



Indian Institute of Technology Guwahati  
भारतीय प्रौद्योगिकी संस्थान गुवाहाटी  
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# चिंतन

The Monthly Newsletter of IIT Guwahati

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## Honourable Minister for Human Resource Development Shri Ramesh Pokhriyal 'Nishank', Visits IIT Guwahati

The Hon'ble Minister for Human Resource Development, Shri Ramesh Pokhriyal 'Nishank', visited IIT Guwahati on 14 February 2020. The Hon'ble Minister was welcomed to IIT Guwahati campus by Prof. T. G. Sitharam, Director, IIT Guwahati, with a traditional phoolam gamocha.

The Hon'ble Minister was at IIT Guwahati to inaugurate the newly constructed Estate Building and the NRL- Centre of Excellence (CoE) for Sustainable Materials.

The Hon'ble Minister accompanied by the Director was welcomed and felicitated at the Estate Building by Prof. Sharad Gokhale, Dean of Infrastructure,

Planning and Management. The G+2 Estate Building- which will house the Engineering and the Maintenance was formally inaugurated by the Hon'ble Minister. Prof. Sharad Gokhale made a brief presentation on the various campus development across the institute, which was followed by a tree plantation drive around the Estate Building.

Thereafter accompanied by the Director and other functionaries of the Institute the Hon'ble Minister visited and inaugurated the NRL- Centre of Excellence (CoE) for Sustainable Materials. Prof. Gopal Das, Dean of Research and Development welcomed the Hon'ble Minister and accompanied him on his visit across various laboratories and demonstration of



Biodegradable Products and presentation of research innovations by the researchers.

The Hon'ble Minister was welcomed to the Senate Hall by the members of the Ek Bharat Shreshtha Bharat (EBSB) Club with the Rajasthani song 'Padharo Mhare Desh' and the Institute Anthem 'Yatra Path Jyotishman', after which the Hon'ble Minister had a brief interaction on the Ek Bharat Shreshtha Bharat at IITG. In his address, the Hon'ble Minister urged the IIT students to give priority to Prime Minister Narendra Modi's 'Make in India' initiative and focus on innovation and research. The Hon'ble Minister added "Through hard work we can achieve everything and appealed everyone to revitalise the nation. He said that we should give priority to 'Make in India' and focus on innovation and research to shine as a strong nation in the world".

Some of the technologies developed at IIT Guwahati, dedicated to the nation that were released by the Hon'ble Minister were

- Duper-water/ oil repellent polymeric coatings developed by Dr. Uttam Manna;
- Affordable Healthcare Technologies from Indian Silk by Prof. Biman B. Mandal;
- A 'Magic Box' Multi-Diagnostic Kit to provide Affordable Healthcare by Prof. Dipankar Bandyopadhyay and Prof. Arun Chattopadhyay;
- A Portable Bacteria Detection Kit developed by Prof. Parameswar Krishnan Iyer and Prof and Prof. Siddhartha Sankar Ghosh (Technology transferred to RR Animal Health Care Limited, Hyderabad);
- Method for Removal of Fluoride, Iron, Arsenic and Microorganisms from Contaminated Drinking Water by Prof. Mihir Kumar Purkait;
- Portable Kit for Onsite Determination of Formaldehyde in Aqueous Samples and Paper-Based Kit for Detection of Methanol by Prof. Pranab Goswami;
- A Non-Invasive Therapeutic Option for the Treatment of Alzheimer's Disease by Prof. Vibin Ramakrishnan and
- Low Cost Affordable Milk Testing Kit by Pranjal Chandra.

The Director thanked the Hon'ble Minister for releasing the technology and products developed by faculty and students of IIT Guwahati and dedicated to the nation. He also announced that IITG is celebrating its Silver Jubilee Year and also hope to see its exciting journey towards becoming a 'Network of Excellence'.

The programme ended with the Director presenting the Hon'ble Minister with the book titled 'Birds of IITG' which contains more than one hundred twenty species of birds, both residents and the visitors, who contribute to this richly biodiverse IITG campus.



Honourable Minister for Human Resource Development Shri Ramesh Pokhriyal 'Nishank' addressing the IITG community



Honourable Minister for Human Resource Development Shri Ramesh Pokhriyal 'Nishank' inaugurating the NRL- Centre of Excellence (CoE) for Sustainable Materials



Honourable Minister for Human Resource Development Shri Ramesh Pokhriyal 'Nishank' inaugurating the Estate Building





**IIT Guwahati ranks 9th in Institution output in Nature Index.**

**IIT Guwahati Ranked 20th in Top 50 young universities in chemistry in Nature Index.**



Dr. B.V.R. Chowdari, Director, NTU-India Connect, NTU, Singapore, visited IIT Guwahati. He met with the Director, Prof. T. G. Sitharam and other Deans, Associated Deans of IIT Guwahati.



Prof. T. G. Sitharam, Director, IIT Guwahati attended and took part in the Panel discussion with IIT Directors in the first IIT-Industry Conclave 2020, Bengaluru on 7-8 February 2020 on National Economy & GDP hosted by IIT Alumni Centre Bengaluru (IITACB).





Prof. T. G. Sitharam, Director, IIT Guwahati inaugurated the Institute's Wellness Centre, i.e., 'Centre for Holistic Wellbeing' on 18 February 2020 in presence of the Deans, Associate Deans, Heads of the Departments and Centres, other administrative officials and students of the Institute.



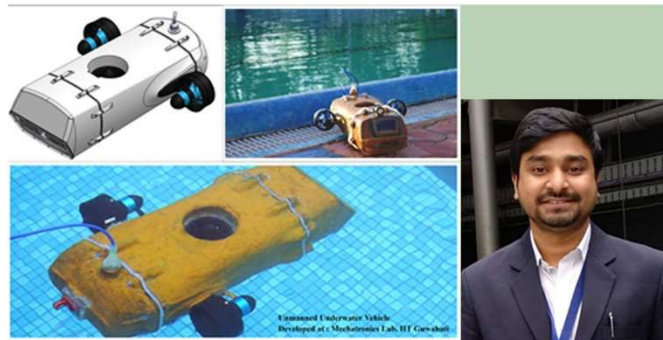
Prof. T. G. Sitharam, Director, IIT Guwahati has received Amity Global Academic Excellence Award. The award was presented in the Annual International World Summit, INBUSH ERA WORLD SUMMIT 2020, held in Amity University, Noida, India starting from 19-21 February 2020.

Amity Global Academic Excellence Awards are given to selected academicians and administrators of extraordinary eminence, who are driving the notable academic Institutions of the world to greater heights through their expert guidance, keen involvement, and strategic approach. The Award is a humble effort to recognize their most valuable contribution in the field of academics. The award is presented in the Annual International World Summit INBUSH ERA.



## Workshop Cum Symposium on Bio-inspired Nanomaterials for Environmental Applications

During 12-13 February 2020, two days DST-UKIERI supported Workshop Cum Symposium on “Bio-inspired Nanomaterials for Environmental Applications” was organized by Prof. Lalit M. Pandey and Prof. Animes K. Golder at the Centre for the Environment, Indian Institute of Technology Guwahati with the aim to discuss various challenges related to environment and nano-technological interventions via bringing together the experts from various backgrounds working in environmental science and technology. The symposium was the successor of the workshop held on 18 December 18, 2019 on “Recent Advances on Bio-inspired Nanomaterials for Environmental Applications”. The symposium was inaugurated by Prof. Gopal Das, the Dean, Research and Development, IIT Guwahati in the presence of Prof. Mihir K. Purkait, the Head, Centre for the Environment, IIT Guwahati.

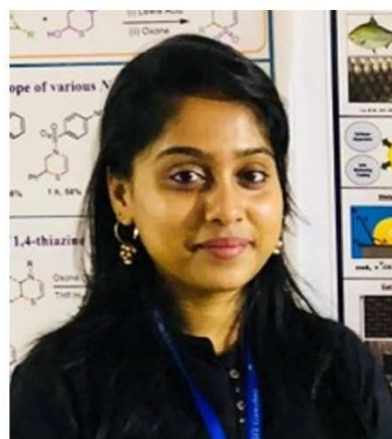


Mr. Avilash Sahoo, PhD Scholar in Dept. of Mechanical Engineering has been awarded the NRDC National Meritorious Invention Awards of the Year 2019.

He was awarded the National Budding Innovators Award of the Year 2019 for his innovation / invention “An Underwater Vehicle”, which also carries a cash reward of Rupees One Lakh.



The symposium comprised of six technical sessions on Bioinspired nanomaterials, Water and wastewater treatment, Bioremediation, Biosorption, and Photocatalysis in environment applications. The main high-points of the symposium were the invited lectures by Prof. Aaron Lau and Prof. Aruna Ivaturi, the international collaborators of the project from the University of Strathclyde, Glasgow (UK). There were 08 national and 03 international invited speakers who are the experts in various fields such as Chemical engineering, Biotechnology, Nano-biotechnology, Chemistry and Civil engineering along with 16 oral presentations by the selected young researchers. Nevertheless, a poster session on day two followed by a hands-on training on “Dye degradation using Photocatalyst” by Prof. Ivaturi were the major attractions. Two best oral and three best poster presentations were recognized.



Ms Arpita Shome, Ph.D. Scholar in the Dept. of Chemistry, working with Dr Uttam Manna, has been selected for the AWSAR-DST BEST Stories Award 2019 for her science story “Cotton – the Trivialized Treasure”.





A workshop IITG Society And Northeast India (ISANI-an Introspection) as a part of Silver Jubilee Celebration 2020 was organized by the Silver Jubilee Celebration Committee to introspect IITG's contribution to society in general and Northeast India in particular. The workshop was inaugurated by Prof. T. G. Sitharam, Director, IIT Guwahati in presence of Prof. D. N. Buragohain, Founder Director of IIT Guwahati.



## Sub-regional Cooperation: BIMSTEC and Northeast India in Perspective



Indian Institute of Technology Guwahati in association with the Observer Research Foundation (ORF), Kolkata Chapter, organised a National Seminar on Sub-Regional Cooperation: BIMSTEC and North East India in Perspective, at IIT Guwahati on 19 and 20 February 2020.

Dr Pahi Saikia, Associate Professor of the Political Science, Department of Humanities and Social Sciences, IIT Guwahati was the Convener of the Seminar. The Convener highlighted on the importance of India's strategic relations with its eastern neighbours in the Bay of Bengal sub-region. Prof. Saikia highlighted the need to understand the internal contradictions in India's North East. Pinak Ranjan Chakravarty, Former Indian Ambassador to Thailand & Former Indian High Commissioner to Bangladesh and Prasanta Jyoti Baruah, Executive Editor of The Assam Tribune addressed the inaugural session. Jaideep Saikia, who formerly served in the National Security Council Secretariat, chaired the inaugural session. Lt Gen (Retd) Subrata Saha, Former Deputy Chief of Army Staff & Present Member NSAB delivered a special lecture on Security and Governance. Invited Speakers from ORF, Kolkata, the Department of Biotechnology and Biosciences, Civil Engineering Department, IIT Guwahati and HSS, IIT Guwahati, Department of Political Science, Gauhati University delivered lectures on food, technology, livelihoods, trans-boundary connectivity. Dr R. Bedamatta from the Economics stream, IIT Guwahati discussed about the livelihood stress in the states of Northeast India. Mrinal Talukdar, a noted journalist spoke about the public narratives of the North East India.

In the concluding remark the convener and the co-convener of the Seminar, Dr. Anasua Basu Ray Chaudhury highlighted the opportunities and challenges of sub-regionalism in the Bay of Bengal region. A book titled "India Myanmar borderlands: Ethnicity, Security and Connectivity" authored and edited by Dr Pahi Saikia and Dr. Anasua Basu Ray Chaudhury was released in the Seminar.







International Mother Language Day celebrated on 21 February at IIT Guwahati. Dr. Kuladhar Saikia, President, Assam Sahitya Sabha, was the Chief Guest of the event. Prof. T. G. Sitharam, Director IITG delivered the welcome address.

Prof. Rohit Sinha spoke about the Technology Intervention in Mother Language promotion. Also, the researchers of IIT Guwahati made short presentations highlighting their research on 16 different Mother Languages.



MoU has been signed between IIT Guwahati and Institute of Advanced Study in Science and Technology (IASST), Guwahati, for the purpose of cooperation in Education and R&D activities between the two institutions. 25 February 2020.



AICTE and IIT Guwahati signed MoU to coordinate and guide to provide Solar and water projects in NE institutions.



## National Science Day 2020

The programme started at the Dept. of Physics with introductory remarks by the Head of the Department. The first session had invited talks by Prof. Minakshi Devi, former head, Physics Department, Gauhati University and Dr. Rajshree Bedamatta, Associate Professor, Department of HSS, IIT Guwahati. The session was chaired by the senior most faculty member of the Dept. of Physics, Prof. Alika Khare.

The second session had four lectures by the faculty members and students who had won accolades in last one year. Materials Research society medal 2020 winner Prof. P. K. Giri and National Academy of Science (NASI) Young Scientist Awardee Dr. Debasish Borah along with Mr. Jyotirmoi Borah, Research Scholar in Experimental High Energy Physics and best poster awardee, in the International Workshop on Frontiers in High Energy Physics at University of Hyderabad during 14-17 October 2019 and Mr. Gobinda Pradhan, Research Scholar in Experimental Photonics and best poster awardee in the 2nd National Conference on Recent Advances in Science and Technology (NCRAS 2019).

The session was chaired by the other woman faculty member of the Physics Department, Prof. Pratima Agarwal.

The third session had presentations by the young women scientists of Physics Department. Dr. Soumita Pramanick, Institute Post doctoral fellow, who talked about "Neutrinos and their oscillations". It was followed by overview of researches done by women PhD students in various research groups presented by Dolly Taparia, Shilpi Roy, Dipti Kanika Mahato and Lopamudra Mukherjee. The session was chaired by Prof. S. B. Santra.



## Northeast Institutional Heads Conclave

A Conclave meeting of Institutional Heads from NFTIs and CFTI s in the Northeast was organised by the office of the Dean Outreach Education Program (DOEP) on 17-18 February 2020.

The objective of the conclave was to meet on a common platform at IITG and explore possibilities of mutually beneficial long term academic cooperation on a level playing field that facilitates sharing of each other strengths, resources and knowledge. This event is part of IITG's vision of reaching out to Institutions in the Northeast in particular. A long term networking partnership is envisaged.

Twenty-eight invited delegates from NIT Nagaland, NIT Arunachal, NIT Mizoram, NIT Meghalaya, NIT Manipur, NIT Silchar, NEHU, IAAST, and CIT attended the meeting along with their Institutional Heads. Addressing the participating Heads of institutions, Prof. T. G. Sitharam stated the need for Institutions to come together and work for mutual benefit given that the Govt. of India has initiated the Look East policy. A total of fifty participants including Deans and Department / Centre Heads of IITG attended and made presentations on individual departments / sections. Later the Delegates visited departments to identify potential areas of collaborations and to get a first-hand feel of IITG's excellent Research infrastructure.

The second day's concluding session saw discussions followed by four MOUs being signed between IITG and CIT Kokrajhar, NEHU Shillong, NIT Mizoram & IAAST Guwahati. MOUs by other Conclave participants are in the process of being signed. In addition, a MOU was also signed between EICT Academy located in IITG and ASTU- Assam Science and Technology University. With the signing of MOU IITG will have a IITG-NIT/CFTI office in the participating institutions through which joint projects, exchange and networking will be facilitated.

This is the first conclave of NE Institutions and indicator of IITG's intent for increased interaction with CFTIs, Central Universities, National Institutions on a larger scale. DOEP is also working on collaborations with other IITs such as IIT-BHU and IIT Roorke to start with.





Directors, Vice Chancellors, Deans and Senior faculty member delegates



IIT Guwahati hosted the 3rd edition of ISEA International Conference on Security & Privacy (ISEA-ISAP 2020). It is a flagship event of Information Security Education and Awareness (ISEA), Ministry of Electronics and Information Technology (MeitY), GoI. This is an annual conference to provide a forum for the presentation of technological advances and research findings in the security and privacy area.

## RECYCLE 2020

Waste Management Research Group (WMRG), Department of Civil Engineering and Center of Rural Technology under the banner of IIT Guwahati organized the 3rd edition of RECYCLE 2020 '3rd International Conference on Waste Management'. Prof. Ashok Pandey, eminent scientist from CSIR-Indian Institute of Toxicology Research, Lucknow, India, along with Prof. Gopal Das, Dean, Research & Development & Prof. Sashindra Kr. Kakoty, Head, Center for Rural Technology of IIT Guwahati inaugurated the conference.

During the conference, several speakers all over the globe explained the growing need of waste management not only in India but also South-East Asia particularly related to solid waste disposal practices and management as well as sewage disposal and treatment practices in India. The speakers diligently highlighted the work being done to combat this serious issue and the ills that effect this issue.

Students and faculties from all parts of India participated in the conference giving the strength of registered participants to 276. Participants from UK, Brazil, and Bangladesh also attended the conference which had the following themes, Waste management policies and its legislation, Generation, collection, storage and transportation of solid waste, Biological treatment and energy production, Thermal treatment and advanced technologies, Reduce, reuse, recycle, remediation concepts & implementation strategies, Wastewater treatment and reuse, Landfilling treatment and technologies, Environment monitoring and assessment.

A panel discussion was organized chaired by five experts from different fields, as an open discussion with all the participants of the conference to highlight and discuss issues related to current situations of solid waste management in India, the plight of rag pickers' situation in India, Public-Private partnership (PPP) model related to management of solid waste, and many more areas which indeed proved to be a valuable experience, giving a new dimension to the perceptions related to waste management issues.

The modes of presentation in the conference were 'Oral' and 'Poster'. The different themes mentioned already were being presented as oral presentations chaired by various experts working in related areas in order to evaluate the best presenter from each theme. Various poster presentations were also evaluated by different experts during the two-day conference. 'Best Oral' Presentation was awarded to the best presenter from each theme and 'Best Poster' Presentation to four groups of presenters in rank order, during the valedictory ceremony of the conference.

Prof. Ajay Kalamdhad, Department of Civil Engineering and Dr. Meena Khwairakpam, Assistant Professor, Centre for Rural Technology were the Convener and co-convener of this edition of RECYCLE 2020.





## Recent Joinings



Dr. Chayan Bhawal  
Assistant Professor  
Electronics and Electrical Engineering



Dr. Tapan Krishnakumar Mankodi  
Assistant Professor  
Mechanical Engineering



Dr. Shubhadeep Mandal  
Assistant Professor  
Mechanical Engineering



Dr. Sudarshan Mukherjee  
Assistant Professor  
Electronics and Electrical Engineering



Dr. Shakuntala Acharya  
Assistant Professor  
Design

## Alcheringa

Alcheringa, the annual cultural festival of Indian Institute of Technology Guwahati entered its 24th incarnation and was spread over three days and four nights from 30 January to 2 February. The theme of this year, Gala De Janerio, is created by combining the elements of the Carnivals around the world, World Culture and Pop Art, Integrating them into a singular entity to bring fun and party elements to all the audience, participants and campus junta.

The inaugural night saw the much awaited classical night Saaz with performances by U. Rajesh (Mandolin), Giridhar Udupa (Ghatam), Dany Ali Khan (Violin), Hafeez Ahmed Khan (Tabla), Gino banks (Drums), Mohini Dey (Bass Guitar).

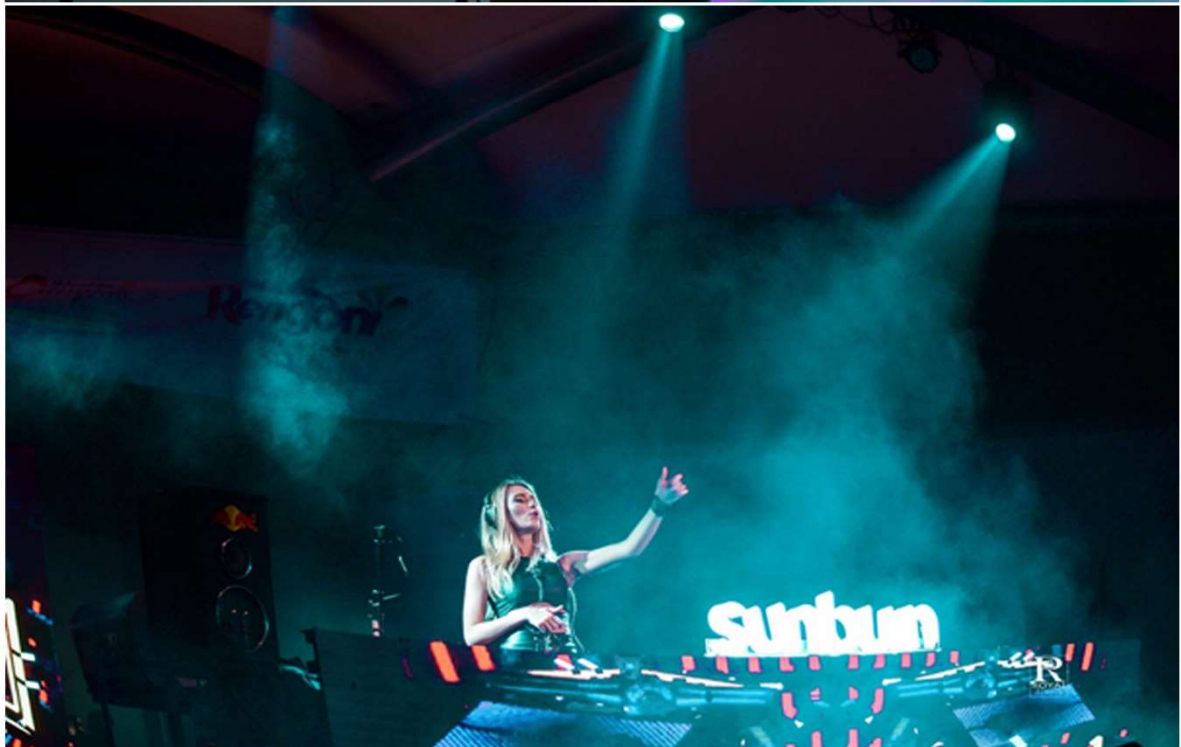
North East Social Summit (NESS), a conference held over two days during Alcheringa, aimed to tackle and bring awareness about the social, political and economic problems of North East India by means of case study competitions and round table discussions. It provided a confluence of the sharp students minds with the experience of experts in the concerned issue.

In Crescendo 2020, Alcheringa bought one of the biggest names of Bollywood to IIT Guwahati. With chart-busting numbers such as 'Tujhe Kitna Chahein Aur Hum', 'Kabil Hoon', 'Zindagi kuch to bata' Jubin Nautiyal swayed the crowd his way with his absorbing and soulful music.

Other interesting attractions in this 24th edition were, Fashion Shows, Fashion Designing Competition, Fashion Design and Photoshoot Competition; Rock-O-Phonix, Rap Battle, Acoustic Band Competition, Parliamentary Debate, Online Doodle Designing Competition, Stage Play Competition, various Sporting events, and many others events attracted participation in huge numbers.







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