

ADUBINA VICTOR ADEDAYO

Instrumentation, Control Systems & Power Electronics Engineer

Ibeju Lekki, Lagos, Nigeria | +234 8104080112 | adubinavictor@gmail.com | linkedin.com/in/adubinavictor

PROFESSIONAL SUMMARY

Instrumentation, Control Systems, and Power Electronics Engineer with 6 years experience spanning industrial automation, embedded systems, and renewable energy technologies. Hands-on experience with solar and inverter system installation (residential to utility-scale, 1.5kVA–10MW), power converter design and research, battery and energy storage system commissioning, and SCADA/PLC field commissioning. Combines strong field deployment experience and customer-facing technical support experience with power electronics engineering depth to deliver reliable, and safety-compliant energy solutions.

CORE COMPETENCIES

- Solar & Inverter Systems: installation and commissioning across residential, commercial, industrial and utility-scale ranges (1.5kVA–10MW); UPS systems for critical loads
- Power Electronics: multi-level inverters, DC-DC converters, bi-directional converters for energy storage, power factor correction, circuit design & simulation (MATLAB/Simulink, PLECS, PSIM)
- Control Systems: PLC Programming (Allen-Bradley, Siemens), DCS (Emerson DeltaV), SCADA (Wonderware, Ignition, WinCC, iFix), HMI Design
- Instrumentation: Calibration, P&ID interpretation, loop checks, flow/pressure transmitter troubleshooting, Coriolis flow meter zero verification & K-factor matching
- Embedded Systems & IoT: ESP32, STM32, Arduino, RS485, Modbus (RTU/TCP), HART, Profibus, DLMS/COSEM, sensor & actuator integration
- Tools: Primavera P6, AutoCAD, EPLAN, Altium, Proteus, LabVIEW | Languages: Ladder Logic, C++, Python
- Standards & Compliance: IEC, ISA, API, ATEX, SIL, HSE

PROFESSIONAL EXPERIENCE

Instrumentation & Control System Engineer — *Dangote Petroleum Refinery / Independent Project Monitoring Company*
Feb 2023 – Present

- Supervised and maintained detailed documentation, including wiring diagrams, P&IDs, and control panel layouts submitted by contractors.
- Commissioned and configured Siemens PLC and SCADA systems, ensuring reliable process automation in collaboration with the Schneider team.
- Conducted design and implementation of power conversion systems for industrial applications, including inverter-based systems for automation and control.
- Supervised system optimization, troubleshooting, and calibration of installed instruments (vortex flow meters, pressure transmitters) across offshore and onshore conditions.
- Led installation and commissioning of SCADA and HMI devices for production lines, resulting in a 15% increase in overall efficiency.

PRMS Skid Commissioning Engineer — *Zennergy West Africa (Hybrid)* *May 2025 – Present*

- Performed zero verification and K-factor matching for Coriolis flow meters per calibration certificates.
- Carried out modification and verification of flow computer firmware, including pressure compensation and base density values.
- Conducted loop checks, damping adjustments, and cut-off tuning for accurate flow and pressure readings.
- Configured SCADA communication parameters (Modbus addressing, baud rate, engineering units) for remote monitoring.

Research Intern (Electronics Lab) — *Proxynet Communications* *Jul 2022 – Feb 2023*

- Simulated and tested multi-level inverter topologies for renewable energy applications; assisted in developing power converter prototypes for microgrid integration.
- Performed hardware testing and validation using oscilloscopes and power analyzers; worked with microcontrollers, sensors, modules and actuators.

- Programmed and tested PLCs for automated batching and mixing systems; integrated industrial sensors/actuators for remote monitoring via Modbus RTU/TCP.
- Trained junior technicians on best practices in automation maintenance and troubleshooting.

Automation Engineer — *Crystotech Nigeria Limited (Hybrid)*

Feb 2020 – Jul 2022

- Installed solar and inverter systems and designed digital security and access control systems for buildings.
- Designed an IoT platform using PHP & MySQL for accident detection; maintained calibration and maintenance records per regulatory requirements.
- Worked on water quality monitoring and treatment projects for municipal and industrial facilities.

Engineer Trainee — *Equipment Maintenance Centre, University of Ibadan*

Jul 2019 – Jan 2020

- Trained on installation of solar and inverter systems ranging from 1.5kVA residential to 10MW utility-scale.
- Built flow rate measurement, pH monitoring/control, and liquid level control systems for water treatment applications.
- Designed a converter and heating block system using thermocouple, temperature controller, contactor and element.
- Created and maintained wiring diagrams, P&IDs, and control panel layouts; conducted equipment calibration and troubleshooting.

SELECTED PROJECTS

- Design & Implementation of a Multi-Level Inverter for Grid-Tied Renewable Energy Systems — reduced switching losses and improved power quality for solar/wind integration
- Bi-Directional DC-DC Converter for Energy Storage Systems
- Modeling and Control of Modular Multi-Level Converters for EV Charging Stations
- Implementation of a UPS System for Critical Loads; Power Factor Correction System for Industrial Applications
- IoT-Based Student Attendance Register using Fingerprint Sensor and Face Recognition
- Smart Energy Meter with IoT-Based Monitoring; IoT-based gas sensor device; Home Automation system; Vehicle tracking system

EDUCATION

Msc, Electrical and Electronics Engineering – University of Ibadan

Mar 2026 – Nov 2026 (In Progress)

B.Tech (Hons), Physics Electronics — Federal University of Technology, Akure

Nov 2015 – Aug 2021

High School Diploma: WASSCE/NECO- Educational Legacy College

Jan 2008 – Nov 2014

CERTIFICATIONS & MEMBERSHIPS

- Advanced Primavera P6 (Project Scheduling & Management)- Exemplar Global – May 2025
- International Association of Electrical, Electronics and Energy Engineering (IAEEEE) — Jul 2025
- International Association of Engineers (IAENG) — Apr 2025
- NIFEngM, Division of Nigerian Society of Engineers — Mar 2025
- Occupational Health and Safety (HSE) Certification — 2022
- Electrical Measuring Instrumentation — 2023

REFEREE

Available upon request