
CURRICULUM VITAE

WALTER KAMANDE NJOROGE, B. Ed (Science), M.Sc, Ph. D

1.0 PERSONAL INFORMATION

- Name : Walter KamandeNjoroge
- Gender: Male
- Date of Birth: 25th July 1965
- Place of Birth: Murang'a County
- Marital Status: Married
- Address: P.O. Box 926-00618 Ruaraka, Kenya
- Cell phone: 254-0722 234 688
- E-mail Address: wanjoroge21@yahoo.co.uk Or njoroge.walter@ku.ac.ke
- Citizen: Kenyan
- Languages: English, German, Kiswahili and Kikuyu

2.0 QUALIFICATIONS

2.1 Academic Qualifications

- **2001:** PhD in Thin Film Technology for Optical Data Storage, Aachen University of Technology, Germany
- **1998:** Certificate in German Language Goethe Institute, Bremen, Germany
- **1993:** MSc (Material Science) Kenyatta University
- **1990:** Bachelor of Education (Science) Kenyatta University

3.0 EMPLOYMENT HISTORY

- **June 2012-to date:** Senior Lecturer, Physics Department, Kenyatta University
- **2002-to June 2012:** Lecturer, Physics Department, Kenyatta University
- **1995-2002:** Tutorial Fellow, Physics Department, Kenyatta University
- **1993-1995:** Teacher, Ngara Girls High School

- **1990-1991:** Teacher, Bartolimo Secondary School

4.0 ADMINISTRATIVE RESPONSIBILITY AT (KU)

4.1 At Kenyatta University

- 2019 –date Regional Scholarship and Innovation Fund (RSIF)-KU Coordinator
- 2019 –date Member of the university students appeals committee
- 2019 –to date member of the university mobility committee
- 2015- to date Fourth year academic advisor
- July 2011 to July 2015 : Chairman Physics Department
- 4th April 2011 to July 2011: Acting Chairman physics department
- Acting Chairman Physics department short durations in the years 2005, 2006, 2008, 2010
- Acting Director African Virtual University (AVU) (3 months)
- Acting Director Centre for Career Development and Placement (6 weeks)
- Member of University Health Board (2 years)
- Departmental Academic Advisor (6 Years)
- Secretary of Departmental Board of Postgraduate Studies Committee (6 Years)
- Chairman of Departmental Board of undergraduate Studies Committee (3 years)
- Member of School Board of undergraduate Studies Committee-SPAS (3 years)
- Member of School HIV and AIDS Committee-SPAS (6 years)
- Director First year Laboratory (6 years)

- Member of the committee which wrote Kenyatta University Intellectually property rights policy
- Member of editorial board of the East Africa journal of physical sciences (4 years)
- Member of school Rapid Results Initiative-SPAS

5.0 FELLOWSHIPS

- DAAD scholarship for Msc studies (Kenyatta University) 1991-1993.
- DAAD scholarship for PHD studies Aachen University of technology –Aachen, Germany 1997-2001.

6.0 POSTGRADUATE SUPERVISION

6.1 Masters Supervision

6.1.1 Completed

2019 Kabaraka James Otieno I56/CE/22402/2010 “ Influence of i-ZnO Buffer Layer on Cu₂O-ZnO:Al P-N Junction for Solar Cell Applications”

Nyakiti Kevin Ochieng I56/CE/22395/2010 “Characterization of SnSe-ZnS:Al P-N Junction Thin Film for Solar Cell Application”

ChumoKiprotichCosmas I56/CE/14136/2009 “Optical and Electrical Characterization of CuS and CdS:B thin Films for Solar Cell Application”

2018

Duke AteyhOebaI56/CE/22400/2010 “Electrical and Optical Characterization of Cu₄SnS₄ and CdS:B Thin Films for Photovoltaic Applications”

Nancy Wanjalreri I56/CE/12771/2009 “Characterization of Tin Telluride (Sn_xTe_yThin Film for Phase change Memory Application”

Keng'werere Joshua Mosel56/CE/10899/2008 Design and fabrication of a dual-resistive evaporation system controlled using Lab-View

Mose Rose GesareDesign I56/CE/11459/2008 and fabrication of a substrate holder controlled using Lab View validated by deposition of CuxNy

2017 Njoroge David Kimemia I56/24956/2013 Fabrication and characterization of a graphite dispersed Titanium Dioxide Solid Solar Cell

EphantusNyagaNjeru I56/CE/26186/2011 “Characterization of $Cd_xSe_{1-x}S/PbS$ Thin Films deposited by Chemical Bath Deposition for P-N Junction for Solar Cell Application”

2016 Kang’ethe Michael I56/CE/26184/2011 Optical, Electrical and Structural Analysis of $Cd_{1-x}FexS/CuS$ p-n Junction for Solar Cell Application.

Mogunde Charles Morare I56/CE/22416/2010 “Optical and Electrical Characterization of $Cd_xSe_{1-x}S$ and Cu_2S Thin Films for Solar Cell Applications

Choge Hillary Kirwa I56/CE/15629/2005 “Optical and Electrical Characterization of $ZnSe-Cu_xO_y$ Thin Films for Solar Cell Applications”

Obare Bernard Mosoti I56/CE/22377/2010 “Characterization of $CuxNy$ and $CdO: Al$ thin films for Solar cell Applications”

2015

NjeruE.Gatakaal56/CE/22378/10 Performance Evaluation of Silicon – Based Photovoltaic Modules found in the Kenyan Market

2014

Khisa Simeon Wanjala I56/CE/11468//08, “Characterization of $ZnO:Sn-CuO$ thin films for Solar cell Applications”

NyakundiMakori Evans I56/CE/11486/08 “Characterization of $Sn_xSe_y/CdO:Sn$ P-N Junction for Solar cell Applications

Wekunda B. Buya I56/13090/2005: “ In_xSe_y Thin Films for Phase Change Random Access Memory (PRAM) Applications”

2013

- Charles MuthuiKamau I56/CE/11177/2008: “Nitrogen Doping Effect on Sn_xSe_y Thin Films for Phase Change Memory (PCM) applications”
- KunduMasinde Joshua I56/ CE/11195/2007, “ Characterization Kinetic and Structural Properties of Sn_xSe_y Thin Films for Phase Change Memory(PCM) Applications”

- Muchira Irene Wanjiku I56/20423/2010, “ Characterization Kinetics of In_xSe_y Thin Films for Phase Change Memory(PRAM) Applications”

2012

- Mosiori Cliff Orori I56/12236//009: “ Electrical and Optical Characterization of $\text{Cd}_x\text{Zn}_{1-x}\text{S}$ and PbS Thin Films for Photovoltaic Applications”
- Munguti Lawrence Kioko I56/CE/10994//06, “Characterization of $\text{Sn}_x\text{Se}_y/\text{ZnO}:\text{Sn}$ P-N Junction for Solar cell Applications”

2011

- Fanuel M. Keheze I56/CE/15646/2005, “Characterization of $\text{Cu}_x\text{O}_y\text{-ZnO}:\text{Al}$ P-N Junction for Solar Cell Applications”
- Mugah C. Onyango I56/CE/11181/2007, “Characterization of $\text{Sn}_x\text{Se}_y\text{-ZnO}:\text{Al}$ P-N Junction for Solar Cell Applications”
- Omayio E. Osoro I56/10386/2007 “Characterization of $\text{Cu}_x\text{O}_y\text{-ZnO}:\text{Sn}$ P-N Junction for Solar Cell Applications”

2010

- Agumba O. John “Design and fabrication of a simple four point probe system for electrical characterization of thin films”

2009

- KaranjaMuna “Characterization of Sn_xSe_y thin films for PCM applications”

2008

- Wangati Charles Kiama “Influence of Deposition Parameters on the Optical Properties of Thin Tungsten Oxide Films Prepared by Reactive DC Magnetron Sputtering”

6.1.2 ONGOING

- (i) Wangati Charles Kiama “Synthesis and Characterization of $\text{CuAl}_x\text{B}_{1-x}\text{Se}_2$ Thin Films deposited by Magnetron Sputtering for Photovoltaic Applications “ PhD Research
- (ii) Muchira Irene Wanjiku “ Characterization Kinetics of InBiSe Thin Films for Phase Change Memory(PRAM) Applications” PhD Research

- (iii) MwendaPhylisMakena “An experimental investigation of spray pyrolysis deposited Indium Gallium Nitride [In_{1-x}Ga_xN] thin films for photovoltaics applications” PhD Research
- (iv) Mosiori Cliff Orori “Effect of Ag Nps on optical response of CH₃NH₃PbI₃ thin films on photon sensing” PhD Research
- (v) Ng’ang’a Benson W. “Design and maximization of a vacuum solar water desalination plant” PhD Research
- (vi) Over 10 masters students

7.0 CONFERENCES/SEMINARS/WORKSHOPS

7.1 Participation in Workshops/Conferences

1. Attended UM6P/PASET Workshop 4-6 September, 2019, Morocco
2. Attended the 5th PASET Forum. 20-22 May 2019, Kigali Rwanda
3. Attended SPAS Conference held in August 2018 at Kenyatta University Kenya
4. Attended KDSA, Smart Cities Conference at Safari Park Hotel, Kenya 30-31st May 2013
5. Attended 4th workshop on e-Learning Competency for Yaounde I University Cameroon, 5th November- 10th November 2012-Stuttgart Germany
6. Attended Bio-safety Sensitization Workshop: Kenyatta University on 22nd August 2012
7. Attended 3rd workshop on e-Learning Competency for Yaounde I University Cameroon, 28th April- 4th May 2012
8. Attended 2nd workshop on e-Learning Competency for Yaounde I University Cameroon, 5th December- 9th December 2011
9. Attended 1st workshop on 1st e-learning for Yaounde I University Cameroon 24th June -30th June 2011

10. Attended 1st East African regional Scientific Conference of Pure and Applied Sciences: Kenyatta University, Nairobi, Kenya 10th -14th August, 2010
11. 29th -30th June 2009, Training workshop for members of school curriculum committees: Kenyatta University Conference Centre.
12. 8th November 2007 Participated in a workshop on Mainstreaming HIV and AIDS in science and Engineering at Kenyatta University
13. August 2007; Participated in the Intellectual Property training program for eastern Africa held on 30th-31st August 2007 at ICIPE Campus, Dудuville, Nairobi Kenya – Report on contractual agreements of Kenyatta University researchers and research sponsors
14. June 11-29,. 2007 Intellectual property training program for eastern Africa at ICIPE Campus, Dудuville, Nairobi Kenya
15. 8th -10th May 2007 Higher Education Science and Curricular Reforms: African Universities Responding to HIV/AIDS- In country Training Workshop, Kenya (KIE)
16. June 12-14, 2005 Attended an E-learning workshop on Blackboard Platform for distance learning , Kenyatta University
17. Oct 2004; Actively participated in the Kenya DAAD scholars association conference ‘Universities and communities –Enhancing collaboration to build a working Nation, in October 27th -30th AICAD , JKUAT.

7.2 Presentation of Papers at Academic and professional Conferences

1. Mugwanga F. K. Karimi P. K. Njoroge W.K. and Waita S. M. “Optical Characterization of Copper Oxide Thin Films prepared by Reactive DC magnetron sputtering for solar cell applications” Paper presented on the Optoelectronics Conference in Chiromo Campus. August 2010
2. J.O. Agumba, P.M. Karimi, J. Okumu, and W.K. Njoroge, “Design and fabrication of a simple four point probe for electrical characterization of thin films”, 1st East African regional conference of Pure and Applied Sciences, 10th -14th August 2010, Kenyatta University, Nairobi-Kenya.
3. 13th October – 15th October, 2009: The international conference on solar energy materials research. Dar es Salaam, Tanzania. Presented a paper: The influence of sputter power and chamber pressure on the optical properties of tungsten oxide thin films prepared by reactive DC magnetron.

4. April 2009 Kenyatta University First Research Conference, Paper; A New Phase Change Material for PRAM, Kenyatta University, Nairobi, Kenya
5. 18th -20th November 2008 1st regional conference on e-learning, Kenyatta University, Nairobi, Kenya: Paper Blended learning: A Modern instructional Strategy for Quality Education.
6. August 2007; Participated in the Intellectual Property training program for eastern Africa held on 30th-31st August 2007 at ICIPE Campus, Duvvuru, Nairobi Kenya – Presented a Report on contractual agreements of Kenyatta University Researchers and Research Sponsors.
7. Germany physical society conference 26th -30th March 2001 at Hamburg (Germany) Presented a poster on the structural transformation of GeSbTe and AgInSbTe films studied by electrical resistivity measurements and X-ray diffraction.
8. Germany physical society conference 22nd -26th March 1999 at Munster Germany). Presented a poster on the structural properties of GeO₂ produced by reactive DC sputtering.
9. International workshop on thin films and plasma application in film technology at National University of Science and Technology Bulawayo – Zimbabwe ; August 27th -29th 1997. Presented a paper entitled ‘Optical and properties of sprayed Zinc Oxide Films’
10. The second workshop on thin films technology at I.T.C.P Trieste Italy 10th March to 30th March 1996. Presented a paper a paper entitled “sprayed aluminium doped zinc oxide thin films for application as window materials for solar cells”
11. Kenya physical society conference held between 19th-23rd September at University of Nairobi 1994. Presented a paper entitled “optical and electrical properties of sprayed zinc oxide films”
12. Third college of thin films technology at University of Dar-es-salaam (Tanzania) 1994; 25th July to August 1994. presented a paper entitled “sprayed aluminium doped zinc oxide thin film for application as window materials for solar cells’

7.3 Convening and Coordinating Conferences

1. 10th -14th August, 2010 1st East African regional Scientific Conference of Pure and Applied Sciences: Kenyatta University, Nairobi, Kenya (In-charge of transport)

2. Coordinator of the Department of Physics Curriculum review of Telecommunication and information technology under the Rapid Results Initiative program 2009
3. 4th April 2007; organized a one day workshop on Mainstreaming HIV and AIDS in Sciences and Engineering courses of Kenyatta University, April 4th, Utalii Hotel.
4. June 27-30, 2005 Organized and trained Business School on the use of Black Board Platform as e-learning tool AVU Kenyatta University

8.0 RESEARCH AND PUBLICATIONS

8.1 Articles in referred Journals

1. Julia Rotich¹, Mghendi Mwamburi², Njoroge Walter¹, Christopher Maghanga³, Onesmus Munyati⁴ and Sylvester Hatwaambo⁴ Optical characterization of photocatalytic copper doped thin films of anodized titanium; Materials Research Express, Volume 7, Number 2 2020
2. Cliff Orori Mosiori, Walter Kamande Njoroge, Lawrence Otieno Ochoo, **Influence of different spherical binary plasmonic nps on HTM layer in methyl ammonium lead triiodide solar-cell**; Traektoriâ Nauki= Path of Science 5 (9) 2019
3. CO Mosiori, WK Njoroge, LO Ochoo "Optical Analysis of Ag-NPs Containing Methyl Ammonium Lead Tri-Iodide Thin Films" **Traektoriâ Nauki= Path of Science 3 (9) (2017)**
4. I.W. Muchira, WK Njoroge, PM Karimi "Kinetic analysis of crystallization processes in In₆₀Se₄₀ thin films for phase change memory (Pram) applications". **Science Publishing Group (2016)**
5. S. O Opiyo, MK Munji, WK Njoroge, NE Makori, BM Obare "Electrical Characteristics of Zn Doped In₂Se₃ Thin Films for Phase Change Memory (PRAM) Applications" **American Journal of Condensed Matter Physics 6 (2), 21-26 (2016)**
6. KS Wanjala, W. K Njoroge, JM Ngaruiya "Optical and Electrical Characterization of ZnS: Sn Thin Films for Solar Cell Application": **International Journal of Energy Engineering 6 (1), 1-7 (2016)**
7. CO Mosiori, J Maera, WK Njoroge, TR Shikambe, M Munji, R Magare

- “Modeling Transfer of Electrons between Energy States of an Electrolyte and CdS thin Films using Gerischer Model”, **Engineering International 3 (1), 5-3 (2015)**
8. FK Mugwang'a, PK Karimi, WK Njoroge, O Omayio
“Characterization of Aluminum Doped Zinc Oxide (Azo) Thin Films Prepared by Reactive Thermal Evaporation for Solar Cell Applications”; **Journal of Fundamentals of Renewable Energy and Applications 2015**
 9. . Kundu, PM Karimi, WK Njoroge “Crystallization kinetics of Sn₄₀Se₆₀ thin films for phase change memory applications”; **Journal of Semiconductors 36 (6), 063002 (2015)**
 10. I.W Muchira, WK Njoroge, PM Karimi “Crystallization Kinetics Of In₄₀se₆₀ Thin Films For Phase Change Random Access Memory (Pram) Applications”: **Journal of Ovonic Research Vol 11 (3), 131-136 (2015)**
 11. NE Makori, IA Amatalo, PM Karimi, WK Njoroge “Characterization of SnSe-CdO: Sn PN Junction for Solar Cell Applications” **International Journal of Energy Engineering 5 (1), 1-4(2015)**
 12. NE Makori, IA Amatalo, PM Karimi, WK Njoroge “Optical and Electrical Properties of SnSe Thin Films for Solar Cell Applications”
2014, American Journal of Condensed Matter Physics 4 (5), 87-90
 13. NE Makori, IA Amatalo, PM Karimi, WK Njoroge “Optical and Electrical Properties of CdO: Sn Thin Films for Solar Cell Applications”, **International Journal of Optoelectronic Engineering 4 (1), 11-15 (2014)**
 14. EO Omayio, PM Karimi, WK Njoroge, FK Mugwanga
Current-voltage characteristics of p-CuO/n-ZnO: Sn Solar cell, 2013
Int. J. Thin Film Sci. Tec 2 (1), 25-28
 15. Mosiori C. O. Njoroge W.K. and Okumu J. “**Optical Characterization of Cd_xzn_{1-x} Thin Films Grown by Solution Method for Photovoltaic Applications**” Accepted for publication by the Journal of ISRN Materials Science. **April 2013**
 16. FK Mugwang'a, PK Karimi, WK Njoroge, O Omayio, SM Waita “Optical characterization of copper oxide thin films prepared by reactive dc magnetron sputtering for solar cell applications”**International Journal of Advanced Renewable Energy Researches (IJARER) 1 (8) (2013)**
 17. Karanja J. Karimi P. Njoroge W. and Wamwangi D.A New Phase Change Random Memory Based on SnSe₄, **Thin Solid Films, vol. 527, pp. 323–326, 2013**

18. Agumba J. O. Karimi P. M. Okumu J. Njoroge W. K. Design and Fabrication of a simple four Point Probe System for Electrical Characterization of Thin Films. **International Journal of Current Research Vol 3. Issue, 7, pp 135-139, July 2011**
19. W.K. Njoroge C.K. Wangati and J. Okumu "The influence of sputter power and chamber pressure on the optical properties of tungsten oxide thin films prepared by reactive DC magnetron." **(Accepted for publication by Tanzanian Journal Of Physical Society 2010)**
20. Gathua J.K. Migwi C. M. Njoroge W.K. "Greenhouse gas emission mitigation measures in Kenya Cement Industries" **Submitted to East Africa Journal of Physical sciences- 2009**
21. Wangati C.K. Njoroge W.K and Okumu J.
"Influence of Deposition Parameters on the Optical Properties of Thin Tungsten Oxide Films Prepared by Reactive DC Magnetron Sputtering" **East Africa Journal of Physical Sciences Vol. 8-part 1 Nov. 2008 pg. 55-74**
22. W.K. Njoroge, H. Dieker, M. Wuttig: "Influence of dielectric capping layers on the crystallization kinetics of $Ag_5In_6Sb_59Te_{30}$ films" **J. Applied Physics, Vol. 96 ,p.2624(2004)**
23. W. Njoroge, H.-W. Wöltgens, M. Wuttig "Density changes upon crystallization of $Ge_2Sb_{2.04}Te_{4.74}$ films" **J. Vac. Sci. Technol. A, Vol. 20 , p. 230 (2002)**
24. D. Wamwangi, W. Njoroge, M. Wuttig: "Crystallization kinetics of $Ge_4Sb_1Te_5$ films" **Thin Solid Films, Vol. 408 , p. 310 (2002)**
25. M. Wuttig, R. Detemple, I. Friedrich, W.K. Njoroge, I. Thomas, V. Weidenhof, H.-W. Wöltgens, S. Ziegler: "The quest for fast phase change materials" **J. Mag. Mat., Vol. 249 , p. 492 (2002)**
26. T. Pedersen, J. Kalb, W. Njoroge, D. Wamwangi, M. Wuttig, F. Spaepen: "Mechanical stresses upon crystallization in phase change materials" **Appl. Phys. Lett., Vol. 79 , p. 3597 (2001)**
27. W. Njoroge, M. Wuttig: "Crystallization kinetics of sputter-deposited amorphous $AgInSbTe$ films" **J. Appl. Phys., Vol. 90 , p. 3816 (2001)**
28. H.-W. Wöltgens, I. Friedrich, W. Njoroge, W. Theiss und M. Wuttig: "Optical, electrical and structural properties of Al-Ti and Al-Cr thin films" **Thin Solid Films, Vol. 388 , p. 237 (2001)**
29. S. Venkataraj, H. Weis, O. Kappertz, W. Njoroge, R. Jayavel, M. Wuttig:

"Structural and optical properties of thin lead oxide films produced by reactive DC magnetron sputtering" J. Vac. Sci. Technol. A, Vol. 19 , p. 2870 (2001)

30. I. Friedrich, V. Weidenhof, W. Njoroge, P. Franz und M. Wuttig: "Structural transformations of Ge₂SbTe₅ films studied by electrical resistance measurements" J. Applied Physics, Vol. 87 , p. 4130 (2000)

31. W. Njoroge, T. Lange, H. Weis, B. Kohnen und M. Wuttig: "Defect formation upon reactive DC magnetron sputtering of GeO₂ films" J. Vac. Sci. and Technol. A, Vol. 18 , p. 42 (2000)

32. T. Lange, W. Njoroge, H. Weis, M. Beckers und M. Wuttig: "Physical Properties of thin GeO₂ films produced by reactive DC sputtering" Thin Solid Films, Vol. 365 , p. 82 (2000)

8.2 Articles in Conference Proceedings

1. Mugwanga F. K. Karimi P. K. Njoroge W.K. and Waita S. M. " Optical Characterization of Copper Oxide Thin Films prepared by Reactive DC magnetron sputtering for solar cell applications" Paper presented on the Optoelectronics Conference in Chiromo Campus. August 2010
2. H.-W. Wöltgens, R. Detemple, I. Friedrich, W.K. Njoroge, I. Thomas, V. Weidenhof, S. Ziegler und M. Wuttig: "*Exploring the limits of fast phase change materials*" **MRS Symposium Proceedings, Vol. 674 , p. V1.3 (2001)**
3. R. Detemple, I. Friedrich, W.K. Njoroge, I. Thomas, V. Weidenhof, H.-W. Wöltgens, S. Ziegler und M. Wuttig: "*Microscopic studies of fast transformations in GeSbTe films*" **MRS Symposium Proceedings, Vol. 674 , p. V1.8 (2001)**

8.3 Books

- Copper Based Solar Cell Materials LAP LAMBERT Academic Publishing **2013** ISBN-13: 978-3-659-30563-4
- **Electronic –Book** Phase change Optical recording-Preparation and X-Ray characterization of GeSbTe and AgInSbTe Films (2001) : <http://www.rwthachen.de/job/disslist.pl>
- **Teaching Modules**

SPH101 Electricity and Magnetism I -2004
SPH 203 Thermal Physics I -2003
SPH 304 AC Circuit Theory -2020
SPH 401 Electrodynamics-2020
SPH 420 Condensed Matter Physics I- 2011
SPH 801 Electrodynamics -2020

9.0 NETWORKING AND COLLABORATION WITH EXTERNAL ORGANIZATIONS

- Linked the physics department with the Physics Institute of Aachen University and Technology. One member of staff and two Msc students have obtained PhD degrees through this cooperation. In addition, this cooperation has facilitated staff exchange between the two universities.
- Cooperation with Advanced Material Laboratory, National Institute for Materials Science, Ibaraki, Japan (Samples analysis for x-ray diffraction and atomic force microscopy measurements)
- 2011 Collaboration with Nelson Mandela Metropolitan University- Joint Research Grant application under the South African/Kenya- Research Partnership Programme- (National Council for Science and Technology (Kenya) and National Research Foundation (South Africa))

10.0 EXTERNAL AND INTERNAL GRANTS

- Participated in the African Host University Selection by PASET RSIF to host PHD scholars in material science from sub-Saharan Countries as the PI, 2019 which was successful
- Many of my Msc/Phd students have received funding for research from different organizations like NACOST, African Bank and Organization for Women in Science for the Developing World (OWSD), National Drought Management Authority (NDMA)
- 2011 Applied for a Joint Research Grant under the South African/Kenya- Research Partnership Programme-

11.0 LOCAL, REGIONAL & INTERNATIONAL APPOINTMENTS

11.1 External Examiner in other Universities

Have examined many master of science Theses for the Department of Physics, Jomo Kenyatta University Agriculture and Technology.

Have examined many theses for the department of physics University of Nairobi

August 2013-2018: External examiner DedanKimathi University of technology

11.2 Review of professional Periodicals

Reviewer, Journal of Chemical society

Reviewer, Journal of Chemical society

Reviewer, East Africa Journal of Physical Sciences

11.3 Review of research proposal for funding

Reviewed a research proposal for funding by Jomo Kenyatta University

Participated in proposal review for funding for NACOST

11.4 Appointments to Boards

- Member of Editorial Board of the East Africa Journal of Physical sciences
- Appointed Member of Board of Governors, for a period of three years in the following schools
 - Gathunguru Sec. School
 - Makuyu Girls Sec School
 - Thangira Umoja Sec School

12.0 AWARDS/RECOGNITION

1. 1990 Achelis (Kenya) limited merit award in recognition of commendable performance for the final year examination as the best candidate in physics -1990
2. DAAD scholarship for Msc studies (Kenyatta University) 1991-1993.
3. DAAD scholarship for PHD studies Aachen University of technology – Aachen, Germany 1997-2001.
4. Best Departmental Chairman 2013-2014

13.0 COMMUNITY OUTREACH

Normally gives motivational speeches at Schools

Peter Kariuki Sec. school
ThangiraUmoja Sec School

14.0 ACADEMIC LEADERSHIP

14.1 Development of Teaching/academic programmes in department/school/University

1. Coordinated the review of PhD in Material Science program
2. Coordinated the review of physics programs and development two new programs i.e MSc. (Nuclaeer Physics) and MSc.(Geophysics).
3. Member of the Committee that reviewed the curriculum for Telecommunication and Information Technology under the Rapid Result Initiative program.2009
4. Participated in the development of new programs in the school of pure and applied sciences as a member of SBUS and SBPS
5. Have served in several defense committees in the University.
6. Reviewed postgraduate proposals within the School of Pure and Applied Sciences.
7. Refereeing of Manuscripts for the East African Journal of Physical Sciences
8. Refereeing of Manuscripts for the East African Journal of Chemical Society
9. Participated in the development of the Department of Physics curriculum Review in 1996, Machakos Kenya

14.2 Developing Programmes External to Kenyatta University

Participated in the Review of Physics programmes for Catholic University (2009)

14.3 Initiating/ leading Research Project

Leader of the Material Science research team at the department

15.0 OTHERS

15.1 Contribution to University Advancement

- Served as chairman of physics department for two terms(4 years)
- Served as an acting Chairman in the Department of physics for short durations in the years 2005, 2006, 2008, 2010, 2011
- Served as acting director Centre for Career Development and Placement 2008
- Served as acting director AVU, 2005
- Represented the Chairman of the Department in Senate and Students Disciplinary committees.

15.2 Membership to Professional Bodies

1995- present Member of Kenya Physical Society
1998- 2010 Member of Germany Physical Society
1990- present Member of DAAD Scholars Association

16.0 REFEREES:

1. Prof J. Okumu
DVC (Academic)
Kenyatta University
P.o Box 43844-00100 NAIROBI
2. Dr. C. M. Migwi
Lecturer Physics Department
Kenyatta University
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