

## INTRODUCTION

Indian Machine Tool Manufacturers' Association (IMTMA) is organizing an exclusive hands-on training course namely **" Finishing School in Production Engineering"** at IMTMA Technology Centre, Bangalore.

This 4 weeks course will be very much suitable for fresh recruits. They are trained in latest manufacturing practices with major topics covering Engineering drawing, Limits, Fits & Tolerances, GD&T, Process planning, selection of cutting tools & machining parameters, CNC Programming, CNC machine operations/ machining in Turning & Machining centres, Measuring instruments, CMM and work holding accessories. **Thus the trainees are well prepared to serve manufacturing industries right from day ONE .**

Fresh Mechanical Engineering students who had completed this course could also perform exceptionally well in interviews and many of them get recruited in industries including **Ace Micromatic, Bharath Fritz Werner, Cadem Technologies, Insight Technologies, Jyoti CNC, Kennametal India, Kirloskar Toyoda Textile Machinery (KTTM), Marposs India, Maini Precision, Otto Bilz, Sansera Engineering, UCAM India, Taegutec India, Titan, Toyota Kirloskar Auto Parts, Toyota Industries Engine India Pvt. Ltd., Yuken, Zoller, etc.**

### Participant's Feedback

*I completed my 4 weeks production engineering course at IMTMA. This institute has provided me with great hands-on practical training on CNC machining and program. I highly recommend this course for fresh graduates and final years.*

- **Praghosa Kulkarni** (Mechanical Engineer passedout in 2020)

**Dayananda Sagar College of Engineering**

*Very good faculty with a lot of practical knowledge and industrial experience. Highly recommended for fresh graduates out of engineering colleges*

- **Naveen Gururaj** (Mechanical Engineer passedout in 2020)

**RV College of Engineering**

## FOCUS AREAS

- **Review of machining operations, engineering drawing and metrology.**
- Limit, Fits, Tolerances and surface roughness symbols
- **Geometric Dimensioning and Tolerancing (GD&T)**
- CNC Programming
- **Hands-on programming & operation of CNC Turning centre**
- Hands-on programming & operation of CNC Machining centre
- **Process Planning for CNC Machined Parts**
- Measurement & Quality Control of machined parts
- **Engineering materials and Tooling materials**
- Heat treatment processes
- **Hands-on practice in measuring instruments**
- Hands-on practice in Tooling, Work Holding and other accessories
- **Introduction to statistical process control (SPC)**
- 5S concepts and Autonomous Maintenance (JH) - one of the main pillars in TPM
- **Soft skills development**
- Presentation Skills, E-mail etiquettes
- **Assessment through presentation, test and viva**

## KEY TAKE AWAYS

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

- **To have complete insight into Computer Integrated modern Manufacturing environment**
- To understand Engineering Drawing, Tolerances and GD&T symbols
- **To develop process plan for machined parts**
- To understand NC Programmes for CNC Turning and Machining Centres
- **To do proper selection of tools & cutting parameters for various CNC machining operations**
- To handle measuring instruments and equipment for quality control of machined parts

## Training Methodology

- Training in a modern Digital Factory
- Classroom sessions
- Simulation using SINUTRAIN and NC GUIDE systems.
- Hands-on training sessions on CNC Turning Centre & CNC Vertical Machining Centre
- Real-time machining of components on CNC machines
- Measurement practice in various measuring instruments

## Facilities

IMTMA Technology Centre at Bangalore International Exhibition Centre is equipped with state of the art training facilities viz.

- CNC Vertical Machining Centre & CNC Turning Centre
- CNC / PLC programming & simulation kits
- CMM for 3D inspection
- Robot for pick and place applications
- Measuring instruments including digital height gauge
- Surface roughness tester
- Non-contact type, offline Tool pre setter
- Touch probes for work set up and tools set up (on-line)
- Latest types of cutting tools and work holding systems
- Electro Permanent Magnetic chuck
- Hydraulic and shrink fit tool holders
- TPM trak system for productivity monitoring
- Cadem - CAPSturn & CAPSmill - CAD/CAM softwares
- Master Cam - CAD/CAM software
- Classroom with computer work stations in complete network with the CNC machines through LAN for seamless data transfer, productivity monitoring and control

## PARTICIPATION FEE

<b>Rs. 45000/-</b> +18% GST <b>IMTMA Members/ Micro Companies/ IMTMA Non Members/ Others</b>	<b>Rs. 30000/-</b> +18% GST <b>Individuals</b>	<b>USD 1200/-</b> <b>Overseas Participants</b>
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**Group Concession : 5% for 3 to 5 and 10% for 6 and more delegates being nominated from the same company**

## Participant Profile

- *Engineers / supervisors from manufacturing industries, responsible for productivity and quality improvement.*
- *New recruits / trainees in manufacturing industries.*
- *Fresh Mechanical Engineers after completion of their Degree / Diploma in Mechanical or allied disciplines.*
- *Pre final year engineering students from Mechanical or allied disciplines.*
- *Design engineers willing to have strong foundation thro hands-on training in latest manufacturing practices.*

<b>For Registration Contact</b> <b>Digvijay Nath Pandey</b> <b>Programme Coordinator</b> 7349067391 <a href="mailto:digvijay@imtma.in">digvijay@imtma.in</a> <b>Rathan</b> 9743180085 <a href="mailto:rathan@imtma.in">rathan@imtma.in</a>	<b>Contact Address</b> <b>INDIAN MACHINE TOOL MANUFACTURERS' ASSOCIATION</b> @ BIEC, 10th Mile, Tumkur Road, Madavara Post, Bangalore - 562 123 Tel : 080-66246600 Fax : 080-6624-6658
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**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.