

Last date for registration 10 April 2020

## INTRODUCTION

Today CNC Machines form the core of manufacturing operations right from producing auto parts to mission critical aero space components and CNC machines are deployed aiming at increased productivity, highest accuracy and improved surface finish. However, increased use of CNC machines / CNC automation doesn't result in enhanced productivity directly. Systematic training in best manufacturing practices is of paramount importance and well trained manpower can bring in significant improvement in productivity and quality levels thereby increasing profitability.

An exclusive “**FINISHING SCHOOL IN PRODUCTION ENGINEERING at Pune**” is organized with the practical oriented approach for practicing Engineers / Supervisors of manufacturing industries, enabling them to learn and implement best manufacturing practices in CNC machining including CNC Programming, Proper selection of tooling / cutting parameters, cycle time reduction, work holding concepts, etc. This course is ideal for the fresh engineers in mechanical and allied disciplines coming out of the educational institutions, who most often lack practical skills. It enhances their employability and makes them industry ready by providing hands-on training in production CNC machines and other accessories.

- ## 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 Real time Machining on production 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
  - Industry visits to major machine tool manufacturing Industries
  - Project Work and Weekly evaluation through tests & assignments

## 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
- To do proper selection of tools & cutting parameters for various machining operations
- To reduce cycle time and improve productivity / quality in machining
- To 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
  - Hands-on training on CNC Vertical Machining Centre
  - Real time machining of components on CNC machines
  - Industry visits & Project work Assessment & Certification

- ## Facilities
- 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 - **Seco, Sandvik**
  - 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**

PARTICIPATION FEE						
<b>Rs. 36000/-</b> <small>+18% GST</small> <small>IMTMA Members / Micro Companies</small>	<b>Rs. 36000/-</b> <small>+18% GST</small> <small>IMTMA Non Members/ Others</small>	<b>Rs. 28000/-</b> <small>+18% GST</small> <small>Educational Institutions / Students</small>	<b>Rs. 34200/-</b> <small>+18% GST</small> <small>5 % IMTMA Members / Micro Companies</small>	<b>Rs. 34200/-</b> <small>+18% GST</small> <small>5 % IMTMA Non Members/ Others</small>	<b>Rs. 32400/-</b> <small>+18% GST</small> <small>10 % IMTMA Members / Micro Companies</small>	<b>Rs. 32400/-</b> <small>+18% GST</small> <small>10 % IMTMA Non Members/ Others</small>

- ## 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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### 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.