Manufacturing Technology Training
An IMTMA initiative

Geometric Dimensioning and Tolerancing (GD&T) in Design through Manufacturing
Date : 21 to 22 May, 2026
Venue : IMTMA Technology Centre, Bengaluru

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.

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 datum's and DOF restrained by primary, secondary and tertiary datums
- Selection of datum's based on design / manufacturing / Inspection requirements
- Wooden/plastic prototypes: Part/assy prototypes used for effective training
- 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 -

1.Understand the concepts of GD&T features and correctly interpret GD&T symbols in Engineering Drawings
2.Learn about using tolerances at RFS, MMC and LMC conditions and Calculate Bonus tolerance.
3.Gain a practical insight into inspection of GD&T features using conventional methods, Co-ordinate MeasuringMachine and functional gauges.
4.Implement GD&T controls for a new project with proper selection of datum features.

PARTICIPATION FEE

Rs. 4999/-
+18% GST
IMTMA Members/ Micro Companies/ Individuals/ Educational Institutions / Students/ IMTMA Non Members/ Others

USD 200/-
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. Ganapathi K. N**

Mr. Ganapathi K. N. is currently associated with IMTMA as a faculty member, following his retirement from his full-time role at the organisation. He brings with him over 32 years of rich experience, including 16 years in the industry and 16 years in academics and training.

A postgraduate in Metal Casting Science and Engineering from UVCE, Bengaluru, Mr. Ganapathi has held various positions in both ferrous and non-ferrous foundries prior to joining IMTMA. He possesses in-depth knowledge of foundry operations and has successfully provided practical solutions to a wide range of foundry-related challenges.

During his career, he has delivered specialized training programs in the metal casting domain to more than 300 engineers from various manufacturing organizations across India. In addition, he has also taught metal casting topics to postgraduate engineering students, contributing significantly to industry-oriented technical education.

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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.