

Last date for registration 11 February 2026

## INTRODUCTION

Machining technology is progressing quickly, with advances in hard milling, high speed machining, chip thinning, live tooling on lathes, and many more. 5 axis Machining Centres form the latest in the series providing infinite possibilities as to the part sizes, shapes and complex profiles which cannot be machined in a single set up. Its multidirectional approach to cutting tool ensures increased productivity, highest accuracy, rigidity and improved surface finish. 5 axis machining will enable single set up machining of sophisticated design components having widespread applications in aerospace, die/mold, energy and automotive sectors.

Systematic training in 5 axis machining is a must to realise the benefits of machining multiple faces of the component in single set up.

Keeping this in view, Indian Machine Tool Manufacturers' Association is organising 3 days programme on "**Mastering 5-Axis CNC Programming: Advanced Techniques and Strategies**".

## FOCUS AREAS

- Overview of 5-Axis CNC Machining
- Advantages and applications of 5-Axis CNC programming
- Understanding machine kinematics and tool paths
- Advanced toolpath generation techniques for 5-Axis machining
- Optimizing toolpath efficiency and quality
- Collision avoidance strategies
- Machining complex geometries using 5-Axis CNC programming
- Strategies for machining curved surfaces, freeform shapes
- Efficient programming for multi-surface machining
- Strategies for simultaneous 5-axis machining
- 3+2 machining techniques and applications
- Advanced indexing and rotational machining techniques
- Selection of appropriate cutting tools for 5-Axis machining
- Toolpath optimization for reducing tool wear and increasing tool life
- Toolpath smoothing techniques for improved surface finish
- Post-processing considerations for 5-Axis CNC programs
- Verifying and simulating 5-Axis toolpaths
- Detecting and resolving potential issues in simulation
- Exploring advanced features in CAD/CAM software for 5-Axis CNC programming

## KEY TAKE AWAYS

- Understand machining a component with 5-axis programming.
- Effective manufacturing with single set up.
- Reduced error due to less number of setting.
- Hands-on practice on Mastercam software for 5 - axis machining of sample component

## PARTICIPATION FEE

**Rs. 6999/-**  
+18% GST

**IMTMA Members/ Micro Companies/ Individuals/  
Educational Institutions / Students/ IMTMA Non  
Members/ Others**

**USD 280/-**  
**Overseas Participants**

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

## PARTICIPANT PROFILE

Working professionals from CNC Machine shops willing to remain current and competitive in the business Individuals looking for career growth in CNC multi axis machining

## FACULTY

Industry Experts from IMTMA and Mastercam instructors

### 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.