

			
Curriculum Vitae			
Personal information			
Surname(s) / First name(s)		Dr. Kibe Horace Eyinda	
Telephone(s)		-	Mobile +254712737129 +254734737129
E-mail(s)		horacekibe@yahoo.com ; horacekibe@gmail.com ; hkibe@buc.ac.ke	
Employment / Occupational field		University Lecturer and a Researcher in condensed matter Physics	
Work experience			
Name and address of employers		Bomet University College 701-20400 Bomet, Kenya	
Occupation or position held		Lecturer	
Dates		03/01/2021----To date	
Name and address of employers		Kibabii University 1699-50200 Bungoma Kenya	
Dates		January-April, 2019/2020 Semester II	
Type of business or sector		Education	
Occupation or position held		Part time – Lecturer	
Main activities and responsibilities		<ul style="list-style-type: none"> • Teaching several undergraduate and postgraduate courses including, Mathematical Physics II, Nuclear and Particle Physics (masters). • Setting examinations, invigilating, marking of regular, supplementary and special exams and submission of marks. • Submitting the duly filled attendance lists and Quality teaching forms to the CoD • Taking on duties assigned by the CoD • Performing advanced research in condensed matter Physics. • Supervising Postgraduate Students in Theoretical Physics. 	
Dates		September-December 2019/2020 Semester I	
Main activities and responsibilities		<ul style="list-style-type: none"> • Teaching several undergraduate and postgraduate courses including, Vibration and Waves, Materials Testing and Evaluation, Mathematical Physics (masters). • Setting examinations, invigilating, marking of CATs, regular, supplementary and special exams and submission of marks. • Submitting the duly filled attendance lists and Quality teaching 	

	<p>forms to the CoD</p> <ul style="list-style-type: none"> • Taking on duties assigned by the CoD
Name and address of employer	Masinde Muliro University of Science and Technology 190-50100 Kakamega Kenya
Type of business or sector	Education
Dates	2018/2019 Semester II
Occupation or position held	Part time- Lecturer
Main activities and responsibilities	<ul style="list-style-type: none"> • Teaching several undergraduate courses including Physical Optics, Thermodynamics, Statistical Mechanics, Introduction to Vibration and Optics. • Setting examinations, invigilating, marking of CATs, regular, supplementary and special exams and submission of marks • Submitting the duly filled attendance lists and log books to the CoD.
Occupation or position held	Part time-Assistant Lecturer
Dates	2018/2019 Semester I
Main activities and responsibilities	<ul style="list-style-type: none"> • Teaching several undergraduate courses including Classical Mechanics, Atomic and Nuclear Physics. • Setting examinations, invigilating, marking of CATs, regular, supplementary and special exams and submission of marks • Submitting the duly filled attendance lists and log books to the CoD.
Dates	2017/2018 Semester II
Occupation or position held	Part time -Assistant Lecturer
Main activities and responsibilities	<ul style="list-style-type: none"> • Teaching several undergraduate courses including Physical Optics and Statistical Mechanics. • Setting examinations, invigilating, marking of CATs, regular, supplementary and special exams and submission of marks • Submitting the duly filled attendance lists and log books to the CoD.
Dates	2017/2018 Semester I
Occupation or position held	Part time -Assistant Lecturer
Main activities and responsibilities	<ul style="list-style-type: none"> • Teaching several undergraduate courses including Classical Mechanics and Atomic and Nuclear Physics. • Setting examinations, invigilating, marking of CATs, regular, supplementary and special exams and submission of marks. • Submitting the duly filled attendance lists and log books to the CoD.
Dates	2016/2017 Semester I
Main activities and responsibilities	<ul style="list-style-type: none"> • Teaching several undergraduate courses including Classical Mechanics and Atomic and Nuclear Physics. • Setting examinations, invigilating, marking of CATs, regular, supplementary and special exams and submission of marks.

	<ul style="list-style-type: none"> • Submitting the duly filled attendance lists and log books to the CoD.
Name and address of employer	Kibabii University 1699-50200 Bungoma Kenya
Type of business or sector	Education
Dates	September-December 2018/2019 Semester I
Occupation or position held	Part time Tutorial Fellow
Main activities and responsibilities	<ul style="list-style-type: none"> • Teaching several undergraduate including, Vibration and Waves, Mathematical Physics III. • Setting examinations, invigilating, marking of CATs, regular, supplementary and special exams and submission of marks. • Submitting the duly filled attendance lists and Quality teaching forms to the CoD. • Taking on duties assigned by the CoD
Dates	January-April 2017/2018 Semester II
Occupation or position held	Part time Tutorial Fellow
Main activities and responsibilities	<ul style="list-style-type: none"> • Teaching several undergraduate including, Physical Optics, Mathematical Physics II. • Setting examinations, invigilating, marking of CATs, regular, supplementary and special exams and submission of marks. • Submitting the duly filled attendance lists and Quality teaching forms to the CoD. • Taking on duties assigned by the CoD
Dates	September-December 2017/2018 Semester I
Main activities and responsibilities	<ul style="list-style-type: none"> • Teaching several undergraduate including, Vibrations and Waves, Materials Testing and Evaluation. • Setting examinations, invigilating, marking of CATs, regular, supplementary and special exams and submission of marks. • Submitting the duly filled attendance lists and Quality teaching forms to the CoD. • Taking on duties assigned by the CoD
Dates	March-June 2016/2017 Semester I
Main activities and responsibilities	<ul style="list-style-type: none"> • Teaching undergraduate course - Vibrations and Waves • Setting examinations, invigilating, marking of CATs, regular, supplementary and special exams and submission of marks. • Submitting the duly filled attendance lists and Quality teaching forms to the CoD. • Taking on duties assigned by the CoD
Main activities and responsibilities	<ul style="list-style-type: none"> • Teaching Physics and Mathematics Forms One to Four • Taking on duties assigned by the head teacher
Education and training	
Dates	31/08/2015 - 14/12/2018
Title of qualification awarded	Doctor of Philosophy in Physics
Principal subjects / occupational skills covered	PhD thesis research titled ‘C-F Interaction; Spin Exchange and Thermodynamics for S-Wave and P-Wave Heavy Fermion Superconductors using BVT Formalism’
Name and type of	Masinde Muliro University of Science and Technology

organisation providing education and training	190-50100 Kakamega Kenya
Dates	23/08/2010 - 04/12/2015
Title of qualification awarded	Master of Science in Physics
Principal subjects / occupational skills covered	M.Sc. thesis research titled ' Thermodynamic Properties Of Heavy Fermion Superconductors '
Name and type of organisation providing education and training	Masinde Muliro University of Science and Technology 190-50100 Kakamega Kenya
Dates	12/06/1994 - 20/08/1999
Title of qualification awarded	Bachelor of Education (Science)- First Class Honours
Principal subjects / occupational skills covered	Physics and Mathematics
Name and type of organisation providing education and training	Egerton University 536, Njoro (Kenya)
Technical skills and competences	Knowledge of construction of theoretical models using BVT techniques in formulating concepts in condensed matter Physics.
Computer skills and competences	Microsoft professional. MathCAD 2000 Professional
PROFESSIONAL MEMBERSHIP	Member- Physics Society of Kenya (PSK)
PUBLICATIONS	<p>PUBLICATIONS IN REFERRED JOURNALS</p> <ol style="list-style-type: none"> 1. <u>Kibe Horace E</u> ,Sakwa T.W, Ayodo Y.K,Rapando W.,Khanna K.M, Sarai A (2015) Thermodynamic Properties of Heavy Fermion Superconductors. . International Journal of Physics and Mathematical Sciences.<i>Vol. 5 (2)April-June, pp. 23-33/ ISSN: 2277-2111</i> 2. Rapando B.W, Khanna K.M, Tonui J.K, Sakwa T.W, Muguro K.M, <u>Kibe Horace E</u>, Ayodo Y.K, Sarai A (2015). The Dipole Mediated t-J Model for High-Tc Superconductivity. International Journal of Physics and Mathematical Sciences. <i>Vol. 5 (3) July- September pp. 32-37. ISSN: 2277-2111.</i> 3. Michael Nakitare Waswa, Yudah K Ayodo, Thomas W Sakwa, Bonface Ndinya and <u>Kibe Horace E</u>.(2017). Doped Mott Insulators within the Strong Coupling Regime. International Journal of Recent Engineering Research and Development ISSN: 2455-8761 www.ijrer.com, Volume 02 – Issue 07 PP.102-108. 4. <u>Horace E Kibe</u>, Thomas Welikhe Sakwa, K.M Khanna (2017). Thermodynamics Of S-Wave Pairing In Uranium And Cerium Based Heavy Fermion Compounds. Journal of Multidisciplinary Engineering Science and Technology. ISSN: 2458-9403 Vol. 4 Issue 8, August – 2017www.jmest.org. 5. <u>Horace E Kibe</u>, *Sakwa T.W. and Khanna K.M (2017). Specific heat

of the integrated s-wave and p-wave pairing in uranium and cerium based heavy fermion superconductors. *International Journal of Physics and Mathematical Sciences*. Vol. 7 (3) July-September, pp. 1-6, ISSN: 2277- 2111.

6. Antony Ingosi, Henry Barasa Wafula, Thomas Welikhe Sakwa, **Horace E Kibe** (2018). Thermodynamic Properties of YBCO-123 superconducting materials with s-wave and p-wave singlet admixture. *Journal of Multidisciplinary Engineering Science and Technology*. Vol. 5 Issue 10, October – 2018 www.jmest.org JMESTN42352590. ISSN: 2458-9403.
7. **Horace E Kibe**, Antony Ingosi (2019). Correlation between C and F Electrons in Heavy Fermion Superconductors. *International Journal of Trend in Scientific Research and Development*. Volume 3 Issue 5, Available Online: www.ijtsrd.com e-ISSN: 2456-6470.
8. Michael Nakitare Waswa, **Horace E Kibe** (2019). Somerfield Coefficient for Hole- And Electron-Doped Cuprates. *International Journal of Research and Innovation in Applied Science (IJRIAS)*. Volume IV, Issue VIII, ISSN 2454-6194.
9. **Horace E Kibe**, Michael Nakitare Waswa (2019). S-wave superconducting model within the finite coulomb regime in cerium and uranium based heavy fermion superconductors. *International Journal of Innovative Science, Engineering & Technology*. Vol. 6 Issue 8, August 2019 ISSN (Online) 2348-7968.

CONFERENCES AND WORKSHOPS ATTENDED

1. Masinde Muliro University of Science and Technology Conference under the theme “Exploring Biophysics Diversity for Sustainable Industrial and Economic Development” from 3rd to 4th July 2019.
2. KENET Web Conferencing under the theme “Investigation of magnetic properties of FeMnP_{1-x}A_x (A=In, Se and Sn, where x=0.33) by use of GGA functionals” by Vincent Otieno, MSc student at Egerton University
3. KENET Web Conferencing under the theme “Investigation of electronic, structural and mechanical properties of FeMnP_{1-x}A_x (A=Si,Ga,Ge;x=0.33) as a potential magnetocaloric refrigerant alloy” by Gabriel Chirchir, MSc student at Egerton University.
4. KENET Web Conferencing under the theme “Optimal Malaria Vector Protection Index Elicited by the 10-34 KHz Animal Sounds” by Phillip Amuyunzu, PhD candidate at Egerton University, Faculty member at Masinde Muliro University of Science and Technology.
5. KENET Web Conferencing under the theme “Data science and visualization tools in computational physics and chemistry” by Dr. Daniel M. Shadrack, St. John's University of Tanzania, Nelson Mandela African Institute of Science and Technology, Tanzania.
6. KENET Web Conferencing under the theme “Materials Research Society of Kenya MRS-K” by Prof. George Amolo of the Technical University of Kenya.
7. KENET Web Conferencing under the theme “: Fabrication and Characterization of Cobalt Pigmented Anodized Zinc for Photocatalytic Application”.by Ms Judith Koskey from Kabarak

University.

8. KENET Web Conferencing under the theme “Density functional theory and basic implementation in *ab-initio* codes” Mr. James Sifuna Ph.D candidate at Technical University of Kenya (TUK).
9. KENET Web Conferencing under the theme “ASESMA - Past, present and future prospects”.by Prof Nicola from ICTP.
10. KENET Web Conferencing under the theme “Structural and Electronic studies of selected Titanium Oxides and Oxynitrides” by Lynet Allan, MSc student at University of Nairobi.
11. KENET Web Conferencing under the theme “Ab Initio Stress-Strain Calculation of Elastic Constants made Simple” by Nicholas Ongwen, PhD student at Maseno University.
12. KENET Web Conferencing under the theme “Effect of heteroatom doping on the electrochemical performance of carbons” by Dr. Bridget Mutuma, Post-Doc University of Pretoria, South Africa.
13. KENET Web Conferencing under the theme “Defect calculations in Quantum Espresso” by Dr. Phillip Nyawere, Kabarak University, Kenya.
14. KENET Web Conferencing under the theme “STRUCTURE AND SYMMETRY under Electronic structure methods and application using(VASP, SIESTA AND QUANTUM ESPRESSO) by Dr. George Manyali- Dean faculty of Science Kaimosi Friends College (KAFUCO) and a certified professional physicist as per South Africa Institute of Physics.
15. KENET Web Conferencing under the theme “Solar Cell Efficiency: A Materials Perspective and the Case of Organic Semiconductors by Dr. Pascal Kaienburg a post-Doc researcher at University of Oxford, England.
16. First Bomet International Conference 13th -15th July 2021, Presented on the topic: “INTEGRATED S-WAVE AND P-WAVE PAIRING STATES IN HEAVY-FERMION SUPERCONDUCTORS”.

POSTGRADUATE STUDENTS SUPERVISIONS

MASTER OF SCIENCE

1. **WABUYI GODWIN POSTA** MSC/PHY/003/18 (Thermodynamic Phase Transition of a Singlet Superconducting Electron-Hole pairing of Excitonic-type in heavy fermion system) from May 2020 to date. (STATUS: On-going) (**Kibabii University**)
2. **OPILI MOMANYI EDWIN** MSC/PHY/008/18 (Electron Transport and diffusivity in strongly correlated quantum critical systems) from May 2021 to date. (STATUS: On-going) (**Kibabii University**).

THESIS EXAMINED

POSTGRADUATE STUDENTS

1. **Andrew Munyasia Wanyonyi**, MSC/PHY/009/17“Thermodynamic Properties of Bismuth Cuprates Based on Hybrid s-wave and d-wave singlet model” MSC Thesis, Department of Science Technology and Engineering, Kibabii University (2020).
2. **Chisira Samwel Namayi**, MSC/PHY/008/17 “Thermodynamic Properties of a Microcanonical Ensemble of a mixture of ³He and ⁴He Isotopes with duo-fermion Spin degeneracy” MSC Thesis, Department of

Science Technology and Engineering, Kibabii University (2020).

RESPONSIBILITIES AND DUTIES IN THE COMMUNITY

1. Appointed as a strategic plan implementation committee of Musanda Secondary School from 30th September 2008 to 30th September 2013.
2. Facilitated a guiding and counselling workshop at Mumias for schools in Mumias on 10th July 2012.

REFEREES

Prof. Thomas.W Sakwa
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