

Metal casting Technology-Processes, DFM, Quality and Cost

considerations

Date: 24 to 25 July, 2025

Venue: IMTMA Technology Centre, Bengaluru

INTRODUCTION

Several different methods such as casting, powder metallurgy, forging and machining are available to shape metals into useful products. One of the oldest process is metal casting which basically involves pouring molten metal into a mould cavity, where upon solidification it takes the shape of the cavity. Beauty of this process is, any complicated shape in any metal can be casted.

Knowledge of metal casting is very important to design engineers and casting buyers. Design engineers have to decide on the type of casting process to be adopted to manufacture the part and also to incorporate DFM requirements of casting without compromising his design intent. Buyers have to identify right foundry and negotiate with them to get competitive price. Under these circumstance, knowledge of casting processes, capability and limitations of processes, cost estimation and casting inspection will come handy.

Keeping this in view, Indian Machine Tool Manufacturers' Association (IMTMA) is organizing a 2 day programme on "Metal Casting Technology for Designers and Buyers"

FOCUS AREAS

- Important casting processes
 - Sand casting
 - Shell moulded casting
 - Investment casting
 - o GDC
 - o HPDC
 - Centrifugal casting
 - Squeeze casting
- · Capabilities and limitations of all casting processes
- DFM of casting
- Casting defects and remedies
- Casting cost estimation
- Importance of casting simulation
- Visit to Foundry

KEY TAKE AWAYS

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

- Understand various casting processes
- Incorporate DFM requirements of casting in part design
- Carry out casting cost estimation
- Understand importance of casting simulation in NPD
- Understand casting defects and its 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 Managers, Engineers from OEMs, purchase, R&D, NPD, Auto OEMs (SIAM), Auto ancillaries (ACMA), Pump manufacturers (IPMA), Defence & Railway Establishment (PSUs / OFBs), Aerospace ancillaries, General Engineering (IEEMA / AIEMA), Foundry engineers and supervisors, Faculties & Students from academic institutes.

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 B.L Patil

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