



# INDIAN INSTITUTE OF TECHNOLOGY INDORE

## Department of Metallurgy Engineering and Materials Science



Organizes

QIP SPONSERED 6-DAYS SHORT TERM COURSE ON

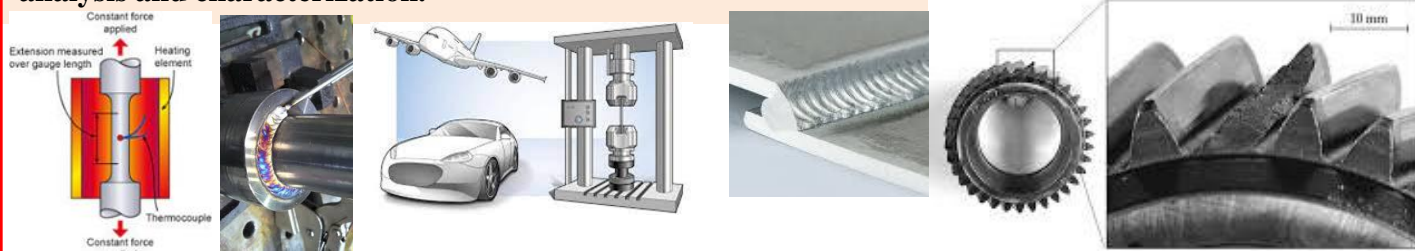
## MECHANICAL BEHAVIOR OF MATERIALS, FAILURE ANALYSIS OF MATERIALS AND ITS PREVENTIONS

25<sup>th</sup> April - 30<sup>th</sup> April, 2022

Through On-line Mode

### ABOUT THE COURSE

The proposed course focuses on enhancing the knowledge of participants in the areas of mechanical behavior of materials, failure analysis and failure prevention. The topics covered will include behavior of materials under various loading conditions like static (tensile), dynamic (fatigue), creep, high strain rate loading etc., under various environments, various failure types, failure mechanisms, case studies about failure of component / structures during service and etc., tools for failure analysis, methods to prevent failures, life prediction techniques, and etc. In this course, in addition to expert lectures, virtual practical sessions would be organized to show virtual demonstration of experiments for better understanding of materials behavior under various loading condition, failures, failure analysis, mechanical testing and etc. Considering above aspects, this course is designed to have interactive lectures delivered by experts on the topics related to current trends in welding technology, failure analysis and characterization.



**Topics of discussion will include, but not limited to :**

1. Advanced mechanical testing of materials
2. Fatigue failures, Fretting fatigue
3. Creep failure, Advanced materials characterization
4. Failure analysis, Materials processing (including welding)
5. Virtual demonstration of mechanical testing (fatigue) experiments an advanced welding techniques,

**Faculties and scientists from renowned institutions of India will be invited for discussing on these topics.**

### Target Participants

- Interested faculty members with any academic background from institutions recognized by AICTE are eligible to attend the course.

### Registration process

- Interested participants can submit their application form online using the link below.  
[https://docs.google.com/forms/d/1BroF05MegOQLC\\_0j7dAGkA-CUdqYO-ivSI64EehAGZA/edit](https://docs.google.com/forms/d/1BroF05MegOQLC_0j7dAGkA-CUdqYO-ivSI64EehAGZA/edit)
- Number of participants are limited. **There is no registration fee.**
- **Last date for submitting application is: 15 April 2022.**

### Certificate

- Participants completing the course successfully will be awarded e-Certificate.

### COURSE CO-ORDINATOR

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