Manufacturing Technology Training
An IMTMA initiative

Introduction to Digital Factory
Date : 2 to 3 February, 2027
Venue : IMTMA Technology Centre, Bengaluru

Last date for registration 26 January 2027

INTRODUCTION

Manufacturing industry is at its most exciting times with digital revolution. Industry has come a long way from 1st revolution of mechanization, 2nd revolution of Electrification, 3rd Revolution of Automation and Digitalization as the 4th Industrial revolution.

Many problems of the manufacturing industry which were not being solved very easily are being solved with the help of digital concepts. An important pre-requisite to achieve best results of digitalization is fairly good maturity levels of automation. When the degree of automation is better in the manufacturing process, better results can be achieved out of digitalization. Hence industrial automation and subsequently digitalization is gaining importance across industry sectors in the current situation. From simple Poke Yoke to fool proofing to complex Industry 4.0 system which is capable to self-decide and self-configure is possible by Digital Revolution.

This has increased the need of skilled man power, knowledge base, collective intelligence in the areas of industrial automation and digitalization. Keeping this is view, Indian Machine Tool Manufacturers' Association (IMTMA) is organizing a 2-day interactive programme on **"Introduction to Digital Factory"**

FOCUS AREAS

- What is digital Factory?
- Need for Digitalization.
- Technology Revolutions.
- IT and OT Convergence.
- What is an ideal Industry 4.0?
- Digital Framework for an Industry.
- Pre-requisites for Digital Factory implementation.
- Technologies used in building Digital Factory.
- Edge computing Vs Cloud computing.
- Overview of extensively used communication protocols MODBUS, OPCUA & MQTT.
- Basics of PLC, HMI, Sensors and other elements.
- PLC programming and simulation.
- HMI Basics & Features in the context of Industry 4.0
- Integrating Sensors, PLC and HMI.
- Benefits of implementing Digital factory.
- Machine Monitoring System example – Live Demo.
- A Checklist for self-evaluation of digital readiness of participant’s organization at the end of the program.

KEY TAKE AWAYS

After undergoing the program, the participants will be able to have an overview of:

- The possibilities of Digitalization in Manufacturing.
- Feel of an ideal Industry 4.0 situation.
- Basics of IT-OT convergence.
- Sensor requirements for digitalization.
- Integrating the Sensors, HMI and PLC.
- Communication protocols MODBUS, OPCUA & MQTT.
- Knowledge of Edge computing and Cloud computing.
- Knowledge of Industrial Gateway.
- Self-evaluation of digital readiness of participant’s organization.

PARTICIPATION FEE

Rs. 4999/-	Rs. 2500/-	Rs. 999/-	USD 200/-
+18% GST	+18% GST	+18% GST	**Overseas Participants**
IMTMA Members/ Micro Companies/ Individuals/ IMTMA Non Members/ Others	**Professors**	**Student**	

Group Concession : 10% for 3 to 5 and 20% for 6 and more delegates being nominated from the same company

PARTICIPANT PROFILE

Programme will be beneficial for Automation Engineers, Maintenance Engineers, Engineers in Design, R&D and NPD activities, Digital officers.

Programme is relevant to industry viz., Any Process Industry, Auto OEMs, Auto ancillaries, Pump Manufacturers, Aerospace ancillaries, Defence & Railway Establishment, General Engineering and Engineering Service providers.

Faculties from educational institutes can also participate in the programme. Students who are interested in Industrial Automation can participate to get a hands-on feel.

FACULTY

This programme will be conducted by, IMTMA Subject Matter Expert.

She has a unique blend of industry expertise and academic experience. She holds a degree in Electronics and Communication Engineering from NMAMIT Nitte and a Master’s in Industrial Electronics from SJCE Mysore, where she was a VTU M.Tech Gold Medalist. With over 15 years in leading companies like L&T Emsys, Intel, and Microview Software Technologies, she has extensive industry experience. Additionally, she has spent a decade in academia, teaching Electronics and Electrical subjects and training professionals in Industrial Automation.

She earned her Doctorate from VTU in 2021, focusing on Industry 4.0. Her research includes developing an Internet gateway for monitoring machine shop activities, incorporating M2M communication, data analytics, and digital solutions for manufacturing challenges. Her work has been published in prestigious international journals such as Taylor & Francis, Springer, and IEEE. Driven by a passion for teaching, skilling, and knowledge transfer, she has trained several industry and corporate professionals in the areas of Industrial Automation and Digitalization. She currently heads the automation division at Distinct Productivity Solutions Pvt. Ltd., Bangalore.

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.