Manufacturing Technology Training
An IMTMA initiative

Finishing School in Production Engineering

Date : 2 to 30 April, 2020
Venue : BIEC, 10th Mile, Tumkur Road, Madavara Post, Bangalore

Last date for registration 26 March 2020

INTRODUCTION

The Indian manufacturing sector has become major destination for global players not only for their manufacturing activities but also for marketing their latest developments specially in the field of CNC technologies. However, increased use of CNC machines / CNC automation doesn't result in enhanced productivity directly. Systematic training in best manufacturing practices is highly crucial and well trained manpower can bring in significant improvement in productivity and quality levels thereby increased profitability. Amidst the competitive work environment today, Effective utilisation of resources including CNC machines, tooling, work holding and other accessories is the key to realise ever growing need for higher productivity.

Keeping this in view, Indian Machine Tool Manufacturers' Association (IMTMA) is organizing an exclusive hands on course **"Finishing school in Production Engineering"** at **IMTMA Technology Centre, Bangalore** to enhance skill sets of engineers and supervisors from manufacturing industries. This course is of 4 weeks duration and is totally practical oriented with Hands on practice in production CNC machines, CAD/CAM, Metrology equipment, Tooling and work holding systems and other accessories.

Engineers from TVS Motors, Maruti Suzuki, Hero Moto Corp, Sansera Engineering, Wabco India, Leo fasteners, Kar Mobiles, etc., have undergone this course and achieved Productivity and Quality improvement in their projects by implementing some of the key learnings. This course is also ideal for new recruits / trainees as well as fresh engineers in Mechanical engineering and allied branches, aspiring for challenging career in manufacturing industries. New recruits from Ashok Leyland, Kennametal India, Wipro Engineering, Ceratizit India, etc., underwent this course and got well prepared to serve the industry from day one.

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 and CAD/CAM
- Programming & Operation of CNC Turning centre
- Programming & Operation of CNC Machining centre
- Process Planning for CNC Machined Parts
- Selection of Tooling and cutting parameters for CNC machining operations
- Optimisation of CNC Programming and parameters for cycle time reduction and productivity improvement
- Measurement & Quality Control of machined parts
- Soft skills development
- Project work and final test
- **Hands-on practice in CNC Turning and Machining Centres**
- **Hands-on practice in measuring instruments**
- **Hands-on practice in Tooling, Work Holding and other accessories**
- **Industry visit for exposure to live production environment**

KEY TAKE AWAYS

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

- To have complete insight in to Computer Integrated modern Manufacturing environment
- To understand Engineering Drawing and develop process plan
- To develop and optimise NC Programmes for CNC Turning and Machining Centres
- To do proper selection of tools & cutting parameters for various CNC machining operations
- To reduce cycle time and improve productivity / quality in CNC machining
- To handle measuring instruments and equipment for quality control of machined parts

Training Methodology

- Training in a modern Digital Factory
- Class room sessions
- Simulation using SINUTRAIN and NC GUIDE systems
- **Hands-on training sessions on CNC Turning Centre & CNC Vertical Machining Centre**
- **Hands-on sessions in CAD/CAM programming systems**
- Real time machining of components on CNC machines
- Measurement practice in various measuring instruments
- **Industry visits & Project work**

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, off line 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
- **Class room with computer work stations in complete networkwith the CNC machines through LAN for seamless data transfer, productivity monitoring and control**

PARTICIPATION FEE

Rs. 36000/- +18% GST	Rs. 36000/- +18% GST	Rs. 28000/- +18% GST	Rs. -/- +18% GST	Rs. -/- +18% GST	Rs. -/- +18% GST	Rs. -/- +18% GST
IMTMA Members / Micro Companies	IMTMA Non Members/ Others	Educational Institutions / Students / Individuals	5 % IMTMA Members / Micro Companies	5 % IMTMA Non Members/ Others	10 % IMTMA Members / Micro Companies	10 % IMTMA Non Members/ Others

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

For Registration Contact

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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.