

INTRODUCTION

Manufacturing Engineering is a vital function of any industry that focuses on transforming product designs into efficient and cost-effective production processes. Manufacturing engineers face challenges such as process planning, selecting suitable manufacturing methods, optimizing resources, improving productivity, maintaining quality, minimizing waste, and ensuring timely delivery. A successful manufacturing engineer requires a thorough understanding of manufacturing processes, production planning and control, quality management, lean manufacturing, automation, and continuous improvement to achieve operational excellence.

Youth Empowerment is essential for building a skilled and industry-ready workforce. To equip young talent with the technical knowledge, practical skills, and professional competencies required by the manufacturing sector, IMTMA conducts training programmes as part of its **Youth Empowerment Initiative**. This initiative aims to enhance employability, bridge the industry-academia skill gap, and create career opportunities for aspiring youth, aligning with the primary objective of the Association and its member companies.

FOCUS AREAS

- Manufacturing Drawings including Interpretation
- Workshop practices on conventional machines
- Limits, Fits, Tolerances, GD&T, Surface Roughness: Importance in Manufacturing
- Various Machining processes and cutting parameters
- Dimensional Metrology and Measuring Instruments
- Types of engineering materials, properties, and Heat treatment processes
- Process Planning for Manufacturing
- Work holding and Fixturing
- Cutting Tools and Tool Holders for various metal-cutting processes
- Hands-on practice in CNC Turning and Machining centers
- CNC Programming: Basics and advanced
- Dimensional and Geometric Tolerances: Measurement & Quality Control
- Hands-on practice in measuring instruments
- Hands-on practice in Tooling, Work Holding, and other accessories
- Introduction to statistical process control (SPC)
- 5S concepts and Autonomous Maintenance (JH) – one of the main pillars of TPM
- Soft skills development
- Presentation Skills, E-mail etiquette
- Project work: complete procedure for converting a DRAWING to PART
- Overview of I4.0 in a production shop
- CAD modelling and creating manufacturing drawings
- Basics of Industrial Automation and Introduction to industrial sensors, PLC and HMI
- Assessment through the presentation, test, viva, and practical’s

KEY TAKE AWAYS

Programme Objectives & benefits

- Equip young engineers with industry-relevant manufacturing knowledge and practical skills.
- Develop practical skills in manufacturing processes, quality, safety, and production practices.
- Enhance technical competency, workplace readiness, and professional confidence.
- **Offer Letter in Hand**- Candidates receive a job offer from the company assuring their professional journey.

Training Methodology

Candidates Selection criteria

- Diploma holders in Mechanical Engineering
- Aggregate score preferably above 60% in Diploma
- Final selection based on performance in written test and personal interview conducted by IMTMA

Unique Programme Features

- Job assured program
- Experiential learning from Design and Manufacturing experts
- Hands-on training on machines and equipment at IMTMA Technology Centre
- Developing work culture and skill competency matching industry standards

Evaluation and Certification criteria

- Periodical test and assignments
- Performance evaluation
- Record of attendance
- Students Presentation and interactivity skills in the class

PARTICIPATION FEE

Nil

Participant Profile

Important information to participants

- Training programme is non-residential
- Participants will bear the expenses of travel and stay
- Maintain 100% attendance during the period of training
- Attend all the tests and assignments
- Adhere to the designated dress code and safety norms of IMTMA
- Maintain work discipline during the entire training
- Abide by all instructions of faculty and IMTMA
- Post training, open to work anywhere in India without geographical barrier
- Shall not misuse/ mishandle/damage the equipment, machineries, computers, CAD software during training
- Job will be provided in Yuken India Pvt Ltd, group of companies
- **Offer letters will be issued to selected candidates from Yuken Group Companies**

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.