Manufacturing Technology Training
An IMTMA initiative

Heat Treatment and Metallurgy
Date : 9 to 10 July, 2026
Venue : IMTMA Technology Centre, Gurugram

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 Training programme on **"Heat Treatment and Metallurgy"**

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/-	Rs. 2500/-	Rs. 999/-	USD 200/-
+18% GST	+18% GST	+18% GST	
IMTMA Members/ Micro Companies/ Individuals/ IMTMA Non Members/ Others	**Professors**	**Student**	**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 programme will be conducted by, IMTMA Subject Matter Expert.

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.