

# Selection of Cutting Tools, Parameters and Programming in Machining Centres

Date: 16 to 20 December, 2024

Venue: IMTMA Technology Centre, Bengaluru

#### 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 in order 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, IMTMA is organising an online training on **Selection of Cutting Tools, Parameters, and Programming in Machining Centres.** 

#### **FOCUS AREAS**

- Introduction to milling cutters
- Selection of tool for milling
- Introduction to milling tool holders
- Programming and operation of machining centres
- Overview of process planning
- Mechanics of Chip Formation

#### **KEY TAKE AWAYS**

- Select tools and optimise machining parameters for improving productivity
- Understanding about macro programming
- Learn Programming and Operation of VMC
- Work and tools set up in the machine.
- MDI commands and JOG movements.
- Program entry and simulation.

## **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  $\mathbf{Mr.}$  Preetham  $\mathbf{B.}$   $\mathbf{M}.$ 

Mr. Preetham B. M, is having over 24 years of experience in the industry, in the field of manufacturing of precision components for Nuclear, Aerospace & Automation industry. He has acquired expertise in the application and use of GD&T principles in precision manufacturing of components as well as experience in conducting training programs. He has imparted training in CNC, CAD/CAM, CMM & GD&T for more than 1500 engineers. Has conducted more than 30 batch of Finishing school. Trained industry professionals from TVS, Ceratizit India, Ashok Leyland, Kennametal etc. Prior to working at IMTMA, he has worked at Avasarala Technologies Limited, as Assistant Manager, in the field of machining the precision components using CNC machines. Components manufactured for prestigious projects like Centre for Advanced Technology (BIGBANG test), ITER which is expected to be operational in the year 2030 at France. He was deputed to M/s Kimberly Clark Corporation's KIMTECH plant at Neenah, Wisconsin state, United States of America for one year to understand their best manufacturing practices. At IMTMA, as Assistant Director, his role is to impart hands-on training for manufacturing professionals.

## **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.