Manufacturing Technology Training
An IMTMA initiative

Hands-on training in PLC Programming and Networking
Date : 11 to 14 March, 2026
Venue : IMTMA Technology Centre, Bengaluru

INTRODUCTION

In today's industrial landscape, Programmable Logic controller (PLC) serve as the cornerstone of automation, enabling precise control over machinery and processes. PLC represents a key driver in automation, production & process planning in the manufacturing industry. Many industries of today, including packaging, pharmaceuticals, refineries, mines, machine shops, power plants and food industries use PLC systems for automation of their machinery to produce more, consistently, quickly and efficiently.

Modern PLC systems can be connected to data networks and interfaced with other automation control devices. However, for improvement / modification of the automation system, correct interpretation of the Logics and changes need to be made to the PLC program as and when required.

Keeping this in view, Indian Machine Tool Manufacturers' Association (IMTMA) is organizing a **4-day Hands-on training program in PLC Programming & Networking**. This training is designed to equip participants with practical skills in both PLC programming and networking, crucial for optimizing operational efficiency and troubleshooting in industrial settings.

FOCUS AREAS

- Basics of Digital Electronics & Relay Logics
- Architecture of PLC
- Concept and clear understanding of Scan Cycles in working of PLC
- Overview of commonly used Hardware (DI/DO and AI/AO Modules)
- Discrete Input / Output modules, interfacing with field devices, concept of Sourcing & Sinking, NPN, PNP, I/O addressing.
- Role of sensors in facilitating industrial automation.
- Overview of PLC Programming Techniques
- Creating & Editing Ladder Logic Program
- Hands-on practice in simulators **Siemens and Mitsubishi**
- Overview of Communication and Networking.
- Industrial Networking: Device level and Control level
- HMI Basics & Features
- HMI Screen Building
- Integrating Sensors, PLC [**Siemens and Mitsubishi**] and HMI by networking
- Live Examples of working on PLC and HMI with sensors.
- Hands-on practice [**Siemens PLC and Mitsubishi PLC**]

KEY TAKE AWAYS

After undergoing the programme, the participants will be able to –

- Basics of PLC technology and understand the concept of Ladder programming.
- Basics of HMI and creating some screens.
- Simulation of HMI and PLC [**Siemens and Mitsubishi**] codes.
- Importance & types of Sensors and Peripherals.
- Integrating the Sensors, PLC and HMI.
- Networking: introduction MODBUS and Industrial PROFINET based network.
- Knowledge about various application possibilities using PLCs and HMIs.
- Hands on experience of the PLC [**Siemens and Mitsubishi**] and HMI usage so as to get a feel of Industrial automation and networking.

PARTICIPATION FEE

Rs. 7999/-
+18% GST
IMTMA Members/ Micro Companies/ Individuals/ Educational Institutions / Students/ IMTMA Non Members/ Others

USD 320/-
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 benefit Managers, Engineers & Middle management personnel involved in the functions of Design & Development, R&D, Production, Process planning, Application Engg. Maintenance and other related areas from Machine Tool, Auto & Auto Ancillaries, Packaging, Pharmaceuticals, Food Processing and other General Engineering industries.

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.

The programme will be totally practical oriented with hands-on practice. Participants would be encouraged to raise questions and solicit feedback from the expert faculty.

FACULTY

This Program will be conducted by **Dr. Prathima Holla.**

Dr. Prathima Holla is 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 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.