Visit of His Excellency Mr. Emmanuel Lenain, Hon’ble Ambassador of France

H. E. Mr. Emmanuel Lenain and the delegation met Prof. T. G. Sitharam, hon’ble Director, IIT Guwahati along with Prof. Rakhi Chaturvedi, Dean, Alumni & External Relations, Prof. Aditya N. Panda, Associate Dean, Alumni & External Relations and other officials of the Institute. Following discussions with the Director IIT Guwahati on a broad range of issues related to academic and research collaborations, the delegation thereafter visited the Department of Design, Centre for Energy, Central Instruments facility and the Centre of Excellence for Sustainable Polymers. H. E. Mr. Emmanuel Lenain also interacted with Students, Staff and faculty members of IIT Guwahati and expressed appreciation to each and every one for the wonderful academic ambience and infrastructure.

Hon’ble Ambassador of France to India, H. E. Mr. Emmanuel Lenain visited IIT Guwahati on 05 November 2019. The delegation included Ms. Virginie Corteval, Consul General of France in Kolkata, Mr. Romain Otel, Second Counsellor, Political Service, Ms. Emilia Cartier, Attachée for University Cooperation (North & East) and Ms. Anjita Roychoudhury, Press Attachée, General Consulate of France in Kolkata.
Visit of His Excellency Mr. Emmanuel Lenain

IIT Guwahati Researchers Develop a Paper Based Sensor That Assesses Freshness of Milk

A research team led by Dr. Pranjal Chandra, Assistant Professor, Department of Biosciences and Bioengineering, IIT Guwahati along with Mr. Kuldeep Mahato, research scholar developed a simple visual detection technique to detect the quality of milk, without the need for special equipment and instruments and their work has recently been published in the journal, Biosensors, and Bioelectronics.

“It would be useful if the quality of milk can be tested at the point of collection of milk or even in the home kitchen,” said Dr. Chandra, adding that such testing requires easy-to-operate and portable detection kits.

Explaining the research, Dr. Chandra added, “Alkaline Phosphatase (ALP) is a metalloprotein found naturally in raw milk samples and is considered an important biomarker in quality control of milk”. It is found in raw milk and is destroyed during pasteurization. ALP is also found in higher amounts in the case of milk derived from animals with infection in the mammary glands. Detection of ALP in milk can thus point to inadequate pasteurization and perhaps contamination.

“Despite ALP’s recognizable detection potential in native milk, the multistep nature, and requirement of sophisticated bulky analytical instruments and trained personnel, to detect ALP, limit their use as a sensor of milk quality in remote settings and in home kitchens,” added Dr. Chandra, justifying the scope and need for developing better ALP detection kits.

The researchers have used simple filter paper, chemically modified it, and loaded it with a recognition element anti-ALP, which captures the ALP present in the milk. Upon treatment of the colour forming compound BCIP to the captured complex of ALP forms a blue-green coloured precipitate, that otherwise does not give any colour in the absence of ALP. The intensity of the colour indicates the amount of ALP present. The team used a smartphone to capture the image of the colour and used the RGB (Red Green Blue) filter in the phone to profile the colour obtained, which could be co-related to the concentration of ALP present in the test sample.

“Our sensor takes merely 13 min to detect ALP, and hence it can be applied for quick onsite analysis” said Dr. Chandra. The researchers successfully tested milk obtained from villages and commercially available milk samples using their paper-based sensor kit, and found that they could detect down to 0.87 units of ALP per millilitre of milk to about 91-100% accuracy.
This detection limit and accuracy make it possible to discriminate raw milk (often contains as high as 191 U/mL ALP) from pasteurized/boiled milk which contains ALP in ultra-trace amount. Based on the detection principle, the team has also developed a miniaturized detection kit and demonstrated the instrument-free, in-kitchen applicability of the kit for milk monitoring. “We plan to extend the sensing platform/principle we have developed for ALP towards the detection of various molecules in different matrices. In fact, we have developed another sensor for ALP detection using a label-free bio-electronic chip. This new sensor has been developed by Mr. Kuldeep Mahato, Mr. Ashutosh Kumar, Mr. Buddhadev Purohit. The developed bio-electronic chip is an advanced version of the paper-based kit with improved accuracy”, said Dr. Chandra. “We have plans to commercialize both the variants of milk pasteurization testing kits,” he also added on future plans.

Dr. Chandra with his team
As per the Census 2011, India has strong 268 lakhs persons with disabilities. Most of these populations stays in rural areas and still deprived from rehabilitation services due to shortage of trained rehabilitation professionals. The Right to free and compulsory education Act, is talking about minimum 1:30 teachers and students ratio; however Rehabilitation Council of India (RCI) had trained so far approximately one lakh professionals in total 16 disciplines courses. Recently passed Right to Persons with Disability Act 2016 added 14 more categories of disabilities. Currently, there is requirement of many other categories of professionals to serve these added categories. There are many burning issues and other challenges for development of assistive products like affordable wheelchairs, mobility aids, hearing aids, prosthetic and orthotic devices, low vision aids and communication aids. In the community there is greater need at extending our understanding on the Right of the Persons with Disabilities Act, 2016 advancing knowledge, promote research & collaboration. The newly enacted Act mandates all educational institutes funded or recognized by the government shall admit Children with Disabilities and extend all facilities of accessible environment, books, scholarships teacher training and professional training and take all measures on promoting inclusive school. The lecture concluded with questions and answer session.

Ms. Princy Gogoi, a dynamic youth from Assam with special abilities was also felicitated in the same programme. Despite especially abled person she has overcome many challenges and living a dignified life. She is an inspirational role model for young generation. Ms. Gogoi is an artist and owns Arts School in Guwahati. She is also a good sportswoman who participated in the Para Olympic Games 2016 held in Delhi.
The "Constitution Day" was observed at the Institute 26 November 2019 that saw enthusiastic participation from the students, faculty and staff members. Reading of the Preamble to the Constitution was led by Prof. T. G. Sitharam, Director, IIT Guwahati led the reading of the Preamble of the Constitution at the Administrative Building Foyer.

The Visitor's Conference was held on 19 November 2019 at the Rashtrapati Bhavan. Along with the Directors of IITs and NITs, Honourable President at the Rashtrapati Bhawan, Honourable Minister and Minister of State HRD were present to discuss about progress in higher education in the country. IIT Guwahati was represented by its Director Prof. T. G. Sitharam, who spoke on outreach and inclusivity: in particular role of alumni in activities of the university.
E&ICT Academy, IIT Guwahati Hosts the Inaugural Session for the PG Certification in Data Science in Association with Edureka

The E&ICT Academy, IIT Guwahati hosted the inaugural session for its one-of-a-kind Postgraduate Certification course in Data Science in association with its partner, Edureka on Saturday, 2 November 2019 at the premises of E&ICT Academy, Technology Complex, IIT Guwahati. The dignitaries who were present on the occasion are Padma Shri Dr. Sankar Pal, ex-Director, ISI Kolkata, Prof. Gopal Das, Dean, Research & Development, IIT Guwahati, Prof. Pradeep Yammiyavar, Dean, Outreach, IIT Guwahati and, Prof. Rohit Sinha, HOD, EEE, IIT Guwahati.

Prof. R. Bhattacharjee, PI E&ICT Academy IIT Guwahati, Dr. G. Trivedi, Co-PI E&ICT Academy, IIT Guwahati, Mr. Lovleen Bhatia, Co-Founder & CEO, Edureka, and Mr. Ananda Rao Ladi, Chief Learning Officer, Edureka were the other members present in the event. The program was attended by staff members of E&ICT academy, staff members of Edureka and the participants of the course who were present online.

Prof. Gopal Das, Dean, R&D, IIT Guwahati, delivered the keynote address for the event. He focused on the necessity of upskilling for professionals in today’s world. He explained how the two organizations were able to come together and launch the program in record-breaking time. He spoke about how the industry is changing every day and how important it has become for professionals to upskill at regular intervals. Talking about the importance of upskilling today, Prof. Das said, “Now, it is very important to realize that the knowledge you gain during your undergraduate studies, you go for a job, and then you spend at least 10 years in the job and by that time there is a huge change in the scenario of your learning experiences…. Every six months you have to refresh your knowledge and now it’s becoming even more frequent.”

The next speaker was Prof. Bhattacharjee who spoke about the initiatives of the E&ICT Academy and its partnership with Edureka to provide online learning. He answered frequently asked questions by learners and professionals about the program. He moved on to talk about how the E&ICT Academy was playing a crucial role in upskilling the faculties of leading educational institutes with the goal of creating an ecosystem for the industry and academia to exchange ideas, to innovate and how its partnership with Edureka is going to help the academy reach a wider audience.

The Guest of Honour for the event, Padma Shri Dr. Sankar Pal spoke in-depth about Data Science in a very insightful address. He started off with the basics of Data Science and then moved on to talk about how Data Science was a constantly evolving field that required constant upskilling to be ready for the future. In conclusion to his address, Dr. Pal expressed his happiness about the fact that the E&ICT Academy has partnered with Edureka to launch this PG Certification course in Data Science. He congratulated both E&ICT academy IIT Guwahati and Edureka and wished a grand success for the program.

The concluding address was delivered by Dr. Trivedi, Co-PI E&ICT academy who spoke about the way the program was planned to be taken forward and the future of the partnership between the two institutes for other potential courses. Finally, Prof. Rohit Sinha, HOD, EEE, IIT Guwahati delivered the vote of thanks. Speaking about the partnership, Lovleen Bhatia, CEO & Co-Founder, Edureka, said, “We are elated to partner with one of India’s most prestigious institutions – the Indian Institute of Technology – to offer this PG Certification, which is an industry-first. This partnership allows us to offer a well-rounded, cumulative real-world experience to learners who would like to build their career in the intersection of strategy, mathematics and engineering. To make it possible, this PG Certification combines E&ICT Academy, IIT Guwahati’s technology expertise and Edureka’s operational excellence in the live, online instructor-led learning model with our unique features of lifetime technical support and course access.”

Delivering one of the highest course completion rates in the industry, Edureka is committed to helping IT professionals stay relevant as well as take the next big step in their career by upgrading to future technologies. Edureka’s mission is to create an alternate platform for professionals who wish to continue and complete courses by attending live online courses, using a team of highly committed educators who will stop at nothing to impart education, helped by a 24 x 7 support system.

Established by the Ministry of Electronics & Information Technology, the E&ICT Academy’s goal is to conduct customized training programs and promote research in the private sector. It has been envisaged as a central hub for activities on training, consultancy and entrepreneurship programs. The Academy conducted 178 programmes and trained 7800(approx.) participants across India. The Academy also conducted specialized training for the police officials of cyber dome. In the coming academic session 60 Faculty
The 4th edition of the Northeast Green Summit was held from 1-3 November 2019. The Northeast Green Summit was initiated in 2016 to raise awareness and empower people with the knowledge of the rich and diverse natural habitat, bio-diversity and cultural heritage that the North Eastern region of India is bestowed with. Following on three successful Summits in 2016, 2017 and 2018, in its 4th Edition, the Northeast Green Summit 2019 aimed to promote environmental protection and responsible tourism by bringing together stakeholders from all walks of life to deliberate, share experiences and propose solutions to some of the unique challenges being faced in the region, with the underlying theme of ‘Green Northeast, Clean Northeast’. Promoting conservation and sustainable livelihood options, besides highlighting some of the success stories in this domain, was also undertaken as part of this Summit.

The 4th Northeast Green Summit (1st Nov to 3rd Nov 2019) was organized by Vibgyor media solutions & Vibgyor NE foundation in collaboration with IIT Guwahatii at IIT Guwahati campus. The inaugural ceremony took place on 2nd Nov 2019 and the valedictory on 3rd Nov 2019. Parallel technical sessions were conducted over the two days on various topics viz. (i) skilling NE India to promote rural livelihood through green jobs, (ii) revisiting forest laws in and outside 6th schedule areas: perspectives from northeast India, (iii) responsible tourism in Northeast: charting the future, (iv) indigenous conservation, sustainable growth and associated practices: Northeast back then & way forward and, (v) converting waste into opportunity: charting a road map for NE India.

From IIT Guwahati, the host institute, Prof SK Kakoty, Head, Centre for Rural Technology was the coordinator and Dr. Sudip Mitra, Associate Professor, Centre for Rural Technology was the convenor of this mega event.

The 3-day Summit brought together participants and key stakeholders from central and state governments, the Indian and foreign private sectors and Indian PSUs, besides international development organizations viz. UNEP and others. The summit focused basically on the concept of environmental protection and responsible tourism with special reference to the North Eastern Region. The participants, especially the students were highly enriched and enlightened regarding the scope of sustainable tourism in the Northeast and the responsibility that lies on the shoulders of each and every tourist. They were inculcated the values of responsible tourism and how to contribute in the preservation and conservation of Nature through tourism and its responsible utilization. This edition of summit also had an open air art walk by the Lalit Kala Academy to showcase live art sessions, indigenous musical instruments, exhibitions, writing workshop by Camlin and much more, all inspired by nature and featuring various NE states.

The inaugural and valedictory session witnessed the presence of luminaries like special invitee Shri. Jishnu Debberma, Dy. Chief Minister, Tripura; Dr Rajdeep Roy, MP Silchar; Justice Sonam P Wangdi, Member, National Green Tribunal; Shri Naveen Verma, IAS (Retd.) Former Secretary, DoNER, GoI; Mr. C.P Marak, IFS Chairman Pollution Control Board Meghalaya and PCCF & HOFF; Shri Anand Prakash Tiwari, IPS MD, Assam Skill Development Mission; Mr. Anuj Agarwal, Chairman AAI, Mr. Ravi Shankar Prasad, Additional Secretary MOEF, GoI; Mr Khampa Borgrexy Dy. Chief Bodo Territorial Council; Shri Pawan Kaushik, Regional Director at Centre For Forest-Based Livelihoods & Extension, Agartala. The chief guest of the inaugural function was the honourable Mr. Siddhartha Bhattacharya, Minister of Education, Govt. of Assam.

In his welcome address in the inaugural session Prof. T. G. Sitharam, Director, IIT Guwahati mentioned about various achievements of IIT Guwahati and the important role that it plays in this part of the country. He also highlighted the various research and development works carried out by the faculty and students of the institute towards sustainable development, rural sector, health and overall wellbeing of the society. Along with various other dignitaries Prof PS Robi, Deputy Director, IITG; and Prof Guru Prem Prasad, Registrar (in charge) graced the valedictory function on 3rd November 2019. This event was telecasted by Doordarshan’s North East channel.

During this summit two more important events took place, i) release of one postal stamp on the summit and ii) release of a book on FLORA of IIT Guwahati in the august presence of the Chief Guest Shri. Siddhartha Bhattacharya, Minister of Education, Govt. of Assam, Shri. Jishnu Debberma, Dy. Chief Minister, Tripura and many other luminaries as mentioned elsewhere.

This book on FLORA of IIT Guwahati (Vol.-I) is the first of its kind to capture the floristic diversity of the campus with over 400 species of angiosperms (includes several indigenous trees, shrubs, climbers and herbs). The book, first in series gives a snapshot of some of the pristine natural wonders of the unique
campus setting near Amingaon village on the fringes of the mighty Brahmaputra. It is authored by Prof Lathna Rangan, Head, Biosciences and Bioengineering (BSBE), Dr. Sudip Mitra, Associate Professor, Centre for Rural Technology (CRT) and their two PhD scholars Mr Alok Senapati (BSBE) and Mr. Nihal Gujre (CRT).

address and the conference was concluded with the valedictory address by Prof. Udayon Misra, a renowned literary personality. All the deleagtes, participants and attendees had a successful and academically rich experience, and also a chance to enjoy hospitality of IIT Guwahati for which the institute was widely appreciated during the feedback session. The GRM 2019 conference was supported by separate grants from North Eastern Council, Ministry of DoNER, Government of India; Indian Council of Social Science Research (ICSSR), and Canara Bank.

National Conference on Upstream Petroleum Engineering (NCUPE 2019)

On the occasion of the Silver Jubilee Year of IIT Guwahati, Department of Chemical Engineering, IIT Guwahati and Society of Petroleum Engineers, NE India Section organized a National Conference on Upstream Petroleum Engineering (NCUPE 2019) during 2-3 November 2019 at IIT Guwahati. Prof. Anugrah Singh was the convener of the conference. The conference witnessed participation from all over India. NCUPE 2019 provided a vibrant platform for the scientific discussions on different areas of upstream petroleum engineering. The conference was inaugurated by the Deputy Director of IIT Guwahati, Prof. P. S. Robi. The conference witnessed interactive sessions and expert talks by eminent scientists from academia, professionals from Oil & Gas sector and students from various Institutions. The conference also included a panel discussion on EOR & IOR: Challenges & Opportunities in India, contributed talks, and poster presentations. Prof. Rakhi Chaturvedi, Dean (AER), IIT Guwahati delivered the valedictory address of the conference.

Graduate Research Meet 2019

The Department of Humanities and Social Sciences, Indian Institute of Technology Guwahati, hosted the 6th edition of the Graduate Research Meet (GRM 2019) on 1-2 November 2019 at IIT Guwahati. The Conference had an interdisciplinary focus reflected by this years’ theme “Contemporary Trends in Humanities and Social Sciences”. The aim of the conference was to facilitate the exchange of the knowledge between young researchers, provide them with a supportive venue for constructive peer review and critique of ongoing research output, and to consolidate the established network of scholars currently undertaking research.

Building on the success of the previous Graduate Research Meets, this year’s Meet had attracted more than 840 research abstracts in total from all over the country and a few from the outside from which 90 research papers were selected for presentation, with more than 1/6th representing Northeast India.

The conference was graced by two stalwarts in social science research in India. Prof. Gopal Guru, present editor of the Economic and Political Weekly and a scholar of political studies delivered the keynote
Visit of a Delegation from Curtin University

A delegation from Curtin University, Australia, consisting of Prof. Kate Trinastic, Dean Research, Faculty of Science and Engineering and Prof. Abhijit Mukherjee, Dean International (South Asia), visited Indian Institute of Technology Guwahati on 21 November 2019 and interacted with students, faculty and staff members.

The delegation had a meeting with Prof. T. G. Sitharam, Director, IIT Guwahati which was also attended by Prof. Rakhi Chaturvedi, Dean of Alumni and External Relations (AER), Prof. Aditya Narayan Panda, Associate Dean, AER, Prof. Chandan Mahanta, HoD, Department of Civil Engineering and Mr. A. Wanshai Shynret, Assistant Registrar, AER. The meeting focused on the ongoing mobility as part of the Collaborative Doctoral Program between IIT Guwahati and Curtin University and how to strengthen it further. Discussions were also held on extending the scope of mobility to science-based departments apart from the existing mobility from engineering departments. The delegation expressed satisfaction at the progress of partnership and planned the priorities for the next year.

The delegation also separately met with students from different departments who were interested to be part of the collaborative doctoral programme between the two institutions.

Visit of Mr. Daniel Wilson Vice-Consul at U. S. Department of State and his team on 14 November 2019

The Vice-Consul at U. S. Department of State, Mr. Daniel Wilson along with his team visited Indian Institute of Technology Guwahati on 14 November 2019 and interacted with students, faculty and staff members of the institute.

Prof. Rakhi Chaturvedi, Dean of Alumni and External Relations (AER) chaired the session and delivered the formal welcome address. Prof. Aditya Narayan Panda, Associate Dean, AER also attended the session.

In this interactive session, the Vice-Consul addressed the gathering on various Fulbright Fellowships such as Fulbright-Nehru Doctoral Research Fellowship, Fulbright-Nehru Postdoctoral Research Fellowships, Fulbright-Nehru Academic and Professional Excellence Fellowship and eligible fields of study. He also explained on the types of VISA available, procedures to apply for VISA and other Higher Education opportunities in the United States. The session was attended by undergraduate, post-graduate, doctoral students and the faculty and staff members of the Institute.
Visit by Delegates from National Chung Hsing University

The faculty of National Chung Hsing University (NCHU), Taiwan, Prof. Wen-Ling Deng, Director, Division of Foreign Student Affairs & Prof. Mu-Min Chen, Vice President of International Affairs along with their team visited IIT Guwahati and attended the interactive session with student, faculty and staff members of IIT Guwahati. Prof. Rakhi Chaturvedi, Dean AER, chaired the interactive session and formally welcomed the gathering and introduced the faculty of NCHU.

The faculty from NCHU made different presentations to the audience on various aspects of student and faculty bi-lateral mobility, internships, research collaboration and various scholarship opportunities available for students such as the Taiwan Government Scholarships by Ministry of Education, Foreign Affairs and Science & Technology, Taiwan. Apart from government scholarships, NCHU also provide institute scholarships such as NCHU Elite scholarships.

The session was then followed by the Taiwan Tea Ceremony, where officials from Taiwan Tea Industry participated. As part of the tea ceremony which saw active participation of students and faculty, the officials from the Taiwan tea industry prepared the Taiwanese tea themselves, showed the process of preparing tea in Taiwanese way and served the gathering. They also explained to those present the benefits of different varieties of tea.

Royal Society of Chemistry (RSC) Roadshows 2019

Royal Society of Chemistry (RSC) Roadshows are RSC flagship events for the research community in India; having visited 20+ universities and interacted with over 3000 researchers, PhD students and librarians over the past years. The roadshows are a one-day event featuring scientific deliberations and publishing workshops. Following on the RSC Roadshows success in previous years, RSC Roadshows 2019 was organized at IIT Guwahati on Wednesday, 06th November 2019. The one-day event was inaugurated by the Chief Guest Prof. T. G. Sitharam, Honorable Director, IIT Guwahati. Dr. Emma Wilson (Director of Publishing, RSC, UK) was the guest of Honor. The event was also graced by Prof. G. Krishnamoorthy Head-in-charge, Department of Chemistry, IITG. The RSC Roadshow 2019 at IITG provided an opportunity for the research community in India to hear the exciting research carried out by high profile researchers on RSC journals board. Some of the prominent personalities who graced the occasion with their lectures included, Prof. Andrei Yudin (Associate Editor, Chemical Science, University of Toronto), Prof. Akhil Kumar Sahoo (Associate Editor, New Journal of Chemistry, University of Hyderabad), Prof. Dave Haddleton (Member of Publishing Board, RSC, University of Warwick, UK), Prof. John Arnold (Chair, Dalton Transactions, University of California, Berkeley), Prof. Umesh Wagmare (Associate Editor, Nanoscale and Nanoscale Advances, JNCASR, Bangalore), Prof. Garry Rumbles (Associate Editor, Sustainable Energy and Fuels, University of Colorado Boulder) and Dr. May Copsey (Executive Editor, Chemical Science, RSC, UK). The event provided an excellent opportunity for a select group of IITG students to showcase their research work through short presentations. The event will with a panel discussion among the editors which The event concluded with a panel discussion provided an opportunity to engage with the editorial board members of RSC and Prof. Arun Chattopadhyay (Department of Chemistry, IITG) to understand the best practices in scientific publishing and learn more about the Royal Society of Chemistry journals, books and databases. The event was anchored by Dr. Aparna Ganguly, Editorial Development Manager, RSC India.