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#### SIX DAYS COMPREHENSIVE TRAINING PROGRAM

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DIESEL ENGINE TECHNOLOGIES
AT IIT (ISM) DHANBAD

Date: 4<sup>th</sup> December-9<sup>th</sup> December, 2017

#### **BACKGROUND**

Today's diesel engines used in off-road and on-road vehicles are highly sophisticated, with advanced computer controls and electronic functions. Machines for earth moving, agriculture and farming applications, Marine industries, Mining Industries, Cars and trucks, Buses and coaches, Industrial equipment, Fleet vehicles, Electric power generators and almost everywhere Diesel engines are being used and utilized.

The course will be covering every aspect of the Engine technology allowing participants to master each of the latest technologies as they get evolved and introduced in the product. This comprehensive course is designed to equip engineers/ industry personnel's/ researchers/ acade-mia with a solid understanding of Diesel engines, Engine electronics, Diesel engine emission and after treatment strategies and related components including fuel injection, and air management.

### WHO SHOULD ATTEND

All application engineers / supervisors/ Maintenance Engineers/ Researchers/ Academia and who need to know about the Maintenance & Troubleshooting aspects of Diesel Engine Technologies will be benefited from this program.

## **OBJECTIVE**

The objective of the program is to acquaint the participants with the basic knowledge, Design, Selection, Operation, Maintenance, Overhauling, Troubleshooting and Latest development in Diesel Engine Technology used in off-road and on-road vehicles.

#### **COURSE CONTENTS**

The program will cover the following areas:

- Basic knowledge of Diesel Engine Technology.
- Common Rail Diesel Fuel Injection.

- Mechanical operated Electronic Unit Injection.
- Hydraulically actuated Electronic unit injection.
- Turbocharger for Internal Combustion Engine.
- Electronics in Diesel Engines.
- Exhaust Gas Recirculation System.
- No<sub>x</sub> Reduction System.
- Clean Gas Induction System.
- Diagnosis and Trouble shooting of Diesel Engines.
- Preventive and Periodic Maintenance of Diesel Engines.
- Proper Selection of Lubricating oil and Coolants for Diesel Engine.
- Top and Major Overhaul of Engines.

#### **METHODOLOGY**

The speakers from the institutes and the industries having vast experience in the relevant field will deliver lectures in this comprehensive training course.

#### **DURATION & VENUE**

Date: 4<sup>TH</sup> DECEMBER-9<sup>TH</sup> DECEMBER, 2017.

**Venue**: Department of Mining Machinery Engineering, Indian Institute of Technology (Indian School of Mines), Dhanbad

#### **COURSE FEE**

Participants	Residential	Non-Residential
Industry/ R&D	33,000/-	31,000/-
	(+taxes as	(+taxes as
	applicable)	applicable)
Academia/Faculty	25,000/-	23,000/-
	(+taxes as	(+taxes as
	applicable)	applicable)
Research Scholars	8,000/- (Inclusive of all Taxes) on	
	Non-residential	basis excluding
	Breakfast and Dir	nner.

#### Residential participants

The fee includes: comprehensive course materials with Boarding and lodging.

Accommodation will be provided in twin sharing basis a/c room.

#### • Non-residential participants

The fee includes: comprehensive course material with lunch (no accommodation will be provided).

#### > Note:

Discount for more than 4 (four) participants nominated from same Industry/ R&D (Excluding Academia) is as follows:

- Rs. 31,000/- (+ taxes as applicable) per residential participants.
- Rs. 30,000/- (+ taxes as applicable) per non-residential participants.

#### COURSE CO-ORDINATOR AND CONTACT ADDRESS

All nominations may please be <u>intimated via email well in</u> advance and should be addressed to:

#### **Ajit Kumar**

Assistant Professor

Dept. of Mining Machinery Engg.

IIT (ISM) Dhanbad

Dhanbad - 826004

Ph. No. 0326 - 223-5125 (O), 9471192264 (M), Fax: 0326 -

2296563

Email: ajit.ism185@gmail.com

#### Niranjan Kumar

**Assistant Professor** 

Dept. of Mining Machinery Engg.

IIT (ISM) Dhanbad

Dhanbad – 826004

Ph. No. 0326 - 223-5884 (O) / 5979 (R)

9471191827 (M), Fax: 0326 – 2296563

Email: nk2011.ism@gmail.com

#### **OTHER DETAILS**

IIT (ISM) Dhanbad is an educational institution. It has Executive Development Center (EDC) where following facilities are available:

- Double seated A/C furnished room, with television, computer with Internet facilities, indoor and outdoor games, gymnasium and swimming pool. The participants can avail these facilities in leisure time.
- Class rooms are equipped with LCD projectors for power point presentation and AC facilities.

#### REGISTRATION

The participants may download the registration form available under the 'Short Courses' tab in the Institute website (www.iitism.ac.in). The registration fee may be paid via (1) Demand Draft/ Cheque or (2) Online Transfer.

## (1) Payment via demand draft/ Cheque

The registration form filled in all respects along with a DD/ Cheque in favour of 'Registrar, Indian Institute of Technology (Indian School of Mines), Dhanbad' payable at Dhanbad should reach the Course Coordinator latest by 10th November, 2017.

## (2) Payment via electronic transfer

The filled in registration form along with the hard copy of the transaction slip should reach the Course Coordinator latest by 10th November, 2017.

Name of Bank: Canara Bank

Branch Name: Saraidhela, Dhanbad A/C No.: 0986101009746 (Savings)

Account Holder Name: Registrar, IIT(ISM),

Dhanbad

IFSC Code: CNRB0000986 MICR Code: 826015003



## Six days Comprehensive **Training Program** on

## DIESEL ENGINE TECHNOLOGIES AT IIT (ISM) DHANBAD

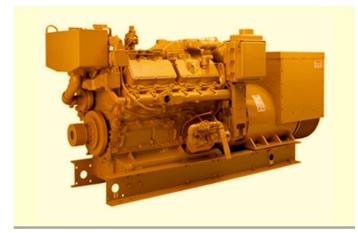
4th December-9th December, 2017

## **Registration Form**

Name (in block letters):
Gender: Male/Female
Designation:
Organization:
Mailing address:
Telephone:
E-mail:
Accommodation required: Yes / No
Details of DD/ Cheque:
or Transaction ID:
Signature of applicant:

# SIX DAYS COMPREHENSIVE TRAINING **PROGRAM** ON

## **DIESEL ENGINE TECHNOLOGIES**



# Organized by



## DEPARTMENT OF MINING MACHINERY ENGINEERING

INDIAN INSTITUTE OF TECHNOLOGY (INDIAN SCHOOL OF MINES), DHANBAD

DATE: 4<sup>TH</sup> DECEMBER-9<sup>TH</sup> DECEMBER, 2017