



मोतीलाल नेहरू राष्ट्रीय प्रौद्योगिकी संस्थान इलाहाबाद  
इलाहाबाद-२११००४ [भारत]  
**Motilal Nehru National Institute of Technology Allahabad**  
Allahabad-211004 [India]  
**Department of Biotechnology**

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ADVERTISEMENT-STPB-2018

**One month SUMMER TRAINING PROGRAM IN BIOTECHNOLOGY**

**(STPB-2018)**

The Department of Biotechnology proposes to organize one month self financed summer training program in Biotechnology. The course is designed for Undergraduate, Post graduate and research scholars of institutes, universities and colleges. The course aims to provide up-gradation of knowledge and skills for UG/PG students/research scholars and other stake holders involved in proposed areas of the training program. The course has been designed to cover both theoretical as well as the practical concepts in the respective fields. Lectures will be delivered by faculty members of their field and participants will also receive hands on experience through various lab sessions.

The course is tentatively scheduled from **28<sup>th</sup> May** to **24<sup>th</sup> June 2018**. It is expected that around 50 participants will be attending the same.

Accommodation for outstation students may be arranged in the institute hostel depending on the availability. A nominal fee for hostel accommodation as per the institute norms will be charged from the students.

**ELIGIBILITY:** Undergraduate and postgraduate student of Biotechnology or Allied field from UGC/AICTE recognized university/ institute.

**SCOPE:** The complete course broadly covers four areas of biotechnology namely, **Soil and Environment Microbiology, Molecular and Computational tools for Biotechnology, Nano-Technology and Immunology and Fermentation Technology and Enzyme Engineering**. Participants will get the maximum exposure of recent tools used in aforementioned areas of biotechnology.

**COURSE CONTENTS:** Biotechnology encompasses a very wide range of research areas including technological interventions at the interfaces of biology and chemistry, physics, electronics, informatics etc. At one end of spectrum, biotechnology deals with production of high commercial value products such as wine, vinegar, cheese, hormones, antibiotics, proteins and enzymes to investigation of soil microbe interaction to synthesis and characterization nano-sized materials having utility in drug delivery, biomaterial, biosensors. The other end of spectrum of biotechnology includes metabolic engineering of pathways in organisms (plant, animal or microbe) for over-expression of pharmaceutically, medicinally and industrially



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important molecules, generating transgenic with improved traits, engineering enzyme, gene therapy, cancer and ageing. Another area of research in biotechnology includes use of computational and molecular tools to understand biotechnological processes, molecular mechanisms and accurately predicting the possibilities of processes and mechanism to occur in nature. These areas can also be broadly classified as Industrial, Agricultural, Environmental and Medical biotechnology depending upon the use of tools or techniques under these areas. The list is endless, the scope is wide and opportunities are immense. This summer training program will highlight important aspects of aforementioned areas of biotechnology with expert lectures and hands on training sessions in the same. List of practical sessions (Not limited) to be conducted are as follows:

- Polyphasic taxonomical approach for systematic identification of microorganism.
- Different techniques for microscopic assessment of microorganisms
- Understanding the concepts and techniques of bacterial genetics
- Screening of free-living rhizobacteria for their multiple plant growth promoting traits.
- Toxicological assessment of environmental pollutants on microorganisms by exploiting flow cytometric approach.
- Molecular biology techniques such as PCR amplification & gene cloning
- Allele specific PCR for mutation analysis,
- Database search and sequence analysis, clonal bisulphite sequencing analysis
- Protein structure prediction, Molecular modeling and docking
- Up-stream and down-stream processing of Pectinase and its application in fruit juice clarification
- Bio-process development for ethanol production from lingo-cellulosic biomass
- Immobilization of enzyme,
- In silico engineering of catalytic site of an enzyme.
- Synthesis, Characterization, toxicity assessment and applications of Silver and Gold nanoparticles.
- Isolation and identification of immune entities from human blood,
- Cytokine production upon polyclonal stimulation.
- Extraction of photochemical for various applications
- Study of Antiuro lithic activity of herbal plant molecules
- Estimation of food inhibitors in food grains
- Study of anti oxidant activity of plant molecules
- Biofilm formation and quantification
- Microscopic visualization of bacterial biofilms,
- Study of quorum sensing process



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**FEES & MODE OF PAYMENT:** Course Fees is Rs. 10,000/- (Rupees Ten Thousands only). However, course fee for internal student is Rs. 8,000/- (Rupees Eight Thousands only). The course fee should be paid through a **Demand Draft**, in favour of “STPB-2018” payable at Allahabad. Alternatively, the fee can be directly paid via online transfer to the following account.

Bank Account Name: **STPB-2018 (Current Account)**

Bank Account Number: **718400301000308**

Bank Name: **Vijaya Bank**

Branch Name: **MNNIT Campus**

IFSC code: **VIJB0007184**

The course fee is non-refundable if student is shortlisted for the course. However, course fee will be refunded in case student is not selected.

**DURATION:** This is a one month training Program. The tentative start date of course is 28<sup>th</sup> May 2018.

**APPLICATION PROCEDURE:** Application form and information brochure will be available from 12<sup>th</sup> April 2018 to 15<sup>th</sup> May 2018 on the website <http://www.mnnit.ac.in>. The applicants are required to read the instructions for application download the application form and send the duly filled form to the “Chairman, STPB-2018, Department of Biotechnology, Motilal Nehru National Institute of Technology Allahabad, Allahabad-211004, Uttar Pradesh, India”, along with the application fee so that it may reach by 15<sup>th</sup> May 2018. Please also send a scanned copy of your application form, relevant documents and demand draft to following email addresses: [hbiod@mnnit.ac.in](mailto:hbiod@mnnit.ac.in), [sameers@mnnit.ac.in](mailto:sameers@mnnit.ac.in). Candidates who will pay through online mode have to send a scanned copy of their application form and relevant documents via email mentioning their **transaction details**.

#### **REGISTRATION FEE:**

<b>Type of Registration</b>	<b>Fee*</b>
Student's Outside MNNIT Allahabad:	10,000/-
Student's from MNNIT Allahabad:	8,000/- (Limited to 5 only)

\* Registration fee includes access to all lecture and practical sessions, participant kit, study material, and Tea/snacks for entire course time.



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**IMPORTANT DATES:**

Online Application form:	12 <sup>th</sup> April 2018
Last date of receipt Application form:	15 <sup>th</sup> May 2018.
Confirmation will be intimated by: (through e-mail)	20 <sup>th</sup> May, 2018
Course duration:	28 <sup>th</sup> May to 24 <sup>th</sup> June, 2018

**CONTACT ADDRESS:**

**Chairman STPB-2018,**

Department of Biotechnology,

Motilal Nehru National Institute of Technology Allahabad,

Allahabad-211004, Uttar Pradesh,

Phone No.: +919005688273, +919889864633

Email: [hbiod@mnnit.ac.in](mailto:hbiod@mnnit.ac.in), [sameers@mnnit.ac.in](mailto:sameers@mnnit.ac.in)

**NOTE:**

- Please mention on the envelope “**STPB-2018 Department of Biotechnology**”
- Candidates should mention their **name, e-mail and contact number in application form and back of demand draft** and also send a scanned copy of their application form and relevant documents via email.
- Candidates who will pay through online mode **must mention the transaction details in the application form** and have to send a scanned copy of their application form and relevant documents via email.

**Chairman**  
**(STPB-2018)**



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**APPLICATION FOR ONE MONTH SUMMER TRAINING PROGRAM in  
BIOTECHNOLOGY "STPB-2018" 28<sup>th</sup> May-24th June 2018**

**APPLICATION FORMAT**

1. Name (in block letters) \_\_\_\_\_
2. Father's Name \_\_\_\_\_
3. Date & Place of Birth \_\_\_\_\_
4. Nationality \_\_\_\_\_
5. Institute/College /University \_\_\_\_\_
6. Percentage/CPI/CGPA up to last semester \_\_\_\_\_
7. Address for Correspondence (with Phone No. and Email ID) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Affix your recent  
passport size  
photograph here

Phone No. \_\_\_\_\_ Email: \_\_\_\_\_

8. Qualifications (High School onwards) (Attach Documents)

Exam Passed	Board / University	Stream / Branch	Year of Passing	Division	Percentage of marks obtained

9. Whether Hostel required (Subjected to availability) \_\_\_\_\_ (Yes/No)
10. Detail of Fee Paid: Draft No: \_\_\_\_\_ Date \_\_\_\_\_ Place \_\_\_\_\_  
Transaction Details: \_\_\_\_\_ Date \_\_\_\_\_

11. Any other relevant information:

I hereby certify that the above information is correct to the best of my knowledge and belief. I have not suppressed any material fact or factual information in the above statement.

Date :

Place :

Signature of Candidate