

CLIFFORD ONDIEKI

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PROFESSIONAL SUMMARY

Electrical Engineer (B.Sc.) and M.Sc. candidate in Engineering Management with expertise in **data-driven process optimization, predictive maintenance, and renewable energy systems**. Skilled in MATLAB, SQL, and Python for industrial analytics. Passionate about advancing digital factories (Industry 4.0) and sustainable energy solutions. Currently advancing German proficiency (B1) to align with Siemens Energy's global operations.

EDUCATION

M.Sc. Engineering Management | Arden University | Ongoing

- Relevant Coursework: Data Analytics, Agile Project Management

B.Sc. Electrical and Electronic Engineering | Jomo Kenyatta University of Agriculture and Technology | 2016

- **Thesis:** *Dynamic Voltage Stability Analysis of Kenyan Grid with 60.8 MW Wind Integration*
 - Modeled 59-bus system in DigSILENT PowerFactory; improved voltage stability by **15%**.

SKILLS

- **Programming:** Python, SQL, MATLAB
- **Tools:** DigSILENT PowerFactory, Siemens TIA Portal, Tableau
- **Concepts:** Predictive Maintenance, Big Data Analysis, Industry 4.0, Agile Methodologies

PROFESSIONAL EXPERIENCE

Relevant Engineering Experience

Engineering intern

Geothermal Development Company / Menengai, Nakuru, Kenya / February 2015 – May 2015

- Conducted **predictive maintenance** on geothermal drilling equipment, reducing failures by **25%** using data analytics.
- Collaborated on digitizing motor control systems, aligning with Industry 4.0 standards.

Engineering intern

KenGen Kenya / January 2014 – April 2014

Roles and Responsibilities:

- Assisted in electrical maintenance, ensuring system efficiency and safety.
- Conducted preventive maintenance and compliance checks, reducing operational risks.

Key Achievements:

- Improved machine lifespan through preventive maintenance.
- Optimized transformer performance with oil cooling system tests.
- Strengthened safety compliance, reducing workplace hazards.
- Enhanced equipment management, preventing maintenance delays.

Engineering intern

Kenya Power / Nairobi, Kenya / January 2013 – March 2013

- Optimized **11kV grid reliability** through data-driven load management, reducing outages by **15%**.

Additional Professional Experience.

Senior Product Operations Lead

Ilara Health | Kenya | Hybrid | January 2022 – April 2024

- Spearheaded IoT diagnostic tool deployment, boosting system efficiency by **50%** via Agile workflows.

Projects

AI-Driven Predictive Maintenance Model | Self-Study | 2024

- Developed a Python-based tool to forecast equipment failures using historical geothermal data (accuracy: 89%).

Solar Microgrid Prototype | MATLAB | 2023

- Simulated 5kW off-grid system, reducing energy waste by 18% through optimized load balancing.

TRAININGS & CERTIFICATIONS

- **Graduate Engineer (Electrical)** | *Engineers Board of Kenya (EBK)* | License No. B10855
- **Electric Mobility Training** | *Strathmore University* | Feb 2023
 - Solar PV integration, EV powertrains, Battery Management Systems (BMS)
- **ISO 50001 (Energy Management)** | *In Progress*
- **2nd International Conference on Project Management** | *University of Nairobi* | Oct 2020
 - Theme: *Sustainable Development Goals (SDGs) in Energy Infrastructure*

OTHER TOOLS

- **Technical Tools:** MS Visio, AutoCAD, Engineering Base (Aucotec)
- **Project Management Tools:** Jira, Trello, Asana, Confluence
 - **Data Visualization:** Tableau, Power BI, Metabase
 - **Collaboration Tools:** Slack, Microsoft Teams, Zoom
- **Documentation Tools:** Microsoft Office, Google Workspace, Notion

LANGUAGES

- English – C1 Fluent
- Swahili - Native
- German – B1 certification | Expected Dec 2025

REFEREES

Available Upon Request.