

Heat Treatment - Metallurgy and Processes Date: 15 to 16 July, 2025

Venue: IMTMA Technology Centre, Bengaluru

Last date for registration 08 July 2025

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

- Basics of Ferrous Metallurgy, Iron/Iron carbon egulabriam diagram and TTT diagrams
- Basic bulk Heat treatment processes Annealing, Normalising, Hardening, Quenching, Tempering,
- Surface hardening like, Case Carburising Nitriding, Induction Hardening
- · Hardenablity of steal and its importanace
- Techniques of distortion control
- · Common failures and remedies
- Plant Visit

KEY TAKE AWAYS

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

- Understand Ferrous Metallurgy and its Importance in Heat Treatment
- Understand Metarllurgcal changes during Heat Treatment
- Learn about various bulk heat treatment, Surface Heat Treatments methods and specific applications of each process
- Understand common problems encountered in heat treatment and remedies

PARTICIPATION FEE

Rs. 10450/-+18% GST IMTMA Members/ Micro Companies/ Individuals/ Educational Institutions / Students/ IMTMA Non **Members/Others**

USD 415/-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 presently working as an advisor Training at IMTMA, having 16 years of industrial and 18 years of academic/training experience. He is a mechanical engineer with post graduate in metal casting science and engineering. Prior to IMTMA, Ganapathi has worked at various capacity in manufacturing companies. He has expertise in GD&T, Stack-up Analysis, Engineering Materials, Metallurgy, Metal casting and heat treatment processes. He has carried out many specialised program on GD&T, metal casting technologies, Metallurgy and heat treatment for industries. He has also taught these topics to post graduate engineering students.

or 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