

## Introduction

Online educational methodology, and flipped-classrooms with associated pedagogy of active learning, have quickly emerged as the mainstay of effective education in this century. However, most of our teachers lack skills and competencies for proper and effective use of ICT in education. It is thus an urgent national requirement that all our teachers, at least those teaching in our professional colleges, are empowered to use technology effectively, to enhance the quality of education.

To meet this requirement, IIT Bombay has specially designed the two-part FDP course, which was initially offered in 2017. The first course under this FDP, with a focus on technology, is titled “Foundation Programme in ICT for Education” and is designed as a Blended MOOC (Massive Open Online Course) – FDP101x. There will be two face-to-face sessions at the Remote Centres. The course will be offered from 8 March 2018 till 12 April 2018.

## Learning Objectives for the Course

After successful completion of the course, participants will be able to:

- i. Identify various ICT devices and applications useful in teaching-learning
- ii. Develop awareness towards ethical practices for use of ICT in education
- iii. Make use of best practices for information dissemination using ICT

## Teaching Faculty

**Prof. Deepak B. Phatak**, Dept of CSE, IIT B

**Prof. Kannan Moudgalya**, Dept of Chem Engg, IIT B

**Prof. U. V. Bhandarkar**, Dept of Mech. Engg, IIT B

**Prof. P. Sunthar**, Dept of Chem Engg, IIT B

**Dr. Sameer Sahasrabudhe**, Dept of CSE, IIT B

**Mr. Jayakrishnan M**, IDP in ET, IIT B

## Course Content

### 1. Information Capture, Storage, and Display

- Subsystems of Computer Devices for Capture

- Keyboard, Monitor, Printer, Webcams, Mouse, Hard disks
- Tablets and Smart Phones Servers,
- Cloud, Storage Farms, CD/DVD, Pen Drive
- Effective Storage and Display
  - Directory Organization and File Handling
  - Dealing with Multiple Information format
  - Organizing and Searching

### 2. The World of Internet and Web

- Essentials
  - Basics of Connectivity, LANs and WANs, Wireless and Bluetooth
  - Organization of Web, IP Address, Domain Names, DNS Servers
  - Browsers and Plug-ins
- Effective Exploration of Web
  - Searching Techniques
  - Best Practices for Exploration

### 3. Use of ICT for Resource Creation and Management

- Digital Content Creation using common productivity tools
  - Document Editors
  - Presentation Software
  - Spreadsheets
- Audio-Video Resource Creation:  
Spoken Tutorial Methodology
- Content Management Systems
- Learning Management Systems

### 4. Best Practices for Information Dissemination with ICT

- Best Practices for Visual Communication
- Best Practices for Online Collaboration
  - ICT as a facilitator for academic ethics and Integrity
  - Creative Commons Licensing
  - Netiquettes for effective email communication
  - Practices for engaging in a healthy online discussion

- Facilitating collaborative resource creation and evaluation for online usage

## Criteria for Certification

IIT Bombay will award certificates only to those participants who successfully complete prescribed online tests with minimum 50% aggregate score, and meaningfully participate in face-to-face sessions. **AICTE has recognized this as a Two-week FDP.**

**Note 1:** This FDP is conducted under the Pandit Madan Mohan Malviya National Mission on Teachers and Teaching. Live recording of the course and other created content will be released under Open Source, through a portal. All participants are required to accept a No Objection clause for such release of content contributed by them during and after the FDP. All contributors will be acknowledged.

**Note 2:** Since the content is released under Creative Commons, participants have to ensure that they provide accurate citations. All the content generated will undergo check for plagiarism and plagiarism detected will lead to cancellation of registration and serious disciplinary actions.

## Who Should Attend

As this FDP is not subject-specific, teaching faculty from any domain, including faculty from management, polytechnics, science, arts and commerce can participate. Teachers registered in a Masters or a PhD program, during their employment as a teacher, can also participate. Additionally, participants should have basic familiarity with computer.

Participants, who have not certified in the earlier FDPs (2016, 2017), are eligible to participate in the FDP.

## Duration and Venue

This Two-week FDP consists of two components as follows:

1. **Online work by individual participants:** Each participant is expected to access the online platform, using a PC at home or office, on any convenient day and time during the week, with an online test every week. Each participant has to spend 6 to 8 hours of efforts per week during this component of the FDP. This is equivalent to one day of work in a regular FDP. This activity will be spread over 5 calendar weeks: From Thursday 08 March to 12 April 2018.

2. **Face-to-Face interaction:** Participants will have to physically attend these sessions at their chosen or designated Remote Centres (RCs), established across the country by IIT Bombay. Focused interactive sessions with the participating teachers, will be conducted by the faculty from IIT Bombay. The discussions and local tutorial sessions will be moderated by the Course Coordinators appointed at each RC. This activity will be conducted on the weekends of 24, 25 March 2018.

## Course Fee

Participants have to pay a fee of Rs 1000/- to the remote centre This is for availing the benefits of synchronous interactions through A-VIEW.

Participants who had attended previous FDPs, but were unable to complete can request the Remote Centre for a waiver in payment. However the final decision on the application will be that of the remote centre.

**Accommodation:** Not Applicable

## How to Apply

If you wish to attend this course, you should register online. The online registration has started from **Friday 16 February 2018. The last date of online registration is Saturday 15 March 2018.**

The URL for registration is <http://www.it.iitb.ac.in/nmeict/announcements.html>

The registration for FDP201x - "Pedagogy for Online and Blended Teaching-Learning Process" will be limited to participants, who successfully complete the FDP101x.

## Address for communication:

Dr. Kalpana Kannan  
Sr. Project Manager,  
Department of CSE, Kanwal Rekhi Building,  
Indian Institute of Technology Bombay,  
Mumbai - 400 076  
Tel.: +91-22-2576 4989  
Fax: +91-22-2572 0022  
Email: eoutreach@it.iitb.ac.in

**Two-Week AICTE approved FDP**

**Under the aegis of Pandit Madan Mohan  
Malaviya National Mission for Teachers and  
Teaching (PMMMNMTT)  
on**

## "Foundation Program in ICT for Education"

**(This FDP is a repeat offering of FDP101x offered in  
2017 and will be offered in a blended/hybrid mode)**

**08 March to 12 April 2018**

Conducted by

**IIT Bombay**



## Course Coordinator

Professor Deepak B. Phatak  
Department of Computer Science & Engineering

**Indian Institute of Technology Bombay**  
Mumbai – 400076