Manufacturing Technology Training
An IMTMA initiative

Geometric Dimensioning and Tolerancing (GD&T) in Design through Manufacturing
Date : 31 July to 1 August, 2025
Venue : IMTMA Technology Centre,, Coimbatore

INTRODUCTION

Geometric Dimensioning and Tolerancing (GD&T) system eliminates ambiguities in engineering drawings and brings out the designer's intent very clearly. It ensures seamless communication between design, engineering, manufacturing and quality teams across the entire organization enabling them to work in a concurrent engineering environment. Application of GD&T system helps to reduce the manufacturing and inspection costs drastically.

This programme will focus on understanding the system of GD & T and the methods of applying it in real time designs.

Keeping this in view, IMTMA along with Makino India Pvt. Ltd is organizing a training on **Geometric Dimensioning and Tolerancing (GD&T) in Design through Manufacturing**

FOCUS AREAS

- Tolerance, types of tolerances, why tolerance is required, and how tolerance is decided
- History, Introduction and understanding the need for GD & T
- Fundamental rules of GD&T per ASME. Coordinate VS geometric tolerancing
- Definitions of Terms and Symbols, FOS,FCF,DRF, Rule#1 or Taylor principle
- Definition of datums' and DOF restrained by primary, secondary and tertiary datums
- Selection of datums based on design / manufacturing / Inspection requirements
- Form and orientation tolerances and applications
- Location, runout and profile tolerances and applications
- Tolerance concepts, MMC / LMC / RFS and their applications
- Calculation of bonus tolerance per MMC / LMC
- Inspection methods and Animations for form tolerances and important concepts

KEY TAKE AWAYS

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

- 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.
- Gain a practical insight into inspection of GD&T features using conventional methods, Co-ordinate MeasuringMachine and functional gauges.
- Implement GD&T controls for a new project with proper selection of datum features.

PARTICIPATION FEE

Rs. 10450/-
+18% GST
IMTMA Members/ Micro Companies/ Individuals/ Educational Institutions / Students/ IMTMA Non Members/ Others

USD 415/-
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 be a Mid Level one and participants are expected to have knowledge of Engineering Drawing as a pre requisite.

This programme will benefit Managers, Engineers and Supervisory Personnel involved in the functions of Product Design, Process Planning, Production, and Quality Assurance from Machine Tool, Automobile & auto ancillaries, Tool Rooms, Consumer Durables, Aerospace, Defence & Railway establishments, General Engineering and other Capital goods manufacturing industries. Participants are encouraged to bring their drawings for discussion and problem solving.

FACULTY

This program will be conducted by **Mr. M. Krishnamoorthy**

Mr. Krishnamoorthy, is former Senior Director of IMTMA Technology Centre and an authorized training instructor with ASME, NY for delivering accredited ASME GD&T Trainings. He has undergone advanced training in GD&T from ASME in Seattle, USA. He is a certified ASME GDTP Senior Professional after successful completion of Senior Level GDTP certification examination by ASME, USA.

For over 38 years of his continued engineering practice in the industry, he has acquired astute expertise in the application and use of GD&T principles in CAD/CAM, high precision CNC machining as well as conducting Technical Training. He has imparted specialized training in GD&T for more than 1000 engineers across manufacturing companies in India and assisted them in implementing GD&T in design through manufacturing.

He is a postgraduate in Production Engineering from PSG College of Technology, Coimbatore. Prior to working at IMTMA, Mr Krishnamoorthy has worked at ISRO Satellite Centre, Bangalore in the field of Precision Machining of the satellite on-board components. After ISRO, he was with Perfect Moulds and UMS technologies as a specialist in Tool Planning and Production and Technical Training in CAD/CAM/CAE, respectively.

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.