

8th CEP course on

# Professional Development & Technology Orientation

(Secondary (9-10<sup>th</sup>) Mathematics Teachers)

**28-30 June, 2012, I. I. T. Bombay**

## Introduction

Mathematics education over the world is going through a great change. Curriculum planners are recommending radical reforms in math education to prepare all students to meet mathematical needs of the society. Teaching which was as a processes of direct transmission knowledge is changing. Teaching is being viewed as a process of facilitating students' learning by creating a learning environment conducive to inquiry.

This necessitates the teachers to upgrade and reorient themselves by:

- Strengthening one's knowledge of mathematics.
- Learning to use effective teaching strategies
- Becoming familiar with exemplary instruction material and resources.
- Learning effective use of technology in teaching and learning.

## Program goals

The programme is conceived with two main goals:

- **Strengthening conceptual understanding of mathematical concepts:** There will be lectures by experts on various mathematical topics taught at secondary and senior secondary level. There will also be lectures on some special topics, normally not covered in the curriculum.
- **Technology orientation and training:** The second component will have hands-on training on the use of technology (hardware and software) in teaching and learning of mathematics.

## Who will benefit

Secondary and senior secondary level teachers from schools / international schools affiliated with CBSC, ICSE, State Boards and IB.

## Schedule and topics

The daily pro will have three session of one hour each devoted to conceptual strengthening of various topics covered in secondary and sr.

secondary level. Lectures are planned on the following:

- Geometry and Trigonometry
- Permutations / Combinations
- Number Theory
- Probability and Statistics

We also plan lectures by experts on the issues : "How to encourage good students for Math Olympiads"

Hands on training will be held in the afternoon sessions (Two each of 2 hours) on the following:

- Geogebra

## Resource Persons

The resource persons will be drawn from faculty I IT Bombay , experienced teachers from well known schools, experts on math education from Casio and NIIT (School Learning Solutions).

## COURSE VENUE

Department of Mathematics, IIT Bombay

## PARTICIPANTS EXPECTED

Maximum No.: 60

## Fee and registration

The registration fee for the course will be Rs. 7000/=. Accommodation at IIT campus can be made available on request with additional charges of Rs. 1000. Fees must be paid by a demand draft drawn in favour of "**Registrar, IIT Bombay (CEP A/c). All the registered participants will be given participation certificate**"

All the applications must be in the format given below at the address:

Prof. Inder K. Rana,  
Department of Mathematics,  
Indian Institute of Technology, Bombay  
Powai, Mumbai - 400 076.

## FORMAT OF REGISTRATION FORM

NAME (BLOCK LETTERS):  
\_\_\_\_\_

GENDER (M / F): \_\_\_\_\_

Name of the school and classes you teach  
\_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_  
\_\_\_\_\_

EMAIL : \_\_\_\_\_

MOBILE: \_\_\_\_\_

TELEPHONE : \_\_\_\_\_ (O)

\_\_\_\_\_ (R)

DO YOU NEED

ACCOMODATION \_\_\_\_\_

D.D DETAILS (Amount, Bank and No.):  
\_\_\_\_\_

**"The Demand draft should be drawn in favor of Registrar, IIT Bombay (CEP A/c)"**

Date & signature \_\_\_\_\_

## Address for all communication:

Prof. Inder K. Rana,  
Department of Mathematics,  
Indian Institute of Technology, Bombay  
Powai, Mumbai - 400 076.

Tel. : (022) 2576 7462 (O), 2576 8462

Fax : (022) 25723480

Email : [ikrana@iitb.ac.in](mailto:ikrana@iitb.ac.in)

<http://www.math.iitb.ac.in/~TOPD>



Office of  
Continuing Education Programme

## **For information on other Continuing Education Programmes at IITB, contact:**

PROF-IN-CHARGE (CEP), OFFICE OF CONTINUING EDUCATION PROGRAMME (CEP), INDIAN INSTITUTE OF TECHNOLOGY, POWAI, MUMBAI - 400 076.

Tel. No. : 2572 6199 (D), 2576 7060.

Email : [cep@iitb.ac.in](mailto:cep@iitb.ac.in),

For latest information on CEP, please visit our home page at: <http://www.iitb.ac.in/~cep>