Curriculum Vitae

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Professional Summary

A highly motivated and experienced Electrical Engineer with a strong background in renewable energy and power systems. Proficient in conducting dynamic simulation studies, developing ANFIS-based models, and implementing advanced control strategies to enhance the stability and reliability of power systems. Committed to research and teaching, with a keen interest in integrating artificial intelligence and neural network methods in power system studies.

Education

Ph.D. in Electrical Engineering
Murang'a university of Technology,

Ongoing
Dissertation: Modeling an 11kv distribution feeder for enhanced power reliability

Master of Science in Electrical Engineering
Murang'a university of Technology,

December, 2021
Thesis: Illegal power connection in Kenya

Bachelor of Science in Electrical Engineering
Technical University of Kenya,

December 2017

Professional Experience

Electrical Engineer
Murang'a University of Technology

Murang'a Town
2013 to date

- Assist in the setup and maintenance of electrical engineering labs, ensuring all equipment was functional and up-to-date.
- Provide hands-on support to students during lab sessions, guiding them through experiments and troubleshooting issues.
- Support faculty in the preparation and execution of laboratory classes, including setting up experiments and managing lab resources.
- Guid students in the practical aspects of their coursework, helping them understand complex concepts through hands-on experience.
- Assist in the supervision of student projects, providing technical advice and ensuring projects met academic standards.

Research Interests

- Fault Ride-Through (FRT) in Wind Power Plants
- Model Predictive Control Strategies for power distribution
- Integration of Artificial Intelligence and Neural Networks in Power Systems
- Wind Energy Harvesting Technologies
- Dynamic Simulation Studies for power distribution
- Voltage Quality Assessment in Power Grids

Professional Affiliations

- Member, Institute of Electrical and Electronics Engineers (IEEE)
- Member, Institute of Engineers and Technologist

Technical Skills

- MATLAB and Simulink
- ANFIS and Neural Network Methods
- DigSilent
- Renewable Energy Systems
- Electrical Transient Analysis in power system
- Power Systems Simulation

Projects

- **Car Clock-In Management Unit**: Developed a system to record the number of times staff use their personal vehicles for mileage allowance purposes.
- **Automated Vehicle Entry and Exit Control System**: Designed and implemented a control system for Murang'a University of Technology.
- **Solar-Powered Sand Screening Mechanism**: Led the development of a sustainable sand screening solution.
- **Off-Grid IoT-Based Wireless Electric Vehicle Charging Station**: Developed a project focusing on renewable energy and IoT integration.

Referees

1. **Prof. Engineer Christopher Maina,**

   Dean school of Engineering and Technology,

   Murang'a University of Technology,

   Email: cmmuriithi@mut.ac.ke

2. **Prof. Engineer Livingstone Ngoo,**
   Multimedia University of Kenya,
   Email:livingngoo@gmail.com