Completed registration form should be sent to the following address:

# Prof. Sanjeeva Srivastava/Prof. Ambarish Kunwar Course Coordinators

Department of Biosciences and Bioengineering, IIT Bombay, Powai, Mumbai – 400 076.

Phone: (022) 2576 7760 Fax: (022) 2572 3480 Email: akunwar [at] iitb.ac.in

#### **Important Dates**

Last date for receipt of regist	ration: Oct 15, 2017
Notification of acceptance:	Oct 30, 2017
Course dates:	Nov 27-Dec 01, 2017

#### Notes:

- Incomplete application forms will not be entertained.
- For multiple registrations, copy the form or type in the given format.
- Registration form can be also downloaded from the following course website

http://www.bio.iitb.ac.in/~akunwar/qipble2017/

## Venue for Course:

Course will be held at VMCC, IIT Bombay.

#### Date & Time of Registration:

November, 2017, 9.00 AM at course venue, IIT Bombay.

## REGISTRATION

There is no registration fee for the course. All shortlisted candidates are required to confirm their participation by sending a **Demand Draft of Rs. 2000/- in the name of "Registrar IIT Bombay"**. The above amount will be refunded to the participant if he / she attends the course. In case a participant does not attend the course, the above amount will be forfeited.

Candidates should complete either enclosed registration form or registration form downloaded from website and prepare one page write-up stating the reasons to attend this course. Candidates should send the registration form and one page write-up by mail, email or fax to the Coordinator. Confirmation of eligible candidates will be on a first come first served basis up to a maximum of 60 candidates.

The completed registration forms should be received by the Coordinator latest by **Oct 15, 2017**.

For any further information regarding QIP programs at IIT Bombay, please contact:

Professor-In-Charge, CE & QIP, IIT Bombay, Powai, Mumbai–400 076 Phone: (022) 25767006 Email: qip@iitb.ac.in For further details: www.iitb.ac.in/~cep





Quality Improvement Programme (QIP)

Short Term Course

# Biology Laboratory For Engineers

November 27 – December 01, 2017

## **Course Coordinators**

## Prof. Sanjeeva Srivastava Prof. Ambarish Kunwar

Department of Biosciences and Bioengineering

Office of Continuing Education & Quality Improvement Programme Indian Institute of Technology Bombay Powai, Mumbai - 400 076

#### Introduction

Today, the mutual dependence of modern biology and engineering/ technology is far more than it was at any time in the past. Advances in engineering and technology in areas such as instrumentation has allowed biologists to ask and answer questions not even dreamed of earlier. Development of devices and implants for the welfare of (human) health, be it early diagnosis or treatment, has also made substantial impact on society. Conversely, billions of years of evolution have made living organisms into systems from which lessons can be learned by engineers regarding design principles, control and regulation, and can be applied. Therefore, it is the need of hour to include an introductory biology laboratory core course in the curriculum of first year engineering courses.

#### **Broad Objectives**

The course is intended for faculty members of engineering colleges, engaged in teaching biology courses, who seek an introduction to experiments that can be potentially included in the curriculum of biology laboratory course. Due to the interdisciplinary nature of the course, basic knowledge of physics and mathematics is expected but strong attempts will be made to give an intuitive understanding of the mathematics and physics involved.

#### **Course Contents**

This course will cover a number of experiments from molecular biology to study biomolecules, experiments on bacterial on viruses, biophysical experiments as well as experiments in the area of bioengineering.

## **Teaching Faculty**

The core teaching faculty will be from the Department of Biosciences and Bioengineering who have been using these biophysical techniques in their day to day research. Subject experts from other institutes will be invited for special lectures.

## Eligibility

Faculty members of degree level engineering colleges recognized by AICTE, are eligible to attend the course. The faculty member should be teaching or should have taught biology courses. Due to the interdisciplinary nature of the course, basic knowledge of physics and mathematics is expected.

#### Lecture Notes

Hard copies of the lecture notes/presentations will be made available to participants at the end of lecture/presentation.

#### **Course Evaluation**

Successful participants would be awarded `Course Completion Certificate'.

## Transport, Boarding & Lodging

Participants are entitled for Second Class (Sleeper Class) or III AC railway fare to and fro by the shortest route from college to IIT Bombay. All participants will be given auto fare from Kanjurmarg/Andheri to IIT on the dates of arrival and departure. Local participants will be paid second class railway fare or BEST Bus fare.

Boarding and lodging will also be provided free of cost. Accommodation will be provided in the students Hostels or Guest House on sharing basis. Since accommodation is limited, family members of the participants cannot be accommodated.

#### **QIP Short Term Course on**

**Biology Laboratory For Engineers** 

*November* 27 – *December* 01, 2017

#### **Registration Form**

Designation*:	
Organization*:	
Mailing Address*:	
Telephone:	Mobile*:
Fax:	
Email*:	
Educational Qualificati	ons*:
Discipline/Specializati Accommodation Requi	on*: ired*: YES / NO
Whether teaching/taug	Physics/Maths*: YES/NO ght any biology course*: YES/NO f answer is YES)*:
Signature of Applicant AICTE ID*: Sponsorship & signa Institute (with date &	please click here / ture of Head of the College
COLLEGE/INSTITUTE CE FACULTY MEMBER OF	GNING ABOVE HEAD OF THE ERTIFIES THAT APPLICANT IS A DEGREE LEVEL ENGINEERING BY AICTE AND AICTE PERMANENT

ID WRITTEN ABOVE IS CURRENTLY VALID).

\* Required fields otherwise application will be rejected.