From HOD’s Desk

I would like to give my sincere greetings to fellow faculty members, staff, students, and alumni of the Department of Biosciences and Bioengineering (BSBE). On behalf of the Department, I am pleased to present Volume 2 of our Department Annual Newsletter, which is a bit overdue. One year has zoomed by and has been a transformative experience for all of us. During the Institute’s Silver Jubilee Celebration (1994-2019), we pledged to be more committed towards the overall ethos of teaching and learning at the backdrop of the BSBE Department’s vision and mission. Fostering frontier areas of research and ideas relevant to the present time, including ‘standing tall’ to the global crisis of the COVID-19 pandemic has been the true hallmark and testament of this period. This is evident from the fact that faculty from the Department have immensely contributed towards research ideas, innovation, delivery of products, technology, and offered their relentless services not only to the region or state but to the entire nation, meeting the need of the hour. This will remain the most gratifying experience now and in the future when we rewind.

On the completion of the 25th year of the Institute and 17 years of Department footprint, we have come up with new initiatives that include the Annual Newsletter and also Annual Department Retreat in addition to excellent performance in academics, research, and industry collaboration. On the eve of National Science Day Celebration, Shri Ramesh Pokhriyal ‘Nishank’ Ji, Honorable MHRD Minister, Govt. of India, dedicated technologies developed by our Department faculty to the Nation. Thoughtful steps towards the conservation of natural resources in and around this campus were taken as a joint activity and consolidated in the form of a book. The Department had a complete facelift when the new website was launched along with a digital display screen, indicative of our openness to embrace the digital era for good.

I congratulate my colleagues, staffs, and students for a wonderful interaction during the academic year 2019-2020 and wish everyone best and pray that all stay safe and healthy as we take another leap forward as a family.
### Tangible Output

#### Research Output
- Journal Publications: 220
- Invited Lectures: 46
- Patents Filed: 9
- Books: 1
- Book Chapters: 25

#### Research Projects
- 
  - Ongoing: 45
  - Completed: 17
  - New: 13

#### Project Funding (in lakhs)
- 
  - Completed: 851.6
  - New: 558

#### Technology/Product/Process Commercialization

1. **PAPER-BASED KIT FOR ONSITE DETERMINATION OF FORMALDEHYDE IN AQUEOUS SAMPLES**  
   - 
   - **Technology/Process**
   - **Prof. Pranab Goswami**

2. **PAPER-BASED KIT FOR DETECTION OF METHANOL**
   - 
   - **Technology/Process**
   - **Prof. Biman Mandal**

3. **A NON-INVASIVE THERAPEUTIC OPTION FOR THE TREATMENT OF ALZHEIMER’S DISEASE**
   - 
   - **Technology/Product/Process**
   - **Prof. Vibin Ramakrishnan**

4. **LOW COST AFFORDABLE MILK TESTING KIT**
   - 
   - **Technology/Product/Process**
   - **Dr. Pranjal Chandra**

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**BSBE Faculty & Staff**

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Prime Minister Research Fellowship (PMRF) encourages indigenous researches in frontier areas of Science and Technology which are of national interest. It provides the platform for scholars to conduct highly motivated research. Also the research grant gives the scholar an opportunity to grow as an independent researcher. Mr. Pratik Nag got selected for this prestigious fellowship in the year of 2018. PMRF enables him to carry out his Ph.D. work under the supervision of Dr. Souptick Chanda in the Biomechanics research Lab., IIT Guwahati. The group aims to bring patient specific solutions to the orthopaedic problems of the North-Eastern region. As part of Mr. Pratik Nag’s Ph.D. work, he is trying to explore design rationale of extramedullary devices for femoral fracture fixations. Recently, a novel clinically advanced implant (MIDO-DHS) is being developed by him in collaboration with NEIGRIHMS, Shillong. MIDO-DHS promises to solve the existing disadvantages associated to conventional implants in view of the geometric and morphometric variations of North-Eastern population.
News & Events

DBT Program Support Center at IITG mentors a Biopesticide Venture Company in Assam

Trichoderma and Metarhizium based biopesticide and Boron booster products used by more than 72 big Tea Gardens and Commercial vegetable growers in Assam.

Promoting Organic farming and Sustainable livelihood mission of United Nations

Fourth International Conference on Neutraceuticals and Chronic Diseases, September 23-25, 2019; Organized by Prof. Ajay B Kunnumakkara

Bio-Inspired Nanomaterials for Environmental Applications, February 12-13, 2020; Organized by Dr. LM Pandey & Prof. AK Golder

Workshop on Diagnostic Approaches in Virology, March 4-6, 2020; Organized by Dr. Sachin Kumar

Other Events Organized

Biotech Express - 1st Departmental Retreat, December 21, 2019

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IIT Guwahati researchers develop affordable antiviral spray-based coating for PPE

In an attempt to safeguard healthcare workers and citizens from coronavirus, a team of researchers at Indian Institute of Technology (IIT), Guwahati have developed an affordable antiviral spray-based coating for PPE kits to kill and prevent the spread of microbes once they come in contact with the coated PPE surface.

IIT Guwahati

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