NIT Meghalaya

MEGH-DARPAN

NITM @ April, 2025

Contact us

National Institute of Technology Meghalaya
Saitsohpen, Sohra (Cherrapunji), East Khasi Hills District-793108, Meghalaya, India

National Institute of Technology Meghalaya

(An Institute of National Importance)

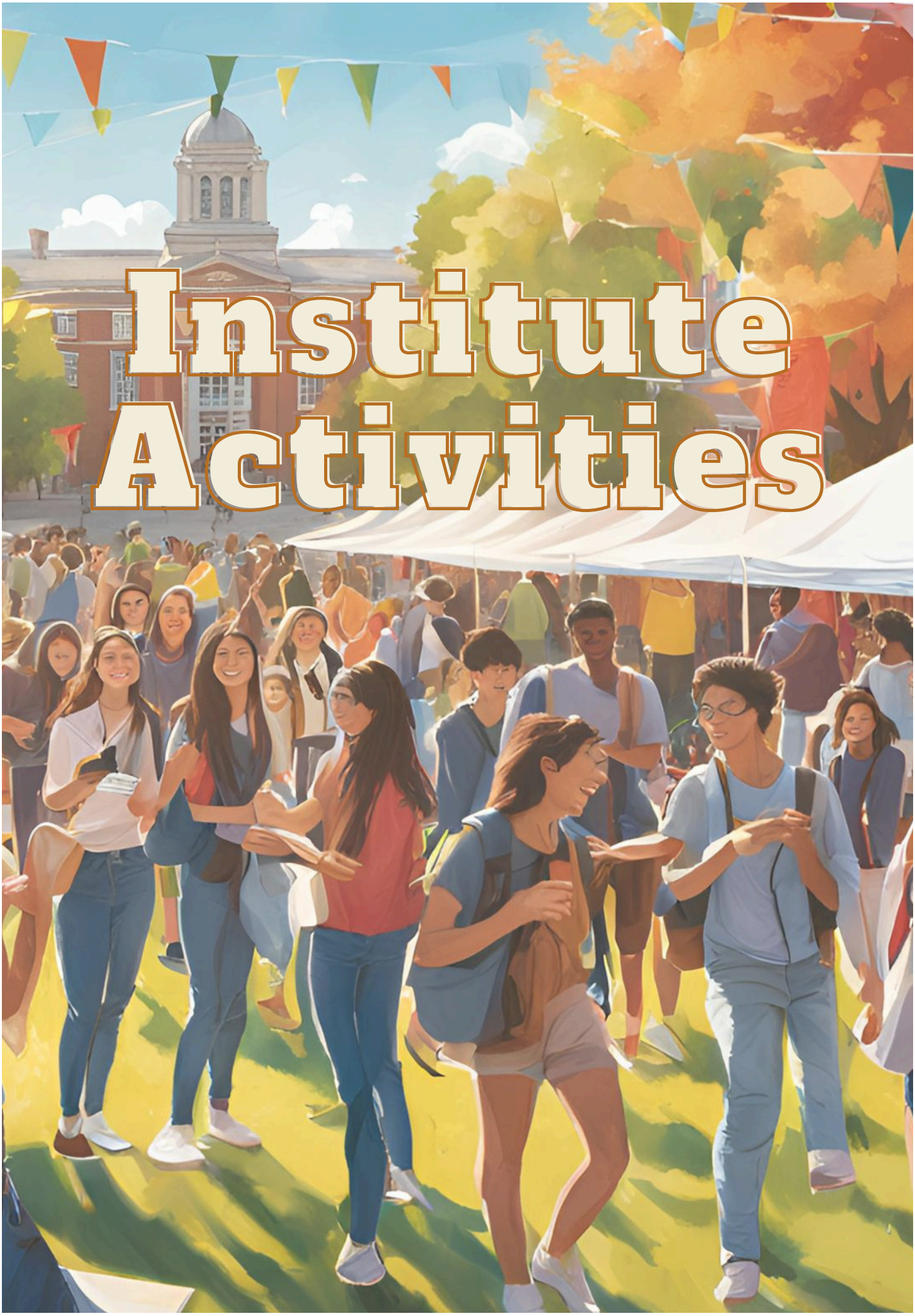
Megh-Darpan

INSTITUTE MAGAZINE

NIT MEGHALAYA

THIRD Edition

APRIL, 2025


Institute
Activities

GERMANY DELEGATES
at
NIT MEGHALAYA

A high level team of delegates from the Department of International Affairs, Hamburg University of Technology & University of Hamburg, Germany have visited NIT Meghalaya from **29.03.2025 to 01.04.2025**. NIT Meghalaya has made concerted efforts to align its R&D focus with the national goal of achieving technological self-reliance. The institute has ongoing academic and research collaborations with many national and international universities, governments, and industries in order to keep pace with expanding frontiers of knowledge and global developments. Its pre-eminent position at the cutting-edge of research is reflected in its impressive list of research projects, consultancy projects and research publications. Our collaboration with the industries has yielded the invaluable opportunity for faculty to engage in research projects with industrial relevance.

Felicitation Session

Delegates from the Department of International Affairs, Hamburg University of Technology & University of Hamburg, Germany have interacted with the scholars and students of NIT Meghalaya to explore the career perspectives in Germany for higher or collaborative studies.

Discussion Session at NIT Meghalaya, Sohra

Interaction Session with Students, NIT Meghalaya, Sohra

INSTITUTE DAY CELEBRATION
1ST APRIL 2025

National Institute of Technology Meghalaya celebrated its Institute Day event on the 1st day of April, 2025 in its permanent campus Saitsohpen, Sohra, first time after full phrased shifting of the campus from its temporary campus Shillong. The opulent event was graced by Chief Guest, Amitabha Ghosh, Platinum Jubilee Senior Scientist of The National Academy of Sciences, India & Honorary Distinguished Professor, IIEST, Shibpur, Guest of Honour, Prof. Rakesh Sehgal (HAG), Mechanical Engineering Department, NIT Hamirpur & Former Director, NIT Srinagar, (J&K) and special guest, Dr. Wang Yi, Head International Affair, Humbarg University of Technology, Germany.

The event included two extramural lectures by Prof. Prof. Amitabha Ghosh and Prof. Rakesh Sehgal.

During the program several achievements by employees and students were recognized by the Institute as mentioned below:

Inaugural Session






Faculty Awardees



Student Awardees



Staff Awardees

SHISHIR 2025
Annual Cultural Fest

NIT Meghalaya's annual cultural fest, ***SHISHIR 2025,*** unfolded with vibrant energy from April 3rd to 5th, 2025. This year marked a special occasion as it was the first time the festival was held at the institute's permanent campus in Sohra, a location renowned for its breathtaking natural beauty.

Rooted in the theme "Nature," ***SHISHIR 2025*** was a heartfelt tribute to the harmony and resilience of the natural world, beautifully reflected through art, music, drama, and dance. The passionate collaboration of students and faculty, led by GS-1(Cultural) Himanshu Kashyap and GS-2(Cultural) Rohan Sangam from the Student's Body, with the crucial support of Dean Student Welfare Prof. Paonam Sudeep Mangang, President, SAC Dr. Atanu Singha Roy, and Vice President (Cultural), SAC Dr. Susmita Sharma, brought the campus alive with a diverse array of events organized by various clubs.

Felicitation of Chief Guest, Mr. A Wanshai Shynret by Director NITM, Prof. Pinakeswar Mahanta SHISHIR 2025

The opening ceremony witnessed the esteemed presence of Director of NIT Meghalaya, Prof. Pinakeswar Mahanta, alongside our Chief Guest, Mr. A Wanshai Shynret, Director of the North Eastern Institute of Ayurveda & Homoeopathy (NEIAH), Shillong, who delivered an inspiring address highlighting the vital role of nature. We were also honored to have Anendya Raajsshre, IAS, SDO, Amlarem (Civil) Sub Division as our Guest of Honor for the inauguration. The evenings were particularly captivating: the serene Classical Night featured the mesmerizing Santoor recital of Pandit Satish Vyas, the energetic Star Night showcased the soulful performance of playback singer Tushar Joshi, and the grand finale was an electrifying DJ Night under the Sohra sky. The closing ceremony was graced by our Chief Guest, renowned motivational speaker Mr. Mark Stone, and our Special Guest, Miss Mixdalin Iawsai, Assistant Public Prosecutor, Directorate of Prosecution, who added to the vibrancy of the celebration.

SHISHIR 2025 was more than just a festival; it was an immersive experience celebrating culture, creativity, and community within the embrace of Sohra's stunning natural environment.

Lamp Lighting Ceremony, SHISHIR 2025

Glimpse of Dance Competition SHISHIR 2025

Women's Empowerment Workshop

Unnat Bharat Abhiyan Cell (UBA Cell), NIT Meghalaya organized a Women's Empowerment Workshop on ***19th February 2025*** to discuss the career opportunities for women and socio-economic developments of the region.

A Lecture given by **Dr. Anju Batta Sehgal** for ***Empowering Engineering Faculty (Women) in Pedagogical Skills @Viksit Bharat NITM & Enhancement of Women's Competency to Face Challenges of Viksit Bharat@2047***

Felicitation of Dr. Anju Batta Sehgal by Dean (AA)

ADVANCED ENTREPRENEURSHIP AND SKILL DEVELOPMENT PROGRAMME
on
3D Modelling and 3D Printing
10th to 14th March 2025

Coordinated by
Dr. Bikash Kumar Sarkar and Dr. Kishore Debnath.

Inaugural Session

INVITED LECTURES
on
Experimental Fluid Mechanics: quo vadis?
31st March 2025

Speaker: Prof. Cameron Douglas Tropea

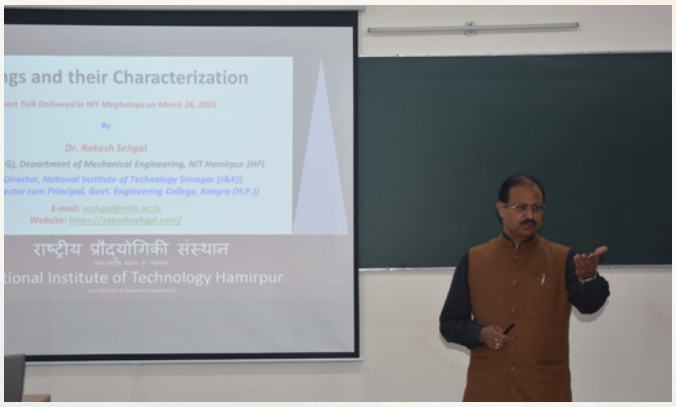
Prof. Tropea started his lecture on history of fluid mechanics development and contributions made by different personnel on the field of fluid mechanics, governing equations of fluid flow considered and then discussed existing methods in experimental fluid mechanics like PIV, LDA, hot-wire anemometry, use of optics to measure the flow field variables, atomization and sprays, and multi-physics capability, advances in high-speed imaging, mathematics in fluid mechanics research. At last, discussed the possibilities and limitations of the use of MRI (Magnetic resonance imaging) in the field of fluid mechanics. Also paid a visit to the central workshop of NIT Meghalaya.

Lecture Session

INVITED LECTURES
on
Coatings for Biomedical Applications
28th March 2025

Speaker: Prof. Rakesh Sehgal
Professor(HAG), Mechanical Engg. Dept. NIT Hamirpur

On 28th March 2025, Prof. Rakesh Sehgal—an accomplished academician with over 39 years of experience in teaching, research, and institutional leadership, and former Director of NIT Srinagar—delivered an enlightening expert talk on “Coatings for Biomedical Applications.” Drawing from his extensive expertise in tribology and materials engineering, Prof. Sehgal provided an in-depth overview of coatings and their characterization, with a focus on their pivotal role in biomedical implants. He discussed advanced concepts in surface engineering, highlighting both wear-resistant and corrosion-resistant coatings that significantly enhance the durability and performance of implants. Prof. Sehgal emphasized the causes of implant failure, particularly due to the generation of wear particles, and how proper coating techniques can mitigate such risks. He explained the widespread biomedical applications of titanium and its alloys, supported by real-world case studies, and explored the relevance of physical vapor deposition (PVD) and nanostructured coatings like tantalum nitride (TaN) in current research. The session also touched on the nano-mechanical properties of coated surfaces, underlining their influence on biocompatibility and mechanical stability. His talk provided a valuable interdisciplinary perspective, bridging materials science and biomedical innovation, and was greatly appreciated by both faculty and students for its depth and practical relevance.



Lecture Session

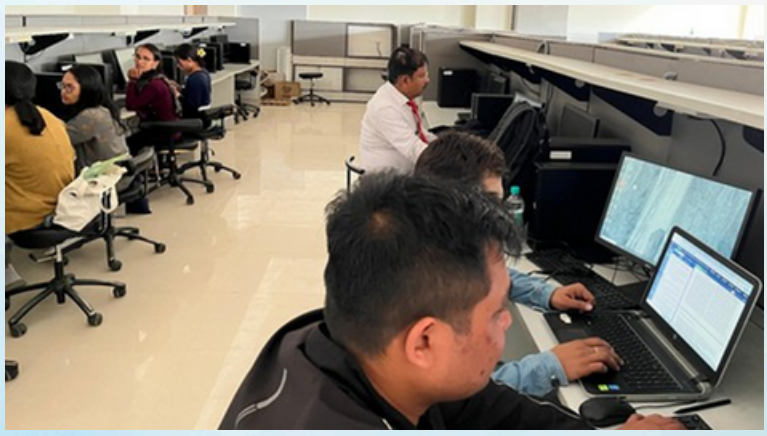
Participants with the Expert

ADVANCED MANAGEMENT DEVELOPMENT PROGRAMME (A-MDP) AND MANAGEMENT DEVELOPMENT PROGRAMME (MDP)

The Advanced Management Development Programme (A-MDP) is an initiative sponsored by the Ministry of Micro, Small and Medium Enterprises (MSME), Government of India. It is designed to equip professionals, entrepreneurs, and business leaders with advanced management skills, strategic decision-making capabilities, and technological insights. The program focuses on enhancing leadership qualities, improving operational efficiency, and fostering innovation in business practices. A-MDP plays a crucial role in strengthening India's entrepreneurial ecosystem by bridging skill gaps, promoting self-sufficiency, and enabling businesses to adapt to dynamic market conditions. By empowering participants with cutting-edge management techniques and industry-relevant knowledge, it contributes to sustainable business growth, job creation, and economic development, particularly benefiting MSMEs and enterprises in emerging sectors.

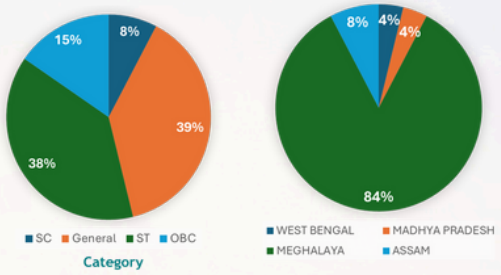
Valedictory Session

Gllimpse of the event



Gllimpse of the event

Falicitation Session



Attendee Demographic

Visits to foreign university by our PhD scholars as part of the ongoing Scheme for Promotion of Academic and Research Collaboration (SPARC) Project

Indian Research scholars interactions and discussion with research Scholars at University of East London

Indian Research scholars with Dr. Salim Barbhuiya (Foreign PI) at University of East London

Workshop conducted by Department of Civil Engineering

The Department of Civil Engineering has successfully coordinated Five (5)- One Day Events and One(1)-Five Day [ESDP -Awareness cum Training in Solid Waste Management—Path to Entrepreneurship and Skill Development for Women in Northeast India] workshop sponsored by Ministry of Micro, Small & Medium Enterprises (M/o MSME) from February 26, 2025 till March 10 to March 14, 2025. The Program was coordinated is Dr Susmita Sharma, Assistant Professor from Dept of Civil Engineering. The program was inaugurated by Chief Guest Satinder K. Bhalla (Deputy Director General, Department of Telecommunications, Ministry of Communications) and Guest of Honour Bijit Goswami (Executive Director, Tech-Operation & Maintenance, North Eastern Electric Power Corporation Limited), under the leadership of Director Prof. Pinakeswar Mahanta . The expert speakers who delivered lectures in the workshops were from IIT Ghy, IIM Shillong, NEHU Shillong, and leading industry associates. The program concluded with a valedictory session, where Prof. Sreedeep S, IIT Ghy delivered the closing remarks, marking the successful completion of the workshop.

Inaugural function of the Five Day [ESDP -Awareness cum Training in Solid Waste Management—Path to Entrepreneurship and Skill Development for Women in Northeast India] workshop

Delegates and participants of the MSME sponsored ESDP 5-Day workshop

Lecture during the workshop

Product demonstration during the workshop

Student Activity Center, NIT Meghalaya have introduced two clubs such as Yoga Club and MUN NITM Club

Dr. Diangarti Bhalang Tariang FiC, Yoga Club

Dr. Jagritee Talukdar FiC, Yoga Club

Dr. Elsa Cherian FiC, MUN NITM Club

Dr. Kaushik Talukdar FiC, MUN NITM Club

A Five-day training program on 'From Manager to Leader: A Transformational Workshop' 24th to 28th March 2025.

Glimpse of the Session

National Science Day Celebration

National Science Day was celebrated on 28.02.2025 by organizing an invited research talk by Professor A B Kunnumakkara (Department of Biosciences and Bioengineering, IIT Guwahati).

Talk by Prof. A B Kunnumakkara, IIT Guwahati


Research and
Development

Publications
Journals

- Dkhar, Timothy, Chandrasen Pandey, Sharmila AJ Francis, Diptendu Sinha Roy, and Ashish Kr Luhach. "NeuroSync: A Novel Neural Network Architecture for Time Series Forecasting of Vehicle Traffic Data Over 5G and Beyond." International Journal of Communication Systems 38, no. 6 (2025): e70035.
- Hussain, M. W., Sangaiah, A. K., Reddy, K. H. K., Roy, D. S., Alenazi, M. J., & Javvaji, P. K. (2025). A Novel Intelligent Task Offloading Scheme for Multi-Controller Environment in Software Defined Internet of Vehicles. IEEE Internet of Things Journal.
- M. R. Singh, R. K. Barik, S. N. Qurashi, S. Thokchom and D. S. Roy, "A Novel Pairing Free Revocable Certificateless Encryption With Ciphertext Evolution for Healthcare System," in IEEE Access, vol. 13, pp. 27940-27951, 2025, doi: 10.1109/ACCESS.2025.3533367
- Abisek Dahal, Soumen Moulik, "Multi-stream CNN-BiLSTM Framework for Enhanced Human Activity Recognition Leveraging Physiological Signal", IEEE Sensors Letters, vol. 9, no. 2, Feb. 2025. DOI: 10.1109/LSENS.2025.3526446.
- Pratik, S., Sharma, P., Nayak, D.R. and Balabantaray, B.K., 2025. WMCF-Net: Wavelet pooling-based multiscale contextual fusion network for polyp classification. Biomedical Signal Processing and Control, 107, p.107727
- Pratik, S., Sharma, P., Balabantaray, B.K. and Pachori, R.B., "MSPolypNet: A residual multi-scale semantic approach for polyps segmentation", Computers and Electrical Engineering, 123, p.110224, 2025.
- Rana, D., Pratik, S., Balabantaray, B.K., Peesapati, R. and Pachori, R.B., " GCAPSeg-Net: An efficient global context-aware network for colorectal polyp segmentation", Biomedical Signal Processing and Control, 100, p.106978, 2025.
- D. K. Mishra, B. K. Balabantaray, " RSA vs Quantum Encryption: Flexibility, Security, and Performance Analysis for Information Processing", Journal of Information Systems Engineering and Management (Accepted), 2025.
- J. Potsangbam, S.S. Devi. EMViT-BCC: Enhanced Mobile Vision Transformer for Breast Cancer Classification. International Journal of Imaging Systems and Technology 2025 Mar; 35(2):e70053. https://doi.org/10.1002/ima.70053
- R. Saikia, R. Deka, A. Sarma, N.H. Singh, M.A. Khan, S.S. Devi, "VNLU-Net: Visual Network with Lightweight Union-net for Acute Myeloid Leukemia Detection on Heterogeneous Dataset", Biomedical Signal Processing and Control, 2025 Mar; 107:107840. https://doi.org/10.1016/j.bspc.2025.107840
- Malvika, J. Talukdar, B. Choudhuri and K. Mummaneni, "Analytical modeling and TCAD simulation of surface potential and drain current for pocket doped negative capacitance field-effect transistor" Physica Scripta, vol.100, no. 3, 2025.
- Kumari D, Chaudhary M, Bandari SK. Intelligent reflecting surface assisted sparse vector coding based short packet communication for 6G wireless networks. AEU-International Journal of Electronics and Communications. 2025 Mar 11:155751.
- Penchala S, Bandari SK, Mani VV. Performance evaluation of RIS mounted UAV communication system with RF energy harvesting. Telecommunication Systems. 2025 Mar;88(1):32.
- Penchala S, Bandari SK, Mani VV, Drosopoulos A. Controlled Wireless Channel using Multi-Antenna Multi-IRS Assisted Communication System: A Comprehensive Performance Analysis. IEEE Latin America Transactions. 2025 Jan 23;23(2):114-24.
- Mukhopadhyay S, Sarkhel A, Sarkar PP, Yadav SS. Passive metasurface reflector for 6G wireless signal coverage enhancement in indoor environment: Design and experimental demonstrations. Physical Communication. 2025 Mar 15:102664.
- UPTA C, Yadav SS. Deep Learning Based Channel Estimation for UAVs: A Modified U-Net Approach. Advances in Electrical & Computer Engineering. 2025 Jan 1;25(1).
- Maity T, Bhawani AN, Samanta J, Saha P, Majumdar S, Srivastava G. MLSFDD: Machine Learning-Based Smart Fire Detection Device for Precision Agriculture. IEEE Sensors Journal. 2025 Jan 9.Roy M, Basu S, Neogi B, Majumdar S, Saha P. Development and performance analysis of a human respiratory system using state-space model-based system identification technique. Microsystem Technologies. 2025 Jan 7:1-4.
- Roy M, Bhattacharjee S, Neogi B, Saha P. Design and development of an implantable circuit for adjusting required pressure inside of respiratory system. Microsystem Technologies. 2025 Feb;31(2):367-80.
- Ghosh, Soumendu, P. Megh Sainadh, Abhishek Sarkhel, and Saptarshi Ghosh. "Wideband Superstrate-Loaded Metasurface-based Multifunctional Polarization Converters, "IEEE Antennas Wireless propag lett., jan. 2025.
- Bora, A., and Podder, D. (2024). Multi-Response Optimization of an Orthotropic Steel Deck Section with Thermo-mechanical Tensioning. Steel Research International (Accepted) (https://doi.org/10.1002/srin.202400617)

Publications
Journals

- Bora, A.,and Podder, D. (2024). Residual Stress Reduction Through Thermomechanical Tensioning for an Orthotropic Steel Bridge Deck. Journal of Materials Engineering and Performance, Springer, 33, pp. 4012 - 4028.
- Badavath, N. and Sahoo, S. (2025), Geospatial Assessment and Mapping Landslide Susceptibility for the Garo Hills Division, Meghalaya, India. *Geological Journal*. https://doi.org/10.1002/gj.5166
- Samal, R., Sahoo, S. and Naveen, B. (2025). "Seismic stability study of a bamboo grid reinforced sloping ground". *Journal of Structural Design and Construction Practice (ASCE)*; Volume 30, Issue 2 https://doi.org/10.1061/JSDCCC.SCENG-1522
- O. Manner, D. Maji, K. P. Patra, S. Ravi, T. Bora, Enhanced Dielectric and Soft Magnetic Properties of Rare Earth (Sm, Er) Co-substituted Cobalt Ferrites Nanocrystals Materials Chemistry and Physics, Materials Chemistry and Physics (Accepted in March 2025).
- Shibsankar Si, Alekha C. Nayak and Pravin Kumar Natwariya, Constraining Viscous dark matter in light of CMB spectral distortion, Phys.Rev.D 111 (2025) 4, 043002.
- S Mae Kharphanbuh, A Nath,Recovery of gold and tantalum from electronic waste using underwater laser-assisted processing in external electric fields,Journal of Laser Applications 37, 022005, 2025.
- S Mae Kharphanbuh, K Baruah, A Singha Roy, A Nath, Protein misfolding by manganese (III) oxide nanoparticles generated by pulsed laser ablation in liquids,Journal of Molecular Liquids,417, 126670, 2025.
- Salim Barbhuiya, Bibhuti Bhusan Das, Dibyendu Adak, Energy storage potential of cementitious materials: Advances, challenges and future directions, Energy and Buildings, 2025, 327, 115063.
- Salim Barbhuiya, Bibhuti Bhusan Das, Dibyendu Adak and Vasudha Katare, Advancements in nano-engineering of cement and concrete: a comprehensive review, **Emergent Materials**, 2025.
- Salim Barbhuiya, Dibyendu Adak, Comingstarful Marthong, John Forth, Sustainable Solutions for Low-Cost Building: Material Innovations for Assam-Type House in North-East India, **Case Studies in Construction Materials**, (Accepted).
- C. Malakar, R. Ravivarman, V. K. Tripathi, and K. Debnath, "Development of sustainable alkali treated and untreated kenaf/bamboo/polylactic acid biocomposites: A study of overall characteristics and its environmental aspects," Industrial Crops and Products, vol. 225, p. 120499, 2025.

Publications
Journals

- Piyush Pratap Singh , Manashita Borah, Asim Datta, Sajad Jafari, and Binoy K. Roy. "Integer cum fractional ordered active-adaptive synchronization to control vasospasm in chaotic blood vessels to reduce risk of COVID-19 infections." International Journal of Computer Mathematics 102, no. 1 (2025): 14-28.
- Yanrenthung Odyuo, Dipu Sarkar, and Shilpi Bhattacharya Deb. "Nu-support vector regression model implementation for distributed generation siting and sizing." Microsystem Technologies 31, no. 3 (2025): 821-827.
- Liza Debbarma, Sanjoy Debbarma, Kingshuk Roy, Siddhartha Deb Roy, P. P. Singh, Enhancing Grid Frequency Support by Integrating RTEM and P2P Energy Trading Models in Coordination with AGC System, IEEE Transactions on Industry Applications, 2025
- Edapha Rhema Jones Chullai, Haricharan Nannam, Priyankar Roy, Rakesh Roy, Atanu Banerjee, Performance Evaluation of a TOFOSMC-based Pump Hydro Energy Storage in the Application of Grid-connected Photovoltaic System, Electrical Engineering, Springer, 2025
- Dathewbhalang Tariang, Ksh Milan Singh, and Piyush Pratap Singh. "Observer-based synchronization in nearest-neighbor and globally coupled complex dynamical networks." The European Physical Journal Special Topics (2025): 1-14.
- Hazarika, Bishmita, Piyush Singh, Keshav Singh, Simon L. Cotton, Hyundong Shin, Octavia A. Dobre, and Trung Q. Duong. "Generative AI-Augmented Graph Reinforcement Learning for Adaptive UAV Swarm Optimization." IEEE Internet of Things Journal (2025).
- Puppala, Saikumar, Piyush Pratap Singh, and Devendra Potnuru. "Investigating the feasibility of a renewable energy-based standalone microgrid for remote area applications: An opto-techno-economic and environmental perspective." Environmental Engineering Research 30, no. 3 (2025): 27-59.
- E. Vengadesan, T. Arunkumar, S. Muralidharan, K. Debnath, H. Dutta, and K. Kadirgama, "Hybrid bio-composites reinforced with natural wood saw dust and eco-friendly graphite: Evaluation of physical, mechanical, and thermal properties," Fibers and Polymers, vol. 26, no. 2, pp. 833–854, 2025.
- S. Chaurasia and K. Debnath, "Microchannel fabrication on bio-grade Nitinol SMA by µ-ED milling process using sustainable oil for improving the machining performance and biocompatibility," Biofabrication, vol. 17, no. 2, p. 025007, 2025.

Publications
Journals

- K. Debnath, H. Dutta, S. Chaurasia, M. Rout, and D. Veeman, "Micro-machining of Monel K500 using electrical discharge drilling: Insights into hole tapering mechanism and surface morphology," Physica Scripta, vol. 100, no. 2, p. 025014, 2025.
- P. Venkaiah, B. K. Sarkar, and A. Chatterjee, "Rotary-actuated wind turbine pitch control using nonlinear-based chaotic Harris Hawks optimization tuned generalized power exponential rate reaching law terminal sliding mode," IEEE Trans. Ind. Appl., Early Access, 2025. [Online].
- N. Kumar, P. Venkaiah, B. K. Sarkar, and S. Maity, "Electrohydraulic transmission system control for variable displacement axial piston pump with fault through genetic algorithm fuzzy fractional order PI controller," Int. J. Ambient Energy, vol. 46, no. 1, 2025. [Online].
- R. Mazarbhuiya, M. Rahang, S. Saha, and D. Veeman, "Complex-shaped tool fabrication using powder metallurgy in EDM," J. Adv. Manuf. Syst., 2025. [Online].
- B. M. Barua, Bhargab, and M. Rahang, "Experimental investigation on the integrity of surfaces prepared using copper/multi-walled carbon nanotube green compact tool in electric discharge coating process," J. Mater. Eng. Perform., 2025. [Online].
- Thakre, A., M., Bora, A., and Podder, D. (2025). Influence of Residual Stresses on the Fatigue Behaviour of an Orthotropic Steel Deck using Fracture Mechanics Approach. International Journal of Steel Structures (Accepted).
- Kakali Baruah, Ajit Kumar Singh, Sona Lyndem, Kalpana Kumari, Anupam Nath Jha, Atanu Singha Roy, Fundamental Understanding of Bio-Nano Interface of Lysozyme on Psidium guajava Polyphenol Coated Silver Nanoparticles: Mechanistic Insights into the Effect of Protein Corona on the Antibacterial Efficacy, Langmuir, 2025, 41, 2899.
- Sanchia Mae Kharphanbuh, Kakali Baruah, Atanu Singha Roy, Arpita Nath, Protein misfolding by manganese (III) oxide nanoparticles generated by pulsed laser ablation in liquids, Journal of Molecular Liquids, 2025, 417, 126670.
- Mitul Kalita, Mahabul Haque, Amarjyoti Mondal, Atanu Singha Roy, Bright Blue-Light emitting cobalt doped CuS quantum dots: Photophysical studies and selective sensing application of ferric ion, Journal of Photochemistry and Photobiology A: Chemistry, 116137 (2024).

Conferences

- Shemphang Ryntathiang, Abisek Dahal, Soumen Moulik, “Leveraging Gait Patterns and Machine Learning for Early Detection of Alzheimer's Disease”, IEMENTech 2025, Kolkata, India, 31 Jan - 2 Feb, 2025.
- Anurag Joardar, Ningthoujam Johny Singh, "Adapting Vision Transformers for Effective Facial Expression Recognition", in 3rd International Conference on Intelligent Systems, Advanced Computing and Communication, IEEE, 27 - 28 February, 2025.
- J.Talukdar, Malvika, B.Das, K. Mummaneni, Performance Assessment of MoS2-Based Non uniform Tunnel Field Effect Transistors for Low-Power Applications Micro and Nanoelectronics Devices, Circuits and Systems, 2025 (presented).
- Mukhopadhyay, Sunanda, Abhishek Sarkhel, and Satyendra Singh Yadav. "A Wideband Digitally Coded Metasurface Using Staggering Tuning Mechanisms for Beam Steering Application in 6G mm-Wave Communication." In Millimeter Wave and Terahertz Devices for 5G and 6G Systems,. Springer, Nov 2025.(accepted)
- Suting, Habanaibok, Soumendu Ghosh, Abhishek Sarkhel, and Prabir Saha. "A Single-Layered Linear-to-Circular Polarization Converter for Dual-Band 5G Millimeter Wave Communications Systems Using Frequency Selective Surface." In Millimeter Wave and Terahertz Devices for 5G and 6G Systems,. Springer, Nov 2025.(accepted).
- Chattapadhyay, Debojyoti, Soumendu Ghosh, Satyendra Singh Yadav, and Abhishek Sarkhel. "A Polarization-Insensitive Triple Band Millimeter-Wave Absorber for 6G Radar Communication." In Millimeter Wave and Terahertz Devices for 5G and 6G Systems,. Springer, Nov 2025.(accepted)
- Samal, Rasmiranjan, Naveen, Badavath and Sahoo, Smrutirekha (2025). "A Comparative Study of Failure criteria between Bamboo-grid and bamboo-nailed reinforced Hill slope based on non-linear time history analysis". 10th INDIAN YOUNG GEOTECHNICAL ENGINEERS CONFERENCE INDORE, India, March 11-12.
- Naveen, Badavath, Sahoo, Smrutirekha and Samal, Rasmiranjan (2025). "Landslide susceptibility mapping using statistical methods in East Jaintia Hills, Meghalaya, India". 10th INDIAN YOUNG GEOTECHNICAL ENGINEERS CONFERENCE INDORE, India, March 11-12.

PhD Awarded

Ms. Debbarni Sarkar (P21EC004) from the Department of Electronics and Communication Engineering under the supervision of ***Dr. Satyendra Singh Yadav*** has been awarded Doctor of Philosophy for the thesis entitled **"Performance Evaluation of Intelligent Reflecting Surface-Assisted 6G Wireless Networks"** on **22nd January 2025**.

Mr. Chandrasen Pandey (P21CS017) from the Department of Computer Science Engineering under the supervision of ***Prof. Diptendu Sinha Roy*** has been awarded Doctor of Philosophy for the thesis entitled **"Data Augmentation with Generative AI for Edge Traffic Analytics over 5G and Beyond Networks"** on **7th March 2025.**

Ms. Sonali Samal (P21CS002) from the Department of Computer Science Engineering under the supervision of ***Dr. Bunil Kumar Balabantaray*** has been awarded Doctor of Philosophy for the thesis entitled **"Development of Efficient Deep Learning Models for the Identification of Obscenity to Safeguard Women, and Society"** on **7th March 2025**.

Mr. Anil Kumar Swain (P19CS007) from the Department of Computer Science Engineering under the supervision of **Dr. Bunil Kumar Balabantaray h**as been awarded Doctor of Philosophy for the thesis entitled **"Development of AI-Driven Techniques for Enhanced Lung Cancer Detection and Classification"** on **7th March 2025.**

Mr. SR Ngamwal Anal(P19CS011) from the Department of Computer Science Engineering under the supervision of **Dr. Yogita** has been awarded Doctor of Philosophy for the thesis entitled **"Detection of Adverse Drug Reactions Using Deep Learning Techniques with Case Studies on COVID-19 Vaccines and Drugs"** on **7th March 2025.**

Mr. Sanjiv Subba from the Department of Mathematics under the supervision of ***Dr. Tikaram Subedi, Assoc. Prof, MA Dept*** and Dr. Ardeline M. Buhphang, Assoc. Prof, Dept. of Mathematics, NEHU has been awarded Doctor of Philosophy for the thesis entitled "***Generalizations of Semicommutative Rings***" on **18th November 2024.**

Mr. Manish Kurre from the Department of Electrical Engineering under the supervision of ***Dr. Atanu Bannerjee*** has been awarded Doctor of Philosophy for the thesis entitled **"Development and Analysis of Induction Heated Autoclave System Driven by Various Multilevel Inverters"** on **20th March 2025.**

Mr. Bhargab Madhab Barua from the Department of Mechanical Engineering under the supervision of ***Dr. Maneswar Rahang*** has been awarded Doctor of Philosophy for the thesis entitled **"Surface Modification of Aluminium Alloy using CNT Based Powder Metallurgical Green Compact Tool in EDM process"** on **21st January 2025.**

Mushroom Mentor App

An android-based app ***"Mushroom Mentor"*** is developed for Meghalaya mushroom farmers jointly by College of PG studies in Agriculture Science (CAU-I), Umiam and NIT Meghalaya with team of students and faculties.

Indian patent on "**A SYSTEM AND A METHOD FOR QUANTUM COMMUNICATION BY OBJECT TELEPORTATION IN VARIANT SPACE TIME DOMAIN"** is granted to Mr. Dilip Kumar Mishra (P22CS002) and Dr. Bunil Kumar Balabantaray on 24.01.2025.


Faculty
& Student
Achievements

- ***Dr. Arpita Nath*** has delivered an invited talk on “Recovery of metals from e-waste using laser ablation in liquids” in “Awareness cum Training in Solid Waste Management: Path to Entrepreneurship and Skill Development targeting women of Northeast India”,under the Entrepreneurship and Skill Development Programme (ESDP) scheme, Sponsored by Ministry of Micro, Small & Medium Enterprises (M/o MSME) Government of India from 10th-14th March 2025.

Dr Elsa Cherian Attended NFLP in IIM Visakhapatnam

We are pleased to announce that Dr Elsa Cherian, Assistant Professor, Department of Humanities and Social Sciences, NIT Meghalaya completed the Nurturing Future Leadership Program (NFLP) under the Malaviya Teacher Training Programme (MTTP) under the Ministry of Education, Government of India, held at IIM Visakhapatnam from 6-10, 2025.

NURTURING FUTURE LEADERSHIP PROGRAM
Sponsored by Ministry of Education, Govt of India
IIT Gandhinagar

Dr Elsa Cherian attended National Conclave 2025

Two Days National Conclave 2025, on the theme ’Transforming Teacher Education towards Viksit Bharat 2047’ organised by the National Council for teacher Education (NCTE) in collaboration with North-Eastern Hill University (NEHU) today at the Multi Convention Hall, NEHU, Shillong.

Dr. Ngangbam Herojit Singh and ***Dr. Kishore Debnath*** have attended 5-Day residential leadership training program packed with interactive sessions, engaging workshops at IIT Gandhinagar during January 6 - 10, 2025.

- ***Dr. Arpita Nath*** has delivered an invited talk on “Laser induced breakdown spectroscopy in space science applications” in National Science Day, 28th February 2025, Synod College, Shillong.
- Dr. Alekha C. Nayak has delivered an invited talk on “Constraining spinning primordial blackholes with global 21 cm signal” in International Conference on Frontier of High Energy Physics at IIT Bhilai on 13th February 2025.
- Invited talk delivered by ***Dr. Rubi Chakraborty*** on "Probabilistic Slope Stability Analysis using GeoStudio" in a 5-day short-term program on "Application of Multi-module Geostudio Software for -Comprehensive assessment of Geotechnical structures (AMGS-25)", 7th to 11th January 2025, NIT Warangal.
- ***Dr. Arpita Nath*** has delivered an invited talk on “Currents Trends in Laser Based Selective Material Processing” in Short Term Training Programme (STTP) on Emerging Trends in Multidisciplinary Research (ETMR) organized by the Departments of Physics and Chemistry, School of Energy Technology, Pandit Deendayal Energy University from 10th to 14th February, 2025.

Dr Elsa Cherian and Thangjam Ayingbi Chanu Attended National Workshop in IGNOU, New Delhi

Dr Elsa Cherian, Assistant Professor, Department of Humanities and Social Sciences and ***Thangjam Ayingbi Chanu, Research Scholar, Department of Humanities and Social Sciences*** presented the paper titled “Relevance of Spirituality of Spirituality in Work-Life Balance, Stress Management and Sustainable Work Culture” in the “Two-Days National Workshop on Management and National Education Policy-2020” organised by Indira Gandhi National Open University in collaboration with All India Council for Technical Education, Guru Ghasidas Vishwavidyalaya, Bilaspur and Shiksha Sanskriti Utthan Nyas on December 06 & 07, 2024 at Baba Saheb Ambedkar Convention Centre, Indira Gandhi National Open University, New Delhi.

- Dr. Naba Kamal Nath delivered an invited talk on “Organic Molecular Crystals: From Fragile to Functional” at the School of Chemistry, University of Hyderabad, February 14-15, 2025.
- Dr. Naba Kamal Nath delivered an invited lecture on “Stimuli-Responsive Molecular Crystals: Towards Next-Generation Smart Materials” at Advances in Chemical Sciences -I (ACS-I), held on March 10-11, 2025, at the Department of Chemistry, North-Eastern Hill University.
- Dr. Naba Kamal Nath attended Industry academia conclave held on Nov 15-17, 2024, at NIT Jamshedpur.
- Dr. Naba Kamal Nath attended PanIIT World of Technology Conference 2025 at IIT Guwahati, on 21, 2025.

Mr. Subhadeep Sinha

Mr. Subhadeep Sinha, a student from ECE Department clinches Gold Medal at Inter NIT Power Sports Meet held at NIT Surathkal from 10th to 12th January 2025

Mr. Subhadeep Sinha at NIT Surathkal

HIMANGSHU BARMAN

HIMANGSHU BARMAN of Department Of Mathematics bearing a Roll no P24MA002 qualified GATE 2025 with All India Rank (AIR) 21

Internation Day of Women and Girls in Science

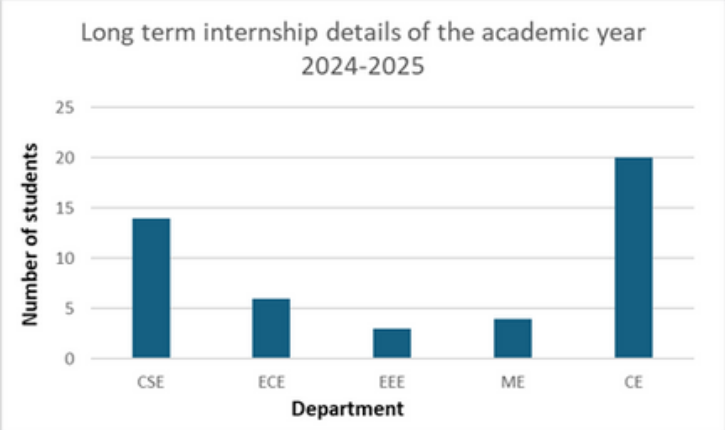
UG student, Ribait Phawa (B23CS006) attended Start-Up Mahakumbh 2025 at Bharat Mandapam during 3-5 April 2025 organized by UBA and Ministry of Tribal Affairs.

Intra NIT Badminton Tournament

Intra NIT Badminton Tournament was held from 1st to 9th March 2025

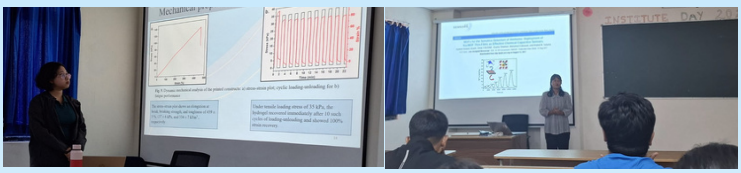
Results of the Tournament

Men's Singles: 1st: Purshottam Thakur 2nd: Kyntubhah Bamon 3rd: Gaurav Kumar Singh	**Women's Singles:** 1st: Sonia Raj Gurung 2nd: Ridahun Nongkhlaw 3rd: Ankita Singh
Men's Doubles: 1st: Gaurav Kumar Singh & Purshottam Thakur 2nd: Naveen Bhadavath & Amarjyoti Mondal 3rd: Subhajeet Khan & Aryan Saha	**Women's Doubles:** 1st: Sonia Raj Gurung & Khushi Kumari 2nd: Ridahun Nongkhlaw & Wanrisuk Khyriem 3rd: Ankita Singh & Kunjana Panthy
Mixed Doubles: 1st: Gaurav Kumar Singh & Ridahun Nongkhlaw 2nd: Subhajeet Khan & Sonia Raj Gurung 3rd: Purshottam Thakur & Khushi Kumari	



CBS Journal Club

The research scholars of the Department of Chemical and Biological Sciences will present a research paper based on current ongoing research worldwide. We have recently started this activity, and so far, two presentations have been organized.

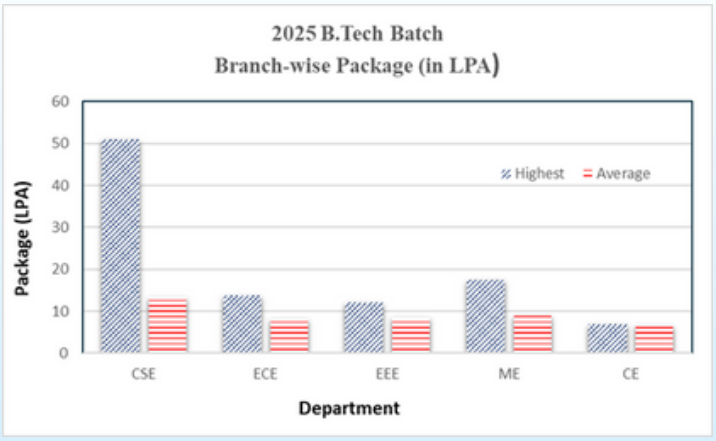


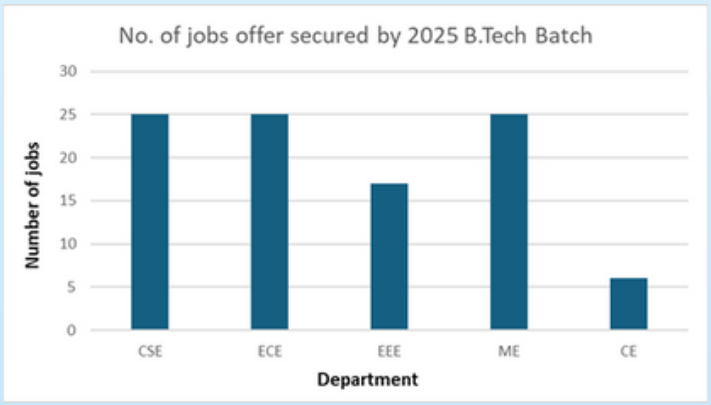
Research Presentation

Dr. Shubhankar Majumdar has received several awards and achievement this year.

1. He have been awarded the Best Researcher Award for the second consecutive year at NIT Meghalaya in the Institute Day Celebration 2025.
2. He have done the demonstration and commissioning of the 5G laroratory settings in January 2025.
3. He have also delivered a talk on 5th Intenational Conference on Micro/Nanoelectronics Devices, Circuits and Systems (MNDCS 2025).
4. He have attended the FIST Review presentation at IIT Bombay in February 2025.

Student Placement Record 2025





Shreya Poddar (CSE) has secured job offer from Microsoft with Rs. 51.03 LPA

Shubhavi Kukreja has secured job offer form JPMorgan Chase & Co. with Rs 19.75 LPA

Arkibud Broadwin Ryntathiang has secured job offer form HPCL with Rs 17.42 LPA

Yash Raj Gupta has secured job offer form JusPay with Rs 27 LPA

Ashutosh Kumar Rai has secured job offer form Vedanta with Rs 11.45 LPA

Avinash Renukunta has secured job offer form Tredence with Rs 10 LPA

Fourteen students have secured prestigious job offers from Bharat Petroleum Corporation Limited (BPCL), with an impressive salary package of ₹19.48 LPA. Notably, six of these students hail from the Mechanical Engineering Department, demonstrating their exceptional technical proficiency and academic excellence. This remarkable achievement is a testament to the high standard of talent and the rigorous training the institute provides.

Dr. Shubhankar Majumdar receiving award during the Institute Day Celebration, NIT Meghalaya

Institute Information

Department of Computer Science and Engineering to Launch MCA Program Under NIMCET

The Department of Computer Science and Engineering (CSE) is planning to introduce the ***Master of Computer Applications (MCA) program***, which will commence starting from next academic year. The program will be offered under the prestigious ***National Institute of Technology Master of Computer Applications Common Entrance Test (NIMCET) counseling,*** ensuring a standardized and high-quality curriculum. The admission into the MCA program is based on the rank obtained in NIMCET only.

NEWLY JOINED FACULTY

Dr. Bibhas Manna has currently joined as an Assistant Professor in the Department of Electronics and Communication Engineering at NIT Meghalaya on 7th Feb 2025. Previously, He worked as a postdoctoral researcher at Pennsylvania State University, USA, and TU Wien, Austria. He have completed my PhD at the Indian Institute of Technology Kharagpur, India. His research interest primarily include Experimental design of semiconductive sensors, modelling and simulation of FETs, first-principle-based transport in 2D semiconductors, device-algorithm co-design for Neuromorphic/In-Memory computation, Electronic Design automation, etc.

Dr Swathisha P has joined the Department of Humanities and Social, NIT Meghalaya as an Assistant Professor. She was previously a faculty member in the Department of Applied Psychology, Rajiv Gandhi National Institute of Youth Development (RGNIYD), Sriperumbudur. She completed her PhD at Pondicherry University and her master's degree at Calicut University. Her research interests are social psychology, human sexuality, community psychology, and qualitative research. She has published papers and book chapters with nationally and internationally recognised publishers and has also served as a peer reviewer for some recognised journals.

Dr Shaoni Shabnam joined as an Assistant Professor in The Department of Humanities and Social Sciences, NIT Meghalaya on 27th February 2025. She has a PhD in Sociology from the Department of Humanities and Social Sciences, IIT Bombay. She has worked as an Assistant Professor in the PG Department of Sociology in St. Xavier's College (Autonomous) Kolkata for 8 years. Her areas of research interest include issues of Social Stratification: Class, Caste, Gender; Intersectional Marginalities; Sociology of Consumption, and Cultural Studies. She has both national and international publications to her credit and is currently working on the area of domestic workers' rights in India from a comparative global perspective.

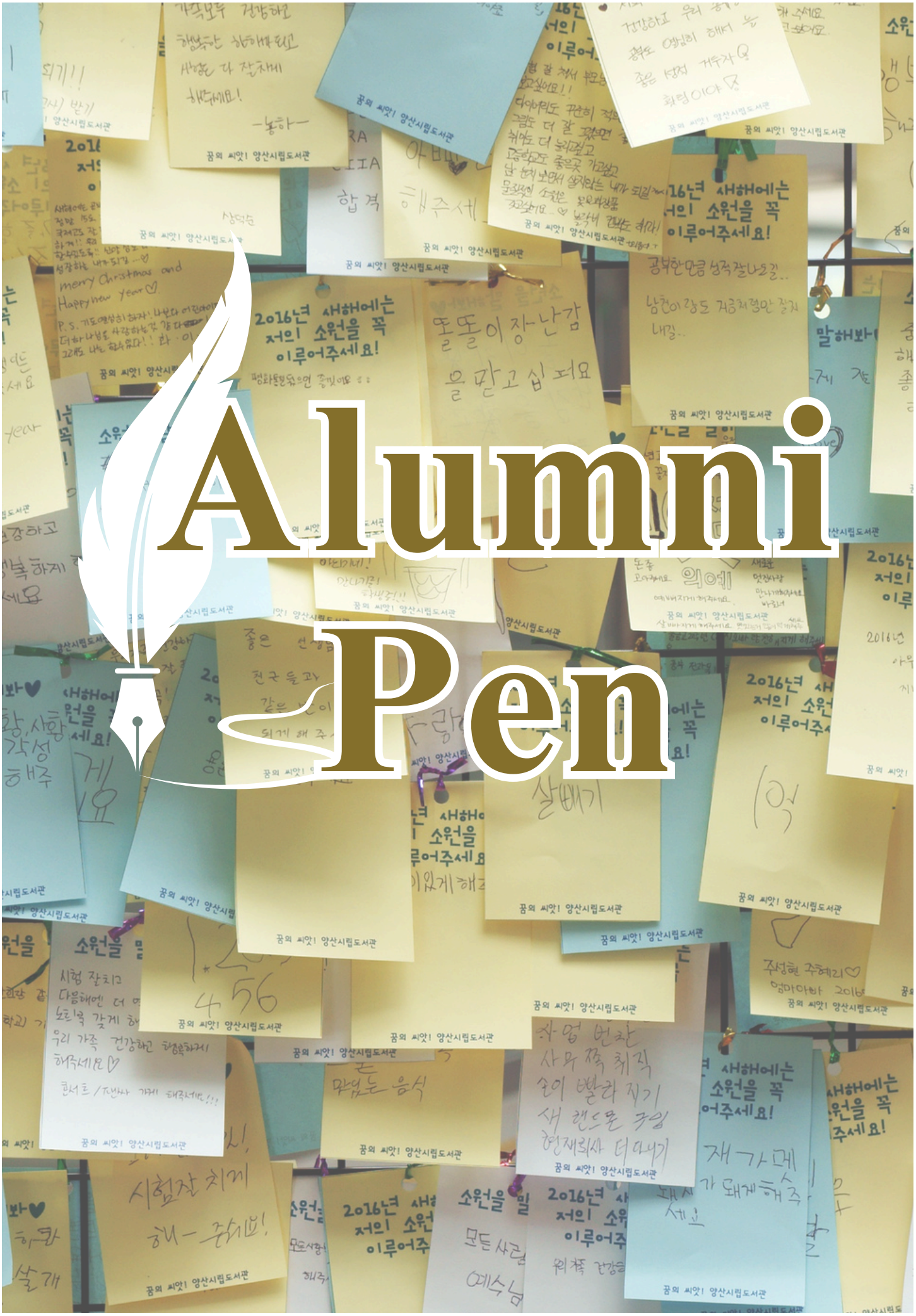
Dr. Rwivoo Baruah has recently joined the Department of Chemical and Biological Sciences at the National Institute of Technology Meghalaya as an Assistant Professor. He completed his Ph.D from the Dept. Biosciences and Bioengineering at IIT Guwahati under the supervision of Prof. Arun Goyal. His Ph.D. research was on food microbiology, enzymology and carbohydrate chemistry and were published in several international journals. During his Ph.D, Dr. Baruah received the CIMO(Centre for International Mobility) fellowship to Helsinki, Finland where he worked for six months at the VTT Research lab, Espoo Finland and the Department of Food and Environmental Sciences, University of Helsinki, Finland. After his Ph.D., he joined CSIR-Central Food Technological Research Institute (CFTRI), Mysore India with a fellowship through CSIR Research Associateship and worked on Bifidobacterial exopolysaccharides and developing probiotic fermented foods.

Dr. Suraj Gupta currently joined as an Assistant Professor in the Department of Electrical Engineering of National Institute of Technology Meghalaya, India. He completed his M.Tech & Ph.D. from the Department of Electrical and Electronics Engineering, National Institute of Technology Mizoram, India.His research interests are metaheuristic optimization-based control of active magnetic bearing system, power converters and control, optimization and control of EVs and renewable energy system.

Dr. Pemendra Kumar Pardhi joined as an Assistant Professor in Department of Electrical Engineering NIT Meghalaya, Sohra India. He received his B.E. degree in electrical and electronics engineering from Mansarover Institute of Science and Technology Bhopal, India, M.E. degree in electrical engineering with a specialization in power electronics, and PhD degree in electrical engineering from the Shri Govindram Seksaria Institute of Technology and Science, Indore, India, in 2014, 2017 and 2024 respectively. He received the Young Scientist Fellowship award from the Madhya Pradesh Council of Science and Technology Bhopal in 2022. He has served in CastNX Pvt. Ltd. for more than two year as a Senior Design Engineer (Power Electronics).

Dr. Bhabagrahi Natha Sharma received his Ph.D in Applied Mechanics from the Indian Institute of Technology (IIT) Madras. He possesses an M.Tech in Applied Mechanics from IIT Delhi, along with a B.Tech in Mechanical Engineering from Indira Gandhi Institute of Technology, Sarang, Odisha. Before joining NIT Meghalaya, he worked as a postdoctoral researcher under the Indo-German Science & Technology Centre (GISTC) Postdoctoral Industrial Fellowship and also as an intern at Testia, an Airbus Company in Germany. His research focuses on structural health monitoring, non-destructive testing, smart materials, and elastic wave propagation. Dr. Sharma has contributed to several publications in his field. Notable works include studies on the time reversibility of Lamb waves in thin plates with surface-bonded piezoelectric transducers under varying thermal conditions and the role of transducer inertia in the generation, sensing, and time-reversal process of Lamb waves.

Dr. Kaushik Talukdar is an Assistant Professor in the Department of Chemical and Biological Sciences at the National Institute of Technology (NIT) Meghalaya, Sohra, Meghalaya, India. He earned his Ph.D. in Theoretical Chemistry from the Indian Institute of Technology Bombay in 2020, focusing on parity and time-reversal violating effects in molecules under the supervision of Prof. Sourav Pal and Dr. Nayana Vaval. Following his doctorate, Dr. Talukdar conducted postdoctoral research at Philipps University of Marburg, Germany, from December 2019 to April 2021, working with Prof. Robert Berger. He then served as a DST-INSPIRE Faculty Fellow at Tezpur University, Assam, and as an Assistant Professor in the Department of Chemistry at Bhattadev University, Assam, from March 2023 to February 2025. His research interests include computational chemical physics, coupled cluster theory, relativistic quantum chemistry, noncovalent interactions, and chemical education. Dr. Talukdar has been recognized with several awards, including the DST INSPIRE Faculty Fellowship in 2022 and the INSA Visiting Scientist Award in 2024.


Alumni
Pen

Kaushik Ray
Roll No.: B19CS005
B.Tech (2019-2023 Batch, CSE)
Working as an Assistant Professor, NERIST, Nirjuli, Itanagar, Arunachal Pradesh - 791109

Reflecting on my journey at NIT Meghalaya, I realize it was more than just an institution—it was a home, a place where I grew, learned, and built lifelong connections. The experiences I gained, both academically and personally, have shaped who I am today. Here's a small piece that captures my time at NIT Meghalaya.

NIT Meghalaya—a place I once called home,
Where dreams took flight and minds would roam.
Amidst the hills, beneath skies so wide,
I found my passion, my strength, my guide.
Mentors who lit the spark to grow,
Friends who stayed through highs and lows.
Late-night coding, coffee runs,
Endless laughter, midnight puns.
Not just books, but life it taught,
In every challenge, a lesson was caught.
Moments fleet, yet memories stay,
NIT Meghalaya—lighting my way.

Reuben Sanname Lyndem, Roll No.: B19EC007
B.Tech (2019-2023 Batch, ECE)

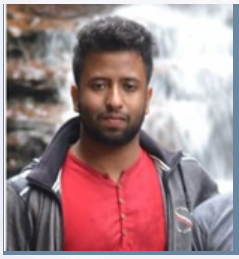
Currently pursuing MTech in Wireless Communication and Networks at IIT Kharagpur

Greetings!
It is an honour to address the readers of this magazine. I had the privilege of attaining my Bachelor's degree from NIT Meghalaya, graduating in 2023.

I remain grateful to my professors, who taught me much more than what textbooks offered. Their lessons helped me develop a passion for research and study and pushed me to continue my academic journey. It is without a shadow of a doubt that I could do so because of the support and encouragement my professors at NIT Meghalaya provided.

Keeping academics aside, I fondly remember the fun and memorable experiences with my friends during our time together. The homemade lunches we shared daily, the cultural event practice sessions, and the trips we took outside the city; I hold on to these moments dearly!

I look back to my time at the institute with great joy and fulfilment, and I have complete confidence that the institute will go from strength to strength in the years to come.



Prasitaditya Kuri
M.Sc (2019-2021 Batch, Chemistry)
Currently pursuing Ph.D. at CSIR- Indian institute of Chemical Technology, India

One of my most cherished memories is the day I got selected into NIT Meghalaya for my M.Sc. It felt like a dream come true. The welcoming atmosphere, supportive seniors, and excellent faculty made every moment special. Our chemistry lab was a place of discovery, with seniors guiding us through every challenge. NIT wasn't just about academics; the extracurricular activities allowed me to explore new talents. The guidance I received from my professors shaped my future, and I will always be grateful to NIT Meghalaya for making me who I am today.

Divyasree Dev
Roll No:
B.Tech (2020-2024 Batch, CSE)

Currently at Morgan Stanley

- 1st Recipient of the Chairperson's Gold Medal
- Former Student Convenor, Coding Club
- Generation Google Scholar

Dearest Juniors,

Life at NIT Meghalaya was a journey of learning, struggles, setbacks, and growth. I've been in your shoes—navigating academics, self-doubt, and the pressure to prove myself. There were times when I felt like everything was falling apart. But every challenge you face here will shape you into the beautiful, wholesome person you deserve to be.

The world beyond college is challenging, but your time here has prepared you in more ways than you realize—not just academically, but in resilience, self-trust, and the ability to adapt. However, learning doesn't stop when you step beyond these gates. Whether in your job or higher studies, learning is a continuous journey. True success comes not only from expanding your knowledge but also from standing firm in your values, setting boundaries, and staying true to yourself.

So, stay curious, keep learning, believe in yourself, and never let fear dictate your choices. You are capable of more than you can imagine.

Your story is still unfolding—so don't give up on yourself yet.

Featured Articles

Rediscovering the Self in the Digital Age: A Yoga Journey Inward Amid the Scroll

by
Dr. Jagritee Talukdar & Dr. Diangarti B Tariang
FiC, Yoga Club, SAC NITM

The digital age has ushered in unprecedented connectivity, yet it has also introduced profound challenges to mental and emotional well-being, particularly among youth. Screen time among adolescents has surged to alarming levels, with U.S. teens averaging 8.5 hours daily on entertainment screens alone —exacerbated by pandemic lockdowns that left 1.5 billion children worldwide reliant on digital devices for education and socialization. While these platforms bridged gaps during crises, prolonged exposure has fueled sedentary lifestyles, cyberbullying, misinformation, and behavioral disorders like gaming addiction. Platforms like YouTube, TikTok, and Instagram dominate teenage attention, with 16% of teens reporting near-constant YouTube use. The cognitive toll is stark: studies show it takes 23 minutes to regain focus after a digital interruption, while social media's curated realities breed comparison, anxiety, and a fractured sense of self. In this hyper-connected yet internally fragmented landscape, yoga emerges as a transformative antidote. Beyond physical exercise, yoga cultivates introspection, self-regulation, and awareness, offering tools to reclaim authenticity in a world defined by metrics and digital personas. This ancient discipline intersects with modern mindfulness to address four core challenges of the digital era: chronic stress, fractured attention, unhealthy tech habits, and emotional turbulence.

The relentless barrage of notifications and multitasking demands fragment attention and elevate stress. Mindfulness and yoga counter this by teaching individuals to anchor themselves in the present. ***Yoga asanas (postures)*** like ***cat-cow*** poses or ***child's pose*** release physical tension, while ***pranayama (breathwork)*** grounds the mind. By filtering distractions, these practices reduce mental noise, restoring control over attention. A study from the University of California, Irvine, underscores this, revealing how digital interruptions erode productivity, a problem yoga directly mitigates through focused breathwork and postures. Mindfulness dismantles the myth of multitasking by emphasizing intentional, singular focus. Yoga's balancing poses, like ***tree pose***, train the mind to sustain concentration, a skill transferable to work or study. ***Nadi shodhana*** (alternate nostril breathing) calms the nervous system, curbing impulsive screen-checking and fostering deliberate task engagement.

This shift from reactive to intentional behavior enhances decision-making and reduces errors, proving especially vital for adolescents navigating academic and social pressures amplified by digital overload.

Short yoga breaks—meditation, desk stretches, or humming bee breath (bhramari)—create mental resets, diminishing reliance on digital validation. By heightening awareness of how content impacts emotions, individuals avoid doom scrolling or addictive behaviors. For instance, a midday savasana (corpse pose) can symbolically "reset" the nervous system, fostering a balanced relationship with technology. The fight-or-flight response triggered by digital overwhelm—whether from cyberbullying or information overload—is countered by yoga's activation of the parasympathetic nervous system. Restorative poses like savasana lower cortisol levels, while bhramari breath soothes anxiety. Yoga sequences, such as ***surya namaskar*** or ***vakrasana yoga (twisted pose)***, create rituals to distinguish work and personal time, releasing digital stress. These practices foster self-compassion, reducing anxiety linked to screen dependency and promoting holistic well-being. Technology itself can bolster mindfulness when used intentionally. Apps like ***Namaste Yoga or Y Break*** offer guided practices, workplace de-stress tools, and activity tracking. Smartphone features—screen-time trackers, notification filters—support mindful habits, while wearables monitor posture and breath during yoga, merging tech with tradition. This synergy underscores that technology, when wielded consciously, can enhance rather than undermine well-being. The fusion of yoga, mindfulness, and digital technology must be intentional. Together, mindfulness and yoga are not just practices but lifestyles that transform our relationship with technology. These practices are not mere escapes but lifestyles together navigating the complexities of the digital age with greater ease and awareness. In a society inundated with scrolls and screens, the journey inward through yoga becomes not just a refuge, but a revolution.

Sources:

- M. Anderson, M. Faverio and J. Gottfried. YouTube, TikTok, Snapchat and Instagram remain the most widely used online platforms among U.S. teens. Teens, Social Media and Technology. 2023
- Coronavirus disease (COVID-19) advice for the public: parenting in the time of COVID-19. Geneva: World Health Organization; 2020 (https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-forpublic/healthy-parentin g).
- A. Kumar, A. Sharma. Mindful Media: Mental Health Challenges in the Digital Age. Blue Rose Publishers. 2024
- H. R. Nagendra and R. Nagarathna. Yoga for Promotion of Positive Health. Swami Vivekananda Yoga Prakashana. 2011.
- Ministry of Ayush, Government of India. Y Break App. 2022 https://play.google.com/store/apps/details?id=ybreak.ayush.gov.in&hl=en_IN

Thought of the Quarterly Month

"Success is not fixed, failure is not fatal: it is the courage to continue that counts."

-Ratan Naval Tata

Translation in Khasi

"Ka jingjop kam dei ka jingkut, ka jingrem kam dei ka jingkut lad: hynrei ka dei ka jing ai mynsiem ba phin ïaid shaphrang ha ka thong.

- Ratan Naval Tata

Translation in Hindi

सफलता निश्चित नहीं है, असफलता घातक नहीं है: आगे बढ़ते रहने का साहस ही मायने रखता है

- Ratan Naval Tata

Highlights

Upcoming Event

7th International Conference on Energy, Power and Environment May 09 – 11, 2025

5th International Conference on Intelligent System and Machine Learning May 16-17, 2025

Celebration of International Day of Yoga 2025

Proposed Schedule	Event Details
Date: 23/04/2025 Time: 11:30 AM -12:30 PM (LH1)	02 External Lectures on Yoga and its importance
Date: 08/05/2025 Time: 05:00 PM -06:00PM (LH1)	Quiz competition and Open-Mic on Yoga for students
Date: 02/06/2025 Time: 07:00 AM -10.00 AM	1-Day Yoga retreat (Seven Sister Waterfalls/Arwah Cave side: location will be within 7-10 kms)
Date: 21/06/2025 **Time: 08:00 AM -10:00 AM** (LH Complex)	Celebration of International Day of Yoga 2025

Unique Culture and Place of Meghalaya

Caves of Meghalaya

Siju Cave, also known as Siju Dobakkol or the "Bat Cave," is a limestone marvel in Meghalaya's Garo Hills, near Napak Lake and Simsang River game reserve. Famous for its intricate stalactite and stalagmite formations, the cave harbours a unique ecosystem with tens of thousands of bats and rare species like cave-dwelling shrimp. First scientifically explored in 1922, it spans 4,772 meters, ranking as India's 14th longest cave. Its labyrinthine chambers, constant temperature, and rich biodiversity make it a vital research site for bio speleology and palaeontology while offering visitors an otherworldly experience of nature's subterranean artistry.

Siju Cave

Arwah Cave

Arwah Cave

Arwah Cave, nestled in the lush East Khasi Hills of Cherrapunji, Meghalaya, is a captivating blend of natural artistry, geological history, and cultural intrigue. This limestone wonder is adorned with intricate stalactites and stalagmites, sculpted over millions of years, while its walls cradle fossils of ancient marine life-mollusc shells and fish bones-that whisper tales of a prehistoric oceanic world.

EDITORIAL BOARD

Dr. Harish Chandra Das
Professor, ME
Patron

Chief Editor's

Dr. Smrutirekha Sahoo
Assistant Professor, CE

Dr. Salam Shuleenda Devi
Assistant Professor, EC

Dr. Wandahun Longtrai Reenbohn
Assistant Professor, Physics

Editor's

Dr. Ksh Milan Singh
Assistant Professor, EE

Dr. Ningthoujam Johny Singh
Assistant Professor, CS

Dr. Moumita Tewary
Assistant Professor, ME

EDITORIAL BOARD

Jacinta Potsangbam
Research Scholar (ECE)

Jacinta Jyrwa
Research Scholar (ECE)

Naveen Badavath
Research scholar (CE)

Rai Kachak Tripura (CE)
Magazine Designer

Satyam Kumar Singh (ME)

Jitendra Dubey (ECE)

Hriti Chakraborty (CE)

L. Komune (CE)

National Institute of Technology Meghalaya

(An Institute of National Importance)
Bijni Complex, Laitumkhrah, Shillong, Meghalaya 793003

National Institute of Technology Meghalaya

Registrar
registrar@nitm.ac.in
0364-2501215

National Institute of Technology Meghalaya

An Institute of National Importance