Manufacturing Technology Training
An IMTMA initiative

Interpretation of Manufacturing Drawing and Measurements
Date : 24 to 28 February, 2025
Venue : IMTMA Technology Centre, Bengaluru

INTRODUCTION

To manufacture an engineering component, we need to prepare the manufacturing drawing with assigning tolerances, which includes controlling of size, shape and surface texture. Understanding of Limits, fits and Tolerance will control the size limit, GD&T controls the shape and study of surface roughness will help to choose the right machining.

Engineering design and Engineering drawing are incomplete without assigning tolerances. Tolerancing is an important and essential element in product manufacturing for both functional and interchangeability.

Understand the role of GD&T in reduction of manufacturing cost and lead time as well as enhanced product reliability. Thorough knowledge in GD&T – the essential link, connecting the functional departments in the manufacturing industry – is a must for engineers.

Keeping this in view, Indian Machine Tool Manufacturers' Association (IMTMA) is organizing a 5-day Hands-on training on **"Interpretation of Manufacturing Drawing and Measurements".**

FOCUS AREAS

- Understanding of Manufacturing drawings
- Limits, Fits, & Tolerance
- Why Tolerance in Manufacturing
- How Tolerance plays a role in product design from cost and reliability perspective
- ISO system of Limits, Fits and tolerances
- Surface Roughness
- GD & T
- Definitions of Terms and Symbols: Feature, FOS, FCF, MMC, LMC and RFS
- Calculation of bonus tolerance per MMC / LMC - Learn through Exercises
- Five groups of GD&T parameters - Form, Orientation, Location, Run out and Profile
- Hands-on Practice on Measuring Instruments
- Hands-on Practice on GD & T Measurements
- Measuring of GD & T Parameters through CMM

KEY TAKE AWAYS

After undergoing the programme, the participants will be able to -

- Thorough knowledge on fundamentals of Tolerances in engineering design
- Represent and interpret tolerances given in drawings
- Significance of fundamental deviation and tolerance grade

- Understand the concepts of GD&T features and correctly interpret GD&T symbols in Engineering Drawings
- Learn about using tolerances at RFS, MMC and LMC conditions and Calculate Bonus tolerance
- Learn Interpretation of GD&T Parameters

PARTICIPATION FEE

Rs. 12000/-	Rs. 8000/-	USD 480/-
+18% GST	+18% GST	
IMTMA Members/ Micro Companies/ IMTMA Non Members/ Others	**Individuals/ Educational Institutions / Students**	**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 **Mr. Preetham B 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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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.