

Process Planning and Programming in CNC Turning Applications Date: 11 to 16 August, 2025

Venue: IMTMA Technology Centre, Pune

### INTRODUCTION

Milling and hole making operations are an integral part of all metal cutting operations. While using a precision machine tool such as a CNC Machining centre for complex milling and hole making operations, selection of the right cutting tools for the operations is equally critical to producing quality machined parts. Selection of the right cutting tools can result in optimization of cycle time, reduce risks of errors in machining, manage tool costs better and result in the production of a high-quality part.

CNC machines have become the order of the day in every manufacturing industry. These applications are widespread in mass production units, batch production as well as in tool room industries. Thorough understanding of Programming and Operation of the CNC machines is a must to realize the maximum output.

This programme will address the programming and operation of CNC Machining centres in detail including finer aspects like control of dimensions and optimization of machining parameters. The participants will be trained hands-on in production CNC machines with real time machining exercises.

Keeping this in view, Manufacturing Technology Training is organising 5 days training programme on Mastering Manufacturing Process: Optimization through right selection of Cutting Tools and Cutting Parameters in Milling Applications.

### **FOCUS AREAS**

- Introduction to Manufacturing Processes
- Review of machining operations Engineering Materials and heat treatment
- Understanding of Tool Nomenclature and cutting parameters
- ISO Codification of tools
- Programming and operation of CNC turning centres
- Cycle time calculation of turning operations

#### **KEY TAKE AWAYS**

After undergoing the programme, the participants will be able to

- Understanding of various manufacturing processes
- Understanding of heat treatment processes
- Knowledge on Tool codification and selection of right tool for required applications
- Understanding of programming and operation on CNC Turning centres
- Understanding of cutting parameters

### PARTICIPATION FEE

Rs. 12000/+18% GST
IMTMA Members/ Micro Companies/
IMTMA Non Members/ Others

Rs. 8000/+18% GST
Individuals/ Educational Institutions /
Students

USD 480/-Overseas Participants

Group Concession: 10% for 3 to 5 and 20% for 6 and more delegates being nominated from the same company

# PARTICIPANT PROFILE

This programme will benefit Machine shop engineers, technicians as well as fresh engineers aspiring to learn VMC programming and operation. A Basic knowledge on machining operations is essential

# **FACULTY**

This program will be conducted by Mr. Yuvaraj Patil, and Other Industry Experts.

Mr. Yuvaraj Patil is a mechanical engineer having more than 16 years of experience in CNC Machine Shop & Tool Room. He has worked with various companies – ASB International, Videocon, Menon & Menon and PARI. Additionally, he has 10+ years of experience in training engineers in CNC Machining area with hands-on practice he has trained 3500+ Industry professionals in the CNC Machining area, Dimensional Metrology, and Inspection. And trained 500+ fresh graduate mechanical engineers in Production engineering for making engineers industry ready. Also, he has conducted the training program on Machining fundamentals, Machining Defects Analysis, Cost & Cycle Time Reduction, Dimensional Metrology, and GD & T for Sigma Electrical, Maruti Suzuki, Volkswagen, Mahindra, Fleetguard, Bajaj Auto, Advik Hitech and ENPRO.

## **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.