

CURRICULUM VITAE

PROF. KELVIN KABETI OMIENO, Ph. D

BSc in Computer Science (**First Class Honors**)

MSc in Information Technology, MBA in Corporate Management

Ph.D in Business Information Systems



Associate Professor of Information Technology

AND

DEAN, School of Computing and Information Technology

KAIMOSI FRIENDS UNIVERSITY (KAFU)

KENYA

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1. PERSONAL DATA

Name	: Kelvin Kabeti Omieno
Date of Birth	: 12th March, 1984
Place of Birth	: Busia County
Citizenship	: Kenyan
Marital Status	: Married
Residence	: Kakamega, Kakamega County
Language	: English, Luhya (Very Good), Kiswahili (Good), French (Basic)
Religion	: Christian

CURRENT ADMINISTRATIVE POSITON:

Role	: Dean, School of Computing and Information Technology Kaimosi Friends University (KAFU)
Address	: Box 385-50309 Kaimosi, Vihiga County Kenya
Telephone	: +254-726-849197/ +254-734-849197/ +254-728-703999
Website	: www.kafu.ac.ke OR http://www.kelvinomieno.com
Email (s)	: komieno@kafu.ac.ke OR kelvin.omieno@gmail.com OR kelvinkabeti@yahoo.com

2. SUMMARY OF BIO DATA

Prof. Kelvin Kabeti Omieno is Founding and Current Dean, School of Computing and Information Technology (SCIT), Kaimosi Friends University (KAFU) since February 2019. He is an Academic Leader of various academic programmes in the School of Computing and Information Technology. Prof. Omieno has acquired over nine (9) years of hands-on administrative experience in higher management in Kenya. In 2014 he was appointed Chairman of Department of Computer Science in the Faculty of Science, Masinde Muliro University of Science and Technology (MMUST). In December 2016, Prof. Omieno was appointed Founding Dean, School of Computing and Informatics, MMUST, a position he held till January 2019. He is an Adjunct Professor in Department of Management Sciences and Academic Leader of Masters in Business Information Systems at Technical University of Mombasa (TUM). Prof. Omieno is also an External Examiner with Egerton University (EU) and previously at Lukenya University (LU). Prof. Kelvin Omieno has served as a chairman and member in several other academic and non-academic appointments. He spearheaded development of Kaimosi Friends University Charter 2022, University Statutes 2022 (Revised 2024), KAFU Strategic Plan 2023-2027, KAFU Human Resources Policies and Procedures Manual 2022 (Revised 2024) and many other University policy documents.

Besides offering leadership at University Prof. Omieno has good experience in governance of Basic Education in the country. He served as Board member (2019-2022) and currently serving as Chairman Board of Management of Makunda Mixed Secondary School (2022 to date) and member of Board of Management of St. Anne's Bunyala Girls Secondary School (2019 to date) in Busia County. He is also a member of Board of Governors of Wanga Technical and Vocational College (2019 to date) and Navakholo Technical and Vocational College (2023 to date) in Kakamega County. Moreover, Prof. Omieno previously served as a pre-qualified Resource Person with Kenya National Qualification Authority (KNQA) and as a Subject Matter Expert with KASNEB in the field of ICT and related areas in development of the new Syllabus and setting of Professional Examinations. Prof. Omieno has been involved in several over consultancy activities on ICT for

Development and capacity building. He a member of Senate and several other Committees at Kaimosi Friends University.

Prof Kelvin Omieno is an accomplished scholar with proven track record in formulating and managing academic programs as demonstrated by the new programs developed while at Masinde Muliro University of Science and Technology including but not limited to Master of Science in Computer Science, Bachelor of Science in Information Systems and Knowledge Management, Bachelor of Technology Education (Computer Studies), and Bachelor of Science in Computer Security and Forensics; over 30 publications in peer reviewed journals; supervising and mentoring PhD and MSc students and serving as academic head in the school. Prof. Omieno has also been involved in several Research grants both as Team Leader and as co-researcher.

Prof. Kelvin K. Omieno is a holder of Bachelor of Science in Computer Science (First Class Honors) (2008) and Master of Science in Information Technology (2012) degrees from Masinde Muliro University of Science and Technology. Prof. Omieno is also a holder of Master of Business Administration in Corporate Management from KCA University (2022) and Doctor of Philosophy in Business Information Systems (2017) from Jaramogi Oginga Odinga University of Science & Technology, Kenya. Besides, Prof. Omieno poses Huawei Certified ICT Associate-Artificial Intelligence (HCIA-AI) and Certificate in Python Programming.

Prof. Omieno was employed by Masinde Muliro University of Science and Technology upon graduation (Jan 2009) as a Graduate Teaching Assistant and later arose through ranks. He was promoted to Assistant Lecturer (Nov 2012) and Lecturer (Oct 2013). He later on joined Kaimosi Friends University College (then a Constituent College of MMUST) as Senior Lecturer (Jan 2019) and currently is an Associate Professor of Information Technology at Kaimosi Friends University (from Dec, 2022). He has a cumulative 15 years of teaching and research experience at various institutions of higher learning including MMUST, Jaramogi Oginga Odinga University of Science and Technology, Jomo Kenyatta University of Agriculture and Technology, Kibabii University, Mount Kenya University, Technical University of Mombasa amongst others.

Prof Omieno is a professional member of the Association for Computing Machinery (ACM), the largest association of computing professionals globally. He is also a member of Internet Society (ISoC) and professional member of Association of Computing Practitioners-Kenya (ACPK).

3. LEADERSHIP AND MANAGEMENT POSITIONS HELD

3.1. MANAGEMENT POSITIONS HELD

S/NO	PERIOD	ROLE	APPOINTMENT BY
1	September 2022-Present	Dean , School of Computing and Information Technology (SCIT), Kaimosi Friends University	Vice Chancellor
2	February 2019-August 2022	Dean , School of Computing and Information Technology (SCIT), Kaimosi Friends University College	Principal
3	1 st July 2019-19 th July 2019	Acting Deputy Principal (Academic and Student Affairs) , Kaimosi Friends University College (KAFUCO)	Principal
4	December 2016-January 2019	Founding Dean , School of Computing and Informatics, Masinde Muliro University of Science and Technology	Vice Chancellor
5	August 2014-December 2016	Chairman , Department of Computer Science, Masinde Muliro University of Science and Technology	Vice Chancellor

3.2. LEADERSHIP AND COMMITTEES SERVED

S/NO	PERIOD	ROLE	APPOINTMENT BY
A	CURRENT APPOINTEMENTS		
1	June 2023-Present	Adjunct Professor , School of Business, Technical University of Mombasa (TUM), Mombasa County	Vice Chancellor

2	July 2024- Present	Member , Strategic Plan Technical Implementation Committee	Vice Chancellor
3	June 2021- Present	Academic Leader , Masters in Business Information Systems, School of Business, Technical University of Mombasa (TUM), Mombasa County	Vice Chancellor
4	June 2023- Present	External Examiner , Department of Computer Science, Egerton University (EU), Nakuru County	Vice Chancellor
5	March 2024- to Present	Member , University Research Innovation and Outreach Board	Vice Chancellor
6	June 2024- to present	Chairman , Human Resource Instruments Ad-hoc Committee Development Committee	Vice Chancellor
7	August 2023- Present	Chairman , Productivity mainstreaming Committee	Vice Chancellor
8	July 2023- Present	Chairman , Webometrics Committee	Vice Chancellor
9	July 2022-To Date	Programme Leader, Undergraduate and Postgraduate Programmes	Vice Chancellor
10	October 2019- Present	Board Member , Wanga Technical and Vocational College (Wanga TVC), Kakamega County & Chairman , Education, Research and Human Resource Committee	Cabinet Secretary Ministry of Education
11	November 2023- Present	Board Member , Navakholo Technical and Vocational College (Navakholo TVC), Kakamega County & Chairman , Audit and Risk Committee	Cabinet Secretary Ministry of Education
12	January 2022- Present	Member , Quality Assurance and Management Systems Committee, Kaimosi Friends University	Vice Chancellor
13	August 2020- Present	Library Advisory Committee of KAFU	Principal, Vice Chancellor
B PREVIOUS APPOINTMENTS			
1	August 2023- June 2024	Chairman , Strategic Plan Development Committee	Vice Chancellor
2	Dec, 2024	Chairman , Strategic Plan Launch Committee	Vice Chancellor
3	August 2022- Aug 2023	Chairman , KAFU Strategic Plan Development and Review Committee	Vice Chancellor
4	June 2021- June 2023	Adjunct Senior Lecturer , School of Business, Technical University of Mombasa (TUM), Mombasa County	Vice Chancellor
5	July 2022- Aug 2023	Chairman , Policies Development and Review Committee of KAFU	Vice Chancellor
6	June 2023- Present	External Examiner , Department of Computer Science, Egerton University (EU), Nakuru County	Vice Chancellor
7	July 2021-Aug 2022	Chairman , Ad-Hoc Committee on University Charter Process	Principal
8	April 2021-Aug 2023	Chairman , Open Distance and e-Learning (ODEL) Board, KAFU	Principal, Vice Chancellor
9	January 2021- Sept 2022	Member , Internal Collective Bargaining Agreement (CBA) Negotiation Committee of KAFUCO	Principal
10	November 2020- Aug 2022	Corporate Communications Committee of KAFUCO	Principal
11	August 2020-Sept 2022	Member, Ad-Hoc committee for Anti-Plagiarism of KAFUCO	Principal
12	August 2020- March 2021	Member, Ad-Hoc committee for Online Examinations of KAFUCO	Principal
13	July 2020-To July 2022	Chairman , UCAB Development and Review of Policies Committee of KAFUCO	Principal

14	July 2020-Aug 2022	Member, Finance Committee of KAFUCO	Principal
15	April 2020-Aug 2022	Member , Project Implementation Committee of KAFUCO	Principal
16	April 2020- Dec 2021	Chairman , eLearning Committee of KAFUCO.	Deputy Principal (ASA)
17	November 2019- February 2020	Chaired , UCMB Policies Review Committee-Kaimosi Friends University College: To review University College Statutes 2020, Schemes of Service, Staff Establishment and HR Policy and Manual	Principal
18	February 2019- June 2021	Chairman , KAFUCO 2018/19-2022/23 Strategic Plan Review Committee	Principal
19	October 2019- Aug, 2022	Programme Leader , Undergraduate and Postgraduate Programmes	Principal
20	February 2019- February, 2020	Member , Project Management Team- Proposed Development of Land Use Master Plan	Principal
21	February 2019- August 2022	Website Manager , Kaimosi Friends University College Website	Principal
22	February 2019- June 2021	Patron , ERP Implementation Committee	Principal
23	February 2019- February 2020	Member , University College Management Board (UCMB)- Kaimosi Friends University College and Representative of Deans	Principal
24	February 2019- Aug 2022	Member , University College Academic Board (UCAB), Kaimosi Friends University College	Principal
25	March 2018- January 2019	Member , ISMS Management Committee to oversee Implementation of ISMS ISO 27001:2015 Standard	Vice Chancellor
26	Established a Collaboration between UoN School of Computing and Informatics and MMUST School of Computing and Informatics on HealthIT Project, December 2016		
27	Member of Scientific Committee Organizing for World Conference on Transformative Education, to be held on 26th- 2018th July 2018, MMUST		
28	Member of the Scientific and ICT and Publicity Sub-Committees organizing for The First Pan African Research Congress on Knowledge Generation and Dissemination, to be held on 17th– 22nd June 2018, MMUST		
29	Feb 2017-Member , Steering Committee for MMUST Professional Centre, Appointed by Deputy Vice Chancellor (Planning, Research and Innovation)		
30	2017-2019: Appointed Internal Quality Auditor on ISO 9001:2008 Standard and QMS Documentation, at MMUST		
31	Member of Senate , Deans Committee and various other University Senate Committees, and short-listing committees for Teaching and Non-Teaching staff.		
C	CHURCH-RELATED ENGAGEMENTS		
1	April 2021- Present: Chairman , St. Ambrose Small Christian Community, St Joseph's Cathedral, Kakamega		
2	April 2021- Present: Chairman , St. Andrews, Mutsembi Sub Parish, St Joseph's Cathedral, Kakamega		
3	March 2024- Present: Chairman , Catholic Justice and Peace Commission, St Joseph's Cathedral, Kakamega		
4	April 2021- Present: Member Parish Council , St Joseph's Cathedral, Kakamega		

4. ACADEMIC APPOINTMENTS

S/NO	PERIOD	ROLE	APPOINTMENT BY
A	PROFESSIONAL APPOINTMENTS		
1	January 2023- Present:	Associate Professor of Information Technology, Department of Information Technology, School of Computing and Information Technology, Kaimosi Friends University, Vihiga-Kenya.	University Council

2	June 2023-Present	Adjunct Professor, School of Business, Technical University of Mombasa (TUM), Mombasa County.	Vice Chancellor
3	January 2019-November, 2022	Senior Lecturer, Department of Information Technology and Informatics, School of Computing and Information Technology, Kaimosi Friends University, Vihiga-Kenya	Principal
4	June 2021 To June 2023	Adjunct Senior Lecturer, School of Business, Technical University of Mombasa (TUM), Mombasa County.	Vice Chancellor
5	October 2013-January 2019	Lecturer, Department of Computer Science, School of Computing and Informatics, MMUST, Kakamega-Kenya	Vice Chancellor
6	November 2012-October 2013	Assistant Lecturer, Department of Computer Science, MMUST, Kakamega-Kenya	Vice Chancellor
7	January 2009-October 2012	Graduate Teaching Assistant, Department of Computer Science Masinde Muliro University of Science & Technology, Kakamega-Kenya	Vice Chancellor
B OTHER APPOINTMENTS			
1	January 2022-Present	Member, Technology Enabled Learning (TEL) Committee, Kaimosi Friends University	Principal/ Vice Chancellor
2	January 2022-Present	Member, KAFUCO Scholarship Committee, Kaimosi Friends University	Principal/ Vice Chancellor
3	February 2020-Present	Member, Board of Graduate Studies, Kaimosi Friends University	Principal/ Vice Chancellor
4	February 2020-Present	Coordinator, School Graduate Studies Committee, School of Computing and Information Technology, Kaimosi Friends University	Principal/ Vice Chancellor
5	February 2020-Present	Member, Chairman, Departmental Graduate Studies Committee, Department of Information Technology and Informatics, Kaimosi Friends University	Principal/ Vice Chancellor
6	Sept 2018-Sep 2021	Member, Technical Vocational Education and Training (TVET) Curriculum Review Committee	Vice Chancellor
7	Jan 2018- Jan 2019	Member, School of Open Learning and Continuing Education (SOLACE) Board Member for Short Courses, MMUST	Deputy Vice Chancellor (PRI)
8	Feb 2017- Jan 2019	Member, Library/ICT Committee of Senate, MMUST	Vice-Chancellor
9	March 2018- Jan 2019	Chairperson, MMUST Webometrics Advisory Committee	Vice Chancellor
10	Jan 2017- Jan 2019	Member, Task force on Transforming MMUST into Paperless University by 2017	Deputy Vice Chancellor (PRI)
11	Jan 2017-March 2017	Chaired Deans and Senate Committees that led to Restructuring of Directorate of Postgraduate Studies, Directorate of Open Distance and E-Learning and SOLACE, MMUST	Vice Chancellor

5. EDUCATION QUALIFICATIONS AND COMPETENCY DEVELOPMENT

5.1. ACADEMIC QUALIFICATIONS

S/NO	PERIOD	QUALIFICATION	THESIS TITLE AND SUPERVISORS / QUALIFICATIONS
A POSTGRADUATE EDUCATION			
1	2013/14-2016/17	Doctor of Philosophy in Business Information Systems University: Jaramogi Oginga Odinga University of Science and Technology	Thesis Title: "Usability Maturity Assessment for Virtual Learning Systems in Kenya" Supervisors: Dr. George Raburu, Dr. Pamela Raburu & Prof. Omollo Ongati
2	2009/10-2011/12	Master of Science in Information Technology University: Masinde Muliro University of Science and Technology, Kenya	Thesis Title: "A Framework to Measure Intranet Usage in Kenyan Public Universities"

			Supervisors: Prof. Patrick J. Ogao & Mr. Simon M. Karume
3	2019/20-2022/23	Master of Business Administration (Corporate Management) University: Kenya College of Accountancy University, Kenya	Dissertation Title: "Effect of Workplace Environment on Employees' Productivity in SACCOs In Kakamega County, Kenya" Supervisors: Dr. Mary Ragui
B	UNDERGRADUATE EDUCATION		
1	2004-2008	Bachelor of Science in Computer Science University: Masinde Muliro University of Science & Technology, Kenya	Qualification: First Class Honors Specialization: Software Engineering
C	BASIC EDUCATION		
1	2022	Kenya Certificate of Secondary Education School: Teremi High School , Bungoma	6/8 Plain A's and A- (Minus) Aggregate Score
2	1998	Kenya Certificate of Primary Education School: Mundika 'B' Primary School, Busia	437/700 Marks

5.2. PROFESSIONAL CERTIFICATION

1. **2022: Huawei Certified ICT Associate-Artificial Intelligence (HCIA-AI).**
2. **2022: Certificate in Python Programming Basic, HUAWEI Technologies Ltd**

5.3. COMPETENCY DEVELOPMENT

1. **2022:** Train Trainer Training (TTT) on Artificial Intelligence Technology, Huawei and UNESCO 25th-29th July 2022, Huawei Academy, University of Nairobi, Kenya.
2. **2022:** Training on Internal Auditors, ISO 9001:2015 Standard by ACAL Consultancy Ltd 10th-12th May 2022, Golf Hotel
3. **2020:** Training on Occupational Safety and Health Awareness, 17th April, 2020, KAFUCO
4. **2018:** Workshop Training on Building a Culture of Peace and Non-Violence organized by MMUST and Victims of Terrorism Organization Kenya, 5th-8th June 2018, Bishop Stam-Kenya
5. **2018:** Workshop on 3rd Annual mUzima Hackathon organized by Institute of Biomedical Informatics (IBMI), Moi University 6th-8th June 2018
6. **2018:** MoH and Universities Health Information Research Consultative Workshop Organized by HealthIT Project 12th – 13th March 2018 in Homa Bay County
7. **2016:** ISO 9001:2008 Standard and QMS Continual Improvement Training, Bishop Stam, Aug 29-30, 2016.
8. **2015:** Attended workshop on Deans, Directors, Coordinators and HODs Induction organized by MMUST University Management, Bishop Stam- 28th April-29th April 2015.

5.4. ADDITIONAL SKILLS

- a. **Microsoft Office package:** Microsoft Word, Excel, Access and other packages
- b. **Database operation:** Microsoft Office Access, MySQL, Oracle 8i
- c. **Statistical operation:** SPSS
- d. **Programming:** C, C++, SQL, HTML, D, PHP, Java, VB.NET, Prolog, C#, JavaScript, Python

6. RELEVANT ACADEMIC EXPERIENCE

6.1. TEACHING, APPRAISAL, SUPERVISION & SCHOLARSHIPS

6.1.1 Taught Courses

Over Fifteen (15) years of teaching experience at PhD, Masters and Undergraduate levels

Postgraduate {PhD and Masters} Courses Taught:

Postgraduate Courses Taught	
Trends in Information Systems	Research Methodology
Enterprise Application Development and Architectures	Advanced Object-Oriented Programming
Object Oriented Analysis and Design	Advanced Cryptography and Security Analysis
Software Architectures	Machine Learning
Advanced Database Systems	
Undergraduate Courses Taught	
Procedural programming	Programming with C#
Data Structures and Algorithms	Computer networks
Fundamentals of computing	Software Engineering
Systems Analysis and Design	Operating Systems
Object Oriented Programming	
Object Oriented Analysis and Design	Accounting Information systems
Logic Programming	Database systems
Mobile Application Programming	Computer Architecture

Programming languages: C, C++, PHP, Java, VB.NET, Prolog, C#, J2ME, JavaScript, Python

Environments: Custom Software Development, Mobile App Development, Web App Development

6.1.2. Present and Previous Appraisal performance and Commendations

- Staff performance appraisal has been Exceeds Expectations year-by-year, KAFU
- Typically, 80% - 95% performance as evaluated by students, KAFU
- Vice Chancellor's Commendation during the 1st MMUST Gala Dinner and 2015 Awards Ceremony-1st December 2015, MMUST
- Typically, 70% - 90% performance as evaluated by students, MMUST
- Staff performance appraisal has been Exceeds Expectations year-by-year, MMUST

6.1.3. Scholarships

- ❖ 2009-2011: MMUST Partial University Scholarship for MSc in IT, MMUST
- ❖ 2004-2008: Joint Admissions Board (JAB) and Higher Education Loans Board, Kenya for Undergraduate program, MMUST.

6.1.4. Thesis Supervision

I have graduated 15 postgraduate students at PhD and Masters level. I am currently co-supervising Doctor of Philosophy and Master of Science students from various Universities as shown:

S/No	Name & Supervisors	Level & University	Thesis Title	Completion Status
A				
Supervised and completed				
As Associate Professor- Grade 14				
1.	Dr. Ayub Shirandula Supervisors: Prof. Omieno , & Dr. Ondulo J	PhD, MMUST	Development of an Integrated Model for E-Health Implementation in Kenya	Graduated Dec' 23
2.	Mr. Hezbone Ocholi Supervisors: Prof. Omieno K & Dr. Odoyo C	MSc, KAFU	A Framework for Integration of Heterogenous Agricultural Information Management Systems for the Rural Agriculture Sector in Kenya	Graduated Dec' 22
3.	Mr. Eric Okeno Supervisors: Prof. Omieno K & Dr. Odoyo C	MSc, KAFU	An Interoperability Model for E-Health Systems in Public Health Facilities in Kakamega County, Kenya	Graduated Dec' 22

4.	Ms. Harriet Wangui Supervisors: Prof. Omieno K & Dr. Angulu R	MSc, MMUST	A Framework to Measure Functionality of E-Learning Systems in Kenyan Universities	Graduated Dec' 23
5.	Mr. Brian Mungai Supervisors: Prof. Omieno, & Dr. Egessa M.	MSc, KAFU	AI-Based Chatbots Integration Framework in Learning Management Systems in Kenyan Universities: A Case Study of Kaimosi Friends University	Successfully defended April, 2024
6.	Mr. Charles Avedi Supervisors: Prof. Omieno, & Dr. Kiget N	MSc, KAFU	Cloud-Based Implementation Framework For E-Learning Systems in TVET Institutions in Kenya: A Case Study of Vihiga County	Successfully defended Feb, 2024
7.	Mr. Geoffrey Nyongesa Supervisors: Prof. Omieno K & Dr. Otanga D	MSc, MMUST	Chatbot Adoption Model for Customer Care Support in Telecommunication Industry, Kenya	Successfully defended April, 2024
8.	Mr. Yohana Obiye Supervisors: Prof. Omieno, & Dr. Odoyo C	MSc, KAFU	A Framework for Enhancing the Maintainability of Content Management Systems in Kenyan Universities' Learning Management Systems	Successfully defended July, 2024
As Senior Lecturer- Grade 13				
1.	Dr. John Ndia Supervisors: Prof Muchiri &, Dr. Omieno K	PhD, MMUST	Structural Complexity Framework and Metrics for Analyzing the Maintainability of Sassy Cascading Style Sheets	Graduated Dec'20
2.	Dr. Amos Chege Kirogo Supervisors: Dr. Omieno K, Dr. Mutua & Dr. Ogemah V	PhD, MMUST	A Digital Imaging Model for Plant Stress Detection	Graduated Dec'20
3.	Dr. Samson Munialo Supervisors: Prof Muchiri G & Dr. Omieno K	PhD, MMUST	A Size Metric-Based Effort Estimation Method for Service-Oriented Architecture Systems	Graduated Dec'20
4.	Dr. Obadiah Matolo Musau Supervisors: Dr. Omieno K & Dr. Angulu R	PhD, MMUST	Machine Learning Model for Prediction of Students' Academic Performance, Kenya	Graduated Dec'20
5.	Dr. Michael Okumu Ujunju Supervisors: Dr. Omieno K & Prof. Ogara S.	PhD, MMUST	An Algorithm for Resources Use in Multi-Tenant Cloud Computing Application Environment	Graduated August' 21
6.	Mr. Dickson Waliaro Supervisors: Dr. Omieno K & Dr. Ondulo J	MSc, MMUST	A Model to Measure Functional Suitability of Enterprise Processing Systems in Kenyan Universities	Graduated Dec'20
As Lecturer- Grade 12				
1.	Dr. Kennedy Ondimu Supervisors: Prof. Muchiri G, Prof Ateya I, & Dr. Omieno K	PhD, MMUST	Resource Perspective-Based Situational Method for Improving Healthcare Business Processes	Graduated Dec'18
2.	Mr. Samuel Shitote Supervisors: Dr. Omieno & Dr. Ondulo J	MSc, MMUST	Optimization of Content Management System to Improve Website Ranking in Organizations, Kenya	Graduated Dec'18
3.	Mr. Victor Kadima Supervisors: Dr. Omieno & Dr. Mbugua	MSc, MMUST	A Model for Cyber Security Vulnerability Assessment in County Governments, Kenya	Graduated Dec'18
4.	Mr. Augustine Prince Ngomeh Supervisors: Dr. Omieno K & Dr. Mbugua	MSc, MMUST	Security Architecture in Mobile Banking in Kenya	Graduated Dec'18
5.	Mr. Hillan Rono Supervisors: Dr. Omieno K & Dr. Mutua S	MSc, MMUST	An Interoperability Framework for E-Government Heterogeneous Information Systems, Kenya	Graduated Dec'18

B	Ongoing Postgraduate Students			
1.	Mr. Jackson Mutua Supervisors: Prof. Omieno , & Dr. Kiget N.	MSc, KAFU	Development of a Knowledge Management Framework for Healthcare in Kenya: A Case Study of Vihiga County	<i>Thesis under Examination</i>
2.	Mr. Shadrack Metto Supervisors: Prof. Omieno K & Dr. Ondulo J	PhD, MMUST	A Model for Security in Internet of Things for Smart Homes	<i>Thesis under Examination</i>
3.	Mr. Hillan Ronoh Supervisors: Dr. Odawa J & Prof. Omieno K.	PhD, MMUST	A Smart Contract Based Model on Blockchain Application for Tea Supply Chain Management, Kenya.	<i>Thesis under Examination</i>
4.	Mr. Benjamin Kiprono Supervisors: Prof. Omieno , & Dr. Ondulo J	PhD, MMUST	Modelling Disruptive Technologies Adoption in Banking Sector, Kenya	<i>Thesis under Examination</i>
5.	Mr. Savatia Edward Mahanga Supervisors: Prof. Omieno , & Dr. Otanga D	PhD, MMUST	Computer Aided Health Model for Non-Visual Patients' Medication	<i>Proposal Approved by SGSC</i>
6.	Mr. Philemon Namusenda Supervisors: Prof. Omieno K & Dr. Otanga D	MSc, MMUST	Framework for Cloud-Based Adoption of E-Voting System, Kenya	<i>Writing Draft Thesis</i>
7.	Ms. Jackline S. Waburaka Supervisors: Dr. Ondulo J.& Prof. Omieno K	MSc, MMUST	Implementation Architecture for E- Health in Public Healthcare Facilities	<i>Writing Draft Thesis</i>
8.	Ms. Perez Nelima Supervisors: Prof. Omieno K & Dr Angulu R.	PhD, MMUST	Model to Measure Smart Device User Satisfaction in Selected Counties in Kenya	<i>Writing Proposal</i>

6.1.5. Thesis Examination

I have examined the following Doctoral and Master thesis in areas related to Information Technology: -

1. Ouma Gordon Otieno (Kisii University)-Incentivization of large-scale crop pest and disease surveillance: Model formulation and algorithm design, a PhD in Information Systems.
2. Davis Matovu (MMUST, 2022)- Internet of Things Cyber Security Assessment Model and Metrics, PhD
3. Mr. J. Vijay Fidelis (Government Arts, 2024 College Udumalpet- India, 2021)- An Efficient Framework for Player Improvement and Management in Soccer Using Optimization and Machine Learning Algorithms-PhD
4. Mr. Musau Victor Vincent (Kisii University, 2021)- A Usability Evaluation Framework for Web-Based Learning Management Systems Used in Kenyan Universities -MSc
5. Mr. Jared Ngare (Kisii University, 2021)-Influence of Organizational Culture on the Implementation of Security Practices for Information Systems at Moi University-MSc
6. Mr. Mburu James Maina (Murang'a University of Technology, 2021)-An Enhanced Multiview Test case generation technique for Object Oriented Software Using Class and Activity Diagrams-MSc
7. Mr. Kevin Agina Onyango (Murang'a University of Technology, 2021)- A Metrics-Based Fuzzy Logic Model for Predicting the Reusability of Object-Oriented Software-MSc
8. Ms. Dorcas Gicuku Mwireri (MMUST, 2018)- An Enhanced J48 Algorithm for Breast Cancer Diagnosis-MSc
9. Mr. Philip Kipkurui Bittok (MMUST, 2017)- Critical Success Factors for Adoption of Cloud Computing in National Referral Hospitals in Kenya-MSc
10. Ms. Perez Nelima (MMUST, 2016)- Enhanced Model to Measure Information Systems User Satisfaction in Kenyan Universities-MSc

11. Mr. Abdi Halima (MMUST, 2016)- Influence of Information Communication Technology on dissemination of agricultural market information to vegetable farmers in Vihiga County,MSc
12. Mr. Khanda Jackson (MMUST, 2016)- A Framework for Mobile Payment Adoption in Kenyan Secondary Schools-MSc
13. Mr. Bethwel Kipchirchir Okello (MMUST, 2015)- Evaluation of the Learnability Principles of Mobile-Wireless Information Systems' Application Software for Children in Kenya-MSc
14. Mr. Kabii Cosmas Muthama (MMUST, 2015)- A Framework to Evaluate the Impact of Open-Source Software in a software Market in Kenya-MSc
15. Ms. Emily Tarus (MMUST, 2015)- Contribution of ICT to Extension Service Delivery for Horticulture Farmers in Uasin Gishu County, Kenya-MSc
16. Ms. Chebet Willyster Mibei (MMUST, 2014)- Integrating Computer Technology in learning Cell Biology in Secondary Schools in Kenya-MSc
17. Mr. Peter Soita (MMUST, 2014) - Factors Affecting Software Project Implementation in Public Universities-MSc

6.1.6. Student Innovations/ Projects

Previously Lead Software Incubation Research Group (SIRG'17) hosted in the School of Computing and Informatics, MMUST. Some of the successful Innovations include:

- (a) KTN Leo - 19th March 2018 - Makala ya Teknohama: Mwanafunzi wa MMUST aunda teknolojia mpya: Accessible Via <https://www.youtube.com/watch?v=6IkLpqZHCag>
- (b) Teknohama: Uvumbuzi unaotumia ujumbe wa simu kujua waliofika shuleni: Accessible via <https://www.youtube.com/watch?v=D17MF4beUMs>
- (c) Other Innovations: Student Helper; Online eLearning with attendance; & SmartHealthCare amongst others

6.2. FUNDED RESEARCH PROJECTS & CONSULTANCIES

6.2.1 Research Interests

ICT4D, Technology-Supported Learning, Data Science, Health Informatics and Visual Analytics

6.2.2. Research Projects

1. Current Applied Grant Projects

- A. Co-PI ((Prof. Kipkemboi J, **Prof. Omieno K.**, Dr. Mulinya C & Dr. Sulungai M): Title: **Resilience in Climate Crisis - Community-Based Approaches to assessing Loss and Damage in East African Higher Education**, Proposal submitted to ERASMUS Lump Sum Grants; Type: ERASMUS-EDU-2024-CBHE-STRAND-2; Amount Applied: \$80,000

2. Current Successful Grant Projects

- A. [2023/24]-**Co-PI**: (Mathew M. Egessa, Paul Orina, Aggrey S. Shitsukane & Kelvin K. Omieno): Research Grant Title: **"Towards A Machine Learning-Based Early Warning System for Fish Kills in Cage Fish Culture"**, Funded by KENET; Amount Granted: KSh. 1,500,000
- B. [2023/24]-**PI**: (**Prof. Kelvin Omieno** & Mr. Ayub Shirandula): KAFU URF Title: **"Towards a Resilient Cloud-based Model for Collaborative Research and Online Teaching in Universities"**, Amount Granted: KSh. 350,000
- C. [2023/24-2027/28]-**Co-PI** ((Prof. Kipkemboi J, **Dr. Omieno K.** & Dr. Mulinya C): A Multi-Disciplinary Research Grant Title: **"DUPC3 proposal on Water Transformation Pathways Planning"**, Funded by DUPC3; Amount Granted: €15,520 {Ksh. 2,000,000}

3. [Previous Projects](#)

- A. [2023/24]-PI: (Dr. Kelvin Omieno & Mr. Ayub Shirandula): E-Learning Research Grant
Title: “Towards a Resilient Cloud-based Model for Collaborative Research and Online Teaching in Universities”, Funded by KAFU URF; Amount Granted: KSh. 150,000
- B. [2019/20]-PI: (Dr. Omieno, Shirandula & Bonareri): E-Learning Grant
Title: Implementing Technology-Enabled Learning (TEL) and Using Commonwealth Digital Education Leadership Training in Action (C-DELTA) as a Non-Credit Course at Kaimosi Friends University College. Funded by Commonwealth of Learning (COL), Geneva 2019/2020 FY; Amount Granted: KShs. 1,150,000.

Output (s):

- (a) Omieno K. K; Shirandula A & Bonareri M. M (2020). Report on the Baseline Study of Technology-Enabled Learning at Kaimosi Friends University College is made available under a Creative Commons Attribution-Share Alike 4.0 License (international): <http://creativecommons.org/licenses/by-sa/4.0>
- (b) Technology Enabled Learning (TEL) Policy of KAFUCO approved by KAFUCO Council.
- C. [2016/17-2018/19]-Co-PI: (Dr. Mugeni G, Prof Wabwoba F, **Dr. Omieno K**, & Prof. Karume S): A Multi-Disciplinary Research Grant
Title: “A Model and Implementation Framework for Internet of Things (IoT) Based Big Data Analytics System for Disaster Prediction and Management”, Funded by National Research Fund-Kenya (NRF) in 2016/2017 FY; Amount Granted: KShs. 10, 800, 000

Output (s)

- IoT based Metrics and Model for Disaster management in Kenya
 - Information Portal and Disaster data collection and visualization tool.
 URL: <https://dpm-platform.web.app/>
- D. [2018/19-2021/22]-Co-Researcher: **Initiated a Collaboration** (University of Nairobi- School of Computing and Informatics and MMUST School of Computing and Informatics and Kakamega County): HealthIT Project Funded by USAID KShs. 30M. MOU Signed (August 2018 to Jan 2022).
URL: <https://healthit.uonbi.ac.ke>
- E. **Co-Researcher where PI-Dr. Karume S.** (ICT, MMUST): UNESCO-HP, Developing “E-learning Content” for E-waste management program (August 2011 to November 2014).
- F. **Research Assistant where PI-Dr. K’Owino I, Dr. Karume S.** HP Catalyst Initiative, Masinde Muliro University of Science & Technology Computational Chemistry Grid project: “Virtual Chemistry Lab- simulators” (September 2011 to August 2014)

6.2.3. Consultancies, Research & Community Outreach

S/NO	PERIOD	ACTIVITY
A	CURRENT APPOINTMENTS	
1	June 2023- Present	Adjunct Professor , Technical University of Mombasa (TUM), Mombasa County. Appointed by Vice Chancellor
2	October 2019 -Present	Appointed Board Member , Wanga Technical and Vocational College (Wanga TVC) Kakamega County by Cabinet Secretary, Ministry of Education
3	November 2023- Present	Appointed Board Member , Navakholo Technical and Vocational College (NavakholoTVC) Kakamega County by Cabinet Secretary, Ministry of Education

4	June 2023- Present	External Examiner , Department of Computer Science, Egerton University (EU), Nakuru County. Appointed by Vice Chancellor
5	August 2022- Present	External Examiner , Information Technology, School of Business and Economics, Lukenya University, Mtito Andei- Makueni County. Appointed by Vice Chancellor
6	October 2018- Present	Board Member/ Chairman , Makunda Mixed Secondary School, Appointed by Ministry of Education, Busia County
7	October 2018- Present	Board Member , St Anne Bunyala Girls, Appointed by Ministry of Education, Busia County
B	PREVIOUS APPOINTMENTS	
1	June 2021-June 2023	Adjunct Senior Lecturer , Technical University of Mombasa (TUM), Mombasa County. Appointed by Vice Chancellor
2	September 2023	Appointment as Resource person , Maasai Mara University for advertised positions of Senior Lecturers. Appointed by Vice Chancellor
3	March 2021- June 2023	Setter of Professional Examinations , Kenya Accountants and Secretaries National Examination Board (KASNEB) Appointed by KASNEB CEO, Kenya
4	August 2023	Consultant , Development of Busia County ICT and Cyber security Policy, 2023, Directorate of ICT
5	October 2020-March 2021	Subject Matter Expert to Develop ICT-Related Curricula, Kenya Accountants and Secretaries National Examination Board (KASNEB) Appointed by KASNEB CEO, Kenya
6	2019/20-2020/21 FYs	Pre-Qualified Resource Person , Kenya National Qualification Authority Appointed by Director General/CEO, Kenya: http://www.knqa.go.ke/
7	21st-22nd February 2019	Facilitator for the Big 4 Agenda Workshop, to write Grant Proposals for MMUST. Organized by Directorate of Research and Postgraduate Support, Busia County. Appointed by Director Graduate Studies an Students Support
8	May 2018-February 2019	Secretary , Budalang'i Educational Needs Assessment Task Force- Appointed by Hon. Raphael Wanjala, MP-Budalang'i Constituency
9	April 2018	Consultant : Developed BSc in Information Technology programme for Umma University (www.umma.ac.ke), Kajiado County. Appointed by Vice Chancellor
10	Jan 2017-Jan 2019	Chairperson, Software Incubation Research Group" – SIRG'17 MMUST.
11	April-Aug, 2015	Developed Kibabii University Website, Kibabii University Website (www.kibu.ac.ke)

6.3. ADMINISTRATION AND RESPONSIBILITIES & ACHIVEMENTS

1. Dean, School of Computing and Information Technology (SCIT), Kaimosi Friends University (1st February 2019 to Present)

Duties/ Responsibility

- Articulating and Implementing the Mission and Objectives of the School
- Convening and Chairing School Board Meetings
- Represent the School of Computing in the Deans Committee, Senate and other Boards of the University as required
- Promoting and maintaining a conducive working environment within the School
- Planning and Budgeting for the School
- Preparing School of Computing and Informatics reports
- Overseeing Examinations as Chief Examiner in the School
- Managing Academic Programmes in the School as required by Senate
- Supervising and appraising the performance of academic and other staff in the School
- Making recommendations with respect to discipline, probation, advancement, and promotion of academic staff within the school

Some of Achievements

- a. Introduced new academic programmes: MSc in Information Technology, BSc in Computer Science
 - b. Developed Draft Curriculum: Bachelor of Business Information Technology programme- Presented to Senate.
 - c. Spearhead Review of Certificate, Diploma, BSc and MSc in IT Programmes in the SCIT
 - d. Developed Proposal on Strategic Plan for the School of Computing and Information Technology- Approved by UCMB
 - e. Spearheaded the Development and Approval of Reviewed 2018/19-2022/23 Strategic Plan for Kaimosi Friends University College
 - f. Reviewed and facilitated approval of the ODeL Policy, and related regulations of Kaimosi Friends University College by University College Academic Board
 - g. Developed an E-Waste Management Policy for the ICT Department
 - h. Developed KAFU Scholarship Policy approved by University Senate and Council
 - i. Oversaw the creation of new Website with new look and appeal for Kaimosi Friends University. www.kafu.ac.ke
- 2. Chairman, Human Resource Instruments AdHoc Committee, Kaimosi Friends University (From June 2024 to Aug 2024)**
Spearheaded Development and Review of Policy Framework of University.
- (a) The Revised KAFU Statutes, 2024
 - (b) Strategic Plan (2023-2027)
 - (c) KAFU Staff Establishment (2023-2027)
 - (d) The Revised KAFU Human Resource Policies and Procedures Manual, 2024
 - (e) KAFU policies and guidelines
- 3. Chairman, Strategic Plan Development Committee, Kaimosi Friends University (From August 2022 to Present)**
Spearheaded Development and Review of Strategic Plan.
- (a) The KAFU Strategic Plan, 2023/2024-2027/2028
- 4. Chairman, Policy Development and Review Committee, Kaimosi Friends University (From August 2022 to June 2024)**
Spearheaded Development and Review of Policy Framework of University.
- (a) The KAFU Charter, 2022
 - (b) The KAFU Statutes, 2022
 - (c) KAFU Staff Establishment
 - (d) KAFU policies and guidelines
- 5. Chairman of UCAB and UCMB Committees on Policies Development and Review, Kaimosi Friends University College (From 2019 to July 2022)**
Spearheaded Development and Review of Policy Framework of University College detailed as follows:
- (a) Revised [2020] KAFUCO Statutes
 - (b) Revised [2020] Schemes of Service
 - (c) Revised [2020] Human Resource Policy and Procedure Manual
 - (d) Staff Establishment [2020/21-2023/24}
 - (e) Revised [2020] KAFUCO 2018/19-2022/23 Strategic Plan
 - (f) Endowment Policy
 - (g) ERP Information Security Policy

- (h) Scholarship Policy
- (i) Part time Management Policy
- (j) Anti-Plagiarism Policy
- (k) Allowances Policy
- (l) Revised [2021] Risk Management Policy
- (m) Revised [2021] Procurement and Disposal Policy
- (n) Revised [2021] Examinations Policy and Procedures
- (o) Revised [2021] Fees Policy and Guidelines
- (p) Revised [2021] Corruption Prevention Policy
- (q) Revised [2021] IGU Policy
- (r) Library Use Policy
- (s) Finance Policy and Procedures
- (t) Procurement and Disposal Manual and Procedures
- (u) Open Access Institutional Repository Policy
- (v) Information Literacy Policy
- (w) Technology Enabled Learning (TEL) Policy
- (x) Open Distance and eLearning Policy
- (y) Students Accommodation Policy and Guidelines
- (z) E-Waste Management Policy
- (aa) University Health Services Policy and Guidelines
- (bb) Third-Party Student Accommodations and Welfare Arrangements Policy
- (cc) Library Strategic Plan 2019/20-2022/23
- (dd) Postgraduate Policy and Postgraduate Procedures and Guidelines
- (ee) Examination Management Policy

6. Ag. Dean, Deputy Principal (Academic and Student Affairs), Kaimosi Friends University College (1st July 2019 to 19th July 2019)

Duties/ Responsibility

- (a) Articulating and Implementing the Mission and Objectives of the Division Convening and Chairing Deans Committee Meetings
- (b) Promoting and maintaining a conducive working environment within the Division Promote Research and partnership
- (c) Managing Academic Programmes in the Vision as required by Senate
- (d) Supervising and appraising the performance of academic and other staff in the Division

Some of Achievements

1. Developed Policy on Teaching, Marking and Invigilation- Approved by Council
2. Developed Postgraduate policy and guidelines- approved by Council
3. Developed Examination management guidelines, KAFUCO- Approved by Council

7. Ag. Dean, School of Computing and Informatics, Masinde Muliro University of Science and Technology (3rd January 2017 to January 2019)

Duties/ Responsibility

- (a) Articulating and Implementing the Mission and Objectives of the School Convening and Chairing School Board Meetings

- (b) Represent the School of Computing in the Deans Committee, Senate and other Boards of the University as required
- (c) Promoting and maintaining a conducive working environment within the School Planning and Budgeting for the School
- (d) Preparing School of Computing and Informatics reports
- (e) Overseeing Examinations as Chief Examiner in the School
- (f) Managing Academic Programs in the School as required by Senate
- (g) Supervising and appraising the performance of academic and other staff in the School Making recommendations with respect to discipline, probation, advancement, and promotion of academic staff within the School.

Some of Achievements

- (a) **Initiated & Developed New Academic Programs:**
 - a. MSc in Computer Science Degree - **Senate Approved November, 2018**
 - b. Draft Bachelor of Science in Computer Security and Forensics - **Senate Approved November, 2018**
 - c. TVET Diploma programs and enlisted for 2019/2020 KUCCPS Intake: Diploma in Software Development and; Diploma in Technology in Computer Systems - Approved by Senate and TVETA
- (a) **Developed** Short Courses approved by SOLACE Board namely:
 - a. Certificate in Project management;
 - b. Certificate in Data Analysis and Presentation;
 - c. Certificate in Mobile Application Development;
- (b) **Developed** Draft Postgraduate programs: MSc in in Information Systems
- (c) **Established** a working Memorandum of Understanding (MOU) between University of Nairobi-School of Computing and Informatics and MMUST-School of Computing and Informatics and County Government of Kakamega-CHMT
- (d) **Chaired a Senate Committee** in Writing Report that led to Restructuring of the Directorate of Postgraduate Studies (DPS), ODeL and SOLACE for Effective and Efficient Service delivery
- (e) **Developed** School of Computing and Informatics 2016-2020 Strategic Plan
- (f) **Initiated & Developed** proposal creating Research Group known as “**Software Incubation Research Group**” – SIRG’17 and became the first Chair of the Research Group
- (g) **Revised Curriculum** for Bachelor of Technology Education (Computer Studies) and Approved by Senate on 13th January 2017.
- (h) **Involved** in the recruitment of Prof. John Gallagher (from UK) as Adjunct Professor of Computer Science and other adjunct Professors

8. Chairman, Department of Computer Science, Masinde Muliro University of Science and Technology (21th August 2014 to 2nd January 2017)

Duties/ Responsibility

- (a) Articulating and Implementing the Mission and Objectives of the Department Convening and Chairing Departmental Board Meetings
- (b) Represent the Department in the Faculty, School, Institute, Centre or Board, Senate and other Boards of the University as required
- (c) Promoting and maintaining a conducive working environment within the Department Planning and Budgeting for the Department Preparing Departmental reports
- (d) Overseeing Examinations as Chief Examiner in the Department
- (e) Managing Academic Programmes in the department as required by Senate
- (f) Supervising and appraising the performance of academic and other staff in the Department
- (g) Making recommendations with respect to discipline, probation, advancement, and promotion of academic staff within the Department

Some of Achievements

- (a) **Spearheaded** the Creation of School of Computing and Informatics (SCI) of Masinde Muliro University of Science and Technology.
- (b) **Developed Undergraduate and TVET Diploma Programmes:**
 - i BSc in Information Systems and Knowledge Management for MMUST with first KUCCPS Admission (intake) in September 2016/2017 academic year.
 - ii Bachelor of Technology Education (Computer Studies) with first KUCCPS intake in Sept. 2016/2017
- (c) Ensured resumption of admission of MSc and PhD students in IT, at MMUST and currently has many postgraduate studies
- (d) **Spearheaded Review of Existing Programmes** as per Commission for University Education Regulations and Guidelines:
 - a. BSc in Computer Science and BSc in Information Technology,
 - b. Postgraduate programs: MSc in IT and PhD in IT
- (e) **Registered** MMUST as an Oracle Academy
- (f) **Spearheaded** the recruitment of 3 Adjunct Professors in Computer Science: Prof. Patrick J. Ogao (Kenya), Prof. Sunday O. Ojo (SA) and Prof. Olugbara Oludayo (SA)

9. Ag. Dean, Faculty of Science, Masinde Muliro University of Science and Technology (25th November 2014 to 28th November 2014)

Duties/ Responsibility

- (a) Attend university meetings
- (b) Chaired 1st Ad-Hoc Committee Meeting organizing for the 1st International Conference to be held in 2015

10. Ag. Chairman, Department of Computer Science, Masinde Muliro University of Science and Technology (12th July 2014 to 20th August 2014)

Duties/ Responsibility

- (a) Attend senate meetings
- (b) Convening and Chairing Departmental Board Meetings
- (c) Represent the Department in the Faculty, School, Institute, Centre or Board, Senate and other Boards of the University as required
- (d) Promoting and maintaining a conducive working environment within the Department
- (e) Planning and Budgeting for the Department
- (f) Preparing Departmental reports

11. Ag. Chairman, Departmental Graduate Studies Committee, Depart. of Computer Science (Jan. 2014 to August 2014)

Duties/ Responsibility

- (a) Chairing DGSC meetings
- (b) Board Member, School of Graduate Studies
- (c) Scheduling for DGSC board meeting by Liaising with Chairman, Computer Science Dept.
- (d) Organizing for graduate seminars during the period

Some of Achievements

- Organized three (3) departmental graduate seminars
- 6 Phd students graduated and several masters students in July 2014 and Dec 2014 graduation

12. Secretary to Departmental Graduate Studies Committee, Depart. of Computer Science (March. 2013 to August 2014)

- Writing Minutes of DGSC proceeds
- Scheduling for DGSC board meeting by Liaising with Chairman, DGSC

13. Coordinator, Research & Publications, Computer Science Dept. (March 2013 – Aug. 2014)

Duties/ Responsibility

- (a) Organizing for departmental seminars and workshops
- (b) Coordinating research work in the department including postgraduate research
- (c) Coordinating exhibitions by department
- (d) Organizing research publications in the department
- (e) Coming up with proper ISO procedures and documents to aid in effective processing of **postgraduate proposals and thesis, in the department.**

14. Member, Seminars & Workshops, Faculty of Science-MMUST (March 2013-to Nov. 2014)

Duties/ Responsibility

- Organizing for seminars and workshops in the faculty of science
- Developing strategic plan for seminars and exhibitions in the faculty
- Assembling and disseminating research publications by the faculty members

15. Departmental Publication, Conference, Workshops and Exhibitions coordinator, MMUST (Feb. 2011 – Feb. 2013)

Duties/ Responsibility

- Involved in organizing ICT conference at MMUST
- Organizing publications and exhibitions in the department

16. Secretary, MMUST Innovation Team (2012 to January 2014)

- Aimed at creating University short programs on innovation, Leadership and Professional development and ICT & Pedagogy

17. Departmental Examinations Coordinator (2010/2011 Academic year)

- Diploma and Certificate examinations where there was streamlining of overall examination processing in the department, MMUST

7. PROFESSIONAL AFFILIATIONS AND OTHER ACTIVITIES

A. Professional Member, Association of Computing Machinery (ACM).

Web URL: www.acm.org **and Member No:** 5904126

B. Member, Internet Society (ISOC),

Web URL: www.internetsociety.org **Member No:** 2192217

C. Professional Member, Association of Computing Practitioners, Kenya (ACPK)

Web URL: www.acpk.or.ke **Member No:** ACP-KE_2022-113

8. PUBLICATIONS, CONFERENCES AND WORKSHOPS

8.1. PUBLICATIONS AS ASSOCIATE PROFESSOR

8.1.1. Books, Book Chapters & Modules

1. Modules:

Omieno K. K (2023). *Introduction to Programming Manual with C Language.* University Module for Programming.

2. Conference Presentation:

- a. **Omieno K. K (2023).** *Scalable and Secure Virtual Learning System Architecture for Higher Education Institutions: A Systematic Literature Review.* **1st KAFU Virtual Conference.** 15th -17th May 2023

3. Keynote Speaker Presentations:

- a. **Omieno K. K** (2024). Key Note Speaker on *Navigating the Digital Economy: Opportunities and Challenges in the Era of Disruptive Technologies*. **7th Grets International Multidisciplinary Conference**. 19th August, 2024.
- b. **Omieno K. K** (2023). Key Note Speaker on *Digital Literacy and Computational Thinking*. **4th MMUST STEMEIC Virtual Conference**. 15th -17th November 2023

8.1.2. Refereed Journal papers

1. Avedi A. C.; **Omieno K. K.** & Kiget L. N. (2024) Cloud-Based E-Learning Systems Implementation for Technical and Vocational Colleges in Kenya: A Case Study of Vihiga County. *International Journal of Advanced Research in Computer and Communication Engineering*, July-2024, Vol 13 (7):197-210. ISSN (O): 2278-1021, ISSN (P):2319-5940. DOI:[10.17148/IJARCCE.2024.13727](https://doi.org/10.17148/IJARCCE.2024.13727)
2. Mungai, B. K., Omieno, K. K., Egessa M, & Manyara, P. N. (2024). AI Chatbots in LMS: A Pedagogical Review of Cognitive, Constructivist, and Adaptive Principles. *Engineering And Technology Journal*, 9(8), 4709–4715. <https://doi.org/10.47191/etj/v9i08.15>
3. Lusweti, S., & **Omieno, K.** (2023). Using I-Hubs for Bridging the Gap of Digital Divide in Rural Kenya. *Buana Information Technology and Computer Sciences (BIT and CS)*, 4(2), 54-62. <https://doi.org/10.36805/bit-cs.v4i2.5165>

8.2. PUBLICATIONS AS SENIOR LECTURER

8.2.1. Books, Book Chapters & Modules

1. **Book Chapter:**

Omieno K. K (2020). *Evaluating the Usability Maturity of Enterprise Resource Planning Systems in "Metrics and Models for Evaluating the Quality and Effectiveness of ERP Software."* DOI: 10.4018/978-1-5225-7678-5.ch008, Pg 171-199, **IGI Global**. Link: <https://www.igi-global.com/chapter/evaluating-the-usability-maturity-of-enterprise-resource-planning-systems/232355>

2. **Other publications:**

Omieno K. K; Shirandula A & Bonareri M. M (2020). Report on the Baseline Study of Technology-Enabled Learning at Kaimosi Friends University College is made available under a Creative Commons Attribution-Share Alike 4.0 License (international): <http://creativecommons.org/licences/by-sa/4.0>

8.2.2. Refereed Journal papers

1. **Omieno K. K.** & Kitheka S. (2022) Exploring Artificial Intelligence Integration in Supply Chain Management: A Review. *International Journal of Computer Trends and Technology*, August-2022, 70 (8): 1-7. ISSN: 2231-2803 doi: <https://doi.org/10.14445/22312803/IJCTT-V70I8P101>
2. Kimutai, M.S., Kelvin, O.K. and Jasper, O.M. (2022) Challenges and Opportunities for Smart Homes Deployment in Developing Countries: A Case Study of the User Perspective in Kenya. *Open Access Library Journal*, 9, 1-8. doi: [10.4236/oalib.1107679](https://doi.org/10.4236/oalib.1107679).
3. Harriet Wangui Ndirangu, **Kelvin Omieno**, Raphael Angulu, "Functionality of Web-Based E-Learning Systems in Kenyan Universities", *International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT)*, ISSN : 2456-3307, Volume 8 Issue 5, pp. 165-174, September-October 2022. Available at doi : <https://doi.org/10.32628/CSEIT22859>

4. Shirandula A. H; **Omiemo K K.** & Ondulo J. (2022) E-Health Implementation in Kenya: Current Position. *Int. J. Sci. Res. Comput. Sci. Eng. Inf. Technol.*, July-August-2022, 8 (4): 117-121. ISSN: 2456-3307 doi: <https://doi.org/10.32628/CSEIT22822>
5. Isiaho A & **Omiemo K.** (2022). Internet of medical things: Prospects, challenges and future research directions. *Global Journal of Engineering and Technology Advances*, 2022, 12(1), 012–024. ISSN: 2582-5003
6. Shirandula A. H; Ondulo J & **Omiemo K K.** (2022) Critical Environmental Factors that Affects the Implementation of Ehealth, Kenya. *Int. J. Sci. Res. Comput. Sci. Eng. Inf. Technol.*, July-August-2022,8(4):111-116.ISSN:2456-3307 doi: <https://doi.org/10.32628/CSEIT228215>
7. **Omiemo K.** (2022). A Critical Review of Technology Adoption Theories and Models for E-Learning Systems, Kenya. *International Journal of Innovation Engineering and Science Research*, ISSN: 2581-4591. Volume 6 Issue 2 March-April 2022, Pp 7-15
8. Kadima Victor Chitechi, **Kelvin K. Omiemo**, Samuel Mbugua, "Cyber-Security Vulnerability Assessment Model for County Governments in Kenya", *International Journal of Science and Research (IJSR)*, ISSN (Online): 2319-7064. Volume 10 Issue 7, July 2021, 792 – 797 https://www.ijsr.net/search_index_results_paperid.php?id=SR21714030154
9. Munialo S. W; Muketha G. M & **Omiemo K K** (2020). An Effort Estimation Method for Service-Oriented Architecture. *Journal of Engineering Science and Technology Review*, ISSN:1791-2377. 13(6) 2020 Pp:187-196 doi:10.25103/jestr.136.25
10. Geoffrey Nyongesa, **Kelvin Omiemo**, Daniel Otanga, "Artificial Intelligence Chatbot Adoption Framework for Real-Time Customer Care Support in Kenya", *International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT)*, ISSN: 2456-3307, Volume 6, Issue 6, pp.100-117, November-December-2020. Available at doi: <https://doi.org/10.32628/CSEIT20667>
11. Mugeni, G. B., **Omiemo K.K.**; Wabwoba F; Karume S. M; Mabele L; & Otanga D. (2020). Determinants for the Adoption of Internet of Things (IoT) for Flood and Drought Disaster Management in Kenya. *ISJ Theoretical & Applied Science*, 09 (89), 342-354.Soi: <http://s-o-i.org/1.1/TAS-09-89-43> Doi: <https://dx.doi.org/10.15863/TAS> Scopus ASCC: 2000
12. Michael Okumu Ujunju, Solomon Ogara, **Kelvin Omiemo** (2020). Cloud Computing Model for Enhanced Resource Usage in Multi-Tenant Application Environment. *International Journal of Computer Trends and Technology*, ISSN: 2231-2803, 68(9), 45-52.
13. **Omiemo K.** (2020). A Post Covid-19 E-Learning Strategy Based on Usability Maturity Model for Higher Learning Institutions, Kenya. *IJCAT-International Journal of Computing and Technology*, ISSN: 2348-6090 Vol 7 Issue 7, pp. 115-122, July 2020.
14. Munialo S.; Muketha G. & **Omiemo K** (2020). Automated Feature Extraction from UML Images to Measure SOA Size. *International Journal of Recent Technology and Engineering (IJRTE)*, ISSN (e): 2277-3878 Vol 9 Issue 2 July 2020.
15. Ndia G. J.; Muketha M. G. & **Omiemo K. K** (2020). Structural Complexity Attribute Classification Framework (SCACF) for Sassy Cascading Style Sheets. *International Journal of Software Engineering & Applications (IJSEA)*, | Volume 11, Issue 1, January 2020|DOI: 10.5121/ijsea.2020.11105
16. Kadima V. C & **Omiemo K. K** (2020). Effective Deployment of ICTs in Management of

- Medical Laboratory Services in Kenya. *International Journal of Innovative Science and Research Technology*, ISSN -2456-2165. Volume 5, Issue 1, pp. 1395-1403, January 2020
17. Musau O. M., **Omiemo K**; and Angulu R ((**2019**). Towards Prediction of Students' Academic Performance in Secondary School Using Decision Trees. *International Journal of Research and Innovation in Applied Science (IJRIAS)*, vol. IV, no. X, pp. 85-89, October 2019.
 18. Musau M.O.; **Omiemo K** & Angulu R. (**2019**). Factors Affecting Secondary School Students' Academic Performance, Kenya. *International Journal of Research and Innovation in Applied Science (IJRIAS)* | Volume IV, Issue IX, September 2019|ISSN 2454-6194
 19. Ndia J G.; Muketha G.M & **Omiemo K K** (**2019**). Complexity Metrics for Sassy Cascading Style Sheets. *Baltic J. Modern Computing*, Vol. 7 (2019), No. 4, 454-474 <https://doi.org/10.22364/bjmc.2019.7.4.01>
 20. Waliaro, D. O., **Omiemo K**. & Ondulo J. (**2019**). Analysis of Software Quality Models for ERP Software Use in University in Kenya. *International Journal of Advanced Research in Computer and Communication Engineering. (E-ISSN 2278-1021/ISSN 2319 5940)* Vol 8. No.10 October 2019 pp:58-61 DOI 10.17148/IJARCCCE.2019.81009
 21. Kirongo C.; **Omiemo K**; Mutua M. & Ogemah V. (**2019**). Plant Stress Detection Accuracy Using Deep Convolution Neural Networks. *International Journal of Scientific Research in Computer Science, Engineering and Information Technology*. ISSN (e): 2456-3307. Vol 5 Issue 4 July-August 2019. Pp: 263-270.
 22. Ndia, John Gichuki and Muketha, Geoffrey Muchiri and **Omiemo, Kelvin Kabeti**, A Survey of Cascading Style Sheets Complexity Metrics (May 31, 2019). *International Journal of Software Engineering & Applications (IJSEA)*, Vol.10, No.3, May 2019, Available at SSRN: <https://ssrn.com/abstract=3405783> or <http://dx.doi.org/10.2139/ssrn.3405783>
 23. Munialo S.; Muketha G. & **Omiemo K** (**2019**). Size Metrics for Service Oriented Software. *IJCAT-International Journal of Computing and Technology* ISSN (e): 2348-6090 Vol 10 Issue 12 March 2019.

8.2.3. Conference Proceedings/ Presentations

1. **Omiemo, K.K** (2021). Framework for Maturity Assessment of E-Health Systems with Internet of Things. *14th International Multi-Disciplinary Virtual Conference (2021). Innovative Technology Transfer for Universal Health Care (UHC); Food Security; Affordable Housing and Manufacturing for Sustainable Development. Masinde Muliro University of Science and Technology, Book of Abstract pp:41-42. 19th – 21st May 2021*
2. **Omiemo, K.K** (2021). Blockchain Technology in Agriculture: A Systematic Literature Review. *14th International Multi-Disciplinary Virtual Conference (2021). Innovative Technology Transfer for Universal Health Care (UHC); Food Security; Affordable Housing and Manufacturing for Sustainable Development. Masinde Muliro University of Science and Technology, Book of Abstract pp:56-57. 19th – 21st May 2021*
3. Fozia N. & **Omiemo, K.K** (2021). Block Chain Technology: Opportunities and Challenges in Supply Chain. A White Paper Analysis. *14th International Multi-Disciplinary Virtual Conference (2021). Innovative Technology Transfer for Universal Health Care (UHC); Food Security; Affordable Housing and Manufacturing for Sustainable Development. Masinde Muliro University of Science and Technology, Book of Abstract pp:102-103. 19th – 21st May 2021*
4. **Omiemo, K.K** (2019). A Model for Knowledge Management Strategy: An Application in Health Care System, Kenya. *KIBU International Conference (2019). Enhancing Food Security and Universal Health Care for Sustainable Development. Book of Abstracts of Kibabii University*

8.3. PUBLICATIONS AS LECTURER

8.3.1. Books, Book Chapters & Modules

1. **Omiemo K. & Matoke N (2014)**. Fundamentals of Computing: A Simplified Approach. A University Teaching Book. Published by Scholar's Press, ISBN: 978-3-639-70591-1
2. **Omiemo K, Otanga D, & Rambim D (2015)**. BCS 110-Fundamentals of Computing-University-wide e-Module. Published by Masinde Muliro University of Science & Technology

8.3.2. Refereed Journal papers

1. Ondimu K.O., **Omiemo K.K.** Muchiri M.G & Lukandu A.I (2018). Tackling Data Related Challenges in Healthcare Process Mining Using Visual Analytics. *IJCAT-International Journal of Computing and Technology* ISSN (e): 2348-6090 Vol 5 Issue 10 October 2018.
2. Kadima V.C.; Mbugua S & **Omiemo K. (2018)**. Facilitating Factors for Cybersecurity Vulnerabilities in Kenyan County Governments. *Asian Journal of Research in Computer Science* 2(1): 1-11, 2018; Article no. AJRCOS.45049
3. Ronoh H., **Omiemo K.** & Mutua S. (2018). An Interoperability Framework for E-government Heterogeneous Information Systems. *International Journal of Advanced Research in Computer and Communication Engineering. (E-ISSN 2278-1021/ ISSN 2319 5940) Vol 7. No.11 November 2018 pp:115-126 DOI 10.17148/IJARCCE.2018.71025*
4. Shitote S., **Omiemo K.** & Ondulo J. (2018). Investigating optimization Strategies that Determine Performance of CMS Websites in Organizations. *International Journal of Advanced Research in Computer and Communication Engineering. (E-ISSN 2278-1021/ ISSN 2319 5940) Vol 7. No.11 November 2018 pp:97-102 DOI 10.17148/IJARCCE.2018.71022*
5. Ondimu K.O., Muchiri M.G, Lukandu A.I & **Omiemo K.K. (2018)**. A Situational Method for Healthcare Business Process Improvement. *International Journal of Research in Engineering and Technology. ISSN (e): 2319 – 1163 ISSN (p): 2321 – 7308 Vol 7 Issue 10 October 2018*
6. Shirandula A. & **Omiemo K.K. (2018)**. A Development Approach for Successful Adoption of Information Technology in Agriculture. *The International Journal of Engineering and Science. ISSN (e): 2319 – 1813 ISSN (p): 2319 – 1805 Vol 7 Issue 8.*
7. Ngomoh A. W. P, **Omiemo K.K.** & Mbuguah S. (2018). Evaluation of Guidelines for Security Threats in Mobile-Phone Banking. *International Journal of Engineering and Mathematical Sciences January – June 2018, Volume 13, Issue – 1, pp.47 – 53. ISSN (Print) – 2319 - 4537, (Online) – 2319 - 4545.*
8. **Omiemo K.K. (2017)**. An Approach to Evaluate Usability Maturity of e-Learning Systems: A User's Perspective. *IRACST-International Journal of Computer Science and Information Technology & Security. ISSN 2319 5940 Vol 5. November- December 2017 Issue*
9. **Omiemo K.K** & Rodriguez A. (2016). Usability Maturity Model and Assessment Tool for Virtual Learning Systems. *International Journal of Advanced Research in Computer and Communication Engineering. (E-ISSN 2278-1021/ ISSN 2319 5940) Vol 5. No.12 December 2016 pp:78-84 DOI 10.17148/IJARCCE.2016.51217*
10. Omol, E.J., Abeka, S.O & **Omiemo K.K. (2016)**. Relevance of Demographic profile on Acceptance of Mobile Money Payment in Enterprise Management. A Case of MSEs in Kisumu City, Kenya. *MR Journal of Information Science and Technology; ISSN: 2518-8844. Vol. 1, No. 1, pp. 35 - 43.*
11. Omol, E. J., Abeka, S. O., Ogalo, J. O. & **Omiemo, K.K. (2016)**. Mobile Money Payment

- Acceptance Model in Enterprise Management: A Case Study of MSE's in Kisumu City, Kenya. *MR Journal of Information Science and Technology*; ISSN: 2518-8844. Vol. 1, No. 1, pp. 1 – 12
12. **Omiemo K.K**, Raburu P. & Raburu G. (2015). Performance-Based Usability Maturity Assessment Framework for VLS in Universities. *International Journal of Advanced Research in Computer and Communication Engineering*. (E-ISSN 2278-1021/ ISSN 2319 5940) Vol 4. No.12 December 2015 pp:6-14 DOI 10.17148/IJARCCE.2015.41202
 13. Shirandula A.H; Rono L. & **Omiemo K** (2015). Evolving Information Technology: Opportunities and Challenges. *International Journal of Computers and Technology*. ISSN:2277-3061 Volume 14 No. 8, May-2015 pp: 6001-6008
 14. **Omiemo K.K**, & Raburu G. (2014). Usability Maturity Indicators for Virtual Learning Systems. *Journal of Emerging Trends in Computing and Information Sciences*. (E-ISSN 2218-6301/ ISSN 2079-8407) Vol 5. No.5 May 2014 pp:377-382
 15. Kitone K.M & **Omiemo K.K** (2013). Role of Information Systems in Organizational Business Process. *International Journal of Management and Information Technology*. ISSN:2278-5612 Volume 8 No. 1, Dec-2013 pp: 1214-1220
<http://cirworld.com/index.php/ijmit/article/view/813200/2225>
 16. Okinyi M. O, **Omiemo K.K**, & Kitone K. M. (2013). The Value of Human Resource Information Systems in Human Resource Management. *International Journal of Computers and Technology*. ISSN:2277-3061 Volume 11 No. 10, Dec-2013 pp: 3085-3089
<http://cirworld.com/index.php/ijct/article/view/3190>

8.3.3. Past Conference Presentations

1. **Omiemo, K.K (2018)**. Role of ICT in Improving Quality of Education in Kenya. *World Conference on Transformative Education, 26th- 2018th July 2018, MMUST*.
2. **Omiemo, K.K (2018)**. Effective Adoption Indicators of Management Information Systems in the Kenya's Economy. *First Pan African International Research Congress on Knowledge Generation and Dissemination in Africa, 17th-22nd June 2018 ISBN:978-9966-114-73-0*
3. **Omiemo, K.**, Ogara S & Ronoh H. (2018). A Review of Cybercrime Law and Practice: A Kenya's Perspective. *First Pan African International Research Congress on Knowledge Generation and Dissemination in Africa, 17th-22nd June 2018 ISBN:978-9966-114-73-0*
4. Munialo S & **Omiemo, K. (2018)**. A Review of Software Effort and Cost Estimation Methods. *First Pan African International Research Congress on Knowledge Generation and Dissemination in Africa, 17th-22nd June 2018 ISBN:978-9966-114-73-0*
5. Ronoh H., **Omiemo, K.** & Mutua S. (2018). Expandability of e-Government Heterogeneous Information System database to achieve Interoperability. *First Pan African International Research Congress on Knowledge Generation and Dissemination in Africa, 17th-22nd June 2018 ISBN:978- 9966-114-73-0*
6. Shitote S & **Omiemo, K. (2018)**. Investigating factors that determine performance of content management systems for effective dissemination of knowledge in organizations. *First Pan African International Research Congress on Knowledge Generation and Dissemination in Africa, 17th- 22nd June 2018 ISBN:978-9966-114-73-0*
7. Ondimu K., Muchiri G., **Omiemo, K.** & Lukundu I. (2018). Improving the Healthcare Process: A Process Mining and Visual Analytics Approach. *First Pan African International Research Congress on Knowledge Generation and Dissemination in Africa, 17th-22nd June 2018 ISBN:978- 9966-114-73-0*

8.4. PUBLICATIONS AS ASSISTANT LECTURER

8.4.1. Books, Book Chapters & Modules

1. **Kelvin Omieno (2013)**. Rapid Application Development. A University teaching module. E-Learning Model, Published by Masinde Muliro University of Science & Technology
2. **Kelvin Omieno (2012)**. A Framework to Measure Intranet Usage in Kenyan Public Universities: Concepts, Design and Practices of Intranet usage. LAP Lambert Academic Publishing. ISBN: 978-3-659-22565-9

8.4.2. Refereed Journal Papers

1. **Omieno K.K**, Oenga L. & Raburu G. (2013). Usability Maturity Model for VLS: Conceptual Framework. *International Journal of Computers and Technology*. ISSN:2277-3061 Volume 6 No. 2, May-2013 pp: 317-320 <http://cirworld.com/index.php/ijct/article/view/1229>
2. **Omieno K.K** & Oenga L & Matoke N. (2013). The Use of Social Networking Sites in Education. Accepted for publication in *International Journal of Computers and Technology*. ISSN:2277-3061
3. Wabwoba F., Mutua S. M & **Omieno K.K**. (2013). A review of the role of Information and Communication Technology in meeting the millennium development goals and the vision 2030 in Kenya. *East Africa Journal of Engineering, Science and Technology*. Vol.1 No.2 ISSN: 2219-8598 Pp: 127-133
4. **Omieno K.K**, Wabwoba F. & Matoke N. (2013). Virtual Reality in Education: Trends and Issues. *International Journal of Computers and Technology*. ISSN:2277-3061 Volume 4 No. 1, Jan - Feb, 2013 pp: 38-43 <http://cirworld.com/index.php/ijct/article/view/717>
5. Wabwoba F., Wanyembi G., Omuterema S. & **Omieno K**. (2013). Green ICT Readiness Model for Developing Economies: Case of Kenya. *22(IJACSA) International Journal of Advanced Computer Science and Applications*. U.S ISSN : U.S 2156-5570(Online) ISSN : 2158-107X(Print) Vol. 4, No.1. http://thesai.org/Downloads/Volume4No1/Paper_8-Green ICT Readiness Model for Developing Economies Case of Kenya.pdf
6. **Omieno K. K** & Khabamba I (2012). ICT in Disaster Risk Reduction: Kenyan Experience. *International Journal of Disaster Management and Risk Reduction*. ISSN: 1992-2744 Vol. 4(2). http://www.admcrk.org/journal/abstract_14.php
7. **Omieno K.K**. (2012) Integrating Virtual Reality in Education using Intranet Grids. *IOSR Journal of Engineering*. ISSN-2250-3021. Vol. 2(4) pp: 644-649 http://www.iosrjen.org/Papers/vol2_issue4/X024644649.pdf
8. **Omieno K.K**. & Wanyembi G. (2012) Managing Knowledge Sharing: Mutual understanding, Strategic Alignment and Contribution of Corporate Intranets in Knowledge Management in Kenyan Public Universities. *International Journal of Science and Technology*. ISSN-2224-3577. Vol.2.No.1.Pp:51-54 http://ejournalofsciences.org/archive/vol2no1/vol2no1_8.pdf
9. **Omieno K.K.**, Oteng' S.B.B & Khabamba I. (2012). Towards the negative roles of social networking sites on society. *International Journal of Disaster Management and Risk Reduction*. ISSN: 1992-2744 Vol.4. No.1 http://www.ijdmrr.info/paper_1.pdf

8.5. PUBLICATIONS AS GRADUATE TEACHING ASSISTANT

8.5.1. Refereed Journal Papers

1. **Omieno K.K.**, Wanyembi G & Mbugua S. (2012) Integrating Virtual Worlds and Virtual Learning Environments in Schools in Developing Economies. *International Journal of Information and Communication Technology Research*. ISSN-2223-4985. Vol. 2 No.1.Pp:17-21 http://esjournals.org/journaloftechnology/archive/vol2no1/vol2no1_3.pdf

2. Karume S.M & **Omiemo K.K.** (2011). Synergizing E-infrastructures Initiatives to Foster e-Research in Higher Education Institutions in Africa. *Journal of Emerging Trends in Computing and Information Sciences*. E-ISSN 2218-6301/ISSN:2079-8407. Vol. 2. No.11. Pp:632-640
http://www.cisjournal.org/journalofcomputing/archive/vol2no11/vol2no11_12.pdf
3. **Omiemo, K. K.**, Kilwake J.H. & Wabwoba F. (2011) Promoting Quality Outcomes in Higher Education using new Learning Technologies. *Journal of Education and Social Sciences*. ISSN:2223-490X, Vol. 1. No.1. Pp: 145-151 (offline)
4. Wabwoba F., **Omiemo K.K.**, Simiyu C.N. & Sisungu Z.W. (2011). The role of wireless technologies in taking education to rural villages in developing countries. *International Journal of Information and Communication Technology Research*. ISSN-2223-4985.Vol.1No.7.Pp:300-305
http://esjournals.org/journaloftechnology/archive/vol1no7/vol1no7_2.pdf
5. **Omiemo, K.K.** & Karume M.S. (2011). Adaptability of intranet grids in HEIs to leverage Africa Connect Initiative. *International Journal of Information and Communication Technology Research*. ISSN-2223-4985.Vol.1No.7.Pp:292-299
http://esjournals.org/journaloftechnology/archive/vol1no7/vol1no7_1.pdf

8.5.2. Refereed Conference Proceedings

1. **Omiemo, K.K.**, Karume M.S., & .Ogao J.P (2011) A framework to measure intranet Usage in HEIs: A case of Selected Kenyan Universities. *Proceedings of 7th International Conference on Computing and ICT Research in Special Issues on ICT for Development 2011*.ISSN:2223-490-8-1.Pp-182-197 <http://cit.mak.ac.ug/iccir/downloads/ICCIR11.pdf>
2. **Omiemo, K.K.**, Karume M.S., & .Ogao J.P (2011) The Grid as a driving force for e-learning and OERs. *Proceedings of 7th International Conference on Computing and ICT Research in Special Issues on ICT for Development 2011*. ISSN: 2223-490. Pp-298-312.
<http://cit.mak.ac.ug/iccir/downloads/ICCIR11.pdf>
3. Karume S., & **Omiemo K.** (2011). Grid computing technology as a driving force for E-learning and Open Educational Resources in Africa. *IST-Africa 2011 Conference Proceedings, Paul Cunningham and Miriam Cunningham (Eds), IIMC International Information Management Corporation, 2011, ISBN: 978-1-905824-24-3*
4. **Omiemo, K.K. (2010)**. ICT for Information economy through network-optimized computing. *Proceedings of the 1st Engineering, Science and Technology conference, Kenya 2010*. ISBN: 9966-779-11-6. pp: 156-160

8.5.3. Conference Paper Presentations

1. **Omiemo, K.K.**, Khabamba I 2012. ICT in Disaster Risk Reduction: Kenyan Experience. International conference of Disaster Risk Reduction and Conflict Resolution for Sustainable Development 18th-20th July, 2012, MMUST, Kenya
2. **Omiemo K.K.** & Wanyembi G 2012. Corporate Intranet as a vital tool for Knowledge management in Kenyan Universities. 13th Strathmore University Annual ICT Conference. ICT and Society: Adaptive Computing and Technologies. 7th and 8th September 2012.
3. **Omiemo K.K.** 2012. Virtual Reality in Education: Trends and Issues. 13th Strathmore University Annual ICT Conference. ICT and Society: Adaptive Computing and Technologies. 7th and 8th September 2012

4. Karume S.M. & **Omieno K.K.** (2011). The grid as a driving force for e-learning and OERs in Africa. Oral presentations of 3rd ACDE Conference & General Assembly on Bridging the Development Gap in Africa through Open and Distance Learning 12th to 15th July, 2011, Dar es Salaam, Tanzania.
http://www.out.ac.tz/acde/index.php?option=com_content&view=article&id=64&Itemid=81
5. **Omieno K. K.**, Karume S.M., & Ogao P.J (2011). Use of intranet grids in higher education institutions to leverage Africa grid connect Initiative. 12th STRATHMORE UNIVERSITY ANNUAL ICT CONFERENCE. 2nd and 3rd September 2011.
6. **Omieno, K.** & Wanyembi, G. (2010). Managing Knowledge Sharing: Mutual understanding, Strategic alignment and contribution of corporate intranets in Kenyan Public Universities. Conference proceedings of 11th Strathmore University ICT conference, 2010, Kenya
7. **Omieno, K.K.** & Wanyembi, G. (2010). A Framework to measure corporate intranets use in institutions of higher learning: Case of Kenyan Public Universities. Conference proceedings of 11th Strathmore University ICT conference, 2010, Kenya
8. Wabwoba, F. & **Omieno, K.** (2010). The Role of wireless technologies in taking education to rural villages in developing countries. Conference proceedings of 11th Strathmore University ICT conference, Nairobi, Kenya, 3-4 September, 2010, Kenya
9. Karume, S. & **Omieno, K.** (2010). Open knowledge resources and Research: The role of grid computing for knowledge creation and sharing, Proceedings of the 2nd International conference on Internationalization of Higher Education and Research in Africa: Responding to Opportunities and Challenges, Kampala, Uganda. 4th -5th November, 2010.
<http://www.anienetwork.org/content/2nd-anie-annual-conference-presentations-kampala-uganda-4-5-november-2010-1>

9. WORKSHOPS/ SEMINARS/ ARTICLES

9.1. WORKSHOP/SEMINARS/ ARTILES

- ❖ Workshop on ISO 9001:2015 Standard organized by Kaimosi Friends University College and ACAL consultants, Golf Hotel. June 2021
- ❖ Published an Advisory Article in Daily Nation on “Transit to Knowledge Economy”. Page 18. Friday 31st July 2020
- ❖ Organized and chaired an Online Webinar on Postgraduate Scholarship: Do’s and Don’ts when Choosing Postgraduate Study and Thesis Research, Presented on Microsoft Teams, 9th June 2020
- ❖ Delivered Online Public Lecture on: Developing an eLearning Strategy for Kenyan Universities: Drivers and Barriers, Presented to University managers, staff and students from various universities in Kenya Via KENET Web conferencing platform 20th April 2020
- ❖ Facilitator in Workshop on Grant Proposal Writing organized by Directorate of Research and Postgraduate Support, MMUST Feb 20-22nd February 2019, Busia County
- ❖ Workshop on DHIS2- Health Information System organized by HealthIT, University of Nairobi and Ministry of Health, Egon Hotel, Thika, 18th -22nd December, 2017
- ❖ Workshop on Review of MMUST 2015-2020 University Strategic Plan 10th -11th November 2017, Golf Hotel, Kakamega
- ❖ Organized for the 1st School of Computing and Informatics Inaugural Postgraduate Seminar, MMUST SPD 004, 27th-28th April 2017.

- ❖ Workshop on Africa Computer Human Interaction (AfriCHI'2016), University of Nairobi Towers, Nairobi, 21st-25th November, 2016
- ❖ Organized for 5th MMUST ICT Post-Graduate Seminar 29th March 2016- SPD 004, Masinde Muliro University of Science and Technology
- ❖ TVET stakeholders' workshop at Bishop Stam, Kakamega for TVET Programmes March 2016
- ❖ Workshop on Module Writing by MMUST in Busia Farm view 7th-9th Sept. 2015
- ❖ Workshop training on Grant proposal writing by MMUST in Busia ATC, 1st -5th June 2015
- ❖ Workshop on Technical, Vocational, Education and Training in MCU, MMUST, 26th May 2015
- ❖ Attended Training workshop on Confidentiality and Security of Information by NSIS, MMUST, 20th- 22nd May 2015
- ❖ Organized for an International Women's Day Workshop, for Computing Students by Safaricom, MMUST, 19th March 2015
- ❖ Organized for Public Lecture on Internet Critical Resources and Governance: The role of Academia by ICANN, MMUST, 29th January 2015
- ❖ Organized for Workshop on Catalyzing employability skills by Microsoft and ACWICT, MMUST, 23rd January 2015
- ❖ Published an Article in MMUST Magazine- "Eye on MMUST" on "ICT Usage for Information Administration in MMUST" October/December 2014 Pp: 19
- ❖ Organized for Workshop on Mobile BootCamp for mobile applications development and USSD by iHub, Ushahidi and Africa's talking, MMUST, 14th -15th November, 2014
- ❖ Auditors Training Workshop at Bishop Stam on ISO 9001:2008 and QMS Documentation- by Apex Management Systems Consultants 3rd -5th November 2014
- ❖ Participated in 1st ICT seminar on the Theme: Emerging Trends in ICT held at MKU-Kakamega 16th Nov 2013
- ❖ Presented in 3RD Departmental Seminar, Computer Science, MMUST. Paper Presented "Which Way to Go: Open Access or Subscriptions Publications?" 27th June 2013
- ❖ Organized 2ND Departmental Seminar, Computer Science, MMUST. Paper presented "The Importance of Research: Goals and Implications" 28th March 2013
- ❖ Workshop on Module Writing organized by School of Open Learning and Continuing Education (SOLACE), held in Busia-Kenya FarmView Hotel, February 2013. Module developed: DIT 052 Rapid Application Development
- ❖ Workshop on the changing face of strategic management: development within a difficult global economy through technology, creativity and innovation for strategy policy implementation, Imperial Hotel Kisumu-Kenya by DALC-MIT, 8th Dec, 2011
- ❖ Workshop on HIV and AIDs Integration in University, held at Busia ATC, Kenya from 4th July-6th July, 2012
- ❖ 2nd Symposium on Academic Linkages on the theme: Academic linkages: strategies, opportunities, challenges and future. Technical paper presented "Improving Virtual Knowledge Transfer: Strategies and Practice", 3rd December, 2011, Masinde Muliro University of Science & Technology

- ❖ Published an Article in MMUST Newsletter on “New Learning Paradigms: Why choose online Education at MMUST? Volume 1, Issue 12 July-August 2011
- ❖ ISO 9001:2008 Training in Quality Management, MMUST, March 8-9, 2011 by KEBS
- ❖ Workshop on Internationalization of higher education, ANIE workshop, Munyonyo-Resort, Kampala, Uganda, November 2- 3, 2010
- ❖ Teal –Research4Life and Prota Training Workshop, Masinde Muliro University, Kenya, May, 6 - 7, 2010

9.2. CONFERENCE/ SEMINAR TALKS/PRESENTATIONS

1. Public Lecture on “**Harnessing Academic Knowledge and Innovation Potential of Youths in Kenyan Universities: The Nexus between Theory and Practice.**”, 7th February 2024, Organized by KAFU
2. Conference Speaker in 4th STEMEIC Virtual Conference on “**Digital Literacy and Critical Thinking**”, 15th -18th November, MMUST
3. Presentation on “Preparing **Quality and Sellable Curriculum Vitae**”, SCI- 13th June 2018, MMUST
4. Presentation on “**Preparing for Job market, Technologies Required and How to be Marketable in Dynamic Environment**”, Career Week, SCI- 12th -15th February 2018, MMUST.

10. HONORS AND AWARDS

1. 2022: Certification in Artificial Intelligence by HUAWEI Technologies Ltd (HCAIA).
2. 2022: Certificate in Python Programming Basic, HUAWEI Technologies Ltd.
3. 2021: Certificate of Completion on Enterprise Risk Management Training, by Tritex Consulting Ltd, 21st – 22nd December 2020, Kisumu
4. 2020: Certificate of publication with ISJ Theoretical & Applied Science
5. 2019: Certificate of Participation in the Training workshop on Disability Mainstreaming held on 15th March 2019, KAFUCO
6. 2018: Certificate of Paper presentation in World Conference on Transformative Education (WCTE,2018), 26th-28th July 2018, MMUST
7. 2018: Certificate of Organizing World Conference on Transformative Education (WCTE,2018), 26th-28th July 2018, MMUST
8. 2018: Certificate of Paper presentation in the First Pan African International Congress on Knowledge Generation and Dissemination, 18th-22nd June 2018, Kisumu Roya Swiss Hotel
9. 2018: Certificate of Organizing in the First Pan African International Congress on Knowledge Generation and Dissemination, 18th-22nd June 2018, Kisumu Roya Swiss Hotel
10. 2018: Certificate of Participation in the First Pan African International Congress on Knowledge Generation and Dissemination, 18th-22nd June 2018, Kisumu Roya Swiss Hotel
11. 2018: Certificate of Rapporteur in the First Pan African International Congress on Knowledge Generation and Dissemination, 18th-22nd June 2018, Kisumu Roya Swiss Hotel
12. 2018: Certificate of Participation in the mUzima Hackathon Organized by Moi University IBIM and MMUST-SCI, 18th-22nd May 2018, MMUST
13. Africa Cyber Security Summit by Ministry of ICT, Kenya and Nasaba 8th-10th KICC, Nairobi.
14. 2018: Certificate of participation in the Training on Strategic Leadership and Management of Higher Education Institutions conducted by School of Business and Economics at MMUST, 26th-28th March 2018
15. 2017: Certificate of Appreciation by the Deputy Vice Chancellor, Academic and Student Affairs for Excellent organization during 12th MMUST Graduation on 15th December 2017
16. 2017: Certificate of Participation as a Team Leader and Module Writer for CSC 109: Computer Applications Module for University Level use

17. 2017: Certificate of Participation as a Team Leader and Module Writer for BCS 101: Fundamentals of Computing Module for University Level use
18. 2016: Certificate on ISO 9001:2008 Continual Improvement Training Course held on 29th-30th August 2016, Bishop Stam, Kakamega
19. 2016: Certificate of Participation in AfriCHI Workshops, Nairobi, Kenya
20. 2015: Certificate of Participation in TVET workshop
21. 2015: Certificate of Publication in Journal International Journal of Advanced Research in Computer and Communication Engineering
22. 2015: Certificate of Participation in Module Writing by MMUST
23. 2015: Certificate of participation in Deans, Directors, Coordinators and HODs Induction, by MMUST, Kenya
24. 2014: Certificate as Internal Quality Assurance Auditor, by KEBS
25. 2012: Certificate of participation in publishing article in IOSR Journal of engineering
26. 2012: Certificate of participation in International Conf. on Disaster Risk Reduction, MMUST
27. 2011: Certificate of participation in 1st Engineering, Science & Technology conf., MMUST.
28. 2010: Certificate for completion of TEAL training, MMUST, Kenya
29. 2008: Certificate for Completion of Database and Actuate Training, G7 Systems Kenya.
30. 2007: Certificate for Industrial Attachment at G7 Systems Kenya.
31. 2007: Certificate of participation: Budalang'i Constituency Education Day: Topic Controlling Aids among Youths in Secondary Schools, Busia, Kenya.
32. 2007: Certificate for participation in IEEE exhibition by Centurion Systems, Nairobi, Kenya
33. 2007: Award of First runners up in IEEE exhibition done at MMUST, Kenya

11. OTHER PERSONAL ATTRIBUTES

1. My Core Values: **Knowledgeable, Empathetic, Leadership, Validation, Innovation and Networking** (KELVIN's Principles)
2. Team- work and Self-determination
3. Able to establish and maintain professional contacts with relevant people and organizations.
4. Ability to think logically and implement solutions to problems.
5. Excellent interpersonal communication and good personal organization skills, including skills in mentoring and capacity building.
6. Good judgment and willingness to take initiative
7. Ability to work under pressure often to meet tight deadlines without compromising the quality of deliverables.

REFEREES

1. Prof. Egara Kabaji Ph. D

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