

Metal Casting Technology-Processes, DFM, Quality and Cost

**Considerations** Date: 18 to 19 July, 2023

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 days programme on "Metal Casting Technology - Processes , DFM , Quality and Cost Considerations"

### **FOCUS AREAS**

- Important casting processes
  - 1. Sand casting
  - 2. Shell moulded casting
  - 3. Investment casting
  - 4. GDC
  - 5. HPDC
  - 6. Centrifugal casting
  - 7. 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 -

- 1. Understand various casting processes
- 2. Incorporate DFM requirements of casting in part design
- 3. Carry out casting cost estimation
- 4. Understand importance of casting simulation in NPD
- 5. Understand casting defects and its remedies

## PARTICIPATION FEE

Rs. 9500/-+18% GST IMTMA Members/ Micro Companies/ Individuals/ Educational Institutions / Students/ IMTMA Non Members/ Others

**Overseas Participants** 

**USD 380/-**

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 presently working as Advisor at IMTMA, having 16 years of industrial and 16 years of academic and 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 thorough knowledge of Materials, Metallurgy, Metal casting and heat treatment processes. He has carried out many specialised programmes on metal casting technologies, Metallurgy and heat treatment for industries. He has also taught these topics to post graduate engineering students. At IMTMA his role is to develop and introduce new programmes for enhancing competitiveness of Industries.

#### For Registration Contact Shruthi GS

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