Utilities Monitoring System for IR 4.0

Entity Overview

	Company name	Location
Representative (Training provider)	Selangor Human Resources Development Centre	Selangor, Malaysia
	Business overview	
	Established in 1992, SHRDC is an industry-driven, not for profit training centre focused on Smart Manufacturing and DX/GX human resource development.	
Partner organization		

Training Overview

Training site	No 1, Ground Floor, Block 2, Pusat Perniagaan Worldwide, Jalan Tinju 13/50, Section 13, 40100, Shah Alam, Selangor, Malaysia
Project period	28th April 2026 – 31st January 2027
Training period	7 days (45.5 hours) in total
Participation fee	6480 MYR/person (1/2 will be subsidized)
Language	English
Target trainees	1. Engineers and Technicians 2. Production and Operation Managers 3. IT and Digital Transformation(DX) Teams
Training attributes	Training Field: GX, DX Course Type: OJT Basic Knowledge: Required Applicable Industry: Manufacturing Industry, Automotive Industry, Die and Mold Industry, and related Supply Chains Highlight of Training Benefit: **GX**: 5% energy cost savings / GHG reduction; **DX:** 5% productivity gain / 2 man-hours saved daily

Contents of Training

This 7-day program is built around hands-on work. We focus on four main areas:
Gateway Setup: Participants learn to use the **IRIV PI Gateway** as an edge device to connect industrial data to IT systems. We cover communication protocols like **Modbus, MQTT, and OPC-UA** to track electricity, water, and gas.
Hardware Integration: Trainees get hands-on experience wiring and configuring **IO-Link smart sensors** and energy meters. We use these tools to monitor machine health and environmental conditions in real-time.
Logic & Dashboards: We teach how to build data flows in **Node-RED** and design custom **SVG dashboards**. This allows the team to see live data and set up automated alerts (via Email or Telegram) if utility limits are exceeded.
OJT Pilot Project: The course ends with a project where trainees identify energy waste in their own facility. By replacing manual logging with automated tracking, the goal is to cut waste and support CO2 reduction targets.

Expected Training Benefits

1. Productivity Gains (DX): By replacing manual utility logging with automated real-time tracking, companies can save approximately **2 man-hours per day**. This data-driven approach is expected to lead to a **5% increase in overall operational productivity** by reducing manual errors and unplanned machine downtime.
2. Sustainability & Cost Reduction (GX): The system allows for the immediate identification of energy waste. This optimization is projected to achieve **5% in energy cost savings** and contribute directly to the organization's Greenhouse Gas (GHG) reduction and decarbonization targets.
3. Technical Autonomy: Participants will develop the internal capability to configure IoT gateways (IRIV PI), wire IO-Link sensors, and build custom SVG dashboards. This enables the factory to scale their digital monitoring solutions to other production lines without relying on external vendors.

How to Apply for Training

Please contact via the email address below for the application.
Email address: ameicc@shrdc.org.my