

NEWSLETTER

(2019-2020)

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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY DEPARTMENT OF BIOTECHNOLOGY

Message from HOD Desk



The Department of Biotechnology was established in 2012, is one of the most dynamic departments of Noida Institute of Engineering & Technology. I am really elated to tell that the department stands on the strength of experienced and well qualified faculty who are very dedicated to teaching and involved in up-gradation of knowledge. Their research experience will help to cultivate the future of our students. With great demand in industry and great placement opportunities, the department stands tall and proud. Our students are not only academically sound and disciplined but they also organize various events through various clubs and societies to showcase their talents under non – technical, technical, and cultural forums.

VISION

To become a prime influencer in the field of Biotechnology and provide a vibrant learning environment to the students that will have a transformative 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 and skills in the frontier areas of biotechnology and will be able to solve societal problems individually and in teams.

PEO 2: Students will be able to think creatively and ethically about the use of biotechnology 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 industry.

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 of Biotechnology got the accredited from National Board of Accreditation (NBA) in the month of July 2k19 for 3 years.
- Kavita Chauhan of third year of batch (2017-2021) came first in a National Project Competition held at Sharda University for her innovation idea of "Digitalization of Sugarcane Mills. It was basically based on the idea to digitalize sugarcane market through online application platform and thus provide direct connection between farmers and government/private institution and hence transparency in its distribution.



- Swarnima, Tahseen Fatima, Anushka Yadav and Ilma Sarfaraz of first year passed Cambridge Business English Certification (BEC).
- Department organised a non-technical event for its student on 9th August 2019 which included "Card Making", "Fireless Cooking" and "Rakhi Making" competition.



- Department arranged industrial visit for its 2nd year students (2018-2022 batch) to Coca-Cola happiness factory moon beverages limited, Greater Noida on August 26, 2019, under the supervision of Ms. Meenu Agarwal, Ms. Shweta Sharma, Mr. Deepak Gola, Ms. Ayushi Verma, assistant professors of the department. The industry has acquired expertise in manufacturing and supplying of soft drinks like Coca-Cola, Thumbs up, Limca etc. Students not only learned about Coca-Cola history, it's brand value and the process of manufacturing, but also Coca-Cola happiness factory secret ingredient was their way of imparting knowledge with fun.



- Department of Biotechnology organized a Guest Lecture by Dr Pawan K. Dhar, Professor, Dean, School of Biotechnology, JNU, New Delhi on the topic entitled as "Synthesis of novel proteins" on 20th September 2019. Students learned about artificial expression of pseudo genes into novel and functional proteins. This approach can be further used to make novel enzymes, transcription factors, receptor proteins which could be very useful in finding better treatment approaches.



- Department of biotechnology organized a technical event on the occasion of World Students' Day which is marked as the birthday of Dr. A. P. J. Abdul Kalam. It was held on 19th October 2019 by DNA society of the department which includes Debate competition, quiz and extempore. The event was coordinated by Dr. Ayushi Verma and Dr. Rashmi Mishra along with the student coordinators namely Arjun Pathak and Ravneet Kaur.



- Students from the department of biotechnology participated in the 3rd National Conference on Biotechnology and Bioengineering Innovation and Advancement for Sustainable Future at Sharda University in November 2019. The conference was two days long which included various guest lectures on various topics by experts followed by poster presentation and oral presentations. Ambuj Kumar, Mohd. Arif and Anshika Srivastava of N.I.E.T. (Department of Biotechnology) secured third position in poster presentation on the topic “computational analysis of Cancer”. Overall, the students got well exposure of the research work and ideas in the field of biotechnology.



- On 14th November 2019, Dr. Fahad Khan, and Dr. Rashmi Mishra of Department of Biotechnology along with Dr. D P Bhatt and student coordinators of kathoutliyan, theatre club of NIET, Greater Noida coordinated a street play on “Evolution of science and cleanliness drive”. The event

was organized by by Noida Institute of Engineering & Technology, Greater Noida in collaboration with Swadeshi Science Movement, Delhi. The performance was held at two places, DM office premises and Pocket 3 market, Greater Noida. In the street play, students covered the ancient science in daily life just like the work of the great Indian mathematician Aryabhatta achievements. Along with this, street play also covered the life events of Dr. APJ Abdul Kalam to establish a connect between science and native audience i.e., common people of the city. By Swachhata Abhiyaan, students showed how political leaders work for the cause and how the civilised class of the society acts against the cleanliness drive which then be concluded with a monologue. The event was highly appreciated by DM and all dignitaries.



Achievements

- Vaibhav Litoria of biotechnology third received a cash prize for being the Branch Topper of Second Year.
- N.I.E.T acknowledges Dr. Rashmi Mishra, Dr. Pratibha Pandey, and Dr. Fahad Khan of department of biotechnology by providing an incentive for publishing maximum number of research paper in SCI and Scopus Index Journal.



STUDENT ARTICLE

FOOD TECHNOLOGY

Food technology is a branch of food science that deals with the production processes that make foods. The application of food science helps in manufacturing safe, wholesome, and nutritious food products. The study of food technology is to develop new methods and systems for keeping food products safe and resistant from contaminants such as bacteria and other micro-organisms. Food processing helps in preservation, enhances the flavour, and reduces the toxins in the food product which results in better distributional efficiency and easy marketing of the food product. The modern food processing techniques is the key to flourishing supermarkets we have today. Extra nutrients can be added while processing the food and processed food is less susceptible to spoilage. Some of the techniques used are spray drying, juice concentrates, freeze drying and the introduction of artificial sweeteners, colorants, and preservatives. Of late, many products such as dried instant soups, reconstituted fruits and juices, and self-cooking meals were developed for the convenience of working people. The food processing industries are involved in processes such as primary and secondary processing, preservation, quality management, packaging and labelling of a variety of products such as dairy products, fish products, fruit & vegetable products, meat & poultry products, confectionery products and food grains.

By: Divyanshi Singhal (2nd year)

BEYOND CLASSROOM

The students of biotechnology department showcase their talent beyond the classroom programmes by giving some message in their art.



Shivansh 3rd Year



Archana (2nd Year)

EDITORIAL BOARD MEMBERS

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