

SANELE MNCUBE

Electrical Engineering Technologist (Graduate)

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PROFESSIONAL PROFILE

Motivated Electrical Engineering Technologist with a Diploma and recently completed Bachelor of Engineering Technology in Electrical Engineering, specialising in Heavy Current systems with foundational exposure to Light Current applications. Skilled in power systems, energy technologies, electrical protection, automation, and embedded systems development.

Hands-on experience developing Arduino-based smart systems and renewable energy monitoring solutions using sensors, relays, ESP8266 modules, and real-time data collection techniques. Seeking a graduate or trainee engineering opportunity to apply technical knowledge, gain industry experience, and contribute to engineering projects.

TECHNICAL SKILLS

- **Professional Skills:** Problem Solving, Team Collaboration, Adaptability, Analytical Thinking
- **Programming:** Python, C++, Assembly Language, Arduino Programming
- **Networking:** CCNA Fundamentals, IPv4/IPv6 Addressing, Cisco Packet Tracer
- **Software:** MATLAB, Simulink, LabVIEW, PSIM, PowerWorld, OrCAD Lite, SiMetrix, Fusion 360

EDUCATION

Central University of Technology – Free State

Bachelor of Engineering Technology in Electrical Engineering | Feb 2024 – Nov 2025

Diploma in Engineering Technology in Electrical Engineering | Feb 2022 – Nov 2023

ENGINEERING PROJECTS

Smart Home Control System

- Designed and developed a smart home prototype using Arduino Uno.
- Integrated sensors to automate LED lighting and fan control.
- Measured room temperature and displayed sensor data on LCD display.
- Performed circuit wiring, testing, troubleshooting, and system integration.

Solar Energy Efficiency Monitoring System

- Developed a solar monitoring system using Arduino and ESP8266.
- Measured voltage, current, temperature, humidity, and light intensity.
- Implemented servo motor control for solar panel positioning.
- Analysed environmental effects on solar energy performance.

CERTIFICATIONS

- CCNAv7: Introduction to Networks – Cisco (2025)
- MATLAB & SIMULINK Onramp – MathWorks (2022 - 2023)
- Digital Literacy Training – NEMISA NPC (2022)

ADDITIONAL INFORMATION

- Available for graduate programmes, internships, and trainee positions.
- Interested in Power Systems, Renewable Energy, Industrial Automation, and Electrical Infrastructure.
- Willing to relocate.

REFERENCES

Available upon request