COURSE COORDINATOR

Prof. Avinash Kumar Agarwal,

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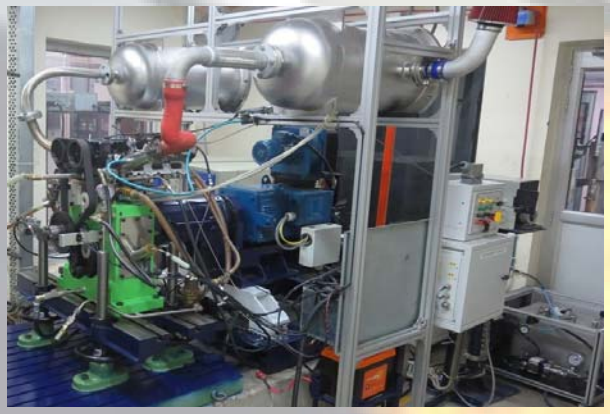

Gasoline Direct Injection Engine with AC Dynamometer

IMPORTANT DATES

Last date for receiving application	March 30th, 2019
Notification about selection	April 08th, 2019
Confirmation by the participants	April 10th, 2019

APPLICATIONS NOT ACCOMPANIED WITH THE COURSE FEE SHALL NOT BE ENTERTAINED.

Note: Selected candidates will be informed by fax / e-mail, if fax number/ e-mail address provided in the application.

For further information or queries, please contact:

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Bank Details:

Fees Payments through SBI Collect

Course Code	**2019/001**
Course Title	Design of Engines for Emission Compliance
Course Duration	17.04.2019 to 21.04.2019
Participants Category	IITK Students NON IITK Students
Course Fees + 18% GST	IITK Faculty
***IITK Faculty & Students pay only Course fees**	NON IITK Faculty Industry Participant Others

https://www.onlinesbi.com/sbicollect/icollecthome.htm

ANNOUNCEMENT

Short-Term Course
On

Design of Engines for Emission Compliance

April 17-21, 2019

Organized By:
Dept. of Mechanical Engineering
Indian Institute of Technology Kanpur

Indian Institute Of Technology Kanpur

Ministry Of Human Resource Development

Engine Research Laboratory IIT Kanpur

INTRODUCTION

Current automobile technology has matured significantly over the past few years. Engine technologies have come across a significant change to improve the efficiency and cost. However, the world is also confronted with the twin crises of fossil fuel depletion and environmental degradation. Indiscriminate extraction and lavish consumption of fossil fuels have led to reduction in underground-based carbon resources. This calls for advanced designs of the engines and deployment of relevant engine technologies, which promise a harmonious correlation with sustainable development, energy conservation, management, efficiency and environmental preservation.

With increasing environmental awareness worldwide, stringent regulations for fuel consumption, and exhaust emissions, including those for PM (Particulate Matter) and NO_x are further evolving. Under these circumstances, diesel engines would continue to be attractive because of their relatively lower fuel consumption and higher power output compared to their gasoline counterparts however both have to emerge as clean primary power sources.

This course focuses on designing of various engine components and technologies, diagnostics and modeling tools. The emphasis is on providing the participant an up-to-date knowledge of the advances in design og engine components and sub-systems for emission compliance.

SCOPE OF COURSE

- Designs of Engines
- Combustion
- Cylinder Head and Liner Design
- Cooling System, Bearings, Lubricating System Design
- Design of Connecting Rod and Crankshaft
- Turbocharger Matching
- Design of EGR and SCR Systems
- Gasoline direct injection engine design
- Injectors, sprays & droplet size distribution
- Optical Research Engine and flow diagnostics
- Engine exhaust particle formation and Control
- 1-D modeling of engines, fuel injection systems, and engine cooling system
- New and Emerging fuels
- Challenges of Emerging fuels such as Methanol
- Emerging gaseous fuels
- Engine Calibration

COURSE FACULTY

The course will be taught by experts from academia and Industry.

Some of the potential faculties are:

- Dr. P A Laxminarayan, Simpson Engines, Chennai
- Prof. Avinash Kumar Agarwal, IIT Kanpur
- Dr. Nitin Labhsetwar, NEERI Nagpur
- Dr. Anirudh Gautam, RDSO Lucknow

COURSE STRUCTURE

There will be four lectures every day of 90 minutes each (five days; 17-21 April, 2019) and this will be followed by lab experiment demonstration session on three days.

There will be a book exhibition related to engine technologies.

Those participants, who attend the at least 80% of the lectures/ Lab sessions will be provided with a certificate of successful completion of training program from IIT Kanpur.

COURSE DETAILS

The Continuing Education Cell of Indian Institute of Technology Kanpur conducts courses in Engineering and Science for the benefit of the faculty of engineering colleges in the country under Quality Improvement Program of All India Council of Technical Education (AICTE).

Research engineers/ scientists working in automotive industries, DRDO, CSIR laboratories, and other practicing engineers can participate in this course and benefit.

Course duration: April 17-21, 2019

Accommodation: Accommodation for the duration of the course shall be provided in the guest house of IIT Kanpur on twin sharing basis.

PARTICIPATION FROM INDUSTRY AND R & D ORGANISATIONS

Registration fee Rs. 55,000 (Plus GST, as applicable)- payable by a crossed demand draft drawn in favor of "Continuing Education Program, IIT Kanpur" payable at State Bank of India, IIT Kanpur. ***Course fee does not include accommodation expenses. There will be separate accommodations and meal charges of approximately Rs 1500 to be paid directly to IITK Visitors Hostel (Guest House) for the course duration (April 17-21, 2019) by all participants.***

Please note that the applications not accompanied by the course fee shall not be entertained.

HOW TO APPLY

Engineers/ Scientists interested in attending the course are requested to fill the enclosed registration form and send the completed application with a passport size photograph along with the course fee in the form of crossed bank draft in favor of "Continuing Education Program, IIT Kanpur" payable at State Bank of India, IIT Kanpur.

Registration fee: Rs. 55,000 (Plus GST, as applicable)

The registration form, complete in all respects accompanied by the demand draft and a covering letter should reach the under mentioned on or before **March 30, 2019.**

All successful candidates, who attend at least 80% of the classes, shall be provided with 'certificate of successful completion of the training program'.