WISSEN ZENTRUM TECHNOLOGY™

Technology Control System

Industrial Automation Training

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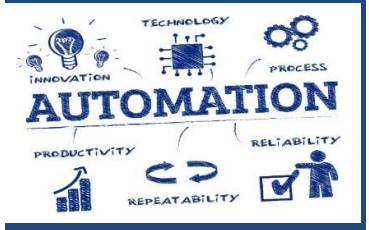

Industrial Automation Training

This course provides an overall exposure to the Technology of Industrial Automation and Control System as widely seen in Plants / Factories of all types both for discrete and continuous manufacturing process.

The course covers a wide range of related topics from the advantage and architecture of automation systems, measurement systems including sensors, transmitters and signal conditioning, discrete and continuous variable control systems, industrial communication, electrical panel & wiring knowledge and VFD & Motor Control Center.

Because of our course you can identify and relate to much of the equipment that normally you will be seen in a plant or factory.

To Maximize efficiency of your workforce

- ✓ Through comprehensive training for improving plant performance.

To improve Industrial Exposure of your students

- ✓ Through our tailored made Hands-On training program by our experienced process engineers.

- ❖ Basic of PLC: Software & Hardware
- ❖ PLC Hardware Selection & Design
- ❖ Relay Logic, Power and Control wiring
- ❖ PLC Programming and Troubleshooting
- ❖ PLC Panel Wiring & Installation
- ❖ Field Instruments and P & I Drawings.
- ❖ SCADA (HMI) Designing and PLC Interfacing
- ❖ Web Based Design & Next generation GSM PLC
- ❖ DCS/PAC Architecture and Programming
- ❖ VFD Panel configuration and wiring
- ❖ Industrial standards and codes
- ❖ VFD & PLC Interfacing
- ❖ Different Industrial Communication Protocols
- ❖ Motors and Conveyor Control System
- ❖ MCC & PCC Design Concept.

Plot No.41, Anandapur, Madurdaha, KMC-Ward-108, East Kolkata Township, Kolkata–700 107, INDIA
Phone No: +91 33 244 21501 / 9014, Email ID: contactus@wissenzentrum.com

-: INDUSTRIAL AUTOMATION TRAINING SYLLABUS FOR ENGINEERS: -

Module-1	**Fundamentals of Electrical & Electronics:** • Study of use of various Sensors (Limit Switches, Potentiometer, Proximity, Color, Photoelectric & Temperature Sensors) & Actuators	**Duration** **1 Day**
Module-2	**Electrical Control Circuit Designing:** • Relay Logic, Power and Control wiring	**Duration** **1 Day**
Module-3	**Programmable Logic Controller (PLC): Hardware Design:** • Concepts of Industrial Control Signals: 0- 10V & 4- 20 mA • Architecture of PLC • PLC Wiring and Control Panel Designing & Troubleshooting • Working with Field Devices	**Duration** **2 Days**
Module-4	**Programmable Logic Controller (PLC): Software** • Application Software & Logic Development • Timer, Counter, Jump, Subroutine & Multi-Interlocking • PLC Programming using Ladder Logic & Functional Block Diagram (FBD) • Programming & Troubleshooting • Alarm & Data Logging	**Duration** **3 Days**
Module-5	**Supervisory control and data acquisition (SCADA):** • HMI Screen Design & Interface with PLC • PLC & SCADA Interfacing • Structures and Faceplates creation • Remote Monitor & Control Process • Real Time trends & Historical trends • Data logging, OPC & ODBC • Industrial SCADA project • Auto/Manual Control using HMI	**Duration** **3 Days**
Module-6	**Control Application:** • PID Working Principle	**Duration** **2 Day**

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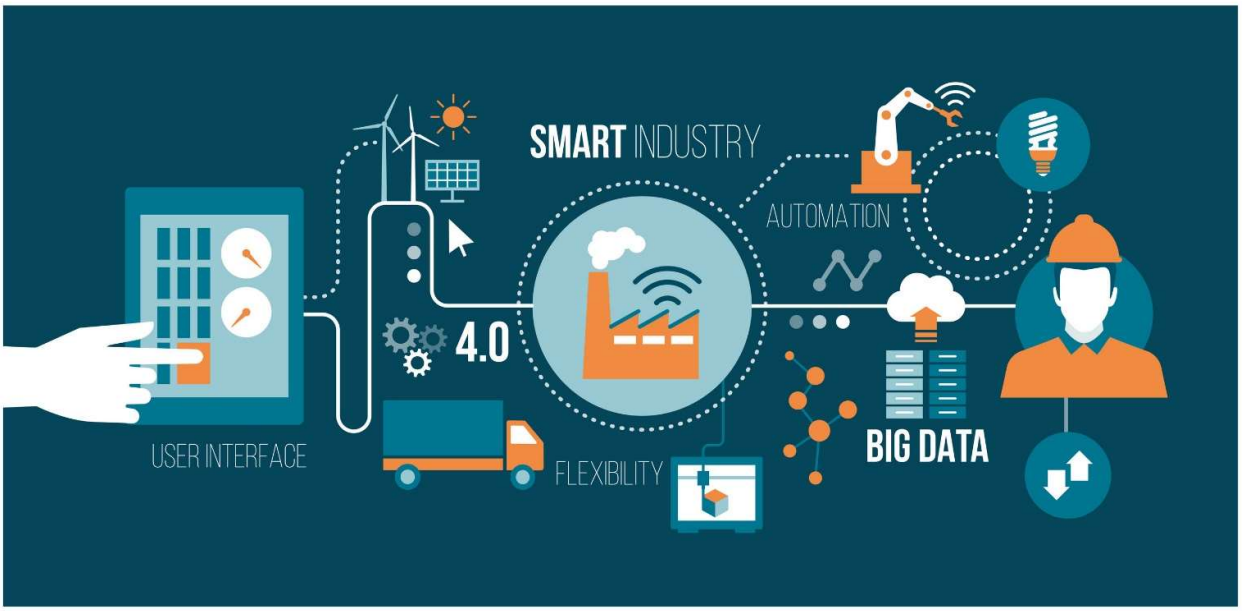
	• PID Modes – On/Off , Manual mode, PID mode • Auto Tuning in PID • Study of various PID Parameters • Parameter Programming in PID • Monitoring/Controlling PID Parameters on HMI • Feed Back & Feed Forward Control	
Module-7	**Motor Control Center (MCC) & VFD Drive** • Architecture of VFD • Different motor Control techniques • Design of MCC & PCC • Working with Interface • VFD commissioning • AC & DC Drive basic • I/O field devices interfacing • PLC, SCADA & VFD Interfacing	**Duration 5 Days**



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