

	MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY BOX 190 - 50100 KAKAMEGA	- LECTURER ELECTRONICS COURSES - RESEARCH - COORDINATOR: IN-CHARGE OF ATTACHMENT, TRIPS AND OTHER LINKAGES - CHAIRMAN - PHYSICS STAFF WELFARE - STUDENTS PROJECTS: OUR STUDENTS HAVE FEATURED IN THE STANDARD PAPERS
SEPT, 2014 TO SEPT, 2015	TUTORIAL FELLOW MOI UNIVERSITY	TEACHING OF PHYSICS AND RESEARCH VICE CHAIRMAN – WELFARE SOCIETY COORDINATOR OF SCIENCE TV PROGRAMME
JUNE TO AUG, 2014	PART TIME LECTURER MOI UNIVERSITY	TEACHING OF BSC. COMPUTER 1. Analogue and Digital Communication Systems (COM 309)
MARCH TO MAY, 2014	PART TIME LECTURER MOI UNIVERSITY	TEACHING OF PHYSICS 1. Basic Physics II (Yr 1), 2014 2. Electronics I 3. Modern Physics
NOV. 2013 TO FEB, 2014	PART TIME LECTURER MOI UNIVERSITY	TEACHING OF PHYSICS 1. Basic Physics I (Yr 1), 2014 2. Waves and Vibration (Yr 2), 2014
APRIL. TO JULY, 2013	PART TIME LECTURER MOI UNIVERSITY	TEACHING OF PHYSICS 1. Basic Physics II (Yr 1), 2013 2. Electronics I (Yr 2), 2013
MAY. TO AUG, 2013	PART TIME LECTURER KISII UNIVERSITY	TEACHING OF PHYSICS 1. Introduction to Quantum Physics (Yr 1), 2013 (JAB) 2. Introduction to Quantum Physics (Yr 1), 2013 (SSP)
JAN. TO APRIL, 2013	PART TIME LECTURER KISII UNIVERSITY	TEACHING OF PHYSICS 1. Mechanics (Yr 1), 2013 (JAB) 2. Mechanics (Yr 1), 2013 (SSP)
SEPT. TO DEC, 2012	PART TIME LECTURER KISII UNIVERSITY	TEACHING OF PHYSICS 1. Introduction to Quantum Physics (Yr 1), 2012 2. Properties of Matter (Yr 4), 2012
AUG. 2012- TO DATE	TEACHER TEACHERS SERVICE COMMISSION VIHIGA FRIENDS HIGH SCHOOL P. O BOX 140, MARAGOLI	1. Head of Science Department 2. Teacher of physics 3. Member Evaluation Committee (Tender)
6 TH JULY 2006 – TO DATE	PHYSICS SMASSE TRAINER VIHIGA DISTRICT PLANNING COMMITTEE P.O BOX 645 MARAGOLI	SMASSE DISTRICT INSET TRAINER - ICT - PHYSICS - METHODOLOGY
2007 – AUG. 2011	MEMBER 1. Divisional Education Day Planning Committee 2. Zonal Education Day Planning Committee 3. Divisional Educ. Day Planning Committee.	1. Analysis of results 2. Planning for the education day 3. Organizing for awards.

2006- TO AUG. 2011	TEACHER TEACHERS SERVICE COMMISSION GOIBEI GIRLS' HIGH SCHOOL P. O BOX 32, SEREM- KENYA	1. Director of studies 2. School coordinator: ICT club ORACLE THINKQUEST- EDUCATION FOUNDATION:2007 3. Chairman- Academic committee 4. Member of disciplinary committee 6. Teacher of physics •ZONAL KCSE Certificate Mean: 6.212, 1 st Position-2006 •DIVISIONAL KCSE Certificate Mean: 6.212, 1 st Position-2006 •ZONAL KCSE Certificate 1 st Position-2005 •DIVISIONAL KCSE Certificate 2 ND Position-2005 •DIVISIONAL KCSE Certificate 2 ND Position-2001
2001 TO 2006	TEACHER TEACHERS SERVICE COMMISSION GOIBEI GIRLS' HIGH SCHOOL P. O BOX 32, SEREM- KENYA	1. Deputy school director of studies 2. Head of science department 2. School coordinator: Global teenager project (GTP), (an ICT programme) 3. Chairman- Examination committee 4. Member of disciplinary committee 5. Class teacher 6. Teacher of physics
MAY 2000-MAR. 2001	TEACHER (EMPLOYED BY THE SCHOOL BOARD OF GOVERNORS) MADIRA GIRLS' HIGH SCHOOL P O BOX 5, VIHIGA	1. Member of disciplinary committee 2. Class teacher 3. Teacher of Physics and Mathematics
AUG 1999	ENUMERATOR MINISTRY OF PLANNING AND NATIONAL DEVELOPMENT	Census enumerator
1997 – 1998	TEACHER (EMPLOYED BY THE SCHOOL BOARD OF GOVERNORS) MADIRA GIRLS' HIGH SCHOOL P. O BOX 5, VIHIGA	1. Class teacher 2. Teacher of Physics and Mathematics
AUG 1997	TEACHER (EMPLOYED BY THE SCHOOL BOARD OF GOVERNORS) EBUNANGWE HIGH SCHOOL P. O BOX 80, BUNYORE	Teacher of Mathematics
1996 – 1997	TEACHER (EMPLOYED BY THE SCHOOL BOARD OF GOVERNORS) MADIRA GIRLS' HIGH SCHOOL P. O BOX 5, VIHIGA	Teacher of Physics and Mathematics

MARCH 1994 -1996	TEACHER (EMPLOYED BY THE SCHOOL BOARD OF GOVERNORS) EBUBAYI HIGH SCHOOL P. O BOX 39, MAGADA VIA MARAGOLI	1. Class teacher 2. Teacher of Mathematics
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FIELD EXPERIENCE

DATE	PLACE	SKILLS
JAN. 2016 TO 2021	Kenya Medical Research Institute Kisumu	PHD RESEARCH PROGRAMME Research Skills Thesis Writing
JAN. 2011-MAR. 2012	Kenya Medical Research Institute Kisumu	MASTERS RESEARCH PROGRAMME Research Skills Thesis Writing
MAY – AUG 1999	TEACHER VIHIGA BOYS HIGH SCHOOL	TEACHING PRACTICE GRADE: A Physics and Mathematics teacher Assistant House Master PROJECT GRADE: A

OTHER SKILLS ACQUIRED

DATE	PLACE	SKILLS
30Th August, 2018	MMUST	ISO 9001:2015 Documentation/ISO 31000:2009 Risk Management training Transition, Change and Impact Awareness Training for Implementers
2017/2018	MMUST	ABNO Training
15th - 16th December, 2016	Vihiga County	Youth Mentorship Summit and Exhibition
Feb. 2012	Tambach Teachers Training College	<ul style="list-style-type: none"> • 21st Century Skills • Lesson Study • ICT Integration • Supervision of ASEI-PDSI
20 th -25 th Aug 2011	Kaimosi Teacher Training College Intel [®] Teach Program in Cooperation with Ministry of Education	<ul style="list-style-type: none"> • 21st Century Skills • ICT Skills
20 th -25 th Feb. 2011	Tambach Teachers Training College	<ul style="list-style-type: none"> • Situational Analysis/ Current Practice of ASEI-PDSI Findings • Innovative Teaching and Learning Activities • Lesson Study • ICT Integration • Supervision of ASEI-PDSI
2006 – 2008	CEMASTEAM- NAIROBI	INSERVICE IN PHYSICS TRAINERS Certificate
2004-2005	VIHIGA DISTRICT SMASSE INSET- MOI VOKOLI	INSERVICE IN PHYSICS Certificates

20 TH FEBRUARY 2004	POAC COMPUTERIZATION PROJECT	MICROCOMPUTER USER SUPPORT- MAINTENANCE COURSE Certificate
2002 – 2004	THE PLACE (BROOKESIDE DRIVE)-WESTLANDS NAIROBI	ICT SKILLS (GTP) Spread sheet Word processing and Access Microsoft PowerPoint Internet skills
APRIL 2002 – 2003	VIHIGA DISTRICT	Setting and moderation of exams
DEC 1998	KAKAMEGA DISTRICT	Rural Development workshop

CO-CURRICULAR ACTIVITIES

DATE	PLACE	ACTIVITY
OCT. 2021 TO DATE	BIOPHYSICAL SOCIETY (USA) BPS AMBASSADOR KENYA/EAST AFRICA	Lead BPS in Kenya and East Africa
MARCH 2019 - DATE	1. VICE CHAIRMAN BOM 2. CHAIRMAN ACADEMIC COMM MADIRA GIRLS' HIGH SCHOOL. VIHIGA SUBCOUNTY	- Deputise the BOM Chairperson - Chair Academic Committee Meetings - Establish strategies to improve academic performance
	CHAIRMAN ACADEMIC COMM BISHOP SULUMETI GIRLS' HIGH SCHOOL - HAMISI. HAMISI SUBCOUNTY	- Chair Academic Committee Meetings - Establish strategies to improve academic performance
	CHAIRMAN ACADEMIC COMM FRIENDS GIRLS' HIGH SCHOOL - IGUNGA. SABATIA SUBCOUNTY	- Chair Academic Committee Meetings - Establish strategies to improve academic performance
	CHAIRMAN ACADEMIC COMM EBUBAYI MIXED HIGH SCHOOL. LUANDA SUBCOUNTY	- Chair Academic Committee Meetings - Establish strategies to improve academic performance
AUG. 2018 TO DATE	President, Biophysical Society-Kenya Chapter	Preside at all Chapter and Chapter Executive Committee meetings. Render the prescribed Chapter requirement of an Annual Report to BPS headquarters Perform executive duties. Represent the Chapter at Biophysical Society Meetings. Motivate Chapter members to attend International, regional and national meetings. Organise for conferences and Networking events. Achievements: 1. Received \$500 in 2018 and 2019 towards a one day Networking event in MMUST

		Kakamega, Kenya.
NOV. 2016 TO DATE	Chairman, 3B CBO	<p>Multisectorial in activities with emphasis in antijigger campaign.</p> <p>1. Antijigger Campaigns held: November 2016: Hamisi SubCounty - Treated 340 Patients. March, 2018: Hamisi SubCounty - Treated 200 Patients. April 2019: Vihiga SubCounty - Treated 230 Patients. June 2019: Hamisi SubCounty - Treated 120 Patients.</p> <p>2. Motivational and Mentorship Talks: 2019: Madira Girls Staff 2019: Igunga Girls Secondary School Students 2019: Ebubayi Secondary School Students 2018: Chavugami PAG Youth Conference 2017: Goibei PAG Church - Youth Conference 2017: Mugango District PAG Youth Conference</p>
SEPT, 2017 TO DATE	MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY BOX 190, KAKAMEGA	Chairman Physics Department Welfare Committee
FEB. 2015 TO DATE	American Research Journals, Inc., 8770 West Bryn Mawr Ave, Suite 1300, Chicago, IL-USA 60- 60631-3515. <i>(Check from Website: www.arjonline.org)</i>	<p>Member of the Editorial Board and Reviewer</p> <ul style="list-style-type: none"> <input type="checkbox"/> Maintain highest standards of ethics and competence <input type="checkbox"/> Recommend papers of Originality, Quality with highest standards. <input type="checkbox"/> Ensure to call for papers from your Colleagues, Acquaintances, Research Scholars, and Students etc. <input type="checkbox"/> Help ARJ review manuscripts submitted or recommend referees to ARJ <input type="checkbox"/> Promote ARJ at appropriate platforms such as Conferences of National and International Importance, Seminars, Symposia and Workshops. <p>REVIEWED:</p> <ol style="list-style-type: none"> 1. Partitions, Q-series and Hypergeometric Functions Pertaining to Complex BIS Processes in Human Thoughts and Cognitive Networks 2. Hypergeometric Functions And Ramanujan's Identities Leading To Chaotic Processes In Human Thoughts And Neuronal Networks
SEPT, 2014 TO SEPT 2015	MOI UNIVERSITY	Vice Chairman School of Biological and Physical Sciences Welfare Committee

2011 – 2017	VIHIGA CONSTITUENCY DEV. FUND www.vihigaconstituency.org	CDF Advisor Member, CDF Bursary Committee
SEPTEMBER, 2013 TO DATE	CHAIRMAN VIHIGA DISTRICT/CONSTITUENCY BURSARY COMMITTEE (DEB APPOINTMENT)	Chair the District Bursary Committee Enlighten the community about the Bursary
SEPTEMBER 2008	MURANG'A SOUTH VENUE: THIKA	FACILITATION ON ICT
2002 – PRESENT	VIHIGA DISTRICT	CHAIRMAN VIHIGA DISTRICT PHYSICS PARTNERSHIP
1998 – 2000	EGERTON UNIVERSITY	REPRESENTATIVE- FACULTY OF EDUCATION
1997 – 2000	EGERTON UNIVERSITY	CHAIRMAN: VIHIGA DISTRICT STUDENTS' ASSOCIATION

PUBLICATIONS

1. **Mang'are, P. A.**, Ndiritu, F. G., Makatiani J. K. and Rapando B. W. (2019). Comparative Analysis of Acoustic Propagation Parameters of Natural Sounds of *Anopheles gambiae s.s* and *Odorrana tormota* Significant in Mosquito Startle. *Plos One*. bioRxiv preprint first posted online Aug. 5, 2019; doi: <http://dx.doi.org/10.1101/725960>.
2. **Mang'are, P. A.**, Ndiritu, F. G., Makatiani J. K. and Rapando B. W. (2019). Analysis of the Acoustic Propagation Parameters of the Natural Sounds of *Delphinapterus leucas* and *Odorrana tormota* Fundamental in the Startle of the Female *Anopheles gambiae*. *International Journal of Advanced Research in Physical Science (IJARPS)*. ISSN No. (Online) 2349-7882. 5(7): 13-23.
3. Rapando, B. W., Isoe, W.M., **Mang'are, P. A.**, Ayodo, Y. K. (2018). Internal Pressure And Speed Of Sound In Neutron Stars. *Journal of Multidisciplinary Engineering Science and Technology (JMEST)*. ISSN: 2458-9403. 5(10): 8880-8884.
4. Rapando B. W., Tonui J. K., Khanna K. M. and **Mang'are P. A.** (2017). The Diagonalized t-J Hamiltonian and the Thermodynamic Properties of High-Tc Superconductors. *American Research Journals, Inc.* ISSN (Online) : 2378-5714. **Volume 2016**: 1-11.
5. **Mang'are, P. A.**, Maweu, O. M., Ndiritu, F. G. and Vulule, J. M. (2015). Investigation into the 35 kHz - 60 kHz frequency range of the naturally generated ultrasound of the African bat, *C. afra* , eliciting optimal evasive response in the African *A. gambiae s. s.* *American Research Journal of Physics*. **1(1)**. Pp 9-25.
6. Ayiego, E. M., **Mang'are P. A.**, Ngome, C. K. and Mandilah, L. (2015). Analytical Study of the Extent of Practice and Implementation of ASEI-PDSI Approach by Teachers of Mathematics in Vihiga County, Kenya. *American Research Journals, Inc.* **1(2)**. Pp 7-19.
7. **Mang'are, P. A.**, Maweu, O. M., Ndiritu, F. G. and Vulule, J. M. (2015). Analysis of the 35kHz - 60kHz Ultrasound of *O. tormota* Evoking Optimal Startle Response in the African *A. gambiae S.S.* *International Journal of Advanced Research in Physical Science (IJARPS)*. **2(2)**. Pp 1-17. ISSN 2349-7874 (Print) & ISSN 2349-7882 (Online)
8. **Mang'are, P. A.**, Maweu, O. M., Ndiritu, F. G. and Vulule, J. M. (2012). A Comparative Study of the Transmission Parameters of the Sound of Mosquito Predators and EMR. *International Journal of Biophysics*. **2(4)**. Pp 53-67

9. **Mang'are, P. A.**, Maweu, O. M., Ndiritu, F. G. and Vulule, J. M. (2012). The Startling Effect of the Sound of *C. afra* and *A. tormotus* on the Female *A. gambiae*. *International Journal of Biophysics*. **2(3)**. Pp 40-52
10. **Mang'are, P. A.**, Maweu, O. M., Ndiritu, F. G. and Vulule, J. M. (2012). Determination of Acoustic Transmission Parameters of the Sound of *C. afra* and *A. tormotus*. *International Journal of Biophysics*. **2(4)**. Pp 53-67
11. **Mang'are, P. A.**, Maweu, O. M., Ndiritu, F. G. and Vulule, J. M. (2013). The Combined Predator Ultrasound Acoustic Startle Response in the Female *A. gambiae*. *International Journal of Biophysics*. **3(1)**. Pp 15-25
12. **Mang'are, P.A.** (2007). *KCSE Golden Tips Physics Practical*. Macmillan Publishers. Nairobi. ISBN: 9966-34265-6
13. CONTRIBUTED TO:
Murigi, M *et al* (2007). *KCSE Golden Tips Physics*. Macmillan Publishers. Nairobi ISBN: 9966-34261- 3. Verified answers (**See acknowledgement**)

CONFERENCES/WORKSHOPS (ABSTRACT/POSTER ONLY)

1. Presentation of Abstract on **Comparative Analysis of Acoustic Propagation Parameters of Natural Sounds of *Anopheles gambiae s.s* and *Odorrana tormota* Significant in Mosquito Startle** during *The Exploring Biophysics Diversity for Sustainable and Economic Development on 3rd and 4th July, 2019 at Bishop Stam Pastoral Centre, Kakamega*. Kenya
2. Presentation of Abstract {**Analysis of the Acoustic Propagation Parameters of the Natural Sounds of *Delphinapterus leucas* and *Odorrana tormota* Fundamental in the Startle of the Female *Anopheles gambiae***} at the Biophysical Society Annual Meeting/Conference held in **March 2-6, 2019 in Baltimore, Maryland. USA.**
3. Two Oral Abstracts presentations { (i). **THE STARTLING EFFECT OF THE SOUND OF *C. afra* AND *A. tormotus* ON THE FEMALE *A. gambiae*.** (ii). **ANALYSIS OF THE 35kHz - 60kHz ULTRASOUND OF *O. tormota* EVOKING OPTIMAL STARTLE RESPONSE IN THE AFRICAN *A. gambiae s. s.*** } ICAB 2018: 20th International Conference on Aquatic Biodiversity. **Miami, USA. March, 12-13, 2018.** Organised by WASET, International Scientific Committee, Holiday Inn Miami Beach Oceanfront. 4333 Collins Ave. Miami Beach FL 33140.
4. Organiser/President of *The Exploring Biophysics Diversity for Sustainable and Economic Development on 3rd and 4th July, 2019 at Bishop Stam Pastoral Centre, Kakamega*.
5. Organiser/President of *Multidisciplinary Biophysical Society (Bps) Sponsored Curriculum Development And Chapter Promotion Workshop held On Tuesday 2nd July , 2019* in Kakamega, Kenya.
6. Organiser/President of Biophysical week: **Biophysical Innovations: The Solution to Current Challenges in Africa and the World Week** in Masinde Muliro University of Science and Technology from **25th to 29th March, 2019. Kakamega, Kenya**
7. Organiser/President of *The First Biophysical Society (BPS) Sponsored Conference on Harnessing Scholarly Biophysical Potential in Africa* taking held on **June 8, 2018** in Kakamega, Kenya.

GRANTS

1. Contributed to Grant winning Proposal for *The Exploring Biophysics Diversity for Sustainable and Economic Development Conference on 3rd and 4th July, 2019 at Bishop Stam Pastoral Centre, Kakamega*.

2. **BPS Mini-Grant Networking Event, \$500** - The First Biophysical Society (BPS) Conference on Harnessing Scholarly Biophysical Potential in Africa: DATE: 02ND JULY, 2019
3. 15/06/2018: **BPS Mini-Grant Networking Event, \$500** - The First Biophysical Society (BPS) Conference on Harnessing Scholarly Biophysical Potential in Africa: DATE: 06TH JULY, 2018
4. 30/11/2018: **BPS Travel grant: \$750** to attend 63RD Annual Meeting/Conference of the Biophysical Society in Baltimore, MARYLAND, USA. DATE: MARCH 2 - 6, 2019

MEMBERSHIP

1. Physical Society of Kenya.
2. Biophysical Society

REFEREES

1. **Dr. Maxwell Mageto**
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Phone:0728960153
Email: mmageto@mmust.ac.ke
2. **Prof. Francis Gichuki Ndiritu**
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Current Address: Physics Department, **Egerton University**, Box 536-, Egerton, Kenya
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