

**Last date for registration 03 February 2026**

## INTRODUCTION

Heat Treatment is a core manufacturing process carried out under controlled application of temperature and atmosphere to optimize certain physical and mechanical properties of metals/alloys. Heat treatment is an enabling process that can improve product performance by increasing its strength or other desirable characteristics such as machinability, formability, ductility, etc. The process of heat treatment has a major bearing on the quality of the end product and finds a wide application in many industries such as Automobile & Auto Components, Dies & Mould, Machine Tools, Aerospace, General Engineering and so on.

Keeping this in view, Indian Machine Tool Manufacturers' Association (IMTMA) is organising a 2 day programme on **"Heat Treatment-Metallurgy and processes"**

## FOCUS AREAS

- Fundamentals & Purpose
- Basic Heat treatment processes (Annealing, Normalising, Hardening, Quenching, Tempering, Case Carburising & hardening, Case Nitriding, Sub?zero treatment, Induction Hardening)
- Advanced techniques (Vacuum hardening, Toughtriding)
- Process problems and solutions
- Techniques of distortion control
- Successful drawing requirements
- General Quality plan of H/T for acceptance / rejection
- Industry practices
- Understanding of case depth determination (Carburising, Nitriding & Induction hardening particularly in case of components like gear, Shafts Plane & spline)
- Common failures and remedies

## KEY TAKE AWAYS

After undergoing the programme, the participants will be able to -

- Learn about various heat treatment methods and specific applications of each process
- Develop Quality plan for critical heat treated components
- Understand how to calculate and control case depth in surface hardening
- Understand common problems encountered in heat treatment and remedies

## PARTICIPATION FEE

**Rs. 4999/-**  
+18% GST

**IMTMA Members/ Micro Companies/ Individuals/  
Educational Institutions / Students/ IMTMA Non  
Members/ Others**

**USD 200/-**  
**Overseas Participants**

**Group Concession : 10% for 3 to 5 and 20% for 6 and more delegates being nominated from the same company**

## PARTICIPANT PROFILE

This programme will benefit Designers, Production Engineers involved in Heat Treatment processes (In?house / Subcontracted), Quality & Inspection engineers from Automobile & Auto ancillaries, Die & Mould, Machine Tools, Aerospace, General Engg., Defense & Railway units and other related Manufacturing industries.

## FACULTY

This program will be conducted by **Mr. Ganapathi K N,**

**Mr. Ganapathi K. N.** is currently associated with IMTMA as a faculty member, following his retirement from his full-time role at the organisation. He brings with him over 32 years of rich experience, including 16 years in the industry and 16 years in academics and training.

A postgraduate in Metal Casting Science and Engineering from UVCE, Bengaluru, Mr. Ganapathi has held various positions in both ferrous and non-ferrous foundries prior to joining IMTMA. He possesses in-depth knowledge of foundry operations and has successfully provided practical solutions to a wide range of foundry-related challenges.

During his career, he has delivered specialized training programs in the metal casting domain to more than 300 engineers from various manufacturing organizations across India. In addition, he has also taught metal casting topics to postgraduate engineering students, contributing significantly to industry-oriented technical education.

### For Registration Contact

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**REGISTRATION :** Prior registration for participation is necessary. Number of participants is limited and will be accepted on 'First Come First Serve' basis. A Certificate of participation will be issued to participants.  
**Important Information :** Participation fee includes, course material, working lunch and tea / coffee. Interested companies are requested to register online by clicking on 'REGISTER' button and by filling up the nomination authority and participant's details in specified form.