

PAULINE KORUKUNDO

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EDUCATION

MSc. Electrical and Electronic Engineering

University of Nottingham

September 2014 – Sept 2015

Nottingham, UK

- **Distinction**

- **MSc. Project:** ‘An Accelerated Algorithm for an Altered Reality Display System’, a project illustrating the benefit of CUDA C++ over MATLAB GPU in accelerating parallel algorithms.

BSc. Telecommunications Engineering

Makerere University

August 2007 – May 2011

Kampala, Uganda

- **Honors Degree (Second Class Upper Division)**

- **BSc. Project:** ‘Implementation of an Asterisk - Based Healthcare Contact Centre’

COURSES AND CERTIFICATIONS

- **Certified LabVIEW Associate Developer (CLAD)**, National Instruments, June 27th 2011 – July 1st 2013
- **Certificate of Completion, MotoHawk for the MATHWORKS MATLAB/ SIMULINK**, New Eagle LLC, September 2012
- **Certificate in Foundations of Management Specialization**, IESE Business School, University of Navarra, Barcelona, Spain 2016
- **Automotive Assembly and Manufacturing**, Automotive Training Academy, South Africa, Oct 2016 – Nov 2016

PUBLICATIONS

- “Development of the KIIRA EV SMACK Supervisory Control Firmware”
- “Design Space Exploration and Hybridization of the Kiira-EV SMACK”
- “Design Considerations for Optimizing Real -Time Vehicle Control and Communication for the KIIRA EV”
- “Architecture for a Healthcare Contact Center for Tele -consultation in Uganda,”

CONFERENCES PRESENTED AT

- 1st OMICs International Conference and Exhibition on Automobile Engineering, OMICs 2015, Valencia, Spain
- 3rd International Symposium on Energy Challenges and Mechanics, ISECM 2015, Aberdeen, Scotland, UK
- 1st National Conference on Communications, NCC 2011, Kampala, Uganda

SKILLS

- Programming Languages: Knowledgeable in Java, MATLAB, Raptor MotoHAWK, LabVIEW, CUDA, VHDL, SQL, and proficient in C++
- Database management and systems engineering

PROFESSIONAL EXPERIENCE

Engineering Lead

Zembo Motorcycles SMC Ltd

July 2021 – March 2022

Kampala, Uganda

- Electrical Motorcycle Research and Development
- Led the selection and testing of an improved powertrain for the Zembo Storm model
- Swap Station Energy System Setup and Monitoring

Vehicle Integration Manager

May 2016 – May 2021

Kiira Motors Corporation

Kampala, Uganda

- Led the technical team on the Bulamu Medical Ventilator Project to development of Prototype 4
- Developed backend software for the ‘Bulamu’ Medical Ventilator using C++
- Electric Bus Assembly – powertrain, electronics and interior assembly
- Led the advanced product quality planning and supplier accreditation for custom vehicle parts
- Developed, validated and maintained control software for prototype vehicles
- Monitored product standards and implemented quality-control programmes
- Developed test specifications, datasheets, supplier manuals, statements of work and proposals
- Worked with *Uganda National Bureau of Standards Committee on Transportation*: Developed standards including US:1928 Bus Body Construction Standard; EAS 53:2000 Retreaded Tires Specification; US ISO 1176:1990 Road vehicles - Masses - Vocabulary and codes; and US ISO 3833 - Road Vehicles - Types - Terms & Definitions Contracts Committee (2018 - 2022)

Researcher – Vehicle Electronics and Information Systems

May 2013 – April 2016

Kiira Motors Corporation

(Study Leave: Sept 2014 – Sept 2015)

Kampala, Uganda

- Design analysis and technical documentation
- Developed control algorithms for control units using MATLAB Simulink & Motohawk
- Vehicle and system level testing
- Led the Kiira EV SMACK hybrid vehicle project as an Assistant Project Manager
- Saved the company \$10,000 by working with one of the suppliers to provide raptor development tools to upgrade the vehicle control units and software for the Kiira Vehicles.

Research Assistant – Vehicle Electronics and Information Systems

July 2011 – April 2013

Kiira EV Project, CRTT, Makerere University

Kampala, Uganda

- Design analysis and technical documentation
- Developed an onboard diagnostics tool and control logic for CAN-based vehicle control units

Student Developer and Intern

August 2008 - July 2011

Academic Records Management Systems’(ARMS) Project

Kampala, Uganda

- Business process modeling for health care system in one of Uganda's most remote districts
- Developed an online portal for multimedia end user documentation and help center content
- Developed budgeting and financial planning reports
- Participated in basic programming projects in C++, C# and Perl
- Managed network operations and configured Linux servers at Ministry of Health, Uganda
- Developed the Integrated Clinic Enterprise Application using .NET Framework at IDI, Mulago, Uganda

PROJECTS

Design of an eBike minimum viable product for Karaa (formerly known as Charge Ko), Chief Technical Officer, August 2022 – to date

AWARDS

- **Country Winner Award**, Automotive and Components sector category, Africa's Most Influential Women in Business and Government, Great Lakes Region, CEO Global, 2018
- **Lifetime Achiever Award**, Most Influential Women in Business and Government, Great Lakes Region, CEO Global, 2019

MEMBERSHIPS

Uganda Institution of Professional Engineers – **Corporate Member**

REFEREES

- **Dennis Kibalama**, Research Associate Engineer, Center for Automotive Research, College of Engineering, The Ohio State University, Columbus, Ohio, U.S.A kibalamadennis@gmail.com
- **Dr. Cosmas Mwikirize**, Lecturer, Department of Electrical and Computer Engineering, Makerere University, Kampala, Uganda, cosmas.mwikirize@mak.ac.ug
- **Doreen Orishaba**, Electric Bus Product Manager, Basigo, Nairobi, Kenya. dorishaba@gmail.com