NEWSLETTER

(2020-2021)

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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BIOTECHNOLOGY

Message from HOD Desk

Technical Education is the most potential instrument for socio-economic change. Presently, the engineer is seen as a high-tech player in the global market. Distinct separation is visible in our education between concepts and applications. Noida Institute of Engineering and Technology (N.I.E.T.) is a leading, premium institution devoted to imparting quality engineering education in biotechnology since 2012. The sustained growth with constant academic brilliance achieved by NIET is due to a greater commitment from management, dynamic leadership of the president, academically distinctive and experienced faculty, disciplined students, and service oriented supporting staff. I sincerely advise the young engineers to face the major challenges of biotechnology industry and up grading the technology with optimum use of materials, equipment and human resources.

VISION

To become a prime influencer in the field of Biotechnology and provide a vibrant learning environment to the students that will have a trans-formative impact on the society in terms of academics, research, and entrepreneurship.

MISSION

M1: - To create educational experience targeted on a deep understanding of interdisciplinary sciences & engineering with the focus on development of industry aligned skills.

M2: - To expertise in research, innovation and entrepreneurship supporting the overall growth of the biotechnology academia and industry.

M3: - To inculcate leadership qualities in students to handle competitive edge, social & ethical challenges for a better world.

PEO's

PEO 1: Students will acquire knowledge skills in the frontier areas of Biotechnology and will be able to solve societal problem individually and in team.

PEO 2: Students will be able to think creatively and critically about the use of biotechnology ethically to address local and global problems.

PEO 3: Students will be able to implement the engineering principles to biological systems for development of industrial applications, as well as entrepreneurship skills to start biotech industries.

PSO's

PSO1: To apply knowledge of basic sciences and biotechnological techniques to modify living organisms.

PSO2: To design, optimize, analyse & scale up bioprocesses to develop useful products with societal consideration.

PSO3: To generate, analyse & interpret biological data using Insilco & other relevant approaches.

DEPARTMENT HIGHLIGHTS

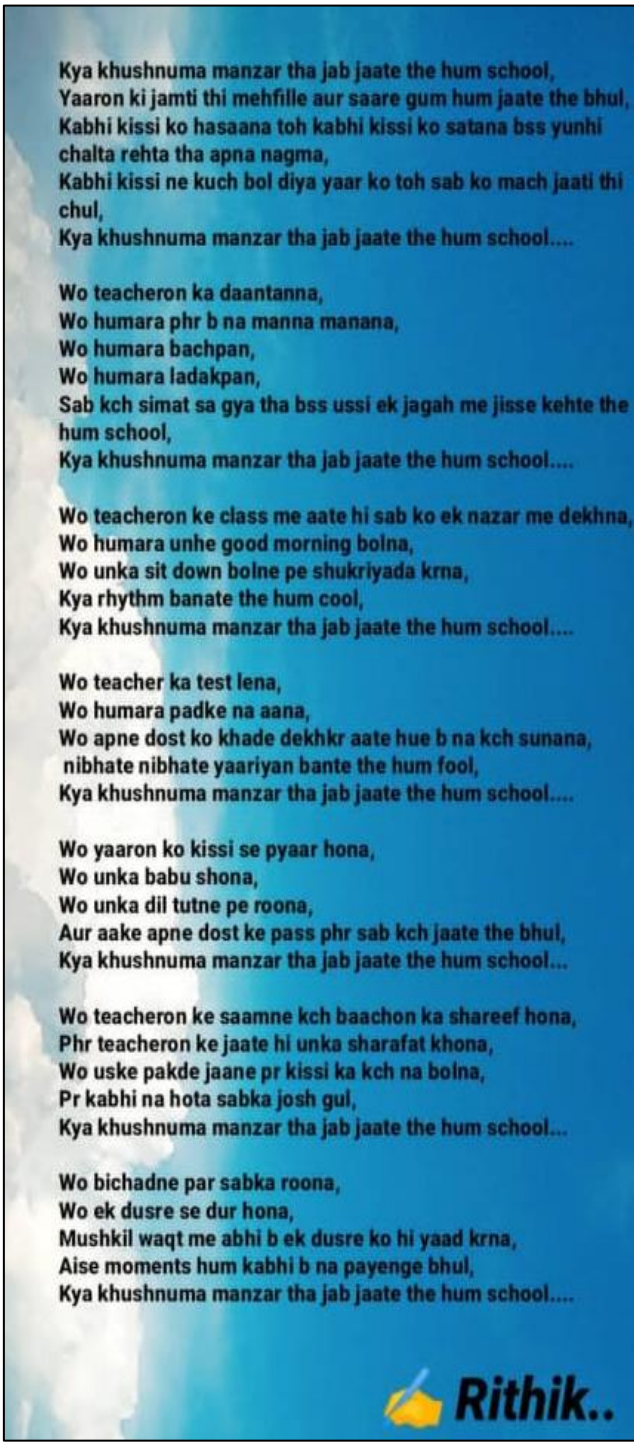
- Department organized a guest lecture on bioinformatics by Mr Rohit Satyam 25 august 2020. The topic was “Best practices in structural biology & Genomics: filling the potholes”. He discussed the importance of bioinformatics tools in the drug discovery and clinical disease management.
- Faculty Development programme on pedagogy (Effective Teaching and Learning for Faculty) was organized by department of biotechnology and sponsored by AKTU in December 2020

- A Non-Technical Event was organized by Ms Shweta Sharma on occasion of Christmas on 24th December 2020 which included Photography Contest, Cooking Competition and Greeting Card Making Competition.

- Students of the Department took part in online learning platform Career edge-Knockdown the Lockdown by TCSion from 1st may to 28th July 2020.
- Department of biotechnology organized a technical event “COVID-19: Poster Making Contest” coordinated by Dr. Ayushi Verma faculty coordinator of event.

- The Department of Biotechnology in association with Swadeshi Science Movement of India (SSMD) organized an INTERNATIONAL CONFERENCE (Virtual) On BioTrendz “Advancement & Challenges in Science and Technology” between 9th-10th, October 2020
- The department of biotechnology in association with Institute Innovation council (IIC)- NIET organized effective research writing by Dr. Pratibha Pandey, Assistant Professor, Department of biotechnology, NIET on 26th December 2020. The lecture helped the students, faculty, and researchers to understand the significance of research, research design, implementation and journal indexing.
- The department of biotechnology in association with Institute Innovation council (IIC) organized one day webinar on 3rd November 2020 through online portal on the topic “Taking charge of your health by Dr. Deena, Associate dean of student affairs college of health sciences Abu Dhabi university, United Arab Emirates. During the session Dr. Deena discussed about the current situation arises due to covid-19 pandemic and their effects on human beings.

STUDENT ARTICLES



The proximal origin of SARS-CoV-2

In India, 56,342 positive cases have been reported as of May 8th, 2020. With a population of over 1.34 billion people, India will encounter obstacles in limiting the spread of the severe acute respiratory syndrome coronavirus 2. To control the spread of the present outbreak, multiple strategies would be required, including computational methods, statistical tools, and quantitative analytics, as well as the speedy formation of a new therapy. This outbreak is intrinsically related to the country's economy, as it has severely hampered industrial sectors because people all over the world are currently wary of doing business in impacted areas. The coronavirus disease (COVID-19) caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) was first identified in December 2019 in Wuhan, China, and has since spread to many provinces across the country. SARS-CoV-2 infection has been confirmed in over 212 countries and territories so far. On January 30th, 2020, the first SARS-CoV-2 positive case in India was reported in Kerala, Maharashtra, Delhi, and Gujarat were reported to be COVID-19 hotspots on May 8th, 2020, with 17,974, 5,980, and 7,012 confirmed cases, respectively.

By: Ashish Jha (2nd year)

NANOTECHNOLOGY

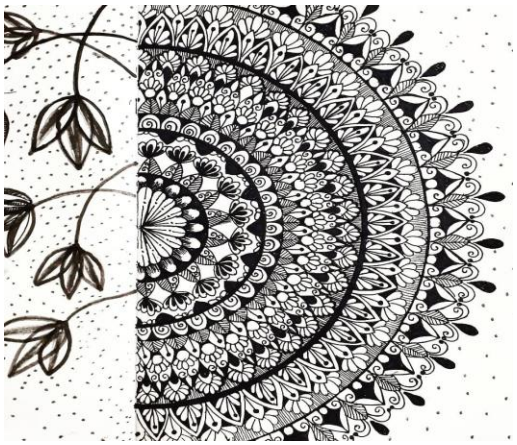
Nanotechnology is the part of science and technology which deals with control of matter on atomic, molecular and supra-molecular scale. Its products are used as electronic devices, catalyst, sensors etc. It helps to revolutionize many technologies and industrial sectors: information technologies, homeland security, medicine, transportation, energy, food safety and environmental science, and many others. Dry nanotechnology, Wet nanotechnology and computational nanotechnology are the types of nanotechnology. Nanotechnology has various applications nowadays as it offers the potential for new and faster kinds of computers, more efficient power sources and lifesaving medical treatments. Nonmaterial has several advantages over bulk materials such as the huge surface to volume ratio, very high porosity, and completely different physicochemical properties. Nanotechnology offers the potential for new and faster kinds of computers, more efficient power sources and lifesaving medical treatments. But apart from all the advantageous it has some *Potential* disadvantages that include economic disruption and possible threats to security, privacy, health and the environment. Another disadvantage of nanotechnology is the enormous financial costs associated with it. In addition, there are various applications of nanotechnology in commercial products, although most applications are limited to the use of passive non materials. Main use of nonmaterial is in industries such as automotive, health care, chemical industries, electronics, textiles, military, and environment.

By: Ravneet Kaur (3rd year)

BEYOND CLASSROOM

The students of biotechnology department showcase their talent beyond classroom in painting.

Swarnima 2nd Year



Anjali 2nd Year

Shristi 2nd Year

Gautam 2nd Year

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