Self-Financed One Week Short Term Course

On

Structural Health Monitoring

[MAY 27-JUNE 1, 2019]

Coordinators

Dr. Deepak Kumar
Dr. Vineet Sahoo
Dr. Ashok Kumar Mondal

Organized by:

Department of Mechanical Engineering
National Institute of Technology Jamshedpur, Jamshedpur

Organizing Committee

Patron:	Prof. Karunesh Kumar Shukla Director NIT, Jamshedpur
Chairperson:	Prof. Mani Kant Paswan HOD, MED, NIT Jamshedpur
Coordinators:	Dr. Deepak Kumar, Dr. Vineet Sahoo, Dr. Ashok Kumar Mondal, MED, NIT Jamshedpur

Advisory Committee

Prof. Hari Narayan Singh, MED, NIT Jamshedpur
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Prof. Ram Vinoy Sharma, MED, NIT Jamshedpur
Prof. Sanjay, MED, NIT Jamshedpur
Prof. Shalendra Kumar, MED, NIT Jamshedpur

Resource Persons

The speakers will be mainly from IITs, Tata Steel and NITs.

For
Students (UG/PG/Ph.D.), faculty members of Science/Engineering, Industry personnel and Scientists

Important dates

Registration/Payment Closes on : **07.05.2019**
Acceptance : **15.05.2019**

Notes:

- **Registration fee is non-refundable.**
- **No TA/DA will be provided for attending the course.**

Registration Form

Structural Health Monitoring

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Name: .....

Designation: .....
Department: .....
Institute: .....
.....
Address: .....
.....
.....
Email: .....
Phone No: .....
Mobile No: .....
Qualification: .....
Area of specialization: .....
.....

Payment Details:
Amount in Rs.....
Online Transaction ID .....
Date of Transaction.....
(Please enclose transaction slip)
Sponsored by.....
Name.....
Organization.....

Signature of applicant

Recommendation

(Signature of Head of the Institution/ Head of the Department with seal)

About Institute and Jamshedpur

National Institute of Technology Jamshedpur was originally founded as Regional Institute of Technology in 1960. Later upgraded to National Institute of Technology on 27th December 2002, with the status of Deemed University. It is now totally under the control of Ministry of Human Resources Development (MHRD), Government of India, New Delhi, Since April 2003. The institute offers B.Tech, M.Tech., Ph.D., M.C.A. and M.Sc. degrees in various disciplines of Engineering, Sciences, and Humanities.

About the Department

The Department of Mechanical Engineering offers an undergraduate program in Mechanical Engineering and postgraduate programs in Computer Integrated Design and Manufacturing, Thermal Engineering and Energy System Engineering and PhD program in various research areas. The department also runs three year certificate course in Mechanical Engineering for the employees of Tata Steel under Continuing Education Program. The Department has experienced faculty and well -established laboratories to meet the requirement of UG, PG and PhD students

Objective

The purpose of this course is firstly to provide an introduction to well-known and established system identification methods on Structural Health Monitoring (SHM) and secondly to introduce more advanced, state-of-the-art tools, able to tackle the challenges associated with actual implementation. In addition, focus will be given on full scale applications and field deployments that illustrate the workings and effectiveness of the introduced monitoring schemes. The deployments will involve monitoring of large scale landmark structures during regular operation as well as large scale systems that have undergone damage techniques. The course syllabus will also involve advanced computational tools for uncertainty quantification and structural reliability in an effort to provide the link between monitoring and structural integrity assessment. Following are the specific objective of the proposed course:

- Spur the research and development of new SHM technologies
- Train students to provide an outstanding workforce pool in SHM technology areas
- Understand the primary data features used to identify, locate and quantify damage
- Discuss the practical implementation issues, including the influence of operational and environmental variability on the SHM process

Short term course topics:

- Numerical method to detect crack using NDT Techniques
- Damage Detection Techniques
- Structural Integrity Assessments
- Spectral Finite Element Methods
- Wave Propagation in Solids
- Ultrasonic Guided Wave
- Determination of Surface Defects using Ultrasonic Waves

Number of seats: 50

Accommodation: The participants may be provided accommodation in the institute **hostels depending on the availability and on a nominal payment basis as per actual on First-cum-First Serve Basis.** Accommodation can also be booked in nearby hotels directly or through prior information to organizers.

Registration Fee:

Students (UG/PG):	Rs. 1500
PhD:	Rs 2000
Faculty:	Rs 4000
Industry persons/Scientists:	Rs. 5000

Registration Link:

https://goo.gl/forms/eMWEOMRDSsCc4z473

- **To avoid postal delay, it is advised to send scanned copy of duly signed registration form and transaction receipt by email.**
- **If registration is done by online, then send scanned copy of transaction slip by email.**

Offline Registration form and scan copy of transaction slip can be sent on the following email id: stc_mech@nitjsr.ac.in

Registration fees includes: Program kit, lunch, & tea

Mode of payment:

Participants can make payment by depositing the registration fee online in Account No. 37963459091 (Current Account, RIDFM-2018) of SBI Bank NIT Jamshedpur (Branch Code: 001882; MICR Code: 831002004; IFSC Code: SBIN0001882).

Spot payment is also admissible but only after prior approval from the organizers.

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