

Design and Processing Techniques for Plastic Parts Date: 4 to 5 December, 2025

Time: 1340 Hrs to 1700 Hrs (Online Mode)

#### INTRODUCTION

Plastic design is the backbone of the plastics manufacturing industry. Plastics play a vital role for Mechanical Engineers, as they are closely related to Consumer, Medical and Automotive Product Industries, where plastics have replaced many other materials due to its numerous benefits.

Proper plastic design is very important before tooling is made can save exponential costs later in the product cycle. Nowadays in the automotive industry, many plastic parts are used for better efficiency, low cost and many other factors. Wide usage of plastics in engineering and commodity products has made it necessary for engineers to understand materials and select right materials for any application. This training enables engineers and designers to design plastic products with right understanding.

Keeping this in view, Indian Machine Tool Manufacturers' Association is organizing an online training on Design and Processing of **Plastic Parts.** 

#### **FOCUS AREAS**

Day 1

Day one focuses on understanding of plastic material, type of plastic and how to select a right material for a given application. Material selection dictates the manufacturing process, design choices, product requirements, environment, manufacturing methods and processes.

- Types of Plastic Materials
- Selection of right material for various applications
- Plastics Processing
- · Moulding machine
- Injection mould

Day 2

Day two further explores choice of plastic conversion processes, and deep dive in to Design for manufacturing (DFM) guidelines for plastic components, understanding of injection moulding process and Basics injections molds design and common defects found in moulded components.

- Design for Manufacturing (DFM) of plastic Parts
- Injection Moulding process
- Mold design fundamentals

### **KEY TAKE AWAYS**

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

- Understand the basics of plastic materials
- Selection of right material for any specific application
- Apply the DFM guidelines of Plastic part design in product design
- Trouble shoot the cause of plastic part defects and failures

## FEE PER PARTICIPANT (PER LOGIN)

Rs. 7500/-

+18% GST

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

**USD 300/-Overseas Participants** 

Group Concession: 10% for 3 to 5 and 30% for 6 and more delegates being nominated from the same company

## **FACULTY**

This program will be delivered by Mr. Ramesh Srinivasa Rao.

Mr. Ramesh Srinivasa Rao, a Mechanical engineer by profession, was associated with L&T Technology services for over 14 years, as part of the Mechanical design services responsible for Industrial Design, Product design, tool design manufacturing simulation, Packaging, and sustainable product design in Electronics Plant at Bangalore. He has managed multiple product development projects and trained 350 +Mechanical engineers across multiple locations. He has also generated many patentable designs for clients in medical devices, automotive, consumer products. And Holds 7 patents in medical devices and interconnects. Prior to L&T, served in the tooling industry for 14 years in Singapore. And remaining years in various manufacturing companies.

### **For Registration Contact**

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