



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 as per ASME Y14.5 Standard** 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 datums' and DOF restrained by primary, secondary and tertiary datums
- Tolerance concepts, MMC / LMC / RFS and their applications
- Calculation of bonus tolerance per MMC / LMC
- Form and orientation tolerances, Inspection methods and applications
- Location, runout and profile tolerances, Inspection methods and applications
- Demonstration of Inspection of GD&T Parameters both by Conventional and CMM Method.

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

USD 415/-

Overseas Participants/ 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 presently working as an advisor Training at IMTMA, having 16 years of industrial and 18 years of academic/training experience. He is a mechanical engineer with post graduate in metal casting science and engineering. Prior to IMTMA, Ganapathi has worked at various capacity in manufacturing companies. He has expertise in GD&T, Stack-up Analysis, Engineering Materials, Metallurgy, Metal casting and heat treatment processes. He has carried out many specialised program on GD&T, metal casting technologies, Metallurgy and heat treatment for industries. He has also taught these topics to post graduate engineering students.

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.