

## INTRODUCTION

Coordinate measuring machines, popularly called as CMMs are highly flexible & universal devices for measuring the Dimensional, Geometrical, Positional and Surface finish characteristics of an object in a highly coordinated manner. CMMs have provided the capability for comprehensive measurements in one measurement station for both quality assurance and quality control. CMM measures coordinates in all the three axis and provides results for modern engineering set up.

Today product development cycles are becoming shorter, processes are becoming more agile, and norms and standards are changing constantly. Having the right skill set and updating the latest in metrology training is a must whether you are a beginner or an expert. CMM's provide high flexibility and productivity improvement with accuracy and precision. The program focus on understanding the abilities of CMM's and adopting them to achieve high throughput with required accuracy and precision.

Keeping this in view, IMTMA is organizing an online program on How to get the best out of CMMs.

## FOCUS AREAS

- Terminology associated with CMM
  - Accuracy specification
  - Coordinate systems and their application.
- Types of CMM and selection for suitable application
- Probe heads, their application and selection
- Calibration of Probes and their limitations
- Alignments using different methods
- Measurement of features and their interrelationships
- Thermal influence on measured data
- Analysis of measured data and interpretations
- Programming of CMMs using offline and online methods
- Accessories which help in productivity (Fixtures / Rotary table etc.)

## KEY TAKE AWAYS

At the end of this program, the participants shall be able to understand:

- Selection of a CMM, probe and measurement techniques
- Calibration of a CMM
- Limitations of a CMM
- Reporting of measured data
- Best practices for precise measurement

## FEE PER PARTICIPANT (PER LOGIN)

**Rs. 6000/-**  
+18% GST

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

**USD 240/-**  
**Overseas Participants**

**Group Concession : 10% for 3 to 5 and 30% for 6 and more delegates being nominated from the same company**

## PARTICIPANT PROFILE

This course is targeted for people from inspection background, engineering personal, production personnel, entry-level inspectors and those who would like to enter into the field of dimensional measurement and CMM programming. It will also benefit managers and quality supervisors from machine tool, automobile and auto ancillaries, tool rooms, aerospace and general engineering.

## FACULTY

This Program will be conducted by **Mr Ravikumar**,

**Mr Ravikumar** is an Experienced Dimensional metrology expert with a demonstrated experience of over 30 years in Sales, service and application of Metrology systems. He is highly skilled in Quality Management, Account Management and people management.

In his professional career, he was associated for over 20 years with CMTI, heading the Metrology division and providing solutions to the Industry for Measurement problems in Dimensional metrology, Surface metrology, Gear metrology and guiding team to integrate metrology in to production.

For the 12 years, he was with Carl Zeiss India and is responsible for Technical services, Application engineering, Tech-center management, Assembly, Software development and software testing.

### For Registration Contact

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