



## INTRODUCTION

Increasing demands for higher production quality, improved manufacturing efficiency, and more stringent environmental standards have led to the development of new and complex types of industrial Automation. Hence the greater need for industrial sensors. These sensor systems are finding widespread application in diverse fields as machine tools, product inspection, automotive parts and advanced composite aircraft. The sensors typically employ optical, ultrasonic, or microwave techniques to perform measuring functions.

Sensors are the primary data collection tools in IIoT systems and they provide the raw data used in analytics designed to enhance factory efficiency, productivity, and optimize facility utilization. In Industry 4.0 concept, sensors support machine condition monitoring which helps reduce down time and prevent costly equipment failures.

Keeping this in view, IMTMA is organizing an Online Training on "**Industrial Sensors for Concurrent Process Control**" on 15-16 December 2020.

## FOCUS AREAS

- Sensor data sheets
- Types, Applications and Selection of sensors
  - Proximity sensors
  - Photo sensors
  - Ultrasonic sensors
  - Encoders
- Connection techniques
- Measurement systems in an automation system
- Control systems with IO-Link
- Use of Identification Technology in an Automation system.
- Bar code identification
- QR code identification
- RFIDs and its frequency ranges and few Applications examples of RFID
- **Live Demo of connection and testing of different sensors for real time applications**

## KEY TAKE AWAYS

- Make sensor connections to controller
- Understand differences between discrete and analog sensors
- Selection of sensor for a given process
- Configuring sensors to a controller and addressing them
- Setup Industry 4.0 enabled IO-Link sensors, and IO-Link Master.
- Understand connection of sensor to PLC and monitoring its state/value on PLC
- Understand IO-Link capabilities with OPC UA.
- Understand industrial 4.0 advancements in sensor technologies

## FEE PER PARTICIPANT (PER LOGIN)

**Rs. 3500/-**

+18% GST

**IMTMA Members/ Micro Companies/ Individuals/ Educational Institutions / Students/ IMTMA Non Members/ Others**

## FACULTY

This Program will be conducted by **Mr. Sudhanshu Kantoor and Mr. Anil Kumar Meti.**

**Mr. Sudhanshu Kantoor** is General Manager, Product Management - Factory Automation at **Pepperl+Fuchs India**. He is passionately involved in the field of Industrial Automation for over two decades. An avid software programmer in control automation, he brings in hands-on and supervisory experience in projects involving PLCs, Drives, Remote I/O and SCADA based systems, machines/process plants throughout India and also overseas. Avid enthusiast on technology, especially in the domain of networking and data communication. Working across the control platforms and leading implementation of I4.0 solutions for P+F Factory Automation business in India.

**Mr. Anil Kumar Meti** is working with IMTMA as Executive officer – Training, taking care of Industrial automation training. He comes with 8 years of professional experience and prior to IMTMA worked in industries such as RR Steels and Hunet technology.

### For Registration Contact

**Amarendu Debnath**  
**Programme Coordinator**  
+91 9977133067  
[gurgaontraining-an@imtma.in](mailto:gurgaontraining-an@imtma.in)  
**Dhananjay Talmale**  
9767164221  
[ghananjay@imtma.in](mailto:ghananjay@imtma.in)

### Contact Address

**INDIAN MACHINE TOOL MANUFACTURERS' ASSOCIATION**  
Plot 249F, Phase IV, Udyog vihar, Sector - 18,  
Gurgaon - 122015  
Tata no- +91-124-6463101  
Tel : 0124 4014101 - 04  
Fax : +91-124-4014108



imtmatraining.67038796@hdfcbank

