Sharon Ngetich

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Profile

Analytical and mission-driven Control & Instrumentation Engineer with strong expertise in maintenance, process automation, and instrumentation systems. Skilled in preventive and corrective maintenance, troubleshooting, and process optimization across manufacturing and energy systems. Adept at transforming operational data into verifiable insights that enhance system reliability and sustainability — a foundation ideal for Monitoring, Reporting & Verification (MRV) and maintenance data frameworks. Currently expanding expertise in AWS Cloud Computing and IoT for digital monitoring and maintenance systems.

Education

BSc. Control & Instrumentation Engineering — Jomo Kenyatta University of Agriculture & Technology (2020–2024)
AWS Cloud Computing — Ongoing (2025–Present)

Experience

Maintenance Technician – Glacier Products Ltd (Dairyland) (Sept 2024 – Sept 2025)
• Conducted electrical, mechanical, and instrumentation maintenance for production and refrigeration systems.
• Implemented and troubleshot PID control systems to enhance process reliability.
• Monitored KPIs (MTTR, MTBF, availability) for maintenance improvement.
• Led RCA and OpEx initiatives to reduce downtime and enhance efficiency.
Industrial Systems Instrumentation & Automation (ISA) Training (Jul 2024 – Sept 2024)
• Programmed Siemens S7-1200 PLCs using TIA Portal for process automation.
• Designed and wired control panels integrating sensors and actuators.
• Applied logic design and troubleshooting to improve system performance.
Instrumentation Intern – Kenya Electricity Generating Company (KenGen) (May – Jul 2022)
• Calibrated and verified transmitters using HART communicators.
• Performed loop checks and assisted in plant instrumentation maintenance.

Projects

• Lifecycle Data Monitoring Dashboard – Built Excel-based dashboard for maintenance KPIs (MTTR, MTBF, uptime).
• Smart Farm IoT Monitoring System – Developed ESP32 + Blynk-based system for remote environmental monitoring.
• STM32 32-Relay Control System (FreeRTOS + Modbus RTU/TCP) – Designed relay controller with Modbus communication and multitasking.
• Automated Water Transfer System (PLC/HMI) – Programmed Siemens PLC integrated with sensors and HMI for process control.
• PID Integration Using Thermocouple Instead of RTD – Adapted PID system using thermocouples for temperature regulation.
• AutoCAD Design – Created optimized plant layout using AutoCAD.

Technical Skills

Maintenance & Reliability | PLC | SCADA | HMI | STM32 | FreeRTOS | Modbus RTU/TCP | MRV & Maintenance Data | Python | MATLAB | AWS | IoT Systems | RCA | Excel Analytics

Soft Skills

Analytical Thinking | Teamwork | Communication | Technical Writing | Problem-Solving | Time Management

References

Available upon request