

## Introduction

An important initiative has been taken by IIT Bombay to work with Engineering Colleges in the country, to enhance the teaching skills of our faculty colleagues in core Engineering and Science Subjects. Under this project called **“Empowerment of Students & Teachers through Synchronous & Asynchronous Instruction,”** IIT Bombay conducts two-week ISTE workshops during the vacation period in summer and winter. Live lectures are given by IIT faculty. The participating teachers attend at a remote center close to their own college, and also attend tutorial and lab sessions conducted in the same center. The lecture transmission and live interaction takes place through distance mode using the AVIEW technology and the internet, at selected remote centers across the country. This initiative is part of the National Mission on Education through ICT, supported by MHRD. Faculty coordinators are appointed at each remote center, to handle the technology infrastructure and other operational logistics. Additionally, for each workshop, there is a workshop faculty coordinator for that subject who will help in the conduct of labs and tutorials at that center.

We invite expert faculty from various remote centers for a five-day Coordinators' training workshop which is held in IIT Bombay, before the main workshop. These Coordinators then act as Workshop Coordinators during the main workshop, liaising between the participants at their Remote Centers and IIT Bombay from where the workshop is transmitted live. During the main workshop, the Workshop Coordinator at every center supervises the conduct of tutorials and Labs. All the lectures and tutorial sessions are recorded. The final edited audio-visual contents, along with other course material will be released under Open Source. These contents can be freely used later by all teachers and students.

Since December 2009, we have conducted two-week ISTE workshops on "Effective teaching/ learning of Computer Programming," "Database Management Systems," "Basic Electronics," "Thermodynamics," "Software Development Techniques for Teachers of

Engineering and Science Colleges," "Heat Transfer," "Solar Photovoltaics", and "Introduction to Research Methodology." We have reached more than 19,500 teachers and helped them to enhance their teaching skills at around 189 distinct Remote Centers across the country.

In the backdrop of the success of these workshops, we now announce another two-week ISTE workshop, on **Engineering Thermodynamics**, to be held in **Dec 2012**.

## Teaching Faculty

**Prof. U.N. Gaitonde**, Department of Mechanical Engineering, IIT Bombay  
<http://www.me.iitb.ac.in/wiki/doku.php?id=gaitonde>

**Prof. U. V. Bhandarkar**, Department of Mechanical Engineering, IIT Bombay  
<http://www.me.iitb.ac.in/wiki/doku.php?id=bhandarkar>

**Prof. Bhalchandra Puranik**, Department of Mechanical Engineering, IIT Bombay,  
<http://www.me.iitb.ac.in/wiki/doku.php?id=puranik>

## Duration and Venue

The duration of the workshop is **2 weeks (10 working days.)** It will begin on Tuesday **11th Dec at 09:00 hrs** and end at **18:00 hrs** on Friday **21st Dec 2012** with a day break on Sunday 16<sup>th</sup> Dec only. Additional contributions from participants are required to be made within the following two weeks.

The details and enrollment link are available on the website  
<http://www.it.iitb.ac.in/nmeict/enggthermo>

The venues for the workshop will be over 175 remote centers. The above link contains the list of all remote centers.

## Who may benefit

The workshop will benefit faculty colleagues who are teaching **Engineering Thermodynamics at the UG or PG level**. The focus of the workshop will be on Mechanical Engineering Thermodynamics. However, teachers from allied engineering departments may also benefit to some extent.

## Important Note:

**It is mandatory that while registering for the workshop, the participants should submit a scanned copy of a letter from the principal/ Head of the Institute mentioning in our pre-format letter. Registration without this letter will not be considered.**

## Note

Please note that this workshop is conducted by the eOutreach project of IIT Bombay, under the National Mission on Education through ICT. Live recording of the course and other created contents will be released under Open Source through a portal. The recorded CD/DVD of the course lectures will be available for distribution at cost, to any individual/ institution. All participants are required to sign a authorization for such release of contents contributed by them during and after the workshop. Recognition and citation will naturally be made for all contributors.

## Course Fee

Since the workshop is partly funded by the National Mission on Education through ICT (MHRD, Government of India), there is no course fee for participation.

## Accommodation & other support

Remote centers are being funded to provide tea/lunch on each day of the workshop, and for accommodation, wherever available\*, for a limited number of outstation participants. **Travel expenses up to Rs.1000/- will be reimbursed against proof of actual expenditure.**  
\*Accommodation is not guaranteed.

## How to Apply

Those wishing to attend this course should register online at <http://www.it.iitb.ac.in/nmeict/enggthermo>

**Enrollment will be strictly online, and no other mode of application will be entertained.**

The online form contains a list of remote centers. From this list, please select a center close to your institute, where you wish to attend the workshop. The last date for enrollment and for submission of permission letter is **3<sup>rd</sup> Dec 2012**. A list of selected participants will be put up on this website on **5<sup>th</sup> Dec. 2012**. The selected participants will also be informed by email.

**LAST DATE FOR ONLINE ENROLLMENT:  
3<sup>rd</sup> December, 2012**

## Address for Communication:

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## Course Content

Detailed course contents are available on our website. These reflect the syllabus adopted by most universities for the subject 'Engineering Thermodynamics'.

## REMOTE CENTERS

**We have remote centers in the following states:**

- Andhra Pradesh
- Chhattisgarh
- Delhi
- Goa
- Gujarat
- Haryana
- Himachal Pradesh
- Jammu and Kashmir
- Karnataka
- Kerala
- Madhya Pradesh
- Maharashtra
- Orissa
- Punjab
- Rajasthan
- Tamil Nadu
- Uttar Pradesh
- West Bengal

# TWO-WEEK ISTE WORKSHOP

on

## Engineering Thermodynamics

Under the

**National Mission on Education through ICT  
(MHRD, Govt. of India)**

**11<sup>th</sup> – 21<sup>st</sup> December 2012**

**Conducted by IIT Bombay**



Course Coordinators:

**Prof. U. N. Gaitonde  
Prof. U. V. Bhandarkar  
Prof. Bhalchandra Puranik**  
Dept. of Mechanical Engineering

Project Coordinator:

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