

A Hands-on Training cum Workshop on

Basic Techniques in Bioprocess and Molecular Biology (BTBMB)

14th July – 18th July, 2025

Organized by: Department of Biotechnology and Medical Engineering, NIT Rourkela

About the workshop:

The field of Biotechnology is considered one of the oldest branches of science which incorporates research areas including but not limited to bioprocess engineering, genetic engineering, microbiology, bioinformatics, bioremediation, etc. Among these areas, bioprocess engineering and molecular biology have gained interest in the past few decades due to their vast applications in the fields of biopharmaceuticals, medical and clinical biotechnology, and industrial biotechnology.

The field of bioprocess engineering deals with the design and development of the production processes of biological products like biopharmaceuticals, beverages, industrial enzymes, biofuels, biopolymers, etc.

Molecular Biology includes the study of nucleic acids and other macromolecules like proteins and their application in different fields, specifically in the field of clinical and medical biotechnology.

The current workshop will provide insightful knowledge on the basic techniques used in the field of biotechnology, specifically in bioprocess technology and molecular biology through the guest lectures. Also, hands-on training on the basic techniques used in microbiology, bioprocess technology, and molecular biology would be provided to all the participants.

About NIT Rourkela

NIT Rourkela is one of the premier national-level institutions for technical education in the country and is funded by the Government of India. The government of India has elevated the Regional Engineering College, Rourkela to a deemed university under the name of National Institute of Technology, Rourkela.

The main objective of the Institute is to produce quality Engineers and Scientists at Graduate and Post-Graduate levels in various branches of Engineering and Science. The Institute is managed by the Board of Governors of the National Institute of Technology (Rourkela) Society and is vested with a significant degree of administrative and financial autonomy. The government of India has recognized the Institute as a premier institution of repute and has developed it as a center of excellence under plan funding. The Institute has been modernized by two foreign collaborative funding agencies i.e. the Material theme in the Materials and Metallurgical Engineering department under the Indo-U.K. REC project and the Computer Science and Electronics streams under the World Bank cum Swiss **Development Corporation IMPACT project.** Vision

To become an internationally acclaimed institution of higher learning that will serve as a source of knowledge and expertise for the society and be a preferred destination for undergraduate and graduate studies.

Venue Department of Biotechnology and Medical Engineering

The Department of Biotechnology and Medical Engineering was established in 2007 with the objective of providing a multidisciplinary research and teaching program in Biotechnology and Medical Engineering that advances a fundamental understanding of how biological systems operate and develops effective biology-based technologies for applications across a wide spectrum of societal needs including innovations in diagnosis, therapy of human diseases, design of novel biomaterials, biomedical devices, and in solving environmental hazard. The faculty members have diverse research interests and they conduct both basic and applied research in diverse areas like Cell & Molecular Engineering, Engineering & Biomaterials, Bioprocess Tissue Engineering, Environmental & Plant Biotechnology, Biomechanics & Bio Transport Engineering, Medical Electronics & Instrumentation, etc. The innovative educational programs created by the department integrates all level of biological and Medical Sciences with a quantitative, systems-oriented engineering analysis and synthesis approach that helps to make our undergraduate and graduate students capable to manage industrial and academic problems at professional levels.

Resource Person

Prof. Paltu Kumar



Prof. Soham Chattopadhyay **BIT Mesra**



Dr. Kanhaiva Kumar CSIR, Jammu





Prof. Oindrilla

Mukherjee

Prof. Debapriya Sarkar **Dr. Sourav Maity BITS Pilani Dubai** IIT Guwahati, Assam Campus

Course Instructor





Prof. Angana Sarkar NIT Rourkela

Prof. Lohit Kumar **Prof. Amrita Singh** Srinivas Guijala **NIT Rourkela NIT Rourkela**



Patron Prof. Umamaheshwar Rao Director, NIT Rourkela

Chair Person Prof. Devendra Verma

Coordinator **Prof. Angana Sarkar Member: Departmental Organizing** Committee

Prof. Krishna Pramanik **Prof. Mukesh Kumar Gupta** Prof. Subhankar Paul Prof. Kunal Pal Prof. A. Thirugnanam Prof. Balasubramanian P Prof. Angana Sarkar Prof. Kasturi Dutta Prof. Anju R. Babu Prof. Sivaraman J Prof. Amit Biswas Prof. Devendra Verma **Prof. Bibhukalyan Prasad Nayak** Prof. Nandini Sarkar **Prof. Nivedita Patra** Prof. Ravi Kant Avvari Prof. Bala Chakravarthy Neelapu Prof. Earu Banoth Prof. Lohit Kumar Srinivas Gujjala Prof. Mirza Khalid Baig Prof. Prasoon Kumar **Prof. Amrita Singh** Prof. Anamika Singh Prof. Bikash Chandra Maharaj

Student organizing committee

Kumari Guddi; Renupama Bhoi; Suha Ibrahim; Puja Dokania; Arpita Patro; Jogeswar Mahanta

Intended Attendees

Participation in the workshop is open to all students pursuing bachelor's or master's degrees in Biology/Biotechnology/Zoology/Botany in Indian universities/institutes.



Fee Payment

Registration Form

PAYMENT All payments should be made through A/c payee Demand Draft in favor of "CONFERENCE NIT ROURKELA", payable at SBI NIT Campus Branch, Rourkela (IFSC Code: SBIN0002109) or through NEFT transfer to A/c No. 101 3895 1784. You can also visit www.nitrkl.ac.in for downloading the registration form and other information.

Venue for Lectures Seminar Hall, **Department of Biotechnology and Medical** Engineering National Institute of Technology Rourkela

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