

## CHARD ODHIAMBO

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### PROFILE

I am a telecommunications engineering student passionate about emerging wireless technologies, including 5G networks and edge computing. My expertise spans antenna design, signal processing, and network security, complemented by practical experience in HFSS, Simulink, and PCB layout design. Through my attachment at KBC, I have gained hands-on experience in broadcast transmission, IP networking, and real-time system monitoring, enhancing my understanding of telecommunications infrastructure. Additionally, my skills in PCB design, RF analysis, and cloud integration position me to contribute to cutting-edge connectivity solutions. I am eager to apply my skills in a dynamic environment that fosters innovation in 5G and edge computing.

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### SKILLS

- Wireless Communications and 5G Networks.
- PCB Design [KICAD and PROTEUS]
- Network Design and Management
- Digital Signal Processing
- Electrical Machine Maintenance
- Instrumentation and Control Engineering.
- Antenna design and performance Analysis
- Radio Frequency Analysis
- Digital Electronics Design
- Electrical Design Tools

## **EDUCATION**

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### **Dedan Kimathi University of Technology**

**Nyeri, Kenya**

Bachelor of Science in Telecommunication and Information Engineering

**July 2020 - Present**

### **Udemy**

PCB Design Course using KICAD

**May 2024 - Oct 2024**

### **Cisco Networking Academy**

Cybersecurity Fundamentals

**Sep 2022 – Feb 2023**

## **CERTIFICATION**

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Certified PCB Designer – Udemy

**Oct 2024**

Cisco Certified: Introduction to Cybersecurity – Cisco Networking Academy

**Feb 2023**

Digital Electronics Fundamentals – Mind Luster

**Feb 2025**

## **WORK HISTORY**

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### **Broadcast Transmission & Networking - KBC**

**Jan 2025 –**

**Present**

#### **Position: Trainee**

- Gained hands-on experience in broadcast transmission systems, including signal distribution and modulation techniques.
- Configuration and troubleshooting of IP networking for media transmission, enhancing my understanding of real-time data flow in large-scale networks.
- Worked with RF transmission equipment, ensuring optimal signal quality and system efficiency.
- Developed skills in real-time system monitoring, diagnosing, and resolving transmission issues to maintain seamless broadcast operations.
- Collaborated with senior engineers in maintaining and upgrading broadcasting infrastructure to meet industry standards.

### **Electrical Machines and Maintenance - KenGen**

**May 2023 – Aug**

**2023**

#### **Position: Trainee**

- Conducted maintenance of electrical systems, including motors, generators, transformers, and auxiliary circuits. Performed inspections and testing on electrical switchgear and control centers.
- Machine connections: Motor and generator connections using all the available methods of connections.
- Led electrical plant maintenance efforts, ensuring systems met operational standards.
- Maintained battery chargers, UPS, and standby lead-acid batteries.

### **Instrumentation and Control - KenGen**

**May 2023**

**– Aug 2023**

#### **Position: Trainee**

- Developed hands-on expertise with critical instrumentation, including relays, thermal sensors, and pressure sensors
- Ensured precision and reliability in control systems, directly contributing to efficient power generation
- Gained strong problem-solving skills by maintaining and optimizing essential equipment for continuous plant operations

**Electronics and PCB Design -Dedan Kimathi University of Technology  
2022 – Aug 2022**

**May**

**Position: Trainee**

- Design of power supply and Converter circuits using PROTEUS and MATLAB,
- Design of electronic materials such as Amplifiers using KiCAD and PROTEUS.

**Internet of Things and Embedded Systems**

- Arduino IDE Programming using Python and C++ for IoT applications
- Cloud Services: Familiar with using cloud platforms for data storage and remote access to IoT systems.
- Home automation and Smart farming: Familiar with sensors' selection and deployment for environmental monitoring and data collection.

**Electrical Installation and Wiring -Dedan Kimathi University of Technology  
2022 – Aug 2022**

**May**

- Completed electrical installation and wiring for a 4-storey building, ensuring compliance with safety IEEE standards.
- Developed wiring diagrams to guide layout and troubleshooting, enhancing project efficiency
- Demonstrated proficiency in electrical layouts, circuit continuity testing, and safe installation practices as per IEEE regulations.

**PROJECTS**

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**5G Rectangular Microstrip Patch Antenna Array Design.**

- Developed a microstrip patch antenna array for 5G applications, operating at 28 GHz. Used KiCad and HFSS for design and simulation to achieve high gain and efficient performance, with a focus on meeting 5G standards.

**Smart IoT Farming System (Smart GreenHouse):**

- Developed an IoT-based solution for monitoring environmental conditions in agriculture.
- Implemented real-time data collection and visualization for temperature, humidity, and soil moisture.
- Enabled efficient irrigation management based on sensor data to optimize water usage.
- Utilized cloud integration for remote monitoring and analysis of agricultural conditions.
- Improved decision-making processes in irrigation scheduling, promoting sustainable farming practices.

**REFEREES**

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Available on request