. Mahesh Chandra Govil
9.	Mohammad Aslam	Efficient IoT Service placement in Edge computing using GSA	Dr. Pratyay Kuila
10.	Rashi	Efficient Packet Parser using Field Programmable Gate Array for Programmable Data Plane	Dr. (Md.) Sarfaraj Alam Ansari
11.	Dhani Setty Sai Anvitha	SDN Controller Load Balancing using Switch Migration	Dr. Md. Sarfaraj Alam Ansari
12.	Allu Sudharshan Rao	Load Balancing for Software Defined Network Resource Optimization	Dr. Md. Sarfaraj Alam Ansari
13.	Rohit Mohan Roy	Detection and mitigation of ARP Poisoning Attack in SDN Architecture	Prof. Mahesh Chandra Govil
14.	Harsh Tyag	Task distribution based on Deep Reinforcement Learning in the Internet of Vehicles	Dr. Pratyay Kuila
15.	Venkata Ramana Menda	Deep Reinforcement Learning Based Efficient Task Offloading For Mobile Edge Computing System	Dr. Pratyay Kuila
16.	Samir Chauha	An Efficient and Robust HGR System Using SoftMax-Based Voting	Prof. Mahesh Chandra Govil
17.	Dhireen Kumar Rajak	Scalable Blockchain-based Solution for Drug Tracking in Pharmaceutical Supply Chain	Dr. (Md.) Sarfaraj Alam Ansari
18.	Vaishnavi Pradhan	Effective IoT Service Placement Using Particle Swarm Optimization In Edge Computing	Dr. Pratyay Kuila

SL No	Name of the Student	Title of the Project Report	Supervisor(s)
19.	Jigme Wangchuk Sherpa	Efficient Security Function Offloading on Programmable Data Plane	Dr. (Md.) Sarfaraj Alam Ansari
20.	Amrisha Nigam	Predicting Modeling of Air Quality Index, Comparative Analysis and Hybrid Approach	Dr. Pankaj Kumar Keserwani
21.	Prasan Subba	Detection of Adversarial Examples with the help of Transferability Analysis using Adversarial Training'	Dr. Pankaj Kumar Keserwani
22.	Sunny Prasad	A Blockchain-Enabled Traffic Event Validation Using Reputation Value And Threshold Ring Signature Scheme With Incentives For VANET	Dr. Pratyay Kuila
23.	Aman Kumar Rajak	ECC Based Authentication Scheme And Key Agreement For Smart Home	Dr. Sangram Ray
24.	Aman Saurav	Task Offloading in Mobile Edge Computing Using Deep Reinforcement Learning	Dr. Pratyay Kuila
25.	Sunny Prasad	A Blockchain-Enabled Traffic Event Validation Using Reputation Value And Threshold Ring Signature Scheme With Incentives For VANET	Dr. Pratyay Kuila
26.	Juhi Kumari Parsad	Value And Threshold Ring Signature Scheme With Incentives For Valet	Dr. Pratyay Kuila
27.	Avinash Kumar	Detection And Mitigation of Flow Table Flood Attack in SDN Architecture	Prof. Mahesh Chandra Govil
28.	Vishal Kumar	Detection And Mitigation Of Flow Table Flood Attack In SDN Architecture	Prof. Mahesh Chandra Govil
29.	Sanskar Sharma	API BASED AQJ Prediction Using Deep Learning	Dr. Pankaj Kumar Keserwani
30.	Suvam Bhagat	A Lightweight Authentication And Key Negotiation Protocol Using ECC In IIOT	Dr. Sangram Ray
31.	Dhani Setty Sai Anvitha	SDN Controller Load Balancing using Switch Migration.	Dr. (Md.) Sarfaraj Alam Ansari
32.	Aanchal Gupta	While Optimization For Deficient Lot Service Provisioning In Fog Computing Environment	Prof. Mahesh Chandra Govil
33.	Deepak Kumar Shah	An Efficient And Secure ECE-Based Authentication Scheme For Electronic Wallet	Dr. Sangram Ray
34.	Aman Saurav	Task Offloading in Mobile Edge Computing Using Deep Reinforcement Learning	Dr. Pratyay Kuila
35.	Ashish Garg	A Provably Secure Authentication And Key Agreement Scheme For Internet of Medical Thing (Iomt) Framework	Dr. Sangram Ray
36.	Anurag Singh	API Enabled AQI Prediction Using Deep Learning	Dr. Pankaj Kumar Keserwani
37.	Manish Kumar Pandit	Secure Authentication Protocol for Smart Agriculture Using ECC	Dr. Sangram Ray
38.	Mohan Tanti	Enhancing Iot Security Through Wrapper-Based Merv-Fs In Network Intrusion Detection System	Dr. Pankaj Kumar Keserwani
39.	Bolla Phani Sai Divya Tej	Enduring IOT Security Through Wrapper-Based Morfs In Nits	Dr. Pankaj Kumar Keserwani

SL No	Name of the Student	Title of the Project Report	Supervisor(s)
40.	Vedaant Gajmer	Enhancing Security In Internet of Vehicles (IOV) Through ECC-Based Cryptographic Measures	Dr. Sangram Ray
41.	Gonsalves Riyan Sanjay	Secure And Anonymous Authentication Framework For Ido Using ECC	Dr. Sangram Ray

Ph. D. Degree Awarded/Submitted

SL No	Name of the scholar	Title of Thesis	Supervisor(s)	Awarded / Submitted
1.	Biswadip Bandyopadhyay	Quantum-inspired evolutionary intelligence for efficient caching and offloading in edge – cloud environments.	Dr. Pratyay Kuila	Submitted
2.	Kundan kanti Saha	Design of provable secure and efficient content dissemination framework in content centric network.	Dr. Sangram Ray	Submitted

Present Research Scholars

SL No	Name of Scholar	Research Area	Supervisor(s)
1.	Rahul Deo Verma	Development of ML Based Attack Detection Approaches in BGP Networks	Dr. Pankaj Kumar Keserwani Dr. Vinesh Kumar Jain, GEC Ajmer
2.	Dhananjay Kumar	Content Centric Network	Dr. Pankaj Kumar Keserwani
3.	Deepak Kumar Khandelwal	Computer Science and Productivity	Prof. M.C. Govil
4.	Santanu Ghosh	Task Offloading Using UAV-Assisted Edge Computing	Dr. Pratyay Kuila
5.	Priyanka Das	Remote Server Authentication and Blockchain Technology	Dr. Sangram Ray Prof. M. C. Govil
6.	Narita Sarkar	AIR Quality Index	Dr. Pankaj Kumar Keserwani Prof. M. C. Govil
7.	Manvendra Singh	Efficient Healthcare Monitoring for Internet of Medical Things (IoMT)	Prof. M. C. Govil Dr. Md. S. A. Ansari
8.	Suman Das	Detection and Defense against Adversarial Attacks	Dr. Pankaj Kumar Keserwani Prof. M. C. Govil
9.	Marlom Bey	Quantum-Inspired Evolutionary Algorithms in Edge Computing Environment	Dr. Pratyay Kuila Dr. B. Balaji Naik
10.	Suman Banerjee	Blockchain Assisted Mobile Edge Computing	Dr. Pratyay Kuila Dr. B. Balaji Naik
11.	Chandan Kumar	Enhancing Software Defined Network Security	Dr. Md. Sarfaraj Alam Ansari
12.	Arti Bahugnan	Hand Gesture Recognition Using Deep-Learning	Prof. M. C. Govil Dr. Gopa Bhaumik
13.	Rajma Ali	Design of Efficient and Secure Communication Protocols for Integration of Content Centric Network in Internet of Things	Dr. Sangram Ray
14.	Atanu Sarkar	Design of Efficient and Secure Communication Protocols for IoT in Contest of Content Centric Network (CCN)	Dr. Sangram Ray

SL No	Name of Scholar	Research Area	Supervisor(s)
15.	Sanjay Kumar Mahto	Malware Detectionfor IoT Network	Dr. Pankaj Kumar Keserwani Prof. M. C. Govil
16.	Anurag Maurya	Design of Secure Authentication Scheme and It's Applications	Dr. Sangram Ray
17.	Shivani Saini	Design of Secure and Efficient Authentication Scheme	Dr. Sangram Ray Prof. M. C. Govil
18.	Bipal Khanal	Software Defined Networking, Control Plane Optimization	Dr. Md. Sarfaraj Alam Ansari
19.	Prashant Gupta	Federated Learning	Dr. Pratyay Kuila
20.	Prashant Singh	Adversarial Attack using Generative AI	Dr. Pankaj Kumar Keserwani Prof. M. C. Govil
21.	Tannu Shree	Recommendation System	Dr. Krishna Kumar
22.	Subhasish Chowdhury	Design of Secure Authentication Schemes	Dr. Sangram Ray

Involvement in Community Development

- Lectures by Faculty members in nearby schools.
- Computer exposure to the children from nearby villages and schools.
- Department / Laboratory visit by the nearby school students.
- Teaching and Technical support to ITI Kewzing



Some Photographs of Events Organized by the Department



Department of Electronics and Communication Engineering

Introduction

The Department aims to provide its students with the essential technical knowledge and skills of contemporary and futuristic technologies in the field of Electronics and Communication Engineering to match the global requirements. The Department offers B. Tech program in Electronics and Communication Engineering, M. Tech program in two specializations viz. (1) VLSI & Embedded Systems and (2) Communication & Signal Processing and Ph.D. Degree. Proper weightage of theory and practical learning are given in the curriculum to all the offered programs. The perspectives of all the stakeholders, i.e. renowned academicians, students, their parents, industrial partners and the agencies involved in quality education are considered in the curriculum.

The research focus of the Department is in the areas of VLSI Design, Application Specific Integrated Circuits (ASIC) Design & Modeling, Optimization of High-Performance Semiconductor Devices, Microwave Engineering & Antenna Design, Wireless Communication, Satellite Systems & Navigation, Signal Processing, and Solar Cell.

The Department has basic laboratory facilities to provide hands-on experience with the latest technologies. The Department comprises a diverse group of young, enthusiastic and dynamic Faculty members. Continuous evaluations of teaching and learning are carried out in the Department by collecting necessary feedback from the students. Special care and attention are taken for holistic development of the students to help them in academics, research and career aspects. Moreover, internships, industrial projects and interaction with leading academicians & industrial professionals are also arranged for the students to help them gain leadership skills, competitive skills, and entrepreneurial skills. Students are encouraged to join various Departmental and Institute-level Committees, actively contributing to the organization of placement drives, workshops, technical festivals, cultural festivals, and sports events. Anuvrat, the Departmental Technical Club, organizes many technical events such as Alumni Talk Series namely Vimrshyotsava, National Science Day Lecture, Quiz Competition etc., on a regular basis.

Aspiration

To contribute to finding solutions to the challenges faced by the nation and the world by furnishing new thoughts and talents.

Mission

- To foster a culture of research and innovation by encouraging faculty and students to pursue cutting-edge projects addressing real-world challenges.
- To promote academic growth through the delivery of state-of-the-art undergraduate, postgraduate, and doctoral programs.
- To nurture national and international competitiveness among students by facilitating international internships, industry-linked projects, and research in futuristic and emerging technologies.

Vision

- To achieve excellence in teaching and research in Electronics and Communication Engineering by maintaining a strong balance between theoretical knowledge and practical skills.
- To empower students as innovative professionals and responsible citizens who contribute to technological progress and socio-economic development, especially addressing the unique challenges of the Himalayan and North-Eastern regions.

- To establish the department as a source of national pride through impactful education, research, and contributions to society in alignment with emerging global standards.

Salient Features

Various measures are taken to impart and adapt attributes like critical thinking, innovation, global competitiveness, introduction to new technology, industry trends etc. Some of them are:

- Technical support to carry out research, projects and patent related work.
- Guidance for excelling in Placement and Competitive examinations such as GATE, PSUs etc.
- Exposure to latest technologies and research areas through Seminars, Workshops, Conference, and Summer Trainings.
- Online Learning through various platforms such as NPTEL, SWAYAM etc.

Faculty Details

Dr. Sanjay Kumar Jana

Associate Professor and HoD
Ph.D (IIT Kharagpur), M.Tech (Jadavpur University), M. Sc. Electronics (Vidyasagar University)

Area of Interest: Design of Nano scale Devices for VLSI IC, Analog MOS IC Design.

Dr. Hemant Kumar Kathania

Assistant Professor
Ph.D (NIT Sikkim), M.Tech (IIT Guwahati), B.Tech. (University of Rajasthan)

Area of Interest: Signal and Speech Processing

Dr. Reshmi Dhara

Assistant Professor
Ph.D (NIT Sikkim), M.Tech. (IIT Kharagpur), B.Tech. (WBUT)

Area of Interest: Polarized Microstrip Antenna

Dr. Jeetendra Singh

Assistant Professor
Ph.D (NIT Jalandhar), M.Tech (University of Delhi), B.Tech. (UPTU Lucknow)

Area of Interest: VLSI Design, Microelectronics, Semiconductor Devices, Memristor.

“Engineering problems are under-defined; there are many solutions, good, bad, and indifferent. The art is to arrive at a good solution.”

– Richard James

Dr. Vishal Vishnoi

Assistant Professor

Ph.D (NIT Jalandhar), M.E. (Thapar University Patiala), B. Tech. (UPTU Lucknow)

Area of Interest: Process Control and Modelling, Microprocessor and Microcontroller, Control System, Soft Computing**Dr. Varun Gupta**

Assistant Professor

Ph.D (NIT Kurukshetra), M. Tech. (NIT Jalandhar), B. Tech. (UPTU Lucknow)

Area of Interest: Biomedical Signal Processing and Control, Pattern Recognition and Soft Computing**Temporary Faculty Members****Dr. Sukanta Dhar**

Assistant Professor

Ph.D (IEST Shibpur), M.Tech (Jadavpur University), B.Tech. (WBUT)

Area of Interest: Solar Photovoltaic, Light Trapping, Study of Nano-materials.**Dr. Sudipta Das**

Assistant Professor

Ph.D (NIT Durgapur), M.Tech (NIT Durgapur), B.Tech. (WBUT)

Area of Interest: Antennas and Antenna Arrays, Evolutionary Algorithms, Multiobjective Optimization**Dr. Neelima Singh**

Assistant Professor

PhD (Thapar University Patiala), M.Tech. (Banasthali Vidyapith, Rajasthan), B.Tech. (Banasthali Vidyapith, Rajasthan)

Area of Interest: Perovskite Solar Cell, Semiconductor Devices**Staff details****Mr. Amit Tamang**

Senior Technical Assistant

B. Tech in ECE,
RTU, Rajasthan,
Diploma in ECE,
CCCT, Sikkim**Mr. Sidharth Pradhan**

Senior Technician

B. Tech in EE, Kalinga University, Raipur, Diploma
in ECE, CCCT, Sikkim**Departmental Committees****Ph. D. Degree Awarded/Submitted**

S. No.	Name of the Committee	Name of the Faculty Members
1	Academic Performance Evaluation Committee (APEC)	<ol style="list-style-type: none"> 1. Dr. Sanjay kumar Jana, HoD and Convener 2. Dr. Hemant Kumar Kathania, Convener, DPGC & HoD Nominee 3. Dr. Reshmi Dhara, Convener DUGC, Member 4. Faculty Advisor of the concerned student(s) Member 5. Dr. Aurobinda Panda, Department of EEE
2	Departmental Undergraduate Committee (DUGC)	<ol style="list-style-type: none"> 1. Dr. Reshmi Dhara, Convener DUGC 2. Dr. Sanjay kumar Jana, HoD, ECE 3. Dr. Hemant Kumar Kathania, Member 4. Dr. Jeetendra Singh, Member 5. Dr. Vishal Vishnoi, Member 6. Dr. Varun Gupta, Member 7. Dr. Sukanta Dhar, Member 8. Dr. Sudipta Das, Member 9. Dr. Neelima Singh, Member
3	Departmental Postgraduate Committee (DPGC)	<ol style="list-style-type: none"> 1. Dr. Hemant Kumar Kathania, Convener DPGC 2. Dr. Sanjay kumar Jana, HoD, ECE 3. Dr. Reshmi Dhara, Convener DUGC 4. Dr. Varun Gupta, Member 5. Dr. Vishal Vishnoi, Member 6. Dr. Sukanta Dhar, Member 7. Dr. Sudipta Das, Member 8. Dr. Jeetendra Singh, Member 9. Dr. Neelima Singh, Member 10. Dr. Molay Roy, Dept. of EEE

Membership of Technical Association/Society

Faculty members of the Department of ECE are allied with various Technical Associations/Societies like IEEE, Associate Member of Metrology Society of India, CSIR - National Physical Laboratory, Machine Intelligence Research (MIR) Labs, VLSI Society of India (VSI), ISCA, etc.

Laboratory Facilities

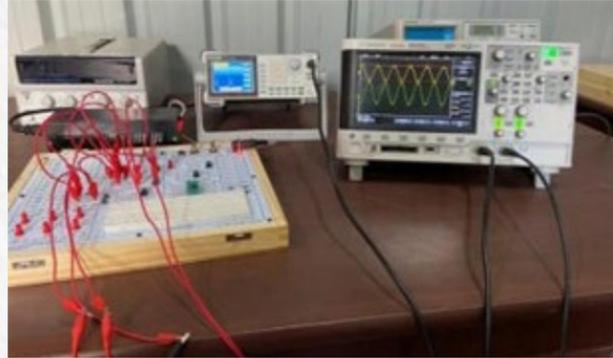
The Department has basic laboratory facilities and each of them are equipped with some of the modern technical instruments which are useful for the UG and PG students.

♦ **Analog Circuits Laboratory:**

The Analog Circuit Design Laboratory introduces students to the world of analog from a system design

perspective, equipping them to understand and address challenges as system designers. The goal of the course is to develop the student's ability to state-of-the-art design and conduct experiments, analyze and interpret data, ability to design a system which meets the desired specifications, ability to identify, formulate, and solve engineering problems, ability to use the techniques, skills and modern engineering tools necessary for Engineering practices.

Each laboratory experiment has a design part, simulation and an actual experimental verification in the laboratory (bread-boarding/soldering). The basic objective is to give hands-on experience in design and implementation of analog and mixed-signal circuits.



◆ Logic Design Laboratory:

The experiments corresponding to the Logic Design Laboratory are Combinational Logic design using basic gates (Code Converters, Comparators), Combinational Logic design using decoders and MUXs, Arithmetic circuits - Half and Full Adders and Subtractors, Flip flop circuit (RS latch, JK & master slave) using basic gates, Counters, Transfer Characteristics, Measurement of Sinking and



Sourcing currents of TTL gates etc. Logic Design Laboratory is well equipped with Digital Logic Trainer Kits where various experiments can be performed. Through the experiments conducted in this laboratory, students gain the ability to design simple logic circuits and test or verify their functionality. The students gain a thorough understanding of the fundamental concepts and techniques used in digital electronics that enable them to analyze and design various combinational and sequential circuits.



Computer System Design Laboratory:

The Microprocessor and Microcontroller Laboratory is a core technical facility within the Department of Electronics and Communication Engineering (ECE) at NIT Sikkim. This lab is dedicated to hands-on learning and practical implementation of fundamental and advanced concepts in microprocessors, microcontrollers, and embedded systems.

It provides an essential platform for both undergraduate and postgraduate students to bridge theoretical understanding with real-world applications. The laboratory supports a variety of experiments and

projects related to assembly language programming, hardware interfacing, interruption handling, timer operations, and real-time control applications.

Laboratory Infrastructure and Equipment

The laboratory is equipped with a range of modern training systems and development platforms, including:

- Intel 8085 Microprocessor Trainer Kits
- Intel 8086 Microprocessor Trainer Kits
- 8051 Microcontroller Development Boards
- ATmega-based microcontroller boards

- Arduino Uno and Mega boards
- Raspberry Pi boards
- Sensor modules: IR, Ultrasonic, Temperature, Moisture, DHT11
- Display units: LED, LCD, OLED
- Motor drivers and actuators, stepper motors
- Interfacing modules: ADC, DAC, keypads, buzzers, and relays

Students gain programming experience using assembly language, while also utilizing software tools such as Keil Micro Vision, Assembler, GNU Sim 8085, and Arduino IDE to simulate, test, and debug embedded systems.

Core Experiments and Learning Objectives

- Assembly language programming for 8085, 8086, and 8051
- Timer programming and interrupt handling
- LCD and keypad interfacing
- Motor speed and direction control
- Sensor-based data acquisition and processing
- Interfacing of various I/O modules



- Programming modern microcontrollers like ATmega and Arduino

Student Hardware Projects

The laboratory also serves as an innovation hub where students design and develop practical hardware projects, especially during mini-projects, final-year capstone projects, and national-level competitions. Some of the notable student projects include:

- Smart Irrigation System
- RFID and GSM Based Attendance System using Arduino
- IoT-Based Home Automation System
- Password-Based Digital Locking System
- Obstacle Avoiding Robot
- Smart Traffic Signal Controller
- Temperature and Humidity Monitoring System
- Library Attendance System

These projects strengthen students' technical abilities in embedded systems design, digital control, interfacing, and system integration, preparing them for roles in industry, research, and entrepreneurship.



◆ Communication Engineering Laboratory:

The experiments corresponding to the Analog Communication and Digital Communication techniques are performed in this Laboratory. The experiments are primarily performed in simulation. Using the MATLAB tool for initial understanding and visualization. Afterwards, the hands-on experiments are performed using hardware such as discrete components, ICs, breadboards and hardware equipment like signal generator, DC power supply, Oscilloscopes, Spectrum Analyzer etc. Trainer kits are also provided to students, primarily for conducting more complex experiments and analyzing output waveforms under varying input and channel conditions.

Some experiments performed in Analog Communication Laboratory are generation and detection of different continuous wave modulation techniques: amplitude modulation (e.g., DSB-FC, DSB-SC, SSB), frequency modulation (FM) and phase modulation (PM); pulse modulation techniques: pulse amplitude modulation (PAM), pulse width modulation (PWM) and pulse positioning modulation (PPM); Frequency Division Multiplexing and Demultiplexing schemes etc. Experiments to study digital communication systems are carried out in this laboratory such as generation and detection of different pulse code modulation techniques (e.g., PCM, DPCM, and DM). Besides, different line coding methods used to transmit digital data over a transmission line are experimentally studied such as unipolar, polar and bipolar coding.



Further, to study inter-symbol interference (ISI) over a noisy channel, EYE pattern is generated and analyzed in the oscilloscope. On the other hand, to transmit data over a channel, different digital modulation schemes, i.e., amplitude shift keying (ASK), frequency-shift keying (FSK), phase-shift keying (PSK), are experimentally studied. Multiplexing and multiple access techniques like TDM, and CDMA are also performed. Familiarization with the conventional and advanced wireless communication systems are pursued in this laboratory. Some advanced wireless communication engineering set up such as 2x2 MIMO (NI USRP), Satellite uplink and downlink data transmission, Ad-hoc Wireless Communication (Bluetooth, Wi-Fi and Zigbee) Kit, Global Position System (GPS) kit, Global System for Mobile communication (GSM) kit are also available in this laboratory. Model to determine the free space loss, the power received and BER-SNR graphs for different types of channels (e.g., AWGN and fading channel) with different types of digital modulation techniques (e.g., ASK, FSK, BPSK, QPSK) are performed using programming.

Apart from that some of the advance wireless technologies, spread spectrum modulation and demodulation techniques (DSSS and FHSS), and orthogonal frequency division multiplexing (OFDM) modulation and de-modulation are also studied and performed using programming in this laboratory. These help the students to cope up with the modern wireless communication technologies and standards used in various applications. With such a variety of experimental learning opportunities, students can develop the knowledge of design and analysis of various components of modern communication systems.



◆ Electromagnetics and Antenna Laboratory:

The Electromagnetics and Antenna Laboratory familiarize the students with the fundamental principles and applications of electromagnetic wave propagation which is essential in the field of wireless communication. The corresponding laboratory aims to develop the students' ability to implement their knowledge achieved from electromagnetic field theory and antennas in practical domain. This laboratory provides students with practical exposure to electromagnetic phenomena, focusing



◆ Microwave Engineering Laboratory:

Microwave Engineering Laboratory is suitable for performing experiments such as studying the characteristics of various microwave passive components including Directional Coupler, Branch line Coupler, Rat Race Coupler, attenuator, ring resonator, power divider etc. in the microwave frequencies up to 3GHz. Besides, frequency response of microwave oscillator such as GUNN diode and Reflex Klystron is observed in the waveguide test bench. Design and simulation of various planar and



on field propagation in guided media and radiation characteristics of various antennas. With the use of transmission line systems as well as coaxial cables, students can study and characterize the standing waves and its effect on signal propagation. In this laboratory the students can observe the radiation patterns of various planar and non-planar antennas followed by evaluation of the antenna parameters that lead them to acquire the ability to distinguish between different types of antennas with respect to the field of applications.



non-planar antennas operating in the microwave frequencies (microstrip patch antenna, slot antenna) are carried out in this laboratory followed by analysis of the antenna parameters (VSWR, radiation pattern, gain) using High frequency simulators. Measurement of radiation, scattering parameters, impedance of microwave antennas is also performed using network analyzer that makes the students aware of the characteristics of the antennas used in various high frequency applications.



◆ VLSI Design Laboratory:

The VLSI Design Laboratory is equipped with state-of-the-art computational facilities and has access to industry-standard EDA tools like Cadence Virtuoso, Mentor Graphics, Xilinx Vivado, Synopsis, etc. B.Tech and M.Tech practical courses related to VLSI are conducted in this laboratory. The M.Tech students with the specialization on Microelectronics & VLSI Design access the lab facilities heavily during their One-year dissertation period. Apart from that, Institute Research Scholars working in analog/digital VLSI or device modelling access this lab on a regular



basis for their computational and research purposes. In this lab, the complete VLSI design cycle consisting of the steps like schematic design, floor-planning, placement, routing, parasitic extraction, and post-layout simulation can be performed for analog, digital or mixed-signal circuits. Students can also perform experiments related to the design and synthesis of combinational circuits, sequential circuits, FSM using VHDL or Verilog in this laboratory. The lab has all the facilities necessary for semiconductor device modelling and process simulations.



◆ Signal Processing and Acoustics Laboratory:

The experiments corresponding to the Signals and Systems and Digital Signal Processing are performed in this Laboratory. The experiments including fundamental signal operations, analysis

of LTI systems (linear convolution), Fourier analysis of periodic and non-periodic signals both in continuous and discrete-time and frequency domain representation of signals etc. are performed for the Signals and Systems Laboratory.



The Digital Signal Processing (DSP) Laboratory has both software and a hardware component. In the software part, students carry out number of simulations, illustrating some of the fundamental concepts and applications of digital signal processing, such as quantization, sampling and aliasing, signal generation and manipulation, block processing by convolution using overlap save and overlap add method, signal enhancement and noise reduction filters, direct, canonical, and cascade realizations of digital filters, spectral analysis by the DFT and FFT, the design of IIR, and FIR filters for band pass, band stop, low pass and high pass filters, and

digital audio effect applications. The hardware part of the laboratory illustrates the programming of real-time signal processing algorithms. This course enables the students to understand handling of discrete/digital signals, the basic operations of signal processing, the design and analyzing the linear time-invariant (LTI) systems and compute its response, analyze the spectral characteristics of signals using Fourier analysis, analyze the systems using Laplace transform and Z-transform, the design IIR, and FIR filters for bandpass, band stop, low pass, and high pass filters and design the signal processing algorithm.

◆ Optical Communication Laboratory:

Various experiments related to Optical Communication can be performed in this laboratory with training systems such as optical network system, Erbium Doped Fiber Amplifier Training System, Fiber Optic Trainer Kit for glass and plastic fiber, Fiber Optic, Connector and Splicing Kit etc.

Such types of equipment are useful for studying chromatic dispersion, Diode laser characterization, Bragg Grating characterization, observation of various modes, Numerical Aperture Measurement of Optical Glass Fiber etc. The experiments are useful for the students in implementing their knowledge regarding optical communication systems practically.



◆ Internet-of-Things (IoT) and Artificial Intelligence (AI) Laboratory:

The Internet-of-Things (IoT) laboratory is useful for the UG, PG students to cope up with the current technologies. This laboratory is equipped with systems such as IoT mote with highly integrated system on Chip compliant to IEEE 802.15.4, RF subsystem and Security subsystem, Wi-Fi mote with wireless MCU with built-in Wi-Fi protocol stack targeted for IoT, SOC based device for Bluetooth Low Energy-based applications, Sensor mote with various sensors such as Temperature & Relative Humidity Light Intensity, Proximity Sensing.

Artificial Intelligence Laboratory facilitates UG and PG students to smartly deal with various real-world problems or models thereof. This laboratory is equipped with Python and Tensor flow to conduct experiments on Search operations following Search algorithms, Multi-agent games, Genetic Algorithms and Optimization, Neural Network and Fuzzy Logic Applications and Planning. Also, MATLAB-based experiments on Genetic Algorithms, Neural Network and Fuzzy Logic are included in this Laboratory.

Research Scholars in the Department

Scholar	Research Topic	Supervisor(s)
Mr. Keshab Das	Design and Analysis of Wideband LC Voltage-Controlled Oscillator (VCO) for High Frequency Applications.	Dr. Sanjay Kumar Jana
Mr. Arnab Som	Modeling and Design of Semiconductor Devices towards Analog IC Design Applications.	Dr. Sanjay Kumar Jana
Mr. Dheeraj Pandey	Design Development and Performance Evaluation of Multiband Antennas for Contemporary and Futuristic Wireless technologies.	Dr. Reshmi Dhara and Dr. Surajit Kundu (NIT Jamshedpur)
Ms. Tshering Sangmo Sherpa	Design of an Improved LIDAR system for Autonomous vehicles.	Dr. Sanjay Kumar Jana
Mr. Sanoj Mahato	Design, Analysis and Performance Evolution of Wide Band /Multiband Microstrip Antenna.	Dr. Reshmi Dhara
Ms. Neelam Singh	Single/ Multi/Ultra-Wideband Metamaterial Absorber.	Dr. Reshmi Dhara
Ms. Sriparna Sarma	Design of PLL for 5G Applications.	Dr. Sanjay Kumar Jana
Mr. Udara Laxman Kumar	Advanced ASR Systems for Low-Resource Speech Data in Children.	Dr. Hemant Kumar Kathania
Mr. Paban Sapkota	Identification of Severity Levels in Dysarthric Speech and Development of Automated Speech Recognition (ASR) Systems for Dysarthria.	Dr. Hemant Kumar Kathania
Mr. Abhijit Sinha	Enhancement in Automatic Speech Recognition System in Children.	Dr. Hemant Kumar Kathania
Mr. Saroj Kanta Panda	Electrocardiogram Signal Analysis using Emerging Techniques	Dr. Varun Gupta and Dr. Hemant Kumar Kathania
Mr. Partha Sarathi Padhy	Radio Frequency Integrated Circuit Design	Dr. Sanjay Kumar Jana and Dr. Jeetendra Singh
Mr. Vinod Jha	ADC Design for LIDAR Application	Dr. Sanjay Kumar Jana and Dr. Jeetendra Singh
Mr. Subham Kutum	Keyword Spotting in Low Resource Scenarios	Dr. Hemant Kumar Kathania and Prof. Mahesh Chandra Govil

Projects of Final Year UG students:

Supervisor Name	Student Name	Roll No.	Topic
Dr. Sanjay Kumar Jana	Riyansh Sharma	B200071EC	Study of Explainable AI in LLM Training Process
	Kishan Kumar Gupta	B200081EC	Design of Ring VCO and DCO for High Frequency Applications
	Deepak Prajapati	B200083EC	PLL Applications
	Namburi Sarath	B200086EC	Design of Phase Frequency Detector with Reduced Non-Idealities and Power Consumption
	Tanmay Tejas	B200140EC	Non-Idealities and Power Consumption
Dr. Hemant Kumar Kathania	Bhanuja Karumuru	B200087EC	Dysarthria Speech Disorder Classification using Speech Processing & Deep Learning
	Guntreddi Praveen Kumar	B200096EC	Speech Processing & Deep Learning
	Sidarth Prasad	B200074EC	Fine-Tuning Pre-Trained Models for Dysarthric Speech Recognition
	Aniruddh Ghildiyal	B200094EC	Speech Recognition
	Nilesh Gond	B200085EC	Voice-Based Children Age Classification
	Vishakha Kumari	B200121EC	Voice-Based Children Age Classification

Supervisor Name	Student Name	Roll No.	Topic
Dr. Jeetendra Singh	Sujata Basnett	B200078EC	Design, Verification and Optimization of AMBA AHB Lite Protocol
	Ankit Mishra	B200080EC	
	Arpit Paul	B200118EC	
Dr. Jeetendra Singh	Siddharth Utsav	B200076EC	Proof of Concept to Validate the Functionality of PCI Driver for Endpoint (EP) Device Using Summit Z3-16 Exerciser
	Ojas Dahal	B200073EC	
	Kalzang Dorjee Lepcha	B200082EC	
Dr. Sukanta Dhar	Sahil Saurav	B200091EC	Design and Verification of Inter-Integrated Circuit (I2C) Protocol
	Tathagat Bhanj Dev	B200072EC	
	Annaladasu Srivani	B200095EC	
	Sakshee Rajpoot	B200098EC	
	Riya Mathur	B200084EC	
Dr. Sudipta Das	Morla Shyam Prasad	B200092EC	Optimizing Performance of Pervoskite Solar Cells: SCAPS-1D Modeling of Single and Dual Absorber Layers
	Kalagara Varun Chandu	B180070EC	
	Nafeesa Fatima	B200075EC	
	Adarsh Kumar	B200089EC	
	Mini	B200099EC	

Workshop Organized:

- Dr. Hemant Kathania and Dr. Jai Gopal Gupta have organized a workshop on "Entrepreneurship and skill development program" held at NIT Sikkim during 27th - 31st May, 2024, organized by Entrepreneurship development centre and IHUB Spoke centre, NIT Sikkim.
- Dr. Jeetendra Singh, Dr. Hemant Kumar Kathania and Dr. Vishal Vishnoi have organized Advanced Entrepreneurship Skill Development Program (A-ESDP) on "Recent Trends in VLSI Design, System-on-Chip, and Embedded Systems" held at NIT Sikkim during 24th to 28th February 2025, sponsored by Ministry of MSME.
- Dr. Vishal Vishnoi and Dr. Varun Gupta have organized Entrepreneurship Awareness Programme (EAP) at ATTC Bardang, Sikkim on March 06, 2025.

Workshop/FDP/STC/IEP/Webinar Attended:

S N	Name of Participants	Title	Organizer	Date	Category
1.	Dr. Jeetendra Singh	Nurturing Future Leadership Programme (NFLP) under the aegis of Malviya Mission Teacher Training Programme.	IIT Roorkee	13 th to 17 th April, 2025	Training Program
2.	Dr. Jeetendra Singh	Entrepreneurship and skill development program	Entrepreneurship development centre and IHUB Spoke centre, NIT Sikkim	27 th -31 st May, 2024	Workshop
3.	Dr. Jeetendra Singh	Embedded Systems and Design	Quantum Technologies, Bangalore	06 th October to 17 th November 2024.	Workshop
4.	Dr. Jeetendra Singh	Instruction Enhancement Program (IEP), on "FPGA-Based SoC Design Covering DIR-V Architecture & Applications"	NIELIT Calicut	9 th to 13 th December, 2024	IEP

S N	Name of Participants	Title	Organizer	Date	Category
5	Dr. Varun Gupta	Nurturing Future Leadership Programme (NFLP) under the aegis of Malviya Mission Teacher Training Programme.	IIM Jammu	16 th to 20 th December, 2024	Training Program
6	Dr. Varun Gupta	The Role of Artificial Intelligence in Engineering Applications	Centurion University	27 th May to 1 st June, 2024	Workshop
7	Dr. Varun Gupta	Next Generation Communication Technology and Cyber Security	NIT Sikkim	03 rd June to 07 th June, 2024	Workshop
8	Dr. Sanjay Kumar Jana	IEP on ASIC Analog Design using SCL 180 nm PDK	C-DAC, Bangalore.	03-Feb-2025 to 07-Feb-2025	Workshop
9	Dr. Sanjay Kumar Jana	Nurturing Future Leadership Program under the aegis of Malviya Mission Teacher Training Programme.	IIM, Rohtak	3 rd June to 7 th June 2024	Training Program
10.	Dr. Sudipta Das	Recent Trends in VLSI Design, System on Chip, and Embedded Systems	NIT Sikkim	Feb. 24 to 28, 2025	Workshop

Outreach Activities:

1. Dr. Hemant Kathania has conducted an expert lecture on SoC Design and FPGA Implementation in a 5 days Advanced Enhancement Skill Development Program (A-ESDP) on Recent Trends in VLSI Design, System on Chip, and Embedded Systems from Feb. 24 to 28, 2025, at NIT Sikkim, Ravangla.
2. Dr. Jeetendra Singh has delivered an expert Lecture in 5 days FDP on Chip Design- A Fundamental Course supported by MeitY, Govt. of India and conducted by Electronics & ICT Academy, C-DAC Mohali in collaboration with NIT Jalandhar from 27th January to 31st January 2025.
3. Dr. Jeetendra Singh has conducted hands on training on SoC Design and FPGA Implementation in a 5 days Advanced Enhancement Skill Development Program (A-ESDP) on Recent Trends in VLSI Design, System on Chip, and Embedded Systems from Feb. 24 to 28, 2025, at NIT Sikkim, Ravangla.
4. Dr. Jeetendra Singh attended a one day program on VLSI Chapter Initialization in North-East Region at IIT Guwahati.
5. Dr. Vishal Vishnoi has delivered an expert lecture on Entrepreneurship Awareness Programme (EAP) at ATTC Bardang, Sikkim on March 06, 2025.
6. Dr. Varun Gupta has delivered an expert lecture on Entrepreneurship Awareness Programme (EAP) at ATTC Bardang, Sikkim on March 06, 2025.

7. Dr. Varun Gupta has conducted an industrial visit at V-Guard Rangpoo, Sikkim, Sponsored by BIS on 25 February 2025.
8. Dr. Varun Gupta visited the Incubation Centre with B. TECH students at IIT Hyderabad.
9. Dr. Varun Gupta attended the Capacity Building Program on Specific Learning Disabilities on 15.10.2024.
10. Dr. Varun Gupta attended a one day program on VLSI Chapter Initialization in North-East Region at IIT Guwahati.

Publications

List of publications (Journals) in the academic year 2024-2025

- (1) Arnab Kumar Roy, Hemant Kumar Kathania, Adhitiya Sharma, Abhishek Dey, and Md. Sarfaraj Alam Ansari, ResEmoteNet: Bridging Accuracy and Loss Reduction in Facial Emotion Recognition, IEEE Signal Processing Letters vol. 32, pp. 491-495, 2025, doi: 10.1109/LSP.2024.3521321.
- (2) Singh, N., Dhara, R. and Mahato, S., 2025. Terahertz-based biosensing technology for multi-disease detection: Cancer, Malaria, Bacillus Virus, and Tuberculosis diagnosis. Optik, p.172323.
- (3) Singh, N., Dhara, R. and Yadav, S., 2024. Design and optimization of a polarization-insensitive terahertz metamaterial absorber for sensing applications.

Photonics and Nanostructures-Fundamentals and Applications, 62, p.101314.

- (4) Singh, N., Dhara, R. and Yadav, S., 2024. Compact penta-band metamaterial absorber: achieving polarization insensitivity and optimized bandwidth performance. Optical and Quantum Electronics, 56(11), p.1851.
- (5) Dhara, R., Yadav, S., Mahato, S., Sharma, M.M. and Govil, M.C., 2024. An antipodal antenna with improved axial ratio bandwidth. IETE Journal of Research, 70(1), pp.144-152.
- (6) Singh, J. and Singh, S., 2024. Improvement in the sensing performance of SiGe pocket Si/Ge VTFET based biosensor using extended source electrode and nano-cavity length. Materials Science and Engineering: B, 310, p.117688.
- (7) Yadav, M. K., Kumar, R., Ratnesh, R. K., Singh, J., Kumar, A, Vishnoi, V., Singh G. & Singh, A. K. (2024). Revolutionizing technology with spintronics: devices and their transformative applications. Materials Science and Engineering: B, Elsevier, 303, 117293.
- (8) Varun Gupta, Danish Ather, BUSA Deep Learning Model for EEG Signal Analysis. Wireless Pers Commun 136, 25212543 (2024). <https://doi.org/10.1007/s11277-024-11409-4>.
- (9) Abhas Kanungo, Pankaj Kumar, Varun Gupta, Salim, Nitin Kumar Saxena, A design an optimized fuzzy adaptive proportional-integral-derivative controller for anti-lock braking systems, Engineering Applications of Artificial Intelligence, Volume 133, Part F, 2024, 108556, ISSN 0952-1976, <https://doi.org/10.1016/j.engappai.2024.108556>.
- (10) Vivek Saxena, Narendra Kumar, Saibal Manna, Saurabh Kumar Rajput, Kusum Lata Agarwal, Sourav Diwania, Varun Gupta, Modelling, solution and application of optimization techniques in HRES: From conventional to artificial intelligence, Applied Energy, Volume 380, 2025, 125047, ISSN 0306-2619, <https://doi.org/10.1016/j.apenergy.2024.125047>.
- (11) Pandey, P.K., Kumar, R., Gupta, V. et al. An innovative hybrid controller-based combined grid-connected hybrid renewable energy system. Electrical Eng 106, 70557072 (2024). <https://doi.org/10.1007/s00202-024-02363-2>.
- (12) Vivek Saxena, Saibal Manna, Saurabh Kumar Rajput, Sourav Diwania, Varun Gupta, Sustainable energy solutions: integrating hybrid CCHP systems with renewable technologies for efficient urban

development. J Braz. Soc. Mech. Sci. Eng. 46, 668 (2024). <https://doi.org/10.1007/s40430-024-05250-w>.

- (13) Balram Tamrakar, Krishna Singh, Parvin Kumar, Varun Gupta, Performance analysis of DD-DPMZM based RoF link for emerging wireless networks. Analog Integr Circ Sig Process 119, 441453 (2024). <https://doi.org/10.1007/s10470-023-02231-2>.
- (14) Varun Gupta, Nitin Kumar Saxena, Abhas Kanungo, A. et al. An Efficient R-Peak Detection in Electro-Cardio-Gram Signal Using Intelligent Signal Processing Techniques. Wireless Pers Commun 135, 11491176 (2024). <https://doi.org/10.1007/s11277-024-11113-3>.
- (15) Balram Tamrakar, Krishna Singh, Varun Gupta, et al., Fortifying File Sharing Systems Security Through AES Encryption Method for the Next Generation Networks, Journal of Active & Passive Electronic Devices, 2024, Vol 18, Issue 1, p37.
- (16) Pandey, D., Dhara, R., Bhunia, S. and Kundu, S., 2024. Design and analysis of a compact millimeter-wave pentaband antenna for 5G FR-2 band wireless technologies. AEU-International Journal of Electronics and Communications, 184, p.155409.
- (17) Varun Gupta, A novel linear discriminant analysis-based classification of R-peaks in different ECG signal datasets, International Journal of Bioinformatics Research and Applications, Vol.21, no.2, pp.153-170, March 2025.
- (18) Balram Tamrakar, Krishna Singh & Varun Gupta, Tackling third-order intermodulation distortion: modeling and analysis of linearized RoF link for future perspective networks. J Opt 53, 25972608 (2024). <https://doi.org/10.1007/s12596-023-01432-2>.
- (19) Sourav Diwania, Maneesh Kumar, Varun Gupta, et al. Insight into the Investigation of Thermo-Electrical Performance of Hybrid Photovoltaic-Thermal Air-Collector. J. Inst. Eng. India Ser. B 105, 12751283 (2024). <https://doi.org/10.1007/s40031-024-01040-z>.
- (20) Balram Tamrakar, Varun Gupta, & Abhas Kanungo, Analysis, implementation and research opportunities of radio over fiber link over the dispersive medium for next generation networks. J Opt (2025). <https://doi.org/10.1007/s12596-024-02439-z>.
- (21) S. Dhar, S. Mandal, G. Das, W. Li, S. Mukherjee, C. Banerjee, H. Saha, and A. K. Barua, "Synthesis of

sputtered self-catalytic indium tin oxide nanorods for photovoltaic application,” J. Alloys Compd., vol. 1004, p. 175757, Jul. 2024, doi: 10.1016/j.jallcom.2024.175757.

(22) T. B. Dev, S. Rajpoot, A. Srivani, and S. Dhar, “Performance optimization of eco-friendly $\text{CH}_3\text{NH}_3\text{SnI}_3$ based perovskite solar cell employing $\text{CH}_3\text{NH}_3\text{SnBr}_3$ as hole transport layer by SCAPS-1D device simulator,” J. Phys.: Condens. Matter, vol. 36, no. 47, p. 475901, Aug. 2024, doi: 10.1088/1361-648X/ad6f63.

(23) T. B. Dev, A. Srivani, S. Rajpoot, and S. Dhar, “Novel lead-free dual absorber based perovskite solar cells: efficient numerical harnessing towards high efficiency through SCAPS-1D,” J. Phys. Chem. Solids, vol. 205, p. 112776, Oct. 2025, doi: 10.1016/j.jpcs.2025.112776.

List of publications (Conference) in the academic year 2024-2025

(1) Varun Gupta, Rajiv Kumar, Manish Sharma, Arvind Kumar Sharma and Anshu Gupta, “Higher Order Filter and FrFT Based ECG Signal Analysis,” 2024 IEEE Silchar Subsection Conference (SILCON 2024), Agartala, India, 2024, pp. 1-5, doi: 10.1109/SILCON63976.2024.10910607.

(2) Pandey, D., Dhara, R. and Kundu, S., 2024, May. A Table Lamp Shaped Compact Triband Antenna for Various Wireless Technologies. In International Conference on Intelligent Communication, Control and Devices (pp. 309-320). Singapore: Springer Nature Singapore.

(3) Paban Sapkota, Abhijit Sinha, Hemant Kumar Kathania, and Sudarsana Reddy, Kadiri Enhancing Traditional Kaldi Dysarthric Speech Recognition Using SSL-Features, in National Conference on Communications (NCC), IEEE, 2025.

(4) Paban Sapkota, Hemant Kumar Kathania, Mikko Kurimo, Sudarsana Reddy Kadiri, Shrikanth Narayanan Systematic Study of Dysarthric Speech Recognition: Spectral features and Acoustic Models, in Proc. IEEE 58th Annual Asilomar Conference on Signals, Systems, and Computers.

(5) Paban Sapkota, Hemant Kumar Kathania, Sudarsana Reddy Kadiri, Shrikanth Narayanan Data Augmentation to Improve End-2-End Speech Recognition for Dysarthric Speech, in Proc. IEEE 58th Annual Asilomar Conference on Signals, Systems, and Computers.

(6) Abhijit Sinha, Mittul Singh, Sudarsana Reddy Kadiri, Mikko Kurimo, Hemant Kumar Kathania Effect of speech modification on Wav2Vec2 models for Children Speech Recognition, in Proc. IEEE SPCOM, 2024 at IISc Bangalore.

(7) Bhanuja Karumuru, Paban Sapkota, Hemant Kumar Kathania In-Domain Data Augmentation to Enhance Severity Level Classification of Dysarthria from Speech, in Proc. IEEE SPCOM, 2024 at IISc Bangalore.

Book Chapters

(1) Sourav Diwania, Sumit Sharma, Salim, Varun Gupta, IoT-based home automation using NodeMCU, Artificial Intelligence and Machine Learning Applications for Sustainable Development, 1st Edition, 2025, CRC Press, Pages13, ISBN9781003581246

(2) Singh, J., Singh, S., Raj, B., Patel, V. and Raj, B., 2024. Advancement of Neuromorphic Computing Systems with Memristors. Integrated Devices for Artificial Intelligence and VLSI, pp.193-215.

Ongoing/Completed R&D Projects / Schemes in the Department

(1) Dr. Hemant Kathania (PI)

Title: Creation of speech corpora of high Himalayan languages (Eastern region) for automatic spoken language identification task. (Completed) Funding Agency : DRDO Govt. of India Total Fund: 9.94 lakh.

(2) Dr. Hemant Kathania (PI)

Title: Stress and Anxiety detection using voice and facial expressions (going on) Funding Agency : iHUB Divyasampark, IIT Roorkee (established by DST, Govt. of India) Total Fund: 30 lakh.

(3) Prof. Mahesh Chandra Govil (PI), Dr. Sanjay Kumar Jana (Co-PI), Dr. Hemant Kathania (Co-PI), and Dr. Jeetendra Singh (Co-PI)

Title: Design of an Improved LIDAR system for Autonomous Vehicles (going on) Funding Agency : Meity Govt. of India Total Fund: 111 lakh.

(4) Dr. Hemant Kathania (Co-PI)

Title: Smart Chair for Low Back Pain (going on) Funding Agency : iHUB Divyasampark, IIT Roorkee (established by DST, Govt. of India) Total Fund: 26 lakh.

(5) Dr. Hemant Kathania (Co-PI)

Title: IoT and API enabled system for enhanced monitoring and prediction of air quality Index Funding Agency : iHUB Divyasampark, IIT Roorkee (established by DST, Govt. of India) Total Fund: 17 lakh.

AESDP workshop on Recent Trends in VLSI Design, System on Chip, and Embedded Systems:

Department of Electronics and Communication Engineering of National Institute of Technology Sikkim has successfully hosted a five-day “Advanced Entrepreneurship Skill Development Program (A-ESDP) workshop on the topic **“Recent Trends in VLSI Design, System on Chip, and Embedded Systems”** sponsored by the Ministry of Micro, Small and Medium Enterprise (MSME), Government of India from 24th to 28^h Feb. 2024. The programme commenced with a warm welcome and inaugural address by the Chief Guest Shri Harpreet Singh Jatana, Former Group Head, SCL Mohali, ISRO and Prof. Mahesh Chandra Govil, Director of NIT Sikkim, emphasizing the strategic importance of innovation in VLSI and semiconductor industries for India’s technological progress. The workshop’s objective was successfully achieved, with experts generously imparting their insights and guidance to the participants.

The experts from various industries and academia shared their knowledge and insights on various topics ranging from analog to digital VLSI design and Embedded Systems.”

Upon successful completion of the program, the following outcomes are envisioned:

1. Industry-Ready Skill Development

- Participants gain hands-on experience in embedded systems tailored for specific industrial applications, particularly for small and medium-scale enterprises.
- Enhanced capabilities in integrating semiconductor chips into real-world products such as smart electronic toys, daily household appliances, and IoT-based devices.

2. SoC Design Proficiency for Emerging Technologies

- Trained graduates and industry professionals will acquire in-depth knowledge and skills in System-on-Chip (SoC) design, covering integration of processors, memory, DSP units, cryptographic modules, and AI/ML accelerators.
- Ability to architect SoC platforms for specific domains including healthcare, automotive, smart agriculture, and industrial automation.

3. Advanced Device Awareness and Modeling

- Participants will become proficient in the device physics and compact modeling of emerging semiconductor devices like Vertical TFETs, Nanosheet FETs, CNT FETs, and Nanowire FETs.
- Capability to use these novel devices for designing ultra-low power, compact, and cost-effective ICs for both digital and analog applications.

4. Expertise in ASIC and FPGA Design

- Comprehensive understanding of the design flow of Application Specific Integrated Circuits (ASICs) and Field Programmable Gate Arrays (FPGAs).
- Participants will be able to prototype and implement DSP, AI, and ML applications using FPGA-based platforms, promoting rapid innovation and customized solutions.

5. Entrepreneurship and Product Innovation

- The program fosters a startup ecosystem by equipping participants with the technical knowledge and entrepreneurial mindset required to launch tech-based ventures.
- Encouragement and mentorship to transform innovative ideas into commercially viable semiconductor or embedded solutions.



6. Contribution to National Semiconductor Mission and Atmanirbhar Bharat

- Aligning with national priorities, the program empowers participants to contribute to the indigenous development of semiconductor IPs and embedded systems.
- Promotes self-reliance and competitiveness in the global semiconductor landscape.



Department of Electrical and Electronics Engineering



The beauty of electricity or of any other force is not that the power is mysterious, and unexpected, touching every sense at unawares in turn, but that it is under law, and that the taught intellect can even now govern it largely.

– Michael Faraday

The Department of Electrical and Electronics Engineering plays a crucial role in the academic framework of the institution, having been a part of it since its establishment in 2010. The department is committed to maintaining the highest educational standards through excellent teaching and significant research in various interdisciplinary areas.

With a committed team of faculty members and staff, the department consistently strives for excellence in both teaching and research. The faculty, a mix of dynamic and experienced individuals, significantly enhances the department's academic vibrancy. The department presents a comprehensive array of academic programs, aligning with the multifaceted needs and aspirations of students. At the undergraduate level, it offers a Bachelor of Technology (B. Tech) in Electrical and Electronics Engineering, equipping students with a strong foundation in the field.

For those pursuing advanced knowledge and specialization, the department offers postgraduate programs leading to a Master of Technology (M. Tech) in Electrical Engineering. This program is designed to provide students with in-depth expertise in their chosen fields. Furthermore, the department provides opportunities for aspiring researchers through its Ph.D. program, enabling scholars to pursue cutting-edge research in various domains within electrical and electronics engineering. Overall, the Department of Electrical and Electronics Engineering at the National Institute of Technology Sikkim stands as a symbol of academic excellence, dedicated to shaping future leaders and innovators in electrical engineering through its rigorous academic programs and research initiatives.

Vision

The overarching mission of the Department of Electrical and Electronics Engineering at the National Institute of Technology Sikkim is to impart quality teaching and conduct impactful research that addresses the challenges of the present era. By doing so, the department aims to pave the path for the development of a better future while adding value to society as a whole.

Through quality teaching, the department endeavors to equip students with the knowledge, skills, and mindset necessary to tackle the complex challenges of today's world. By fostering a dynamic learning environment grounded in both theoretical principles and practical applications, the department prepares students to become innovative problem solvers and responsible global citizens.

In parallel, the department is committed to conducting cutting-edge research that addresses pressing societal needs and pushes the boundaries of knowledge in the field of electrical and electronics engineering. By collaborating

with industry partners, government agencies, and other academic institutions, the department seeks to develop solutions that contribute to sustainable development, technological advancement, and societal well-being. Ultimately, by combining excellence in teaching and research, the Department of Electrical and Electronics Engineering at the National Institute of Technology Sikkim aims to empower its students and researchers to make meaningful contributions to society and shape a better future for generations to come.

Mission

The Department aims to realize the vision through the following mission:

- To provide outcome-based teaching and research for practical engineering skills on social needs.
- To create an environment for students, staff and faculty members to nurture and develop all-round capabilities along with moral and ethical values.

The highly accomplished faculty members of the department possess expertise in a variety of cutting-edge research fields. The department's broad areas of research include, but are not limited to, Control Systems, Robotics, Power Electronics, Power Quality, Power Systems, Hybrid Micro-grids, Smart Grid Technologies, Electric Vehicles, Application of Nonlinear Dynamics in Engineering, Renewable Energy, and the Development and Application of Soft Computing Techniques. The department prides itself on strong industry-institute interactions and is dedicated to adopting and completing various potential projects.

Additionally, the department aims to develop active collaborations with various industries in the power sector and has earned a wide reputation in the national and global academic network. Currently, the department admits 30 students annually into its first-year B.Tech. program in Electrical and Electronics Engineering. At postgraduate level, the Department offers M.Tech. program in Electrical Engineering with an intake of 22 students. From 2020, the department has been admitting students in the vacant seats of M. Tech. through the Institute Admission Test. The department got good response from students across India. In addition to the above, the Department offers regular Ph.D. program in various areas of specialization in Electrical and Electronics Engineering. These include Control Systems, Power System Operation, Power Quality, Renewable Energy Sources, Smart Grids, Optimization, Power System Dynamics and Stability, Flexible AC Transmission, High Voltage Direct Current, Electric Drives and Hybrid Electric Vehicles.

At present, the Department has almost all laboratories equipped with state-of-the art equipment and latest version of software platforms. With inputs from eminent personalities invited in various workshops organized, the Department has modified the laboratory infrastructure to enhance the understanding of the theoretical concepts. The laboratories are equipped with sophisticated equipments, test setups, embedded controllers, digital signal processors, power inverter-converters, various electrical drives, etc. to name a few. The Department is involved in carrying out several sponsored R&D projects funded by national agencies like MeitY, iHUB IIT Roorkee, IIT Bhilai etc. The Department also organizes Faculty Development Programs, Workshops, Expert Lectures, etc. from time to time. With the hard labor of the students and faculty members of the department, the number of published technical papers in reputed journals, and participation in conferences have reached a new height. The department aims to further expand its research facilities in the coming years, thereby enhancing the research output and publications of both students and faculty members.

The faculty members of the Department have been regularly contributing to International and National Journals of repute like IEEE Transactions and IEEE Proceedings, IET, journals on Electrical Engineering from Elsevier, etc. along with Proceedings of National and International Conferences. The department has also strengthened its previously set up Power Systems Laboratory, Power Electronics Laboratory and Electric Drive Laboratory. The department is planning to establish new laboratories dedicated to Testing, Calibration and Standardization, Power Quality, and Energy Conservation.

Over the years, the department has steadily grown into one of the premier departments of NIT Sikkim. The placement record has shown that the students of the Department were successful in getting lucrative placements based on their interests in different fields. Top recruiters such as NVIDIA, Qualcomm, L&T, Power Grid Corporation of India Ltd., etc. have offered appointments to the students with a pay package of over Rs. 10 Lakh per annum. Other recruiters from core engineering and allied sectors like Vedanta group, Wipro, Tata Power, Reliance etc. have recruited students from the Department with attractive pay packages. Consistent placement record reflects the dedication and contribution of the Department. The graduates of the Department are occupying important positions in both government as well as private organizations.

The students are encouraged to go for higher studies and build their career in R&D sector. Some of our past students have completed their post-graduation from eminent and premier institutes in India and abroad. Several students of the pass-out batches have also secured good ranks in different competitive examinations

The students are motivated to pursue technical and creative activities besides classroom teaching and laboratory exercise through technical fests like 'Abhyantran' organized by the Institute. They are also

encouraged to participate in various learning activities including attending and presenting research papers at International/National Conference/Seminars.

Programs/courses offered by the Department

- B.Tech in Electrical and Electronics Engineering
- M.Tech in Electrical Engineering
 - I. Specialization in Power and Energy Systems
 - II. Specialization in Power Electronics and Drives
- PhD in Electrical Engineering

Faculty Details

Head of the Department

Dr. Aurobinda Panda, HoD

PhD - IIT Roorkee

Assistant Professor

Area of Interest: Application of Power Electronics in Renewable Energy Sources

Profile Page: <https://eee.nitsikkim.ac.in/profile.php?sn=70>

Associate Professor

Dr. Anjan Kumar Ray

Ph.D - IIT Kanpur

Area of Interest: Control Systems, Robotics and Intelligent Systems, Machine Learning, Sensor Fusion and Smart Home/Environment.

Profile Page: <https://eee.nitsikkim.ac.in/profile.php?sn=52>

Dr. Sourav Mallick

PhD - NIT Durgapur

Area of Interest: Power System State Estimation, Power System Transmission and Distribution, Power System Stability and Control, Soft Computing

Profile Page: <https://eee.nitsikkim.ac.in/profile.php?sn=68>

Assistant Professor

Dr. Molay Roy

PhD - IEST Shibpur

Area of Interest: Power Electronics Converter and Controller.

Profile Page: <https://eee.nitsikkim.ac.in/profile.php?sn=28>

Dr. Pradeep Kumar

PhD - NIT Jamshedpur

Area of Interest: Power Quality, Control Systems, Renewable Energy Systems, Power Electronics.

Profile Page: <https://eee.nitsikkim.ac.in/profile.php?sn=10>

Dr. Nimai Charan Patel

PhD - Utkal University

Area of Interest: Electrical Machine, Power system, Computational Intelligence and Optimization Techniques

Profile Page: <https://eee.nitsikkim.ac.in/profile.php?sn=837>

Dr. Abhishek Rajan

PhD - NIT Silchar

Area of Interest: Optimal power flow, Renewables integration in power system, Power system deregulation, Power system operation and control, soft computing techniques.

Profile Page: <https://eee.nitsikkim.ac.in/profile.php?sn=113>

Dr. Vivek Kumar

PhD - IIT (BHU), Uttar Pradesh

Area of Interest: Power system Stability and Control, advanced and Intelligent Control, Cyber Security in Power Systems, Smart Microgrid Grid, and Renewable Energy integration

Profile Page: <https://eee.nitsikkim.ac.in/profile.php?sn=839>

Temporary Faculty**Dr. Shakti Vashisth**Assistant Professor,
PhD – MNIT Jaipur**Staff Details****Ms. Deepika Chettri**

Senior Technical Assistant

Mr. Pawan Kumar Kathaniya

Technical Assistant

Mr. Anil Gurjar

Technical Assistant

Mr. Manish Kumar

Senior Technician

Mr. Saikat Mistry

Technician

Mr. Mahaveer Gurjar

Technician

Membership of Technical Association/Society

S. No.	Name	Technical Societies	Membership Type
1.	Dr. Sourav Mallick	IEEE. IEEE Power and Energy Society. Institution of Engineers (India).	Member Member Associate Member
2.	Dr. Anjan Kumar Ray	IEEE Senior Member IEEE Robotics and Automation Society IEEE Systems, Man, and Cybernetics Society IEEE Control Systems Society IEEE Power & Energy Society	Senior Member
3.	Dr. Aurobinda Panda	IEEE IEEE Industrial Electronics Society Membership 1 IEEE Industry Application Society Membership 1 IEEE Sensors Council IEEE Systems Council IEEE Transportation Electrification Council	Member
4.	Dr. Pradeep Kumar	System Society of India. International Association of Computer Science and Information Technology (IACSIT). International Association of Engineers (IAENG). International Association for Cyber Science and Engineering (IACSE). International Society for Research and Development (ISRDR).	Life Membership
5.	Dr. Molay Roy	IEEE	Member
6.	Dr. Nimai Charan Patel	IEEE, IE(I)	Senior Member
7.	Dr. Vivek Kumar	IEEE, IEEE-PES Society	Member
8.	Dr. Abhishek Rajan	IEEE	Member

Laboratory facilities**1. Basic Electrical Engineering Laboratory**

The Basic Electrical Engineering Laboratory helps the students to develop a strong foundation on the basics of Electrical Engineering. Each experiment is curated to show the practical aspect of theories learnt in earlier semesters. Through the experiments, the students learn the applications of different network theorems, different types of loads and their voltage-current characteristics, power measurements of balanced and unbalanced loads, designing DC power supplies and sources, and also safety issues such as fuse rating for circuits. The students are made capable of applying the knowledge gained from the laboratory to all other areas of Electrical Engineering.

2. Measurement Laboratory

The Measurement Laboratory in the Department attempts to familiarize the student with the operation

of basic laboratory instrumentation such as energy meter, multi meter, voltmeter, ammeter etc. Another goal is to re-enforce the practical knowledge with practice and analysis of result obtained, and to learn correct laboratory procedures and techniques. This is accomplished by building, testing, and taking measurements on simple circuits. While conducting the experiments, the students can distinguish between performance and the methodology behind the various parts of an instrument.

3. Control Systems Laboratory

The Control Systems Laboratory course provides conceptual and hands-on practice of various aspects of control systems including advanced control, nonlinear control, and intelligent control. Here, the students get familiarized with various open source platforms e.g. SCILAB, C/C++ to carry out simulations. It also has hardware setups which includes linear double inverted pendulum and rotary double inverted pendulum. Students are also trained for future trends of uses of microcontrollers and

sensors. Through these simulation and hardware facilities, students get familiarized with different aspects of system modeling and simulations. They study system responses and stability aspects. Students are trained to design controllers and observers for different systems. Moreover, they are given exposure to utilize machine intelligence to incorporate into system modeling and control.

4. Electrical Machines Laboratory

It sounds like the Electrical Machines Laboratory is a crucial component of the Electrical and Electronic Engineering (EEE) curriculum. By engaging in hands-on experiments with both DC and AC machines, students can bridge the gap between theoretical concepts and practical applications. The availability of open machine setups further enriches the learning experience, allowing students to directly observe the inner workings of these machines and gain a deeper understanding of their operation and construction. This practical approach not only enhances the students' comprehension but also prepares them for real-world challenges in the field of electrical engineering.

5. Power Systems Laboratory

The Power System Laboratory in the current UG curricula is taught in three semesters, considering the importance of the subject in the present society. By performing various experiments in power systems, the students will be able to design, to analyze and to solve various relevant engineering problems related to power transmission and distribution systems, faults, system stability etc. The department had already procured a transmission line analyzer set up which gives the students an insight towards the power transmission line. At present, 200 km three-phase single circuit and 600 km single-phase circuit can be simulated for different types of conductors and cables. Moreover, three-phase and single fault simulations are also possible in that analyzer. The department is planning to expand this laboratory with a complete set up of analog and digital relays. The department has setup one microgrid setup comprising of Wind, Solar energy sources laboratory equipment considering the present-day power scenario.

6. Power Electronics Laboratory

The Department is dedicated to providing students with comprehensive hands-on experience in power electronics. By improving laboratory facilities and



incorporating advanced equipment like dSpace, students can gain practical exposure to the operation, design, and synthesis of power electronic converters. The focus on industrial control and safe electrical practices ensures that students are well-prepared for real-world applications.

With dSpace, students can bridge the gap between software and hardware, enabling them to prototype and test engineering models effectively. This integration of theoretical knowledge with practical applications is invaluable for preparing students for careers in the field of power electronics.

7. Electric Drives laboratory

Setting up an Electric Drives laboratory is a significant step in bridging the gap between theoretical concepts and practical implementation for students in B.Tech, M.Tech, and PhD programs. This facility enables students to participate in curriculum-based laboratory classes while also offering hands-on training and opportunities for project work directly aligned with their studies.

The laboratory's focus on Electric Drives encompasses a wide range of experiments, including those involving DC Motor drives, AC Motor drives, and Special motor drives. Through these experiments, students gain valuable experience in operating, controlling, and evaluating performance of various types of motors using different power electronic converters. This practical exposure is essential for their understanding of electric drives and their applications in real-world scenarios.

Moreover, the Electric Drives laboratory serves as a platform for undergraduate, postgraduate, and doctoral students to conduct projects and research work aligned with their academic interests. This not only enhances their learning experience but also fosters innovation and exploration in the field of electric drives and related technologies.

The inclusion of pictures of the newly set up Electric Drives laboratory further demonstrates the department's commitment to providing state-of-the-art facilities for student learning and research. These visuals not only showcase the equipment and infrastructure but also inspire students to actively engage with the laboratory and explore the possibilities within the field of electric drives.

8. Electric Vehicle Laboratory

The establishment of an Electric Vehicle (EV) laboratory aligns perfectly with the goals set forth in the National Education Policy (NEP) 2020, emphasizing the integration of Industry 4.0 technologies into academic curricula. By focusing on EV technologies, the department not only enhances the educational experience for undergraduate, postgraduate, and doctoral students but also contributes to the advancement of research in this rapidly evolving field.

Similar to the Electric Drives laboratory, the EV laboratory serves multiple purposes, including conducting laboratory classes, providing hands-on training, and facilitating project work for students across different academic levels. Additionally, this facility enables both students and faculty members to engage in research activities aimed at addressing current challenges and exploring future opportunities in EV technology.

The laboratory's emphasis on EV motor control allows students to gain practical insights into the steady and dynamic performance of motors used in EV applications. Through experiments involving forward motoring, reverse motoring, forward braking, and reverse braking, students can develop a deeper understanding of EV propulsion systems and their operational characteristics.

The inclusion of pictures of the newly set up EV laboratory not only showcases the infrastructure and equipment but also highlights the department's commitment to embracing emerging technologies and providing students with a conducive learning environment. These visuals serve as a testament to the department's dedication to staying at the forefront of EV research and education.

9. Simulation Laboratory

A simulation lab is a state-of-the-art facility where learners can practice and enhance their skills in a controlled, realistic environment. It is equipped with advanced technology, including high-fidelity manikins and computer systems, to simulate real-world scenarios. The primary goal of a sim lab is to allow students to apply theoretical knowledge to practice without the risk of harm to actual patients.

10. Power Systems Laboratory

A power systems relay lab is a facility for testing protective relay systems in electrical grids. It

includes simulated power setups, relay devices, data acquisition tools, fault simulators, and safety measures. These labs aid in developing and ensuring the reliability of power systems.

11. Microgrid Laboratory:

A microgrid lab is a testing facility for studying microgrid systems, which are small-scale power grids that can operate independently or in conjunction with the main grid. It includes setups for simulating microgrid configurations, renewable energy sources, energy storage systems, control algorithms, and communication protocols. These labs are crucial for developing resilient and sustainable energy solutions.

12. Microprocessor and Microcontroller Laboratory:

A Microprocessor and Microcontroller Lab is a specialized facility for hands-on learning and experimentation with microprocessors and microcontrollers. It offers students and researchers access to hardware platforms, development tools, and software resources to design, program, and test embedded systems. These labs are essential for gaining practical skills in digital electronics and embedded systems design.

13. Robotics Laboratory:

A Robotics Lab is a specialized facility where researchers, engineers, and students design, build, and test robotic systems. It typically includes equipment such as robotic arms, mobile robots, sensors, actuators, and control systems. These labs serve as hubs for advancing robotics technology, conducting experiments, and developing innovative applications across various fields, from manufacturing and healthcare to exploration and entertainment.

Departmental Committees

S. No.	Name of the Faculty Members	Name of the committee
1	1. Dr. Aurobinda Panda, HoD and Convenor	Academic Performance Evaluation Committee (APEC)
	2. Dr. Molay Roy (Convenor, DUGC)	
	3. Faculty Advisor of each batch	
	i. Dr. Pradeep Kumar, Faculty Coordinator, 2 nd Year B. Tech	
ii. Dr. Nimai Charan Patel, Faculty Coordinator, 3 rd Year B. Tech		
iii. Dr. Abhishek Rajan, Faculty Coordinator, 4 th Year B. Tech		
2	iv. Dr. Molay Roy, Faculty Coordinator, 1 st Year M.Tech	Departmental Undergraduate Committee (DUGC)
	v. Dr. Molay Roy, Faculty Coordinator, 2 nd Year M.Tech	
	vi. Dr. Anjan Kumar ray, Faculty Coordinator, PhD	
	4. Dr. Ranjan Basak, Nominee of Dean Academic	
	1. Dr. Molay Roy (Convenor, DUGC)	
	2. Dr. Aurobinda Panda, HoD, EEE	
3	3. Dr. Anjan Kumar Ray (Convenor, DPGC)	Departmental Postgraduate Committee (DPGC)
	4. Dr. Sourav Malik (Nominee of HOD)	
	5. Dr. Pradeep Kumar (Nominee of HOD)	
	6. Dr. Pratyay Kuila (Nominee of HOD)	
	1. Dr. Anjan Kumar Ray (Convenor, DPGC)	
	2. Dr. Aurobinda Panda, HoD, EEE	
3	3. Dr. Molay Roy (Convenor, DUGC)	Departmental Postgraduate Committee (DPGC)
	4. Dr. Sourav Mallick, Nominee of HoD	
	5. Dr. Pradeep Kumar, Nominee of HoD	
	6. Dr. Pratyay Kuila, Nominee of Chairperson Senate	

In order to maintaining the laboratories of the department, faculty members along with staff are assigned. The list of Laboratory In-charge is appended hereunder:

S. No.	Name of Laboratory	Faculty in-charge	Lab in-Charge
1.	Electrical Vehicle Laboratory	Dr. Aurobinda Panda	Mr. Pawan Kathaniya Mr. Manish Kumar
2.	Drives Laboratory	Dr. Aurobinda Panda Dr. Molay Roy	Mr. Pawan Kathaniya Mr. Manish Kumar
3.	Power Electronics Laboratory	Dr. Aurobinda Panda Dr. Molay Roy	Mr. Pawan Kathaniya Mr. Saikat Mistry
4.	Basic Electrical Laboratory	Dr. Abhishek Rajan Dr. Nimai Charan Patel	Ms. Deepika Chettri Mr. Saikat Mistry
5.	Electrical Measurements Laboratory	Dr. Pradeep Kumar Dr. Vivek Kumar	Ms. Deepika Chettri Mr. Saikat Mistry
6.	Electrical Workshop	Dr. Abhishek Rajan Dr. Shakti Vashisth	Ms. Deepika Chettri Mr. Saikat Mistry
7.	Electrical Machines Laboratory	Dr. Nimai Charan Patel Dr. Abhishek Rajan	Mr. Anil Gurjar Mr. Manish Kumar
8.	Power System Laboratory	Dr. Sourav Mallick Dr. Abhishek Rajan	Mr. Anil Gurjar Mr. Manish Kumar
9.	Control System Laboratory	Dr. Anjan Kumar Ray Dr. Vivek Kumar	Ms. Deepika Chettri Mr. Saikat Mistry
10.	Microgrid Laboratory	Dr. Molay Roy	Ms. Deepika Chettri

Ongoing Sponsored Projects in the Department

- Dr. Aurobinda Panda**, Principal Investigator of the project "Design and development of a High Gain q-ZSI for Single-stage Fuel Cell Hybrid Electric Vehicle" funded by iHUB Divyasampark, IIT Roorkee established by DST, Govt. of India and IIT Roorkee under National Mission on Interdisciplinary Cyber Physical Systems with a funding amount of ₹17.0 Lakhs for One Year
- Dr. Pradeep Kumar**, Principal Investigator of the project "Development of IoT based Smart Compact Energy Meter (ISCEM) for Monitoring and Controlling the Power Quality Issues in a Smart Building" funded by IIT Bhilai Innovation and Technology Foundation (IBITF) over a period of Two years with a funding amount of ₹28,15,760 Lakhs.
- Dr. Anjan Kumar Ray**, Principal Investigator of "Dynamics of Power Grids through Complex Network Theory: A Study of Vulnerability, Stability, and Synchronization", funded by MATRICS, SERB, Government of India. 2022-2025.
- Dr. Anjan Kumar Ray**, Principal Investigator, UAV-UGV Coordination and Formation Control for Unmanned Delivery Services: An Experimental Study, funded by ARTPARK, IISc Bangalore. 2021-2022.
- Dr. Moley Roy**, Principal Investigator of the project "Design and Development of WBG Device Based High Current Converters for Industry Applications" funded by NaMPET-III, MeitY, Gol with a funding amount of ₹6167000 /-.

PhD Students

A. PhD Awarded

S.No	Name of Scholar	Supervisor(s)	Area of Research (Topic)
1.	Dr. Arindam Singha	Dr. Anjan Kumar Ray	Intelligent Networked Robotic Systems
2.	Dr. Roshan Pradhan	Dr. Aurobinda Panda	Improved Power Quality Based Photovoltaic Distributed Generation System With Model Predictive Control
3.	Dr. Amit Kumar	Dr. Pradeep Kumar	Power Quality Improvement Using Custom Power Devices
4.	Dr. Arabinda Ghosh	Dr. Anjan Kumar Ray	Intelligent control systems
5.	Dr. Debanjan Mukherjee	Dr. Sourav Mallick	Power Line Harmonic Reduction using FACTS.
6.	Dr. Sudhansu Sekhar Das	Dr. Aurobinda Panda	Design and Development Of Novel ZSI/qZSI Topologies and its Applications
7.	Mr. Rajnikant Sahoo	Dr. Moley Roy	Design and control of multilevel inverter for home appliances

B. Ongoing

S.No	Name of Scholar	Supervisor(s)	Area of Research (Topic)
1.	Mr. Romio Atha	Dr. Sourav Mallick	Power System Protection
2.	Mr. Omkar Singh	Dr. Anjan Kumar Ray	Control applications in robotics and intelligent systems
3.	Mr. Avismit Dutta	Dr. Aurobinda Panda	Performance analysis of motor drives in Electric Vehicle
4.	Mr. Pratik Pradhan	Dr. Aurobinda Panda	BMS of Electric vehicle
5.	Mr. Islavatu Srikanth	Dr. Pradeep Kumar	Power Quality
6.	Ms. Deepika Chettri	Dr. Moley Roy	Electrical Power Transfer using Electromagnetic Induction and its Analysis
7.	Ms. Tumpa Das	Dr. Moley Roy	Fabrication and Performance Analysis of Domestic Induction Heating
8.	Mr.Chandan Kumar	Dr. Anjan Kumar Ray	Application Of Intelligent Control
9.	Mr. Saurav Ghosh	Dr. Sourav Mallick	Power System
10.	Mr. Chayan Chakraborty	Dr. Anjan Kumar Roy	AI based Robotics

S.No	Name of Scholar	Supervisor(s)	Area of Research (Topic)
11.	Ms. Promila Das	Dr. Pradeep Kumar	Power Quality Analysis
12.	Mr. Roshan Pariyar	Dr. Aurobinda Panda	Fuel Cell Hybrid Electric Vehicle
13.	Mr. Shatabda Bandyopadhyay	Dr. Sourav Mallick	Power System
14.	Ms. Geeta Srivastava	Dr. Anjan Kumar Roy	Intelligent control system
15.	Jyoti Kumari	Dr. Abhishek Rajan	Power System
16.	Sharad Chaudhary	Dr. Pradeep Kumar & Dr. Sangram Ray	Power Quality
17.	Suvendu Nandi	Dr. Vivek Kumar & Dr. Moley Roy	Application of intelligent control in power system

Dissertation Detail of Final Year PG students (2023-24)

S.No	Name of The Student	Roll No	Project Title	Name of The Supervisor
1.	Bibhuti Sharma	M220002EE	Design and Development of Switch Inductor-Based Gzsi Topologies	Dr. Aurobinda Panda

Projects Detail of Final Year UG students (2021-25)

S.no	Name of the student	Roll no.	Title of the project	Supervisor(s)
1	Anuj Pratap Singh	B200106EE	Optimal Path Planning of a Mobile Robot in a Static Grid-based Environment	Dr. Anjan Kumar Ray
	Tirthankar Kabiraj	B200129EE		
	Budireddy Bala Sujith	B200117EE		
2	Anjali Kumari	B200111EE	Smart Energy Meter	Dr. Aurobindo Panda
	Manjeet Kumar	B200023EE		
	Faizan Alam	B200125EE		
3	Bijoy Rai	B200114EE	Normal condition and defect detection of high-voltage power equipment: A deep learning Approach	Dr. Abhishek Rajan
	Sayak Dutta	B200122EE		
	Aman Kumar Prasad	B200103EE		
4	Raj Kumar Kami	B200109EE	Enhancing Solar Power Efficiency in Water Pumping Systems through Perturb & Observe Mppt Algorithms	Dr. Vivek Kumar
	Bobby Kumar	B200124EE		
	Rohit Singh	B200120EE		
5	Mithilesh Sahare	B200115EE	IoT-enabled Crop Management: Monitoring and Safeguarding Agricultural Resources for Optimal Yield	Dr. Pradeep Kumar
	Rishu Kumar	B200157EE		
	Aniket Gupta	B200107EE		
6	Saurav Kumar	B200102EE	Dynamic Wireless Charging Of an Electric Vehicle	Dr. Moley Roy
	Kalpna Singh	B200116EE		
	Nikky Kumari	B200104EE		
7	Vinay	B200123EE	Smart Wearable Gloves Assisting Visually Impaired Person	Dr. Anjan Kumar Ray
	Khushi Vashishth	B200149EE		
	Logy Subba	B200108EE		

S.no	Name of the student	Roll no.	Title of the project	Supervisor(s)
8	Naveen Pratap Singh	B200113EE	Energy Management System for Small Scale Hybrid Wind Solar Battery Based Microgrid	Dr. Sourav Mallick
	Ankita Paul	B200101EE		
9	Sangit Pradhan	B200110EE	IoT based wildlife protection system	Dr. Nimai Charan Patel
	Abishek Tiwari	B200112EE		
	Nitin Kumar	B200105EE		
10	Sakshi Rani	B200119EE	Enhanced Grid Stability and power quality through Unified Power Quality Conditions system intergating Solar, Wind and battery resourses.	Dr. Vivek Kumar
	Banothu Abhishek Nayak	B200128EE		

List of Publications during 2024-25

S. No	Faculty Name	Journals	Conference	Book Chapter	Invited Talk
1.	Dr. Sourav Mallick	04	03	-	-
2.	Dr. Anjan Kumar Ray	06	01	02	04
3.	Dr. Aurobinda Panda	02	04	-	03
4.	Dr. Pradeep Kumar	05	04	01	01
5.	Dr. Molay Roy	02	02	02	-
6.	Dr. Nimai Charan Patel	0	01	-	03
7.	Dr. Abhishek Rajan	02	-	-	-
8.	Dr. Vivek Kumar	00	01	01	-

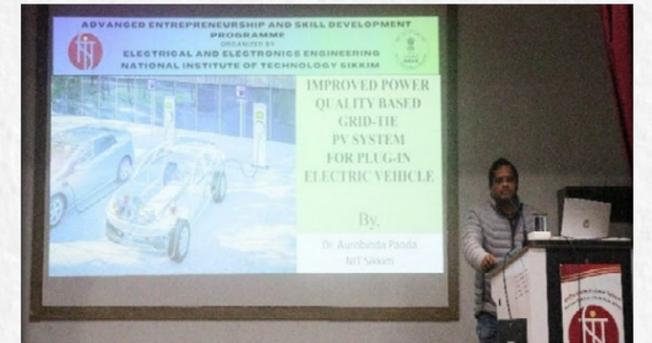
Departmental Activities

The Department had conducted following activities during 2024-25,

- The Department of Electrical and Electronics Engineering successfully organized the 3rd Congress on Smart Computing Technologies (CSCT 2024) during December 14–15, 2024. The conference was sponsored by the Soft Computing Research Society (SCRS) and hosted by the National Institute of Technology Sikkim. The Congress on Smart Computing Technologies (CSCT) is a premier academic and professional forum dedicated to the latest developments in smart computing and emerging technologies. The event brought together researchers, academicians, industry professionals, and practitioners from across the country to share their research findings, innovative concepts, and real-world applications. The two-day event featured keynote addresses by eminent speakers, technical paper presentations, and interactive discussions covering a wide range of topics in smart computing. A few glimpses from the event are shared below:



- The Department successfully organized the Advanced Entrepreneurship and Skill Development Programme (AESDP) on Renewable Energy Sources in Electric Vehicles and Distributed Generation Systems from February 17 to 21, 2025. The program brought together distinguished experts from academia and industry to provide participants with comprehensive insights into cutting-edge developments in renewable energy and electric vehicle (EV) technologies. The sessions focused on fostering innovation, entrepreneurship, and research opportunities in these rapidly evolving sectors. The 5-days workshop was sponsored by the Ministry of Micro, Small & Medium Enterprises (MSME), Government of India. A few glimpses from the event are shared below:



- The Department of EEE also successfully organized 04 Entrepreneurship Awareness Programme at different part of Sikkim. The details of the programme are given below:

3.1. Entrepreneurship Awareness Programme on Small Power Generation

Date: 01-03-2025, Venue: Barfung Block

3.2. Entrepreneurship Awareness Programme on Product Development Using 3D Printer

Date: 04-03-2025, Venue: Kewzing

3.3. Entrepreneurship Awareness Programme on Enhancing General Skills to Set Up Any Start-up

Date: 04-03-2025, Venue: ITI Kewzing

3.4. Entrepreneurship Awareness Programme on Exploring Innovative Start-up Ideas

Date: 05-03-2025, Venue: Geyzing

Award Received:

1. **Mr. Roshan Pariyar** (PHEE230038), Research Scholar, working under the supervision of **Dr. Aurobinda Panda** had received IEEE IAS North-East India student travel award for attending PEDES 2024 conference and presenting a paper in December 2024.
2. **Mr. Chandan Kumar** (PHEE220021), Research Scholar, working under the supervision of **Dr. Anjan Kumar Ray** had received best poster award in IEEE 4th International Conference on “Sustainable Energy and Future Electric Transportation” (SEFET-2024).



3. **Ms. Tumpa Das** (PHEE220005), Research Scholar, working under the supervision of **Dr. Molay Roy** had received best paper award in Fourth International Conference on Emerging Frontiers in Electrical and Electronic Technologies (ICEFEET) organized by the Department of Electrical Engineering, National Institute of Technology Patna.



Department of Mechanical Engineering

“

As far as the laws of mathematics refer to reality, they are not certain; and as far as they are certain, they do not refer to reality

– Albert Einstein

“

The thermal agency by which mechanical effect may be obtained is the transference of heat from one body to another at a lower temperature.

– Sadi Carnot

Mechanical Engineering is concerned with the responsible development of products, processes, and power, at scales ranging from molecules to large and complex systems. Many innovations crucial to our future will have their roots in the world of mass, motion, forces, and energy—the world of Mechanical Engineers. The Department of Mechanical Engineering endeavors to be recognized globally for outstanding education and research leading to well-qualified, innovative, entrepreneurial and successful engineers to cater for the ever-changing industrial demands and social needs. The Department aims to conduct innovative research and to provide world-class education that instills the professional, technical, critical-thinking and communication skills necessary to make impactful contributions to the society.

The Department started its journey in 2014. Since its inception, the Department has produced globally competent Mechanical Engineers capable of contributing to society through innovation and working in multidisciplinary fields. The Department aims to provide the students with the perfect blend of intellectual and practical experiences that help them to serve the society and address a variety of needs of human beings.

Primary goals of the Department are as follows:

- To maintain a high standard of education through outstanding teaching, innovative curricula, and research training that reflect the changing needs of the society.
- To attract highly motivated students with enthusiasm, aptitude and interest in Mechanical Engineering.
- To pursue excellence in Research and Technology Transfer.
- To recruit and retain faculty members in the Department.
- To increase the public awareness of Departmental activities and the Mechanical Engineering profession.
- To provide the latest knowledge and research as well as the opportunity to consult and share best practices.
- To update with understanding of modern Mechanical Engineering fields like Artificial Intelligence, Robotics and Automation, Additive manufacturing, Computer-aided Design (CAD), Computer-aided Manufacturing (CAM), Product Life Cycle Management to design and analyze manufacturing plants, industrial equipment and machinery.
- To cater to the modern knowledge of heating and cooling systems, transport systems, aircraft, robotics, medical devices, weapons etc.

- To conduct multidisciplinary and collaborative research works with various industries and academic institutes.

Programs / Courses Offered

- B. Tech. in Mechanical Engineering
- Ph. D. in Mechanical Engineering

Students Strength (B. Tech.)

	Sanctioned Intake	Number of Students (2024-25)
1 st Year	30	25
2 nd Year	30	23
3 rd Year	30	24
4 th Year	30	22

Faculty Details

Members of the Department value professionalism and integrity, teaching excellence as well as students' initiative and innovation. Departmental Faculty members hold these values as an integral frame of reference to realize the decisions and actions at every level and in every situation.

Dr. Anil Lal S

Associate Professor and HOD

Ph.D. (IIT Madras, 2002), M.Tech. (IIT Madras, 1996)

Area of Interest: Computational Methods in Fluid Mechanics & Heat transfer, Mathematical Methods for Engineering, Machine Learning Techniques, Research Methodology, Optimization Techniques, Economics

Dr. Ranjan Basak

Associate Professor

Ph.D. (Jadavpur University, 2012), M.M.E. (Jadavpur University, 2000)

Area of Interest: Fluid Mechanics and Machine Design.

Dr. Shambhunath Barman

Associate Professor

Ph.D. (Jadavpur University, 2014), M.M.E. (BESU Shibpur, 2008)

Area of Interest: Study of Transport Phenomena in Material, Processing, Experimental & Numerical Heat Transfer and Computational Fluid Dynamics.

Dr. Jai Gopal Gupta

Assistant Professor

Ph.D. (IIT Kanpur, 2016), M.Tech. (MNIT Jaipur, 2004)

Area of Interest: Performance, Emission, Combustion in Internal Combustion Engines, Alternative Fuels and Renewable Energy Resources

Dr. Debajit Saha

Assistant Professor

PhD. (Jadavpur University, 2017), M.Tech. (Jadavpur University, 2010)

Area of Interest: Fluid Mechanics and Machines, Turbulence, Computational Fluid Dynamics, Thermal Engineering

Dr. Biswajit Roy

Assistant Professor

PhD. (NIT Silchar, 2022), M.Tech. (NIT Silchar, 2017)

Area of Interest: Tribology of Bearing, Uncertainty Quantification, Machine learning, Solar Energy.

Temporary Faculty

Dr. Kirti Tewari

PhD. NIT Allahabad

Research Interest: Renewable Energy, Thermal-fluid

Dr. Bibhuti Bhusan Nayak

PhD. NIT Durgapur

Research Interest: Modeling of fluid flow and heat transfer in single and micro scale two phase flow, Computational Fluid Dynamics, Renewable Energy Sources, Electrical Vehicles, Waste to Energy conversion

Dr. Dipayan Das

PhD. MNIT Jaipur

Research Interest: Work System Design, Ergonomics and Occupational Safety, Human Factors Engineering

Dr. Uttam Kumar Mohanty

PhD. IIT Hyderabad

Research Interest: Submerged Arc Welding, Electrical Discharge Machining Process, Metal Additive Manufacturing, Heat Transfer Modeling and Melting Phenomena analysis of fusion welding process

Staff Details

Mr. Suneel Kumar Kushawaha

Technical Assistant

B.Tech. (Mechanical Engineering), FGIET

Mr. Amit Maity

Lab Technician

ITI, Diploma (Mechanical)

Membership of Technical Association / Society

- Dr. Anil Lal S, Member of Indian Society of Technical Education (ISTE)
- Dr. Anil Lal S, Member of Aeronautical Society of India
- Dr. Anil Lal S, Member of National Society of Fluid Mechanics and Fluid Power (NSFMFP)
- Dr. Jai Gopal Gupta, Life member of International Society for Energy, Environment and Sustainability (ISEES)

Laboratory Facilities

Since its inception, the Department is emphasizing establishing state-of-the-art as well as modern Laboratories to cater to the societal needs. The Department is now well equipped with the following Laboratories:

- Mechanical Workshop
- Fluid Mechanics and Machinery Laboratory
- Solid Mechanics Laboratory
- Machining Science Laboratory
- Advanced Manufacturing Processes Laboratory
- CAD Laboratory
- CAM Laboratory
- Machine Drawing Laboratory
- Metrology and Measurements Laboratory
- Heat Transfer Laboratory
- IC Engine Laboratory
- Refrigeration and Air-Conditioning Laboratory
- Energy Conversion Laboratory
- Kinematics and Dynamics of Machinery Laboratory

- Metal Cutting Laboratory
- Vibration & Rotor Dynamics Laboratory

1. Mechanical Workshop

The main objective of this course is to develop machine skills in dignity of labor, precision, and safety

at the workplace, teamwork and development of the right attitude. This course also enhances the skill of measurements and improves the skills in basic engineering practices with hand tools and instruments which are commonly used in the basic workshop practice.



Sheet Bending Machine



Electric Furnace



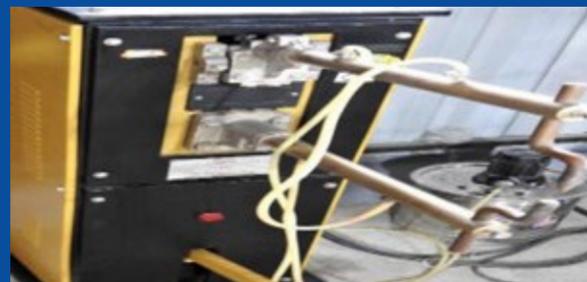
Pedestal Grinder



Power Saw



MMAW Machine



Spot Welding Machine



MIG Welding Machine



MIG Welding Machine

2. Fluid Mechanics and Machinery Laboratory

The purpose of this Laboratory is to reinforce and enhance understanding of the fundamentals of Fluid Mechanics and Hydraulic Machines. The experiments here are designed to demonstrate the applications of the basic Fluid Mechanics principles and to provide a more intuitive and physical understanding of the theory. The prime objective of this Laboratory is to discuss and practice standard measurement techniques of Fluid Mechanics and their applications. It also includes the performance of various apparatus at different operating

points. Upon completing this laboratory, students will be able to understand the concepts of fluid machinery, including various types of turbines and pumps, as well as the key non-dimensional parameters relevant to hydraulic machines. The students are made capable of verifying Bernoulli's Theorem and calibrating a venturi-meter, Orifice meter, Nozzle, Pitot tube etc. The students will be able to characterize laminar, turbulent flows and analyze the stability of floating bodies at the end of this Laboratory class. The facilities in the laboratory are of extremely high quality and some of the setups are modifiable to conduct research-level experiments of PhD students.

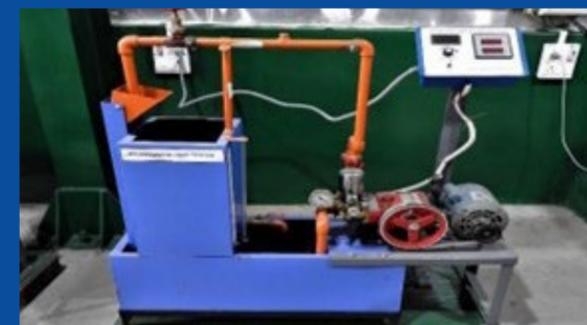
Pictorial views of some of the instruments are given below:



Flow Measuring Device



Turbine Setup



Reciprocating Pump Test Rig



Series and parallel Centrifugal Test Rig



Pelton Wheel Setup



Open Channel Digital Setup

3. Solid Mechanics Laboratory

The objective of this Laboratory is to help student practice the evaluation of different mechanical properties of metals viz. a) Limit of proportionality b) Elastic limit c) Yield strength d) Ultimate strength e) Young's modulus of elasticity f) Percentage elongation g) Percentage reduction etc. A major facility in this

laboratory is a Universal Testing Machine (UTM) which is used to conduct four experiments: tension, compression, bending and shear on standard test specimens. Furthermore, Torsion test, Hardness Test, Izod & Charpy test, Compressive strength tests are also conducted in this Laboratory. Pictorial views of some of the instruments are shown below:



Hardness Testing Machine



Universal Testing Machine



Torsion Testing Machine



Impact Testing Machine



Spring Testing Machine

4. CAD Laboratory

The objective of this Laboratory is to provide skills to the students about the basics of AUTOCAD, 2D modeling and isometric drawings of different mechanical parts. 3D modeling of different types of mechanical components is carried out in this Laboratory.



CAD Laboratory

5. Machining Science Laboratory

The objective of this course is to understand the basic concepts of tool signature in different reference systems and obtain the in-hand experience for the preparation of single point cutting tool in different reference systems.

To develop the student's ability to measure and analyze the morphology of chip, temperature at the tool-chip interface and cutting forces during machining. Students will study to understand the working principle of various advanced non-traditional equipment.



Horizontal Surface Grinding Machine



Lathe



Radial Drilling Machine



Shaping Machine

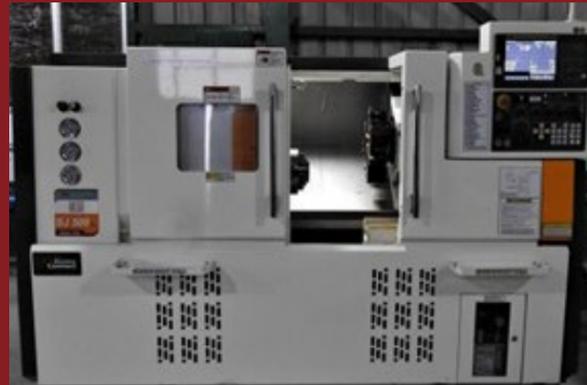
6. Advanced Manufacturing Processes and CAM Laboratory

The objective of AMP Laboratory is to understand modern trends of manufacturing for the real-life industrial applications to manufacture and fabricate complex component. To develop students' ability to perform jobs using highly precise equipment such as 3D printing, injection moulding, wire arc additive manufacturing, vertical machining center and CNC Lathe machine.

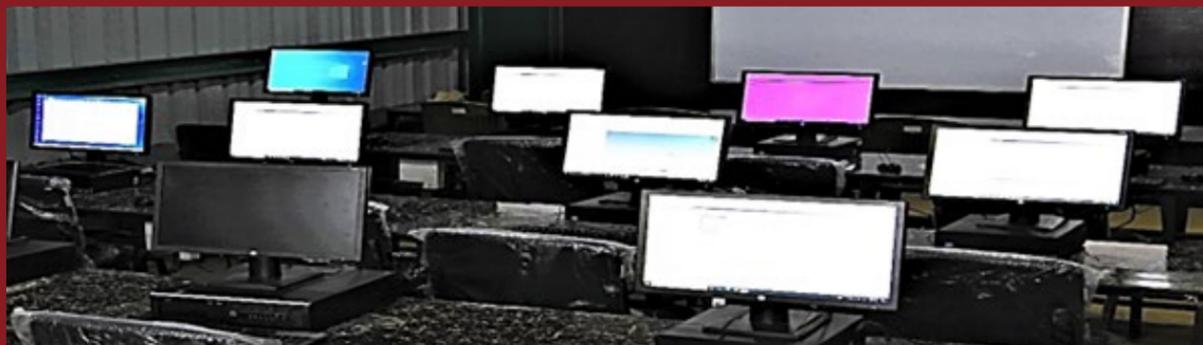
CAM Laboratory of the institute provides training on various types of design software which are useful for designing various types of machine components. In this Laboratory, students can develop 2D and 3D Models in CAD Software (Solid Works/Solid Edge). Introduces the students with the basic Boolean Operations: shell, sweep, revolve, loft, extrude, filleting, chamfer, splines etc., for 3D Models. They are given practice training to do manual part programming for CNC Lathe and NC Milling.



Vertical Milling Center



CNC Lathe



Pictorial view of CAM Laboratory

7. Engineering Graphics and Machine Drawing Laboratory

This course is designed to introduce the students to the "universal language of Engineers" for effective communication through drafting exercises of geometrical solids. Learning technical drawing is an important part of the engineering profession. The objective of the course is to teach students to communicate using graphic techniques. Technical Graphics is used to communicate the necessary technical information required for manufacture and assembly of machine components. This

laboratory provides students with practical experience in representing elements of machine drawing, and introduces them to engineering materials, surface finishes, tolerances, sectional views, and screw threads. Component drawings of bolts and nuts, locking devices, keys and cotter joints, knuckle joints, riveted joints, shaft couplings, bearings and pipe joints are also taught to the students. Furthermore, assembly drawing, drawing of the assembly of stuffing box, and pedestal bearing using the component drawings are being practiced by the students in this Laboratory.



Pictorial view of Machine Drawing Laboratory



8. Metrology and Measurements Laboratory

The objectives of Mechanical Measurements & Metrology Lab are to demonstrate the theoretical concepts taught in Mechanical Measurements & Metrology and

also to practice the use of various measuring tools with calibration. Thread profile measurement, usage of autocollimator, profile projector, surface roughness tester, thermal imaging device are being taught to the students. Pictorial views of some of the instruments are shown below:



Vernier Calliper



Micrometre



Digital Micrometre



Dial Gauge



Bevel Protractor and Combination Set



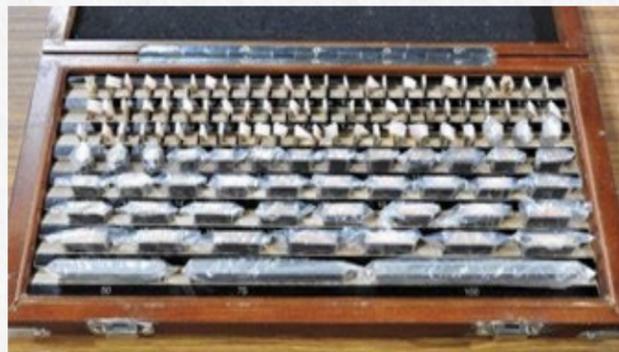
Bore Gauge



Autocollimator



Surface Roughness Tester



Slip Gauge



Sine Bar

9. Heat Transfer Laboratory

The Heat Transfer Laboratory is well-equipped with modern instruments to strengthen the knowledge of students in this particular domain. Instruments of this Laboratory are procured with the support from TEQIP-III of the Institute. This Laboratory is aimed at equipping

the students with proper knowledge on the Conductive, Convective and Radiative Heat Transfer. Familiarize and practice heat transfer, heat exchangers, different temperature measurement modules etc. are the broad objectives of this Laboratory. Pictorial views of some of the instruments are shown below:



Boiling and Condensation Apparatus



Calibration of Thermo-couple Apparatus



Radiation Apparatus with Radiation Shield Arrangement

10. IC Engine Laboratory

The Internal Combustion Engine Laboratory is well equipped with numerous instruments to enhance the knowledge of the students' and the instruments are bought with full financial support from TEQIP-III of the Institute. In this Laboratory, cut-sections models of different engines along with VTD plotting are presented to the students. The performance tests on single-cylinder diesel, petrol engines, multi-cylinder engines were performed in this Laboratory.



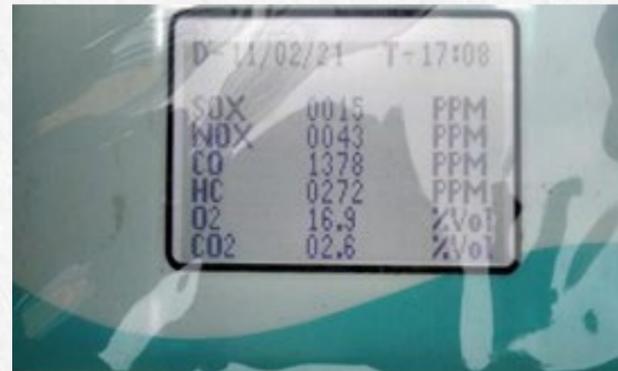
Bomb Calorimeter



Cut section Models of Engines and Boilers



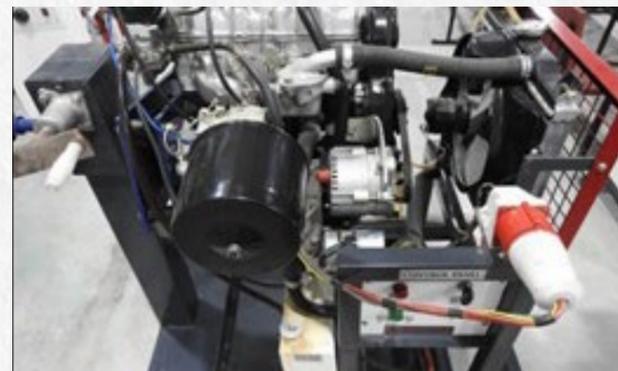
The Engines



Multi-gas Analyzer



Cut Section of Engine



Cut Section of Engine

In addition to the above-mentioned test facilities, one multi-fuel VCR engine with open ECU is available in this Laboratory for conducting research level experiments. Performance, combustion testing can be conducted with the available instruments, using different alternative fuels. This Laboratory is also well equipped with a Multi-gas Analyser to check the emission characteristics of the engine. Pictorial views of some of the instruments are depicted below:

11. Refrigeration and Air-conditioning Laboratory

The Refrigeration & Air-conditioning Laboratory consists of equipment and instruments to do hands-on training and experiments on the subject. Recently, new instruments related to refrigeration experiments were added to this Laboratory with the financial aid from TEQIP-III. Cut-section models of compressor, domestic

refrigerator are used to demonstrate the working of the RAC system. Students are taught to determine the COP of domestic-type refrigerators, small computerized ice plants, and VAR systems. Experimentation on refrigerant leak detection is carried out in this Laboratory. Furthermore, the Laboratory is equipped with an AC Test Rig, Thermo-electric refrigerator, different types of compressor models etc. Pictorial views of some of the instruments are depicted below:



VCR Test Rig (domestic refrigerator) -Manual Mode



VAR Test Rig



AC Test Rig

12. Energy Conversion Laboratory

The Energy Conversion Laboratory is equipped with many state-of-the-art facilities to acquire knowledge about different types of basic energy conversion



Cut-section Model of Stirling Boiler



Cut-section Model of Lancashire Boiler



Assembling and dismantling set-up of 4-S 4-C Petrol Engine (working)



Centrifugal Blower with data logging facility

processes. Cut-section Models of different types of boilers are presented to the students in this Laboratory. Experimentation on Blower Test Rigs is also carried out in this Laboratory. Pictorial views of some of the instruments are depicted below:

13. Metal Cutting Laboratory

This course introduces specialized knowledge and skills in machining processes using the principles and methods of Engineering Analysis, Merchant's theories of Machining. This Laboratory is aimed at introducing the know-how of common processes used in industries for manufacturing parts by material removal in a

controlled manner. Auxiliary devices as well as methods for machining to desired accuracy and quality will also be covered. The emphasis throughout the Laboratory course will be on understanding the basic features of the processes rather than details of construction of machines, or common practices in manufacturing or acquiring skill in the operation of machines. Pictorial views of some of the instruments are depicted below:



Horizontal Surface Grinding Machine



Lathe



Universal Milling Machine



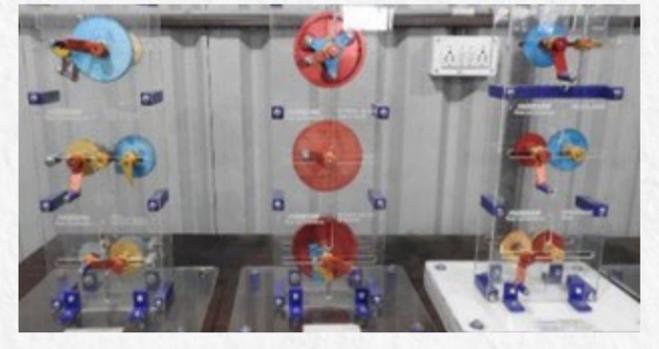
Shaping Machine

14. Kinematics and Dynamics of Machinery Laboratory

The objective of this course is to understand the basics knowledge of governor, gyroscope, moment balance, cams, epicyclic gear train and whirling of shaft. To perform the experiments using various setups to prove various principles of mechanics.



Gear Models

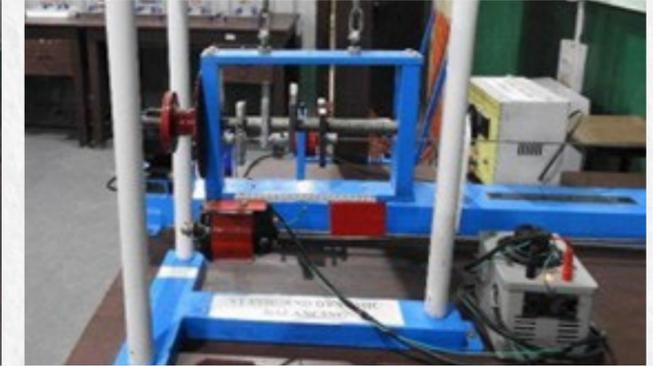




Cam Analysis Apparatus



Gyroscope Apparatus



Statics and Dynamics Balancing Apparatus



Governor Apparatus



Whirling Shaft Apparatus



Governor Apparatus

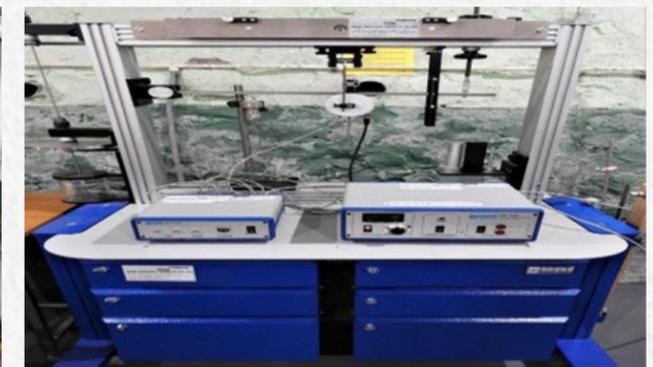


Free and Forced Vibration Apparatus

15. Vibration & Rotor Dynamics Laboratory

Objectives of the Vibration and Rotor Dynamics Laboratory are to impart practical knowledge on free and forced vibrations analysis for various types of mechanical components. This Laboratory demonstrates the experiments on damping, resonance and absorber

effects in forced vibrations, determination of the oscillation period depending on torsion wire length, diameter and rotating mass. This Laboratory also provides hands-on knowledge on free and damped torsional vibrations. Various experiments with governors, elastic shafts, cam mechanisms are available to understand machine dynamics. Pictorial views of some of the instruments are depicted below:



Universal Vibration Apparatus

HPC and Software

- Undergraduate project works are being carried out through HPC platform as well as Institutional ANSYS software.
- Ph.D. Students and Faculty members of the Department are availing the HPC facility as well as

ANSYS and open-source software for conducting their research works.

- Online Integrative Learning / program tool is also being used by the Department for different laboratories, such as; Basic Workshop, Metrology and Measurement, Production Engineering to teach the students in a more effective way

Departmental Activities

Professional Practice with BIS collaboration

The collaboration of NIT Sikkim with BIS aims to integrate standardization and conformity assessment into academic and professional spheres—fostering higher-quality education, research, and professional practice. The objective of the Collaboration is to engage faculty and students with BIS technical committees at national and international levels. Implementation Strategy & Activities include active collaboration via BIS technical

committees to gain professional exposure and influence standards formulation. The BIS MoU, in conjunction with NIT Sikkim's extensive network of academic-industry-international partnerships, creates a robust ecosystem for professional practice, quality education, and research. This framework not only enhances the skill set and employability of students but also empowers faculty expertise—positioning the institute as a center of excellence in standardization, conformity assessment, and industry-aligned education.



Departmental Cleanliness Drive

In alignment with the Government of India's flagship initiative, Swachh Bharat Abhiyan, our department organized a Cleanliness Drive. The initiative aimed at promoting hygiene, cleanliness, and sustainable waste management within the department and surrounding areas. Faculty, staff, and students participated enthusiastically in cleaning classrooms, laboratories, staff rooms, and corridors. Dustbins were cleaned and properly labeled for segregation of waste. As a part of promoting green practices, small saplings were planted around the department premises. The cleanliness drive was a successful endeavor and aligned well with the objectives of Swachhata Abhiyan. It reflected our collective responsibility towards building a cleaner and healthier nation. The department is committed to continuing such initiatives on a regular basis.



List of Publication from the department

Journal

- Debayan Mandal, Ilyas Hussain, Sudip Banerjee, Ranjan Basak. "Scratch Resistance Characteristics of Al-Si₃N₄ Nano-composites Under Constant Load", Journal of The Institution of Engineers (India): Series D, October 2024
- Bibhuti Bhusan Nayak, A Numerical Analysis on Different Types of Solar Air Heaters, Medicon Agriculture & Environmental Sciences, volume 8, issue 1, pp. 04-23, ISSN: 2972-2691, DOI: 10.55162/MCAES.08.221, 2025.
- Debayan Mandal, Sudip Banerjee, Ranjan Basak. "Investigation on Corrosion Characteristic and Scratch Behaviour Under Ramp Loading Conditions of LM6-Si₃N₄ Nanocomposites", Physica Scripta, March 2025
- Bibhuti Bhusan Nayak, A Numerical study on Performance Enhancement for the diversified shaped batteries of Electric vehicle, Medicon Engineering Themes, Volume 7, Issue 6, pp.18-38, ISSN: 2834-7218, DOI: 10.55162/MCET.07.249, 2024.
- Bibhuti Bhusan Nayak and Tardup Lepcha, A Computational Study on Performance Analysis of

Different Types of Tandem Solar Cells, Medicon Engineering Themes, volume 7, issue 4, pp. 39-66, ISSN: 2834-7218, DOI: 10.55162/MCET.07.237, 2024.

6. Bibhuti Bhusan Nayak, Shivendra Pratap Singh and Himanshu Kumar, An Experimental Analysis on Performance Assessment of Green Vehicles with Integration of Green Energy, Medicon Agriculture & Environmental Sciences, volume 7, issue 2, pp. 60-83, ISSN: 2972-2691, DOI: 10.55162/MCAES.07.196, 2024.
7. Bibhuti Bhusan Nayak, Om Prakash Sharma and Yesupaga Raj Kiran, Production of Bio-fertilizer for Sustainable Agriculture with Green Energy Generation using Green Wastes at Cryophilic Conditions, Medicon Agriculture & Environmental Sciences, volume 7, issue 3, pp. 03-23, ISSN: 2972-2691, DOI: 10.55162/MCAES.07.198, 2024.
8. Krishna, P.V., Mohanty, U.K, Effect of machining parameters on machining performance during end milling. Sadhana, 50 (1), 1-12. DOI:10.1007/s12046-024-02639-0, January 2025.
9. Mohanty, U. K, Krishna, P.V, Multi-Criteria Decision Making for Evaluating a Suitable MOO Technique to Improve the Performance of AISI 1040 Carbon Steel and Ti-6Al-4V Alloy. International Journal of

Modeling, Simulation, and Scientific Computing, 15 (6), 1. DOI: 10.1142/S1793962325500151, December 2024.

Conference

1. Jai Gopal Gupta. Health Risk Aptitudes of Diesel Engines Fueled with Biodiesel and Methanol Blends. VI International Liberty Interdisciplinary Studies Conference, November 29-30, 2024, New York.
2. Md Shadab Reza, Jai Gopal Gupta and Anil Lal S. A Review on Recent Advancements in DPF Regeneration Techniques. Proceedings of the IX International Conference on Sustainable Energy and Environmental Challenges (IX SEEC) 13 – 15 December 2024, IIT, Mandi, India.
3. Jai Gopal Gupta. Green Hydrogen: Innovations For A Sustainable Future. 6th International Istanbul Current Scientific Research Congress, February 04-05, 2025, Istanbul, Türkiye.
4. Nagasai, A. Venkata, S. Anil Lal, and R. Ajith Kumar. "Method of characteristics and its application to design a minimum length supersonic nozzle." American Institute of Physics Conference Series. Vol. 3162. No. 1. 2025.

Details of Ph.D. Scholars

Name of the Student	Thesis Title / Research area	Supervisor (s)	Status
Mr. Aditya Kumar Singh	Experimental Investigation to Find the Effects of Blending of Biodiesel and Alcohol with Diesel on VCR Diesel Engine	Dr. Shambhunath Barman	Awarded
Mr. Debayan Mandal	Experimental Investigation of Aluminum Metal Matrix Composites Reinforced with Nano Silicon Nitride (Si ₃ N ₄)	Dr. Ranjan Basak	Pursuing
Mr. Ved Prakash Mishra	Performance Combustion and emission characteristics of CI Engine Fueled with Diesel/ Alcohol Ternary Blend	Dr. Shambhunath Barman Dr. Pradip Mondal, IEST Shibpur	Pursuing
Mr. Mannu Yadav	Investigation of Natural Convection Heat Transfer in a Duct	Dr. Anil Lal S	Pursuing
Ms. Moumita Roy	Performance, Evaluation, Economic Analysis and Design of Biomass Gasifier Integrated Drying System.	Dr. Shambhunath Barman Dr. Prokash Ch. Roy (JU, Kolkata)	Pursuing
Mr. Md Shadab Reza	Emission Characteristics of a Compression Ignition Engine Fuelled with Alternative Fuels Experimentally and Numerically.	Dr. Jai Gopal Gupta and Dr. Anil Lal S	Pursuing
Mr. Debojit Roy	Experimental Investigation on Machining Characteristics of Al-Si ₃ N ₄ Nanocomposites	Dr. Ranjan Basak	Pursuing

Undergraduate Students Internship Details

UG 4 th Year Students			
Sl. No	Student Name	Roll No	Name of the Company
1	Abhijeet Patel	b210123 ME	DRDO
2	Jael L Daimari	B210135ME	DRDO, PXE
3	Mayank Shukla	B210139ME	TATA MOTORS, DRDO
4	Vaibhav Bagrodia	B210147ME	ISRO, IISc Bangalore, HAB Biomass
5	Debajit Chatterjee	B210131ME	TATA MOTORS, NHPC LTD., Dharaksha Eco solutions Pvt. Ltd.
6	Swastik Chakraborty	B210144ME	ISRO
7	Ayush Maity	B210128ME	IOCL, TATA Motors, Dharaksha Eco solutions Pvt. Ltd
8	Om Tripathi	B210141ME	Tata Motors, Robofly Pvt. Ltd.
9	Marri Snehitha Ram	B210138ME	NHPC Rangit Power Station
10	Jaideep Subedi	B210136ME	NHPC Rangit Power Station
11	Tejash Gupta	B210145ME	MIDHANI, Hyderabad
12	Abhishek Jaluthriya	B210124ME	MIDHANI, Hyderabad
13	Ujwal Prasad	B210146ME	GTRE, DRDO
14	Bisakha Prabha Chettri	B210129ME	DRDO, Hailstone Pvt.Ltd, Hab Biomass
15	Sakshi Verma	B210142ME	ISRO, Alorb Technologies Pvt.Ltd, Hab Biomass
16	Dhiraj Kumar	B210132ME	IOCL PARADEEP
17	Nand Kishore Anand	B210140ME	GTRE, Bengaluru
18	Ankit Singh	B210126ME	PXE (DRDO), Chandipur, Balasore
19	Chandni Bhoi	B210130ME	OHPC, DRDO
20	Arvind Kumar	B210127ME	Motorama EV, Dharaksha Ecosolutions pvt.Ltd.
21	Ankit Kumar	B210125ME	TATA MOTORS, Dharaksha Ecosolutions Pvt. Ltd.
22	Vinayak Dahal	B210148ME	R K Infracrop Pvt Ltd.
23	Jyoti Kumari Prasad	B210137ME	NHPC Rangit Power Station

UG 3 rd Year Students			
Sl. No	Student Name	Roll No	Name of the Company
1	Aditya Kumar Prasad	B220123ME	NHPC Limited
2	Anish Gurung	B220125ME	Valeo Products LLP
3	Anurag Prasad	B220126ME	NHPC Limited
4	Dhanraj Siddh	B220127ME	Valeo Products LLP
5	Dharmvijay Singh	B220128ME	SDSC - SHAR, ISRO
6	Fauzia Arshad	B220129ME	Protomont Technologies
7	Harsh Vardhan Saini	B220130ME	Valeo Products LLP
8	Kabir Man Rai	B220132ME	NHPC Limited
9	Kundan Kumar	B220133ME	Defence research and development organisation (1month)
10	Manish Kumar Sah	B220134ME	V.K Engitech pvt Ltd
11	Md Abdul Mumin	B220135ME	STEMbotix

UG 3rd Year Students

Sl. No	Student Name	Roll No	Name of the Company
12	Md Sahariar Hossain	B220136ME	Allied Electro Mechanical Pvt. Ltd
13	Navnit Kumar Sharma	B220137ME	Dharaksha Ecosolutions Private Limited
14	Neha Saha	B220138ME	Dharaksha Ecosolutions
15	Nisha Rani	B220139ME	Asquare infotech consultancy
16	Rahul Kumar Prasad	B220143ME	NHPC Limited
17	Rakesh Chandra Mondal	B220144ME	Defence Research and Development Organisation
18	Ravi Kant Rajak	B220146ME	Defence Research and Development Organisation
19	Rohan Darjee	B220147ME	Mishra Dhatu Nigam Limited
20	Sangay Chopel Bhutia	B220148ME	NHPC Limited
21	Sujal Rai	B220150ME	NHPC LIMITED
22	Tamanna Gautam	B220151ME	IIT JAMMU
23	Vaibhav Mishra	B220152ME	Gravitas Laboratories Pvt Ltd
24	Sonam Tshering	B210143ME	NHPC LIMITED

Projects of Final Year Students

Sl No	Roll No	Name	Project Guide	Project Title
1	B210144ME	Swastik Chakraborty	Dr. R Basak	Numerical Analysis of Upstream Fuel Injection In a Air Augmented Hypersonic Rocket
2	B210125ME	Ankit Kumar	Dr. Anil Lal S	Hospital Management App
3	B210147ME	Vaibhav Bagrodia	Dr. Anil Lal S And	Finite Element Analysis of Orthogonal Cutting Operation
4	B210141ME	Om Tripathi	Dr. U K Mohanty	
5	B210126ME	Ankit Singh	Dr. B Roy	Machine Learning Based Autonomous Mobile Robot
6	B210127ME	Arvind Kumar		
7	B210129ME	Bisakha Prabha Chettri	Dr. B Roy and Dr. D Saha	Evaluation Of Material Erosion Resistance Using Water Droplet Erosion Tester.
8	B210124ME	Abhishek Jaluthriya		
9	B210131ME	Debajit Chatterjee	Dr. D Saha	Numerical Analysis of Fluid Flow Through Sudden Expansion
10	B210123ME	Abhijeet Patel	Dr. J G Gupta	Power Generation Using Speed Breaker Mechanism
11	B210132ME	Dhiraj Kumar		
12	B210140ME	Nand Kishore Anand	Dr. K Tewari	Exergo- Economic Analysis of Hybrid Solar Grass Cutter
13	B210146ME	Ujwal Prasad		
14	B210135ME	Jael L Daimari	Dr. Dipayan Das	An Ergonomic Investigation of Occupational Health Among Handicraft Workers in Sikkim, India
15	B210138ME	Marri Snehitha Ram		
16	B210148ME	Vinayak Dahal	Dr. S N Barman	Numerical Analysis of Thermal Performance of Modern Dryer
17	B210139ME	Mayank Shukla	Dr. U K Mohanty	Finite Element Analysis for Fabrication of Turbine Blade Using DMLS Process
18	B210142ME	Sakshi Verma		

Sl No	Roll No	Name	Project Guide	Project Title
19	B210145ME	Tejash Gupta	Dr. B B Nayak and Dr. R Basak	Experimental Analysis on Vehicle Safety in Automatic Braking System of an Electric Vehicle Using Adas Technology
20	B210130ME	Chandni Bhoi		
21	B210136ME	Jaideep Subedi		

Undergraduate Students Achievements

Campus Placement Status

Sl. No	Student Name	Roll No	Name of the Company
1	Abhijeet Patel	B210123ME	L&T
2	Jael L Daimari	B210135ME	Tecture Pvt Ltd
3	Mayank Shukla	B210139ME	RHI Magnesita
4	Vaibhav Bagrodia	B210147ME	Escorts Kubota Ltd.
5	Debajit Chatterjee	B210131ME	Vedanta Resources Ltd.
6	Swastik Chakraborty	B210144ME	L&T Construction
7	Ayush Maity	B210128ME	Vedanta Limited
8	Om Tripathi	B210141ME	Reliance Industries
9	Jaideep Subedi	B210136ME	High Technext Eng.& Telecom
10	Tejash Gupta	B210145ME	Toshiba Pvt Ltd
11	Abhishek Jaluthriya	B210124ME	Ducom Instruments Pvt. Ltd.
12	Ujwal Prasad	B210146ME	Intellipaat
13	Bisakha Prabha Chettri	B210129ME	Vedanta Limited
14	Sakshi Verma	B210142ME	Deloitte and Mahindra & Mahindra
15	Nand Kishore Anand	B210140ME	L&T Hydrocarbon
16	Ankit Singh	B210126ME	APL Apollo Tubes Ltd.
17	Chandni Bhoi	B210130ME	RHI Magnesita
18	Arvind kumar	B210127ME	RHI Magnesita
19	Ankit Kumar	B210125ME	Fristine Infotech Pvt. Ltd.
20	Vinayak Dahal	B210148ME	Responsive Industries Limited

The following students of Mechanical Engineering Department have qualified in GATE 24 and GATE 25.

Sl. No	Student Name	Roll No	Details
1	Mayank Shukla	B210139ME	GATE 24 (Score 398)
2	Vaibhav Bagrodia	B210147ME	GATE 24 (Score 367), GATE 25 (Score 359)
3	Swastik Chakraborty	B210144ME	GATE 25 (Score 445)
4	Ayush Maity	B210128ME	GATE 24 (Score 359)
5	Om Tripathi	B210141ME	GATE 24 (Score 494)
6	Abhishek Jaluthriya	B210124ME	GATE 24 (Score 264), GATE 25 (Score 279)
7	Dharmvijay Singh	B220128ME	GATE 25 (AIR 4104)
8	Rakesh Chandra Mondal	B220144ME	GATE 25 (AIR12421)
9	Rohan Darjee	B220147ME	GATE 25 (AIR15818)

Student Events

Yantrika: The Departmental Club

Faculty In-Charge: Dr. Dipayan Das

Secretary: Sakshi Verma, **Treasurer:** Ujwal Prasad, **Convenor:** Abhishek Jaluthriya

Yantrika was established in 2015 as the Departmental Club of the Mechanical Engineering Department. Its primary objective is to foster the development of essential skills among students while recognizing the need to equip them with the necessary tools and software for thriving in the technology-driven era. The society hosts various activities aimed at enhancing the core and technical competencies of participants. Yantrika firmly believes that a brilliant idea remains futile unless it can be conveyed successfully. Thus, society emphasizes the significance of communication skills, enabling individuals to transform their ideas into practical possibilities. By acknowledging the value of such skills, Yantrika ensures the holistic growth of participants, encompassing their core, technical, and soft skill sets. Since its establishment, Yantrika has been dedicated to creating a conducive learning environment for students. The society encourages active participation and

engagement, fostering a sense of camaraderie among its members. Students are provided with opportunities to collaborate, share ideas, and learn from one another. Yantrika also serves as a platform for networking and connecting with industry professionals, creating avenues for future career prospects.

Highlights of the Year

Alumni Talk Show with Mr. Nikhil Reddy Sheri

Date: 27th September 2024

The year began on an inspiring note with the Alumni Talk Show, graced by Mr. Nikhil Reddy Sheri, a proud alumnus of the 2014–2018 batch. Currently a Key Account Manager at SKF Group-South and formerly an Assistant Manager at L&T, Mr. Reddy brought a wealth of experience and wisdom to our students. He shared compelling stories from his professional journey, offering guidance on how to navigate transitions from campus to corporate life. The session was not only motivational but also helped our students develop a clearer understanding of their future career paths.



Orientation for Second Year Students

Date: 31st October 2024

Yantrika welcomed the second-year students with warmth and enthusiasm through an interactive orientation session. The program introduced new members to the club's vision, ongoing initiatives,



and opportunities for involvement. Senior members shared their personal experiences, projects, and tips for excelling both in academics and extracurricular activities. The event successfully set a tone of belonging and inspired students to take an active role in Yantrika's future endeavors.



The Interview Room – A Mock Interview Initiative

Dates: 22nd March 2025 & 26th April 2025

A major milestone this year was The Interview Room, a mock interview series crafted to simulate real-world interview experiences. Participants underwent sessions designed to enhance their communication, confidence,

and professionalism. The initiative delivered customized feedback and practical recommendations to help improve resumes, body language, and problem-solving techniques. The students embraced the challenge, and the transformation in their approach was visibly remarkable. The event was lauded as one of the most hands-on and impactful learning exercises of the year.



Cybersecurity Awareness Design Competition

Date: 14th April 2025

In collaboration with the Sikkim Police, Yantrika organized a state-level Cybersecurity Awareness Design Competition. This unique event aimed to promote digital safety and responsible online behavior while celebrating the cultural heritage of Sikkim. Students competed in two creative categories:

- Flipbook Customization, integrating Sikkimese cultural elements.
- Poster Design, to spread awareness of cybersecurity best practices.

With generous cash prizes and enthusiastic participation from all branches, the competition not only fostered awareness but also brought out the artistic and cultural expression of our students. The initiative stood as a

testament to how engineering, creativity, and social responsibility can intersect.



Mr. Sharma shared his preparation journey, mindset strategies, and the realities of working in Central Power Engineering Services. His honest narrative, exam insights, and motivation resonated with aspirants, leaving a lasting impact. This session was a major highlight and set the bar high for the future editions of Ignite.

Ignite – The Talk Show 1.0 with Mr. Romit Sharma

Date: 9th May 2025

Yantrika proudly launched its flagship talk series—Ignite—with none other than Mr. Romit Sharma, AIR 1 in ESE 2023 and AIR 299 in GATE 2023. Joining us virtually,



Teachers Day Celebration:

Teachers' Day was celebrated with great enthusiasm and respect in the Department of Mechanical Engineering on September 5, 2024, to honor the contribution of teachers to society and the academic growth of students. The event was organized by the students under the guidance of the Head of the Department and faculty members. The celebration began at 10:00 AM with a warm welcome by the student host, followed by a brief speech on the significance of Teachers' Day, commemorating the birth anniversary of Dr. Sarvepalli Radhakrishnan. A traditional lamp-lighting ceremony



Teacher Day Celebration in the Dept. of Mechanical Engineering

As we bid farewell to the final year students of the academic year 2024-25, it is a moment filled with both joy and nostalgia. Over the years, these students have not only grown academically but have also left behind countless memories that will be cherished by peers,

was conducted and then the Students showcased their talents through a series of cultural performances. Several light-hearted games and activities were organized for the teachers, creating an enjoyable and relaxed environment. Faculty members were felicitated with personalized appreciation cards and mementos as a token of gratitude. The Head of the Department, Dr. [Name] delivered a speech commending the students' initiative and highlighting the significance of teacher-student collaboration. Several other faculty members also expressed their joy and shared experiences.



As we bid farewell to the final year students of the academic year 2024-25, it is a moment filled with both joy and nostalgia. Over the years, these students have not only grown academically but have also left behind countless memories that will be cherished by peers, juniors, and faculty alike. The final year students of 2021-25 Batch have been an integral part of our institution's journey. Their hard work, spirit, and friendships will always be remembered. We thank them for the memories and wish them success in all their future endeavors.



Departmental Faculties with 2021-25 Batch Students

Departmental Committees

S. No	Name of Faculty Members	Name of the Committee
1	<ol style="list-style-type: none"> Convener (DUGC): Dr. Jai Gopal Gupta HOD: Dr. Anil Lal S Convener (DPGC): Dr. Shambhunath Barman Faculty Members (ME Dept.): <ol style="list-style-type: none"> Dr. Ranjan Basak Dr. Debajit Saha 	Departmental Undergraduate Committee (DUGC)
2	<ol style="list-style-type: none"> Convener DPGC: Dr. Shambhunath Barman HOD: Dr. Anil Lal S Convener DUGC: Dr. Jai Gopal Gupta Faculty Members (ME Dept.): <ol style="list-style-type: none"> Dr. Ranjan Basak Dr. Debajit Saha Dr. Biswajit Roy Faculty Member (Nominated by Chairperson Senate): Dr. Aurobinda Panda, Assistant Professor, EEE Dept. 	Departmental Postgraduate Committee (DPGC)
3	<ol style="list-style-type: none"> HOD: Dr. Anil Lal S DUGC Convener: Dr. Jai Gopal Gupta Faculty Advisors <ul style="list-style-type: none"> 2024-28 Batch: Dr. Kirti Tewari 2023-27 Batch: Dr. Dipayan Das 2022-26 Batch: Dr. Bibhuti Bhusan Nayak 2021-25 Batch: Dr. Uttam Kumar Mohanty Faculty Member, ME Dept. (nominated by HOD): Dr. Shambhunath Barman Faculty Member, (nominated by Dean, Academic): Dr. Anindya Biswas, Associate Professor, Department of Physics 	Academic Performance Evaluation Committee (APEC)
4	<ol style="list-style-type: none"> Dr. Anil Lal S (HOD, ME Dept.) Dr. Shambhunath Barman (Convener, DPGC) Dr. Ranjan Basak (Faculty, ME Dept.) Dr. Jai Gopal Gupta (Faculty, ME Dept.) Dr. Debajit Saha (Faculty, ME Dept.) Dr. Biswajit Roy (Faculty, ME Dept.) Dr. Kirti Tewari (Faculty ME Dept.) Dr. Molay Roy (Faculty, EEE Dept.) 	Departmental Admission Committee (DAC)
5	<ol style="list-style-type: none"> Dr. Anil Lal S, HOD Dr. Jai Gopal Gupta, Convener, DUGC Faculty Advisor (s) <ul style="list-style-type: none"> 1st Year Advisor: Dr. Kirti Tewari 2nd Year Advisor: Dr. Dipayan Das 3rd Year Advisor: Dr. Bibhuti Bhusan Nayak 4th Year Advisor: Dr. Uttam Kumar Mohanty Faculty Member from Examination Cell: Dr. Kirti Tewari 	Departmental Students Grievance Cell (DSGC)

S. No	Name of Faculty Members	Name of the Committee
6	Faculty Advisor: 2024-28 Batch: Dr. Kirti Tewari Faculty Advisor, 2023-27 Batch: Dr. Dipayan Das Faculty Advisor, 2022-26 Batch: Dr. Bibhuti Bhusan Nayak Faculty Advisor, 2021-25 Batch: Dr. Uttam Kumar Mohanty Research Scholars: Dr. Kirti Tewari	Faculty Advisor
7	<ol style="list-style-type: none"> Dr. Kirti Tewari (Convener) Members <ol style="list-style-type: none"> Dr. Dipayan Das (Faculty Advisor, 2023-27 Batch) Dr. Bibhuti Bhusan Nayak (Faculty Advisor, 2022-26 Batch) Dr. Uttam Kumar Mohanty (Faculty Advisor, 2021-25 Batch) Dr. Kirti Tewari (Research Scholars Faculty Advisor) 	Departmental Examination and Result Committee
8	<ol style="list-style-type: none"> Dr. Biswajit Roy (Convener) Members <ol style="list-style-type: none"> Dr. Dipayan Das (Faculty Advisor, 2023-27 Batch) Dr. Bibhuti Bhusan Nayak (Faculty Advisor, 2022-26 Batch) Dr. Uttam Kumar Mohanty (Faculty Advisor, 2021-25 Batch) Mr. Amit Maity (Senior Technician, ME Dept.) 	Time Table/Class Rooms/Load Distribution
9	<ol style="list-style-type: none"> Dr. Bibhuti Bhusan Nayak (Convener) Members <ol style="list-style-type: none"> Dr. Kirti Tewari (Faculty Advisor, 2024-28 Batch) Dr. Dipayan Das (Faculty Advisor, 2023-27 Batch) Dr. Dr. Bibhuti Bhusan Nayak (Faculty Advisor, 2022-26 Batch) Dr. Uttam Kumar Mohanty (Faculty Advisor, 2021-25 Batch) 	Departmental Library Committee
10	<ol style="list-style-type: none"> Dr. Diapyan Das (Convener) Members <ol style="list-style-type: none"> Dr. Dipayan Das (Faculty Advisor, 2023-27 Batch) Dr. Dr. Bibhuti Bhusan Nayak (Faculty Advisor, 2022-26 Batch) Dr. Uttam Kumar Mohanty (Faculty Advisor, 2021-25 Batch) 	Training and Placement, GATE, Professional Practice
11	<ol style="list-style-type: none"> Dr. Debajit Saha (Convener) Members <ol style="list-style-type: none"> Dr. Anil Lal S Dr. Ranjan Basak Dr. Shambhunath Barman Dr. Jai Gopal Gupta Dr. Biswajit Roy Dr. Kirti Tewari Dr. Dipayan Das Dr. Uttam Kumar Mohanty Dr. Bibhuti Bhusan Nayak 	Departmental Disciplinary Committee (DDC)

Workshop / STC / FDP Attended/ Conducted by the Faculty Members

- a) Dr. Jai Gopal Gupta, Organized One week Faculty Development Program (FDP) on “Entrepreneurship and Skill Development”; May 27- 31, 2024 at NIT Sikkim sponsored by Ministry of Skill Development and Entrepreneurship, Government of India.
- a) Dr. Anil Lal S, attended “Contact Mechanics and Elements of Tribology”, Open Course, MINES-PARIS PSL, FRANCE, February 24-28, 2025
- b) Dr. Anil Lal S, attended Gian Course on “Contact Mechanics”, 20-24 January 2025, IIT Palakkad
- c) Dr. Anil Lal S, Attended Physical & Numerical Modelling Hydraulic Design of Reservoirs and appurtenant structures, Central Water and Power Research Station Pune.
- d) Dr. Bibhuti Bhusan Nayak, Attended Five-days Advanced Entrepreneurship and Skill development training programme: “Renewable Energy Sources in Electric Vehicle and Distributed Generation System”, February 17-21, 2025.
- e) Dr. Biswajit Roy, Attended Manak Pravardhak- BIS Program for engagement of young professionals Organized by BIS at National Institute of Training for Standardization, Noida from 5th December to 6th December 2024.

Invited Lectures by the Faculty Members

- a) Dr. Jai Gopal Gupta, Invited Talk in the technical session related to Energy in IX International Conference on “Sustainable Energy and Environmental Challenges” (IX SEEC) organized from December 13th-15th, 2024, at the Indian Institute of Technology Mandi, Himachal Pradesh, India, under the auspices of the International Society for Energy, Environment and Sustainability (ISEES).
- b) Dr. Anil Lal S, Invited Talk on Introduction to various techniques in CFD, Organized by Easwari Engineering College, Chennai
- c) Dr. Debajit Saha, contributed as a keynote speaker/ resource person in one week faculty Development Program on the theme “Recent Emerging Trends & Applications in Mechanical Engineering” organized by the Department of Mechanical Engineering, Sanaka Educational Trust’s Group of Institutions from 11th - 15th, November, 2024.
- d) Dr. Biswajit Roy, invited to a talk on The Future of Green Energy: Emerging Trends and Technologies”, organized by the National Institute of Technology Mizoram from 05th August to 09th August 2024.



Department of Civil Engineering

A country’s development is intrinsically linked to its infrastructure, whose growth is fuelled by the collective acumen of its engineers. Innovative and sustainable technological innovations are key to the growth of an emerging economy like India which is on the cusp of witnessing a socio-economic revolution. With its burgeoning population and its ever-increasing basic needs, it is imperative for the country to build a robust infrastructural framework capable of balancing and fulfilling both its immediate and long-term goals of progress. In this context, the field of civil engineering, through its diverse domains like Structural Engineering, Environmental Engineering, Earthquake Engineering, Geotechnical Engineering, Water Resources Engineering, Geomatics, and Transportation Engineering will be an important stakeholder in shaping the future of this country.

Aligning itself with the requirements of the country, NIT Sikkim established this department in the year 2013, offering B. Tech. and Ph. D. programs. The B.Tech. Program has an intake of 30 students. Civil engineers with a penchant for applying theoretical concepts in order to find constructive practical solutions with ease of implementation are highly sought after by various industrial sectors. The curriculum of the Department of Civil Engineering is structured to develop competent practicing engineers while also fostering a strong research aptitude, enabling students to excel in both industry and research organizations. The department offers a wide range of electives with special emphasis on sustainable and green technologies. The department currently has eight laboratories, namely Surveying Laboratory, Material Testing Laboratory, Geotechnical Engineering Laboratory, Structural Design Laboratory, Transportation Engineering Laboratory, Software Analysis Laboratory, Environmental Engineering Laboratory, and Water Resource Engineering Laboratory. The department is planning to offer M. Tech. Program in different fields of civil engineering in the near future. The department is elated to share that our alumni are working in various government and reputed private organizations. Additionally, a significant number of students are pursuing higher education in different fields of civil engineering. Faculty members of the department are actively associated with the construction and maintenance activities of the NIT Sikkim campus.

Vision of the Department of Civil Engineering

The Department of Civil Engineering aspires to provide students with top-notch, cutting-edge engineering knowledge so they may enhance civil infrastructure in response to the nation’s growing economic and social demands, all while meeting worldwide standards.

“

*Civil
engineering
is the art of
directing the
great sources
of power in
nature for
the use and
convenience of
man.*

– Thomas Tredgold

Mission of the Department of Civil Engineering

- To provide students with a technical sense, honesty, timeliness, and ethical values to produce outstanding engineers, inventors, business people, and scholars who will help advance industry and society.
- To take on creative joint initiatives with businesses, governmental bodies, and other groups to address societal issues and provide practical solutions.

- To fully utilize research and teaching capabilities on a worldwide scale, with an emphasis on India's hilly regions.

Programs / Courses offered by the Department

- B. Tech. in Civil Engineering
- Ph.D. in Civil Engineering

Faculty Details

Dr. Joy Pal

Assistant Professor, Head of Department
Research Interest: Structural Engineering

Dr. Ankit Bhardwaj

Assistant Professor
Research Interest: Long-term behaviour of concrete under tension for flexural members, Adhesive bonded steel-concrete composite flexural members, Time dependent (creep and shrinkage) analysis, Stability of cold form steel structures, Finite element modelling using commercial software, Analytical solutions, Development of design practice

Dr. Anirban Banik

Assistant Professor
Research Interest: Hydro-Informatics, Open Channel Hydrodynamics

Dr. Krishna Kumar Maurya

Assistant Professor
Research Interest: Structural Engineering, Structural Health Monitoring, Sensor System, NDE Techniques, Advanced Concrete Technology, Bacterial Concrete

Dr. Neelanjan Dutta

Assistant Professor
Research Interest: Ground-water and Waste-water treatment Solid-waste Management

Dr. Narayan

Assistant Professor
Research Interest: NL - inelastic analysis of braces and braced frames, NCBFs, BRBs, Upgrade of Truss Bridges, Steel-Timber Structure, Dynamic yield Strength of metals.

Dr. Ankush Kumar

Assistant Professor

Research Interest: Pavement materials characterization: physical, chemo-rheological, and microstructural analyses, Modified asphalt binder, Composite asphalt, Asphalt recycling, Bio-asphalt binder, Pavement design and construction, Use of marginal and waste materials in road construction, Warm mix asphalt technology, Open graded asphalt friction courses, Stone matrix asphalt.

Staff Details

S. No.	Name and Designation
1	Mrs. Chanda Moktan Laboratory Technician
2	Mr. Sumit Kumar Technical Assistant
3	Mr. Shonu Sharma
4	Ms. Pranisha Chhetri
5	Mr. Rajesh Bhattarai
6	Ms. Heena Tamang

Membership of Technical Association / Society

S. No.	Technical Societies	Type of Membership	Name of Faculty
1	Institute of Public Health Engineering (Membership No. AM-786)	Associate Member	Mr. Neelanjan Dutta
	The Institution of Engineers (India) (Membership No.: M1801295)	Member	
2	The Institution of Engineers (India) (Membership No.: AM1743964)	Associate Member	Dr. Anirban Banik
	International Water Resources Association (Membership No.: M-09950)	Member	
	International Association of Engineers (IAENG) (Membership No.: 193407)	Member	
3	Universal Association of civil, Structural and Environmental Engineers (UACSE) (Membership No.: AM2020081978) (Valid from 03/09/2020 and Valid Till 31/08/2023)	Associate Member	Dr. Ankush Kumar
	Indian Roads Congress (IRC) (Membership No.:104266)	Life Member	
	International Union of Laboratories and Experts in Construction Materials, Systems and Structures (RILEM, from the name in French) (Membership No.: 48085)	Young Member	

Laboratory Facilities

S. No.	Name of Laboratory	Faculty In-Charge	Staff In-Charge
1	Concrete Technology Laboratory	Dr. Krishna Kumar Maurya	Ms. Chanda Moktan
2	Transportation Engineering Laboratory	Dr. Ankush Kumar	Ms. Chanda Moktan
3	Geotechnical Engineering Laboratory	Dr. Narayan	Mr. Sumit Kumar
4	Surveying Laboratory	Dr. Anirban Banik	Ms. Chanda Moktan
5	Computer Application Laboratory	Dr. Ankit Bhardwaj	Mr. Sumit Kumar
6	Environmental Engineering Laboratory	Dr. Neelanjan Dutta	Ms. Chanda Moktan
7	Water Resource Engineering Laboratory	Dr. Anirban Banik	Mr. Sumit Kumar
8	Structural Engineering Laboratory	Dr. Joy Pal	Mr. Sumit Kumar

1. Surveying Laboratory

Surveying is the means of determining the relative position of points and the relative distance. It is an integral part of civil engineering education and training. Surveying of an area is essential for the design of all civil engineering projects such as highways, bridges, railways, water supply, sewage disposal, reservoirs and dams, building constructions, transmission towers, irrigation canals, etc. The objectives of surveying may vary depending on the type of projects and requirements. The economic feasibility of the engineering projects cannot be ascertained adequately without undertaking a survey. The objective of the surveying laboratory is

to make students familiar and competent enough to draw map in suitable scale by using different surveying instruments like total station, theodolite, auto level, global positioning system (GPS), plane table, compass, etc. Students learn to survey from the conventional as well as contemporary methods and technology. The Surveying Laboratory provides students with hands-on experience of using sophisticated surveying equipment which will attune them to the technologies currently being used in the industry. In addition to standard minor equipment, the following major equipment is available in the laboratory:

S. No.	Name of the Equipment	Experiments performed
1	Dumpy level, Auto level	Finding out the elevations of given points with respect to a given datum. Measurement of horizontal angle by method of repetition and reiteration and by establishing control points, their position being determined by measuring the distance between the traverse stations and the angles subtended at the various stations by their adjacent stations.
2	Transit Theodolite, Digital Theodolite	The instrument can be used to measure horizontal and vertical angles as well as sloping distance of object to the instrument.
3	Total Station	GPS is rapidly adapted for surveying, as it can give a position (Latitude, Longitude and Height) directly, without the need to measure angles and distance between intermediate points.
4	GPS	



Field Surveying



2. Material Testing Laboratory

The Material Testing Laboratory introduces students to the various characteristics of construction materials and helps them understand the short-term as well as long-term mechanical and durability characteristics. Importance is also given to non-destructive tests to ensure the durability of built-up structures. Emphasis is also given to the concept of sustainability and the impact

of materials with respect to it. The laboratory course is designed with the aim of acquainting the students with the prevalent testing standards of the construction industry as well as introducing them to the enormous possibilities related to the field of material science. In addition to standard minor equipment, the following major equipment is available in the laboratory:

S. No.	Name of the Equipment	Experiments performed
1	Aggregate Impact Tester	Determination of Aggregate Impact Value (AIV) of aggregates which provides a relative measure of the resistance of an aggregate to sudden shock or impact.
2	Air Permeability Apparatus	Determination of fineness of Portland Cement by measuring the specific surface area of fine materials in square centimetres per gram of test sample.
3	Concrete Mixer (Motorised)	It is used for mixing cement, aggregate and water in order to manufacture concrete.
4	Compaction Factor Apparatus	Determines the compaction factor of concrete with low, medium and high workability.
5	Vee Bee Consistometer	Determination of workability of the freshly mixed concrete. The Vee-Bee test gives an indication about the mobility and the compatibility aspect of the freshly mixed concrete.
6	Rebound Hammer	It is a non-destructive method for determining the compressive strength of concrete.
7	Ultra-Sonic Pulse Velocity Testing Machine	Performs an in-situ, non-destructive test to check the quality of concrete Here, the quality of concrete is assessed by measuring the velocity of an ultrasonic pulse passing through the concerned concrete sample.
8	Digital Compression Testing Machine	Determination of compressive strength of cube and cylinder (i.e. hardened concrete).
9	Flow Table Apparatus	It is used primarily for assessing concrete that is too fluid (workable) to be measured using the slump test.



Material Testing

3. Geotechnical Engineering Laboratory

The Geotechnical Engineering Laboratory is a space for undergraduate students to learn the fundamentals of soil mechanics, standard soil testing, and to build a foundation for further understanding. The laboratory also provides state-of-the-art facilities for excellent research for the students. Equipped with comprehensive facilities,

the laboratory enables advanced research in the areas of granular material characterization, expansive soils, shallow foundations, and ground improvement methods. The following experiments can be performed at the Geotechnical Engineering Laboratory:

S. No.	Name of the Equipment	Experiments performed
1.	Indian Standard Sieves	Determination of grain size distribution for soils by mechanical sieve analysis.
2.	Soil Hydrometer	Determination of grain size distribution for soils passing through 75 μ IS Sieve.
3.	Casagrande's Liquid Limit Device	Determination of Liquid Limit for fine-grained soils
4.	Plastic Limit Test Apparatus	Determination of Plastic Limit for fine-grained soils
5.	Shrinkage Limit Test Kit	Determination of Shrinkage Factors for fine-grained soils
6.	Core-cutter & Sand Pouring Cylinder	Determination of In-situ density of soil.
7.	Indian Standard Rammer and Mould for Light and Heavy Compaction	Determination Water Content Dry Density Relationship
8.	Relative Density Apparatus	Determination of the relative density for coarse-grained soil
9.	Permeability Apparatus	Determination of permeability by direct laboratory method.
10.	Direct Shear Apparatus, Motorised 12 speeds with data acquisition system	Measurement of the shear strength properties of soil or rock material, or of discontinuities in soil or rock masses.
11.	Unconfined Compressive Strength Testing Machine - (Motorised)	Estimation of unconfined compressive strength for cohesive soil.
12.	Triaxial Shear Test Apparatus with data acquisition system	Determination of stress-strain characteristics of soil and shear strength parameters of soils, i.e., cohesion (c) and angle of internal friction (ϕ).
13.	Laboratory Vane Shear Test Apparatus, motorised	Measurement of shear strength of cohesive soils, is useful for soils of low shear strength of less than about 0.5 kgf/cm ² . This test gives the undrained strength of the soil in undisturbed as well as remolded conditions.
14.	Consolidation Apparatus	Determination of the settlements due to primary consolidation of soil by conducting a one-dimensional oedometer test.
15.	California Bearing Ratio Test Apparatus	Evaluation of the subgrade strength for roads and pavements by conducting the penetration test using a 50 mm diameter plunger.
16.	Universal Soil Sample Extruder (Electronic cum Hand Operated)	It is widely used for extracting specimen of soil, asphalt and concrete.
17.	Swelling Pressure Test Apparatus (with Proving Ring and Dial Gauge)	Estimation of swelling pressure of expansive soils by the constant volume method.
18.	Standard Penetration Test Apparatus	Determination SPT value (N) of soils (especially for granular soils)



Hydrometer Analysis



Standard Penetration Test

4. Environmental Engineering Laboratory

The purpose of the Environmental Engineering Laboratory is to make the students aware of the dangerous effects of environmental pollution that occurs from water and air. The instruments like pH meter, TDS meter, DO meter, UV Spectrophotometer, BOD incubator, COD measuring instruments, water bath, autoclave, microbial analysis assembly, arsenic tester machine, electrodes for fluoride, nitrate and ammonia, titration test kit, shaker, filtration assembly, and jar test apparatus help

the students to understand the fundamental concepts of environmental engineering. The laboratory also comprises cutting-edge research equipment including a dual-beam UV spectrophotometer, which is used for quantitative determination of various analytes such as metal ions, highly conjugated organic compounds, and biological macromolecules. In addition to standard minor equipment, the following major equipment is available in the laboratory:

S. No.	Name of the Equipment	Experiments performed
1	BOD Incubators	To determine the BOD of a given water sample. It also has versatile application in different environmental analysis.
2	Microbiological Bacteria Detector	This instrument used to automatically count the number of cells or colonies present in a sample. They are capable of determining the number of cells, whether they are viable.
3	COD Digester	It used to determine the amount of chemical oxygen demand (COD) in the sample of wastewater or any other liquid.
4	Turbidity Apparatus	Turbidity is measured as a function of intensity of light scattered as it passes through the water sample.
5	Jar Test Apparatus	Jar Test Apparatus, commonly known as flocculators or flocculation testers, are used primarily in the water treatment and testing industry. Jar Test Apparatus allows efficient and economical flocculation, jar Test Flocculator are used for a uniform stirring of samples in a water testing laboratory.
6	Conductivity Meter	Conductivity meter allows us to measure the level of conductivity in solutions. Conductivity is an ability of materials (solutions, metals or gases) to pass an electric current.

S. No.	Name of the Equipment	Experiments performed
7	pH Meter	A pH meter is an instrument used to measure hydrogen ion activity in solutions-in other words, this instrument measures acidity/alkalinity of a solution.
8	TDS Meter	To determine the total dissolved solids of a given water sample.



Turbidity



BoD Testing

5. Structural Engineering Laboratory

The Structural Engineering Laboratory, equipped with instruments such as Bulking Behaviour of Bars, Line of Influence on the Gerber Beam, Three-Hinged Arch, Parabolic Arch, Beam on Two Supports for Shear Force

& Bending Moment, and Single-Plane Trusses, enables students to visualize, comprehend, and validate the fundamental concepts of structural analysis and design.

S. No.	Name of the Equipment	Experiments performed
1	Buckling Behaviour of Bars	It is used to observe the effects of different factors like material specification, effective length on the buckling behaviour of bars.
2	Line of Influence on the Gerber Beam	It is used to observe the effect of the moving loads on the internal reactions of a Gerber Beam.
3	Three Hinged Arch	It is used to observe the effects of static and moving load on the support reactions of a three hinged arch.
4	Parabolic Arch	It is used to observe the effects of static and moving load on the support reactions of a parabolic arch.

S. No.	Name of the Equipment	Experiments performed
5	Beam on two support Shear Force & Bending Moment	It is used to observe the effects of point loads on the bending moment and shear forces of a beam.
6	Single Plane Trusses	The objective of the experiment is to measure the bar forces in a single plane truss subjected to a single external force.



Buckling Behaviour of Bars



Shear Force and Bending Moment

6. Water Resources Engineering Laboratory

The water resources engineering laboratory is well equipped with an experimental flume by which discharge between two sections, head loss, velocity of

water, influence on water height due to the presence of sediment in water, etc., can be measured.

S. No.	Name of the Equipment	Experiments performed
1	Bernoulli's Principle Demonstrator	<ul style="list-style-type: none"> ■ Demonstration of Bernoulli's law ■ Pressure measurements along Venturi nozzle ■ Determination of flow rate factor K
2	6-Tube Manometer Panel	<ul style="list-style-type: none"> ■ Comparison of different flow meters ■ Investigation of relationships between flow and pressure in flow measurement ■ Determination of flow coefficients ■ Calibration of flow meters
3	Osborne Reynolds Demonstrator	<ul style="list-style-type: none"> ■ To demonstrate laminar and turbulent flow.
4	Turbine Supply Unit	<ul style="list-style-type: none"> ■ Comparison between Pelton and Francis Turbine
5	Venturi Flume	<ul style="list-style-type: none"> ■ Functional Principle of Venturi Flume ■ Determination of discharge coefficient ■ Difference between subcritical and supercritical flow states ■ Determination of the flow states in the venturi flue by calculating the Froude number ■ Application of Bernoulli's equation in open channel

S. No.	Name of the Equipment	Experiments performed
6	Experimental Flume	<ul style="list-style-type: none"> Uniform and non-uniform outflow Flow transition Transient flow Energy dissipation in a stilling basin Discharge under sluice gate, radial gate Types of outflow at a culvert Different riverbed roughness Simulation of different beaches Sediment transport
7	Digital Experimental Flume	<ul style="list-style-type: none"> Demonstrate different flow conditions with the channel and the inserts Explain the process of the hydraulic jump Calculate the two conjugating heights of the hydraulic jump Explain the differences in the discharge of Ogee-crested weir versus ogee-crested weir with ski jump.
8	Radial Gate	<ul style="list-style-type: none"> Demonstrate free and submerged flow and jet contraction in a radial gate Calculate flow under radial gate To observe hydraulic jump
9	Sluice Gate	<ul style="list-style-type: none"> Demonstrate free and submerged flow and jet contraction in a sluice gate Calculate flow under sluice gate To observe hydraulic jump
10	Crump Weir	<ul style="list-style-type: none"> Free and submerged overfall at the crump weir Discharge at a sill
11	Broad-crested weir	<ul style="list-style-type: none"> Free and submerged overfall at the Broad-crested weir Comparing flow over broad-crested weirs with different rounded edges
12	Ogee-crested weir	<ul style="list-style-type: none"> Hydrodynamic overflow at the ogee-crested weir Pressure distribution along the downstream side of the weir with different flows, nappe separation



Marshall apparatus



Asphalt content tester



Experimental Flume

7. Transportation Engineering Laboratory

The Transportation Engineering laboratory has equipment required to conduct all standardized tests to assess the highway materials, and pavement evaluation. The laboratory mainly deals with the identification of properties and behaviour of highway materials subjected to different loading patterns such as crushing, abrasion and impact loads, measuring the elongation and flakiness properties of coarse aggregates, water absorption and specific gravity of fine and coarse aggregates, Ductility and softening point of bitumen. In addition to standard minor equipments, the following major equipment are available in the laboratory:



Los Angeles Abrasion Testing Machine



Asphalt mixer



Skid resistance tester

S. No.	Name of the Equipment	Experiments performed
1	Asphalt Content Tester	This equipment is used to determine the percentage of asphalt in a mixture. It typically consists of a heating unit and a centrifuge to separate the asphalt from the mixture.
2	Asphalt Mixer	The asphalt plants or asphalt mixing plant is one plant that is used for mixing the dry warm aggregate, padding and asphalt for homogenous mixture at the required temperature.
3	Electric oven	An electric oven produces heat electrically using a heating element in the form of coils and tubes. The heating element converts electrical energy into heat through the process of resistance.
4	Asphalt Mixture Density meter	This equipment is used for determination of theoretical density of asphalt mixer by vacuum method for application such as asphalt mixer design, road condition investigation, calculation of porosity and compactness in road construction quality management.
5	Centrifuge Extractor	It is used to determine bitumen percentage in asphalt paving mixtures by extracting bitumen, using specified solvents.
6	Marshall Apparatus	It is used to measure the resistance of cylindrical bituminous mix specimens to plastic flow under loading on the lateral surface.
7	Film Stripping Device	is used to measure the resistance of bituminous mixtures to stripping of asphalt from aggregate particles. It is generally used to evaluate mineral aggregates & to judge the adhesion of the bituminous materials.
8	Viscometer Bath	It is used to determine both the Dynamic and Kinematic viscosity of liquid asphalts, keeping the capillary type viscometers at a uniform temperature.
9	Skid Resistance Tester	This apparatus measures the skid resistance between a rubber slider (mounted on the end of a pendulum arm) and the test surface.
10	Ductility Testing Machine	It is used to determine the ductility of bituminous materials in a briquette mould by measuring the breaking elongation at a constant speed of 50 mm/min. It is designed for testing 3 specimens simultaneously.
11	Saybolt Viscometer	A type of instrument used to determine the viscosity of petroleum oils. It is based on the time in seconds for a given volume of oil to pass through an aperture at a controlled temperature and collect in a container with a volume of 60 millilitres.
12	Mastic Asphalt Test machine	It is used to determine the hardness of asphalt material the design features direct vertical loading with loading weight that rest on thrust bearings therefore load is applied to the specimen without transmitting shock to the loading column.
13	Ring and Ball Apparatus	This equipment is used to determine the temperature at which a sample of bituminous material loaded by a 9.5mm diameter steel ball drops a specified distance when heated under specified conditions.
14	Standard Penetrometer	It consists of a calibrated rod with a cone or needle-shaped tip. The device is pressed vertically into the soil, and the depth and resistance encountered are measured. This type of penetrometer is widely used for general soil compaction testing
15	Los Angeles Testing machine	It measures the degradation of standard gradings of aggregates when subjected to abrasion and impact in a rotating steel drum with an abrasive charge of steel balls.

S. No.	Name of the Equipment	Experiments performed
16	Rotary high vacuum pump	During operation gas molecules entering the inlet of the pump pass into the volume created by the eccentric mounting of the rotor in the stator. The semi-circular shaped gas volume is then compressed, forcing the exhaust valve to open and permitting gas discharge.

Consultancy and Testing

The Civil Engineering Department also offers consultancy work for construction material testing, Geotechnical Investigation, Structural Audit, etc. The notable Consultancy and Testing in the financial year 2023-2024 are depicted in the table below:

Sl. No.	Consultancy Details	Client Details	Principal Investigator (s)	Consultancy Cost (Rs)
1	Structural Audit of Pakyong Airport	AAI Pakyong	Dr. Joy Pal, Dr. Anirban Banik, Dr. Ankit Bhardwaj	4,74,576.27/-
2	Structural Audit of Airport Cooch Behar	AAI Bagdogra	Dr. Joy Pal, Dr. Anirban Banik, Dr. Ankit Bhardwaj, Dr. Neelanjana Dutta	6,00,000.00/-
3	Structural Audit of JNV Rothak, Soreng	JNV Rothak, Soreng	Dr. K. K. Maurya, Dr. Ankit Bhardwaj	4,23,728.80/-

Keynote Speaker / Expert Lectures

Keynote	Place and Date	Speaker
Materials, Methods & Technologies in Civil Engineering.	Anand International College of Engineering. (24 Feb.-01 March 2025)	Dr. Narayan Dr. Ankit Bhardwaj
Emerging Materials and Sustainable Civil Engineering Infrastructure Development	NIT Sikkim (13-17 th September 2024)	Dr. Rama Shanker, Dr. Sashi Narayan, Dr. Anupam Rawat, Dr. Kashyap Patel, Dr. Vivek Gupta, Dr. Jitesh Chavda, Dr. Jitendra Singh Yadav, Dr. Abhishek Sharma, Dr. Vishisht Bhaiya, Dr. Pankaj Kumar, Dr. Roop Kishore, Dr. Amardeep Dahiya
One-week Workshop on Structural Design and Geotechnical Solutions using MIDAS	NIT Sikkim (21-25 th April 2025)	Mr. Vikrant Vijay Parthe and Mr. Punith Kumar N
Advanced Materials for Sustainable Infrastructure	NIT Sikkim (05-09 th June 2025)	Er. Prasanna Kumar Pandit, Dr. Kanika Saxena, Dr. Prakash Somani, Dr. Amardeep Dahiya, Dr. Binit Kumar, Dr. Shaik Mahabu Subhani, Dr. Ankit Bhardwaj, Dr. Sandeep Singh & Mr. Rupam Saikia



Educational Field Visit to STP Adampool, Gangtok



Departmental Committees / Cells

Academic Performance Evaluation Committee (APEC) [Clause No. 2.8 of Rules and Regulations for Undergraduate Programs]

1. HoD, Department of Civil Engineering
2. Dr. Ankit Bhardwaj (Convenor, DUGC)
3. Dr. Neelanjan Dutta (Faculty advisor, 4th year)
4. Dr. Krishna Kr. Maurya (Faculty advisor, 3rd year)
5. Dr. Narayan (Faculty advisor, 2nd year)
6. Dr. Anirban Banik (Faculty member nominated by HoD)
7. Dr. Sumit Saha (Faculty member nominated by Dean Academic)

Departmental Faculty Board (DFB) [Clause No. 2.9 of Rules and Regulations for Undergraduate Programs]

1. Dr. Joy Pal, HoD, Department of Civil Engineering
2. Dr. Krishna Kr. Maurya (Member)
3. Dr. Ankit Bhardwaj (Member)
4. Dr. Anirban Banik (member)
5. Dr. Neelanjan Dutta (Member)
6. Dr. Narayan (Member)
7. Dr. Ankush Kumar (Member)

Departmental Undergraduate Committee (DUGC), [Clause No. 2.10 of Rules and Regulations for Undergraduate Programs]

1. Dr. Ankit Bhardwaj (Convenor, DUGC)
2. Dr. Joy Pal (HoD)
3. Dr. Krishna Kr. Maurya (Convenor, DPGC)

4. Dr. Anirban Banik (Faculty member nominated by HoD)
5. Dr. Neelanjan Dutta (Faculty member nominated by HoD)
6. Dr. Ankush Kumar (Member)

Departmental Examination Cell Committee is constituted as follows:

1. HoD (Convenor)
2. Dr. Anirban Banik (Coordinator)
3. Dr. Neelanjan Dutta (Member)
4. Mr. Sumit Kumar (Member)
5. Mr. Shonu Sharma (Member)
6. Mrs. Chanda Moktan (Member)
7. Ms. Pranisha Chettri (Member)
8. Mr. Rajesh Bhattra (Member)

Other Departmental Responsibilities:

1. Training & Placement: Dr. Krishna Kr. Maurya (Coordinator), Dr. Narayan (Member)
2. Competitive exams related: Krishna Kr. Maurya (Coordinator), Dr. Narayan (Member)
3. Time table: Dr. Anirban Banik (Coordinator), Dr. Neelanjan Dutta (Member)

The following committee is proposed as the Departmental Admission Committee (DAC) for the evaluation and examination process of Ph.D. Admission in the Department of Civil Engineering:

1. Dr. Joy Pal, (HoD, CE & Convenor DAC)
2. Dr. Dr. Anirban banik, Member

3. Dr. K K Maurya (Convener, DPGC)
4. Dr. Ankit Bhardwaj (Convener, DUGC)
5. Dr. Ranjan Basak, (Member from other Department)

Departmental Postgraduate Committee (DPGC), [Clause No. 2.4 of Rules and Regulations for Ph.D. Programs]

1. Dr. Krishna Kr. Maurya (Convenor DPGC)
2. Dr. Joy Pal (HoD)
3. Dr. Ankit Bhardwaj (Convener, DUGC)

4. Dr. Anirban Banik (Faculty member nominated by HoD)
5. Dr. Ranjan Basak (Faculty from other Department)

Faculty Advisor as per the UG Rules and Regulations June 2019 (Cl.4.5)

1. Dr. Neelanjan Dutta (Faculty advisor, 4th year)
2. Dr. Krishna Kr. Maurya (Faculty advisor, 3rd year)
3. Dr. Narayan (Faculty advisor, 2nd year)

Research and Publication

Journal

1. Ankush Kumar and Rajan Choudhary. (2025). Waste derived rubber and oil modifiers for composite asphalt binder modification – A comprehensive review. Journal of Traffic and Transportation Engineering (English Edition), Elsevier. (Accepted, In-press) [ESCI & Scopus Indexed] [IF: 7.4]
2. Saswat Biswapriya Dash, Rajan Choudhary, Ankush Kumar, and Ashish Sharma. (2025). Investigating aggregate bond slippage failures in stone matrix asphalt under the combined effect of temperature and moisture. Journal of Materials in Civil Engineering, ASCE. (Accepted, In-press) [SCIE & Scopus Indexed] [IF: 3.1]
3. Ashish Sharma, Rajan Choudhary, Saswat Biswapriya Dash, and Ankush Kumar. (2025). A study on the optimization of alkali treatment parameters for natural banana fiber and its role as a stabilizer in OGFC mixes. Journal of Materials in Civil Engineering, ASCE. (Accepted, In-press) [SCIE & Scopus Indexed] [IF: 3.1]
4. Ashish Sharma, Rajan Choudhary, Sanjay Kumar Nirmal, and Ankush Kumar. (2025). Enhancing rutting performance of open-graded friction course mixes with natural banana fiber. Indian Highways, Indian Roads Congress, 53(5), 36-51.
5. Naresh, M., Kumar, V., & Pal, J. (2024). A convolution neural network-based technique for health monitoring of connections of a multi-story 3D steel frame structure. Multiscale and Multidisciplinary Modeling, Experiments and Design, 7(5), 4947-4963.
6. Saharan, N., Kumar, P., & Pal, J. (2024). Convolutional neural network-based structural health monitoring framework for wind turbine blade. Journal of Vibration and Control, 30(19-20), 4650-4664.

7. Naresh, M., Kumar, V., Pal, J., Sikdar, S., Banerjee, S., & Banerji, P. (2024). A comprehensive review on health monitoring of joints in steel structures. Smart Materials and Structures.
8. Palsara, C., Kumar, V., Pal, J., & Naresh, M. (2024). Structural health monitoring of ASCE benchmark building using machine learning algorithms. Asian Journal of Civil Engineering, 25(1), 303-316.
9. Naresh, M., Kumar, V., & Pal, J. (2024). A machine learning approach for health monitoring of a steel frame structure using statistical features of vibration data. Asian Journal of Civil Engineering, 25(1), 39-49.
10. Dutta, N., Dey, P., & Pal, J. (2025). Application of Machine learning for optimization and modelling of turbidity removal from aqueous solution. Environmental Progress and Sustainable Energy, 44(1), e14494.

Conference

1. Sunny Kumar, Rajan Choudhary and Ankush Kumar. A study on mixing and compaction temperatures of stone matrix asphalt mixes with polymer and rubber modified binders and warm mix additive. 8th Conference of Transportation Research Group of India (CTRG-2025), Indian Institute of Technology Guwahati, Assam, India, December 17-20, 2025.
2. Ashish Sharma, Rajan Choudhary, Saswat Biswapriya Dash, and Ankush Kumar. Natural fiber treatment for use in bituminous mixes. 3rd International Conference on Construction Materials and Structures (ICCMS 2025)-Synergy of Materials and Structures (SMS), Indian Institute of Technology Tirupati, Andhra Pradesh, India July 03-05, 2025.
3. Ankush Kumar, Rajan Choudhary, and Madhulisha Pattanaik. High-temperature rheological

performance of bitumen modified with pyrolysis oil and waste rubber. 4th International Conference on Recent Developments in Sustainable Infrastructure (ICRDSI 2024-25). KIIT Bhubaneswar, India, March 20-22, 2025.

4. Ashish Sharma, Rajan Choudhary, Ankush Kumar, and Saswat Biswapriya Dash. Maintenance strategies for open-graded asphalt friction courses: A comprehensive review. 4th International Conference on Recent Developments in Sustainable Infrastructure (ICRDSI 2024-25). KIIT Bhubaneswar, India, March 20-22, 2025.
5. Rajan Choudhary, Ashutosh Kumar Singh, Saswat Biswapriya Dash, Ashish Sharma, Ankush Kumar. Evaluation of mechanical characteristics of rich dense bituminous mixes. 4th International Conference on Recent Developments in Sustainable Infrastructure (ICRDSI 2024-25). KIIT Bhubaneswar, India, March 20-22, 2025.
6. Narayan, Krishna Kant Pathak. Feasibility of Buckling Restraint Braces for Seismic Force Resistance in Indian Context. International Conference of Advances in Structural and Geotechnical Engineering (ASAGE-25), DCEE Indian Institute of Technology Patna, Bihar, India, February 6-8, 2025.

Extra-Curricular Activities/ Student Societies

NIRMAAN: The Civil Engineering Departmental Club of NIT Sikkim

Introduction

NIRMAAN is the official departmental club of Civil Engineering at the National Institute of Technology Sikkim. Established with the vision of fostering technical knowledge, professional skills, and social responsibility among budding civil engineers, the club serves as a dynamic platform for students to explore, innovate, and contribute to the field of civil engineering.

Aim

The primary aim of NIRMAAN is to bridge the gap between classroom learning and real-world engineering challenges. The club endeavors to enhance students' technical competence, leadership qualities, and teamwork skills while promoting sustainable development and innovation in civil engineering.

Key Focus Areas

1. Technical Skill Development

- Organizing workshops, seminars, and guest lectures on emerging trends in civil engineering such as sustainable construction, GIS & remote sensing, and smart infrastructure.
- Conducting software training sessions (e.g., AutoCAD, STAAD Pro, Primavera) to prepare students for industry demands.

2. Innovation and Research

- Encouraging participation in technical competitions, paper presentations, and minor research projects.
- Supporting innovative student projects aligned with the needs of the community and industry.

3. Industry Interaction

- Building connections with industry professionals through industrial visits, expert talks, and alumni interaction programs.
- Providing exposure to real-world construction sites and practices.

4. Community Outreach and Sustainability

- Promoting awareness of sustainable engineering practices through drives and campaigns.
- Engaging students in social projects such as low-cost housing solutions and water conservation initiatives.

Current Members

Sl. No.	Position	Student Name	Roll No.	Contact No.
1	Convener	Nirankush Bhardwaj	B220110CE	9435787357
2	Secretary	Muskan	B220107CE	8957761373
3	Treasurer	Ayush Bhushan	B220098CE	7488252185

Sl. No.	Position	Student Name	Roll No.	Contact No.
1	Social Media Incharge	Ankit Patel	B220097CE	9305700161
2	Graphics Incharge	Himanshu Ranjan	B220103CE	8539878293
3	Content Incharge	Gaurav krishn	B220102CE	7310018091
4	Content Incharge	Tshering T Bhutia	B220121CE	8927788071
5	Sports Incharge	Prince Kumar	B220113CE	7250465717
6	Sports Incharge	Md. Aurangzeb	B220106CE	9775014346

List of Past Events Organised (Between 01/04/2024 to 31/03/2025)

Sr. No.	Events Name	Date
1.	Architectural Artistry	13/04/2024
2.	Orientation (2023-27 Batch)	03/05/2024
3.	Talk Session	19/10/2024

Present Research Scholars

Sl No.	Students Name and Roll No.	Research Area	Supervisor
1	Ms. Neha Thakur (phce230032@nitsikkim.ac.in)	Utilization of Waste materials to Manufacture Brick(s)	Dr. Joy Pal
2	Priyanka Sharma (phce230033@nitsikkim.ac.in)	Geopolymer Concrete	Dr. Joy Pal
3	Sumit Kumar (phce240019@nitsikkim.ac.in)	Earth Retaining Structures	Dr. Ankit Bhardwaj

Final Year UG Projects (2021-2025 Batch)

S. No	Supervisor	Title of Project	Students Name and Roll No.	Area
1	Dr. Ankit Bhardwaj	Analysis and Design of Steel-Concrete Composite Bridge	Deepen Karki (B210104CE)	Structural Engineering
			Niraj Kumar (B210108CE)	
			Sandhya Kumari (B210118CE)	
2	Dr. Joy Pal	Analysis And Design of Intze Overhead Water Tank In Bandwar, Bihar	Deepu Kumar (B210105CE)	Structural Engineering
			Mintu Kumar (B210107CE)	
			Raj Singh (B210114CE)	
3	Dr. Narayan	New Method of Shear Reinforcement of Beam	Ritesh Sharma (B200016CE)	Structural Engineering
			Bivek Niroula (B210103CE)	

S. No	Supervisor	Title of Project	Students Name and Roll No.	Area
4	Dr. Krishna Kr. Maurya	Structural Health Monitoring	Ayush Sagar (B210102CE)	Structural Engineering
			Abhay Gupta (B210098CE)	
			Shashi Kant Das (B210119CE)	
		Effect of Accelerating Admixture on Concrete in Cold Region	Ashwin Lamsal (B210101CE)	Structural Engineering
5	Dr. Ankush Kumar	A study on sub-grade soil stabilization using stone dust	Aditya (B210100CE)	Transportation Engineering
			Priy Ranjan (B210110CE)	
			Amit Negi (B200019CE)	
		Effect of Bamboo Leaves Ash on Subgrade Performance	Sidharth Ranjan (B210122CE)	
		Aatsur Gyatso Lepcha (B210097CE)		
6	Dr. Neelanjan Dutta	Enhancing The Strength And Durability Of Concrete Using Rice Husk Ash As A Partial Cement Replacement	Shiva SinGH (B210120CE)	Environmental Engineering
			Pranita Rizal Sharma (B210109CE)	
		Removal Of Chemical Oxygen Demand (Cod) By Modified Granular Activated Carbon (Gac) For Wastewater Treatment	Abishek Limboo (B210099CE)	
			Riya Bhagat (B210115CE)	
7	Dr. Anirban Banik	Experimental And Numerical Simulation Of Hydraulic Jump Over Corrugated Rough Bed	Pushkar Srivastav (B210112CE)	Water Resources Engineering
			Sai Ashirwad (B210116CE)	



Department of Mathematics

Mathematics has been a vital ingredient in the world's scientific revolution, and India has played a significant role in this endeavour. Ancient India is famous for its mathematical geniuses and their revolutionary ideas. Aryabhata, Varahimihira, Brahmagupta, and Bhaskara II were the leading trailblazers of their times. From the Indus Valley Civilisation to the Vedic period, India has pioneered 'practical mathematics', which consists of mathematical tools with a significant impact on real life.

Mathematics is an integral and fundamental part of the Sciences, Engineering, and Technology disciplines. The Department of Mathematics has been an essential part of the Institute since its inception in 2010. From the outset, the department has been on a strenuous journey to provide students with a platform for developing their foundational knowledge in the subject. A strong foundation in this subject equips students to address academic, real-world, and research challenges effectively. Overall, a student with an excellent mathematical skill set, in general, tends to make better and well-informed decisions. The Department actively participates in the teaching of Undergraduate and Ph.D students. The Department currently offers two compulsory courses for the UG students of all branches – namely Mathematics-I and Mathematics-II. It also offers two additional compulsory courses: Mathematics-III (for undergraduate students of Civil Engineering) and Computational Mathematics (for undergraduate students of CSE, EEE, and ECE). For Ph.D students, the Department offers several elective courses tailored according to their research and professional requirements.

Department also offers a Ph.D program in Operation Research, and Spectral Graph Theory. Operations Research consists of analytical methods to make a better decision; thus, it is considered one of the most important subjects for practical purposes. Spectral Graph Theory studies the properties of graphs through the eigenvalues and eigenvectors of matrices associated with graphs.

Vision

The vision of the Department is to become one of the best places to nurture mathematical skills in the North-East region of the country. The Department wishes to admit more Ph.D. students to pave the path for excellent research and collaboration. As we advance, we will be keen on taking up projects based on Applied Mathematics and Statistics for the growth and benefit of the country and the state of Sikkim.

“
Go down deep
enough into
anything and
you will find
mathematics.

– Dean Schlicter

“
Mathematics
is the most
beautiful and
most powerful
creation of the
human spirit.

– Stefan Banach

Mission

The Department strives for excellence in the field of mathematics for faculty members and students alike. Our mission is to spark enough interest in young learners to explore the world of mathematics independently. Moreover, the Department gives equal priority to teaching, research, and real-life applications of mathematics. All courses of the department are periodically reviewed and updated by renowned institutes and industry experts.

Faculty Details

Dr. Ravi Srivastava

Assistant Professor & HOD

Ph.D (IIT Guwahati-2012), NET-JRF, GATE, M. Sc (BHU, Varanasi),

B. Sc (Udai Pratap Autonomous College, Varanasi)

Area of Interest: Spectral Graph Theory.

Dr. Arup Kumar Maity

Temporary Faculty

Ph.D (HRI Prayagraj-2013), NET-JRF, GATE, M.Sc (IIST Shibpur), B.Sc (Vidyasagar University)

Area of Interest: Euclidean Harmonic Analysis.

Values

We believe in the philosophy of inclusive learning and open discussions while imparting good ethical and moral values to our students. From teaching a class to publishing research and developing an algorithm, our department believes in inclusivity and equal opportunity for all sections of society. Besides, we also try to nurture a holistic point of view towards education.

Dr. Om Prakash

Assistant Professor

Ph.D (IIT Kharagpur-2013), NET-JRF, M. Sc (BHU, Varanasi),

B. Sc (V.B.S Purvanchal University Jaunpur)

Area of Interest: Production Planning and Inventory Control, Operational Research, Mathematical Finance.

Workshop / Conference Attended by the Faculty Members and PhD Students

1. Dr. Ravi Srivastava has chaired a session in the "National Workshop on Algebra and its Application" organised by the Department of Mathematics, Mahatma Gandhi Kashi Vidyapith, Varanasi, during November 18-23, 2024.
2. Dr. Ravi Srivastava has presented a paper titled "On the spectrum of signed graph product and its application" in the "International Conference on Mathematical Sciences and its Applications" organised by Sri Teg Bahadur Khalsa College, University of Delhi, Varanasi, during April 15-17, 2024.
3. Mr. Satyam Guragain has successfully participated in the 5-Day Faculty Development Programme on "Advances in Graph Theory and Linear Algebra (AGTLA)" organised by the Department of Mathematics, School of Advanced Sciences (SAS), VIT-AP University, India, from October 1-5, 2024.
4. Mr. Bishal Sonar has successfully participated in the 5-Day Faculty Development Programme on "Advances in Graph Theory and Linear Algebra (AGTLA)" organised by the Department of Mathematics, School of Advanced Sciences (SAS), VIT-AP University, India, from October 1-5, 2024.
5. Mr. Shubham Priyadarshi has presented a paper titled "Role of order size in integrated inventory model: Price discounts and Bi- Level Partial Trade credit Under Fuzzy Demand" at the international conference on Statistical Learning 2025 held from March 06-08, 2025 organised by the Department of Mathematics and the Centre for Applied Research in Data Science, IIT Ropar.

Departmental Committees

Sl. No.	Name of the Faculty Members	Name of the committee
1.	i) Dr. Om Prakash (Convenor) ii) Dr. Ravi Srivastava (Member and HoD) iii) Dr. Anindya Biswas (Member) iv) Dr. Pradeep Kumar (Member)	Departmental Post Graduate Committee (DPGC)

Research Scholar Details

Sl. No.	Scholar	Guide(s)	Research Area
1.	Ms. Nipa Biswas	Dr. Om Prakash	Inventory Models
2.	Mr. Satyam Gurgain	Dr. Ravi Srivastava	Spectral Graph Theory
3.	Mr. Bishal Sonar	Dr. Ravi Srivastava	Spectral Graph Theory
4.	Mr. Shubham Priyadarshi	Dr. Om Prakash	Operational Research
5.	Ms. Arati Sharma	Dr. Ravi Srivastava	Spectral Graph Theory



Department of Physics

The Department of Physics has been an integral part of the National Institute of Technology Sikkim since its establishment in the year 2010. The faculty members of the Department are actively engaged in the Institute's teaching, research and administration. The Department is engaged in the following areas of research : quantitative finance, time series analysis of the stock market, nonlinear dynamics, low-temperature physics, quantum information and its interface with many-body physics.

The Department currently offers a Ph.D. program and aspires to introduce an M.Sc. program soon. Following the National Education Policy 2020, the department also aims to offer a B.Sc. program in Physics. The proposed expansion program of the Department requires the induction of quality faculty members capable of strengthening teaching and research faculties. The department, which has expertise in new-age research areas such as quantum information, computation, and dynamical systems, plans to seek expertise in diverse cutting-edge research areas in the near future. The department strives to nurture curiosity, instill comprehensive subject knowledge, equip students to excel in a dynamic world, and enable them to pursue meaningful and successful lives.

Presently, the Department offers Engineering Physics course to different engineering branches of the B. Tech. program. Over the past few years, the department has provided courses such as Electromagnetic Field Theory, Introduction to Electronics Engineering Profession, Mathematics, Solid State Devices, and more to B.Tech. students across various engineering disciplines. The Department has used high-quality NPTEL and other MOOCs courses to aid in the teaching-learning process. Despite the limitations of the temporary campus, the department provides essential laboratory experiments to facilitate an understanding of the fundamental laws of physics, using high-quality equipment.



*Learn from yesterday,
live for today,
hope for tomorrow.
The important thing is
not to stop questioning
– Albert Einstein*

Faculty Details

Dr. Anindya Biswas

Associate Professor
Postdoc at HRI Allahabad (Prayagraj), IMSc Chennai, IACS Kolkata, Ph.D (University of Calcutta)
M.Sc (University of Calcutta)

Area of Interest: Low temperature physics, BEC, Quantum information and its interface with many-body physics

Dr. Md. Nurujjaman

Associate Professor
Postdoc at Tata Institute of Fundamental Research Centre for Applicable Mathematics Bangalore, Ph.D (Homi Bhabha National Institute, BARC), M.Sc (Jadavpur University)

Area of Interest: Experimental nonlinear dynamics, quantitative finance, stock market dynamics

Staff Details

Mr. Happy Mondal

Senior Technician

Laboratory Facilities

- Engineering Physics Laboratory:** The Engineering Physics Laboratory of the Department is equipped with the necessary instruments to facilitate the freshmen to experience the wide scope of the subject. There are experimental facilities to investigate the properties of semiconductors, laser diode, Hall effect, magnetic field due to current carrying coils, magnetic susceptibility of liquids, etc. The students are also exposed to some optical phenomena like

the total internal reflection of light and interference of light through experiments involving optical fibers, Newton's ring apparatus and the Michelson interferometer. The fiber optics apparatus is used to measure the numerical aperture of optical fiber while the Michelson Interferometer apparatus can be used to determine the wavelength of the light source. These are some of the experiments they study in their theoretical Engineering Physics course.



Members of the Department of Physics

Departmental Committees

S. No.	Name of the committee	Name of Faculty members
1	Head of the Department	Dr. Md. Nurujjaman
2	Departmental Faculty Board (DFB)	1. Dr. Md. Nurujjaman, HOD 2. Dr. Anindya Biswas, Member
3	Departmental Post Graduate Committee (DPGC)	1. Dr. Anindya Biswas, Convener 2. Dr. Md. Nurujjaman, Member 3. Dr. Om Prakash, Member
4	Laboratory In-Charge	Dr. Anindya Biswas

Collaboration with other Departments / Institutes

The Department has active research collaborations with Saha Institute of Nuclear Physics, Kolkata, Jadavpur University, Presidency University and Harish-Chandra Research Institute, Prayagraj. Radon gas monitoring system, a possible avenue for early earthquake detection, has been installed at NIT Sikkim in collaboration with Jadavpur University.

Publications:

- Complex network analysis of cryptocurrency market during crashes; K Mukhia, A Rai, SR Luwang, M Nurujjaman, S Majhi, C Hens; Physica A: Statistical Mechanics and its Applications 653, 130095

- Identifying extreme events in the stock market: A topological data analysis; A Rai, B Nath Sharma, S Rabindrajit Luwang, M Nurujjaman, S Majhi; Chaos: An Interdisciplinary Journal of Nonlinear Science 34 (10)
- Fidelity and entanglement of random bipartite pure states: insights and applications; G Biswas, SH Hu, JY Wu, D Biswas, A Biswas; Physica Scripta 99 (7), 075103

Achievement:

Mr. Sayan Sengupta, a PhD Scholar from the Department of Physics, has been awarded the Best Poster Award in the Poster Presentation Competition at PHYCON-25, held on March 21-22, 2025, and organized by the Department of Physics, IIT Ropar.

Research Scholars Details

S. No.	Research Scholars	Guide(s)	Area of Research	Remarks
1	Anish Rai	Dr. Md. Nurujjaman	Nonlinear Time-series Analysis, Characterization of Stock Market	Ongoing
2	Santanu Sarkar	Dr. Anindya Biswas	Quantum Information and Computation	Ongoing
3	Salam Rabindrajit Luwang	Dr. Md. Nurujjaman	Nonlinear Time-series Analysis, Characterization of Stock Market	Ongoing
4	Sayan Sengupta	Dr. Anindya Biswas	Quantum Information and Computation	Ongoing
5	Ritwija Roy	Dr. Anindya Biswas	Quantum Information and Quantum Computation.	Ongoing
6	Kundan Mukhia	Dr. Md. Nurujjaman	Machine learning and Non-linear time series analysis.	Ongoing
7	Anish Sharma	Dr. Anindya Biswas	Quantum Thermodynamics	Ongoing
8	Buddha Nath Sharma	Dr. Md. Nurujjaman	Topological Data Analysis, Nonlinear Dynamics	Ongoing
9	Sabat Rai	Dr. Md. Nurujjaman	Complex system and Econophysics	Ongoing

Department of Chemistry

The Department of Chemistry is an integral part of National Institute of Technology Sikkim (NIT Sikkim) since its inception. The department has always endeavoured hard to attain academic excellence by imparting quality education and providing research exposure to its students exposure to the students. The Department of Chemistry at NIT Sikkim is now a comprehensive department granting master's (two-year M. Sc. program in Chemistry) and Ph.D. degrees with specialization in synthetic organic chemistry, inorganic chemistry, catalysis, renewable energy, etc.

The young, dynamic, motivated, extremely well-qualified faculty members of the department are keen to impart high-standard education to the students and carry out cutting-edge research to solve problems having social importance as well as contemporary Scientific issues. Their commitment is well reflected in the quality of publications, research projects funded by the Department of Science & Technology (DST), Council of Scientific & Industrial Research (CSIR), Department of Biotechnology (DBT), etc.

Thanks to the generous support from the Institute and other funding agencies, the department is now equipped with several state-of-the-art instrumental and computational facilities. The instruments available with the department include, Gas Chromatography (GC) System, Electrochemical Workstation, Potentiostat with Spectroelectrochemistry set up, Rotary Evaporators, Diode-array UV-Vis Spectrophotometers, FT-IR spectrophotometers, Low-temperature (-80°C) baths, Autoclaves, etc. The Computational Chemistry Laboratory has access to high-end servers and software packages (Gaussian 16, Amsterdam Density Functional (ADF), Turbomole, etc).

The admission to the 2-year M.Sc. (Chemistry) is pursued centrally via Centralized Counselling for M.Sc./M. Tech. (CCMN) platform, based on the JAM score of the candidates and the remaining vacancies are filled through the Institute Admission Test (IAT) conducted by the Institute. Our curriculum, meticulously crafted to encompass fundamental principles and advanced concepts across diverse areas of chemistry, is augmented by immersive hands-on research training. This equips our students to emerge as adept technical professionals, poised for success in both industry and academia. We ensure stringent adherence to proper safety protocols in all chemical laboratories. Also the Department of Chemistry is fully committed to cultivate a safe, inclusive, gender-neutral and a fair environment to foster innovation in the field of chemical science.

VISION

Our vision is to enhance our reputation as a nationally acclaimed teaching and research institution which is recognized for its innovation, excellence, discovery, and attracts the best students, faculty and staff nationwide. The curriculum is

designed for holistic development of the students and imparts practical trainings to make them industry ready. The Department aspires to be regarded as the best in North-East NITs, and in the Top 10 amongst the NITs in India and in the Top 50 Chemical Sciences teaching institutions in India in the upcoming years.

MISSION

Our mission is to maintain a department that stands equal to any in terms of its relevance of teaching and research, facilities as well as the learning opportunities and working experience. The Department endeavors to advance the society through chemistry education, research, and service via interdisciplinary and international collaborative discovery, mentoring and leadership, and economic impact through technology transfer and entrepreneurship. The Department enables Student / Faculty team achievement, professional service, recognition, and global engagement via unique Molecular Science & Technology Centers of Excellence leveraging NIT Sikkim's core strength. The Department defines and delivers exemplary contributions to the mission, goals, and research focus areas of NIT Sikkim.

VALUES

We aspire to values which are based on the highest professional and academic standards in terms of personal growth and satisfaction offered to our Students, Faculties and Staffs, excellence in what we do, teamwork that is based on respect, trust, integrity, and moral ethics.

GOALS

The goal of the department is to train our M.Sc. and Ph.D. students to become globally competent in both Academic, Research and Development as well as in Industry. Also, train the 1st Year B. Tech. students to acquaint the importance of chemistry with various engineering courses.

Programs offered by the Department.

Master of Science (M.Sc. in Chemistry)

- The Department of Chemistry at NIT Sikkim is now a comprehensive department granting Master's (two-year M. Sc. Program in Chemistry). The admission to the 2-year M.Sc. (Chemistry) is managed centrally by Centralized Counselling for M.Sc./M. Tech. (CCMN) platform, based on the JAM score of the candidates. After completion of the admission process via CCMN,

the Institute also conducts Institute Admission Test (IAT) to fill the remaining vacancies. The department offers classical and advanced courses to cover a wide area of chemistry with a cutting-edge research ideas and closely related areas and provides comprehensive hands-on research and industrial training to the students to help them succeed in both academic, industry and research areas.

Doctoral program (Ph. D.)

- Department of Chemistry at NIT Sikkim offers opportunity to carry out graduate research work in various areas of chemistry and related disciplines. Students completing their M.Sc. in Chemistry can apply to this program. The fellowship options available include (a) nstitute-funded Ph.D., (b) funding by other funding agencies, SERB (DST), CSIR, INSPIRE, Junior Research Fellowship, GATE etc.

Research Areas

- Inorganic Chemistry:** Bioinspired Catalysis, Dioxygen activation/reduction, Artificial Photosynthesis, High-valent metal oxo, Electrocatalysis, Degradation of Micropollutants, C-H activation by transition metal complexes, etc.
- Synthetic Organic Chemistry:** Photoredox Catalysis, Synthesis of Natural Products, Macrolides, Synthetic Methodologies, C-H activation, Heterocycles, Carbohydrate Chemistry, Green Organic Synthesis, Electrosynthesis, etc.
- Physical Chemistry:** Development of highly accurate theoretical methods to study the properties of molecules in their low-lying excited state. Application of quantum chemical methods to study the harvesting of the photochemical properties of molecules, Homogeneous and Heterogeneous reaction modelling. Synthesis of novel organic molecules for biological applications. Designing and setting up jet cooled setup in combination with different types of laser instruments for measuring photo physical properties of molecules in gas phase. Photo-physical study of different types of fluorophore molecules in different biologically relevant environments. Theoretical investigation of excited state phenomenon that is observed in the experimental studies.

Courses offered by the Department to B. Tech Students

- Engineering Chemistry, Engineering Chemistry Laboratory.

Current Students' Strength

PG students (M.Sc.)	Ph.D. Scholars
21	13

Faculty Details

Dr. Achintesh N. Biswas

Associate Professor & Head of the Department.
Postdoc (University of Minnesota, USA 2012-13),
Ph.D. (University of North Bengal, 2011), M. Sc. (University of North Bengal, 2003).

Area of Interest: Water Remediation, Artificial Photosynthesis, Small Molecule Activation, Bio-inspired Catalysis.

Dr. Taraknath Kundu

Associate Professor
Postdoc (Bose Institute, 2008-09, IISc. Bangalore, 2009-12),
Ph.D. (Bose Institute/Jadavpur University, 2008) M. Sc. (University of Calcutta, 2001).

Area of Interest: Synthetic Organic Chemistry; Medicinal Chemistry

Dr. Sumit Saha

Associate Professor
Ph.D. (IACS/Jadavpur University, 2012), M. Sc. (IIT Kharagpur, 2007).

Area of Interest: Synthetic organic chemistry, Total synthesis of natural products

Dr. Nidhi Govil

Temporary Faculty
Ph. D. (MNIT Jaipur), M. Sc. (IIT Roorkee)

Area of Interest: Analytical Chemistry, Electroanalytical methods

Dr. Sumantra Bhattacharya

Temporary Faculty
Postdoc (UNITS, South Korea 2014-15),
Ph. D (NCL Pune/Savitribai Phule Pune University 2013), M. Sc. (BHU, 2005)

Area of Interest: Theoretical and Computational Quantum Chemistry. Excited State structure and properties of molecules, Homogeneous and heterogeneous catalysis. Development of Highly Accurate Quantum Chemical method for Calculation of Low-lying Excited States of molecules using Fock Space Multi-Reference Coupled Cluster (FSMRCC) Method.

Dr. Dipmalya Basak

Temporary Faculty
Ph. D. (IIT Kharagpur, 2021), M. Sc. (NIT Durgapur, 2013)

Area of Interest: Heterometallic 3d-4f complexes with aesthetically pleasing topologies to investigate their magnetic properties (Single Molecular Magnets, Magnetocaloric effect, etc.) along with other properties like Photoluminescence, catalytic properties.

Dr. Achyuthlal Babu Ramiya Subramaniam

Ph.D. (IIT Madras, 1999)

Area of Interest: Experimental Physical Chemistry, Electrochemistry, Electrochemical methods for dye degradation, nitrate removal, spectroscopy.

Staff

Mr. Suman Pathak

M.Sc.

Designation: Senior Technician

Ms. Chandrama Majumdar

M.Sc.

Designation: Senior Technician

Ph.D. Scholars

Sl.	Name of the Ph. D Scholar	Topic	Supervisor
1	Mr. Ramanand Das	Synthesis of C-glycosides	Dr. Taraknath Kundu
2	Mr. Ravan Kumar	Total Synthesis of Natural Products	Dr. Sumit Saha
3	Mr. Saikat Das	Water Remediation	Dr. Achintesh N. Biswas
4	Mr. Dip Raj Rai	Synthesis of C-glycosides	Dr. Taraknath Kundu
5	Mr. Arpan Bera	Organic Synthesis	Dr. Sumit Saha
6	Ms. Rachel Anjous	Organic Synthesis	Dr. Sumit Saha
7	Mr. Suman Joardar (Part-time)	Transition Metal Catalysed C-H Activation	Dr. Taraknath Kundu
8	Mr. Gunturu Prabhakar Rao (Part-time)	Directed C-H Activation	Dr. Taraknath Kundu
9	Mr. Kanchan Chakraborty (Part-time)	Organic synthesis	Dr. Sumit Saha
10	Mr. Aniket Mukherjee	Catalytic Small Molecule Activation	Dr. Achintesh N. Biswas
11	Ms. Subhalaxami Das	Water Splitting	Dr. Achintesh N. Biswas

Ph.D. Awarded in 2024-25

S/N	Name	Research Area	Supervisor	Present Designation
1	Dr. Srijan Narayan Chowdhury	Dioxygen Reduction	Dr. Achintesh N. Biswas	Associate Professor
2	Dr. Panjo Lepcha	Electrocatalytic Water Oxidation	Dr. Achintesh N. Biswas	Associate Professor

Laboratories and Research Facilities

S/N	Name of the Laboratory	Objectives	Available Instruments	Faculty In-charge
1	Engineering Chemistry	To equip all first-year students of B. Tech. program with the knowledge of material science, qualitative and quantitative estimations, and environmental impacts.	Microbalance, Microcentrifuge, pH meters, Conductometers, Hot air oven, vacuum pumps, fridges, etc.	Dr. Taraknath Kundu
2	M.Sc. Organic Chemistry	To teach M.Sc. students about organic qualitative & quantitative estimations, functionalization of organic molecules, isolation and characterization of natural products, multistep syntheses, and biochemistry experiments.	Eyela Rotary Evaporator with -20°C chiller, Eyela PSL1810 (-) 80°C reaction chamber, Metler-Toledo 0.01mg microbalance, Glove box, etc.	Dr. Sumit Saha

S/N	Name of the Laboratory	Objectives	Available Instruments	Faculty In-charge
3	M.Sc. Inorganic Chemistry	To teach M.Sc. students about identification of salts, qualitative & quantitative estimations, catalytic activities, bioinorganic chemistry.	Diode-array UV-visible Spectrophotometer with Peltier, Electrochemical Workstation, Hansatech Oxygraph, Spectro Electrochemical Workstation	Dr. Achintesh N. Biswas
4	M.Sc. Physical Chemistry	Quantitative estimations of physical constants, biophysical experiments.	Potentiometers, Polarimeter, Colorimeter, Electrode assembly, Water purification set up, Spectrophotometer, etc.	Dr. Subhash C. Makhal and Dr. Sumantra Bhattacharya
5	M.Sc. Analytical and Environmental Chemistry	Qualitative and quantitative analysis of environmental pollutants	BOD incubator, COD digester, As/F detectors, Muffle furnace, Dissolved oxygen (DO) sensor, Microbalance, etc.	Dr. Nidhi Govil
5	Computational Chemistry Laboratory	Molecular simulations, quantum chemical energy calculation, prediction of reaction pathways.	Gaussian, Amsterdam Density Functional (ADF), Turbomole, etc	Dr. Sumantra Bhattacharya
6	Instrument Laboratory	Analysis of synthesized and natural compounds.	Gas chromatography system, UV-visible Spectrophotometer, FT-IR Spectrometer, Gel electrophoresis system, Biosafety cabinet, etc.	Dr. Taraknath Kundu
7	Research Laboratory	For PhD research	Three fume hoods, IKA Rotary evaporator, other experimental set-ups.	Dr. Sumit Saha

Ongoing Projects in the Department

- Electrochemically generated oxometal complexes for water remediation (CRG/2021/002064) funded by Science & Engineering Research Board (SERB), New Delhi of ₹43 lakhs; P.I.: Dr. Achintesh N. Biswas.
 - Central University of Sikkim, Sikkim – All Faculty of the Department
 - IIP Dehradun – Dr. Sumantra Bhattacharya
- Design of Smart, Self-Breathable Bandage for Surface Wound Care (BIRAC/KIIT01800/BIG-SP/02/22) Funded by: DBT-BIRAC North-East Region (2 Yrs.). ₹50 Lakhs. P. I.: Dr. Taraknath Kundu.
 - Indian Association for the Cultivation of Science, Kolkata – Dr. Achintesh Narayan Biswas /Dr. Sumit Saha
 - National Chemical Laboratory, Pune – Dr. Sumantra Bhattacharya

Collaborations with other Institutes

To pursue cutting edge research the Department has collaborated with the following Institutes:

- University of York, UK – Dr. Achintesh Narayan Biswas
- University of North Bengal, Siliguri – Dr. Achintesh Narayan Biswas / Dr. Sumit Saha
- CSIR- Indian Institute of Petroleum, Dehradun – Dr. Sumantra Bhattacharya
- University of Calcutta, Kolkata - Dr. Taraknath Kundu
- Sister Nivedita University, Kolkata - Dr. Taraknath Kundu
- IIT Kharagpur- Dr. Taraknath Kundu and Dr. Dipmalya Basak

Publication

Peer-reviewed SCI journals (2024-25)

1. Abhishek Das, Srijan Narayan Chowdhury, Sachidulal Biswas, Rajib Samanta, Achintesh N Biswas, Tapan Kanti Paine, Influence of Hemilabile Arm and Amide Functionality in the Ligand Backbone on Chemical and Electrochemical Dioxygen Reduction Catalyzed by Mononuclear Copper (II) Complexes, *Inorganic Chemistry*, 2025, 64, 4983-4995.
2. Sachidulal Biswas, Srijan Narayan Chowdhury, Saikat Das, Suranjana Bose, Joyashish Debgupta, Satadal Paul, Achintesh N Biswas, Exploring Mechanistic Details and Catalyst Resilience in Electrocatalytic Water Oxidation With a Cu (II) Complex Bearing a Redox-Active Ligand, *ChemCatChem.*, 2025, 17, e202401357.
3. Suman Kumar Joardar, Gunturu Prabhakar Rao, Jakkani Soumya, Sourasree Midya, Ramanand Das, Mrinalkanti Kundu, Taraknath Kundu, 8-Aminoimidazo[1,2-a]pyridine-Directed Nickel-Catalyzed β -C(sp²)-H Arylation and Alkylation: Implementation for Late-Stage C-H Activation towards Biologically Relevant Compounds, *Synthesis*, 2025, 57, 2207-2220.
4. Ramanand Das, Dip Raj Rai, Joneswar Basumatary, Biswajit Gopal Roy, Debaraj Mukherjee, Taraknath Kundu, Photoinduced Excited-State Pd(O)-Catalyzed Stereoselective C-Glycosylation of 1-Bromosugar with Quinoxalin-2(1H)-one, *Chemistry-A European Journal*, 2025, 31, e202500882.
5. Ramanand Das, Norein Sakander, Sanchari Kundu, Debaraj Mukherjee, Taraknath Kundu, Visible Light-Promoted Ir (III)-Catalyzed Stereoselective Synthesis of Azauracil-C-Nucleosides from 1-Bromosugar, *Organic Letters*, 2025, 5491-5496.
6. Ramanand Das, Rahul Haldar, Irshad Ahmad Zargar, SK Bappa, Taraknath Kundu, Debaraj Mukherjee, A brief account of the application of glycosyl halide as glycosyl radical precursor towards glycosylation through visible light catalysis, *Carbohydrate Research*, 2025, 554, 109537.
7. Ramanand Das, Dip Raj Rai, Deepika Kindo, Kimron Protim Phukan, Taraknath Kundu, Silica mediated 1,6-conjugate addition of indoles and other heterocycles to p-quinone methides under solvent free condition, *Tetrahedron Letters*, 2025, 254, 155398.
8. Ravan Kumar, Amit Banerjee, Sumit Saha, Development of a Stereospecific Strategy for the Total Synthesis of Diplodialide C and Formal Synthesis of (-)-Curvularin, *Synlett*, 2025, 36, 679-682.
9. Bilash Chandra Roy, Ernest Debbarma, Dipanwita Chakraborty, Biswajit Dey, Dipmalya Basak, Susanta Ghanta, Tufan Singha Mahapatra, Isostructural square planar mononuclear copper(II) and nickel(II) complexes: Catecholase and phenoxazinone synthase activity, protein and DNA-binding insights, and molecular docking, *Polyhedron*, 2025, 273, 117492.

International/National Conference (2023 -24)

1. Dr. Achintesh N. Biswas delivered an invited lecture in a one day seminar on "Current Trends in Chemistry" on 6th of March 2025 at Barad Sadan, Sikkim University, 5th Mile, Tadong 737102, Gangtok, Sikkim.
2. Dr. Achintesh N. Biswas delivered an invited lecture in National Interdisciplinary Seminar on "Unravelling Indian Rituals and Festivals: The Interplay of Culture, Science and Knowledge Systems" at Suryasen Mahavidyalaya, Siliguri on January 10-11, 2025.
3. Dr. Achintesh N. Biswas attended 7th Regional Science & Technology Congress at Siliguri College during January 24-25, 2025, and acted as an esteemed Judge for Environmental Sciences including Climate Change Section.

Departmental Responsibilities

Sl.	Responsibility	Faculty In-charge
01.	Head of the Department	Dr. Achintesh N. Biswas
02.	M. Sc. Admission (Dy. In-charge, Centralized Counseling for M.Sc. in NITs 2024)	Dr. Achintesh N. Biswas

Sl.	Responsibility	Faculty In-charge
03.	Convener, Institute Admission Test 2022 for admission in M.Tech / M.Sc. programs	Dr. Achintesh N. Biswas Dr. Dr. Taraknath Kundu (Convener) Dr. Achintesh N. Biswas (HoD) Dr. Sumit Saha (Member)
04.	Department Post-Graduate Committee (DPGC)	Dr. Nidhi Govil (Member) Dr. Sumantra Bhattacharya (Member) Dr. Dhananjay Tripathi (Nominated Member by Chairperson Senate) Dr. Taraknath Kundu (Convener) Dr. Achintesh Narayan Biswas (Member) Dr. Sumit Saha (Member) Dr. Nidhi Govil (Member)
05.	Academic Performance Evaluation Committee	Dr. Sumantra Bhattacharya Dr. Achintesh N. Biswas Dr. Sumit Saha Dr. Nidhi Govil
06.	M.Sc. Physical Chemistry Laboratory	Dr. Sumantra Bhattacharya
07.	M.Sc. Inorganic Chemistry Laboratory	Dr. Achintesh N. Biswas
08.	M.Sc. Organic Chemistry Laboratory	Dr. Sumit Saha
09.	M.Sc. Analytical and Environmental Chemistry Laboratory	Dr. Nidhi Govil
10.	M.Sc. Computational Chemistry Laboratory	Dr. Sumantra Bhattacharya
11.	B.Tech Engineering Chemistry Laboratory	Dr. Taraknath Kundu
12.	Departmental Member in Examination Cell	Dr. Achintesh N. Biswas
13.	Departmental Member in Institute Research Committee	Dr. Sumit Saha
14.	Departmental Record Keeping	Dr. Achintesh N. Biswas
15.	Faculty Advisors	Dr. Achintesh N. Biswas Dr. Taraknath Kundu Dr. Sumit Saha

Photo Gallery



Department of Chemistry



M.Sc. 2023-25 batch during industrial visit



Faculty members with M.Sc. Students 2024-26 batch



Faculty members with M.Sc. Students 2023-25 batch

Department of Humanities and Social Sciences



Literature adds to reality, it does not simply describe it. It enriches the necessary competencies that daily life requires and provides; and in this respect, it irrigates the deserts that our lives have already become.

– C. S. Lewis

Established in 2014, the Department of Humanities and Social Sciences at the Institute complements technical education with an interdisciplinary perspective. It offers undergraduate courses in English, Economics, and Management to engineering students, fostering their all-round development and encouraging a sustainability-oriented mindset. In addition to its academic offerings, the Department has launched a research program and is actively planning to expand into postgraduate education in the near future. Currently, the research wing, comprising faculty and Ph.D. scholars, focuses on research areas such as Modern Indian Fiction, Cinematic Adaptations of Shakespeare, North-Eastern Literature, Gender Studies, The Question of the Human, Spatio-Temporal Representations and English Literature, Posthumanism, South-Asian Science Fiction, Ecofiction as well as Industrial Economics & Entrepreneurship. The faculty and research scholars are actively engaged in publishing research in national and international journals, as well as presenting papers at esteemed global conferences.

Departmental Literary Club, The Regnant Ink:

The Department's Literary Club, The Regnant Ink, organizes a diverse range of activities, including quiz contests, film screenings, essay writing, poster design competitions, photography contests, Hindi Pakhwada celebrations, and guest lectures by eminent speakers. Notably, the club has played a pivotal role in revisiting and promoting the Government of India's National Education Policy within the Institute. In the academic session 2024–25, the club celebrated Janmashtami, Ram Navami, and Jan Jatiya Diwas with great enthusiasm, organizing quizzes that highlighted communal, mythological, and cultural traditions. It has also commemorated the pain and trauma of 1947 partition on Partition Horror Day on August 14, 2024. The club arranges both formal and informal events featuring engaging activities such as informative trivia, interactive games, and creative challenges. Events like Rahasyamayi Kadi, Poetique, Ved Yudh, 3 Log Kya Kahenge, True Detectives, and Vaad-Vivaad Pratiyogita offer students platforms for critical thinking, expression, and collaborative learning in an enjoyable format. The club is dedicated to preserving cultural heritage while nurturing students' imagination, encouraging creativity, storytelling, and a unique flair for personal expression.



OBJECTIVES

- The Department envisions introducing a range of future courses, including Communicative Skills, Phonetics, Linguistics, along with Certificate Courses in foreign and regional languages.
- It actively encourages an interdisciplinary and integrative approach by fostering collaborations with reputed educational and research institutions across India.
- The Department is dedicated to equipping undergraduate students for success in the global industrial landscape, emphasizing both academic and practical competencies.
- Curriculum updates are regularly undertaken to align with the dynamic needs of students and the evolving national and international job markets.
- The Department's Ph.D. program focuses on interdisciplinary research, aiming to contribute significantly to academic and industrial knowledge ecosystems.
- The Department aims to organize workshops, guest lectures, and skill-development more frequently to supplement classroom learning and provide exposure to real-world industry challenges.
- The Department also promotes student participation in conferences, seminars, and academic competitions to cultivate research aptitude and critical thinking.
- Efforts are underway to launch postgraduate programs soon, further strengthening the academic and research foundation of the Department.

Upgradations in the Course Syllabus of the Department

Following Senate approval, the Department launched two new courses—English Language and Literature, and Human Values and Effective Communication in English—based on the 2017 Curriculum Development Workshop. Existing courses in Economics and Management were tailored according to the needs of engineering vocation, and revised as Engineering Economics and Management (HS15102) and Entrepreneurship and Start-up (HS16102) which are offered to B. Tech. third year students.

In May 2019, a Curriculum Development Workshop was held to modernize the curriculum based on expert input and student needs. The Department also set up a Language Lab to enhance students' pronunciation, intonation, and communication skills for career readiness. The Department currently offers English Language and Literature (HS11102) to first-semester students, along with two practical courses—Language Lab-I (HS11201) and Human Values and Effective Communication (HS12202)—to the first year of the B.Tech. program spanning over the first two semesters. Additional tutorial sessions are conducted to provide intensive practice in professional communication.

Courses offered by the Department to B. Tech students:

- English Language and Literature (HS11102) - B. Tech 1st Year
- Human Values and Effective Communication (HS12202) - B. Tech 1st Year
- Language Laboratory (HS11201) - B. Tech 1st Year
- Engineering Economics and Management (HS15102) – B. Tech 3rd Year

- Entrepreneurship and Start-Up (HS16102) – B. Tech 3rd Year

Courses offered by the Department to PhD students:

- Research Methodology (HS31101)
- Literary Theory – I (HS31102)
- Literary Theory – II (HS31103)
- Gender and Literature (HS31104)

- Doing Gender and Why Does It Matter? (HS31105)
- Health Across Gender Spectrum (HS31106)
- Environment and Development (HS31107)
- Narrative Mode and Fiction (HS31108)
- Postmodernism in Literature (HS31109)
- Effective writing (HS31110)
- Hinduism Through Its Scriptures (HS31111)
- Posthumanism: An Introduction (HS31112)

Research Areas

Subjects	Major Thrust Area of Research
English	<ul style="list-style-type: none"> ■ Modern Indian Fiction ■ Film Studies in Shakespearean Drama ■ North-Eastern Literature ■ Gender Studies and Literature ■ Literary Criticism ■ Myth and its Retelling ■ Indian English Writing ■ Spatio-temporality of Cultural Representations in Literature ■ Human Condition ■ Vulnerability Studies ■ Posthumanism ■ South-Asian Science Fiction and Ecofiction
Economics	<ul style="list-style-type: none"> ■ Industrial Economics & Entrepreneurship ■ Financial Management ■ Big Data Analytics ■ Managerial Economics

Research Scholars

Degree Awarded:

S. No.	Name	Supervisor	Title of Thesis
1	Mrs. Laxmi Rai	Dr. Dhananjay Tripathi	Cinematic Adaptations of the Select Shakespearean Tragedies in Bollywood
2	Mr. Bhaskar Chettri	Dr. Dhananjay Tripathi	Multiculturalism in the Select Raj Novels
3	Ms. Ankita Sarmah	Dr. Dhananjay Tripathi & Dr. Bedabrat Saikia (Co-supervisor)	An Exploration on the Opportunities and Challenges of the Micro Small and Medium Enterprises (MSMEs) in Assam

Ongoing Research:

S. No.	Name	Supervisor	Area of Research
1	Ms. Sanjana Chakraborty (Thesis submitted for review)	Dr. Dhananjay Tripathi	Male Body & Identity Politics in South Asian Literature Subversive Masculine Identities: Representations of Adolescent Male Bodies in South Asian Literature Through Queer Subjectivity
2	Ms. Ankita Barik	Dr. Dhananjay Tripathi	Spatio-temporality of Cultural Representations in Literature
3	Ms. Ankita Das	Dr. Dhananjay Tripathi	The Human Condition, Vulnerability Studies in Literature
4	Ms. Srijita Sarkar	Dr. Dhananjay Tripathi	Posthumanism, South-Asian Science Fiction, Ecofiction

The Department proudly welcomes a new addition to its doctoral cohort. Ms. Srijita Sarkar, qualified in UGC-NET and GATE, has joined as a full-time Ph.D. scholar under the December 2024 cycle, further strengthening the Department's academic excellence. Ms. Sanjana Chakraborty recently presented her Pre-synopsis seminar on her proposed thesis titled Subversive Masculine Identities: Representations of Adolescent Male Bodies in South Asian Literature Through Queer Subjectivity. Additionally, two ongoing research scholars, Ms. Ankita Barik and Ms. Ankita Das, have successfully completed their coursework, comprehensive examination, and State-of-the-art seminar, and are now formally registered as Ph.D. scholars of the Institute.

Research Projects

S. No.	Project Title	Principal Investigator	Funding Agency	Status
1	The Occult Tradition of Shamanism in Sikkim: A study of its core belief and Tribal Nature.	Dr. Dhananjay Tripathi	ICSSR	Completed
2	Covid-19 and its impact on Sikkim: A study of how and why Sikkim became an exception.	Dr. Dhananjay Tripathi	ICSSR	Completed

Faculty Details

Dr. Dhananjay Tripathi

Associate Professor

D. Phil (University of Allahabad, 2013), M.A. (University of Allahabad, 2006) NET, SET, PGCTE (EFLU, Hyderabad)

Area of Interest: Literary Criticism, Myth and its Retelling, Indian English Writing. Phenomenology Gender & Crisis Studies

Dr. Richa Mishra

Assistant Professor (Temporary)

D. Phil (University of Allahabad, 2016), M.A. (University of Allahabad, 2011)

Area of Interest: Indian Writing in English, Mythological Retelling.

Dr. Marxia Oli. Sigo

Assistant Professor (Temporary)

Ph.D (Bharathidasan University, Tiruchirappalli, 2019), MBA (BSMED - Bharathiar University, Coimbatore, 2006)

Area of Interest: Financial Management, Big Data Analytics, Managerial Economics.

Language Laboratory for Undergraduate students

To support students' language learning needs, the Orell Talk Digital Language Laboratory—featuring advanced technology—was established in December 2019.

Integrated into the first-year B.Tech curriculum from September 2023, the Language Lab plays a vital role in enhancing communication skills and personality development. Designed for measurable results, the advanced software enhances language skills while promoting overall personality development through modules on grooming and self-improvement. Offline activities include informed debates, mock interviews, extempore speaking, film and book reviews, as well as verbal and digital presentations—helping students build confidence and character.

The Orell Talk software encompasses the following components:

- **ASL (Assign Speaking & Listening):** Enables teachers to assign structured speaking and listening tasks to students.
- **Intercom:** Supports two-way communication between teachers and students for real-time interaction.
- **Live Classroom:** Facilitates live sessions and monitors student engagement and participation.



- **Lesson Studio:** Allows teachers to create and share multimedia study materials (video, audio, and text).
 - **E-Writer:** Used for assigning and submitting written tasks.
 - **E-Reader:** Distributes reading materials to individual students or groups.
 - **E-Exam:** Conducts assessments and exams for individuals or student groups.
 - **Screen Viewer:** Lets teachers discreetly view and monitor student screens during sessions.
 - **Alert:** A student-initiated feature to request help or support from the teacher.
- The Department also aims to make lessons more engaging and interactive by incorporating PowerPoint presentations into the Language Lab curriculum on diverse topics—from film and book reviews to philosophical discussions. These multimodal presentations enrich language learning by offering visual support, integrating multimedia, enabling structured content delivery, encouraging interactive participation, catering to varied learning styles, and promoting speaking practice.



Recent Publications of the Departmental Faculty Members

Sigo, M. O., Selvam, M., Venkateswar, S., Maniam, B., Subramaniam, G., & Kannaiah, D. (2024). Applications of neuro deep learning models in predictive data analytics for the movements and trends of the Indian stock market: Financial data mining, nonlinearity, and quantum finance.

Journal of Ecohumanism, 3(6), 2184–2202. <https://doi.org/10.62754/joe.v3i6.4505>

Chakraborty, S., & Tripathi, D. (2024). A review of Queersapien by Sharif D. Rangnekar. *Interdisciplinary Literary Studies*, 26(3), 491–495.

Sigo, M. O., Selvam, M., Venkateswar, S., Lingaraja, K., Amirdhavasani, S., & Dhanasekar, D. (2024). Agile entrepreneurship: Evolution and growth of corporate India. *Journal of Computational Analysis and Applications*, 32(5), 23–28.

Barik, A., & Tripathi, D. (2025). A review of Geographical Imaginations: Literature and the 'Spatial Turn' by Indranil Acharya and Ujjwal Kumar Panda. *Interdisciplinary Literary Studies*. (In press).

Chakraborty, S., & Tripathi, D. (2025). Masculinities at the crossroads: Theoretical insights into gendered violence and social class in Taslima Nasrin's *Lajja*. *Atlantis: Critical Studies in Gender, Culture and Social Justice*. (In press).

Chakraborty, S., & Tripathi, D. (2025). Discipline or abuse: Policing the gender narratives of queer identities and body image through *The Funny Boy* and *The Carpet Weaver*. In D. Pannikot & Tanupriya (Eds.), *Queer representation in literature and popular culture*. Vernon Press. (Forthcoming).

Recent Talks and Seminars Addressed by the Departmental Faculty Members

- Dr. Dhananjay Tripathi delivered an expert talk in Faculty Leadership Programme titled “Nurturing Future Leadership”, held at IIM Raipur in October 21-25, 2024.
- Dr. Dhananjay Tripathi delivered a lecture titled “Nietzsche and the Gita: An Exploration of Shared

Philosophical Notions” in the Communication Lecture Series held by Department of Humanities, Delhi Technological University on 12.03.2025.

- Dr. Dhananjay Tripathi delivered an academic talk titled “Research Methods in Literature” in SRM Chennai on 25.03.2025.

Departmental Committees

S. No.	Name of Faculty Member	Name of the Committee / Position
1	Dr. Dhananjay Tripathi	Head of the Department
2	Dr. Dhananjay Tripathi	Dean Faculty Welfare
3	Dr. Dhananjay Tripathi Dr. Richa Mishra Dr. Marxia Oli. Sigo	FIC Dept. Faculty Board, FIC, Annual Report, B.Tech 1 st year Coordinator
4	Dr. Dhananjay Tripathi (Convener) Dr. Richa Mishra Dr. Marxia Oli. Sigo Dr. Achintesh N Biswas (External) Dr. Rajiv Ranjan Dwivedi (External) Dr. Sangram Ray (External)	Departmental Post Graduate Committee
5	Dr. Dhananjay Tripathi Dr. Richa Mishra Dr. Marxia Oli. Sigo	FIC, Promotion of Indian Language and Cultural Activities
6	Dr. Dhananjay Tripathi	Faculty In-Charge - Training and Placement Cell
7	Dr. Richa Mishra	Department Annual Report Committee
8	Dr. Marxia Oli. Sigo	Central Library Committee
09	Dr. Dhananjay Tripathi Dr. Richa Mishra Dr. Marxia Oli. Sigo	Department Grade Moderation Committee
10	Dr. Dhananjay Tripathi	Chief Public Information Officer
11	Dr. Dhananjay Tripathi	FIC, Printing and Publication

Audit Report and Annual Accounts





सत्यमेव जयते

कार्यालय लेखाकार (लेखापरीक्षा)
लेखापरीक्षा भवन, देवराली, सिक्किम
गंगतोक - 737102

Office of the Accountant General (Audit),
Lekha Pariksha Bhawan, Deorali, Sikkim
Gangtok - 737 102.

No: Comm./NIT/24-25/25-26/189

Dated: 28th October 2025.

To
The Director,
National Institute of Technology,
Ravangla, South Sikkim-737139.

Subject: Forwarding of Opinion and the Separate Audit Report of the Comptroller and Auditor General of India on the accounts for the year ended 31st March 2025.

Sir/Madam,

I am to forward herewith the Opinion of the Comptroller and Auditor General of India and the Separate Audit Report on the accounts of National Institute of Technology, Ravangla for the year ended 31st March 2025.

Enclosure: As above

Yours faithfully,

Deputy Accountant General

Opinion of the Comptroller & Auditor General of India on the Accounts of National Institute of Technology, Ravangla, Sikkim for the year ended 31 March 2025.

Opinion

We have audited the financial statements of **National Institute of Technology, Ravangla, Sikkim**, which comprise the statement of financial position as at 31 March 2025 and the Income & Expenditure Account/Receipts & Payment Account for the year then ended 31 March 2025, and notes to the financial statements, including a summary of significant accounting policies under Section 19(2) of the Comptroller and Auditor General's (Duties, Power & Conditions of Service) Act, 1971 read with Section 22(2) of the National Institute of Technology Act, 2007.

This 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 regarding compliance with the Law, Rules and Regulations (Propriety & Regularity) and efficiency cum performance aspects, etc., if any, are reported through inspection reports/ CAG's audit reports separately

In our opinion the accompanying financial statements of National Institute of Technology, Ravangla, Sikkim read together Notes thereon and matters mentioned in the Draft Separate Audit Report, which follows, **give a true and fair view** of the financial position of the autonomous body as at March 31, 2025, and (of) its financial performance and its cash flows for the year then ended 31 March 2025.

Basis for Opinion

We conducted our audit in accordance with the CAG's auditing regulations /standards/manuals/guidelines/guidance-notes/orders/circulars etc. Our responsibilities are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the autonomous body in accordance with ethical requirements that are relevant to our audit of the financial statements, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management for the financial statements

The National Institute of Technology, Ravangla, Sikkim is responsible for the preparation and fair presentation of the financial statements in accordance with uniform format of accounts/format applicable to the AB/accounting standards generally accepted in India, and for internal control as management determines it necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion in accordance with CAG's auditing regulations /standards/ manuals/ guidelines/ guidance-notes/ orders/ circulars etc.

Place: Gangtok

Date :

For and on behalf of CAG of India


Accountant General

Separate Audit Report on the Accounts of National Institute of Technology, Ravangla, Sikkim for the year 31 March 2025.

G. Assessment of Internal Controls

(i) **Adequacy of Internal Control System:** The Internal Control system was inadequate with respect to maintenance of vouchers, cash book authentication and records relating to vehicles (blue book and log-book).

(ii) **Adequacy of Internal Audit System:** The Institute had appointed Chartered Account firm for conducting of internal audit and it commensurate with the size and nature of the Institute.

(iii) **System of Physical verification of fixed assets:** No physical verification of assets was carried out by the management during the year.

(iv) **System of Physical verification of inventory:** No physical verification of inventory was carried out by the management during the year.

(v) **Regularity in payment of statutory dues:** The authority is regular in depositing undisputed statutory dues

H. Grants in aid

Out of the grants in aid of ₹134.32¹ crore received during the year, the organization could utilize a sum of ₹ 45.50 crore leaving a balance of ₹88.88crore as unutilized grant as on 31 March 2025.

¹Includes opening balance of ₹ 79.81 crore

National Institute of Technology Sikkim

Balance Sheet as at 31st March 2025

SOURCES OF FUNDS	Sch No	Amount in Rupees	
		Current Year	Previous Year
		31.03.2025	31.03.2024
Corpus/ Capital Fund	1	623,808,693.00	426,121,376.00
Designated/ Earmarked/ Endowment Fund	2	9,424,289.00	9,411,134.00
Current Liabilities & Provisions	3	985,915,953.00	921,768,177.00
Total		1,619,148,935.00	1,357,300,687.00
APPLICATION OF FUNDS			
Fixed Assets	4		
Tangible Assets		296,632,342.00	322,146,447.00
Intangible Assets		6,586,697.00	4,416,276.00
Capital Work in Progress (New Campus)		146,211,763.00	5,237,275.00
Assets acquired under Projects		33,315,885.00	-
Investments from Earmarked / Endowment Fund	5		
Long Term		-	-
Short Term		-	-
Investments-Others	6		
Current Assets	7	237,792,098.00	214,076,006.00
Loans, Advances and Deposits	8	898,610,150.00	811,424,683.00
		1,619,148,935.00	1,357,300,687.00

Significant Accounting Policies 23

Contingent Liabilities and Notes to Accounts 24

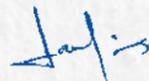
For and on behalf of National Institute of Technology Sikkim



Director



Registrar



Assistant Registrar



Date:

Place: Ravangla, South Sikkim

National Institute of Technology Sikkim

Income and Expenditure Account for the Year Ended 31st March 2025

Particulars	Sch No	Amount in Rupees	
		Current Year	Previous Year
		31.03.2025	31.03.2024
INCOME			
Academic Receipts	9	49,999,306.00	37,538,085.00
Grants/ Subsidies	10	270,099,851.00	248,796,136.00
Income from Investments	11	9,737,564.00	6,528,913.00
Interest Earned	12	391,784.00	239,655.00
Other Income	13	4,382,314.00	1,664,000.00
Prior Period Income	14	535,274.00	2,781,887.00
Total (A)		335,146,093.00	297,548,676.00
EXPENDITURE			
Staff Payments and Benefits (Establishment Expenses)	15	181,243,609.00	151,764,617.84
Academic Expenses	16	40,092,090.00	37,866,278.00
Administrative and General Expenses	17	55,512,074.00	57,847,464.00
Transportation Expenses	18	1,548,431.00	1,469,625.00
Repairs and Maintenance	19	9,989,942.00	10,285,182.00
Finance Costs	20	19,320.00	27,118.00
Depreciation	4	67,258,684.00	59,270,392.00
Other Expenses	21	-	-
Prior Period Expenses	22	-	400,244.00
Total (B)		355,664,150.00	318,930,920.84
Balance being excess of Income over Expenditure (A-B)		-20,518,057.00	-21,382,244.84
Transfer to/ from Designated Fund		-	-
Building Fund		-	-
Deferred Revenue Income - Depreciation		67,258,684.00	59,270,392.00
Balance being surplus/deficit carried over to Capital Fund		46,740,627.00	37,888,147.16

Significant Accounting Policies 23

Contingent Liabilities and Notes to Accounts 24

For and on behalf of National Institute of Technology Sikkim



Director



Registrar



Assistant Registrar



Date:

Place: Ravangla, South Sikkim

National Institute of Technology Sikkim

SCHEDULES FORMING PART OF BALANCE SHEET

Schedule-1 : Corpus/ Capital Fund

Corpus Fund	Amount in Rupees	
	Current Year	Previous Year
	31.03.2025	31.03.2024
Balance at the beginning of the year	88,723,286.00	425,115,379.00
Add: Contribution towards Corpus/ Capital fund	1.00	1.00
Add: Grants from UGC, Government of India and State Government to the extent utilized for Capital Expenditure	-	-
Add: Assets purchased out of Earmarked fund	-	-
Add: Assets purchased out of Sponsored Projects, where ownership vests in the institutions	-	-
Add: Assets donated/ gifts received	-	-
Add: Other Additions	5,598,092.00	-
Less: Assets Capatilised transfer to Capital Fund	-	374,280,241.00
Add: Excess of Income over Expenditure transferred from Income and Expenditure Account	46,740,627.00	37,888,147.00
Balance at the year end (A)	141,062,006.00	88,723,286.00

Capital Fund	Amount in Rupees	
	Current Year	Previous Year
	31.03.2025	31.03.2024
Balance at the beginning of the year	337,398,090.00	374,280,241.00
Add: Contribution towards Corpus/ Capital fund	-	-
Add: Grants from UGC, Government of India and State Government to the extent utilized for Capital Expenditure	183,002,097.00	22,247,087.00
Add: Assets purchased out of Earmarked fund	-	-
Add: Assets purchased out of Sponsored Projects, where ownership vests in the institutions	33,315,885.00	-
Less: Other Deletion (Previous Year)	5,598,092.00	-
Less: Deprecation on Capital Assets	65,371,293.00	59,129,238.00
Add: Excess of Income over Expenditure transferred from Income and Expenditure Account	-	-
Balance at the year end (B)	482,746,687.00	337,398,090.00
Total (A+B)	623,808,693.00	426,121,376.00



National Institute of Technology Sikkim

SCHEDULES FORMING PART OF BALANCE SHEET

Schedule-2 : Designated / Earmarked/ Endowment Fund

PARTICULARS	FUNDWISE BREAKUP										Amount in Rupees	
	Fund CSAB		Fund DASA	Fund CCMT	Fund Sustainability	Fund ESDP EEE	Fund ESDP ECE	Unnat Bharat	ESDP	Funds	Current Year	Previous Year
	31.03.2025	31.03.2024	31.03.2025	31.03.2024	31.03.2025	31.03.2024	31.03.2025	31.03.2024	31.03.2025	31.03.2024	(Rs)	(Rs)
A) Opening Balance	-	-	-	-	-	-	-	-	-	-	9,411,134.00	9,424,289.00
a) Additions/Adjustments during the year	321,380.00	321,380.00	10,000.00	114,055.00	-	999,752.00	998,688.00	200,000.00	13,155.00	2,657,030.00	9,424,289.00	5,658,428.00
b) Income from Investments made of the funds	-	-	-	-	-	-	-	-	-	-	-	-
c) Accrued interest on Investments/ Advances	-	-	-	-	-	-	-	-	-	-	-	-
d) Interest on Savings Bank A/c	-	-	-	-	-	-	-	-	-	-	-	-
e) Other Additions (Employer contribution)	-	-	-	-	-	-	-	-	-	-	-	-
Total (A)	321,380.00	321,380.00	10,000.00	114,055.00	9,424,289.00	999,752.00	998,688.00	200,000.00	13,155.00	12,068,164.00	15,082,717.00	15,082,717.00
B) Utilization. Expenditure towards objective of funds	-	-	-	-	-	-	-	-	-	-	-	-
i) Capital Expenditure	-	-	-	-	-	-	-	-	-	-	-	-
ii) Revenue Expenditure	321,380.00	321,380.00	10,000.00	114,055.00	999,752.00	998,688.00	200,000.00	13,155.00	2,643,875.00	5,671,583.00	5,671,583.00	5,671,583.00
iii) Refund	-	-	-	-	-	-	-	-	-	-	-	-
Total (B)	321,380.00	321,380.00	10,000.00	114,055.00	9,424,289.00	999,752.00	998,688.00	200,000.00	13,155.00	2,643,875.00	5,671,583.00	5,671,583.00
Closing Balances at the year end (A-B)	-	-	-	-	-	-	-	-	-	-	9,424,289.00	9,411,134.00
Represented by												
Cash and Bank Balances	-	-	-	-	-	-	-	-	-	-	9,424,289.00	9,411,134.00
Investments	-	-	-	-	-	-	-	-	-	-	-	-
Interest accrued but not due	-	-	-	-	-	-	-	-	-	-	-	-
Total	9,424,289.00	9,411,134.00	9,411,134.00									



National Institute of Technology Sikkim

SCHEDULES FORMING PART OF BALANCE SHEET

Schedule-2A : Endowment Fund

Name of the Endowment Fund	Opening Balance		Additions during the year		Total		Expenditure on the object during the year		Opening Balance		Total	
	Endowment	Accumulated Interest	Endowment	Interest	Endowment	Accumulated Interest	9	10	11	12		
1	2	3	4	5	6	7	8	9	10	11	12	
A)						(4+6)					(10+11)	
a)												
b)												
c)												
d)												
e)												
f)												



National Institute of Technology Sikkim

SCHEDULES FORMING PART OF BALANCE SHEET

Schedule-3 : Current Liabilities and Provisions

	Amount in Rupees	
	Current Year 31.03.2025	Previous Year 31.03.2024
A CURRENT LIABILITIES		
1 Deposits from Suppliers	2,399,910.00	2,599,910.00
2 Deposits from Students	17,361,331.00	14,431,820.00
3 Sundry Creditors		
a) For Goods and Services	4,348,071.00	4,598,730.00
b) Others	1,695,786.00	599,140.00
4 Deposit-Others (including EMD, Security Deposit)	3,255,020.00	9,039,387.00
5 Statutory Liabilities (GPF,TDS,WC Tax,CPF,GIS, NPS)		
a) Overdue	-	-
b) Others	8,286,812.00	20,749,297.00
6 Other Current Liabilities		
a) Salary & Wages	-88,214.00	9,412,703.00
b) Receipts against Sponsored projects	2,373,744.00	11,607,544.00
c) Receipts against Sponsored fellowship and scholarship	-	-
d) Unutilised Grants	888,794,158.00	798,683,646.00
e) Medical Board Fund	371,001.00	371,001.00
f) CPF Fund	411,455.00	411,455.00
g) Fellowship/Scholarship Payable	2,325,987.00	2,791,658.00
h) Chief Warden Fund	6,634,301.00	4,151,389.00
i) Other Liabilities	1,281,088.00	777,521.00
g) Alumini Association Fees	125,805.00	125,805.00
h) Hostel Mess & Staff Welfare Fund	1,118,055.00	1,118,055.00
i) Society Fee	600,801.00	368,257.00
j) Advance Fees	5,422,117.00	5,652,406.00
k) Fees Remission Payable	-	2,674,768.00
l) Project Fund	-	736,093.00
m) Student Activities Fund	-	43,014.00
n) Saving Interest payable to Ministry	-	-
Total (A)	946,717,228.00	890,943,599.00
B) PROVISIONS		
1 For Taxation	-	-
2 Gratuity	21,805,258.00	17,829,999.00
3 Superannuation Pension	-	-
4 Accumulated Leave Encashment	17,393,467.00	12,994,579.00
5 Trade Warranties/ Claims	-	-
6 Others (Specify)	-	-
Total (B)	39,198,725.00	30,824,578.00
Total (A+B)	985,915,953.00	921,768,177.00



National Institute of Technology Sikkim

SCHEDULES FORMING PART OF BALANCE SHEET

Schedule-3A : Sponsored Projects

Amount in Rupees

1 Sl. No.	2 Name of Project	5 Opening Balance		6 Receipts/ Recoveries during the year	7 Total	Expenditure during the year	8 Closing Balance	
		3 Credit	4 Debit				8 Credit	8 Debit
		1	CCBT- Project Fund				736,093.00	
2	Others	295,758.00		-	295,758.00	295,758.00	-	
3	SERB-T Kundu	200,000.00		-	200,000.00	-	200,000.00	
5	IHUB Divyasampark	8,774,023.00		-	8,774,023.00	7,319,907.00	1,454,116.00	
6	Visvesvaraya		317,117.00	-	-317,117.00	-	317,117.00	
7	Meity - CCBT	68.00		71.00	139.00	139.00	-	
8	UDHD Project	73,318.00		-	73,318.00	73,318.00	-	
9	DST - ICPS	2,112.00		48.00	2,160.00	2,160.00	-	
10	NMHS Project		216,181.00	223,473.00	7,292.00	-	7,292.00	
11	NAMPET	611,636.00		1,000,000.00	1,611,636.00	1,611,636.00	-	
12	SERB Project	27,778.00		700,000.00	727,778.00	768,775.00	40,997.00	
13	DRDO Project	19,971.00		403,268.00	423,239.00	403,793.00	19,446.00	
14	DST Project (Dr. Pradeed Kr.)	1,557,880.00		-	1,557,880.00	1,096,823.00	461,057.00	
15	ED & IC Project	45,000.00		421,246.00	466,246.00	273,732.00	192,514.00	
16	SMDP C2SD Project	-		3,501,899.00	3,501,899.00	3,501,899.00	-	
	Total	12,343,637.00	533,298.00	8,223,005.00	20,033,344.00	18,017,714.00	2,373,744.00	

Schedule-3B : Sponsored Fellowship and Scholarships

Amount in Rupees

1 Sl. No.	2 Name of Sponsor	3 Opening Balance as on 01.04.2024		4 Transactions during the year		5 Closing Balance as on 31.03.2025	
		3 Credit	4 Debit	5 Credit	6 Debit	3 Credit	4 Debit
			University Grants Commission Ministry Top Class Scholarship for ST Top Class Scholarship for SC Others Regional states Others (Specify) Total	-	-	-	-



National Institute of Technology Sikkim

SCHEDULES FORMING PART OF BALANCE SHEET

Schedule-3C : Unutilised Grant From UGC, Government of India and State Governments

Amount in Rupees

	Current Year 31.03.2025	Previous Year 31.03.2024
A Plan Grants: Government of India		
Balance B/f	798,683,646.00	-
Add: Receipts during the year	545,100,000.00	1,072,800,000.00
Less: Refund	149.00	3,073,131.00
Less: Utilized for Revenue Expenditure	270,099,851.00	248,796,136.00
Less: Utilized for Capital Expenditure	184,889,488.00	22,247,087.00
Unutilized Carried ForwardTotal (A)	888,794,158.00	798,683,646.00
B UGC Grant: Plan		
Balance B/f	-	-
Add: Receipts during the year	-	-
Less: Refund	-	-
Less: Utilized for Revenue Expenditure	-	-
Unutilized Carried ForwardTotal (B)	-	-
C UGC Grant: Non Plan		
Balance B/f	-	-
Add: Receipts during the year	-	-
Less: Refund	-	-
Less: Utilized for Revenue Expenditure	-	-
Unutilized Carried ForwardTotal (C)	-	-
D Grants from State Govt.		
Balance B/f	-	-
Add: Receipts during the year	-	-
Less: Refund	-	-
Less: Utilized for Revenue Expenditure	-	-
Unutilized Carried ForwardTotal (D)	-	-
Total (A+B+C+D)	888,794,158.00	798,683,646.00



National Institute of Technology Sikkim

SCHEDULES FORMING PART OF BALANCE SHEET

Schedule-4A : Fixed Assets

Sl. No.	Asset Heads	Rate %	GROSS BLOCK		Deductions	Op Balance 31.03.2024	Cl. Balance 31.03.2025	Dep. For the year	Deductions/ Adjustments	NET BLOCK	
			Op Balance 31.03.2024	Additions/ Deletion						Cl. Balance 31.03.2025	As On 31.03.2025
1	Land		1.00			1.00					1.00
2	Site Development		56,491,485.00			56,491,485.00					56,491,485.00
3	Buildings	2%	34,836,595.00			34,836,595.00					34,836,595.00
4	Roads & Bridges	2%	17,366,015.00			17,366,015.00					17,366,015.00
5	Temporary Shed	33%	19,805,702.00			19,805,702.00					19,805,702.00
6	Prefab	20%	149,084,855.00			149,084,855.00					149,084,855.00
7	Tubewells and Water Supply	2%	4,36,809.00			4,36,809.00					4,36,809.00
8	Sewerage and Drainage	2%	51,110,906.00	1,956,860.00		52,067,766.00					52,067,766.00
9	Electrical Installation and Equip	5%	3,342,681.00	132,600.00		3,475,281.00					3,475,281.00
10	Plant and Machinery	8%	106,377,629.00	2,091,700.00		108,469,329.00					108,469,329.00
11	Scientific and Laboratory Equip	7.50%	16,236,043.00	4,26,558.00		16,662,601.00					16,662,601.00
12	Office / Mess Equipment	7.50%	24,280,353.00	2,633,100.00		26,913,453.00					26,913,453.00
13	Audio Visual Equipment	20%	114,274,894.00	21,478,320.00		135,753,214.00					135,753,214.00
14	Computer and Peripherals	7.50%	58,867,832.00	5,47,993.00		59,343,825.00					59,343,825.00
15	Furniture Fixture and Fittings	10%	9,745,356.00	2,737,205.00		12,482,561.00					12,482,561.00
16	Sports Equipments	10%	3,972,990.00			3,972,990.00					3,972,990.00
17	Lib Books & Scientific Journals	40%	32,608,640.00			32,608,640.00					32,608,640.00
18	Vehicle	40%	99,873,663.00			99,873,663.00					99,873,663.00
19	Small Value Assets	100%	677,069,489.00	37,353,448.00	1,887,391.00	712,535,546.00	1,887,391.00	62,867,553.00	1,887,391.00	415,903,204.23	296,632,342.00
20	Capital Work in Progress - Building (New Permanent Campus)		118,992,135.00			118,992,135.00					118,992,135.00
21	Capital Work in Progress - Building (New Permanent Campus)										
22	Capital Work in Progress - Building (New Permanent Campus)		5,237,275.00	24,814,353.00	2,832,000.00	27,219,628.00					27,219,628.00
Total (A)			5,237,275.00	143,806,488.00	2,832,000.00	146,211,763.00					146,211,763.00
23	Computer Software	40%	5,247,447.00	3,502,927.00		8,750,374.00					8,750,374.00
24	E Journals	40%	46,421,945.00	3,058,625.00		49,480,570.00					49,480,570.00
Total (B)			51,669,392.00	6,561,552.00		58,230,944.00					58,230,944.00
Total (A+B+C)			733,976,156.00	187,721,488.00	4,719,391.00	916,978,253.00		67,258,684.00	1,887,391.00	467,547,451.23	449,430,802.00

Fixed Assets Acquired Under TEQIP Project

Sl. No.	Asset Heads	Rate %	GROSS BLOCK		Deductions	Op Balance 31.03.2024	Cl. Balance 31.03.2025	Dep. For the year	Deductions/ Adjustments	NET BLOCK	
			Op Balance 31.03.2024	Additions/ Deletion						Cl. Balance 31.03.2025	As On 31.03.2025
1	Plant and Machinery	5%	89,230.00			89,230.00					89,230.00
2	Scientific and Laboratory Equip	8%	62,017,053.00			62,017,053.00					62,017,053.00
3	Office Equipment	7.50%	1,185,750.00			1,185,750.00					1,185,750.00
4	Computer and Peripherals	20%	3,972,990.00			3,972,990.00					3,972,990.00
5	Computer Software	40%	32,608,640.00			32,608,640.00					32,608,640.00
Total (A)			99,873,663.00			99,873,663.00					99,873,663.00



National Institute of Technology Sikkim

SCHEDULES FORMING PART OF BALANCE SHEET

Schedule-4A : Plan

Sl. No.	Asset Heads	Rate %	GROSS BLOCK		Deductions	Op Balance 31.03.2024	Cl. Balance 31.03.2025	Dep. For the year	Deductions/ Adjustments	NET BLOCK	
			Op Balance 31.03.2024	Additions/ Deletion						Cl. Balance 31.03.2025	As On 31.03.2025
1	Land		1.00			1.00					1.00
2	Site Development		56,491,485.00			56,491,485.00					56,491,485.00
3	Buildings	2%	34,836,595.00			34,836,595.00					34,836,595.00
4	Roads & Bridges	2%	17,366,015.00			17,366,015.00					17,366,015.00
5	Temporary Shed	33%	19,805,702.00			19,805,702.00					19,805,702.00
6	Prefab	20%	149,084,855.00			149,084,855.00					149,084,855.00
7	Tubewells and Water Supply	2%	4,36,809.00			4,36,809.00					4,36,809.00
8	Sewerage and Drainage	2%	51,110,906.00	1,956,860.00		52,067,766.00					52,067,766.00
9	Electrical Installation and Equip	5%	3,342,681.00	132,600.00		3,475,281.00					3,475,281.00
10	Plant and Machinery	8%	106,377,629.00	2,091,700.00		108,469,329.00					108,469,329.00
11	Scientific and Laboratory Equip	7.50%	16,236,043.00	4,26,558.00		16,662,601.00					16,662,601.00
12	Office Equipment	7.50%	24,280,353.00	2,633,100.00		26,913,453.00					26,913,453.00
13	Audio Visual Equipment	20%	114,274,894.00	21,478,320.00		135,753,214.00					135,753,214.00
14	Computer and Peripherals	7.50%	58,867,832.00	5,47,993.00		59,343,825.00					59,343,825.00
15	Furniture Fixture and Fittings	10%	9,745,356.00	2,737,205.00		12,482,561.00					12,482,561.00
16	Sports Equipments	10%	3,972,990.00			3,972,990.00					3,972,990.00
17	Lib Books & Scientific Journals	40%	32,608,640.00			32,608,640.00					32,608,640.00
18	Vehicle	40%	99,873,663.00			99,873,663.00					99,873,663.00
19	Small Value Assets	100%	677,069,489.00	37,353,448.00	1,887,391.00	712,535,546.00	1,887,391.00	62,867,553.00	1,887,391.00	415,903,204.23	296,632,342.00
20	Capital Work in Progress - Building (New Permanent Campus)		118,992,135.00			118,992,135.00					118,992,135.00
21	Capital Work in Progress - Building (New Permanent Campus)										
22	Capital Work in Progress - Building (New Permanent Campus)		5,237,275.00	24,814,353.00	2,832,000.00	27,219,628.00					27,219,628.00
Total (A)			5,237,275.00	143,806,488.00	2,832,000.00	146,211,763.00					146,211,763.00
23	Computer Software	40%	5,247,447.00	3,502,927.00		8,750,374.00					8,750,374.00
24	E Journals	40%	46,421,945.00	3,058,625.00		49,480,570.00					49,480,570.00
Total (B)			51,669,392.00	6,561,552.00		58,230,944.00					58,230,944.00
Total (A+B+C)			733,976,156.00	187,721,488.00	4,719,391.00	916,978,253.00		67,258,684.00	1,887,391.00	467,547,451.23	449,430,802.00



National Institute of Technology Sikkim

SCHEDULES FORMING PART OF BALANCE SHEET

Schedule-4B : Non Plan

Sl. No.	Asset Heads	Rate %	GROSS BLOCK		DEPRECIATION	NET BLOCK	
			Op Balance 31.03.2024	Additions/Deletion		Op Balance 31.03.2024	Deductions/Adjustments
1	Land						
2	Site Development						
3	Buildings						
4	Roads and Bridges						
5	Tubewells and Water Supply						
6	Sewerage and Drainage						
7	Electrical Installation and Equip.						
8	Plant and Machinery						
9	Scientific and Laboratory Equip.						
10	Office Equipment						
11	Audio Visual Equipment						
12	Computer and Peripherals						
13	Furniture Fixture and Fittings						
14	Vehicles						
15	Library Books & Scientific Journals						
16	Small Value Assets						
	Total (A)						
	Total (B)						
18	Computer Software						
19	E- Journals						
20	Patents						
	Total (C)						
	Total (A+B+C)						

Schedule-4C : Intangible Assets

Sl. No.	Asset Heads	Rate %	GROSS BLOCK		DEPRECIATION	NET BLOCK			
			Op Balance 31.03.2024	Additions/Deletion		Op Balance 31.03.2024	Deductions/Adjustments	As On 31.03.2025	As On 31.03.2024
1	Patents & Copyrights								
2	Computer Software	40%	5,247,447.00	3,502,927.00	5,247,446.00	1,401,171.00	6,648,617.00	2,101,757.00	1.00
3	E- Journals	40%	46,421,945.00	3,058,625.00	42,005,670.00	2,989,960.00	44,995,630.00	4,484,940.00	4,416,275.00
	Total (A)	40%	51,669,392.00	6,561,552.00	47,253,116.00	4,391,131.00	51,644,247.00	6,586,697.00	4,416,276.00



National Institute of Technology Sikkim

SCHEDULES FORMING PART OF BALANCE SHEET

Schedule-4C (i): Patents and Copyrights

Sl. No	Particulars	Op Balance 31.03.2024	Additions	Gross Amortization	Net Block 31.03.2025	Net Block 31.03.2024
A	Patents Granted					
1	Balance as on 31.03.2023 of patents obtained in (Original value Rs.....)					
2	Balance as on 31.03.2023 of patents obtained in (Original value Rs.....)					
3	Balance as on 31.03.2023 of patents obtained in (Original value Rs.....)					
4	Patents granted during the Current Year					
	Total (A)					

Schedule-4C (i): Patents and Copyrights

Sl. No	Particulars	Op Balance 31.03.2024	Additions	Gross Amortization	Net Block 31.03.2025	Net Block 31.03.2024
B	Patents pending in respect of Patents applied for					
1	Expenditure incurred during					
2	Expenditure incurred during					
3	Expenditure incurred during					
	Total (A)					
	Grand Total (A+B)					



National Institute of Technology Sikkim

SCHEDULES FORMING PART OF BALANCE SHEET

Schedule-4D : Non Plan

Sl. No.	Asset Heads	Rate %	GROSS BLOCK		DEPRECIATION	NET BLOCK	
			Op Balance 31.03.2024	Additions/Deletion		Op Balance 31.03.2024	As On 31.03.2025
1	Land						
2	Site Development						
3	Buildings						
4	Roads and Bridges						
5	Tubewells and Water Supply						
6	Sewerage and Drainage						
7	Electrical Installation and Equip.						
8	Plant and Machinery						
9	Scientific and Laboratory Equip.						
10	Office Equipment						
11	Audio Visual Equipment						
12	Computer and Peripherals						
13	Furniture Fixture and Fittings						
14	Vehicles						
15	Library Books & Scientific Journals						
16	Small Value Assets						
	Total (A)						
17	Capital Work in Progress						
	Total (B)						



National Institute of Technology Sikkim

SCHEDULES FORMING PART OF BALANCE SHEET

Schedule-5: Investments from Earmarked Endowment Funds

	Amount in Rupees	
	Current Year 31.03.2025	Previous Year 31.03.2024
1 In Central Government Securities		
2 In State Government Securities		
4 Other Approved Securities		
3 Shares		
4 Debenture and Bonds		
5 Term Deposit with Banks		
6 Others (to be Specify)		
Total (A+B+C+D)	-	-

Schedule-5A: Investments from Earmarked Endowment Funds (Fund Wise)

	Amount in Rupees	
	Current Year 31.03.2025	Previous Year 31.03.2024
1		
2		
4		
3		
4		
5		
Endowment Fund Investments		
Total	-	-

Schedule-6: Investments-Others

	Amount in Rupees	
	Current Year 31.03.2025	Previous Year 31.03.2024
1 In Central Government Securities		
2 In State Government Securities		
4 Other Approved Securities		
3 Shares		
4 Debenture and Bonds		
5 Term Deposit with Banks		
6 Others (to be Specify)		
Total	-	-



National Institute of Technology Sikkim

SCHEDULES FORMING PART OF BALANCE SHEET

Schedule-7: Current Assets

	Amount in Rupees	
	Current Year	Previous Year
	31.03.2025	31.03.2024
1 Stock		
a) Stores and Spares	-	-
b) Loose Tools	-	-
c) Publications	-	-
d) Laboratory Chemicals, Comumables and glassware	-	-
e) Building Materials	908,547.00	907,985.00
f) Electrical Material	-	-
g) Stationery	-	-
h) Water supply Material	-	-
i) Medicines	140,041.00	246,963.00
2 Sundry Debtor		
a) Debts outstanding for a period of six months	115,005.00	45,779.00
b) Others	2,390,982.00	2,066,634.00
3 Cash and Bank Balances		
a) With Scheduled Banks		
- In current account	17,120,465.00	16,467,635.00
- In term deposit account	184,176,429.00	132,039,225.00
- In savings account	32,890,629.00	62,251,785.00
- Grant in Transit	-	-
b) With Non-Scheduled Banks		
- In term deposit account	-	-
- In savings account	-	-
c) Cash in hand	50,000.00	50,000.00
4 Post Office Savings Account		
	-	-
Total	237,792,098.00	214,076,006.00



National Institute of Technology Sikkim

SCHEDULES FORMING PART OF BALANCE SHEET

Annexure-A

	Amount in Rupees	
	Current Year	Previous Year
	31.03.2025	31.03.2024
I) Saving Account		
1 Grants from MHRD A/c	-	-
2 University receipts A/c	31,266,310.00	55,391,222.00
3 Scholarship A/c		
4 Academic Fee Receipt A/c	32,184.00	31,665.00
5 Development (Plan) A/c		
6 Combined Entrance Exams (CBT) A/c		
7 UGC Plan fellowship A/c		
8 Corpus Fund A/c (EMF)		
9 Sponsored Projects Fund A/c	426,076.00	24,926.00
10 Sponsored Fellowship A/c		
11 Endowment & Chair A/c (EMF)		
12 UGC JRF Fellowship A/c (EMF)		
13 HBA Fund A/c (EMF)		
14 Conveyance A/c (EMF)		
15 UGC Rajiv Gandhi National Fellowship A/c (EMF)		
16 Academic Development Fund A/c (EMF)		
17 Deposit A/c (Designated fund)		
18 Student Fund A/c	1,166,059.00	6,803,972.00
19 Student Aid Fund A/c		
20 CPF Account	-	-
II) Current Account	17,120,465.00	16,467,635.00
III) Term Deposit with Schedule Banks	184,176,429.00	134,794,884.00
	234,187,523.00	213,514,304.00



National Institute of Technology Sikkim

SCHEDULES FORMING PART OF BALANCE SHEET

Schedule-8: Loans, Advances and Deposits

	Amount in Rupees	
	Current Year	Previous Year
	31.03.2025	31.03.2024
1 Advances to Employees (Non Interest Bearing)		
a) Salary		
b) Festival		
c) Medical Advance		
d) Leave Travel Concession	-	-
e) Others (Specify)	53,736.00	65,707.00
2 Long Term Advances to Employees (Interest Bearing)		
a) Vehicle Loan		
b) Home Loan		
c) Others (Specify)		
3 Advances and other amounts recoverable in cash or In kind or for value to be received		
a) On Capital Account - NBCC	888,118,026.00	804,373,646.00
- CPWD	5,690,000.00	-
b) To Suppliers	10,000.00	10,000.00
c) NIT Calicut	118,150.00	118,150.00
c) Tax Deducted at Sources	85,631.00	95,268.00
d) ATAL FDP	100,000.00	-
e) Uncleared Cheques / Excess TDS Recovery	81,250.00	6,781.00
4 Prepaid Expenses		
a) Insurance		
b) Other Expenses (Annual Maintenance Charge)	-	-
5 Deposits		
a) Telephone		
b) Lease Rent		
c) Electricity		
d) AICTE, if applicable		
f) Others (Specify)		
6 Income Accrued		
a) On investments from Earmarked/ Endowment fund		
b) On Investments-Others	3,995,243.00	6,221,833.00
c) On Loans and Advances		
d) Others (Includes income due unrealized)		
7 Other-Current assets receivable from UGC /sponsored projects		
a) Debit balances in sponsored Projects	358,114.00	533,298.00
b) Debit balances in sponsored Fellowship and Scholarship		
c) Grants receivable		
d) Other receivable froms from UGC		
8 Claims Receivables		
Total	898,610,150.00	811,424,683.00



National Institute of Technology Sikkim

SCHEDULES FORMING PART OF BALANCE SHEET

Schedule-9: Academic Receipts

	Amount in Rupees	
	Current Year	Previous Year
	31.03.2025	31.03.2024
Fees From Students		
A) Academics		
1 Tuition Fee	27,483,862.00	18,131,395.00
2 Admission Fee	148,779.00	138,803.00
3 Student Welfare Fees	72,567.00	-
4 Library Fee	1,312,783.00	1,188,331.00
5 Laboratory Fee	1,526,993.00	1,086,631.00
6 Summer Course Fee	335,000.00	-
7 Registration Fee	674,327.00	411,683.00
Total (A)	31,554,311.00	20,956,843.00
B) Examination		
1 Admission Fee	-	-
2 Annual Examination Fee	1,296,912.00	1,003,077.00
3 Marksheet, Certificate Fee	53,260.00	-
Total (B)	1,350,172.00	1,003,077.00
C) Other Fees		
1 Identity Card Fee	-	-
2 Fines/ Miscellaneous fees	27,778.00	61,420.00
3 Medical Fee	504,416.00	609,528.00
4 Training & Placement Fees	683,596.00	473,168.00
5 Hostel Fee	9,186,256.00	8,909,000.00
6 Bus Fees	475,839.00	371,060.00
7 Hostel Admission Fee	98,500.00	69,000.00
Total (C)	10,976,385.00	10,493,176.00
D) Other Fees		
1 Sale of Publication	-	-
2 Sale of Admission Form	-	-
3 Sale of syllabous, Question paper,etc	-	-
4 Sale of prospectus including admission form	-	-
Total (D)	-	-
E) Other Academic Receipts		
1 Late Fine & Verification Fees	176,251.00	257,901.00
2 Grade Card Fee	271,311.00	205,862.00
3 Development Fee	2,409,152.00	1,962,988.00
4 Mess Establishment Fee	147,750.00	121,500.00
5 Student Activity Fee	1,275,464.00	1,138,769.00
6 Convocation	258,011.00	214,266.00
7 Insurance Charges	771,838.00	548,484.00
8 Internet Fee	768,661.00	547,562.00
9 Others	40,000.00	87,657.00
Total (E)	6,118,438.00	5,084,989.00
Total (A to E)	49,999,306.00	37,538,085.00



National Institute of Technology Sikkim

SCHEDULES FORMING PART OF BALANCE SHEET

Schedule-10: Grants/ Subsidies (Irrecoverable Grant Received)

Amount in Rupees

Particulars	PLAN			Total Plan	Non Plan UGC	Current Year	Previous Year
	Govt. of	UGC					
	India	Plan	Specific Schemes				
Balance B/f	798,683,646.00	-	-	798,683,646.00	-	798,683,646.00	-
Add: Receipts during the year	545,100,000.00	-	-	545,100,000.00	-	545,100,000.00	1,072,800,000.00
Total	1,343,783,646.00	-	-	1,343,783,646.00	-	1,343,783,646.00	1,072,800,000.00
Less: Refund to MOE	149.00	-	-	149.00	-	149.00	3,073,131.00
Balance	1,343,783,497.00	-	-	1,343,783,497.00	-	1,343,783,497.00	1,069,726,869.00
Less: Utilized for Capital Exp.(B)							
Temporary Campus	43,915,000.00	-	-	43,915,000.00	-	43,915,000.00	22,247,087.00
New Campus - Khamdong	140,974,488.00	-	-	140,974,488.00	-	140,974,488.00	-
Balance	1,158,894,009.00	-	-	1,158,894,009.00	-	1,158,894,009.00	1,047,479,782.00
Less: Utilized for Revenue							
Expenditure (B)	270,099,851.00	-	-	270,099,851.00	-	270,099,851.00	248,796,136.00
Balance C/f (C)	888,794,158.00	-	-	888,794,158.00	-	888,794,158.00	798,683,646.00

Schedule-11: Income from Investments

Amount in Rupees

Particulars	Earmarked/Endowment Fund		Other Investments	
	Current Year	Previous Year	Current Year	Previous Year
1. Interest				
a) Government Securities				
b) Other Bonds / Debentures				
2. Interest on Term Deposits	-	-	5,742,321.00	265,216.00
3. Income accrued but not due on Term Deposits/ interest bearing advance to employees	-	-	3,995,243.00	6,233,080.00
4. Interest on Savings Bank Accounts	-	-	-	-
5. Others (Interest on IT Refund)	-	-	-	30,617.00
	-	-	9,737,564.00	6,528,913.00
Transferred to Earmarked/ Endowment Fund				
Balance			9,737,564.00	6,528,913.00

Schedule-12: Interest Earned

Amount in Rupees

	Current Year	Previous Year
1. On Savings Account with schedule bank	391,784.00	239,655.00
2. On Loans		
a) Employees / Staff	-	-
b) Others	-	-
3. Other Debtors and Other Receivables	-	-
Balance	391,784.00	239,655.00



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SCHEDULES FORMING PART OF BALANCE SHEET

Schedule-13: Other Income

Amount in Rupees

Particulars	Current Year	Previous Year
A Income from Land and Building		
1 Hostel Room Rent	-	-
2 License Fee	72,740.00	69,150.00
3 Hire Charges of Auditorium/ playground /convention centre etc.	-	-
4 Electricity Charges recovered	610,592.00	332,142.00
5 OPS recovered	1,000,800.00	-
Total (A)	1,684,132.00	401,292.00
B Sale of Institute's publications	-	-
Total (B)	-	-
C Income from Holding Events		
1 Gross receipts from annual function/ sports carnival	-	-
Less: direct expenditure incurred on the annual function /sports carnival	-	-
2 Gross receipts from fetes	-	-
Less: Direct expenditure incurred on the fetes	-	-
3 Gross receipts for Educational Tour	-	-
Less: Direct expenditure incurred on the tours	-	-
4 Others. (Students contribution)	-	-
Total (C)	-	-
D Others		
1 Income from Consultancy	1,590,322.00	-
2 RTI Fees	-	-
3 Income from Royalty	-	-
4 Sale of application form (Recruitment)	-	321,025.00
5 Misc. Receipts (Sale of tender form, waster paper, etc)	-	-
6 Profit on sale/ disposal of Assets		
a) Owned Assets	-	-
b) Assets received free of cost	-	-
7 Grants/ Donations from institutions, welfare bodies and International organizations.	-	-
8 Recovery of Salary	96,756.00	348,969.00
9 PHD Enrollment Fees	-	108,655.00
10 Tender Fees	-	125,000.00
11 Guest House Charges	30,672.00	-
12 Fines & Penalties	2,700.00	151,960.00
13 Other Income	41,514.00	25,013.00
14 Sale of Scrap	-	-
15 Overheads from Project	936,218.00	182,086.00
Total (D)	2,698,182.00	1,262,708.00
Grand Total (A to D)	4,382,314.00	1,664,000.00



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SCHEDULES FORMING PART OF BALANCE SHEET

Schedule-14: Prior Period Income

	Amount in Rupees	
	Current Year	Previous Year
1 Academic Receipts	-	-
2 Income from Investments	-	-
3 Project Income	295,758.00	-
4 Other Income	239,516.00	2,781,887.00
5 Reversal of Cheques	-	-
6 Recovery of HRA	-	-
Total	535,274.00	2,781,887.00

Schedule-15: Staff Payments and Benefits (Establishment Expenses)

Particulars	Amount in Rupees					
	CURRENT YEAR			PREVIOUS YEAR		
	Plan	Non Plan	Total	Plan	Non Plan	Total
a) Salaries and Wages	93,367,808.00	93,367,808.00	84,339,479.00	84,339,479.00		
b) Allowances and Bonus	48,854,535.00	48,854,535.00	36,833,210.00	36,833,210.00		
c) Contribution to Provident Fund	-	-	-	-		
d) Contribution to other fund (NPS)	14,612,978.00	14,612,978.00	11,428,611.84	11,428,611.84		
e) EL Encashment	5,617,556.00	5,617,556.00	683,612.00	683,612.00		
f) Retirement and terminal benefits	5,720,181.00	5,720,181.00	8,698,795.00	8,698,795.00		
g) LTC Facility	2,466,593.00	2,466,593.00	2,412,011.00	2,412,011.00		
h) Medical Facility	3,045,139.00	3,045,139.00	1,206,216.00	1,206,216.00		
i) Children Education Allowance	2,050,869.00	2,050,869.00	621,000.00	621,000.00		
j) Honarium	99,400.00	99,400.00	277,400.00	277,400.00		
k) Transport Allowance	3,682,438.00	3,682,438.00	3,152,230.00	3,152,230.00		
l) Arrear	1,129,041.00	1,129,041.00	1,830,510.00	1,830,510.00		
m) CPDA to Faculties	597,071.00	597,071.00	281,543.00	281,543.00		
Total	181,243,609.00	181,243,609.00	151,764,617.84	151,764,617.84		



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SCHEDULES FORMING PART OF BALANCE SHEET

Schedule-15A: Employees Retirement and Terminal Benefits

Particulars	Amount in Rupees			
	Pension	Gratuity	Leave Eacashment	Total
Opening Balance as on 01.04.2024		17,829,999.00	12,994,579.00	30,824,578.00
Add: Capiltized value of contributions received from other Organizations		-	-	-
Total (A)		17,829,999.00	12,994,579.00	30,824,578.00
Less: Payments made during the year		-	-	-
Balance available as on 31.03.2025	21,805,258.00		17,393,467.00	39,198,725.00
Provisions required on 31.03.2025 as per actual valuation	3,975,259.00		4,398,888.00	8,374,147.00
A. Provision to be made in the current year				-
B. Contribution to New Pension Scheme	14,612,978.00			14,612,978.00
C. Medical reimbursement to retired employees				-
D. Travel to hometown retirement				-
E. Deposit Link Insurance payment				-
Total (A+B+C+D+E)	14,612,978.00	3,975,259.00	4,398,888.00	62,185,850.00

Schedule-16: Academic Expenses

Particulars	Amount in Rupees					
	CURRENT YEAR			PREVIOUS YEAR		
	Plan	Non Plan	Total	Plan	Non Plan	Total
a) Laboratoy Expenses	583,105.00		583,105.00	599,776.00		599,776.00
b) Curriculum Development Workshop Expenses	16,173.00		16,173.00	171,010.00		171,010.00
c) Expenses on Seminars/ Workshops	108,985.00		108,985.00	552,096.00		552,096.00
d) Payment to visiting faculty	913,796.00		913,796.00	1,897,001.00		1,897,001.00
e) Examination Cell Expenses	191,405.00		191,405.00	139,200.00		139,200.00
f) Student Medical Insurance	689,197.00		689,197.00	605,399.00		605,399.00
g) Computer Centre Expenses	41,226.00		41,226.00			
h) Convocation Expenses	1,198,513.00		1,198,513.00	1,679,271.00		1,679,271.00
i) Publications & Subscription Expenses	19,500.00		19,500.00	55,245.00		55,245.00
j) Stipned/means-cum merit scholarship / PHD Scholarship						
k) Udgam Expenses	949,399.00		949,399.00			
l) Gate Application Fees	90,500.00		90,500.00			
m) Acamedic Expenses	562,050.00		562,050.00	106,605.00		106,605.00
n) Sporting Activities						
o) M.Tech / PHD Fellowship	33,204,362.00		33,204,362.00	30,513,665.00		30,513,665.00
p) Library Expenses	23,836.00		23,836.00			
q) Cultural Activities	1,051,633.00		1,051,633.00	1,201,094.00		1,201,094.00
r) Registration Charges	83,474.00		83,474.00	205,268.00		205,268.00
s) Traning & Placement	28,112.00		28,112.00	101,340.00		101,340.00
t) PHD Scholar Contingency Expenses	336,824.00		336,824.00			
u) Other Miscellaneous Academic Expenses				39,308.00		39,308.00
Total	40,092,090.00	40,092,090.00	40,092,090.00	37,866,278.00	37,866,278.00	37,866,278.00



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SCHEDULES FORMING PART OF BALANCE SHEET

Schedule-17: Administrative and General Expenses

Amount in Rupees

Particulars	CURRENT YEAR			PREVIOUS YEAR		
	Plan	Non Plan	Total	Plan	Non Plan	Total
A) Infrastructure			-			-
a) Electricity and power	2,542,318.00		2,542,318.00	1,974,990.00		1,974,990.00
b) Water charges	5,580.00		5,580.00	6,120.00		6,120.00
c) Insurance	-		-	-		-
d) Rent, rates and taxes (including property tax)	2,986,360.00		2,986,360.00	2,967,760.00		2,967,760.00
B) Communication			-			-
e) Postage and stationery	-		-	704,810.00		704,810.00
f) Telephone, fax and Internet charges	4,192,495.00		4,192,495.00	4,646,727.00		4,646,727.00
C) Others			-			-
g) Printing and Stationery (Consumption)	537,208.00		537,208.00			-
h) Travelling and Conveyance Expenses	3,321,720.00		3,321,720.00	2,986,442.00		2,986,442.00
i) Hospitality	587,127.00		587,127.00	490,954.00		490,954.00
j) Auditors Remuneration	378,960.00		378,960.00	610,960.00		610,960.00
k) Annual Maintenance Charges	618,064.00		618,064.00	905,280.00		905,280.00
l) Advertisement and Publicity	-		-	49,195.00		49,195.00
m) BWC Meeting	176,000.00		176,000.00	115,000.00		115,000.00
n) Office Expenses	10,018,365.00		10,018,365.00	10,567,909.00		10,567,909.00
o) Honorarium to Outside Experts	-		-	-		-
p) Campus Maintenance and House keeping	23,700,133.00		23,700,133.00	24,342,537.00		24,342,537.00
q) Gardening & Landscape	-		-	-		-
r) Security Services and Others	4,018,040.00		4,018,040.00	3,512,348.00		3,512,348.00
s) Community Development	-		-	-		-
t) Medical Centre Expenses	1,450,072.00		1,450,072.00	1,441,034.00		1,441,034.00
u) Computer Centre Expenses	-		-	-		-
v) Recruitment Expenses	319,459.00		319,459.00	1,934,070.00		1,934,070.00
w) BOG & FC Meeting	594,177.00		594,177.00	591,328.00		591,328.00
x) Miscellaneous Expenses	65,996.00		65,996.00	-		-
Total	55,512,074.00		55,512,074.00	57,847,464.00		57,847,464.00



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SCHEDULES FORMING PART OF BALANCE SHEET

Schedule-18: Transportation Expenses

Amount in Rupees

Particulars	CURRENT YEAR			PREVIOUS YEAR		
	Plan	Non Plan	Total	Plan	Non Plan	Total
1 Vehicles (Owned by Institutions)			-			-
a) Running Expenses	1,454,928.00		1,454,928.00	1,319,968.00		1,319,968.00
b) Insurance Expenses	93,503.00		93,503.00	149,657.00		149,657.00
2 Vehicles taken on rent/ lease			-			-
a) Rent/lease expenses	-		-	-		-
3 Vehicle (taxi) hiring expenses	-		-	-		-
Total	1,548,431.00		1,548,431.00	1,469,625.00		1,469,625.00

Schedule-19: Repairs and Maintenance

Amount in Rupees

Particulars	CURRENT YEAR			PREVIOUS YEAR		
	Plan	Non Plan	Total	Plan	Non Plan	Total
a) Buildings	8,654,461.00		8,654,461.00	8,448,723.00		8,448,723.00
b) Furniture and Fixtures	9,600.00		9,600.00	115,478.00		115,478.00
c) Plant and Machinery	-		-	-		-
d) Office / Mess Equipments	216,153.00		216,153.00	183,966.00		183,966.00
e) Network/Internet	-		-	-		-
f) Construction and Maintenance of Campus	-		-	-		-
g) Audio visual equipments	-		-	-		-
h) Cleaning materials and services	-		-	-		-
i) Book binding charges	-		-	-		-
j) Gardening	-		-	-		-
k) Estate Maintenance	-		-	-		-
l) Software Maintenance / Support	73,185.00		73,185.00	23,600.00		23,600.00
m) Road & Connection repairs	-		-	-		-
n) Electrical Maintenance	209,848.00		209,848.00	914,071.00		914,071.00
o) Vehicle Maintenance	826,695.00		826,695.00	599,344.00		599,344.00
Total	9,989,942.00		9,989,942.00	10,285,182.00		10,285,182.00



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SCHEDULES FORMING PART OF BALANCE SHEET

Schedule-20: Finance Costs

Amount in Rupees

Particulars	CURRENT YEAR			PREVIOUS YEAR		
	Plan	Non Plan	Total	Plan	Non Plan	Total
a) Bank Charges	19,320.00	-	19,320.00	27,118.00	-	27,118.00
b) Others (specify)	-	-	-	-	-	-
Total	19,320.00	-	19,320.00	27,118.00	-	27,118.00

Schedule-21: Other Expenses

Amount in Rupees

Particulars	CURRENT YEAR			PREVIOUS YEAR		
	Plan	Non Plan	Total	Plan	Non Plan	Total
a) Provision for Bad and Doubtful Debts/Adv.	-	-	-	-	-	-
b) Irrecoverable balances written off.	-	-	-	-	-	-
c) Grants/Subsidies to other institutions organisations	-	-	-	-	-	-
d) Others (specify)	-	-	-	-	-	-
Total	-	-	-	-	-	-

Schedule-22: Prior Period Expenses

Amount in Rupees

Particulars	CURRENT YEAR			PREVIOUS YEAR		
	Plan	Non Plan	Total	Plan	Non Plan	Total
1 Establishment Expenses	-	-	-	-	-	-
2 Academic Expenses	-	-	-	-	-	-
3 Administrative Expenses	-	-	-	-	-	-
4 Caution Deposit	-	-	-	-	-	-
5 Repairs and Maintenance	-	-	-	-	-	-
6 Other Expenses	-	-	-	400,244.00	-	400,244.00
7 Reversal of Cheques	-	-	-	-	-	-
Total	-	-	-	400,244.00	-	400,244.00



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Schedule-23: Significant Accounting Policies

1. The accounts are prepared under Historical Cost Convention unless otherwise stated and generally on the accrual method of accounting.

2. REVENUE RECOGNITION

2.1 Fees from students (Except tuition fee and hostel fee), sales of admission forms, royalty and interest on savings bank account are accounted for on cash basis. Tuition fees and hostel fees collected separately for each semester is accounted for on accrual basis and tuition fees and hostel fee received in advance as on 31st March 2025 has been shown under the head advances as a liability.

2.2 Interest on interest bearing advances to staff for House Building, Purchase of vehicles and computers is accounted on accrual basis every year, though the actual recovery of interest starts after the full repayment of principle.

3. FIXED ASSETS AND DEPRECIATION.

3.1 Fixed assets are stated at cost of acquisition including inward freight, duties and taxes and incidental and direct expenses related to acquisition, installation and commissioning.

3.2 Gifts / donated assets are valued at the declared value where available; if not available, the value is estimated based on the present market value adjusted with reference to the physical condition of the assets. They are set up by credit to Capital Fund and merged with the Fixed Asset on the Institution. Depreciation is charged as rates applicable to the respective assets.

3.3 Fixed Assets are valued at cost less accumulated depreciation. Depreciation on fixed assets is provided on Straight line method at the following rates:-

Sl. No	TANGIBLE ASSETS	RATE
1	Land	0%
2	Site Development	0%
3	Buildings	2%
4	Roads and Bridges	2%
5	Tube wells and Water supply	2%
6	Sewerage and Drainage	2%
7	Electrical Installation and Equip.	5%
8	Plant and Machinery	5%
9	Scientific and Laboratory Equip.	8%
10	Office Equipment	7.5%
11	Audio Visual Equipment	7.5%
12	Computer and Peripherals	20%
13	Furniture Fixture and Fittings	7.5%
14	Sports Equipment's	10%
15	Library Books & Scientific Journals	10%

Sl. No	INTANGIBLE ASSETS (AMORTIZATION)	RATE
1	E. Journals	40%
2	Computer Software	40%
3	Patents	9 years

3.4 Depreciation is provided for the whole year on additions during the year.

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3.5 Where an asset is fully depreciated, it will be carried at a residual value of Re 1 in the Balance Sheet and will not be further depreciated. Thereafter depreciation is calculated on the additions of each year separately at the rate of depreciation applicable for the asset head.

3.6 Assets created out of Earmarked fund and funds Sponsored Projects, where the ownership of such assets vests in the Institutions are setup by credit to Capital Fund and merged with Fixed Assets of the Institutions. Depreciation is charged at the rates applicable to the respective rates. Assets created out of sponsored project funds where the ownership is retained by the sponsors but held and used by the Institution are separately disclosed in the Notes on Accounts.

3.7 Assets, the individual value of each of which is Rs 2,000.00 or less (except Library Books) are treated as Small Value Assets, 100% depreciation is provided in respect of such assets at the time of their acquisition. However, the holders of such assets continue physical accounting and control.

4. INTANGIBLE ASSETS:-

4.1 Patents and copyrights, E Journals and Computer Software are grouped under Intangible Assets.

4.2 Electronic Journals (E-Journals) are separated from Library Books in view of the limited benefit that could be derived from the provided. E-journals are not in a tangible form, but temporarily capitalized and in view of the magnitude of expenditure and the benefit derived in terms of perpetual knowledge acquired by the Academic and Research Staff; Depreciation is provided in respect of E-journals at a higher rate of 40% as against depreciation of 10% provided in respect of Library Books.

4.3 Expenditure on acquisition of software has been separated from computers and peripherals, as apart from being intangible of obsolescence in respect of these is very high. Depreciation is provided in respect of software at a higher rate of 40% as against depreciation of 20% provided in respect of Computers & Peripherals.

5. STOCKS:

Expenditure on purchase of chemicals, glassware, publications and other stores is accounted as revenue expenditure. The closing stock as on 31st March 2025 is Rs. 10,48,588.00

6. RETIREMENT BENEFITS

Retirement benefits i.e., New Pension Scheme has been adopted by the Institute for all its regular employees. The director is on deputation from MNIT Jaipur, his retirement benefits are paid to MNIT Jaipur as, and when the MNIT Jaipur makes the demand.

7. EARMARKED/ENDOWMENT FUNDS

Funds received for specific purposes have been kept as Earmarked funds. The Receipt and Expenditure are accounted for on cash basis. The unspent balance is kept in the bank account.

7.1 CORPUS/ CAPITAL FUND

The Institute maintains a Corpus Fund & Capital Fund. The Capital Fund is made up of the value of grants utilized for the procurement of fixed assets during the year and reduced by depreciation charged on the assets over the period. Corpus Fund is made up of excess of income over expenditure as on 31st March i.e. it mainly represents the unutilised Internal Revenue Generation (IRG) of the Institute and other contribution towards the corpus of the Institute.

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8. ENDOWMENT FUNDS

There is no endowment fund maintained by the Institute.

9. GOVERNMENT AND UGC GRANTS

9.1 Government Grants and UGC grants are accounted on realization basis. However, a sanction for release of grant pertaining to the financial year is received before 31st March and the grant is actually received in next financial year, the grant is accounted on Cash basis and recognised to the extent utilised during the year. The balance of unutilised grant of Rs. 149.00 in RBI account as on 31st March 2025 is lapsed and reverted to the ministry.

9.2 To the extent utilized towards capital expenditure, (on accrual basis) government grants and grants from UGC are transferred to the Capital Fund.

9.3 Government and UGC grants for meeting Revenue Expenditure (on accrual basis) are treated, to the extent utilized, as income of the year in which they are realized.

Unutilized grants (including advances paid out of such grants) are carried forward and exhibited as liability in the Balance Sheet.

10. INVESTMENTS OF EARMARKED FUNDS AND INTEREST INCOME ACCRUED

To the extent not immediately required for expenditure, the amounts available against such funds are deposited for fixed term with Banks, leaving the balance in the Savings Bank Accounts

Interest received, interest accrued and due and interest accrued but not due on such funds are not treated as income of the Institution.

11. SPONSORED PROJECTS

11.1 In respect of ongoing Sponsored Projects, the amounts received from sponsored are credited to the head "Current Liabilities and Provisions -Current Liabilities -Other Liabilities -Receipts against ongoing sponsored projects" As and when expenditure is incurred /advances are paid against such projects, or the concerned project is debited with allocated overhead charges, the liability account is debited.

11.2 In addition to the Earmarked Fund for the Junior Research Fellowships funded by University Grants Commission, Fellowships and Scholarships are also sponsored by various organizations. These are accounted in the same way as Sponsored Projects except that the expenditure generally is only on disbursement of Fellowship and Scholarships, which may include allowances for contingent expenditure by the Fellows and scholars.

11.3 The Institution itself also awards Fellowships and Scholarships, which are accounted as Academic expenses.

12. INCOME TAX

The income of the Institution is exempt from Income Tax under Section 10(23c) (iiiab), no provision of tax is therefore made in the accounts.



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Schedule-24: Notes To Accounts

1. The 'National Institute of Technology Sikkim' was formed by way of an Act passed by Parliament titled "The National Institutes of Technology Act 2009".

The Financial Statements has been prepared based on the 'format of financial statements for central higher educational institutions' as has been provided by the Ministry of Human Resource Development Department, Government of India.

2. TAXATION:

The University is exempt from payment of income tax as per the provision of Section 10(23C)(iiiab) of the Income Tax Act, 1961.

3. FIXED ASSETS:

- 3.1 Fixed assets are stated at cost of acquisition including inward freight, duties and taxes and incidental and direct expenses related to acquisition, installation and commissioning.
- 3.2 Capital Expenditure incurred on renovation and construction of new building and structures has been done on land provided by the State Government for the temporary campus. The ownership of such land is with the State Government.
- 3.3 Minor renovation and alterations carried out in the temporary campus has been booked as repairs and maintenance and charged to the Income and Expenditure account.

4. DEPRECIATION:

- 4.1 Depreciation on fixed assets is provided on Straight line method at the following rates:-

Sl. No	TANGIBLE ASSETS	RATE
1	Land	0%
2	Site Development	0%
3	Buildings	2%
4	Roads and Bridges	2%
5	Tube wells and Water supply	2%
6	Sewerage and Drainage	2%
7	Electrical Installation and Equip.	5%
8	Plant and Machinery	5%
9	Scientific and Laboratory Equip.	8%
10	Office Equipment	7.5%
11	Audio Visual Equipment	7.5%
12	Computer and Peripherals	20%
13	Furniture Fixture and Fittings	7.5%
14	Sports Equipment's	10%
15	Library Books & Scientific Journals	10%

Sl. No	INTANGIBLE ASSETS (AMORTIZATION)	RATE
1	E. Journals	40%
2	Computer Software	40%
3	Patents	9 years

- 4.3 Depreciation is provided for the whole year on additions during the year.

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- 4.4 Assets, the individual vale of each of which is Rs 2,000.00 or less (except Library Books) are treated as Small Value Assets, 100% depreciation is provided in respect of such assets at the time of their acquisition.

- 4.5 The institute has fabricated Temporary Shed whose life expectancy is for three years since the institute is functioning from a temporary campus thus the assets has not been capitalised into additions of Buildings. Accordingly depreciation at rate 33% per annum is charged.

- 4.6 The institute has built Prefab buildings whose life expectancy is for five years since the institute is functioning from a temporary campus thus the assets has not been capitalised into additions of Buildings. Accordingly depreciation at rate 20% per annum is charged.

- 4.7 Under the project Technical Education Quality Improvement Programme (TEQIP) the institute has procured assets worth Rs. 9,98,73,663.00 The asset has been taken into the assets of the institute after charging the depreciation and corresponding creating the Capital Fund Fixed Assets under the Corpus Fund head. The value of assets credited under Capital Fund and Fixed Assets after charging deprecation as on 31st March 2025 is Rs. 3,33,15,885/-

- 4.8 The value of capital assets procured out of sponsored projects is Rs 93.61 lakhs as on 31st March 2025 of which the ownership is yet to be transferred to the Institute.

5. CAPITAL COMMITMENT:

The Institute has entered into a MoU with NBCC (India) Ltd in March 2025 for Project Management Consultancy for the construction of permanent campus of NIT Sikkim at Khamdong, Gangtok District. The Estimate for the value of woks to be executed under the MoU is Rs 560 crores.

6. CONTINGENT LIABILITY:

A demand of Rs 1.67 crore has been received from CPWD for pending deposits towards works executed at the Institute in the previous years. No such demand was received in the last 5 years and the works have been capitalised in the Accounts of the Institute as per the expenditure stated in the MPR. The demand is under review by the Estate section of the Institute.

7. PROJECT ACCOUNTS:

The project accounts have been shown in the schedules to the Financial Statements and the balance as on 31st March 2025 of each project is taken into consideration under current liabilities.

8. CURRENT ASSETS, LOANS, ADVANCES AND DEPOSITS:

In the opinion of the Management, the current assets, Loans, Advances and Deposits have a value on realisation in the ordinary course, equal at least to the aggregate amount shown in the Balance Sheet.

Advance paid to NBCC Ltd. amounting to Rs. 88,81,18,026.00 after adjustment of running bills is against the capital advance for construction of New Campus at Khamdong, Gangtok. Further the said amount has been kept in sweep deposit and an interest of Rs. 5,54,89,999/- has been accrued on the said deposit as o 31st March 2025.

9. Schedules I to 24 are annexed to and forms an integral part of the Balance Sheet at 31st March 2025 and the Income and Expenditure account for the year ended on that date.

10. RE-GROUPING:

Previous years' figures have been re-grouped and re-arranged wherever necessary.



National Institute of Technology Sikkim

NPS TIER-I ACCOUNTS

Balance Sheet as at March 31,2025

		Amount in Rupees	
Amount	Liabilities	Amount	Amount Assets
	NPS Tier-I Account		NPS Tier-I Account
	Opening Balance	1,861,803.23	Subscription and Contribution due for 3/25 and other in institute bank Accounts
	Add: Sub+Institute Contribution	24,733,329.62	Investment
	Add: Interest Credited		Interest Accrued but not due
	Less: Transferred to NSDL	24,602,738.00	Balance at Bank
	Closing Balance	1,992,394.85	
	Excess of Income over Expenditure		
	Balance as on 14.2024		
	Add: During the year		
	Total	1,992,394.85	Total 1,992,394.85

National Institute of Technology Sikkim

NPS TIER-I ACCOUNTS

Income and Expenditure Account for the Financial Year 2024-25

		Amount in Rupees	
Amount	Expenditure	Amount	Amount Income
	Interest credited to Subscriber's Accounts Bank Charges	-	Interest Earned on Investment
	Excess of Income over Expenditure	-	Less:Interest Accrued 31/03/25 Intrest Accrued but not due.
	Total		Total



Sr. Superintendent



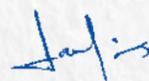
Assistant Registrar



Registrar



Sr. Superintendent



Assistant Registrar



Registrar



National Institute of Technology Sikkim

NPS TIER-I ACCOUNTS

Receipts and Payments Account for the Financial Year 2024-25

Amount in Rupees

Receipts	Amount	Payments	Amount
Opening Balance as on 01/04/2024 (in institute bank account)	1,861,803.23	Investment	
NPS TIER-I ACCOUNT		Withdrawal/Refund to NSDL	24,602,738.00
Own Subscription	10,120,351.80		
University Contribution	14,612,977.82		
		Closing Blance as on 31/03/2025 (in institute bank account)	1,992,394.85
Interest Received on Investment			
Intrest on saving bank a/c			
Investment Encashed			
Total	26,595,132.85	Total	26,595,132.85



Sr. Superintendent



Assistant Registrar



Registrar



वार्षिक प्रतिवेदन Annual Report



राष्ट्रीय प्रौद्योगिकी संस्थान सिक्किम
National Institute of Technology Sikkim