

## INTRODUCTION

This course provides an overall exposure to the technology of Industrial Automation and Controls as widely seen in factories of all types both for In 3D CNC machining, CAM Programming plays an important role and many times, the cycle time, part quality and surface Finish are dependent on the CAM programming strategies. While the latest CAM systems have efficient strategies from Roughing to Finishing, it is imperative that the CAM Programmer must have thorough knowledge about the CNC machine, CNC Tooling as well as the CAM system to deliver the optimum output. Mastercam is a very powerful CAM system for driving CNC Machining Centers and is a simple software for learning and use. Keeping this in view, IMTMA is organizing an Online training on CNC Milling Programming using MasterCam

## FOCUS AREAS

- Basic concepts of CNC programming, G& M codes
- Cutting tools and machining parameters
- How to set work and tool offset on CNC VMC
- Concept of CRC, using G41 & G42
- Programming Syntax
- Cycles used for programming and operation
- Demo on CNC vertical machining center
- Importance of using wear offset
- Hands-on Practice on programming
- Geometry creation in Mastercam
- Importing and programming 3-D models
- Selection and modification of Geometry
- Machining component with different strategies like face milling, contour milling, Pocket milling, drilling, etc.
- Selection of tools and parameters into the CAM system.
- Tool path creation and simulation
- Post-processing and generating NC codes

## KEY TAKE AWAYS

- Carry out work set up, tools set up, and using wear offset in CNC Machining Centre
- Create / Import 3D model and tool paths in Mastercam
- Create NC program and transfer data to CNC machine
- Carry out CNC machining
- Certification: Joint certification from IMTMA and Mastercam India
- Licensed MasterCam software for 1 year

## FEE PER PARTICIPANT (PER LOGIN)

**Rs. 10000/-**

+18% GST

**IMTMA Members/ Micro Companies/ Individuals/ IMTMA Non Members/ Others**

**Rs. 3000/-**

+18% GST

**Educational Institutions / Students**

**USD 300/-**

**Overseas Participants**

## PARTICIPANT PROFILE

- Students after Diploma/ Degree in Mechanical, Production Engineering
- Basic knowledge on engineering drawing and machining operations is essential.

## FACULTY

### Mr. Preetham B M, Sr. Executive Officer at IMTMA.

He has 20+ years of experience from the Nuclear, Aerospace & Automation industry. Prior to IMTMA, he has worked at Avasarala Technologies Limited, as Assistant Manager, in the field of machining precision components using CNC machines.

At IMTMA, as Senior Executive officer, his role is to impart hands-on training for young engineers making them Industry ready.

### M. Maheswaran, Senior Executive Officer, IMTMA

He is having more than 12 years of experience in Technical Training and has acquired expertise in CNC manufacturing and Automation in the precision manufacturing of components as well as experience in conducting training programs. Prior to working at IMTMA, he has worked at NTT

### Deepak Kumar V - Asst Technical Manager, Mastercam India Pvt.Ltd

He has over 4 years of experience in Die Mould Manufacturing and CAD/CAM. Has spent 1 year of his career at Worldskill India Competition and 1year at Die mould Manufacturing, and as an Application engineer, most recently as Asst Technical Manager at Mastercam India.

Presented various technical seminars – both on the product as well as technology domains. In his spare time.

## For Registration Contact

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