Manufacturing Technology Training
An IMTMA initiative

Essentials of Precision Metrology
Date : 11 to 12 November, 2021
Time : 1340 Hrs to 1700 Hrs (Online Mode)

INTRODUCTION

Precision metrology is relevant to modern manufacturing as we are moving towards miniaturization of components with tolerances getting tighter year on year. Precision engineering calls for understanding and application of metrology both in manufacturing and in measurement. Precision metrology deals with various metrological aspects of precision engineering and the skill of knowing the metrological aspects of precision.

For a product to be successful, it needs to be manufactured in conformance to the engineering fundamentals and as per the specified tolerance by designer. Understanding specifications according to the design intent during manufacturing and measurement will eliminate potential costs during the later stages of the manufacturing process. Manufacturing follows cause and effect relationship that are within our ability to understand and control. Metrology helps to understand and eliminate random and probabilistic behavior of the machines and helps provide answers.

The aim of precision engineering is to reduce the dispersion of the products or parts function, with reduction in running cost, extended life span, improve interchangeability of components, achieve a higher wear / Fatigue life of components.

Having the right skill set and being updated with the latest in metrology training is a must whether you are a beginner or an expert. This program is aimed at enhancing your knowledge both for Metrology and analytics of measured data. The program focusses on understanding the fundamentals of Precision engineering and adopting them to achieve high throughput with required accuracy and precision.

Keeping this in mind, IMTMA is conducting a 2 days program on '**Essentials of Precision Metrology'**

FOCUS AREAS

- Fundamentals of Precision Metrology
- Contact and non-contact measurements
- Introduction to CMM
- Form measurements and their analysis
- Laser interferometry fundamentals
- Surface finish and its relevance
- Role of X-ray measurement in Precision Engineering

KEY TAKE AWAYS

- Knowledge on Precision Metrology.
- Factors influencing Manufacture and its interpretation.
- Right way of doing measurements.
- Measurement errors.
- Analytics of Measurements.
- Modern techniques in Measurements.
- How to measure machine tool errors.

FEE PER PARTICIPANT (PER LOGIN)

Rs. 4500/-
+18% GST
IMTMA Members/ Micro Companies/ Individuals/ Educational Institutions / Students/ IMTMA Non Members/ Others

USD 180/-
Overseas Participants

Group Concession : 20% for 3 to 5 and 30% for 6 and more delegates being nominated from the same company

FACULTY

This programme will be delivered by **Mr. Ravi Kumar**

Mr. Ravi Kumar is Metrology Expert with a demonstrated experience of over 40 Years in Metrology. In his professional career, He was associated for over 20 years with CMTI and worked in the department of Precision engineering, heading the Metrology Division and providing solutions to the Industry for measurement problems in Dimensional, Surface, Form and Gear Metrology. Trained at PTB (Physikalisch Technische Bundesenstalt) Germany in advanced Metrology and certified trainer for AUKOM Courses in India.

For the last 20 Years he was associated with Carl Zeiss India and was responsible for Sales, Service and Application engineering. He was instrumental for bringing the CMM's assembly to India and instrumental in establishing Tech centers Pan India. Retired as a Divisional Manager from ZEISS and presently working as Technical Director at Quality Laboratory.

He is a Graduate from UVCE – Bangalore, with Masters from PSG Coimbatore and Management degree from IIM – Bangalore. Right now, he is working as a consultant for many budding industries and guiding young metrologist's for automation of measuring systems.

For Registration Contact

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REGISTRATION : Prior registration with an online advance payment is must. Number of participants is limited and will be accepted on 'First Come First Serve' basis. A Certificate of participation will be issued to participants.