

ASME: ASME Certified - PD: 694 -Training on Geometric Dimensioning and Tolerancing in Design thru Manufacturing (for GDTP-Technologist Level)

Date: 8 to 12 December, 2025

Time: 0900 Hrs to 1330 Hrs (Online Mode)

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. In the competitive industrial scenario prevailing today, proper application of the GD&T system helps the companies to reduce manufacturing and inspection costs.

BUILD YOUR GD&T EXPERTISE DIRECT FROM THE SOURCE!

DO YOU KNOW?

The American Society of Mechanical Engineers (ASME) is the Most Respected Provider of GD&T Training and Development Courses, World-Famous "Geometric Dimensioning & Tolerancing Professional (GDTP) Certification; Plus Handbooks and GD&T codes for Engineering Professionals!

The Indian Machine Tools Manufacturers' Association (IMTMA) has a State of Art Training Facility Equipped with World Class Machining and Measurement System Lab best suited to facilitate the Hands-On Practical Training on GD&T. IMTMA is an Authorised Training Provider (ATP) Of ASME, Certified for providing IACET Accredited ASME training courses on ASME Y14.5 standard to Engineering Professionals across India.

Keeping this in view, Indian Machine Tool Manufacturers' Association (IMTMA) is organizing a programme on "ASME Certified GD&T Program-Technologist Level".

FOCUS AREAS Introduction to GD&T

- Fundamental dimensioning rules Coordinate Tolerancing & its shortcomings
- **GD&T Terms, Symbols, Rules, Concepts**

GD&T Symbology FCF, Modifiers, and Symbols

Feature and Feature of size

· Restraining degrees of freedom with datums

- Material conditions MMC, LMC, RFS Virtual Condition
- **Datums**

- Datum Shift Material Conditions applied to Datums
- Use of Datum targets
- **Form Tolerances**

Form tolerance applications

Orientation Tolerances · Orientation Tolerances -Angularity, Parallelism, Perpendicularity

• Form Tolerances: Flatness, Straightness, Circularity, Cylindricity

Application of Orientation tolerances

Profile Tolerances

- Profile Tolerance and its applications • Composite Profile
- **Location Tolerances**

Location Tolerances Position, Symmetry, Concentricity

- Application of Position Tolerance Feature Control Frame Position Tolerance measurement methods - Functional Gage, CMM data
- Zero Tolerancing at MMC

Composite Position Tolerance Basic concept and characteristics

- Various Interpretations of composite position tolerance
- Runout Tolerances

· Basic concepts and characteristics of Circular and Total Runout

GDTP Certification - Technologist Level: Preparation for Technologist Geometric Dimensioning and Tolerancing Professional (GDTP) Certification, achieved by passing a computer-

based, multiple choice examination, provides an objective measure of an individual's ability to understand drawings which have been

prepared using the language of Geometric Dimensioning and Tolerancing (GD&T), as defined in the ASME Y14.5 Standard. **KEY TAKE AWAYS**

At the end of the course, participants will be able to understand -Importance of applying correct GD&T on drawings

• Important GD&T terms and definitions Relationship of geometric characteristics and feature types such as RFS, MMC, and LMC conditions and calculate

- bonus tolerance Inspection of GD&T features using conventional, CMM's & Functional gauges Application of GD&T controls for new product development using case studies
- Preparation for ASME Certification Complimentary ASME membership for non-member participants

ASME Y14.5M standard codebook for practice

FEE PER PARTICIPANT (PER LOGIN)

Rs. 20000/-**Overseas Participants** IMTMA Members/ Micro Companies/ Individuals/

Members/ Others PARTICIPANT PROFILE

+18% GST

Educational Institutions / Students/ IMTMA Non

USD 800/-

Certification.

At the end of this course, the participants will also attempt a mock test based on the ASME GDTP - "Body of Knowledge" Guide to prepare individuals for the ASME GDTP-Technologist certification exam. The Answer Key will also be provided to all participants after completion of the Mock test, for self-evaluation.

The course is suited for beginners as well as experienced professionals with no prior OR minimal GD&T experience, who are looking to get indepth knowledge and grip on best practices in GD&T and the ASMEY14.5M-2009 standard OR are aiming for ASME GDTP Technologist

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

Mr. M 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.

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