

An Online Short Term Course on **STRUCTURAL INTEGRITY AND RELIABILITY** October 28 - November 01, 2020

Introduction

An exhaustive course on **STRUCTURAL INTEGRITY AND RELIABILITY** is offered from **October 28- November 01, 2020**, at Motilal Nehru National Institute of Technology Allahabad, Prayagraj. The course is designed to cater to the needs of faculties and research scholars from Engineering Colleges, Scientists, and Practicing Engineers from R & D organizations/industries. This programme will be beneficial for persons 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 any structure's structural integrity and safe life (aircraft, ship, railways, bridges, gas, oil transmission pipelines, etc.) is essential to ensure public safety, environmental protection, and economic aspects. Catastrophic failure of any structure can be avoided if structural integrity is assessed, and the necessary precautions are taken appropriately.

The structural integrity of engineering components and structures in power, defense, aerospace, chemical, and other industries is essential, as it entails determining the performance, durability, and safety of components under operating conditions. By proper structural integrity assessment, safety, reliability, and cost-saving can be achieved. The structural integrity domain is a highly multi-disciplinary encompassing design, materials evaluation, material selection, stress analysis, fabrication, joining, quality assurance, microstructure characterization, corrosion, non-destructive evaluation, damage mechanics, failure analysis, etc.

Course Contents

- Material selection for design
- Material characterization.
- Numerical modelling and validation
- Structural integrity assessment
- Fatigue and fracture mechanics
- Thermo-Mechanical fatigue
- Creep and creep-fatigue interaction
- Fabrication technology of composite and polymers
- Corrosion and coatings
- Non-destructive evaluation and quality assurance
- In-service inspection, remote handling, and robotics
- Structural health and condition monitoring
- Reliability and regulatory aspects
- Life prediction and life extension

Speakers

The speakers from MNNIT, IITs, other premier institutions and industries will be the resource persons

About MNNIT Allahabad

Conforming to its motto 'SIDDHIRBHAWATI KARMAJA,' Motilal Nehru National Institute of Technology Allahabad is churning out engineers, entrepreneurs, and social scientists sterling worth. Today MNNIT stands as an epitome of excellence, knowledge, and achievements. The foundation stone of the Institute was laid by Late Pt. Jawaharlal Nehru, the first Prime Minister of India, on May 3, 1961, and was inaugurated by Late Shri Lal Bahadur Shastri, the second Prime Minister of India, on April 18, 1965. Situated at the confluence of three mighty Indian rivers: Ganga, Yamuna, and Saraswati, MNNIT boasts a rich and diverse cross-cultural environment with students coming across the nation and around the globe for various undergraduate, postgraduate and doctoral programmes.

The Institute has been selected as a Lead Institution under the World Bank Funded Government of India Project on Technical Education Quality Improvement Programme (TEQIP – I to III).

Selection and Course Fee

Participants: Faculties, Research Scholars, M.Tech., B.Tech. Students, Scientists, and Practicing Engineers from R & D organizations/industries.

Registration without certificate is free

Registration Fee with certificate

Students: Rs. 250/- Faculty: Rs. 500/- Persons from Industry: Rs. 1,000/-

The online application form (google form) should be filled the latest by October 25, 2020. All payments should be made through bank transfer (NEFT/RTGS) in favour of "STC-SIR2019". The list of the selected candidates will be displayed on the MNNIT website. Selected candidates will also be informed through email.

Registration detail

Please fill and send the Google Form by clicking the link given below for registration.

<https://forms.gle/7c9HVCf6UwHTmE7F7>.

Bank details for registration with certificate

Account Name: STC-SIR2019,

Account No. 7766020000102, IFSC: BARBOVJMNRE, Bank of Baroda Bank, MNNIT Allahabad Branch.



PATRON

Prof. Rajeev Tripathi, Director, MNNIT Allahabad

CHAIRMAN

Prof. H. S. Goyal, Head, Department of Mechanical Engineering, MNNIT Allahabad

COURSE CONVENER

Prof. Kailash Narayan Pandey, Department of Mechanical Engineering, MNNIT Allahabad

COURSE COORDINATOR (S)

Dr. Dharmendra Kumar Shukla, MNNIT Allahabad
Dr. Sunil Kumar Gupta, MNNIT Allahabad

*Organized
by*

*Department of Mechanical Engineering
Motilal Nehru National Institute of Technology Allahabad*

IMPORTANT DATES

- Last date of receipt of application : October 25, 2020
- Last date for intimation about selection: October 26, 2020

CONTACT

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