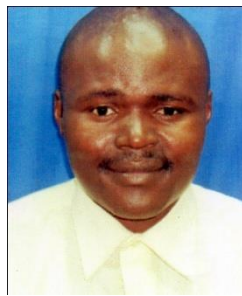


CURRICULUM VITAE



DR. GEORGE ERICK OMONDI, PH. D

1. PERSONAL DETAILS

NAME: Omondi George Erick

DATE OF BIRTH: 10th May, 1985

NATIONALITY: Kenyan

MARITAL STATUS: Married (has two children, one girl and one boy)

SEX: Male

RELIGION: Christian

DENOMINATION: Anglican Church

OCCUPATION: University Lecturer

LANGUAGE: English, Kiswahili, Dholuo

HOME ADDRESS: P.O Box 37-40612
Sawagongo, Kenya

WORK ADDRESS: P.O Box 333-40105
Maseno, Kenya

E-MAIL: omondigeok@yahoo.com
omondigeok@gmail.com
geomondi@maseno.ac.ke

CELL PHONE: +254 721 118 048

2. RESEARCH INTERESTS: Space Physics/ Theoretical Physics.

Research Topics

- Ionospheric Dynamics and electrodynamics using Magnetometers, Ionosondes, Global Positioning Systems (GPS) and its effects on ground and space based technological systems.
- Geomagnetically Induced Currents in the electric power grid.
- Variation of the equatorial electrojet (EEJ) and its role in the formation of the equatorial Ionization Anomaly (EIA).
- Detection of Equatorial Plasma Bubbles and their relationship with Total electron content (TEC) depletions in the ionosphere.
- Quantum entanglement

3. EDUCATIONAL BACKGROUND

SEPT.2014-DEC. 2017	Maseno University Ph.D in Physics
SEPT.2010-TO DEC.2013:	Maseno University Master of Science in Physics
SEPT.2005-NOV.2009:	Maseno University Bachelor of Education (Science with IT)-Mathematics and Physics major Score: First Class Honours
2006:	I Choose Life (ICL) training Learnt HIV/AIDS awareness and peer education
2000-2003:	Horace Ongili Secondary School Score: KCSE-B+(plus) 73 points
1992-1999:	Uriri Primary School

KCPE-477 marks out of 700 marks

Score: B+ (plus)

4. WORK EXPERIENCE

17TH DEC. 2017-TO DATE: Lecturer, Maseno University, Department of Physics & Materials Science. Teaching and supervising undergraduate and postgraduate students.

Conducting research in Physics.

Postgraduate Courses taught: Statistical Mechanics

Advanced Laboratory and Computational Techniques

Aeronomy

Principles of Plasma Physics and Space Plasmas

5TH JAN, 2015-TO DATE: Part time Lecturer Jaramogi Oginga University of Science and Technology, School of Biological and Physical Sciences.

Has taught and examined:

SPH 3111: Physics I

SPH 3121: Physics II

SPH 2121: Physics II

SPH 103: Optics

SPH 104: Thermal Physics

SPH 202: Electricity and Magnetism II

SPH 203: Mathematical Methods for Physics I

SPH 206: Empirical Ideas of Quantum Physics and Relativity

SPH 302: Thermodynamics

SPH 303: Quantum Mechanics I

SPH 401: Solid State Physics

SPH 402: Statistical Mechanics

SPH 403: Quantum Mechanics II

SPH 410: Electrodynamics

1ST OCT.2013-TO 16TH DEC. 2017: Tutorial Fellow at Maseno University in the department of Physics and Materials Science

Has taught and examined courses entitled :

- (i) SPH101: Mechanics
- (ii) SPH 102: Electricity and Magnetism 1.
- (iii) SPH 203: Mathematical Methods for Physics I
- (iii) SPH 205: Mathematical Methods for Physics II
- (iv) SPH 206: Empirical ideas of Quantum Physics and Relativity.
- (v) SPH 303: Quantum Mechanics 1
- (vi) SPH 315: Introduction to Space Physics
- (vii) SPH 402: Statistical Mechanics

SEPT.2010-TO SEPT 2013: Graduate Assistant at Maseno University in the department of Physics and Materials Science
Marked (graded) Undergraduate Physics laboratory
Practical reports.

MAY 2010-SEPT.2010: Teachers Service Commission
Teaching station: Sirinde Secondary School
Taught Mathematics and Physics
Became class teacher Form 4.

JAN.2010-MAY 2010: B.O.G teacher Maseno National School
Taught Mathematics and Physics
Became class teacher Form 2W
Assisted in coaching the football team

SEPT.2009-JAN.2010: B.O.G teacher Wang'apala High School
Taught Mathematics and Physics
Dormitory Master- Ng'oma dormitory

JAN.2004-AUG.2005: Untrained teacher Horace Ongili Secondary School
Taught Mathematics and Business studies

5. RESPONSIBILITIES

1ST FEB.2015-TO DATE: Examination and Timetabling coordinator of the department of Physics and Materials Science of Maseno University.

DEC. 2017-TO DATE: Member of the departmental Post-Graduate Studies Committee
Member of the departmental Curriculum Review Committee.

CHURCH MINISTRY

JUL. 2015-TO DATE: Member, Kenya Anglican Men's Association (K.A.M.A)

OCT. 2012-TO DATE: Lay reader at All Saints ACK-Maseno in Maseno Parish.
Patron of Youth ministry at All Saints ACK-Maseno

COMMUNITY SERVICE

MARCH 2019-TO DATE: Chairman, Board of Management, Huma Girls' Secondary School,
Kisumu County, Kenya

MARCH 2019-TO DATE: Member of the Board of Management of Horace Ongili Secondary
School, Siaya County, Kenya and Chairman of the Academic
Committee

MARCH 2019 –TO DATE: Member of Board of Management, Maseno Girls Primary School,
Kisumu County, Kenya

MARCH 2019-TO DATE: Member of Board of Management, Maseno Mixed Primary School,
Kisumu County, Kenya

6. SCHOLARSHIPS WON

Scientific Committee on Solar Terrestrial Physics (SCOSTEP)
Visiting Scholarship to South African National Space Agency
(SANSA). Period of the Scholarship: 1st February, 2016 to 30th
April, 2016.

7. CONFERENCES AND WORKSHOPS PARTICIPATION

29TH MARCH, 2021: Workshop on Machine Learning based reconstruction of the inner Magnetosphere.

Venue: Online. Link: <https://us02web.zoom.us/j/87388701921?>

28TH JANUARY, 2021: Workshop on GNSS for Policy and Decision Makers.

Venue: Online. Microsoft Teams Meeting

19TH-21ST JANUARY, 2021: Workshop of GNSS Data Processing for High-Accuracy Positioning using Low Cost Receiver Systems

Venue: Online “Microsoft Teams Meeting”

5TH-6TH OCTOBER, 2020: African Workshop on GNSS and Space Weather

Venue: Online “Microsoft Teams Meeting.”

10TH-14TH JUNE, 2019: Economic Development through Radio Astronomy Workshop.

Venue: Goonhilly Earth Station, Cornwall, England , United Kingdom

27TH-31ST MAY, 2019: Workshop on Ionospheric Forecasting for GNSS Operations in Developing Countries: Findings and Challenges

Venue: Abdus Salam International Centre for Theoretical Physics (ICTP), in Trieste, Italy

20TH-24TH MAY, 2019: International Space Weather Initiative Workshop

Venue: Abdus Salam International Centre for Theoretical Physics (ICTP), in Trieste, Italy

4TH-8TH FEB. 2019: United Kingdom International Conference on Optical Observatory for Astronomical Research.

Venue: Pride Inn Hotel, Raphta Road, Nairobi, Kenya.

23RD APR.- 4TH MAY. 2018: Workshop on Space Weather Effects on GNSS Operations at Low Latitudes

Venue: Abdus Salam International Centre for Theoretical Physics (ICTP), in Trieste, Italy

11TH-15TH SEP. 2017 The Second International School on Equatorial and Low Latitude Ionosphere.

Venue: Covenant University, Ota State near Lagos, Nigeria.

7TH-17TH NOV. 2016- The SCOSTEP/ISWI International School on Space Science.

Venue: Smt. Kasturbai Walchand College of Science & Arts,
Rajnemi Campus, Timber Area, Sangli, India.

21ST-25TH SEP.2015- African Geophysical Society Conference

Venue: Kenya Institute of Curriculum Development
(KICD), Nairobi, Kenya.

4TH-8TH MAY, 2015 African workshop on Space Science Research

Venue: SANSA, Hermanus, South Africa

21ST OCT.2013-1STNOV.2013: Attended ISWI/SCOSTEP School on Space Science.

Venue: Kenya Institute Of Education, Nairobi, Kenya.

23RD – 27TH SEPT.2013: Attended 2013 MAGDAS/ISWI School On Space
Weather.

Venue: Universite' Felix Houphouet-Boigny,
Bingerville, Cote d'Ivoire.

Presented a paper during the school whose details
are as follows:

Omondi G., Baki P. and Ndinya B., A study of
the East African Sector of the Equatorial
Ionosphere during selected magnetically disturbed
and quiet times.

26TH – 29TH SEPT.2011: Attended the Fourth African Leadership Conference on
Space Science and Technology for Sustainable Development.

Venue: Whitesands Sarova in Mombasa, Kenya.

8. PUBLICATIONS

1. Uluma E., Ndinya B.O, **Omondi G.E. (2021)**. Occurrence Characteristics of equatorial plasma bubbles over Kisumu, Kenya during solar maximum of Solar Cycle 24, *International Journal of Advanced Astronomy*, Vol 9. Issue1 pp.1-9.
2. Uluma E., Ndinya B.O, **Omondi G.E. (2020)**. SCINDA-GPS derived TEC depletions and amplitude scintillations over Kisumu, Kenya during selected quiet and storm days of 2013 and 2014. *International Journal of Advanced Astronomy*, Vol 8. Issue no,1 pp.1-9
3. **Omondi G.E.**, Baki P. and Ndinya B.O. (2019). Total electron content and scintillations over Maseno, Kenya during high solar activity year. *Acta Geophysica* . DOI. 10.1007/s11600-019-00354-7
4. **Omondi G. E.**, Baki P. and Ndinya B. (2017). Quiet Time Correlation Between Geomagnetic Field Variations and the Dynamics of the East African Equatorial Ionosphere. *International Journal of Astrophysics and Space Science*. Vol. 5, No. 1, pp. 6-18.doi: 10.11648/j.ijass.20170501.12
5. **Omondi G. E.**, Baki P. and Ndinya B. (2016). Quiet Time Geomagnetic Field Variations in the Equatorial East African Region During the Inclining Phase of Solar Cycle 24. *International Journal of Astrophysics and Space Science*. Vol. 4, No. 2, pp. 21-25.doi: 10.11648/j.ijass.20160402.11
6. **Omondi G.**, Ndinya B and Baki P. (2014). Astudy of the Equatorial ionosphere over Nairobi during selected Magnetically disturbed and Quiet times for the year 2009 Using Co-located instruments, *International Journal of Advanced Research in Physical Science*, vol11 issue 6 (18-26).
7. **Omondi G.**, Baki, P. and Ndinya, B.(2013). Characterization of Geomagnetically Induced Currents in the power grid in Nairobi, Kenya. *Lambert Academic Publishing*. 978-3-659-49839-8

BOOKS & MONOGRAPH

P. Baki & **G.E. Omondi** (2014). Correlation between post-sunset surface electric fields, TEC enhancements and scintillations at Low-latitude station, **Book chapter**, *American Geophysical Union*

9. CONFERENCE/ WORKSHOP PRESENTATIONS

1. **Omondi G.E.**, Baki, P. and Ndinya, B. Total electron content and Scintillations over Maseno, Kenya during high solar activity year. *Workshop on Ionospheric Forecasting for GNSS Operations in Developing Countries: Findings and Challenges*. Abdus Salaam International Centre for Theoretical Physics(ICTP), Trieste, Italy, 27th to 31st May, 2019
2. **Omondi G.E.** On Equatorial Plasma Bubbles in Maseno. *International Space Weather Initiative Workshop*. Abdus Salaam International Centre for Theoretical Physics(ICTP), Trieste, Italy, 20th to 24st May, 2019.
3. **Omondi G.E.**, Baki, P. and Ndinya B. Ionospheric Dynamics over Maseno, Kenya . *The Second International School on Equatorial and Low Latitude Ionosphere*. Covenant University, Ota State near Lagos, Nigeria, 11th to 15th September, 2017.
4. **Omondi G.E.** An investigation Of Geomagnetically Induced Currents in the power grid in Nairobi, Kenya and its connection to unexplained power Failures. *African Geophysical Society Conference*, Kenya Institute of Curriculum Development (KICD), Nairobi, Kenya. 21st-25th September, 2015.
5. **Omondi G.** and Baki P., Correlation between geomagnetic field variations and the dynamics of equatorial ionosphere over Eastern Africa. African workshop on Space Science Research, SANSA, Hermanus, South Africa, 4th-8th , May, 2015
6. Baki, P., **Omondi, G.E.** and Ndinya, B.O. Signatures of Geomagnetically Induced Currents in the Power Grid in Nairobi, Kenya, *GIC Workshop*, University of Cape Town, South Africa, 1-2, April, 2014.

10. THESIS

Doctor of Philosophy (Ph.D) in Physics: Correlation between geomagnetic field variations and the dynamics of the equatorial Ionosphere over East Africa (2017).

Master of Science in Physics: Characterization of geomagnetically induced currents in the power grid in Nairobi, Kenya

11. POSTGRADUATE SUPERVISION

1. **Uluma, Edward Nyongesa.** Master of Science in Physics, Masinde Muliro University of Science and Technology. **Date of graduation: 18th December, 2020**

12. ONGOING POSTGRADUATE SUPERVISION

1. **Obuya, Lucy.** Master of Science in Physics, Maseno University.
2. **Anditi Ochieng Caleb.** Master of Science in Physics, Maseno University
3. **Oloo Joackim Otieno.** Master of Science in Physics, Maseno University
4. **Anekha Hannington Milimu.** Master of Science in Physics, Maseno University

HOBBIES

Reading academic and Godly spiritual material

Listening to Christian gospel music

REFEREES

1. **PROF. PAUL BAKI**

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TECHNICAL UNIVERSITY OF KENYA

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E-MAIL:paulbaki@gmail.com

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+254722334179
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