Manufacturing Technology Training
An IMTMA initiative

# Comprehensive Training on “Design and Manufacturing Special Purpose Machine - Women Exclusive"

**Date : 21 February to 21 April, 2022**
**Venue : IMTMA Technology Centre, Bengaluru**

**Last date for registration 15 January 2022**

## INTRODUCTION

**Indian Machine Tools Manufacturers’ Association IMTMA** is an organization engaged in providing comprehensive industry-oriented training for fresh engineers to enhance employability skills and working professionals in the field of Mechanical Engineering focusing on the areas of production, quality, maintenance, automation, and machine design engineering for higher productivity.

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**FEdream** is a Non-profit Organization that sends underprivileged girls in India to college. FEdream’s mission is to empower underprivileged women in India to develop and pursue their passion through funding and mentoring. FEdream is intended to empower women engineers by imparting industry skills for industry readiness and make them employed across the manufacturing industry to become self-reliant.

**IMTMA and FEdream** realize their objectives, potential, strengths and agree to work on a common platform for their similar noble objective **“Women Empowerment in India”**

**IMTMA and FEdream** have understood the need of technical skilled-based training for all deserving young women graduate or diploma engineers passed out from various Indian Engineering/Diploma institutions PAN India. FEdream expressed their interest to sponsor a Training program organized by IMTMA exclusively for unemployed young women graduate and diploma engineers passed out from the academic year 2020 and 2021.

In view of this, **IMTMA** is organizing A Hands-on Training on **“Design and Manufacturing Special Purpose Machine”** fully sponsored by FEdream and their Industry Partner Alex Group of Companies. Post-training, IMTMA, and FEdream together facilitate placements for all the desired candidates across the industry.

## FOCUS AREAS

- Refresher on “Strength of Materials, Engineering Mechanics and Machine Kinematics” – Designers perspective
- SOLIDWORKS – Hands-on CAD Training
- Best practices of CAD Modelling and creating Manufacturing drawings
- Geometric Dimensioning & Tolerancing (GD&T) - Design through Manufacturing
- Selection, Assembly & Troubleshooting of LM Guides ways & Ball Screws
- Conceptual design of a Special Purpose Machine w.r.t customer component
- Design of Milling Spindle for SPM
- Design of linear motion system using both friction guide and antifriction guide
- Design of hydraulic slide and servo slide
- Design of Pneumatic Systems - A practical approach
- Electric Motors: Application, Selection, Sizing & Optimization
- Finite Element Methods FEM – What, Why, and How?
- Soft Skills for working environment homogeneity
- Speaking, writing, and presenting skills – To be a Smart Employee
- Process planning & Part manufacturing
- Introduction to CNC machines and part programming
- Metrology and Quality Control / Quality Assurance

## KEY TAKE AWAYS

- Confidence in Machine Design par industry standard
- Confidence in Manufacturing drawings
- Intensive know-how on the design of machine elements
- Problem-solving skills
- Strong in engineering basics
- Hands-on experience in Machine Tool design – SPM
- Knowledge in systematic design approach
- Technical competency for the manufacturing industry
- A Certificate of participation based on the performance
- Placement support across manufacturing industries

## Facilities

- Advanced CAD Laboratory & Digital Classroom
- SOLIDWORKS, CREO & ANSYS, Eplan
- 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 Centers for demonstration

## PARTICIPATION FEE

**Rs. 1000000/-**
+18% GST
**IMTMA Members/ Micro Companies/ Individuals/ IMTMA Non Members/ Others**


## For Registration Contact

**Rathan**
**Programme Coordinator**
9743180085
rathan@imtma.in
**B.L Patil**
8088251077
blpatil@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


imtmatrainning.67038796@hdfcbank

**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 participation will be issued to participants.
**Important Information :** Participation fee includes, course material, working lunch and tea / coffee. Interested companies are requested to register online by clicking on 'REGISTER' button and by filling up the nomination authority and participant's details in specified form.

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