

ENG. PROF. NICODEMUS ABUNGU ODERO, PhD, CE (Kenya)
Consulting Electrical Engineer | Professor of Electrical Power Engineering

Machakos University, Faculty of Engineering
P.O. Box 136–90100, Machakos, Kenya
Tel: +254 713 028 362 | +254 20 2373 006
Email: abunguodero@gmail.com | abungu2004@yahoo.com
Nationality: Kenyan

PROFESSIONAL PROFILE

Professor and Consulting Electrical Engineer with over 30 years of experience in electrical power systems, renewable energy, power system planning, high-voltage engineering, and infrastructure design. Proven track record in academic leadership, postgraduate supervision.

PROFESSIONAL REGISTRATION & MEMBERSHIP

- Consulting Electrical Engineer, Engineers Board of Kenya (EBK), Reg. No. E493 (2021)
 - Professional Electrical Engineer, EBK, Reg. No. A2625 (2011)
 - Member, Institution of Engineers of Kenya (IEK), No. M4334
 - Member, Institute of Electrical and Electronics Engineers (IEEE), USA
 - Certified Electrician, Energy Regulatory Commission, License No. A1 003630
-

ACADEMIC APPOINTMENTS

Professor, Machakos University (March 2018 – Present)

- Teaching: Electrical Power Systems, Power System Economics & Planning, Energy Management
- Supervision of PhD, MSc, and undergraduate final year projects
- Curriculum development for MSc programmes

Associate Professor, University of Nairobi (July 2014 – February 2018)

- Taught postgraduate and undergraduate power systems courses
- Supervised PhD and MSc research
- Conducted Electrical Machines, Power Systems, and High Voltage laboratories

Senior Lecturer, University of Nairobi (March 2010 – July 2014)

Lecturer / Assistant Lecturer, Jomo Kenyatta University of Agriculture and Technology (1994 – 2008)

Acting Chairman, Department of Electrical & Information Engineering, University of Nairobi (September 2016)

EDUCATION

PhD in Engineering (Computational Electromagnetics)

Jomo Kenyatta University of Agriculture and Technology, 2002–2007

MSc in Electrical Engineering (High Voltage Technology)

University of Nairobi, 1990–1993

BSc in Electrical Power Engineering

University of Nairobi, 1987–1990

Additional Training:

- Application-Oriented Teaching & Applied Research, THI & HNU, Germany
 - Environmental Impact Assessment & Audit, JKUAT
 - Occupational Health, Safety & Environment, JKUAT
 - Industrial Attachments: OMRON, Hitachi, Fuji Electric, Japan
-

KEY TECHNICAL COMPETENCIES

- Power system planning, operation, and economics
- High-voltage engineering and protection systems
- Renewable and hybrid power systems
- Power system simulation and optimization
- Electrical infrastructure master planning
- Asset valuation and condition assessment
- Design and supervision of large-scale projects

Software: MATLAB, ETAP, NEPLAN, FEMLAB, AutoCAD, Visual Basic, Fortran, C, MS Office

POSTGRADUATE SUPERVISION

- Supervised over **15 MSc** and **4 PhD** candidates to completion
- Research areas:
 - Economic dispatch and optimization
 - Load forecasting and AI in power systems
 - Renewable and hybrid systems
 - Voltage stability and protection

RESEARCH & PUBLICATIONS

- Over **30 peer-reviewed journal papers** in power systems, optimization, renewable energy, and electromagnetics
- Over **20 international conference papers** (IEEE, ENERGYCON, POWERCON, AFRICON, etc.)
- Key journals: IJETAE, IJERT, IJSRP, IJRER, WSEAS Transactions

(Full publication list available on request.)

AWARDS & SCHOLARSHIPS

- DAAD Postgraduate Scholarship – MSc and PhD Studies
 - IEK Best Undergraduate Project Award
 - University of Nairobi Gandhi Smarak Nidhi Award
-

LANGUAGES

- English – Excellent
 - Kiswahili – Excellent
 - French – Good
-

PROFESSIONAL INTERESTS

- Electrical Power Systems & Smart Grids
 - Renewable Energy Integration
 - Engineering Education & Mentorship
 - Physical Fitness and Badminton
-

REFEREES

Available on request.

CERTIFICATION:

I, Eng. Prof. Nicodemus Abungu Odera, certify that this data describes me, my qualifications, and experience.

Signature:

A handwritten signature in black ink, appearing to be 'Akya', written on a light-colored rectangular background.

Date: 27th January, 2025