

## Registration Fees

Non-members of IIM : Rs. 6000

IIM Members : Rs. 5000

Faculty & Students : Rs. 3500

Registration fee includes the course kit, lunch and refreshments.

Payment can be made by DD/Cheque drawn in favour of "INDIAN INST OF METALS".

Industries sending more than 3 participants can avail 20% discount/concession in the registration fees.

Early response is recommended. Email enquiries will receive immediate response.

### Registration Form

Name: .....

Organization: .....

Amount : .....

Details of DD/: .....

Cheque: .....

#### Signing Authority

Please mail completed form with DD/Cheque to:

G. Jothinathan

Centre for NDE,

Machine Design Section, Room No.312

Indian Institute of Technology Madras,

Chennai 600036

A two-day Workshop on

# Damage Mechanisms and Analysis of Failures

March 1-2, 2013

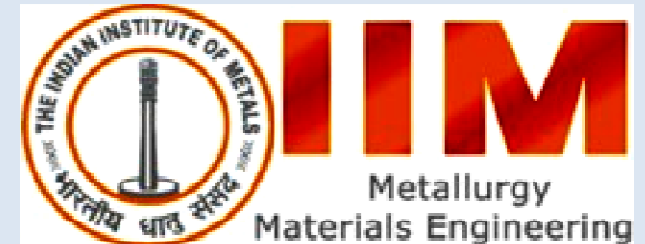
Venue: Metallurgy Seminar Hall, Mechanical Sciences  
Block (MSB104), IIT Madras

Course Coordinators

Prof. M. Kamaraj

Dr. Srinivasa Rao Bakshi

Mr. G. Jothinathan



Organized by

The Indian Institute of Metals, Chennai Chapter &  
Dept. of Metallurgical and Materials Engg., Indian Institute  
of Technology Madras

## ***About the Workshop***

The focus of this workshop is on two main topics which are inter-related. The first topic is understanding the Damage Mechanisms of components in different service conditions. All industrial components undergo some type of degradation such as fatigue, creep, corrosion (SCC and HE), wear, impact damage, etc., that can limit their useful life. Understanding the mechanisms of damage under different types of stresses, wear and environment are essential in designing and maintenance of the components.

The second topic is centered on failure analysis. Once a failure has happened, one needs to identify the cause so as to take remedial measures. This course will explain the different steps of performing a failure analysis. A faster and accurate failure analysis will lead to an increased productivity. Case studies will be presented by experts from industries, academic and research institutions.

The course is designed to provide an understanding of various damage mechanisms, failure modes, general procedures and techniques for failure analysis.

## ***Topics covered***

- An overview of Damage mechanisms
- Damage due to fatigue, creep and corrosion
- Failure in manufacturing: forming, casting and welding
- Methodology of failure analysis
- Tools for failure analysis including residual stress determination
- Failure analysis case studies-automobile, energy and process industries
- Failures associated with corrosion
- Non-destructive techniques in flaw detection and failure analysis

## ***Faculty***

The faculty will be drawn from experts from industry, academia and research organizations.

## ***Who should participate?***

Practicing engineers, design engineers, R&D personnel, quality management personnel will benefit from this workshop. Students and faculty of engineering will also gain from this programme.

For information please contact:

G. Jothinathan: Mobile 9841107465 or

By Email: [gj@iitm.ac.in](mailto:gj@iitm.ac.in), [gjndt@yahoo.com](mailto:gjndt@yahoo.com)