



NITM

Chronicle

Issue 2; July 2019



Interview



National Institute of Technology (NIT), Meghalaya, aims to be a center of excellence in education and research in the fields of engineering, science and technology. In conversation with **Prerna Lamha**, Director of BW Education, **B.B Biswal**, Director of NIT Meghalaya, shares how the institute is efficiently imparting education in spite of being located in the fringes of the country. Excerpts:

'Revolutions bring systemic implications'

What are your thoughts on the challenges with engineering education in India?

- Shortage of resources (finance) is the prime bottleneck in most of the institutes. The institutes need to have good infrastructure in terms of facilities in laboratories and other places in order to provide better opportunities of learning. Most of the institutes are having only traditional facilities to run normal curricula, which is not the call of the day. Futuristic facilities must be created with sufficient funding, directly or indirectly from various Government as well as private sources especially from industries.
- Shortage of faculty is another concern in most of the good institutes. Quality, mix (national and international) of faculty and their adequacy should be ensured for improving the

GOVERNMENT-RUN INSTITUTIONS

BW Rank 2019	Institution	State	Region	Category	Research Excellence (20)	Innovation (15)	Teaching (20)	Employment (20)	Infrastructure (15)	Inclusiveness And Social Impact (10)	Total (100)
56	National Institute of Technology Meghalaya	Meghalaya	North East India	Public	11.4	11	12.7	16	12.8	5.7	69.6



with Chairman, BoG, NIT Meghalaya

NITM Chronicle Team met **Shri Sajjan Bhajanka**, the Chairman of the Board of Governors on April 1, 2019 and had a short conversation regarding his visit.

TEAM: Sir, what would you like to share from your visit to our institute as the Chairman of the Board of Governors?

Chairman: It is my first visit to the institute after being appointed as the Chairman of the Board of Governors. I am happy but I take it as a challenge to shift to the permanent campus, for there are numerous constraints in working from a temporary campus. I will have conversations and reach up to the ministry to release funds for the completion of campus.



Mr. Sajjan Bhajanka
Chairman, BoG

TEAM: Sir, what are your thoughts about the NITM Chronicle, the e-Newsletter of NIT Meghalaya?

Chairman: The e-newsletter is a good initiative to hold a medium of communication of information and events across the entire network of institute. While I was inaugurating NITM Chronicle, I recollected my experience at school when we do not have computers and we used stencils to design the magazine and then circulate it further. Through this newsletter, all the members of the editorial board will surely learn latest achievements of the NIT Meghalaya.

TEAM: Sir, campus Gear and Center for Robotics and Mechatronics have started functioning effectively, despite the restrictions of certain types; what would you like to say about such initiatives?

Chairman: I have partly seen the campus as I was mainly cooped up with the Board of Governors' meeting. Inception of centers like Robotics and Mechatronics provide student a chance to explore besides main stream studies.






TEAM: Sir is there any message that you want to give to the students of NIT Meghalaya?

Chairman: Most importantly, everybody should dream big and aspire to fulfill that dream. Thoughts decide our attitude, and attitude determines our altitude. So we must do our best to enhance our attitude towards all tasks that we perform.

Institute Day Celebration

The Institute Day of NIT Meghalaya was celebrated with unprecedented fanfare on April 1, 2019. **Shri A. G. West Kharkongor**, Chairman & Managing Director of NEEPCO graced the occasion as the Chief Guest. **Prof. Bibhuti Bhusan Biswal**, Director, NIT Meghalaya presented the recent achievements of the institute. His address was followed by **Shri Sajjan Bhajanka**, BOG, NIT Meghalaya. This was Shri Bhajanka's first visit to the campus. He shares his sagacious plans for development of the institute. The highlight of the event was an extramullar lecture by **Prof. Abhijit Chakroborty**, Dept. of Electrical Engineering, IEST, Shibpur. Faculties and students were honored for their extraordinary achievements.

Faculty Achievements:

Faculty	Category of Award	Achievement(s)
 Dr. Smrutirekha Sahoo, Asst. Professor, CE	Outstanding Achievements	Young Geotechnical Engineer Award by Centre for Geomechanics and Railway Engineering, University of Wollongang, Australia and organizing committee of ISGTI 2018
 Dr. Naba Kamal Nath, Asst. Professor, CY	Outstanding Achievements	Research in Smart Materials is highlighted on Rajya Sabha TV
 Dr. Comingstarful Marthong, Associate Professor, CE	Consultancy Grant	Obtaining Maximum Consultancy Grant
 Dr. Arpita Nath, Asst. Professor, PH	Research Project Grant	Maximum Research Project Grant
 Dr. Kishore Debnath, Asst. Professor, ME	Outstanding Research Work	Published 08 articles in peer reviewed journals and filled 01 patent



Student Achievements:

- ❖ Miss Chandrani Kar, BTech 2015 Batch Topper
- ❖ Miss Sangita Saha, BTech 2016 Batch Topper
- ❖ Mr. Sidharth Agarwal, BTech 2017 Batch Topper
- ❖ Mr. Rajeev Ranjan Chaurasia, BTech 2018 Batch Topper
- ❖ Miss Nakita Lakyntiew Marbaniang, MTech 2017 Batch Topper
- ❖ Mr. Bolla Madhu Sudhan, MTech 2018 Batch Topper
- ❖ Mr. Robin Wilson, MTech 2018 Batch Topper
- ❖ Mr. Mahabul Haque, MSc 2017 Batch Topper
- ❖ Mr. Bichu George, MSc 2018 Batch Topper

Alumni Induction Event

NIT Meghalaya Alumni Association for the first time in its history celebrated Alumni Induction Event on April 3, 2019. It started with lamp lighting from **Prof. Bibhuti Bhusan Biswal**, Director, NIT Meghalaya and **Dr. Atanu Banerjee**, Dean (SW), NIT Meghalaya. Both of them delivered their speeches for the outgoing students. Secretary of existing Executive Committee **Mr. Pratikanta Mishra**, PhD scholar, Dept. of EE, briefed about few of their recent plans. E-brochure with contact details & few memories of the outgoing students were unveiled. Would be alumnus were presented with memento.



NIT Meghalaya Alumni Association



Director felicitating the Alumnis

Invited Talks

Controlling Properties of Nanoconfined Polymers

The Department of Chemistry has organized an invited talk on “Controlling Properties of Nanoconfined Polymers” by **Dr. Mithun Chowdhury**, Assistant Professor, Department of Metallurgical Engineering and Material Science, IIT Bombay on May 14, 2019.

Weak Interactions to Control C-Hetero Bond Formation Reactions

The Department of Chemistry has organized an invited talk by **Dr. Prasenjit Mal**, Associate Professor, NISER Bhubaneswar on May 30, 2019. Dr. Mal outlines how soft force of several low-energy and low-level interactions or weak interactions are explored to control certain reactivity of chemical systems. Both students and faculties benefitted from the talk.



Dr. Prasenjit Mal during presentation and group photo.

Development of High Performance and Flexible Computing Systems with Electronic Design Automation

The Department of Electronics & Communication Engineering has organized an expert lecture by **Prof. Masahiro Fujita**, Director of VLSI Design and Education Center, University of Tokyo, Japan on July 9, 2019. Dr. Fujita talks about Development of High Performance and Flexible Computing Systems with Electronic Design Automation. He also explained conventional SoC design flow, Patchable Hardware, Fixed function accelerator, Patchable Accelerator, Patching Technique for Post Silicon ECO flow. The discussion was enriching for both the faculties and PhD scholars.



Prof. Masahiro Fujita during discussion with faculties and students.

Workshops

Innovation & Entrepreneurship

The Department of Mechanical Engineering has organized one day workshop on “Innovation & Entrepreneurship” under PRISM (Promoting Innovations in Individuals, Start-ups and MSMEs) scheme of DSIR, Ministry of Science & Technology, Govt. of India duration. The workshop was sponsored by TOCIC, IIT-Guwahati. The workshop observed twenty two participations from Faculties & Research Scholars. **Dr. Sukhomay Pal**, TOCIC, IIT-Guwahati was the expert and Coordinator of the workshop. **Dr. Debakumar Sarma**, Associate Professor, Dept. of ME & Dean (Planning and Development) and **Dr. Biplab Kumar Debnath**, Assistant Professor, Dept. of ME were the convenors.



Dr. Sukhomay Pal during presentation.

Why is my paper not getting accepted?

The Department of Mechanical Engineering has organized a TEQIP-III sponsored, One day workshop on “Why is my paper not getting accepted?” on June 10, 2019.

Prof. C. Balaji, IIT Madras was the Keynote Speaker. The coordinators of the workshop were **Dr. Biplab Kumar Debnath**, Assistant Professor, Dept. of ME & **Dr. Koushik Das**, Assistant Professor, Dept. of ME.

Faculty Development Program

Network Security:

National Institute of Technology Meghalaya has organized a "Faculty Development Program on Network Security" with the collaboration of E&ICT Academy, IIT Guwahati during May 20-24, 2019. The Faculty Development Program was funded by Ministry of Electronic and Information Technology, Govt. of India.



Certificate Distribution

The objective of the program was to train the faculties, researchers, and students about various basics and advanced topics like Computer Network Security, Block-chain Security, Web security, Security issues in IP protocols, Routing layer attacks, Software defined network and attacks, Wireless & Cloud Security and Electronic Mail Security; Firewalls and Web Security. The invited speakers were **Prof. Sukumar Nandi**, IIT Guwahati, **Prof. M. S. Gaur**, IIT Jammu, **Dr. Brijeswar Bezwada**, IIT Hyderabad, Lab- NetSim Inc. Bengaluru, Lab- ARISTA Inc., **Dr. E. S. Pilli**, MNITJ, **Dr. R. B. Battula**, MNITJ, Prof. Vijaylaxmi, **Dr R. Padmavathy**, NITW, and **Dr. R. R. Rout**, NITW. The workshop receives a total number of twenty eight participations. **Dr. Akhilendra Pratap**, Assistant Professor, Dept. of CSE and **Dr. Bunil Kumar Balabantaray**, Assistant Professor, Dept. of CSE were the coordinators of the workshop.

Deep Learning & Application:

Another Faculty Development Program on “Deep Learning & Applications” was organized in collaboration with E&ICT Academy, IIT Guwahati during May 27-31, 2019. The program was funded by Ministry of Electronic and Information Technology, Govt. of India. The program provides training in Artificial Neural Networks (ANNs), Regularization Hyper parameter Tuning and Auto encoders, Convolution Networks, Sequence Modeling, Generative Adversarial Networks, Object Detection Algorithms. The program receives speakers from NVidia, MathWorks-MATLAB, **Dr. Anupama Ray**, IBM, **Dr. Ritu**, Intel, **Prof. R. Venkatesh Babu**, IISc Bangalore, and **Dr. Biplab Banerjee** IIT Bombay. Experts from host institutes include **Prof. R. Balasubramanian**, IIT Roorkee, **Prof. Aparajita Ojha**, IIITDMJ, and **Dr. Partha Pratim Roy**, IIT Roorkee. Thirty five participants attended the workshop. **Dr. Akhilendra Pratap Singh**, Assistant Professor, Dept. of CSE and **Dr. Bunil Kumar Balabantaray**, Assistant Professor, Dept. of CSE were the coordinators of the workshop.

Enabling Technologies in Robotic through Sensor Integration

A workshop was organized by **Center for Robotics and Mechatronics** on “Enabling Technologies in Robotic through Sensor Integration” during May 22-24, 2019. The workshop was sponsored by **TEQIP-III**. The objective of this workshop was to introduce a number of modules covering detailed discussions with respect to wide field of application, design and control issues related to recent advances. Adequate exposure on computer simulations and HIL was provided so that upon completion of the course the participants were acquainted with framing of Mechatronic and Robotic

problem pertaining in their teaching and research activities. **Mr. Manoj Das** and **Mr. Omkar Nath Rath** of Embesys Technologies were the invited resource persons. The workshop attracted a total 40 participations.



Participants during hands-on practice session.



Chief Guest and organizers of the workshop

Externally Sponsored Research Fund

Investigators	Title of the Project	Funding Agency	Duration	Grant Amount
PI: Dr. Amit Kumar Paul, Asst. Professor Dept. of Chemistry	Post Transition State Dynamics on Chemical Reactions and the effect of Solvation	CSIR	2019-22	Rs. 7.00 lakhs
PI: Dr. Paresh Nath Chatterjee, Asst. Prof, Dept. of Chemistry; Co-PIs: Dr. Mukul Pradhan, DST-INSPIRE Faculty, Dept. of CY; Dr. Anup Dandapat, Assoc. Prof., Dept of ECE; Dr. Susmita Sharma, Asst. Prof, Dept. of CE; Dr. Snehadrinarayan Khatua, Asst. Prof, Dept. of CY, NEHU	Assessment of Climate Change Impact on Soils and Various Water Basins of Meghalaya Using Existing and Newer Techniques	DST	2019-22	Rs. 66.45 lakhs
PI: Dr. Shubhankar Majumdar, Asst. Prof, Dept of ECE; Co-PI: Dr. Soumen Moulik, Asst. Prof., Dept. of CSE	Prediction, Detection and Monitoring System for Landslide in Hilly Region	Indo-Japan project, DST, MHRD	2019-21	Rs. 6.26 lakhs
Dr. Smrutirekha Sahoo, Asst. Prof, Dept. of CE	Instrumentation, Real- Time Monitoring and Remediation of a Steep Soil Slope Stability in Meghalaya	SERB, DST	2019-22	Rs. 35.03 lakhs

National / International Collaborations



Dr. K. Senthilkumar, Assistant Professor, Department of Physics has received **Sakura Science Fellowship** in June 2019.

Dr. Tribedi Bora, Assistant Professor, Department of Physics went for collaborative research in IIT Guwahati in June 2019.

Faculty Outreach Activities

Dr. Yogita, Assistant Professor, Department of CSE was awarded **Best Application Paper Award** for her work on "**Data-Driven Extraction of Quantitative Multi-Dimensional Associations of Cardiovascular Drugs and Adverse Drug Reactions**" in the **13th International Conference on Practical Applications of Computational Biology and Bioinformatics** held at Avila, Spain during June 26-28, 2019.

Dr. Saikat Mukherjee, Associate Professor, Department of MA delivered a lecture on "**Frames - Life beyond Bases**" at Union Christian College, Meghalaya on June 12, 2019.

Bon -Voyage



Dr. Yogita, Assistant Professor, Department of CSE was awarded travel grant by the Carnegie Mellon University, Pittsburg, USA to attend **9th International Workshop on Statistical Analysis of Neuronal Data**. The workshop was organized by University of Pittsburg, USA during May 21-23, 2019.

Kaibalya Prasad Panda, PhD scholar of Prof. Gayadhar Panda, Department of EE was awarded the Travel Support from the SERB, DST, Government of India to attend conference organized by IEEE Power & Energy Society (PES) and Politecnico di Milano, Italy during June 23-27, 2019.

Dr. Anup Dandapat, Associate Professor, Dept. of ECE was invited to submit the extended version of "**Low Match-Line Voltage Swing Technique for Content Addressable Memory**", to JISE (SCI Journal) co-authored by T. V. Mahendra, S. W. Hussain, and S. Mishra, in **7th International Conference on Smart Computing & Communications (ICSCC 2019)** during June 28-30, 2019, Malaysia.



Coloured Feathers

The following Research Scholars of NIT Meghalaya successfully completed their oral defence viva-voce examination in April 2019 - June 2019:

Name of the scholar	Department	Name of the supervisor(s)	Thesis title	Date of viva-voce
Uddip Kashyap	Mechanical Engineering	Supervisor: Dr. Koushik Das, Assistant Professor Co-Supervisor: Dr. Biplab Kumar Debnath, Assistant Professor	Heat Transfer Enhancement in a Channel using Modified Rectangular Vortex Generators.	June 10, 2019
Brahmacharimayum Samita Devi	Humanities and Social Sciences	Supervisor: Dr. Paonam Sudeep Mangang, Assistant Professor & HOD	Gender and Power Struggle in the Domestic Sphere in August Strindberg's Plays.	May 17, 2019

Celebration of No-Tobacco Day:

“No Tobacco Day” was observed on May 31, 2019. No tobacco pledge was taken by all the faculties and staffs in their respective Departments.



Faculty and staff members taking pledge.

Observation of Anti-Terrorism Day:

On May 21, 2019 the institute observe “Anti-Terrorism Day”. Faculty, students and staff took a pledge under the supervision of Dr. Atanu Banerjee, Associate Professor, Dept. of EE & Dean (SW) to neither to tolerate nor to be a part of any terrorist activity on and off-campus. The event was concluded with the National Anthem.



Faculty and students after pledge ceremony.

एक भारत श्रेष्ठ भारत

- ❖ A workshop on "**Language and Cultures**" related to Arunachal Pradesh, Uttar Pradesh and Meghalaya was organized on April 3, 2019.
- ❖ A slide show/ photography competition related to tourist spots and exhibition on "**History and Geographical background, Tradition, Cultures and Foods**" in Arunachal Pradesh, Uttar Pradesh and Meghalaya was organized on April 5, 2019.
- ❖ Traditional / Folk songs and dance competition related to Arunachal Pradesh, Uttar Pradesh and Meghalaya was arranged during April 5-6, 2019.
- ❖ Food Festival on "**Food and Cuisine**" related to Arunachal Pradesh, Uttar Pradesh and Meghalaya was organized on April 6, 2019.



Decorated ESB kiosks

International Yoga Day

The institute celebrated the **International Yoga Day** in its Lecture hall on June 21, 2019. Mrs. Sagarika Dutta, a certified yoga instructor from **Patanjali Yoga Center**, was invited to teach yoga on the occasion. She taught subtle yoga asanas to avoid several physical and mental ailments. During her session she highlighted the importance of yoga in daily life and urged to practice it daily.



Faculties and students during Yoga session.

Shishir

2019

SHISHIR is the Annual Cultural Fest of National Institute of Technology, Meghalaya. It is the largest cultural fest celebrated across the state. This gala event was held during April 5-6, 2019.



SHISHIR inauguration ceremony.

There were a number of online and offline competitions started a month before to increase the hype. This included Graphic Design, Meme Design, Hand Sketch Design, Dubsmash, Mr. & Miss Sanskari, Photowalk, and Clash Royal Tourney. In Photowalk, students visited the Garden of Caves in Cherrapunji to capture the beauty of the place.



Felicitation of Mr. Debanjan Bhattacharjee and SPIC MACAY presentation.

Day one commenced with lively performance by Mr. Debanjan Bhattacharjee and his co-artist under SPIC MACAY. Many cultural events like Rangoli and other fun events also adorned the day. The evening was all about Harmony-the Singing Night. Harmony was accompanied by star-studded Pronite, where **Sreerama Chandra Mynampati**, the popular Bollywood sensation, sang students' favourite numbers and enthralled the audience by his stupendous performance.



Students performing in Harmony-the Singing Night.

The subsequent day began with no less enthusiasm. Food Fest reflected the cultures of various teams; EBSB photo exhibition showcases the rich traditions and customs of different regions of India. Various social issues were highlighted by NIT Meghalaya dramatics society. The evening delights were Step Up - the Dance Battle and Panache- the Fashion Night. The day ends with distribution of prizes to the winners of pre-SHISHIR events and the electrifying Jam session.



Audience enjoying Pro-Nite singing by Shreerama Chandra.

Editorial Board

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Dr. Paonam Sudeep Mangang, Dept. of HSS, Co-Chief Editor

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