MTA SKILLLAB SDN. BHD.

AIoT Training System

Model: FA-AIOT-1005

- **Smart Process Monitoring**



PLC - Sensor - SCADA - IIoT - Digital Dashboard - Analysis

Overview

This practical module uses a closed-loop water dosing, heating, cooling and recirculation system to teach process instrumentation, sequence monitoring and Industrial Internet of Things (IIoT) data collection. Water is dispensed from Tank A into a heating vessel. After heating, it is discharged into a separate measuring container to verify the delivered volume. One cycle is counted when the volume measurement is complete. The measured water then drains into Section A of the main reservoir, where a circulating water cooler brings it down to the required temperature. Once the cooling setpoint is reached, the water transfers to Section B. A return pump sends the cooled water back to Tank A for the next batch.

Learning Outcome

- Explain the process sequence.
- Configure sensor & data collection
- Build a dashboard that displays live readings, historical trends and equipment operating status
- Configure alarm and notification at the IoT system
- Use trends and alarm history to locate process delays and distinguish a dosing issue from slow heating, slow cooling or delayed refill. measured data

Technical Specification

Workstation

- Coated finished metal IIoT structure
- Dimension 850x1700x400mm
- 32" Dashboard Monitor
- Electrical Control panel
- IIoT architecture training signboard

Electrical Control Panel

- Start/Stop/Reset/Auto/Man Button
- Siemens PLC 1200 series
- Siemens 7" HMI Screen
- 24DC Power Supply 10A
- ECU Industrial Gateway
- Network switch 8 ports
- Industrial PC
- MCB/fuse
- Single Phase AC230V

Sensor Device

- Temperature Sensor
- Flow Sensor
- Pressure Sensor
- Level Sensor
- Smart Energy Metering

Brand : SKILLLAB
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Courseware

- Training module consists of :
- Introduction to Industrial IoT
- Industrial Networking Protocol
- IoT Project creation
- IoT Dashboard
- EMS Analysis
- Lab/Experiments Manual

Training

- 2 days Fundamental PLC Programming Training
- 1 day Industrial Networking Training
- 3 days Water Process and Analysis Training

Warranty

- 12 months product warranty against manufacturing defect only

Maintenance

- Locally support available (Penang/KL/JB)
- Twice a year maintenance support during warranty period

Technical Specification

Application

- SUS 304 Training Structure
- 150L water reservoir
- 50L Top water tank
- Heating Container 2L
- Water Cooler unit
- Electrical Heater unit

Software

- WebAccess SCADA Software
- TIA Portal Programming Software

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