MUHAMMAD SAIFULLOH

MESSAGE | EMAIL | WEBSITE | LINKEDIN

Hardware Supervisor & Embedded Engineer with 5+ years of experience in end-to-end IoT system design. Expert in C/C++ based firmware development on STM32, nRF Series, and ESP32 architectures. Specialist in industrial protocol integration (Modbus RTU/TCP, CAN Bus, EtherCAT) and reverse engineering of PLC systems for modern connectivity. Has scientific publications related to Wireless Sensor Network (WSN) and a track record of building factory IoT infrastructure from scratch.

EDUCATION

AMIKOM YOGYAKARTA UNIVERSITY – *YOGYAKARTA, INDONESIA*   2021-2025

Bachelor Degree in Computer Engineering (**IPK: 3.44 / 4.00**)
- Studied networking and design.
- Developed expertise in programing, troubleshooting, and implementasion.
- Building IoT system . releated in smart home , smart farming, embanded and comuniccation over networking.

ORGANIZATIONAL EXPERIENCES

AMIKOM ASSISTANT FORUM – *YOGYAKARTA, INDONESIA*   2022-2023

Assisted in pratical sessions and guided students in computer networks, web development, graphic design, and operating systems.

WORK EXPERIENCES

-| IT IOT DEVELOPMENT SPV | PT Pesta Pora Abadi   MEY 2025 - PRESENT

Designing and deploying end-to-end Industrial IoT infrastructure by integrating legacy production lines (Siemens/Hyundai PLCs) into modern monitoring systems via sniffing and dummy integration techniques. Responsible for the full-stack architecture of real-time production monitoring and supply chain systems using the ESP series, while managing high-integrity industrial data communications through RS485 (Modbus), RS232, and CAN Bus. Additionally, engineered custom PCBs and developed an encrypted OTA (Over-the-Air) system for secure, mass remote firmware updates across the factory network.

-| FREELANCE HARDWARE & IoT DEVELOPER   2020 - PRESENT

Developed custom IoT solutions for clients, specializing in smart home automation, remote monitoring systems, and embedded systems. Designed and programmed micro controllers (ESP Series, STM Series, Arduino) using C/C++ and MicroPython. Successfully deployed over 25+ IoT projects, enhancing automation and efficiency based on client requests.

TECHINAL SKILLS

- MCUs: STM32, nRF Series, ESP32, ATtiny, Arduino.
- Protocols: Modbus, CAN Bus, Ether CAT, Zigbee, LoRa, ESP-NOW, I2C, SPI.
- Tools: PCB Design (EasyEDA/Altium), Logic Analyzer, Oscilloscope, MicroPython.
- Publication: WSN & IoT Implementation for Blankspot Areas (Journal, 2025).