

#### Last date for registration 15 February 2021

### **INTRODUCTION**

Our engineers fresh from college are strong on theory, but do not have requisite practical knowledge that is necessary to contribute to the organisations that they join. From interpreting manufacturing drawings to processing parts on CNC machines to measuring them and getting used to factory discipline and working environment, fresh engineers need to acquire these skill sets in the shortest possible time.

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, Pune 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, to name a few companies, have undergone this course and achieved Productivity and Quality improvement in their projects by implementing some of the key learnings. This course is tailored for new recruits / trainees as well as fresh engineering graduates in Mechanical engineering and allied branches, aspiring for challenging career in manufacturing industries.

### **FOCUS AREAS**

- Review of Machining Operations, Engineering Drawing & Metrology
- Limits, Fits and Tolerances, GD&T, Surface Roughness
- Work Materials and their properties
- Cutting Tools Materials, Nomenclature, Selection procedure
- Measuring Instruments Theory and hands-on practice
- CNC Programming on Turning and Machining centres
- Hands on and Real time Machining of components on CNC Turning and Machining centres
- CAM Programming Creation of geometry, creating tool paths, Simulation and NC code generation
- 5S Concepts, Good manufacturing practices & Introduction to TPM
- Soft skills and Personality development
- Project Work and Weekly evaluation through tests & assignments

### **KEY TAKE AWAYS**

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

- 1. Have complete insight in Computer Integrated modern Manufacturing environment
- 2. Understand Engineering Drawing and develop process plan
- 3. Develop and optimise NC Programmes for CNC Turning and Machining Centres
- 4. Do proper selection of tools & cutting parameters for various CNC machining operations
- 5. Reduce cycle time and improve productivity / quality in CNC machining
- 6. Handle measuring instruments and equipment for quality control of machined parts

# **Training Methodology**

- Training in modern Digital Factory Environment
- Class room sessions with Industry Professionals
- Engineering Drawing, Process Assessment & Planning
- Measurement practices on CMM & other instruments
- Simulation using SINUTRAIN / FANUC systems
- Hands-on sessions on CAD/CAM programming
- Hands-on training on CNC Turning Centre and CNC Vertical Machining Centre
- Real time machining of components on CNC machines
- Project work Assessment & Certification

# Facilities

IMTMA Technology Centre at Chinchwad, Pune is equipped with state of the art training facilities viz.

- CNC Vertical Machining Centre Lokesh Machines Ltd
- CNC Turning Centre Batliboi
- Co-ordinate Measuring Machine(CMM), Vision Measuring Machine & Digital Height Gauge Electronica
- Cutting tools and holders **Motherson**
- PC based CNC simulation softwares & training Kits Siemens, FANUC
- Microboring Kit **D' Andrea**
- Non contact type tool pre setter Elbo Controlli
- Touch probe for tool set up & work set up Blum, Renishaw
- Measuring Instruments Mitutoyo, Baker Gauges, Insize
- CAD/CAM softwares Cadem, Mastercam , Solidworks, CAMWORKS
- Cutting fluid and accessories Trim, Master Fluid
- Hydraulic kit Yuken India
- Quick change clamping system and Electro permanent magnetic chuck Schunk

## **PARTICIPATION FEE**

Rs. 40000/-+18% GST IMTMA Members/ Micro Companies/ IMTMA Non Members/ Others **Rs. 30000/-**+18% GST **Individuals** 

# **Participant Profile**

### **For Registration Contact**

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### **Contact Address**

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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.

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