

# Hands on Training on “Machine Tool Design - Special Purpose Machine (SPM)”

Date : 27 June to 20 August, 2022

Venue : IMTMA Technology Centre, Bengaluru

Last date for registration 20 June 2022

## INTRODUCTION

Design engineering is one of the key functions in any product manufacturing industry. The solution in physical entity or form for any problem would be a reason for the development of products. Visualizing the product shape, kinematics, motions, selection of critical mechanical elements, optimization for cost, material, reliability, manufacturing, and assembly are the key skills for any machine designer. To become a successful designer, he needs to have a complete knowledge on manufacturing activities includes, including process, production, quality, assembly, and testing. In view of this, IMTMA Design Institute is organizing a comprehensive and hands-on training programme on Machine Tool Design – Special Purpose Machine for young engineers and fresh hires.

## FOCUS AREAS

- Machine design fundamentals
- Introduction to CNC machine tools
- Design of metal cutting General Purpose Machine - Project
- Overall design concept, Machine specification
- Training on CAD Tool - Autocad and SolidworksDesign of Spindles & work holding
- Design of CNC Axes & Hydraulic Slides
- Introduction to Electronics and Electrical for Mechanical
- Design of machine structure and analysis
- Design of coolant system and lubrication system
- Hands-on Experience on FEA Tool
- Industry Visits

## KEY TAKE AWAYS

- Knowledge in Machine Design Basics
- Knowledge on the design of machine elements
- Drafting of manufacturing drawing & assembly drawing
- Knowledge in machine design standards
- Hands-on experience in Machine Tool design - GPM
- Knowledge in systematic design approach
- A Certificate of participation will be issued to participants
- Core job placement on successful completion of the program

## Facilities

- Advanced CAD Laboratory & Digital Classroom
- AUTOCAD, INVENTOR, SOLIDWORKS, CREO & ANSYS, Eplan, Camworks
- Hands-on experience for solid modeling, FEA
- Mechanical laboratory for the demo of in-use machine systems
- Complete Design Project as an exercise
- Hydraulic And Pneumatic Teaching Modules
- Real-time CNC Machine tools for demo
- Functional CNC Lathe and Machining Centres for demonstration

## PARTICIPATION FEE

**Rs. 65000/-**  
+18% GST  
**IMTMA Members/ Micro Companies**

**Rs. 50000/-**  
+18% GST  
**Individuals**

**Rs. 75000/-**  
+18% GST  
**IMTMA Non Members/ Others**

**USD 2400/-**  
**Overseas Participants**

## For Registration Contact

**Rathan**  
**Programme Coordinator**  
9743180085  
[rathan@imtma.in](mailto:rathan@imtma.in)  
**Digvijay Nath Pandey**  
7349067391  
[digvijay@imtma.in](mailto:digvijay@imtma.in)

## Contact Address

**INDIAN MACHINE TOOL MANUFACTURERS' ASSOCIATION**  
@ BIEC, 10th Mile, Tumkur Road, Madavara Post,  
Bangalore - 562 123  
Tel : 080-66246600  
Fax : 080-6624-6658

