

Registration form

**A STTP on
STRUCTURAL INTEGRITY**

June 16 to 20, 2014

Name
Designation
Department
Institution/Organization
Years of Experience
Address
E-mail
Telephone No.
Fax No.
Mob. No.
Qualification (Highest Degree)
Area of Research Interest

Payment Details :

Demand Draft no. Dated.....
Amount in Rs. drawn at.....
Transaction ID (in case of online transfer).....
Date of Transaction
(Please enclose transaction slip)
Sponsored by
Name
Designation
Organization

Signature of the applicant
Recommendation

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

Organizing Committee

Patron

Prof. P. Chakrabarti,
Director, MNNIT Allahabad.

Chair Person

Prof. R.K.Srivastava
Head, Mechanical Engineering Department,
MNNIT Allahabad.

Convener

Prof. K. N. Pandey
Professor, Mechanical Engineering Department,
MNNIT Allahabad

Coordinator

Dr. D. K. Shukla
Asst. Professor, Mechanical Engineering
Department, MNNIT Allahabad

Send the completed registration form with DD/e-receipt to

Dr. K. N. Pandey

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SHORT TERM TRAINING PROGRAMME

**ON
STRUCTURAL INTEGRITY**

For
Faculty members of Engineering Colleges,
Research scholars, M.Tech. (Final Yr) students,
Practicing Engineers and Scientists

June16–20, 2014

Sponsored by
TEQIP - II

Convener
Prof. K. N. Pandey

Coordinator
Dr. D. K. SHUKLA



Organized by:
Mechanical Engineering Department
Motilal Nehru National Institute of Technology Allahabad
Allahabad, 211004, India

INTRODUCTION

An exhaustive course on STRUCTURAL INTEGRITY is offered from June 16-20, 2014 at Motilal Nehru National Institute of Technology, Allahabad. It is sponsored by Technical Education Quality Improvement Programme – Phase - II (TEQIP-II). The course is designed to cater the needs of teachers from engineering colleges, scientists and practicing engineers from industries. This programme will be beneficial for persons who are concerned with either teaching and / or industrial applications of life prediction and reliability of structural components under service conditions.

OBJECTIVES

Structural integrity is the science and technology of the margin between safety and disaster. Proper evaluation of the structural integrity and fatigue life of any structure (aircraft, ship, railways, bridges, gas and oil transmission pipelines etc.) is important to ensure the public safety, environmental protection and economical consideration. Catastrophic failure of any structure can be avoided if structural integrity is assessed and necessary precautions are taken appropriately.

Structural integrity of engineering components and structures in power, defence, aerospace, chemical and other industries is important, as it entails determining the performance, durability and safety of components under operating conditions. It also enables evaluation of ability of structures and components to withstand designed service loads without undergoing fatigue, fracture and deformation. Further, structural integrity assessment is very important from the view point of safety, reliability and cost saving. Structural integrity domain is highly multi-disciplinary encompassing, design, materials evaluation, material selection, stress

analysis, fabrication, welding, quality assurance, microstructure characterization, corrosion, non-destructive evaluation, damage mechanics, failure analysis etc.

COURSE CONTENTS

- Mechanical property evaluation
- Numerical modeling and validation
- Fatigue and fracture mechanics
- Thermo-Mechanical Fatigue
- Creep and creep-fatigue
- Design and stress analysis
- Fabrication technology of composite and polymers
- Corrosion and coatings
- Microstructure characterization
- Nondestructive evaluation and quality assurance
- In-service inspection, remote handling and robotics
- Structural health monitoring and condition monitoring
- Reliability and regulatory aspects
- Failure analysis and damage mechanics
- Life prediction and life extension

In addition to the lectures, the program shall also have following activities:

*Industry visit *MNNIT Labs visit *Group Discussion

FACULTY

The faculty will be drawn from MNNIT, IITs, other premier institutions and industries.

SELECTION AND COURSE FEE

(a) For college Teachers, research scholars and M.Tech. (Final Yr.) students

The candidate should have B.E./B.Tech in Mechanical/ Production /Industrial/ Manufacturing Engineering. Preference will be given to the candidates with M.E./M.Tech. Selection will be done by short-listing the aspirants.

Course fee for sponsored teachers, research scholars and M.Tech. (Final year) students is Rs.2000.00.

(b) For Participants From Industries / R&D Labs

Private and public sector industries and other organizations are welcome to depute their executives, managers and engineers to participate in the course.

The sponsoring organizations are required to pay a course fee of Rs.5000/- per participant (excluding boarding and lodging).

The applications should reach the course coordinator latest by May 26, 2014, giving the information as shown in the proforma.

Important Dates:

- Receipts of application May, 26, 2014
- Intimation about selection May 27, 2014
- Confirmation from the participants May 29, 2014

Accommodation

Participants are required to pay Rs.1500/- for boarding and lodging in the Institute Guest House on twin sharing basis. Application on a separate sheet giving the information shown in the proforma should reach the Convener/ Course Coordinator latest by May 26, 2014.

All payments should be made through bank draft payable at Allahabad and drawn in favour of "STTP on Structural Integrity".

Fee may also be paid through online transfer.

Details of the account are:

Name of the account : STTP on structural Integrity

Bank: Vijaya Bank, MNNIT Allahabad

Account No. 718400301000109

IFS Code: VIJB0007184

Candidates will be informed about selection by E.mail. The list of the selected candidates will also be displayed on the MNNIT website.