

# **JEROME MUTITU WACHIRA CV**

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Phone: +254795357611

Residence: Nairobi, Kenya

Gender: Male

## **Professional Summary**

Detail-oriented and analytical B.Sc. Electronics graduate with a strong academic background and hands-on experience in circuit design, embedded systems, and sensor-based projects. Eager to contribute technical expertise in a dynamic and innovative environment. Strong foundation in electronics principles, excellent problem-solving skills, and a keen interest in technology development.

## **Education**

**Bachelor of Science (B.Sc.) in Electronics**  
SOUTH EASTERN KENYA UNIVERSITY  
2018 – 2022

## **Relevant Coursework:**

- Analog & Digital Electronics
- Microprocessors and Microcontrollers
- Electronic Instrumentation
- Communication Systems
- Embedded Systems
- Control Systems

## **Technical Skills**

Area	Skills
<b>Microcontrollers</b>	Arduino, Node MCU, Raspberry Pi
<b>Programming</b>	C, Python, Embedded C
<b>Simulation Tools</b>	Proteus, Multisim, MATLAB, LTSpice
<b>PCB Design Tools</b>	Eagle, KiCAD
<b>Technologies</b>	IoT, Sensors, Serial Communication, Wireless Modules
<b>Other</b>	Installation, Soldering, Debugging, Technical Report Writing

## **Projects**

### **Smart Energy Monitoring System**

- Developed a system using Node MCU and current sensors to monitor and transmit energy usage data over Wi-Fi.
- Implemented real-time updates on a mobile dashboard using Blynk App.

### **Object Counter Using IR Sensors**

- Designed and implemented an automatic object counter using IR sensors and microcontroller. Displayed count using a 16x2 LCD.

### **Digital Alarm Clock using RTC Module**

- Built a working prototype of a digital clock with alarm features using DS3231 RTC and Arduino.

### **Home Labs for cyber security in virtual environments**

- Running a Siem and XDR solution in Wazuh using virtual box, Ubuntu
- Running a network firewall in Pfsense using virtual box, kali linux, Ubuntu
- Others using raspberrypi

## **Attachment**

Kenya Electricity Generating Company PLC(KenGen)

- Maintenance transmitters
- Loop check of transmitters
- Calibration of sensors, alarm switches and transmitters
- Troubleshooting of Tri loop feedback
- Report writing

### **Workshop on IoT and Home Automation**

- Hands-on training on interfacing sensors with Node MCU and creating app-based controls.
- Raspberry pi projects

## **Languages**

- English – Professional Proficiency
- French – A1

## **Hobbies & Interests**

- Circuit prototyping, crypto mining, hardware hacking
- Reading about new electronics trends, Cyber security, Quantum computing, cloud
- Participating in tech forums and maker communities
- Cyber security awareness