

ET621Tx: Effective teaching-learning of Computer Science concepts in Schools

Conducted By:



IDP in Educational Technology,
IIT Bombay

Partially Sponsored By:



- **Logistical Details :**

- Prerequisite:
 - This course is exclusively for Computer Science teachers in schools.
 - Teachers should have gone through the Learning Dialogues (LeDs) and the various activities of ET611Tx course.
- Duration: 4 *weeks*
 - Start Date: *November 9, 2017*
 - End Date: *December 7, 2017*

- Certification:

Honor code certificate will be awarded by IITBombayX if minimum 50% aggregate secured

- **Course Content Details:**

- Course Outline:
 - Module 1: Computer Fluency
 - Module 2: Thinking Skills

- Module 3: Integration
- Module 4: Safety
- About the course:

This 4-week MOOC course is in continuation to ET621Tx course and is aimed exclusively at Computer Science (CS) teachers in schools. The goals of this course are:

- Give a hands-on experience of CS concepts like safety and integrating CS with other subjects in the curriculum.
- Apply effective pedagogical techniques for teaching-learning of Computer Science Concepts
- Develop a collaborative community of CS teachers to share their experiences and best practices

○ Instructors:

Prof. Sridhar Iyer, Prof. Sahana Murthy

○ About IDP-Educational Technology, IIT Bombay:

The Inter-disciplinary Program in Educational Technology (IDP-ET) at IIT Bombay (<http://www.et.iitb.ac.in/>) is actively involved in research and education in the following areas of teaching- learning. The thrust areas of research and development are:

- Teacher use of technological tools (TUET)
- Technology-enhanced learning of thinking skills (TELoTS)

○ Course Activities

Given below is an overview of the course activities.

The course will have **Learning Dialogues** (LeDs) by instructors that familiarize you with the course content. These LeDs will contain lectures + **Reflection Spots**. When you reach a reflection spot, you are to pause the video and then think, reflect and write how the discussed content will be applicable in your own context. The LeD videos also will have **Learning by**

Doing (LbD) activities that are small activities aimed at giving you practice in the content discussed within LeD. There will also be Learning Extensions (Lxt) which maybe videos or text. These are supplementary content to advance your learning. There will be very short **Assimilation Quizzes** based on LxT resources.

We expect all participants to take part in **Learning Experience Interactions (Lxi)** in the discussion forum that will be driven by guiding questions. The learning from the discussion is expected to advance your learning by discussing course content and sharing your experiences with others. There will be short **Reflection Quizzes** based on LxIs.

There will also be 2 other type of assignments:

- Knowledge Quiz – This will be summative assessment of current week's course contents
- Resource Creation Assignments – These will be open-ended assignments wherein you will create resources for your own context.

○ Marks Distribution across assignments

Sr. No	Assignment (number of)	Weightage (%)	Best of
1	Knowledge Quizzes (4)	70	3
2	Resource Creation Assignments (1)	10	1
3	Reflection Quizzes (4)	10	2
4	Assimilation Quizzes (4)	10	2