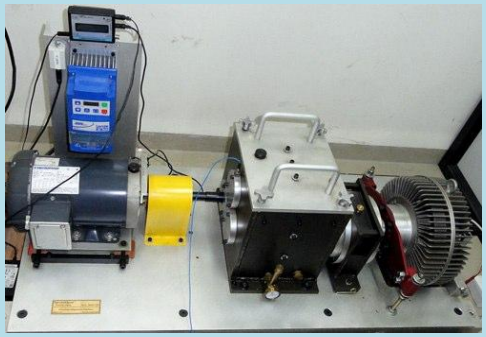
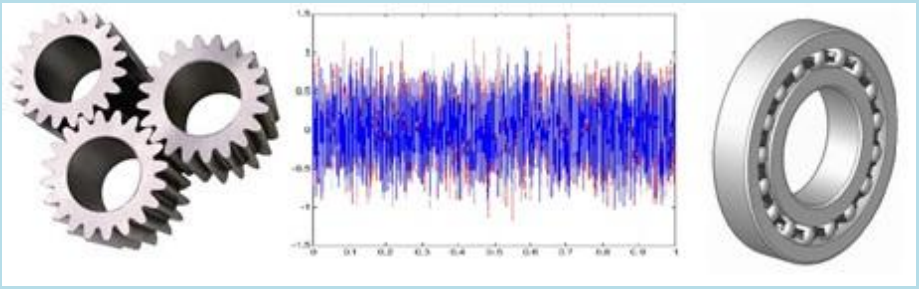
A SHORT TERM COURSE
ON

Condition Monitoring of Rotating Machine Elements

(21-23 December 2015)





Course Coordinator

Dr. Anand Parey

Discipline of Mechanical Engineering
INDIAN INSTITUTE OF TECHNOLOGY INDORE

About the Course

Rotating machines elements like bearings, gears, fans, rotors, shafts are very common in every industry. Failure of these elements causes huge monitory losses. Condition monitoring of these elements can help in preventing the catastrophic failure of these elements thereby saving down-time and monitory losses. Noise and vibration monitoring are two most widely used techniques for fault diagnosis of bearing and gears. Acoustic emission, wear debris analysis, oil analysis etc. are some other techniques for bearing and gear fault diagnosis. Various soft computing techniques like artificial neural network, support vector machine etc. are very useful in fault classification. This short-term course is aimed at providing the sound fundamental knowledge to the participants on above-mentioned various aspects of bearing and gear fault diagnosis. Participants will be given an opportunity to explore some of the state-of-art equipments and facilities available at IIT Indore in the field of fault diagnosis.

COURSE CONTENTS:

The **lectures** will cover following topics:

- Basics of noise and vibration
- Basics of acoustic emission, wear debris analysis and oil analysis.
- Measurement of Noise and Vibration
- Frequency Analysis (Detection and classification of faults).
- Vibration analysis of bearings, gears, rotors etc.
- Use of ANN, SVM, GA for fault classification.
- Modal analysis and testing

Training/Demonstration and Hands-on Sessions: A hands-on sessions of total 3 hours duration will be conducted on bearing and gear fault diagnosis and modal testing.

PROFILE OF THE SPEAKERS:

FACULTY	AREA OF EXPERTISE
Dr Anand Parey (IITD) Associate Professor, IIT Indore	Gear Fault Diagnosis, Dynamic Modelling of Gear Boxes, Signal Processing of Rotating Machines.
Dr P.K. Kankar (IITR) Assistant Professor, IIITDM Jabalpur	Vibrations, Condition Monitoring, Nonlinear Dynamics, Soft Computing
Dr M. Amarnath (IITM) Assistant Professor, IIITDM Jabalpur	Condition Monitoring and Fault Detection in Rotating Machinery, Acoustics and Vibration Analysis, Lubricating Oil Analysis, Non-Destructive Testing.
Dr. Manoj Chouksey (IITD) Assistant Professor, SGSITS Indore	Modal Analysis and Testing of Rotating Machines

WHO SHOULD ATTEND?

- Condition monitoring Engineer/ Manager/ Supervisor.
- Maintenance Engineer/Manager/Supervisor.
- Electrical Engineer/Manager/Supervisor.
- Professionals working in R & D organization.
- Faculty of Engineering/Polytechnic College.
- Research scholar, post graduate and undergraduate student.

COURSE FEE:

Rs. 25,000* (for industry personnel)
Rs. 15,000* (for faculty members)
Rs. 10,000* (for students)

The course fee includes study material, breakfast, lunch, and tea for the entire course duration.

*including service tax

Group discount: 15% group discount will be given if more than two participants come from same organization.

MODE OF PAYMENT: Through **Cheque / Demand Draft** in favor of **Registrar, IIT Indore**. The completely filled registration form along with the **Cheque / Demand Draft** should be sent to the following address on or before **15th December 2015**.

ACCOMMODATION: Accommodation can be arranged, if required, in hostel/guest house **@ Rs.250 per day** subject to the availability. Limited seats are available. Participants will be selected on first-come-first serve basis. Please send request for hostel accommodation to the course coordinator.

Address for correspondence

Dr. Anand Parey
Mechanical Engineering Discipline
Indian Institute of Technology Indore
PACL Campus,
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Tehsil MHOW, Distt. INDORE, (MP) India
E-mail: anandp@iiti.ac.in; anandparey@hotmail.com
Phone: 0732 4240716 (O), 09425053943(M)

REGISTRATION FORM

Name :

Designation:

Institution/Organization:

Address:

E-mail id:

Phone/Mobile No.:

Accommodation Required: Yes / No (if yes please fill the form)

Payment details

Cheque / Demand Draft no. _____ dated_____

bank_____amount in Rs. _____ drawn at_____

Signature of the applicant with date

APPLICATION FORM FOR HOSTEL ACCOMMODATION

Name of the candidate: _____

Name of course: Condition Monitoring of Rotating Machine Elements

Sex (Male/Female) :_____

Age: _____

Period From ___/___/_____:____am/pm to ___/___/_____: ___am/pm

(DD/MM/YY: am/pm)

Email-ID : _____

Mobile No. : _____

Booked

by_____

For office use only

Course/conference coordinator **Confirmation of booking**

(Hostel supervisor)

Hostel Guideline

- Most important: All the guest needs to carry photo id card.
- Candidate or course coordinator can fill this form and send to hostel@iiti.ac.in
- Hostel will provides twin sharing room with cot, mattress, RO, Geyser (Additional facilities like bed sheet, pillow, blanket, etc will be provided on the basis of availability at nominal charges).
- Candidates need to pay in cash INR 250/- per day per person on arrival. Charges may vary based on institute guidelines.
- This does not include dining charges.
  Current dining charges (in INR) are as follows:
  Breakfast: 25/- Lunch: 40/-Hi Tea: 16/-Dinner: 45/-
- Candidates need to report to hostel office (address above) on arrival.
- All the candidates are required to follow hostel rules and code of conduct.