Manufacturing Technology Training
An IMTMA initiative

ASME: ASME Certified - PD: 695 –Training on Geometric Dimensioning and Tolerancing in Design thru Manufacturing (for GDTP- Senior Level)
Date : 14 to 17 April, 2025
Time : 0900 Hrs to 1330 Hrs (Online Mode)

INTRODUCTION

American Society of Mechanical Engineers (ASME) is the most respected provider of GD&T training and development courses, Geometric Dimensioning & Tolerancing Professional (GDTP) certification; plus handbooks and GD&T codes for engineering professionals!

Indian Machine Tools Manufacturers' Association (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.

Proper understanding, application and implementation of GD&T across the value chain is essential for realising the benefits in terms of **Cost, Quality and Delivery**.

FOCUS AREAS

Basic GD&T in Design through Manufacturing' course review

- Geometric Controls symbology
- Geometric Characteristics application to Feature types
- Material Condition, Virtual Condition, Resultant Condition
- Overview of GD&T Senior Level examination

ASME Y14.5-2009 Enhancements

- Regular and Irregular Feature of Size
- Related and Un-related Actual Mating Envelope
- Independency Control to override Rule # 1
- Unequal Profile Tolerance symbology
- Enhanced Degrees of Freedom application
- Boundary notation for modifiers applied to datums - MMB, LMB, RMB
- Movable Datum targets

Overview of ISO v/s ASME standard

- Symbology comparison and Terminology differences
- Independency control v/s Envelope Principle
- ISO Tolerance Zone Indicators in FCF comparison

Advanced GD&T Concepts

- Inner Boundary and Outer Boundary calculations
- Floating and Fixed Fastener Theory with case study
- Projected Tolerance Modifier Application
- Tangent Plane Modifier
- Free State and Restrained condition measurements
- Composite Position
- Composite Profile
- Measurement Equipment Data Reporting Profile Tolerance

GDTP Certification – Senior Level:

Senior 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 select and apply geometric controls to drawings as per ASME Y14.5 Standard.

KEY TAKE AWAYS

At the end of the course, participants will be able to understand -

- Provide and in depth knowledge on the new concepts and revisions as per the latest ASME Y14.5-2009 Standard
- Provide inputs on applying advanced GD&T controls including composite profile and composite position tolerances through case studies / exercises
- Cover the comparison of Geometric tolerancing concepts vide ASME vs ISO standards
- Focus on of applying correct datum structures and geometric tolerances on detail parts based on functional requirements and cost implications for the final assembly
- Inspection of GD&T features using conventional, CMM & Functional gauges
- Complimentary Membership for Non-members
- Training hand book, work book and Accredited certificate from ASME
- Preparation and mock test for ASME Certification examination (GDTP Senior level)

FEE PER PARTICIPANT (PER LOGIN)

Rs. 20000/-
+18% GST
IMTMA Members/ Micro Companies/ Individuals/ Educational Institutions / Students/ IMTMA Non Members/ Others

USD 800/-
Overseas Participants

PARTICIPANT PROFILE

The course is an advanced one meant for experienced professionals with prior GD&T experience, who are looking to get in-depth knowledge and grip on best practices in GD&T and the ASMEY14.5M-2009 standard OR are aiming for ASME GDTP Senior Certification. Participants need to complete a pre-course questionnaire upon applying for registration.

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-Senior level certification exam. The Answer Key will also be provided to all participants after completion of the Mock test, for self-evaluation.

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.

For Registration Contact

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REGISTRATION : Prior registration with an online advance payment is must. Number of participants is limited and will be accepted on 'First Come First Serve' basis. A Certificate of participation will be issued to participants.