



**Last date for registration 13 February 2023**

## INTRODUCTION

Design engineering is one of the key functions in any manufacturing industry. The physical entity as a solution for any problem would lead to product development. Visualizing the product shape and size w.r.t to the need, configuring kinematics, system motions, selection of critical elements, material, ensuring high reliability, ease of manufacturing, and assembly at low cost, are the key challenges for machine designers. To be a successful designer, one need to have a complete knowledge on manufacturing activities from design to dispatch.

There is a huge dearth of skilled women workforce in any manufacturing industry for various reasons. Encouraging and enabling skilled women for manufacturing industry is the primary objective of **IMTMA and Ace Micromatic Group**

### Programme objectives:

- Enhancing the design and manufacturing skills for women mechanical engineers and empowering them to be employed across manufacturing industry
- Making women engineers self-reliant with effective working engineer
- Empowering Industry with dedicated, trained, and talented women workforce
- Enhancing the industry productivity
- Building working culture and confidence for better career growth
- Development of design competency
- **Women empowerment - A social cause**

## FOCUS AREAS

- Refreshing on “Strength of Material, 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 & Trouble shooting of LM Guides & Ball Screws
- **Conceptual design of 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
- **Internship at Ace Micromatic Group**

## KEY TAKE AWAYS

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

## Training Methodology

### Unique Programme features:

- Practical, Hands-on training
- Experiential learning from Design and Manufacturing experts
- Periodical tests and assignments
- Building working culture and skill competency par with industry
- Shop floor hands-on learning on machines and equipment at Ace Micromatic Group Industries
- Placement support across manufacturing industry

### Candidates Selection criteria:

- Shall be a Women Graduate / Diploma Engineer from Mechanical and allied disciplines, passed out from Year 2020, 2021, 2022, & 2023 PAN India
- Shall have an aggregate score preferably above 60% in Engineering
- Score shall be above 60% from IMTMA admission test
- Final shortlisting would be based on the performance during Face to Face interview

### Evaluation and Certification Based on:

- Monthly test and assignment
- Performance measurement
- Record of attendance
- Q&A / Interactivity with faculty
- Grading and Certification

### Post-training support:

- After successful completion of training, each will be awarded certificate with grade based on their performance during the entire training & internship
- **IMTMA and Ace Micromatic Group** shall facilitate placements across manufacturing industries if participant is ready take such assignments irrespective of company, CTC, and location

### Participation Fee and caution deposit:

- No participation fee for all the deserving shortlisted women candidates and the same is fully sponsored by Ace Micromatic Group
- **Refundable caution deposit of Rs.7500/ participant**, shall be paid by all selected candidates before the programme to IMTMA
- The caution deposit is refundable on successful participation and completion of the programme. If any participant discontinued the programme for any reason, the caution deposit will not be refunded by IMTMA.

## 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

Nil

## Participant Profile

- **Women Engineering Graduate / Diploma Engineer from Mechanical** and allied disciplines passed out in Years 2020, 2021, 2022, & 2023 PAN India
- Participants shall have an aggregate score preferably above **60% in Diploma/ Engineering**

### For Registration Contact

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**Registration:** Prior registration for participation is necessary. Number of participants is limited to 25 and will be shortlist the candidates based on IMTMA admission test and interview basis. A Certificate of participation will be issued to participants.

**Important information:** Participation includes, course material, working lunch and tea / coffee. Interested candidates are requested to register online by clicking on 'REGISTER' button and by filling up the participant's details in specified form.