

CURRICULUM VITAE

PERSONAL DETAILS

Name: Stephen Muchai Kimathi
Date of Birth: 30th May 1988
Gender: Male
Marital Status: Single
Nationality: Kenyan
Religion: Christian
Languages: English and Swahili

CONTACT DETAILS

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CAREER OBJECTIVE

- To progress in the field of electrical engineering within a progressive institution that will give me the scope to utilize and update my knowledge and skills by being part of a team that works dynamically towards efficient service delivery.
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EDUCATION BACKGROUND

- **June 2018:** Masters of Science Electrical Engineering (Control Engineering) from Jomo Kenyatta University of Agriculture and Technology.
Thesis Title: '*Design of an online adaptive controller for active disturbance rejection in a fixed wing UAV using reinforcement learning and differential games*'.
- **April 2014:** Bachelor of Science Electrical and Electronics Engineering from Dedan Kimathi University of Technology Attained: **Second Class honors, Upper division.**
- **Nov. 2005:** Kenya Certificate of Secondary Education from Kanyakine High School. Attained mean grade: **B+**
- **Nov. 2001:** Kenya Certificate of Primary Education from Joyvilla Academy
Attained: **363/500 marks.**

OTHER QUALIFICATIONS

- Certified Public Accountant, (CPA). Attained **CPA part III section 6**

COMPUTER SKILLS

Windows, Unix platform, MS office suite, MATLAB, Programming in Python and C++.

WORKING EXPERIENCE

May 2019-June 2019

Chairman, Electrical and Electronic Engineering Department.

- Chief Examination officer of the department
- General administrative duties of the department

September 2013 to date, Dedan Kimathi University of Technology

Tutorial Fellow, Electrical and Electronic Engineering Department.

Responsibilities include;

- Exam coordinator
- Teaching control engineering and electronics units
- Guiding and supervising students implementing their projects.

Teaching Assistant, Electrical and Electronic Engineering Department.

My responsibilities consisted;

- Projects coordinator
- Offering tutorials

January 2016 – August 2017, Kirinyaga University

Part – time Lecturer, Mechanical and Electrical Engineering Department

Units taught: - Control Systems and Power Systems Control
- Telecommunications Principles
- Power Electronics

February – May 2012, Kenya Generating Company (KENGEN)

Intern: My main responsibilities were:

- Troubleshooting and monitoring of operations using Programmable Logic Control through supervisory control and data acquisition system, SCADA.
- Maintenance and operation of power generating machines; generators, motors, transformers and switch gears.

February 2011 - April 2011, Kenya Broadcasting Corporation (KBC)

Intern: I was attached at the broadcasting house and my responsibilities were:

- Maintenance and operation of broadcasting equipment i.e graphic servers, vision mixers, video and audio distribution systems, satellite transmission systems and routing of signals and monitoring of signal levels; picture quality
- Operations of digital terrestrial television, DTT/DVB-T

January 2010 – March 2010, Ministry of Works- Nyeri province

Intern: I was attached in the electrical department and I got to learn;

- Electrical wirings and installations
- Structured Cabling and Compressor systems

MEMBERSHIPS

- Registered Graduate Engineer with Engineers Board of Kenya, No. B11148.

PUBLICATIONS AND CONFERENCES

- Kimathi S., Kang'ethe S. and Kihato P., "UAV Heading Control in Windy and Turbulent Conditions Using Reinforcement Learning", IOSR-Journal of Electrical and Electronic Engineering, Vol. 13, 2018.
- Kimathi S., Kang'ethe S. and Kihato P., "UAV Heading Controller Using Reinforcement learning", Pan African Conference on Science, Computing and Telecommunication (PACT 2017), Strathmore University, March 2017.
- Kimathi S., Kang'ethe S. and Kihato P., "Application of Reinforcement Learning in Heading control of a fixed wing UAV using X-Plane Platform", International Journal of Scientific & Technology Research, Vol. 6, 2017.
- Kimathi S., Kang'ethe S. and Kihato P., "A Review of Control algorithms for fixed wing UAVs", 2nd DeKUT International Conference on Science, Technology, Innovation and Entrepreneurship, DeKUT, November 2016.
- Muchiri N. and Kimathi S., "A Review of Applications and Potential Applications of UAVs", Proceedings of the 2016 Annual Conference on Sustainable Research and Innovation (SRI), Kenya School of Monetary Studies, May 2016.

WORKSHOPS ATTENDED

- ❖ 2nd Moi University/Higher Education Partnership Sub-Saharan Africa Program (HEPSSA), 'Enriching Engineering Education' workshop, December 2017.
- ❖ KENET, One-Day Engineering Education Forum, October 2015

REFEREES

Dr. Ciira Maina PhD

Electrical and Electronic Engineering,
Dedan Kimathi University of Technology,
P.O. Box 657 – 10100, Nyeri.

Dr. Harrison Ng'etha PhD

Dean,
School of Engineering,
Dedan Kimathi University of Technology,
P.O. Box 657 – 10100, Nyeri.

Prof. Samuel Kang'ethe PhD

Electrical and Electronic Engineering,
Jomo Kenyatta University of Agriculture
and Technology,
P.O. Box 62000 – 00200, Nairobi.