

Hafiz Hardiansyah Pratama

Automation Solution Architect (OT/IT)

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SUMMARY

Solution Architect with over 6 years of experience in Industrial Automation, specializing in SCADA, PLC, and OT/IT integration. Expert in designing digital architectures (MING Stack, SQL) for plant data transformation and legacy system modernization. Strong technical foundation in DCS/SIS engineering for the Oil & Gas and process industries.

CORE SKILLS

- **Control Systems:** DCS (Emerson DeltaV), SIS, PLC Programming (IEC 61131-3), SCADA (AVEVA, Indusoft).
- **Digitalization & IT:** IIoT (MING Stack), SQL Server, Web Dashboard (HTML/PHP/JS), Grafana.
- **Networking & Security:** Secure Routing, MTCNA Certified, Modbus TCP/Serial, CANbus, Ethernet.

PROFESSIONAL EXPERIENCE

PT. Danfoss Indonesia | Automation Solution Architect (OT/IT) 2022 - Present

- **System Design & Engineering:** Leading end-to-end Electrical & Automation architectural designs for Greenfield and Brownfield projects, translating P&ID requirements into technical frameworks for tenders and implementation.
- **IIoT Infrastructure:** Developed and implemented a functional MING Stack (Mosquitto, InfluxDB, Node-RED, Grafana) infrastructure for real-time data visualization from edge devices to advanced dashboards.
- **Full-Stack Development:** Architecting custom web-based monitoring platforms using HTML, PHP, and MySQL to provide flexible, tailored data visualization solutions.
- **Cybersecurity & Networking:** Engineering secure Network Routing architectures to bridge local SCADA systems with corporate headquarters, ensuring robust data transmission while maintaining industrial cybersecurity integrity.
- **Advanced Data Analytics:** Developing complex SQL integrations and DB-to-DB synchronization to acquire data from Weighbridge systems; automated the calculation of Specific Fuel Consumption (SFC) by correlating fuel consumption (Liters) with power output (kWh) from Deepsea controllers.
- **Advanced Analytics:** Developing complex SQL integrations (DB-to-DB) to automate critical daily reports, including Specific Fuel Consumption (SFC) and throughput efficiency (TPH/OER).
- **Technical Mentorship & Sales Support:** Serving as a technical consultant for sales teams on emerging technologies and mentoring junior engineers in advanced PLC/SCADA programming.

PT. Control Systems Arena Para Nusa | DCS/SIS System Engineer

2019 – 2022

- **Critical Control Engineering:** Configured and commissioned Emerson DeltaV DCS/SIS for Oil & Gas and Chemical industries, ensuring 100% compliance with functional safety standards (ESD & F&G).
- **System Modernization:** Led the migration of legacy control systems to modern DCS platforms, managing over 1,800 I/Os for major clients including Pertamina EP and Pupuk Kaltim.
- **HMI Standards:** Implemented High-Performance HMI (ANSI/ISA-101.01) graphics, significantly enhancing operator situational awareness and alarm management.
- **Integration & Documentation:** Integrated third-party subsystems via Modbus protocols and authored comprehensive technical specifications (FDS, HDS, Loop Drawings).

SELECTED PROJECT HIGHLIGHTS

SCADA & Data Intelligence | PT. Bio Inti Agrindo (Merauke)

- Migrated CMC Sterilizer control to SCADA; configured **Windows Server & SQL** to automate TPH and **OER (Oil Extraction Rate)** reporting
- Developed data verification logic by comparing Weighbridge data against Radar Sensors and Coriolis Flowmeters to ensure 100% accuracy in production output.

IIoT & Energy Optimization | Dharma Satya Nusantara (PKS 12)

- Established Modbus communication to acquire kWh data from Deepsea controllers and fuel consumption (Liters) from flowmeters to automate daily Specific Fuel Consumption (SFC) reporting.
- Implemented DB-to-DB synchronization to fetch Weighbridge data, providing seamless integration between floor production and management analytics.

Gas Compressor SIS Engineering | Pertamina EP (SKG Betung)

- Engineered and commissioned Emerson DeltaV Safety Instrumented System (SIS) for low-pressure gas compressor units.
- Ensured 100% adherence to functional safety, Emergency Shutdown (ESD), and Fire & Gas (F&G) logic for production optimization.

EDUCATION

S.Tr.T in Industrial Electrical Automation Engineering (Bachelor of Applied Engineering) | State Polytechnic of Jakarta

- **GPA:** 3.65
- **Thesis:** Water Supply System Based on Industrial Internet of Things (IIoT).
- **Industry Partnership:** Developed a functional IIoT prototype sponsored by PT. PAM Lyonnaise Jaya (PALYJA), focusing on real-time water distribution monitoring and data acquisition.

CERTIFICATES

MikroTik Certified Network Associate (MTCNA) | MikroTik (2025)

Certified Industrial Automation System Specialist (PLC & SCADA) | BNSP Indonesia (2019)

Certified Domestic Electrical Installation Specialist | BNSP Indonesia (2019)

1st Runner Up - National PLC Competition | State University of Jakarta (2017)