

Sharon Ngetich

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Profile

Control & Instrumentation Engineer with expertise in field instrumentation, PLC/HMI programming, automation, IoT, and industrial process control. Skilled in installation, troubleshooting, calibration, and maintenance across power generation, manufacturing, and smart automation systems. Currently enhancing skills in AWS Cloud Computing.

Education

Jomo Kenyatta University of Agriculture & Technology (JKUAT)

BSc. Control & Instrumentation Engineering — Second Class Upper (2020–2024)

Amazon Web Services (AWS)

Cloud Computing — Ongoing (Sept 2025 – Present)

Professional Experience

Maintenance Technician – Glacier Products Ltd(Dairyland) (Sept 2024 – Sept 2025)

- Conducted mechanical, electrical, and instrumentation maintenance (motors, sensors, RTDs, thermocouples).
- Implemented PID control system installations & troubleshooting.
- Managed refrigeration systems (chillers, compressors, cold rooms).
- Tracked KPIs (MTTR, MTBF, machine availability) using Excel.
- Performed root cause analysis and contributed to OpEx team to cut costs and improve reliability.

Instrumentation Intern – Kenya Electricity Generating Company (KenGen) (May–Jul 2022)

- Carried out loop checks, calibration, and maintenance of pressure, temperature, and level transmitters.
- Applied HART communicator for auto-calibration and performed cable management.

Industrial Systems Instrumentation & Automation (ISA) Training (Jul 2024)

- Hands-on experience with Siemens S7-1200 PLC programming using TIA Portal.
- Assembled panels, wired industrial controllers, and automated processes with actuators and field instruments.

Projects

Integrating PID with PLC Using Thermocouple Instead of RTD

- Designed and implemented a PID control system in Siemens S7-1200 PLC where the required RTD sensor was unavailable.
- Adapted the system by integrating a thermocouple and reconfiguring control logic in TIA Portal.

Automated Water Transfer System

- Developed an automated water transfer process using PLC and HMI.
- Integrated level sensor, ultrasonic sensor, pressure transmitters, flow sensor, motor, and dual valves for real-time monitoring and control.

AutoCAD Design – Chiller & Cold Room Floor Plan

- Created a detailed floor plan for a chiller and cold room facility using AutoCAD.
- Incorporated equipment layout, piping, and space optimization for improved functionality.

Smart Farm IoT Project

- Built a smart farm monitoring system using ESP32 and Blynk IoT app.
- Integrated temperature and humidity sensors to remotely monitor and control farm conditions.

Technical Skills

- Programming: Python, C++, MATLAB, Simulink, AutoCAD, Proteus
- Automation & Control: PLC, SCADA & HMI (TIA Portal V18), Process Control, PID Integration
- Cloud Computing: AWS (in progress)
- Troubleshooting & Maintenance: Electrical, Mechanical & Instrumentation Systems
- Root cause analysis & KPI tracking

- OSHA, FSMS & QMS compliance

Soft Skills

Teamwork | Communication | Leadership | Problem-solving | Time Management

References

Available upon request