AR RAUDHAH EDU SDN BHD

MEET OUR EXPERT

Henry Chong
Lead Trainer

20+ years industrial automation, certified trainer, consultant, seminar presenter, NOSS robotic technology developer.

GET IN TOUCH

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SAC SKILLS INSTITUTE

POWER UP MENTOR

2026
TRAINING CALENDAR

IR4.0 INDUSTRIAL AUTOMATION TRAINING SERIES

Achieve IR4.0 Mastery

Acquire advanced technical expertise in Industrial Revolution 4.0. Transform skills into industry-leading professional capability for future career growth.

DRIVING INDUSTRIAL AUTOMATION

Ar Raudhah Edu Sdn Bhd (ARESB) delivers holistic, quality education at all levels, preparing students for meaningful employment. Our core values include integrity and respect for diversity, upholding the right to a progressive career path.

ARESB engages actively in the Power Up Mentor (PUM) initiative. This strategic collaboration ensures our programs are industry-relevant. Companies greatly benefit by selecting training precisely tailored to their current and future skill needs.

Our objective is long-term career advancement. We prioritize continuous improvement to deliver high-quality, high-value programs. We transition graduates into work-ready professionals, driving the future of industry in the digital age.

AUTOMATION TRAINING

ADVANCED LEVEL

PLC TROUBLESHOOTING AND FAULT SIMULATION WITH FACTORY I/O

This programme focuses on diagnosing and resolving faults in PLC-controlled systems using Factory I/O. Participants will simulate common errors, analyze system responses, and apply structured troubleshooting techniques. It is ideal for service technicians, maintenance supervisors, and automation engineers.

ADVANCED CONTROL LOGIC OPTIMIZATION USING FACTORY I/O

This programme focuses on analyzing and improving control logic efficiency in automated systems. Participants will use Factory I/O to evaluate logic performance, identify bottlenecks, and implement optimization strategies. It is ideal for process engineers, automation specialists, and advanced technicians.

DEVELOPING A VIRTUAL SMART FACTORY PROJECT (TEAM CHALLENGE)

This team-based programme challenges participants to design, simulate, and present a complete smart factory using Factory I/O. It emphasizes collaboration, creativity, and problem-solving in a competitive format. Ideal for TVET competitions, competency assessments, and advanced training.

FACTORY I/O INTEGRATION WITH IOT AND DATA ANALYTICS

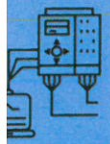
This programme explores how Factory I/O can be connected to IoT platforms and data analytics tools to enable real-time monitoring, predictive insights, and smart decision-making. Participants will simulate data acquisition, transmission, and visualization using protocols such as MQTT and OPC UA. It is ideal for automation engineers, data analysts, and digital transformation teams

HUMAN–MACHINE COLLABORATION IN SMART FACTORY SIMULATION

This programme explores the interaction between human operators and automated systems in a smart factory context. Using Factory I/O, participants will simulate scenarios involving manual intervention, safety protocols, and collaborative workflows. It is ideal for safety officers, production supervisors, and human factors specialists.

AUTOMATION TRAINING

NTERMEDIATE LEVEL

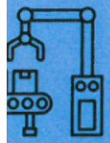


CONNECTING FACTORY I/O WITH SIEMENS PLC (S7-1200/1500)

This programme provides hands-on experience in integrating Factory I/O with real Siemens PLC hardware. Participants will learn how to configure communication protocols, establish data exchange, and simulate real-time control using S7-1200/1500 PLCs. The course is ideal for automation technicians and educators working with Siemens platforms.

PLC PROGRAMMING AND TESTING USING FACTORY I/O AND TIA PORTAL

This programme focuses on developing and testing PLC programs using Siemens TIA Portal in conjunction with Factory I/O. Participants will write ladder logic, upload it to a PLC, and validate its performance in a simulated environment. The course is ideal for automation engineers and maintenance supervisors.



DESIGNING AUTOMATED PRODUCTION LINES IN VIRTUAL ENVIRONMENT

This programme introduces participants to PLC logic development using Factory I/O's built-in simulation tools, eliminating the need for physical PLC hardware. Participants will learn to create, test, and troubleshoot ladder logic in a virtual environment, making it ideal for institutions and companies with limited access to automation equipment.

FROM WIRING TO LOGIC: COMPLETE PLC SYSTEM SIMULATION

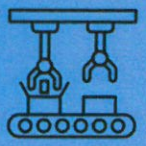
This programme offers a comprehensive simulation of a full PLC system, from virtual wiring to logic development and testing. Participants will learn how to map inputs and outputs, tag components, and simulate control systems using Factory I/O. It is ideal for electrotechnical trainees, automation technicians, and educators.

INTEGRATING FACTORY I/O WITH HMI AND SCADA SYSTEMS

This programme focuses on integrating Factory I/O simulations with HMI and SCADA platforms using protocols such as OPC and Modbus. Participants will learn how to visualize process data, configure dashboards, and simulate supervisory control. It is ideal for technicians and engineers involved in control room operations and system monitoring.

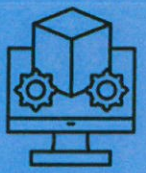
AUTOMATION TRAINING

BEGINNER LEVEL



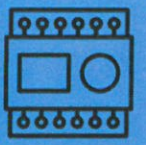
HANDS-ON INTRODUCTION TO INDUSTRIAL AUTOMATION USING FACTORY I/O

This beginner-level programme introduces participants to the fundamentals of industrial automation through a virtual factory simulation. Using Factory I/O, learners will explore basic control logic, sensor-actuator interaction, and process visualization in a safe and interactive environment. The course is ideal for new technicians, TVET students, and entry-level staff in manufacturing.



DIGITAL TWIN FOR BEGINNERS : BUILDING A VIRTUAL FACTORY

This programme introduces the concept of Digital Twin through a practical, simulation-based approach using Factory I/O. Participants will learn how to create a virtual representation of a factory process, visualize operations in real time, and understand the role of digital twins in smart manufacturing. The course is ideal for entry-level technicians, TVET students, and production staff preparing for Industry 4.0 transformation.

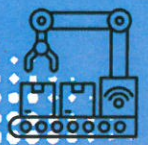


PLC LOGIC SIMULATION USING FACTORY I/O

This programme introduces participants to PLC logic development using Factory I/O's built-in simulation tools, eliminating the need for physical PLC hardware. Participants will learn to create, test, and troubleshoot FB logic in a virtual environment, making it ideal for institutions and companies with limited access to automation equipment.

UNDERSTANDING INDUSTRIAL SENSORS AND ACTUATORS THROUGH SIMULATIONS

This programme focuses on the core components of automation: sensors and actuators. Using Factory I/O, participants will simulate various sensor types and actuator responses in a virtual factory setting. The course is ideal for maintenance staff, junior technicians, and TVET learners seeking hands-on understanding of industrial components.



SMART FACTORY CONCEPT MADE SIMPLE [FACTORY I/O WORKSHOP]

This workshop-style programme introduces smart factory principles in a simplified, hands-on format. Participants will explore key Industry 4.0 technologies such as automation, connectivity, and data visualization using Factory I/O. The course is ideal for production staff, upskilling programmes, and cross-functional teams.

AUTOMATION TRAINING

PROFESSIONAL LEVEL

IMPLEMENTING INDUSTRY 4.0 CONCEPTS USING FACTORY I/O AND PLC CLOUD

This programme introduces participants to cloud-based automation and remote control using Factory I/O and virtual PLC platforms. Learners will simulate remote access, cloud monitoring, and distributed control systems aligned with Industry 4.0 principles. It is ideal for smart factory planners, automation engineers, and digital transformation leaders

VIRTUAL COMMISSIONING AND TESTING OF AUTOMATED LINES

This programme focuses on pre-commissioning and testing of automated systems using Factory I/O. Participants will simulate full production lines, validate control logic, and identify integration issues before physical deployment. It is ideal for system integrators, automation consultants, and commissioning engineers.

TEACHING AUTOMATION REMOTELY WITH FACTORY I/O (LECTURER EDITION)

This programme equips educators and trainers with the tools and strategies to deliver automation training remotely using Factory I/O. Participants will learn how to design online modules, manage virtual labs, and assess learners effectively in a distance learning environment. It is ideal for TVET lecturers, polytechnic instructors, and corporate trainers.

BUILDING MECHATRONIC SYSTEMS WITH FACTORY I/O AND ARDUINO/IOT

This programme bridges virtual simulation with physical prototyping by integrating Factory I/O with Arduino and IoT devices. Participants will learn how to simulate, control, and monitor real-world mechatronic systems using hybrid setups. It is ideal for STEM educators, makerspace facilitators, and polytechnic students.

ENERGY EFFICIENCY AND AUTOMATION SIMULATION WORKSHOP

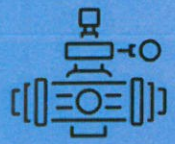
This programme focuses on optimizing energy usage in automated systems through simulation and analysis. Participants will use Factory I/O to model energy consumption, identify inefficiencies, and propose control strategies for energy savings. It is ideal for energy managers, maintenance teams, and sustainability officers.

AUTOMATION TRAINING

DEPLOYABLE SKILLS

PROGRAMMABLE LOGIC CONTROLLER SIMATIC S7-1200 WITH TIA SOFTWARE

The training introduces TIA Portal for Simatic S7-1200 PLCs, covering hardware basics, programming, and error handling. Participants learn to create and expand small PLC programs, clear faults, and gain an overview of operator control and monitoring for integrated engineering.



PRACTICAL INDUSTRIAL ELECTRO-PNEUMATIC

The training provides understanding of industrial pneumatic systems, their concepts, advantages, and limitations. Participants learn electro-pneumatic principles, physics, components, and circuit diagrams, explore industry applications, and gain practical skills in troubleshooting and safety regulations for manufacturing environments.

PRACTICAL INDUSTRIAL HYDRAULIC - MAINTENANCE & TROUBLESHOOTING

The training provides understanding of industrial hydraulic systems, their concepts, advantages, and limitations. Participants learn hydraulic principles, physics, components, and circuit diagrams, explore industry applications, and gain practical skills in troubleshooting and safety regulations for manufacturing environments.

SENSOR & DAQ SYSTEM INTEGRATION

The training introduces sensors as devices converting physical quantities into readable signals. Participants explore everyday applications and learn about various sensor types, including inductive, capacitive, and photo-electric technologies, alongside DAQ system integration for practical use in manufacturing, robotics, and industry.