



**LUCY PATRICIA ONUNDO**

**[NYS Engineering Institute(NYSEI), Technician Part I, II & III (KNEC)  
Diploma in Technical Education (KTTC), HDip. (KNEC), BSc. (JKUAT),  
MSc. (UoN), Currently Ph. D. Student, Electrical and Electronic  
Engineering at University of Nairobi, UoN]**

**NATIONALITY:** Kenyan

**MARITAL STATUS:** Married

**CONTACTS Office:**

Department of Electrical and Electronic Engineering

School of Engineering and Technology, SOET

Technical University of Mombasa, TUM

Tudor, Tom Mboya Street, P.O. Box 90420 - 80100, Mombasa Kenya

Email: [luonundo@tum.ac.ke](mailto:luonundo@tum.ac.ke)

**CONTACTS Private:**

Email:

[plkasukuh@gmail.com](mailto:plkasukuh@gmail.com)

[patricialucyonundo@yahoo.com](mailto:patricialucyonundo@yahoo.com)

[patricialucyonundo@gmail.com](mailto:patricialucyonundo@gmail.com)

P.O. Box 86418, Mombasa

GPO Code: 80100

Mobile: +254723751913 Kenya

**PROFESSIONAL STATUS:**

1. Engineers Board of Kenya (EBK), Graduate Engineer: B7823  
Kenya Engineers Registration Board, 31<sup>st</sup> July 2013
2. Graduate member IEK/HS/G.5505, Institution of Engineers of  
Kenya, IEK 10<sup>th</sup> July 2015

3. Professional Institution of Electrical and Electronics Engineers, IEEE Member 94364053, 17<sup>th</sup> May 2017:
  - i. IEEE Women in Engineering (WIE)
  - ii. IEEE Power and Energy Society (PES)
  - iii. IEEE Oceanic Engineering Society (OES)
  - iv. IEEE Technology and Engineering Management Society (TEM)
4. Special Introduction to Arbitration Course & Alternative Dispute Resolution, ADR for Institution of Engineers of Kenya, IEK members by Chartered Institute of Arbitrators CIArb, at Nairobi Club, Nairobi Kenya, 6<sup>th</sup> to 7<sup>th</sup> June, 2017
5. Participation in “Launch of the Women and Transformational Leadership Development Programme during Annual Gender Awareness Day held on 17<sup>th</sup> October 2015 hosted by Science, Technology, Engineering and Mathematics (STEM) as Faculty of Engineering and Technology, FoET Representative, TUM

#### **PERSONAL STATEMENT:**

My journey towards expertise and professional standards formulation are continually nurtured in building competitive academic capabilities, strong leadership, humanity, justice, dignity towards enhancing operations, security intelligence, maintenance and research foundation with a regulatory knowledge of Technology Practice and Engineering Design attributes.

Currently, I serve Technical University of Mombasa, TUM as an Assistant Lecturer, Matron, Engineering Students Association ESA and TUM Senate Representative for the School of Engineering and Technology, SoET.

- **Career Objective:** My zeal is to explore actualization of diverse Engineering and management skills both theoretical and practical to realize result-oriented career growth and development

- **Personal Profile:** Adaptive learner with great patience, ability and enthusiasm towards modeling of character and professionalism in problem solving that never leads to shame

## **SKILLS AND TRAINING:**

1. Currently Doctor of Philosophy (Ph.D.) Student in Electrical and Electronic Engineering at University of Nairobi  
Research in the field of Integrated Smart Infrastructure and Sustainable Underground Space Utilization
2. Training of Trainers Course on Eurocode 2 Design of Concrete Structures by Kenya Bureau of Standards, KEBS and Modulus Structural Engineering Limited (Owen Brooker), held at Gelian Hotel, Machakos from 23<sup>rd</sup> to 27<sup>th</sup> September 2019:
  - Basis of structural design
  - Eurocode 1: Actions on structures
  - Eurocode 2: Design of Concrete structures
  - EN13670: Execution of Concrete structures
  - EN 206: Concrete, Specification, Performance, Production & Conformity
3. As Matron, SoET Matron, Engineering Students Association, ESA  
Technical University of Mombasa TUM & IEK Member participated in:
  - Rapporteur, 26<sup>th</sup> Institution of Engineers of Kenya (IEK) International Conference 2019, Leisure Lodge Beach & Golf Resort, Diani, Kenya.  
Tuesday, 3<sup>rd</sup> September to Friday 6<sup>th</sup> September 2019
  - IEK Logistics Team, 26<sup>th</sup> IEK International Conference 2019  
The conference theme, “Overcoming the 21<sup>st</sup> Century Challenges” presented an opportunity to reflect on the current and future challenges facing the human race. Engineers being problem solvers have a rare and special opportunity to find out scientific and engineering solutions to the challenges which ranges from the increasing world population to climate change.
  - IEK Logistics Team, Professional Interview Preparation (PIP) at Reef Hotel in 22<sup>nd</sup> March 2019
4. Introduction to IEC Code in Structural Steelwork Design to the Eurocode Standards facilitated through Webinars arranged by The Steel Construction Institute, UK (David Brown) & The Doshi Group, Kenya from 6<sup>th</sup> February to 27<sup>th</sup> March, 2019.

5. Master of Science (MSc.) in Electrical and Electronic Engineering  
(Hydropower and Marine Energy) 22<sup>nd</sup> December 2017

**Supervisors:** Dr. Wilfred Njoroge Mwema, Dr. Wabuge Cyrus Wekesa, Prof. Mang'oli Maurice K. W. and Prof Absaloms Heywood Ouma, Department of Electrical and Information Engineering, University of Nairobi, Kenya  
+254 020 4913524 [dept-elec@uonbi.ac.ke](mailto:dept-elec@uonbi.ac.ke) P.O Box 30197, 00100 Nairobi

**Affiliation:**

- ODC Training Course on Climate Dynamics and Air-Sea Interactions
- Ocean Science and Engineering
- Physical Oceanography and Climatology
- The International Indian Ocean Expedition (IIOE)

6. Academy for Advanced and Further Education & Training, AFAFET TVET  
Monitor/Evaluator Training: AFT TVET M/E 01 – 0002 – 129:

- TVET Landscape of Kenya and regulatory role of TVETA
- Competence profile of TVET Monitors/Evaluators
- Regulation and tools of external quality assurance
- Quality Audits – planning, conducting and reporting

Written and Oral Competence Training awarded in cooperation of  
CADENA International Development Projects and TVETA: April 2019

7. Special Introduction to Arbitration Course and Alternative Dispute Resolution, ADR for IEK Members by Chartered Institute of Arbitrators, CIArb, 6<sup>th</sup> to 7<sup>th</sup> June 2017
8. Participation in IOC Sub-commission for Africa and Adjacent Island States, IOCAFRICA in Nairobi, Kenya.- Sino-Africa forum on Marine Science and Technology Forum on the Future of Sustained Ocean Observations in IOC Africa and Arab Countries Marine Science and Technology, organized by Mika Odido, IOC Coordinator in Africa from 9<sup>th</sup> to 13<sup>th</sup> April 2015
9. Bachelor of Science (BSc.) in Electrical and Electronic Engineering  
1<sup>st</sup> January 2009 – 30<sup>th</sup> November 2012

Distributed Energy and Stability of Power Systems Infrastructure  
Supervisors: Dr. Marangi Mbogho and Dr. Lawrence Mukhongo  
Jomo Kenyatta University of Agriculture and Technology, JKUAT

## EMPLOYMENT HISTORY:

1. TUM School of Engineering and Technology, SoET
  - i. Assistant Lecturer, Electrical & Electronic Engineering, 1<sup>st</sup> March, 2019
  - ii. TUM Senate Representative for SoET from 1<sup>st</sup> June 2018
  - iii. SoET Matron, Engineering Students Association, ESA from 19<sup>th</sup> April 2018
  - iv. Attachment in TUM School of Medicine project, 6<sup>th</sup> April 2016

Professional Supervisor: Prof. Eng. Richard Onchiri
2. Teaching Assistant, Technical University of Mombasa, May 2015
3. The Mombasa Polytechnic University College, Kenya, 26 June 2009 to 31 July 2011  
Department of Electrical & Electronic Engineering  
Grade 10A, 1<sup>st</sup> July 2011 and Grade 8A, 1<sup>st</sup> July 2009
4. TSC Lecturer - Department of Electrical & Electronic Engineering
  - i. The Mombasa Polytechnic College - Mombasa, Kenya  
8<sup>th</sup> May 2006 to 26<sup>th</sup> June 2009
  - ii. Rift Valley Institute of Science and Technology - Nakuru, Kenya  
December 2001 to 28<sup>th</sup> April 2006
  - iii. Kisumu Polytechnic College - Kisumu, Kenya  
25<sup>th</sup> September 1996 to December 2001
5. Engineering and Technology Trainee:
  - i. Lighting and Power circuits, Batteries, Motors, Generators and Transformers  
Technical Services at Kenya Electricity Generating Company Ltd, KENGEN  
Kipevu Thermal Power Station Department - Mombasa, Kenya. Supervision:  
Eng. Julius Odumbe (Operations Manager), 8<sup>th</sup> June 2012 to 10<sup>th</sup> August 2012
  - ii. Marine and offshore Engineering, Water distillation plant, Operational Safety and Health,  
and Environmental practices in the Workshop, 1<sup>st</sup> March 2011 to 30<sup>th</sup> April 2011  
Southern Engineering Company limited, SECO Mombasa, Kenya
  - iii. Maintenance Technician: Design and Installation of Security and Lighting systems for  
commercial and residential premises  
Freespan Security Agencies - Nairobi, Kenya, December 1994 to May 1995
  - iv. Industrial Attachment: General maintenance of Hotel and Catering equipment and  
machines: Laundry machines, Refrigerators, Domestic Kitchen appliances, Cold rooms,  
General Electrical Wiring and Conduits Laying  
Kenya Utalii College, 8<sup>th</sup> September 1993 to 31<sup>st</sup> December 1993

## **PUBLICATIONS, WORKSHOPS, TRAINING AND CONFERENCES**

1. Oral presentation, Uncertainty in measurement of Wave, Tidal and Current Energy resource conversion, “5<sup>th</sup> UNESCO Africa Engineering Week (AEW) & 3<sup>rd</sup> Africa Engineering Conference and 25<sup>th</sup> Institute of Engineers of Kenya (IEK) International Conference” held on 17<sup>th</sup> - 21<sup>st</sup> September, 2018, Pride Inn Beach Resort, Mombasa.
2. Engineers Dinner at Intercontinental Hotel, IEK transformation:  
100 Days scorecard, 17<sup>th</sup> August 2018, Institute of Engineers of Kenya
3. Publication, Estimating Marine Tidal Power Potential in Kenya  
World Academy of Science, Engineering and Technology, International Journal of Electrical and Computer Engineering Vol: 10, No: 7, 2 pp 1013-1017, 2016
4. Poster paper presentation, Assessment of Ocean Energy resource potential along the Western Indian Ocean, “Scoping Workshop on the Development of an Integrative Ocean Research Network” held on the 4<sup>th</sup> to 5<sup>th</sup> December, 2016 at the Cruise Terminal Ostseekai in Kiel, Germany jointly hosted by Future Earth, Future Ocean – Kiel Marine Science, ICSU, IOC, SCOR and WCRP.
5. Participation in Technical Pre-feasibility Study, “Promoting renewable energy electrification in Kenya Energize project Edulink Training by UNESCO. Energy for Sustainable development, Energy department Polytechnico di Milano, Scientific Coordinator Energize project, Nairobi, July 2016
6. Research grant (MSc.) Award - Estimating Tidal energy Potential along Kenyan Coastline NACOSTI/RCD/ST&I/7TH CALL/MSc/154 National Commission for Science, Technology and Innovation, NACOSTI, 25<sup>th</sup> April 2016
7. Participation in IEEE Virtual Event on Energy - Efficient Communications Technologies hosted by Kenya Education Network Trust (KENET) on The Role of Science, Technology and Innovation in the Post -2015 Development Agenda, International Scientific Research and Experimental Development
8. Publication, Assessment of Tidal Current Energy Potential at Lamu and Mombasa in Kenya, World Academy of Science, Engineering and Technology (WASET)  
International Journal of Electrical and Computer Engineering Vol: 9, No: 5, 2015

9. Poster paper presentation, Assessment of Tidal Current Energy Potential at Lamu and Mombasa in Kenya, CSIR-National Institute of Oceanography, Dona Paula 403004 Goa India, 30<sup>th</sup> November to 4<sup>th</sup> December 2015  
 "Dynamics of the Indian Ocean: Perspective and Retrospective," International Symposium on the Indian Ocean organized by National Institute of Oceanography.
10. Institute of Engineers of Kenya (IEK), Professional Interview Preparation (PIP) Seminar at Silver Springs Hotel on 22<sup>nd</sup> August 2015.  
 Training for professional development of members and preparation of candidates for the professional interviews
11. Oral presentation, Estimating Marine Tidal Power Potential in Kenya, ICEE 2015: 17<sup>th</sup> International conference on Electrical Engineering, May 11<sup>th</sup> to 12<sup>th</sup> 2015, World Academy of Science, Engineering and Technology, Montréal Canada International Scientific Research and Experimental Development, Vol: 2, No: 5, 15CA05000958
12. Poster paper presentation, Estimating Tidal Power Potential along Mombasa Coastline in Kenya National Commission for Science, Technology and Innovation Week, May, 11<sup>th</sup> to 12<sup>th</sup> 2015 The role of science, technology and innovation (STI) in the Post - 2015 Development Agenda
13. Participation in "Launch of the Women and Transformational Leadership Development Programme during Annual Gender Awareness Day held on 17<sup>th</sup> October 2015 hosted by Science, Technology, Engineering and Mathematics (STEM) Technical University of Mombasa SoET Representative
14. Participation in International Oceanographic Commission, IOC Sub-commission for Africa and Adjacent Island States – IOCAFRICA, UNESCO Regional Office for Eastern Africa UN Gigiri, Nairobi Kenya 9<sup>th</sup> to 15<sup>th</sup> April 2015
  - i. Sino Africa forum on Marine Science and Technology, 9<sup>th</sup> to 10<sup>th</sup> April 2015
  - ii. Future of sustained Ocean observations in IOC Group 5  
 (Africa and Arab countries), 11<sup>th</sup> to 15<sup>th</sup> April 2015
15. Oral presentation, Solution to Economic load dispatch using Particle Swarm Optimization (PSO) Kenya Society of Electrical and Electronic Engineers (KSEEE), 10<sup>th</sup> to 12<sup>th</sup> September 2014 International Engineering Conference, TUM  
 "Engineering Technology, Innovation and Entrepreneurship for a Green Economy"

16. Participation in First Kenya Association of Technical Training Institutions,(KATTI) Regional Conference Role of TIVET in Africa's Development Agenda, Sai Rock Resort, Mombasa, 25<sup>th</sup> to 30<sup>th</sup> August, 2013
17. Oral presentation  
Overview of Challenges in Power, Transmission and Utilization in Kenya:  
A Case Study on Standardization of Sustainable Utilization of Natural Resources to curb challenges of Energy distribution in remote and island regions of Mombasa, Kenya. Sustainable Research and Innovation (SRI), Conference AICAD, JKUAT, School of Mechanical, Manufacturing and Materials Engineering & Kenya Nuclear Electricity Board, (KNEB), 24<sup>th</sup> to 26<sup>th</sup> April 2013

### **EDUCATION AND ACADEMIC DEVELOPMENT:**

1. Higher Diploma in Electrical Engineering (Power Electronics option), KNEC, Mombasa Private, November 2006  
2000-2001: Kenya Technical Teachers College (KTTC), Gigiri, Nairobi, Kenya
2. Diploma in Technical Education, 4<sup>th</sup> May 1995 to 22<sup>nd</sup> July 1996  
Kenya Technical Teachers College (KTTC), Gigiri, Nairobi, Kenya
3. Certificate in Counseling, 1<sup>st</sup> August, 2008  
Kenya Association of Professional Counselors (KAPC) - Tudor, Mombasa, Kenya
4. National Youth Service (NYS) Servicewoman:  
25<sup>th</sup> July 1990 to 15<sup>th</sup> November 1994  
Basic Military Training,  
National Youth Service (NYS), College, Gilgil, Kenya, 1990: NYS Act, First Aid, Fire Fighting, Foot Drill, Physical Training, Hygiene and Discipline in general  
National Youth Service Engineering Institute, NYSEI, Nairobi, Kenya  
Electrical Engineering Technician Part III (KNEC), November/December 1996  
Electrical Engineering Technician Part II & I (KNEC): July 1990 and November 1994
5. Kenya Advanced Certificate of Education, KACE (KNEC)  
1988 to November/December 1989, Njoro Girls High School, Njoro, Kenya
6. Kenya Certificate of Education, KCE (KNEC), 23<sup>rd</sup> January 1984 to 4<sup>th</sup> December 1987  
Njoro Girls High School, Njoro, Kenya
7. Certificate of Primary Education, CPE (KNEC), December 1983  
Gilgil Township Primary School, Gilgil, Kenya



## **REFEREES:**

### **1. Prof. Peter Gichangi**

Deputy Vice Chancellor, (DVc.)

Academic Affairs and Research Extension (ARE)

[dvc.are@tum.ac.ke](mailto:dvc.are@tum.ac.ke)

Technical University of Mombasa (TUM)

Tudor, Tom Mboya Street, P.O. Box 90420 - 80100, Mombasa Kenya

### **2. Professor H. A. Ouma**

[houma@ieee.org](mailto:houma@ieee.org)

+254751505076

Department of Electrical & Information Engineering, University of Nairobi (UoN)

College of Architecture and Engineering, CAE

P.O. BOX 30197, GPO Code: 00100 Nairobi, Kenya.

### **3. Dr. Wilfred Njoroge Mwema**

[wnmwema@gmail.com](mailto:wnmwema@gmail.com)

+254722592780

Department of Electrical & Information Engineering, University of Nairobi (UoN)

College of Architecture and Engineering, CAE

P.O. BOX 30197, GPO Code: 00100 Nairobi, Kenya.