

INTRODUCTION

The biggest challenge the Education System faces today is Employability after engineering courses. Even though India has become a choice destination for all Global Players for their various manufacturing activities, fresh Mechanical engineers from colleges lack the practical skills and confidence to meet the prevailing Manufacturing Environment. Today CNC Technologies are being used across all manufacturing Industries and as such modern industries demand adequate knowledge as well as skill in Computer Integrated Manufacturing practices.

Keeping this in view, **Indian Machine Tool Manufacturers’ Association (IMTMA)** is organizing an exclusive job-oriented course namely “ **Finishing School in Production Engineering**” at IMTMA Technology Centre, Bangalore. This intensive course is of 4 weeks duration and involves **Hands-on training on Production CNC Machines, CAD/CAM, Metrology Equipment, Tooling and work holding systems and related accessories.**

This job oriented course makes the fresh Mechanical engineers coming out of the educational institutions, industry-ready in the manufacturing field. New recruits from Kennametal India, Wipro Engineering, Ceratizit India, etc., underwent this course and got well prepared to serve the industry from day one. Fresh Mechanical Engineering students who had completed this course could perform exceptionally well in interviews and got placement in industries including **Ace Micromatic, Bharath Fritz Werner, Blazer, Cadem Technologies, Carl Zeiss India, Kennametal India, Kirloskar Toyoda Textile Machinery (KTTM), Marposs India, Maini Precision, Miven Mayfran, Sansera Engineering, UCAM India, Taegutec India, Titan, Toyota Kirloskar Auto Parts, Toyota Industries Engine India Pvt. Ltd., Yuken, Zoller, etc.**

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

Rs. 45000/- +18% GST IMTMA Members/ Micro Companies/ IMTMA Non Members/ Others	Rs. 30000/- +18% GST Individuals	USD 1200/- Overseas Participants
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.*

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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.