

Dr. B. R. Ambedkar
National Institute of Technology
Jalandhar – 144011, Punjab

**ONE WEEK SHORT TERM COURSE/
FACULTY DEVELOPMENT PROGRAM
(TEQIP-III SPONSORED)**

On

**ADVANCES IN ENZYME AND
BIOPROCESS ENGINEERING
(07-02-2019 TO 11-02-2019)**

REGISTRATION FORM

Name: Mr./Ms./Dr.....
(in capital letters)

Designation:.....

Department:.....

Organization:.....

Address:.....

.....

Tel/Fax:.....

Email ID:.....

Field of specialization:.....

Experience (in years):.....

Accommodation: Required/ not required:

Signature and Date:.....

**RECOMMENDATION OF THE
SPONSORING AUTHORITY:**

The applicant is hereby sponsored and will be permitted to attend the Short Term Course, if selected.

Date:.....

Signature and Seal of
the sponsoring authority

Organizing Committee

Chief Patron

**Professor (Dr) Lalit Kumar Awasthi,
Director, NIT Jalandhar**

Patron

Prof. (Dr.) A.K.Jana, Head of the Department

Course Coordinator:

**Dr. Nitai Basak, Associate Professor,
Department of Biotechnology, NIT Jalandhar**

Committee Members (Faculty):

Dr. Sumer Singh Meena

Dr. Mahesh Kumar Sah

Dr. Anee Mohanty

Dr. Indu Chauhan

Dr. G.N.Nikhil

For registration: Please Contact

Dr. Nitai Basak, Course Coordinator

Department of Biotechnology

Dr B R Ambedkar, NIT Jalandhar- 144011, Punjab

Phone: 0181-2690301-302, Ext.: 2104,

Fax: 0181-2690320, 2690932 (By Attention)

Email: basakn@nitj.ac.in, basak812@yahoo.com

OBJECTIVES OF SHORT TERM COURSE

Biotechnology is the application of engineering principles to the processing of materials by microorganisms, plant and animal cells to create useful products or processes. Biotechnology has also application in Plants and Animals tissue culture, waste and wastewater management, Biorefinery, plastic degradation, oil recovery and bioremediation. The objectives of the course are to make the awareness about the latest development, advancement and trends in Enzyme Biotechnology and Bioprocess Engineering.

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Course Coordinator: Dr. Nitai Basak



Organized by

Department of Biotechnology

Dr. B. R. Ambedkar

National Institute of Technology

Jalandhar – 144011, Punjab, www.nitj.ac.in

ABOUT NIT, JALANDHAR

National Institute of Technology (NIT), Jalandhar (erstwhile REC Jalandhar), was established in the year 1987 and attained the status of National Institute of Technology on October 17, 2002 and the status "Institute of National Importance" by Act of Parliament in 2007. As NIT, the Institute has a responsibility of providing high quality technical education in Engineering and Technology to produce competent technical manpower for the country. The Institute offers B. Tech. programmes in twelve disciplines Biotechnology, Chemical Engineering, Civil Engineering, Computer Science and Engineering, Industrial & Production Engineering, Instrumentation and Control Engineering, Mechanical Engineering & Textile Technology & Mining Engineering. The Institute also offers M Sc programmes in Physics, Chemistry and Mathematics; MBA in Humanity & Management; nine M.Tech Programmes and Ph D programmes in all disciplines.

The Institute has signed Memorandum of Understanding (MoU) with many prestigious institutes such as University of Florence, Italy, Ecole Centrale de Lille, France, University of Johannesburg, South Africa, University of Bolton, UK, University of South Alabama, USA, etc. for the mutual academic exchange and strengthening of the academics and research.

LOCATION

The institute is located on the G T Road by pass at a distance of 15 kms from Jalandhar bus-stand, 12 kms from Jalandhar city railway station and 18 kms from Jalandhar Cantt railway station. It is connected to New Delhi by road through AC bus service and Rail through Shatabdi/ Superfast trains.

VISION

To build a rich intellectual potential embedded with interdisciplinary knowledge, human values and professional ethics among the youth, aspirant of becoming engineers and technologists, so that they contribute to society and create a niche for a successful career.

MISSION

To become a leading and unique institution of higher learning, offering state-of-the-art education, research and training in engineering and technology to students who are able and eager to become change agents for the industrial and economic progress of the nation. To nurture and sustain an academic ambience conducive to the development and growth of committed professionals for sustainable development of the nation and to accomplish its integration into the global economy.

ABOUT DEPARTMENT OF BIOTECHNOLOGY

The Department of Biotechnology NIT- Jalandhar is one of the sixteen Departments of the Institute. **The Department has MOU with University of Florence, Italy for collaborative research in "Biotechnology and Process Engineering in Biofuel Production".** Dr. N. Basak is Faculty Coordinator from the Department and Prof. Roberto De Philippis is Faculty Coordinator from University of Florence, Italy. The Department had organized GIAN international summer term course during May 16th to May 25th, 2016, in which Prof. Roberto De Philippis from University of Florence, Italy was the foreign faculty. Within a short span of Twelve years of commencement of B.Tech and PhD programmes, the Department has achieved results which reflects upon the growth pattern of the intellectual potential embedded with inter-disciplinary knowledge, human values and professional ethics among the youth, aspirant of becoming Engineers and Technologists, so that they contribute to the field of Biotechnology in particular and to the society in general and create a niche for a successful career.

Who can attend the STC?

- Teachers of various Universities/ Institutes
- Professionals from Industry
- Scientists and Engineers from R&D organizations
- M Tech and PhD research scholars

The interested persons need to apply to the Coordinator in the prescribed format by due date (through proper channel). No course fee shall be charged from the participants.

FACULTY

The Faculty of the course will be the experienced personnel from teaching, education, research institutions, field and industry.

GENERAL INFORMATION

- No course fee will be charged from the participants. The participants are advised to bring adequate woollen materials during the winter climate.
- Course material, lodging and boarding during the course shall be provided by NIT, Jalandhar
- Last date of receiving complete registration forms is **February 01, 2019.**
- Intimation to the selected candidates: Latest by **February 04, 2019.**
- Reporting date and time at the Institute: **February 07, 2019, 10:00 a.m.**

Venue: Seminar Hall, Department of Biotechnology, NIT Jalandhar

COURSE CONTENT

STC on "**Advances in Enzyme and Bioprocess Engineering**" will cover the following course content

- Process Engineering in Biotechnology
- Enzyme Biotechnology in Beverage and Plant Cell culture
- Development of novel Plant Metabolites by Enzyme Engineering
- Production of recombinant Proteins by Enzyme Engineering
- Production of Biomolecules and metabolites by genetically modified microbes
- Various problems and their solution for the scaling up the process
- Design and analysis of Bioreactor for Bioprocess Industry
- Development of new and novel Drugs by Enzyme and Bioprocess engineering
- Development of new and novel plant And animal metabolites
- Application of bioinformatics and enzyme Engineering in industrial perspectives
- Advances in Bioprocess engineering in Alcohol and Drugs
- Microbial Production of Bioenergy from Organic waste
- Drug Delivery by Immobilized enzymes and Nanoparticles
- Process optimization in Bioprocess industries