



भारतीय प्रौद्योगिकी संस्थान  
हैदराबाद  
Indian Institute of Technology  
Hyderabad

## A TEQIP course on Internal Combustion Engines (ICE): Theory, Modeling and Diagnostics

20<sup>th</sup> - 24<sup>th</sup> March 2017

Organized by  
**Indian Institute of Technology Hyderabad**

Funded by Technical Education Quality Improvement Program (TEQIP), MHRD, India

### REGISTRATION

#### DEADLINE:

13<sup>th</sup> March 2017

#### DATE & VENUE:

20<sup>th</sup> - 24<sup>th</sup> March 2017  
@ IIT Hyderabad,  
Kandi Campus

### REGISTRATION FEE

#### TEQIP

Faculty/Students: FREE

#### Non-TEQIP

Faculty ..... Rs. 6000/-  
Students ..... Rs. 3000/-  
Industry/Others  
..... Rs. 7500/-

#### *Program/Payment*

#### *Details*

[www.iith.ac.in/teqip/ice](http://www.iith.ac.in/teqip/ice)

### REGISTRATION FORM ENCLOSED

### FOR ANY QUERIES

[teqip-ice@iith.ac.in](mailto:teqip-ice@iith.ac.in)

### About the course

In alignment with the recent trends in internal combustion engine; theory, numerical modeling and diagnostics aspects are focused on in this workshop.

### Who should attend

This short course is for all industry and research professionals involved in automotive sector. Engineers and designers in both private and public practice will benefit. This course will provide excellent exposure to the theory, modeling concepts and diagnostics tools use in internal combustion engine research along with hands on experience on example problems.

### Venue

The course will be held at the permanent campus of IIT Hyderabad.

### AGENDA

Internal combustion engine theory covering aspects of combustion kinetics into normal and abnormal combustion in IC engines, cyclic variability and exergy analysis. Recent strategies in multiple/split injection and its impact on the engine performance. Introduction to Diagnostics using schlieren, high speed imaging, PIV/PLIF techniques. Relevance of constant volume combustion studies to develop fundamental understanding in engine combustion. Lab session on optical access engine diagnostics/performance. Lab session on diagnostic tools (Viz. schlieren, PIV, PLIF) working principles. CFD theory covering spray, combustion modeling in cylinder. Lab sessions for hands on experience in numerical modeling. Pollutant and emissions aspect of the IC engines would also be covered.

### Faculty

The following faculty of Mechanical and Aerospace Engineering Department and Chemical Engineering department will deliver the lectures:  
Dr. Raja Banerjee, Dr. Narasimha Mangadoddy, Dr. Venkata Subbaiah, Dr. Pankaj Kolhe, Dr. Saravanan Balusamy

### Registration

See the workshop website for registration details [www.iith.ac.in/teqip/ice](http://www.iith.ac.in/teqip/ice) .  
Queries on the workshop can be directed to the convener:

Dr. Pankaj Kolhe,  
Department of Mechanical & Aerospace Engineering,  
IIT Hyderabad,  
[teqip-ice@iith.ac.in](mailto:teqip-ice@iith.ac.in)

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Internal Combustion Engines (ICE):  
Theory, Modeling and Diagnostics**

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IIT Hyderabad

**REGISTRATION FORM**

**(Completed form should reach us by 13<sup>th</sup> March, 2017)**

Name: .....

Position: .....

Qualification: .....

Work Experience: .....

Address: .....

.....

Pin code: .....

Telephone: .....

Fax: .....

Email: .....

Whether currently registered for Ph.D. at a University?                      Yes/No

(If applicable) Department: .....

Institution: .....

Do you need accommodation?                      Yes/No

If yes, mention dates: .....

(Non-TEQIP participants: Please enquire with us about accommodation charges)

Date: .....

Signature

Signature of institute authority (TEQIP coordinator, when applicable) and Seal

***Please return scanned copy of completed form to:***

Email: [teqip-ice@iith.ac.in](mailto:teqip-ice@iith.ac.in)