



NOVEMBER 11, 2021

PROF. SILVANCE ONYANGO ABEKA  
CURRICULUM VITAE

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## **CURRICULUM VITAE**

### **PERSONAL DETAILS**

Name : Prof. Silvance O. Abeka  
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ORCID ID : [0000-0002-7617-6147](https://orcid.org/0000-0002-7617-6147)  
Researcher ID : C-9455-2015  
linkedin : <https://www.linkedin.com/in/dr-silvance-abeka-958617164/>  
Google Scholar: <https://scholar.google.com/citations?user=rCjtLToAAAAJ>  
Gender : Male  
Marital Status: Married  
Languages : English, & Kiswahili (Oral and Written - Excellent) Currently learning French.

### **1.0 BRIEF RESUME**

*Prof. Silvance Onyango Abeka is currently an Associate Professor and a Director – Centre for E Learning of Jaramogi Oginga Odinga University of Science and Technology- Kenya. He worked previously as a Dean- School of Informatics and Innovative Systems- Jaramogi Oginga Odinga University of Science and Technology, Director- Institute of Open and Distance Learning at Africa Nazarene University and also as a Dean- Faculty of Applied Science and Technology of Kampala International University- Dar es Salaam Collage. He holds a Doctorate degree in Management Information System (MIS) from Kampala International University, Masters of Science in Computer Science from University of Dar es Salaam, Master of Business Administration (Information Technology) and Bachelor of Science in Computer Engineering from Kampala International University.*

*Silvance is experienced in academic governance, accreditation, budget development, budget management, donor relations, alumni relations, academic support services, student affairs, enrollment management, fundraising, marketing and branding, strategic planning and implementation.*

*He is a dedicated and committed academician, and consultant who specialize in the field of Information Systems and Technology. Able to demonstrate strong Information Systems expertise from management, research, analysis, design, implementation and evaluation, case writing and full project implementation and management. Committed to the field of research and development in E Learning with the aim of improving standards of information systems and technology adoption, diffusion, use, policy and practices through leveraging ICT in business organizations, government and other enterprises. His research interests include IT innovation adoption, Mobile Computing, Telecommunication, Management Information Systems, Foundations of Network and System Security, Cloud Computing, Impact of Digital Technologies on Society, Networking Protocols and Topologies, Web- Design and E- Learning Technologies.*

*He has published widely in journals, conference proceedings and in books and sits on editorial boards of several peer reviewed journals. Prof. Silvance has broad corporate experience and is a Professional Member of IEEE Computer Society, Computer Society of Kenya (CSK), Internet Society and Association for Computing Machinery (ACM), the largest association of computing professionals globally. He also sits in boards of several public and private sector organizations.*

## **2.0 EDUCATIONAL BACKGROUND**

### **2.1 Key Qualifications**

**2015                      University of Dar es salaam**

Masters Degree:            **MSc. in Computer Science**

*Provision of Real Time Traffic Information and Development of an Algorithm for Optimal Vehicle Routing: The Case of Nairobi Central Business District*

**2012                      Kampala International University**

Doctoral Degree:            **Ph. D (Management Information Systems)**

*Determinants for acceptance of web based marketing information systems Among Microfinance Institutions in Kenya*

**2007-2009              Kampala International University:-**

Masters Degree:            **MBA (Information Technology).**

*Corporate Customers Acceptance of Internet Banking in East Africa*

**2004-2007              Kampala International University:-**

Degree                      :            **Bachelor of Science Computer Engineering.**

**Second Class Upper Division.**

*Development of traffic simulator using computer vision: A case study of Kampala City Roads.*

**April 2007- October 2007 Cisco Networking Academy**

Cisco                        :            **Certified Cisco Network Associate (CCNA).**

**August 2003- September 2003 Egerton University:-**

Certificate                :            **Certificate in Computer Applications.**

**1996- 1999 Maranda High School:-**

Certificate                :            **Kenya Certificate of Secondary Education (KCSE). B- (Minus).**

### **2.2 Professional Training & Qualifications**

**May 2021:                      Kenya School of Government**

Certificate of Completion:    **Transformative Leadership Course**

**November 2019 :**      **Commonwealth of Learning**

Teacher/Practitioner Certificate: Commonwealth Digital Education Leadership Training in Action (C-DELTA)

**August 2019:** Trained on use of online assessment tools - by **Commonwealth of Learning**

**April 2019:**    Trained on ICT integration and interactivity of online modules –  
by **Commonwealth of Learning**

**March 2019:**    Trained on ICT integration and interactivity of online modules –  
by **Commonwealth of Learning**

**December 2018 :**      **Commonwealth of Learning**

Certificate of Completion:              Understanding Open Educational Resources

### **3.0 CAREER HISTORY/ EXPERIENCE**

**2021 Todate**

Project leader - VLIR-UOS aimed at Strengthening ICT infrastructure to Enhance Research, Teaching and Learning under the program of **Strengthening Jaramogi Oginga Odinga University of Science and Technology Capacity in Natural Resource Management, Food Security and Health**

*May, 2019- May 2022*

*Project Coordinator:* Commonwealth Digital Education Leadership Training in Action (C-DELTA) Project

*May, 2018- May 2022*

*CO- Project Coordinator:* Implementing Technology Enabled Learning (TEL) at Jaramogi Oginga Odinga University of Science and Technology

**01/04/2021- Todate**

**Position:**      **Associate Professor** - School of Informatics and Innovative Systems- Jaramogi Oginga Odinga University of Science and Technology, Bondo, Kenya.

**Duties:**          Lecturing undergraduate, master and supervision of MSc. Research and PhD students in area of Information Systems and Technology. Students academic advisor, curriculum development, Initiating and conducting fundable research projects and any other duties assigned by the university.

## **2020 Todate**

**Director- Centre for E Learning- Jaramogi Oginga Odinga University of Science and Technology.**

## **2016 Todate**

A reviewer for key International Journals, including *IEEE Transactions on Intelligent Transportation Systems*, *Asian Journal of Research in Computer Science*, *International Journal of Network Security*, *International Journal of Computer and Technology*, *Journal of Emerging Trends in Computing and Information Science*, *Journal of Creative Communications*, *Educational Research*, *Journal of Research in International Business and Management (JRIBM)*, *Universal Journal of Education and General Studies (UJEGS)*, *Herald Journal of Education and General Studies (HJEGS)*

**08/11/2016- 5/3/2021**

**Senior Lecturer- School of Informatics and Innovative Systems- Jaramogi Oginga Odinga University of Science and Technology.**

## **2015 - 2020**

**Position: DEAN- School of Informatics and Innovative Systems- Jaramogi Oginga Odinga University of Science and Technology.**

### **Duties:**

- To offer administrative, technical, scientific and academic guidance at the Faculty.
- Up-holding the activities of the Faculty in the realization of the set goals for academic, research and outreach functions .
- Strengthen undergraduate and postgraduate training.
- Initiate human capacity development for staff.

### **Chair**

- School Board Meetings
- School Examination Board

### **Member**

- Senate
- Deans Committee
- Graduation Committee
- Centre for E Learning Board

- Library and Bookshop Committee
- School Board
- School Board of Examiners

**2014-2015**

**Ag Director- Institute of Open and Distance Learning- Africa Nazarene University.**

**2013- 2014**

**Senior Lecturer/ Teaching and Learning Resource Production Coordinator - Africa Nazarene University.**

**2012 -2013**

**DEAN- Faculty of Applied Science and Technology- Kampala International University- Dar-es salaam College.**

- Develop a strategic plan for the advancement of Teaching and Learning within the Faculty of Applied Science and Technology that aligns with the priorities of the Faculty and the University.
- Collaborate and communicate with Department Chairs, faculty and students on the development and implementation of the activities recommended within the Teaching and Learning Strategic Plan for the Faculty of Applied Science and Technology.
- Provide leadership in the development, implementation and evaluation of programs for faculty, students and staff that support the advancement of teaching expertise and student learning.
- Provide leadership to incorporate high-impact educational practices, based on research, into teaching and learning experiences and environments within the Faculty of Applied Science and Technology.
- Ensure that teaching and learning related programs and initiatives within the Faculty of Applied Science and Technology are consistent with the strategic priorities of the Faculty and the University.
- Ensure that policies and procedures that affect teaching and learning activities within the Faculty of Applied Science and Technology support faculty in their teaching and students in their learning.
- Establish and maintain performance indicators to ensure benchmarking of faculty teaching performance. Work closely with Departments to review and evaluate existing performance indicators.

**LECTURER AND E- LEARNING RESOURCE CO-ORDINATOR- Kampala International University- Dar es salaam College Institute of Open and Distance Learning  
2010- 2012**

Responsible for carrying out teaching and research duties. Involved in the administration of degree and postgraduate courses as well as responsible for organizing lectures and supervising tutorials.



- Involved in the research and designing of new courses and materials.
- Assessing students' course work and material.
- Involved in the set up of exams and the marking of results.
- Responsible for the departmental administrative tasks.
- Providing mentoring, advice and support to students on a personal level.
- Implementing University research projects and involved in its publication.
- Actively leading class discussions and encouraging debate.
- Developing teaching modules used for distance learning.
- Disseminate information to the distance learners from the institute and vice versa.
- Submit monthly reports on the progress at the institute.
- Develop a frame work for suitable instructional design that can be adopted for university use within the current virtual learning environment.
- Attend board meetings of the Institute and discuss matters as per the agenda.

**Director Marketing and Public Relations - Kampala International University  
2010 - 2011**

- Create, implement and oversee communications and marketing strategies that promote the University.
- Disseminate information regarding Kampala International University through newspapers, periodicals, brochures, electronic media and other forms of communication including organized University functions and exhibitions.
- Responsible for the University public relations that include writing press releases, speeches, maintaining attractive and vibrant website, planning University events.
- Coordinate all the liaisons offices through out Tanzania and Southern Africa.

**ASSISTANT LECTURER and E- LEARNING SURPORT SPECIALIST - Kampala  
International University- Dar es salaam College.  
2009 -2010**

Delivering lectures to groups of students and using advanced teaching techniques to inspire and motivate them for higher level qualifications and then employment. Responsible for organizing departmental book days and giving demonstrations to students and visitors on the colleges commitment to high quality education and training.

- Organized, implemented and monitored programmes and assessments.
- Was responsible for preparing learning material for courses and devising relevant practical activities.
- Carried out progressive assessments, develop a marking scheme for courses taught and mark examination scripts.
- Involved in course team activities and curriculum development for students.
- Participated in the interviewing of potential students.

**TUTORIAL FELLOW- Kampala International University- Institute of Distance Learning  
(IODL)- Main Campus Uganda  
2009**

- Delivering Tutorials to groups of students and using advanced teaching techniques to inspire and motivate them for higher level qualifications and then employment.

- Advise students and colleagues on appropriate subject matters consistent with my academic background.
- Issue modules, timetables and learning materials to learners.
- Assist in preparation of workshop and seminar organized by IODL.

### **3.1 Experience as a visiting professor/adjunct positions**

- a) Visiting Professor, Department of Computing and Informatics, University of Nairobi, April- October 2021
- b) Visiting Professor, Department of Computing and Information Technology, Kenyatta University, November, 2021
- c) Visiting Professor, Department of Information Technology and Computer Science, Kabarak University

### **3.2 Experience in strategic and business planning**

*Team Leader, August- November 2021*

**Abeka. S.,** Otieno. A. and Okuro S.

Development of the Directorate of Governance, County of Kisumu Strategic Plan 2021-2026  
On behalf of the Directorate of Governance and Administration- County Assembly of Kisumu

*Member, 2017-2019*

Jaramogi Oginga Odinga University of Science and Technology Strategic Plan Implementation Committee (SPIC).

- Oversaw the implementation of the Strategic Plan and communicates progress of the overall plan to Council, Senate and Stakeholders.
- Spearheaded the review of the 2010–2016 Plan and the subsequent development of the 2016-2021 Plan

*Member, 2017*

Jaramogi Oginga Odinga University of Science and Technology Management Review Committee (MRC)

Participated as a member of the team that reviewed management structure of the University

*Team Leader, 2016*

Jaramogi Oginga Odinga University of Science and Technology School of Informatics and Innovative Systems Strategic Plan

Led the team that developed the first ever Strategic Plan for the School of Informatics and Innovative Systems 2016- 2021

*Team Member, 2013*

Kampala International University, Dar es salaam Campus.

Participated as a member of the team that developed a Strategic Plan for Kampala International University, Dar es salaam Campus 2013- 2018.

## **4.0 PREVIOUS ACADEMIC SUPERVISION**

### **4.1 PHD supervision**

Successfully supervised Jerotich Sirma I162/4140/2013 in her PhD thesis entitled Enhanced Information Security Model Using Integrated Approach. (Graduated in 2020)

Successfully supervised to completion Jasper Malcom Ondulo in his **PhD Thesis** entitled A Framework for the Implementation of E- Health in Public Healthcare Facilities in Kenya (*Graduated in 2018*)

Successfully Supervised Oduyo Collins Otieno in his **PhD thesis** entitled Mobile Phone Money Utilization in Homabay Region, Kenya. (*Graduated in 2017*)

Currently supervising Vincent Omolo Nyangaresi in his PhD thesis entitled Pseudo- Stochastic Cellular Network Mobility Tracking Protocol for Secure Low Latency Neuro- Fuzzy Handovers. (*On-going. External Examination stage*)

Currently supervising Njoga David Ayub Onyango in his **PhD thesis** entitled Cyberspace Situational Awareness: Protection Framework for Critical Information Infrastructure. (*On-going. External Examination stage*)

Currently supervising Fred Wauyo in his PhD thesis entitled Holistic Model for Predicting User Adoption Mechanism of Mobile Applications for Business Growth in Medium Enterprises: The Case of Kampala City Council Authority (*On-going. Proposal development stage*)

Currently supervising Aggrey Mwesiga in his PhD thesis entitled A Hybrid Interpretive System Dynamic Modeling Framework for Manufacturing Enterprises in Kenya (*On-going. Proposal development stage*)

Currently Supervising Castro Auma Yoga in his PhD thesis entitled Defensive Procedural Security Design Pattern Model for the Network Architecture. (*On-going. Data Collection stage*)

Currently Supervising Edward Orinda in his PhD Dissertation entitled Security and Privacy of Mobile Cloud Computing: Technological solutions. (*On-going. Data Analysis and Report Writing stage*)

Currently Supervising Rajab Mohamed Mzee I361/4512/2013 in his PhD thesis entitled Towards Adoption of Mobile Payment by Small and Medium Enterprises. (*On-going. Proposal development stage*)

Currently Supervising Omol Edwin Juma I163/4127/2018 in his PhD thesis entitled Suitability Framework for Internet of Medical Things (IoMT) Innovations. (*On-going. Proposal development stage*)

## 4.2 Masters supervision

Successfully supervised to completion Gloria Awuor Odiaga in her MSC thesis entitled An Information Security Awareness Framework for Secondary School Teachers in Kenya Drawn from Endsley's Theory of Situational Awareness (Graduated in 2020)

Successfully supervised to completion Collins Awiti in his MSc thesis entitled; Evaluation of ICT Disaster Recovery and Preparedness: A Survey of Health Research Institutions in Kisumu County (Graduated in 2020)

Successfully supervised to completion Akech Philip Otieno in his MSc thesis entitled; A Model Based on Institutional Theory to Enhance Cyber Resiliency in County Governments (Graduated in 2020)

Successfully supervised to completion Odoyo Josephine Akinyi in her MSC thesis entitled; The Role of Computer Forensics Barriers in Motivating Cybercrime in Kenya: A Social Learning Theory Perspective (Graduated in 2020)

Successfully supervised to completion Peter Sungu Nyakomitta in his **MSc thesis** entitled Secure Virtualized Client Server Instant Messaging through Port- Based Algorithm. (*Graduated in 2018*)

Successfully supervised to completion Vincent Nyagngaresi in his **MSc thesis** entitled Adaptive Congestion Control Algorithm for Virtualized Cloud Data Communication (*Graduated in 2017*)

Successfully Supervised to completion Wanyonyi Nekesa Everleen in her Masters Thesis entitled Towards A Secure Electronic Health Records Systems: A case of JOOTRH. (*Graduated in 2017*)

Successfully Supervised to completion Ndeda Akinyi Laurene in her MSc research entitled Effectiveness of Cloud Computing on Mobile Learning. (*Graduated in 2017*)

Successful Supervised to completion Elizabeth Wanjiku in her MSc thesis entitled Education Stakeholders Involvement in Promoting Learning in Lower Classes in Public Primary Schools Kipipiri Sub-County, Nyandarua County, Kenya. (*Graduated in 2017*)

Successfully Supervised to completion Christine Ogola in her MSc thesis entitled Webbased Systems and its Impact on Database Management at KEMRI/CDC (*Graduated in 2016*)

Successfully Supervised to completion Idd Mohamed in his thesis entitled Integration of M-Learning Technologies: Challenges and prospects in Kampala International University, Dar es salaam. (*Graduated in 2014*)

Successfully Supervised to completion Mathew Lyamba in his Masters research entitled Development of a Global Position System (GPS) Based Parking Management System for Dar es Salaam City. (*Graduated in 2014*)

Successfully Supervised to completion Wilhem Oddo in his **MSc research** entitled Development and implementation of a mobile and web based application for Pregnancy Care and Child health (*Graduated in 2014*)

Successfully Supervised to completion Kapere Marjoree in her **MSc research** entitled Computerized book log system and students access to library materials in Kampala International University, Dar es salaam. (*Graduated in 2013*)

Successfully Supervised to completion Adum Joseph in his masters thesis entitled; E-Learning Pedagogy And Student's Academic Performance In Kampala International University Dar Es Salaam College; Published Thesis. (*Graduated in 2012*)

Successfully Co- Supervised to completion Rickson Joseph in his Masters thesis entitled; Service delivery through Information Systems in TANROADS Dar Es Salaam and Mwanza; Published thesis (*Graduated in 2012*)

Supervised to completion Ally Husein Laizer in his Postgraduate Diploma dealing with Evaluation of Inefficiency of internal control of computerized accounting system in TRA (*Graduated in 2011*)

Supervised to completion Malise H. Ndonde in his Postgraduate Diploma dealing with Impact of advertisement on the growth of small and medium enterprise (SMes) (*Graduated in 2011*)

Supervised to completion Zuhura Saleh Amour in her Postgraduate Diploma dealing with An inquiry into the process of labour turnover and performance of employees in the Ministry of Industry, Trade and Marketing in Tanzania. (*Graduated in 2011*)

Co-Supervised to completion Baptister M Bitaho in his Masters thesis dealing with domestic violence in relation to children rights; a case of affected children in Temeke district (*Graduated in 2010*)

Co- Supervised to completion Ogolla Mary W. in her Bachelors research dealing with The Impact Of Domestic Violence On Learners In Mbita Township Division, Suba District, Kenya: Implications For Inclusionary Practices. (*Graduated in 2010*)

Currently Supervising Alfred Sylvester Arot I152/4013/2018 in his thesis entitled Determinants of Adoption of Information Technology for Healthcare Services (*Proposal Stage*)

Currently Supervising Henry Mathews Odiango I153/4224/2017 A Framework for Assessment of Health Information Systems Security and Privacy Risks (*Data Collection Stage*)

Currently Supervising Fredrick Ochieng Omoga I152/4095/2014 in his thesis entitled Information Security and Privacy Framework in Electronic Healthcare Systems (EHCS) (*Data Collection Stage*)

Currently Supervising Omolo Noah Okidia I152/42222/2016 in his thesis entitled Inclusive Digital Forensic Investigation Framework for Improving Integrity of Admissible Digital Evidence (*Proposal Stage*)

Currently Supervising Abwao Donatus Omondi I152/4353/2016 in his thesis entitled An Integrated Customer Authentication System to mitigate mobile identity theft at SIM Card registration and replacement: A modified human identity theory. (*Data Collection Stage*)

Currently Supervicing James Kenneth Odero I152/4008/2018 in his thesis entitled Security Threats and Attacks on Wireless Network in the Institution of Higher Learning. (*Proposal Stage*).

## **5.0 RESEARCH THESIS EXAMINATION**

### **5.1 Internal Examination**

- Jeremiah Oyana Owango (2020) Information Security Model for University Networks in Kenya. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Master of Philosophy in Information Technology Security and Audit Systems of Jaramogi Oginga Odinga University of Science and Technology.
- Leonard Wafula Wakoli (2020) A Cybersecurity Compliance Practices Framework to Mitigate Cybersecurity Threats and Vulnerabilities in the Banking Industry. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Doctor of Philosophy in Information Technology Security and Audit Systems of Jaramogi Oginga Odinga University of Science and Technology.
- Mathew Masinde Egesa (2020) Operationalisation of Capability Approach Using Affordances in Information and Communication Technology for Development (ICT4D). A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Doctor of Philosophy in Business Information Systems of Jaramogi Oginga Odinga University of Science and Technology.
- Paul Abuonji Anyango (2018) A stratified Cyber Security Vigilance Model for Corporate Information Technology Infrastructure. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Doctor of Philosophy in Information Technology Security and Audit Systems of Jaramogi Oginga Odinga University of Science and Technology.
- Omolo Richard Otieno (2018) Addition- Composition Fully Homomorphic Encryption Scheme and Its Enhancement of Data Security in Cloud Computing. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Doctor of Philosophy in Information Technology Security and Audit Systems of Jaramogi Oginga Odinga University of Science and Technology.
- Charles Owuor Omoga (2018) Determinants of E- Marketing Adoption Among Small Business in the Hospitality Industry: An Extended Institutional Model Perspective. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Doctor of Philosophy in Business Information Systems of Jaramogi Oginga Odinga University of Science and Technology.
- Omamo O. A (2018) Mobile Usage And Economic Growth: A Systems Dynamic Model in The Context of Kenya's Vision 2030. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Doctor of Philosophy in Information Technology and Management of Jaramogi Oginga Odinga University of Science and Technology.
- Mengich M. E (2018) Information Communication and Technology as an Enabler of Good Governance in County Governments of Kenya Drawing on Structure Theory. A

Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Doctor of Philosophy in Business Information Systems of Jaramogi Oginga Odinga University of Science and Technology.

- Mutongwa M. S. (2018) The Use of Intergrated Financial Management Information Systems to Enhance Transparency and Accountability in Kenya Public Sector. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Doctor of Philosophy in Business Information Systems of Jaramogi Oginga Odinga University of Science and Technology.
- Motende F. M (2018) SMS Based Health Appointment Application Management Application For Clientele Follow- Up: A Case Of NUVARING Project, KEMRI/CGHR. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Master of Information Systems of Jaramogi Oginga Odinga University of Science and Technology.
- Ounza F. E (2018) Secure Adoption For Bring Your Own Device in Universities in Kenya. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Master of Information Technology and Security Audit of Jaramogi Oginga Odinga University of Science and Technology.
- Otieno M. O. D (2017) The Effect of Security Controls on Effective Information Security With Policy as Moderator: A Case of Secondary Schools In Kisumu County. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Master of Information Technology and Security Audit of Jaramogi Oginga Odinga University of Science and Technology.
- Obara M. A (2017) Towards Securing Information Systems In Public Universities: A Case of Kenyan Public Universities Western Kenya Region. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Master of Information Technology and Security Audit of Jaramogi Oginga Odinga University of Science and Technology.
- Momanyi M. O (2017) Knowledge Management Model: A Case Of Kisii County Secondary Schools. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Master of Information Technology and Security Audit of Jaramogi Oginga Odinga University of Science and Technology.
- Ndolo A. A (2017) Towards a Framework for Information Security Governance in Public Universities in Kenya. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Master of Information Technology and Security Audit of Jaramogi Oginga Odinga University of Science and Technology.
- Nyapete M. N (2017) Efficient Resource Utilization in Information Security Risk Management Investment: A Case Study of Small and Medium Enterprise in Nairobi, Kenya. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Master of Information Technology and Security Audit of Jaramogi Oginga Odinga University of Science and Technology.
- Muchesia P. (2017) An Evaluation Of Ict Implementation in Secondary Schools in Line With Vision 2030 Kenya Case Study: Kakamega. A Thesis submitted in Partial Fulfilment

of the Requirement for the Degree of Master of Information Technology and Security Audit of Jaramogi Oginga Odinga University of Science and Technology.

- Akelo C. O (2016) E Commerce Adoption in Kenya: A case Study of Book Publishing Industry: A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Doctor of Philosophy in Business Information Systems of Jaramogi Oginga Odinga University of Science and Technology.
- Omieno K. K (2015) Performance Based- Usability Maturity Assessment Framework for Virtual Learning Systems in Kenya. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Doctor of Philosophy in Business Information Systems of Jaramogi Oginga Odinga University of Science and Technology.
- Obegi F. (2015) Success Factors for Corporates Implementing Server Virtualization Technology by Companies Listed on the Nairobi Security Exchange. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Doctor of Philosophy in Business Information Systems of Jaramogi Oginga Odinga University of Science and Technology.

## **5.2 External Examination**

- Kimuyu Juma James (2018) Towards a Software Quality Assurance Framework for in House Development in Strategic State Corporation in Kenya. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Doctor of Philosophy in Information Systems of Kisii University.
- Onoka K. O (2018) Application of GIS- Enabled Technology to Analyze Risk Factors for Malaria Prevalence. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Master of Science in Information Systems of Kisii University.
- Monywoki Nicholas Makau (2017) Factors Influencing Adoption of Digital Online Marketing: A Case of Medium Enterprises in Nairobi Central Business District. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Master of Science in Information Systems of Kisii University.
- Mayende L. N (2017) Effect Of Trade- In Policy Framework On The Management Of Used Mobile Phones in Eldoret Town, Kenya. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Master of Science in Information Systems of Kisii University.
- Makau N. M (2017) Factors Influencing Adoption of Digital online marketing: a case of medium enterprises in Nairobi Central Business District. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Master of Science in Information Systems of Kisii University.
- Ondiek Collins Oduor (2016) Software as a Service (SaaS) Adoption for the Development of Small and Medium Size Enterprises (SMEs). A Case Study of Small and Medium Size Enterprises (SME) in Nairobi County of Kenya. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Doctorate of Philosophy of Information Systems of **University of Nairobi.**



- Tirus Muya Maina (2016) Technologies Integration in Selected Technical and Vocational Education and Training in Kiambu and Murang'a. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Master of Science in Information Systems of Kisii University.
- Orucho Daniel Okari (2016) Adoption and Use of Internet Banking in Kenya: Survey of Three Selected Banks in Nairobi County. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Master of Science in Information Systems of Kisii University.
- Ndeso M. F. (2016) Effects of Electronic Information on Provision of Medical Services at Moi Teaching and Referral Hospital. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Master of Science in Information Systems of Kisii University
- Nelima P. (2015) Enhanced Model to Measure Information Systems User Satisfaction in Kenya. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Master of Science in Information Systems of Masinde Muliro University of Science and Technology.
- Okello K. B. (2015) AN Intergrated Framework to Evaluate Usability of Mobile Information Systems for Children in Kenya. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Master of Science in Information Systems of Masinde Muliro University of Science and Technology.
- Otengi J. A. (2015) Succesful Factors for Mobile Learning Adoption in Kenyan University. A Thesis submitted in Partial Fulfilment of the Requirement for the Degree of Master of Science in Information Systems of Kisii University.

## **6.0 ACADEMIC PUBLICATIONS**

### **6.1 Selected Journal Articles Publications: As an Associate Professor**

My past published research after promotion to an Associate Professor Level includes:

- Auko J. & Abeka S. O. (2022), Wireless body area networks: A critical review of the state-of-the-art security schemes, *Global Journal of Engineering and Technology Advances*, 2022, 12(01), 131-146, Article DOI: <https://doi.org/10.30574/gjeta.2022.12.1.0123>
- Nyangaresi, V.O., Rodrigues, A.J. & Abeka, S.O. (2022), Machine Learning Protocol for Secure 5G Handovers. *Int J Wireless Inf Networks* 29, 14-35 (2022). <https://doi.org/10.1007/s10776-021-00547-2>
- Vincent Omollo Nyangaresi, Silvanice O. Abeka, Anthony J. Rodrigues, "Tracking Area Boundary-aware Protocol for Pseudo Stochastic Mobility Prediction in LTE Networks" (2020), *International Journal of Information Technology and Computer Science(IJITCS)*, Vol.12, No.5, pp.52-62, 2020. DOI: 10.5815/ijitcs.2020.05.04

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## 6.2 Selected Journal Articles Publications: As a Senior Lecturer

- Vincent Omollo Nyangaresi, Anthony Joachim Rodrigues and **Silvance Onyango Abeka** (2020), Secure Handover Protocol for High Speed 5G Networks, *Int. J. Advanced Networking and Applications*, Volume: 11 Issue: 06 Pages: 4429-4442 (2020) ISSN: 0975-0290
- Odoyo, J. A., **Abeka, S. O.**, and Liyala S. (2020), Exploring a Social Learning Perspective on Computer Forensics Barriers and Factors Affecting Cybercrime Investigation in Kenya, *International Research Journal of Innovations in Engineering and Technology- IRJIET*, Volume 4, Issue 7, July 2020 pp. 9-13
- Odiaga, G. A., **Abeka, S. O.**, and Liyala S. (2020), An Information Security Awareness Framework For Secondary School Teachers In Kenya, *International Journal of Innovative Research and Advanced Studies (IJIRAS)*, Volume 7 Issue 5, May 2020
- Awiti C., **Abeka S. O** and Liyala S. (2020) Assessment of ICT Disaster Recovery And Preparedness Among Health Research Institutions in Kisumu County, Kenya, *International Journal of Scientific & Engineering Research (IJSER)* Volume 11, Issue 5. May-2020, Pages 1301-1310, ISSN 2229-5518
- Vincent Omollo Nyangaresi, **Silvance Onyango Abeka**, Anthony Joachim Rodrigues. (2020), GUTI-Based Multi-Factor Authentication Protocol for De-synchronization Attack Prevention in LTE Handovers. *International Journal of Cyber-Security and Digital Forensics (IJCSDF)* 9(1): 1-11. ISSN: 2305-0011
- Vincent Omollo Nyangaresi, **Silvance Onyango Abeka**, Anthony Joachim Rodrigues. (2020) Delay Sensitive Protocol for High Availability LTE Handovers. *American Journal of Networks and Communications*. Vol. 9, No. 1, 2020, pp. 1-10. doi: 10.11648/j.ajnc.202009012.11
- Mutongwa M. and **Abeka S.** (2020) Implementation of MKopa Solar Services for Poverty Eradication, *Journal of Scientific and Engineering Research*, 7(1):76-87
- Jerotich Sirma, **Silvance O. Abeka** and Benard Okelo (2019), Assessing the Current Status of Information Security Policies among SACCOs in Kenya, *European Journal of Business and Management*, Vol.11, No.27, ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online) DOI: 10.7176/EJBM
- **Abeka S.** (2019), Cyber Physical System Security Model For Remote Sensing Device Protection: A Technical Review, *International Journal of Engineering Trends and Technology* Vol. 67 Issue 9 pages 65-77
- Mutongwa M. and **Abeka S.** (2019), A Comparative Study of C, C++, C# and Java Programming Languages: Underpinning Structure Equation Modeling, Data Structures and Algorithm, *Journal of Scientific and Engineering Research*, 2019, 6(12):162-171
- Baraza E and **Abeka S. O.** (2019), Greening Decent Employment Opportunities for Kenya's Youth *International Journal of Education and Research* Vol. 7 No. 8

- Nyangaresi, V.O, **Abeka, S. O**, & Rodgrigues A, (2018), Secure Timing Advance Based Context-Aware Handover Protocol for Vehicular Ad-Hoc Heterogeneous Networks: *International Journal of Cyber-Security and Digital Forensics (IJCSDF)* 7(3): 256-274
- Nyangaresi, V.O, **Abeka, S. O**, Arika, N. R (2018), Low Latency Automatic Repeat Request Protocol for Time Sensitive GSM-Enabled Smart Phone Video Streaming Services. *International Journal of Scientific Research in Computer Science, Engineering and Information Technology*, 3(3):1368-1384
- Nyangaresi, V.O, **Abeka, S. O**, & Rodgrigues A, (2018), Multivariate Probabilistic Synthesis of Cellular Networks Teletraffic Blocking with Poissonian Distribution Arrival Rates, *I.J. Wireless and Microwave Technologies*, 2018, 4, 14-39
- Nyangaresi, V.O, **Abeka, S.O**, & Rodgrigues A, (2018), Security Evaluation of Cellular Networks Handover Techniques, *I. J. Computer Network and Information Security*, 2018, 5, 45-59
- Ndeda, L.A., Ogara, S. & **Abeka, S. O**, (2018), A Framework for Secure Mobile Cloud Computing In Effective Electronic Learning, *International Journal of Innovative Research and Advanced Studies (IJIRAS)* Volume 5 Issue 1.
- Sanja M. M. & **Abeka, S. O**, (2017), Factors Affecting Integrated Financial Management Information System Application in Kenyan Public Sector, *Journal of Scientific and Engineering Research*, 4(9):444-452
- Odoyo C. O, Liyala, S, Odongo, B. C., **Silvance Abeka**, and Ogara, S. O. (2018), Validation of Extended Theory of Reasoned Action to Predict Mobile Phone Money Usage, *World Journal of Computer Application and Technology* 6(1): 1-13, 2018
- Everleen Wanyonyi, Anthony Rodrigues, **Silvance Abeka**, Solomon Ogara (2017), Effectiveness of Security Controls on Electronic Health Records, *International Journal of Scientific & Technology Research*, Volume 6, Issue 12
- Nyangaresi, V. O., **Abeka S.** & Ogara, S. (2017), Congestion Aware Packet Routing for Delay Sensitive Cloud Communications, *International Journal of Computer Networks and Applications (IJCNA)*, DOI: 10.22247/ijcna/2017/49121, Volume 4, Issue 4
- Nyakomita, S., Ogara, S & **Abeka, S.** (2017) Secure End Point Data Security Using Java Application Programming Interface, *International Journal of Scientific Research in Science, Engineering and Technology (ijsrset)*, Vol 3, Issue 1.
- Nyangaresi, V. O., **Abeka S.** & Ogara, S. (2017), Data and Voice Signal Intelligence Interception over the GSM Um Interface *International Journal of Research and Innovations in Science and Technology* Volume 3 : Issue 2
- Omol, E, **Abeka S. O**, & Wauyo, F. (2017), Factors Influencing Acceptance of Mobile money Applications in Enterprise Management: A Case Study of Micro and Small Enterprise Owners in Kisumu Central Business District, Kenya, *International Journal of Advanced Research in Computer and Communication Engineering (IJARCCE)*, Volume 6, Issue 1.

- Omol, E, **Abeka S. O**, & Wauyo, F. (2017), E- Proctored Model: Electronic Solution Architect for Exam Dereliction in Kenya, *International Journal of Advanced Research in Computer and Communication Engineering (IJARCCE)*, Volume 6, Issue 1.
- Nyangaresi, V. O., Ogara, S., & **Abeka S.** (2017), congestion aware packet routing for delay sensitive cloud communications, *International Journal of Computer Networks and Applications*, DOI: 10.22247/ijcna/2017/4129. Corpus ID: 28309028
- Nyangaresi, V. O., **Abeka S.** & Ogara, S. (2016), Empirical Analysis of Clustered Network Traffic over Digital Communication Channels, *Journal of Network Communications and Emerging Technologies (JNCET)*, Volume 6, Issue 11.
- Vincent O. Nyangaresi, S. Ogara, **Abeka, S.** (2016), Security Evaluation of the Adaptive Congestion Control Algorithms for Virtual Data Center Communication, *European Academic Research - Vol. IV, Issue 8 / November 2016*
- Odoyo C. O., Liyala. S., Odongo B. C and **Abeka S. O** (2016), Challenges Facing the Use and Adoption of Mobile Phone Money Services, *World Journal of Computer Application and Technology* Volume 4 Issue 1: 8-14, 2016

### 6.3 Selected Journal Articles Publications: As a Lecturer

- Nyakomita, S., **Abeka, S.** & Ogara, S. (2016) Empirical Investigation of Instant Messaging Security in a Virtual Environment, *International Journal of Computer Applications Technology and Research* Volume 5–Issue 12, 733-747, 2016, ISSN:- 2319-8656
- Omol, E.J., **Abeka, S.O.**, Omieno, 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*; Vol. 1, No. 1, pp. 35 - 43.
- Omol, E. J., **Abeka, S. O.**, Ogalo, J. O., Omieno, 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*; Vol. 1, No. 1, pp. 1 - 12.
- Odoyo C. O., Liyala S., Odongo B. C and **Abeka S. O** (2016) Elements enhancing the use of mobile phone money services: A case of Homa Bay Region, Kenya. *World Journal of Computer Application and Technology* Vol. 4, No. 1. ISSN 2331-4982 (Print)
- Odoyo C. O., Liyala S., Odongo B. C and **Abeka S. O** (2016), Theory of Reasoned Action as an Underpinning to Technological Innovation Adoption Studies, *Horizon Research Publishing, USA (HRPUB)* Vol. 4, No. 1. ISSN 2331-4990 (Online)
- **Abeka S. O** (2014) A Comparative Study on Cloud Computing Adoption in Tanzania and Rwanda: A Case study of top Cloud Service Providers, *International Journal of Advanced Computer Science and Application (IJACSA)* Vol 4, No 8.
- **Abeka S. O.** (2012). Security and Acceptance of Web Based Marketing Information System Among Microfinance Banks In Nairobi Region, Kenya. *International Journal of*

- **Abeka S. O.** (2012). Performance and Acceptance of Web Based Marketing Information System among Microfinance Banks In Nairobi Region, Kenya. Accepted for publication in November 2012 issue of *SS International Journal of Business and Management Research (SSIJBMR)* VOLUME 2 , ISSUE 6 [NOV 2012] ISSN 2231-4970.
- **Abeka S. O** and Mgaya H. R. (2012), Development of Software for Vehicle Classification and Identification, *International Journal of Information Systems*, June, 2012, Vol. 4, No 15.
- Mgaya H. R, **Abeka S. O**, and Saleh Zein-Sabatto, (2013) College of Information Communication and Technology, University of Dar es salaam, *Vehicle Identification Using Acoustic Sensors*, Microsoft ICT Africa Initiative symposium series in Intelligent Systems and Controls.
- **Abeka S. O.** (2012). User Satisfaction and Acceptance of Web Based Marketing Information System Among Microfinance Institutions In Nairobi Region, Kenya. *International Journal of Academic Research in Business and Social Sciences*, September 2012, Vol. 2, Issue 9. ISSN: 2222-6990.
- **Abeka, S. O.** and Abeka, E. O. (2012), Percieved Importance and Perfomance of Information Systems in Azam Company- Dar Es Salaam, *International Journal of Learning & Development*, ISSN 2164-4063 2012, Vol. 2, No. 3
- **Abeka S. O.** (2012), Perceived Usefulness, Ease Of Use, Organizational And Bank Support As Determinants Of Adoption Of Internet Banking In East Africa. Accepted without any modification for *International Journal of Academic Research in Business and Social Sciences*, October 2012, Vol. 2, Issue 10. ISSN: 2222-6990.
- **Abeka, S. O.**, Abeka, E. O. and Ondoro, C. O. (2012), Determinants of Adoption of Internet Banking by Trade Finance Customers in East Africa, *International Journal of Academic Research in Accounting, Finance and Management Sciences* Volume 2, Issue 2 (2012) ISSN: 2225-8329
- Jagero, N. and **Abeka, S. O.** (2011), Corporate Customers Usage of Internet Banking in East Africa, *IJCSI International Journal of Computer Science Issues*, Vol. 8, Issue 5, No 1, September 2011 ISSN (Online): 1694-0814
- Bitaho, B. M., Jagero N. and **Abeka, S. O.** (2011), Domestic Violence in Relation to Children Rights in Dar es Salaam, Tanzania, *British Journal of Humanities and Social Sciences*, September 2011, Vol. 1 (2)
- **Abeka. S. O.** (2008)., Development of traffic simulator using computer vision: A case study of Kampala City Roads. Kampala International University. Unpublished; Bachelors dissertation.

## 6.4 Reviewed and Published Conference Papers:

### 6.4.1 Reviewed and Published Conference Papers: As an Associate Professor

- Nyangaresi, V.O., Rodrigues, A.J. & Abeka, S.O. (2022), *Machine Learning Protocol for Secure 5G Handovers*. *Int J Wireless Inf Networks* 29, 14–35 (2022). <https://doi.org/10.1007/s10776-021-00547-2>

- V. O. Nyangaresi, A. J. Rodrigues and **S. O. Abeka**, (2021) "Efficient Group Authentication Protocol for Secure 5G Enabled Vehicular Communications," 2020 16th International Computer Engineering Conference (ICENCO), Cairo, Egypt, 2021, pp. 25-30, doi: 10.1109/ICENCO49778.2020.9357372.

#### 6.4.2 Reviewed and Published Conference Papers: As Senior Lecturer

- Vincent Omollo Nyangaresi, Silvanse O. Abeka, Anthony J. Rodrigues, "Tracking Area Boundary-aware Protocol for Pseudo Stochastic Mobility Prediction in LTE Networks" (2020), *International Journal of Information Technology and Computer Science(IJITCS)*, Vol.12, No.5, pp.52-62, 2020. DOI: 10.5815/ijitcs.2020.05.04
- Vincent Omollo Nyangaresi, Silvanse O. Abeka, Anthony J. Rodrigues, "Tracking Area Boundary-aware Protocol for Pseudo Stochastic Mobility Prediction in LTE Networks" (2020), *International Journal of Information Technology and Computer Science(IJITCS)*, Vol.12, No.5, pp.52-62, 2020. DOI: 10.5815/ijitcs.2020.05.04
- V. O. Nyangaresi, A. Joachim Rodrigues and **S. O. Abeka** (2020), "Neuro-Fuzzy Based Handover Authentication Protocol for Ultra Dense 5G Networks," 2020 2nd Global Power, Energy and Communication Conference (GPECOM), Izmir, Turkey, 2020, pp. 339-344, DOI: [10.1109/GPECOM49333.2020.9247938](https://doi.org/10.1109/GPECOM49333.2020.9247938)
- Nyangaresi V. O and **Abeka S.O** (2019), *Blockchain Enabled E-Learning Delivery Model for Enhanced Quality Learning*. Published in proceedings of 9<sup>th</sup> Pan-Commonwealth Forum (PCF9) in Edinburgh, Scotland: Available at <http://oasis.col.org/handle/11599/3270>
- Baraza E and **Abeka S** (2019) *The Influence of Language and Literacy in Opening up Education of an African Child: A Case of Kenya*. Published in proceedings of 9<sup>th</sup> Pan-Commonwealth Forum (PCF9) in Edinburgh, Scotland: Available at <http://oasis.col.org/handle/11599/3244>

#### 6.5 Authored Book Publications

##### 6.5.1 Book Publication as a Senior Lecturer

- Vincent Nyangaresi, **Silvanse Abeka**, Solomon Ogara, (2017), *Statistical analysis of the GSM (Global System for Mobile Communications) mobility prediction models*, Munich, **GRIN Verlag**, <http://www.grin.com/en/e-book/371131/statistical-analysis-of-the-gsm-global-system-for-mobile-communications>

##### 6.5.2 Book Publication as a Lecturer

- **Abeka, S. O.** (2009), *An investigation of factors influencing corporate customers acceptance of Internet banking*, Munich, **GRIN Publishing GmbH**: ISBN- 13: **978-3656226550**
- **Abeka, S. O.**,(2013),*Corporate Customers Acceptance of Internet Banking in East Africa*, **Anchor Academic Publishing**, ISBN-13: **978- 3954890484**

- **Abeka,, S. O.** (2013) Determinants for acceptance of web based marketing information systems, **LAP Academic Publishing**, ISBN-13: **978-3-659-40754-3**

## **6.6 Book Chapter Publications**

### **6.6.1 As a Senior Lecturer**

- Nyangaresi V.O., Rodrigues A.J., **Abeka S.O.** (2021) ANN-FL Secure Handover Protocol for 5G and Beyond Networks. In: Zitouni R., Phokeer A., Chavula J., Elmokashfi A., Gueye A., Benamar N. (eds) Towards new e-Infrastructure and e-Services for Developing Countries. AFRICOMM 2020. Book of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, vol 361. Springer, Cham. [https://doi.org/10.1007/978-3-030-70572-5\\_7](https://doi.org/10.1007/978-3-030-70572-5_7)
- **Abeka, S. O.** and Bosire, J (2020), Improving Learner Engagements Through Implementing Technology-Enabled Learning: In Sanjaya, M. and Panda, S (Ed) *Technology- Enabled Learning: Policy, Pedagogy and Practice*; (PP. 97-107), Canada: Commonwealth of Learning.

### **6.6.2 As a Lecturer**

- **Abeka, S. O.** (2009), *Policy and Technological Solutions to Privacy Challenges in Mobile cloud Computing* : Trends In Distributed Computing Applications, Real life On-Going research Work; University of Nairobi, School of Informatics, April, 2014, ISBN 978-9966-074-13-3

## **6.7 Teaching Modules**

- Research Methods for MBA Students of Kampala International University-IODL
- Management Information Systems for MBA Students of Kampala International University-IODL
- Applied Statistics for MBA Students of Kampala International University-IODL
- Marketing Strategies for MBA Students of Kampala International University-IODL
- E-Business Fundamentals for IT Students of Kampala International University-IODL

## **6.8 Forthcoming and in Progress**

### **6.8.1 Books:**

- E- Learning Fundamentals book for publication expected date of publication April, 2021. This is an undergraduate textbook (30, 000 words)
- Java Script: A guide for beginners. I do not anticipate completion before May- 2021.

### **6.8.2. Articles**

- The Effects of Technological Self- Efficacy on E- learning Program Enrollment

- Role of efficacy expectations in predicting the decision to use advanced technologies in education
- Barriers to adopting E- Learning technology for teaching and learning
- The impact of aging on self-efficacy and Online Learning skill acquisition
- Measuring E-Readiness for Online Learning at Jaramogi Oginga Odinga University of Science and Technology
- Effects of Workplace Infrastructure on Lecturers' Preparedness for E-Learning at Jaramogi Oginga Odinga University of Science and Technology
- A Model for Predicting e-learning effectiveness and Acceptance among Students
- The effects of Technological Self- Efficacy and Quality of Virtual Learning Environment on E- Learners Satisfaction
- Development of a model to predict student achievement through E-learning interactions and technological self- efficacy.
- Factors influencing high attrition and drop rates for E Learning students

## 6.9 Current Research Interests

- Management Information Systems
- Mobile Computing
- Telecommunications
- Information Technology Innovation Adoption
- E-Learning
- Business Computing
- Cloud Computing
- Distributed Systems
- Open Software Study
- ICT for sustainable development

## 7.0 JOURNALS PAPERS REVIEW

I'm a journal articles reviewer of the following journals;

- Yinus Oluwaseun, *Online Examination Review Method and Quality Assurance*, Academia Letters, Academia.edu.
- Manuscript Number: Ms\_AJRCOS\_68058: *A Comprehensive Survey of 5G mm-Wave Technology Design Challenges*, Asian Journal of Research in Computer Science.
- Manuscript ID: IJNS-2020-01-03-2: *Block chain data sharing scheme based on searchable agent re-encryption*, International Journal of Network Security
- *ID-Based Privacy-Preserving Access Control Protocol with Private Blockchain for Smart Home Systems* . International Journal of Network Security
- Manuscript ID: T-ITS-19-08-0893: **Title:** Reducing CACC Platoon Disturbances Caused by State Jitters by Combining Driving Behavior Recognition with Multiple Platoons' Strategies and Trajectory Prediction: **Authors:** Hao, Wei; Liu, Li; Yang, Xianfeng; Li, Yongfu: *IEEE Transactions on Intelligent Transportation Systems*
- Sweating the Asset of Nigeria's Bottom of the Pyramid Demographic: *Net Journal of Business Management (NJBm-2019-012)*



- Manuscript ID: T-ITS-17-12-1169.R1: Title: Integrated Positioning for Connected Vehicles: Authors: Mahmoud, Anas; Noureldin, Aboelmagd; Hossam Hassanein, Hossam: Journal: *IEEE Transactions on Intelligent Transportation Systems*
- Scoring Marketing Obstacles and Recommended Solutions: The Case of the Date Marketing System in Saudi Arabia, *a publication in the International Journal of Agricultural Marketing*.
- HelpMe: A Heuristic Line Piloting Method Enhancing Taxi Service Using GPS Big Data: *Transactions on Intelligent Transportation Systems, IEEE*. Authors: Dou, Wanchun; Wu, Xiaotong; Xu, Xiaolong; Yu, Shui
- Evolving Information Technology: Opportunities and Challenges. *International Journal of Computer and Technology* (ISSN 2277- 3061) 2015
- Usability Maturity Indicators for Virtual Learning Systems. *Journal of Emerging Trends in Computing and Information Science* (ISSN 2218- 6301) 2014
- The Transformation of East Africa's Economy Using Mobile Phone Money Transfer Services: A Comparative Analysis of Kenya and Uganda's Experiences. *Journal of Creative Communications*, 4(2).
- Applying Problem-Based Training Approach into the Training Program on Industrial Ecology and Environment , *Educational Research* (ISSN: 2141-5161), 2012
- Developing Of The Digital Library At Makerere University Library: Challenges And Prospects, *Universal Journal of Education and General Studies (UJEGS)* ISSN: 2277-0984, 2012
- E-CRM- A Solution for Customer Satisfaction in Electronic Era, *Universal Journal of Marketing and Business Research (UJMBR)*, 2012
- A Novel Approach to Develop Information Security based on Steganographic Model using Secret Key, *Herald Journal of Education and General Studies (HJEGS)*, 2012
- The Evaluation of the Relationship between Emotional Intelligence and Mental Health among the Staff of Education Organization in Ilam, Iran, *Journal of Research in International Business and Management (JRIBM)* (ISSN: 2251-0028)
- An investigation into prioritize customer satisfaction indexes by MCDM techniques from experts and customers viewpoints (Case study: Iranian Private Bank (Parsian). *Journal of Research in Economics and International Finance (JREIF)* (ISSN: 2315-5671)
- Factors Affecting Internet Banking Adoption among Internal and External Customers: A Case of Pakistan, *International Research Journal of Journalism and Mass Communication*
- "Service Quality and Business Performance In Commercial Banks In South-South Geopolitical Zone Of Nigeria". *International Journal of Management and Business Studies IJMBS-12-093*

## **8.0 CONFERENCES, SEMINARS AND WORKSHOP**

- Attended and participated in an Association of African Universities (AAU) on **Quality Assurance in the Quality Assurance of University-Industry-Government & other Key Stakeholders' Linkages** from 25th -28th of October, 2021 in Freetown, Sierra Leone
- Presented a paper on *Virtual platforms for internalization of JOOUST-ACE 11 & Cyber Security* at a Capacity Building workshop for Council and University Management Board Members on ACE II INSEFOODS Project At Ciala Resort, Kisumu from 25th February 2021 To 26th February 2021

- Attended and participated in 2019 Annual ICT Directors Forum organized by KENET at Safari Park Hotel, Nairobi 8th- 9th, October, 2019.
- Attended and participated in Technology- Enabled Learning Partners' Meeting and the 9th Pan-Commonwealth Forum (PCF9) in Edinburgh, Scotland from 7th September- 12th September, 2019. I presented the following papers:-
  - Nyangaresi V. O and **Abeka S.O** (2019), *Blockchain Enabled E-Learning Delivery Model for Enhanced Quality Learning*. Published in proceedings of 9th Pan-Commonwealth Forum (PCF9) Available at <http://oasis.col.org/handle/11599/3270>
  - Baraza E and **Abeka S** (2019) *The Influence of Language and Literacy in Opening up Education of an African Child: A Case of Kenya*. Published in proceedings of 9th Pan-Commonwealth Forum (PCF9): Available at <http://oasis.col.org/handle/11599/3244>
  - Baraza E and **Abeka S** (2019) *Greening Decent Employment Opportunities for Kenya's Youth*. Published in proceedings of 9th Pan-Commonwealth Forum (PCF9) Available at <http://oasis.col.org/handle/11599/3414>
- Nyangaresi V. O and **Abeka S.O** (2019), *Machine Learning Algorithm for Advanced Persistent Threat Detection*: Presented at SIMC 2019 on Data science and computational intelligence at Strathmore University between 12th August- 16th August 2019.
- Jerotich Sirma, **Silvance Abeka** and Benard Okelo (2019) *Enhanced Information Security Model using an Integrated Approach*. Presented at SIMC 2019 on Data science and computational intelligence at Strathmore University between 12th August- 16th August 2019.
- Track Chair for Data Science and Computational Intelligence track during an international Conference Organized by Strathmore University between 12th August- 16th August 2019. Available at <http://www.strathmore.edu/simc2019/wp-content/uploads/2019/08/Data-Science-program.-Final-9.8.19.pdf>
- External Lead Expert in conference track on Data Science and Computational Intelligence Organized by Strathmore University during their bi-annual scientific conference in 2018-2019
- Nyangaresi V, **Abeka S** and Rodrigues A. (2019), *Security analysis of reconnaissance network protocols*: 2nd JOOUST International Conference 26th Feb– 1st Mar 2019 Grand Royal Swiss Hotel Kisumu: Available at [http://conferences.jooust.ac.ke/downloads/JOOUST\\_Booklet\\_of\\_Abstract.pdf](http://conferences.jooust.ac.ke/downloads/JOOUST_Booklet_of_Abstract.pdf)
- Attended a training workshop on Developing Blended Learning Courses Using Moodle organized by Commonwealth of Learning in Collaboration with Jaramogi Oginga Odinga University of Science and Technology. 29th- 31st February 2019.
- Represented the Vice Chancellor in the 2018 Heads of Institutions Forum conference in Serena Beach hotel in Mombasa organized by Kenya Education Network (KENET). 6th December- 8th December, 2018.
- Attended Technology Enabled Learning Conference organized by Commonwealth Educational Media Centre for Asia (CEMCA) in New Delhi, India under a **“Community of Practice (CoP) Programme” in the area of Technology- Enabled Learning (TEL)** 3rd- 4th December, 2018.
- Attended a training workshop on Policy Development for Technology Enabled Learning held at East Africa Integration Institute (EACII) 24th- 25th September 2018.
- Attended DIES National Multiplication Training Workshop II sponsored by DAAD and German Rector Conference (HRK) on Training of Deans and Directors on Quality

Leadership and Management for Change in Higher Education, 24<sup>th</sup>- 27<sup>th</sup> July, 2018 in Masinde Muliro University of Science and Technology, Kenya.

- Attended DIES National Multiplication Training Workshop sponsored by DAAD and German Rector Conference (HRK) on Training of Deans and Directors on Quality Leadership and Management for Change in Higher Education, 18<sup>th</sup>- 21<sup>st</sup> December, 2017 in Karatina University, Kenya.
- Attended a training workshop on Information Systems Security Management at Lake Naivasha Simba Lodge
- Participated in the workshop on **Pedagogical Skills of Teaching at University**, on 29<sup>th</sup>- 30<sup>th</sup> June 2017 held at East Africa Community Integration Institute in Jaramogi Oginga Odinga University of Science and Technology.
- Attended a training Workshop on **Systems Modelling with Unified Modelling Language (Uml)** on 30<sup>th</sup> - 31<sup>st</sup> AUGUST 2016 organized by IEEE Kenya Section at Kenyatta University.
- Attended a training Workshop for the Deans and HODs on the Role of Schools in University Management held at Les Savanna Hotel in Kisumu, 21- 22<sup>nd</sup> May, 2016
- Abeka S. O (2016) **Hands On Video Lecture Recording for online Students: eLearning Africa 2016**, 11<sup>th</sup> International Conference on ICT for Development, Education & Training, Cairo, Egypt 24- 26<sup>th</sup> May, 2016.
- 1<sup>st</sup> E Learning Training for Online Instructors held at Jaramogi Oginga Odinga University of Science and Technology, Main Campus from 2<sup>nd</sup> – 5<sup>th</sup> May 2016.
- ISO 9000 Training in Quality Management. Africa Nazarene University, July 8-9<sup>th</sup> , 2014
- **Abeka, S. O.** (2009), *Policy and Technological Solutions to Privacy Challenges in Mobile cloud Computing* : Workshop on Trends In Distributed Computing Applications, Real life On-Going research Work organized by UNESCO, IBM, HP and University of Nairobi, School of Informatics held at Karen KCB training Center.
- IST- AFRICA 2015 Conference to be held on 6-8 May, Lilongwe, Malawi. My paper entitled 'Provision of Realtime Traffic Data using GIS for Optimal Vehicle Routing within Dar es Salaam City'.
- 1<sup>st</sup> Esri Eastern Africa Education User Conference 16<sup>th</sup>- 18<sup>th</sup> September, 2013 at Kenyatta University, Kenya.
- **Abeka S. O.**, (2013), *Privacy and Trust Challenges in Mobile Cloud Computing*, 14<sup>th</sup> Strathmore University Annual ICT Confrence on Technology For Sustainability, Social Justice, and Well- Being of Everyone, 6<sup>th</sup>- 7<sup>th</sup> September 2013.
- **Abeka S. O.**, (2013), *Policy and Technical Solutions to Privacy Challenges in Mobile Cloud Computing*, University of Nairobi, School of Computing and Informatics, Workshop on Trends in Distributed Computing Applications 5<sup>th</sup> September at KCB Training Centre-Karen. Book Chapter Publication ISBN: 978-9966-074-13-3
- Mgaya H. R, **Abeka S. O**, and Saleh Zein-Sabatto, (2013) College of Information Communication and Technology, University of Dar es salaam, *Vehicle Identification Using Acoustic Sensors*, Microsoft ICT Africa Initiative symposium series in Intelligent Systems and Controls- 2012.
- **Abeka S. O.** *Improved Heuristics for static wavelengths assignment in Undirected Rings and Tree of Rings. Technical Report TR-13-01.* Department of Computer Science, Kampala International University- Dar es Salaam College

- 2<sup>nd</sup> International Conference on Computing Engineering and Enterprise Management (ICCEEM-2012) attended virtually and presented a paper on *Integrating Mobile learning in academic institutions in Tanzania. Bcelona, Spain.*
- 6<sup>th</sup> International Conference of Education, Research and Innovation (ICERI-2013)- held in Serville (SPAIN) on the 18<sup>th</sup>-20<sup>th</sup> November 2013. *Opportunities And Challenges Provided By E- Learning Technology Utilization Among Universities In Tanzania*
- Abeka S. O *Cyber Security Evaluation Framework*, 6<sup>th</sup> Moi University Annual International Conference held on 7<sup>th</sup> – 11<sup>th</sup> September 2010.
- Workshop on Internalization of Higher Education, ANIE Workshop, Munyonyo- Resort, Kampala Uganda, November 2- 3, 2010.

## **9.0 PROJECTS, FUNDINGS, CONSULTANCIES AND OTHER AWARDS**

### **9.1 Funded Projects for Research and Development**

- **Commonwealth Digital Education Leadership Training in Action (C-DELTA) Project**

*Project Coordinator (Kenya)*

*:Dr. Silvanee O. Abeka [silvanee@jooust.ac.ke](mailto:silvanee@jooust.ac.ke)*

*Project Coordinator (Canada)*

*:Dr. Mishra Sanjaaya [smishra@col.org](mailto:smishra@col.org)*

*Amount: CAD 200,000*

*Project Period: May, 2019- May 2022*

This project funded by Commonwealth of Learning and it is aimed at introducing Commonwealth Digital Education Leadership Training in Action (C-DELTA) as a non-credit course at JOOUST. The objectives of this project are to:

- increase use of ICTs by more learners;
- increase use of ICTs by more teachers;
- increase number of courses using ICTs for teaching and learning;
- improve student learning through the use of ICTs, particularly the blended courses and the C-DELTA modules; and

- **Implementing Technology Enabled Learning (TEL) at Jaramogi Oginga Odinga University of Science and Technology**

*Project Coordinator (Kenya)*

*:Prof. Joseph Bosire [jbosire@jooust.ac.ke](mailto:jbosire@jooust.ac.ke)*

*&*

*CO- Project Coordinator*

*: Dr. Silvanee O. Abeka [silvanee@jooust.ac.ke](mailto:silvanee@jooust.ac.ke)*

*Project Coordinator (Canada)*

*:Dr. Mishra Sanjaaya [smishra@col.org](mailto:smishra@col.org)*

*Amount: CAD 170,650*

*Project Period: May, 2018- May 2022*

This project is aimed at undertaking a systematic approach to institutionalizing technology-enabled learning through research, consultation, capacity building, and monitoring and evaluation. Technology Enabled Learning (TeL) is aimed at improving the quality of learning outcomes and fostering of innovations. This project is funded by Commonwealth of Learning in Canada. For more information: <https://www.col.org/news/news/blended-course-design-workshop-held-jooust-kenya>

- **National Research Fund(NRF) MSc Research Grant Awards for the financial year 2016/2017**

**Title:** Towards A Secure Electronic Health Records Systems: A case of Jaramogi Oginga Odinga Teaching Referral Hospital (JOOTRH)

**Student Name:** Wanyonyi Nekesa Everleen

**Supervisors:** Dr. Silvanee O. Abeka and Prof. Antony Rodrigues

**Amount:** KShs 375,000

- **Strengthening Jaramogi Oginga Odinga University of Science and Technology Capacity in Natural Resource Management, Food Security and Health**

**Funding Body** : VLIR-UOS (VLIR-Universitaire Ontwikkelingssamenwerking)  
(VLIR-University Cooperation for Development)

**Project Local Coordinator (Kenya)** :Prof. Benson Estambale

**Team Leader- ICT Component (Kenya)** : Dr. Silvanee O. Abeka silvanee@jooust.ac.ke

**Project Flemish Coordinator (Belgium)** :Prof. Ann Van Griensven - Free University of Brussels

**Amount:** € 600.000 Per Year for 12 years

**Project Period:** January, 2022- January 2034

VLIR-UOS supports partnerships between universities and university colleges in Flanders (Belgium) and the South looking for innovative responses to global and local challenges. This is an Institutional University Cooperation (IUC) programme which is a long-term (12 years) institutional partnership between a university in the South and Flemish universities and university colleges. The general objective of Institutional University Cooperation is “Empowering the local university as institution to better fulfil its role as development actor in society”. More information at [www.vliruos.be](http://www.vliruos.be)

## 9.2 Consultancy Record

Dr. Silvanice has a background in ICT Training; ICT Research; ICT4Education, ICT Advisory Services; ICT Policy Research; ICT Strategic Planning and Management and has undertaken extensive consultancies in the same areas both locally and internationally.

- **Kenya Water Institute engaged me as a Lead Consultant on E Learning Implementation at the Institute.**

*Lead Consultant:* Dr. Silvanice O. Abeka [silvancea@jooust.ac.ke](mailto:silvancea@jooust.ac.ke)

*Amount:* Kshs. 1,500,000

*Project Period:* December, 2020- March 2021

- **Kisumu County engaged my team in development of Job Description Manual for its staff.**

**Consultant:** Dr. Silvanice O. Abeka [silvancea@jooust.ac.ke](mailto:silvancea@jooust.ac.ke)

**Amount:** Kshs 1,450,000

**Project Period:** December, 2020- March 2021

- **The Commonwealth of Learning (COL) engaged me as a Consultant to contribute a chapter for the new publication within the Perspective Series tentatively entitled "Technology-Enabled Learning: Policy, Pedagogy and Practice".**

**Lead Consultant:** Dr. Silvanice O. Abeka [silvancea@jooust.ac.ke](mailto:silvancea@jooust.ac.ke)

*Amount:* CAD 500

*Project Period:* December, 2019- March 2020

- **Kisumu Lakefront Development Authority engaged me through JOOUST to lead a team on the following projects:-**

- **To provide consultancy services for the Design, Development, Hosting & Maintenance of Kisumu Lakefront Development Corporation Logo and Website.**

**Lead Consultant:** Dr. Silvanice O. Abeka [silvancea@jooust.ac.ke](mailto:silvancea@jooust.ac.ke)

*Amount:* Kshs 455,400.00

*Project Period:* December, 2019- January 2020

- **To provide consultancy services for the Design, Drafting of a Master Plan for the Kisumu Lakefront Development**

**Lead Consultant:** *Dr. Silvanee O. Abeka* [silvanee@jooust.ac.ke](mailto:silvanee@jooust.ac.ke)

*Amount: Kshs 600,500.00*

*Project Period: December, 2019- January 2020*

### 9.3 Other Project funding experience

- **E Learning Implementation Project**
  - a) Developed an E Learning Platform for teaching and Learning for the University at no Cost to the University thereby saving about Kshs 10,000,000 that could have been used to procure the system.
  - b) Using my global network in E Learning; I organized several (15) virtual seminars and webinars to educate staff members on E Learning at no cost to the University. The facilitators came from all over the globe; USA, UK, Canada, Belgium, Uganda, South Africa, Papua New Guinee, India and Kenya. In normal situations; these training workshops could have costed the University over Kshs 8,000,000.
  - c) Researched and developed user-friendly online examination systems; Key achievement was the successful online examination management at the University. This system could have cost the Univesity over Khs. 5,000,000 to procure.
- **Travel Grant to attend and participate in the 9<sup>th</sup> Pan-Commonwealth Forum (PCF9) in Edinburgh, Scotland from 7<sup>th</sup> September- 12<sup>th</sup> September, 2019**

**Funding Body:** *Commonwealth of Learning*

*Amount: CAD 4,118*

*Funds to cover the following;*

- *Registration Fee*
- *UK Visa Fee*
- *Single Accommodation at Nominated Lodging Determined By Col For Up to 7 Nights.*
- *Air Ticket Purchased By Col.*

- **Mobilized Resources from Commonwealth of Learning in form of Travel Grant to attend and participate in a 2-day meeting to discuss Technology-Enabled Learning (TEL) implementation in institutions and develop a Community of Practice (TEL Implementation CoP) from December 3 - 4, 2018 in New Delhi, India**

**Funding Body:** *Commonwealth of Learning*

*Amount: CAD 2,618*

*Funds to cover the following:*

- Registration Fee
- Hotel Accommodation at Nominated Lodging Determined By Col For Up to 3 Nights.
- Return Air Ticket Purchased
- CAD 500 per day for a maximum of three days

- **Leadership Training Grant: DIES National Multiplication Training sponsored by DAAD and German Rector Conference (HRK) on Training of Deans and Directors on Quality Leadership and Management for Change in Higher Education.**

***Funding Body:*** ***DAAD and German Rector Conference (HRK)***

*Funds to cover the following:*

- Registration
- Training Cost
- Accommodation

- **KENET Workshop Grant-** Workshop held in Safari Park Hotel- Nairobi

***Funding Body:*** ***Kenya Education Network***

***Funds Covered the Following:***

- Registration
- Training Cost
- Accommodation
- Return Air Ticket

- **External Reviewer: -** Kenyatta University Vice Chancellor Research and Innovation Grant

**Year:** Review of 2019/2020

**Title of Research Project:** A Real-Time Monitoring System Prototype for Predicting Pregnancy Complications In Rural Kenya Based On Machine Learning

- **Internal Reviewer for the 2017** Internal Call for Small Grants in Jaramogi Oginga Odinga University of Science and Technology.
- Mobile Health: Technology and Outcomes in Low and Middle Income Countries (R21). Submitted to National Institutes of Health (NIH). The project is worth \$125,000 direct costs per year. The total project period may not exceed 2 years. I am the Team Leader for the project. It is under review.
- Developing Mother tongue Policy Project Proposal submitted to United Kingdom's Department for International Development (DFID). The project was worth Kshs. 130,250,000.



- Baseline survey for Food Security and Sanitation Status of Kabondo and Seme Divisions in Kenya. Funded by Bread For the World Foundation. The project was worth Kshs. 1,396,000.
- Girls and APP Project funded by Microsoft to promote the use of technology by Girl child. The project was worth USD 500,000
- UNESCO- HP, Developing E- Learning Content for E- Waste management Program August 2014.
- Community Telecenter Project in Dar es Salaam
- Chairman Board of Trustees Scholarship for PhD Studies
- Chairman Board of Trustees Plaque for excellent academic performance

## **10.0 COMMUNITY SERVICES OFFERED**

| <b>Period</b> | <b>Institution/Schools</b>  | <b>Responsibilities</b>                      |
|---------------|-----------------------------|--|
| 2020          | Tom Mboya University        | Technical Expert for recruitment of IT Staff |
| 2017- Todate  | Nyalenda Secondary School   | Member, Board of Management                  |
| 2015- Todate  | Mang'ang'a Secondary School | Chairman, School Management Committee        |
| 2015- Todate  | Karabok Secondary School    | Board Member                                 |
| 2015- Todate  | Kisii University            | External Examiner                            |
| 2016- Todate  | African Nazarene University | External Examiner                            |
| 2016- Todate  | University of Nairobi       | External Examiner                            |

- **Observer:** Constitution of Kenya Review Commission  
National Constitution Conference (BOMAS 1, 2 and 3)  
Category: National Observer- Egerton University  
No: 200

- **External Reviewer: -** Kenyatta University Vice Chancellor Research and Innovation Grant

**Year:** Review of 2019/2020

**Title of Research Project:** A Real-Time Monitoring System Prototype for Predicting Pregnancy Complications in Rural Kenya Based on Machine Learning

- **Internal Reviewer for the 2017** Internal Call for Small Grants in Jaramogi Oginga Odinga University of Science and Technology.

## **Others**

- Giving educational/ Career Talks in Secondary schools and churches on modern/ current trends in computing

- Offering free consultancy on disaster recovery, service and maintenance of computers and information systems
- Organizing boot camps where girls showcase and compete in applications development. This project encourages girl child to embrace technologies.
- Offering free IT services to farmers and the community at large in our community telecenters.

### **11.0 MEMBERSHIP TO PROFESSIONAL ASSOCIATIONS /BODIES**

- a) The ResearchGate - Online Research Community since 2015 to date
- b) International Association of Computer Science and Information Technology: Category: Associate Member No: 80348258
- c) Computer Society of Kenya (CSK): Membership No: 119719
- d) Internet Society: Global Member No: 2187586
- e) IEEE Computer Society
- f) International Forum of Management Scholars - USA.
- g) Association of Computing Machinery (ACM).
- h) Member of American Association of International Researchers, New York (USA)
- i) Associate Editor, The Heights Journal, Kampala International University, Dar es salaam
- j) Associate Member, CISCO Academy, UK

### **12.0 . MEMBERSHIP TO COMMITTEES/BOARDS**

- a) 2022 To date    Member, Board of Management - Agoro Sare High School
  - Chairman BOM Sub Committee on Discipline, Ethics and Integrity Committee.
- b) 2022 To date    Member, Board of Management- Eng. Peter Otieno Owidi, Nyahera Girls
  - Chairman BOM Sub Committee on School Infrastructure Programme
- c) 2022 To date    Member, Board of Management- Yala Kotieno Secondary School
  - Member, BOM Sub Committee on Academic Standards Committee
- d) 2017- 2022        Member, Board of Management- Nyalenda Secondary School
- e) 2015- 2018        Chairman, Board of Management Mang'ang'a Secondary School
- f) 2015- 2018        Member, Board of Management - Karabok Secondary School

### **13.0 RECOGNITION/HONOURS/COMMENDATION.**

- a) Special mention by the Vice Chancellor of Jaramogi Oginga Odinga in his speech during the 2020 graduation as the most hardworking staff of the year. See YOUTUBE Video [LIVE: 8th JOOUST GRADUATION CEREMONY - YouTube](https://www.youtube.com/watch?v=zRHVgJn_bmo) [https://www.youtube.com/watch?v=zRHVgJn\\_bmo](https://www.youtube.com/watch?v=zRHVgJn_bmo) 1:13:20- 50
- b) Chairman Board of Trustees Plaque for excellent academic performance

### **14.0 ACADEMIC LEADERSHIP**

#### **14.1 Development of Teaching/ Academic Programmes in Department/School/University**

Spearheaded the development and implementation of the curricula for the following programmes:

- 2019- Developed BSc in Telecommunications and Mobile Computing
- 2016 Development/ Review of a PhD program in Business Information Systems
- 2015- 2016 Initiated the development of MSc Mobile Computing and Telecommunication.
- 2015- 2016 MSc in Data Science and Artificial Intelligence
- 2015- 2016 Bachelor of Computer Science

#### **14.2 Staff Development Program**

As of 1st July 2015, the School of Informatics and Innovative Systems had had 5 PhD holders, 10 master's holders and the rest bachelor's holders. Dr. Abeka- the Dean together with his colleagues at the school designed and implemented staff training and retention programmes that led to all staff in the school attain a minimum qualification of masters degree and over 99% of the academic staff are currently pursuing PhD training both locally and internationally. As of today 12/02/2019 the School has 9 PhD holders appointed on permanent terms and by end of 2020 this number is expected to rise to 15 as a result of PhD completions by faculty staff and new PhD holders being appointed.

#### **14.3 Collaborations**

He has been able to forge meaningful collaborations and notable among them include:

**Jaramogi Oginga Odinga University of Science and Technology (JOOUST) and Kenya Union of Post Primary Education Teachers 2021 to date**

The goal is to foster collaboration, provide opportunity to facilitate advancement of knowledge on the basis of reciprocity, best effort, mutual benefit, and frequent interactions.

### **Jaramogi Oginga Odinga University of Science and Technology (JOOUST) and Flemish Universities (VUB, Ghent and KU Luven) 2020- Todate**

The general objective of Institutional University Cooperation is “Empowering the local university as institution to better fulfil its role as development actor in society”. This means that an IUC envisions not only a contribution to developmental change –linked to different academic priority domains– outside the university but also a change process within the university leading to improved performance of the Higher Education Institution (HEI) in a number of institutional priority domains.

### **Jaramogi Oginga Odinga University of Science and Technology (JOOUST) and Commonwealth of Learning (CoL) 2018- Todate**

The collaboration is anchored on undertaking a systematic approach to institutionalizing technology- enabled learning through research, consultation, capacity building, and monitoring and evaluation. Technology Enabled Learning (TeL) is aimed at improving the quality of learning outcomes and fostering of innovations.

### **Jaramogi Oginga Odinga University of Science and Technology (JOOUST) School of Informatics and Innovative Systems (SIIS) and Managecom Systems Limited (MSL).**

Under this collaboration, he has been able to establish a comprehensive collaboration programme between the School of Informatics and Innovative Systems (SIIS) at JOOUST and the Managecom Systems Limited (MSL) in areas of training our students in areas to do with the computer forensics and Cyber Security.

### **Jaramogi Oginga Odinga University of Science and Technology (JOOUST) School of Informatics and Innovative Systems (SIIS) and SiQuest ®**

SIIS signed an Memorandum of Understanding with SiQuest® in an arrangement that would see the school becoming an authorized SiQuest Academic Training Partner in their Certification in Cyber Security programmes

## **15.0 CONTRIBUTION TO UNIVERSITY ADVANCEMENT**

- 2020 Appointed as a Director Centre for E Learning then led a team to design, develop, implement, and manage of ejooust Learning Management System (at no cost to the University) that facilitated Faculty, Staff and Students to successfully interact and use the new Educational Technologies in teaching and learning during the COVID- 19 Pandemic period. The benefits evidenced have led to the adoption of E Learning platform for course delivery and exams administration.
- Researched and developed user-friendly online examination systems; Key achievement was the successful online examination management at the University.

Created new and innovative Instructional Design processes and Tools for Faculty in order to design highly effective Online Courses:

- Learner Characteristics Survey
- Interactive Online Course Syllabus

- Course Design Blueprint
  - Course Design Evaluation Rubric
  - Course Deliverables Process for Subject-Matter Expert Faculty and Instructional Designers
- Worked with team and staff members to develop and design learning content including but not limited to eLearning modules, user guides, assessments and surveys.
- Using my global network in E Learning; I organized several virtual seminars and webinars to educate staff members on E Learning. The facilitators came from all over the globe; USA, UK, Canada, Belgium, Uganda, South Africa, Papua New Guinea, India and Kenya
- 2018 Appointed as Chairperson to Quotation Evaluation Committee for the following quotations:-
  - JOOUST/PQ/B7/Q123/2018/2019: Production and Delivery of Polo Shirts and Caps
  - JOOUST/PQ/B7/Q124/2018/2019: Production and Delivery of Booklets
  - JOOUST/PQ/A1/Q101/2017/2018: Supply and Delivery of Stationery
  - JOOUST/PQ/A18/Q109/2017/2018: Supply and Delivery of Laboratory Equipment
- 2018 Appointment to Management Review Committee (MRC) as a member
- 2018 Appointment to Publicity and Communication Subcommittee of the Graduation Committee
- 2018 Participated in the 2018 ASK show held at Kisumu Show Ground from 23<sup>rd</sup>- 28<sup>th</sup> July 2018.
- 2018 Appointed as Presiding Officer to oversee Electoral College Representative (ECR) Elections (2017/2018)
- 2018 Developed the University ODeL Policy
- 2018 Appointed as Chairperson to a Tender Negotiation Committee. JOOUST/PQ/B6/17/19: Servicing of Generator for Main Campus and River Yala.
- 2018 Chairperson to Tender Evaluation Committee. JOOUST/ONT/013/2017/2018- Supply and Delivery of Computers, Laptops, Printers, and Projectors, Screen and Ups.
- 2017 Chairperson to Tender Evaluation Committee to the following tender:-
  - JOOUST/PQ/A23/17/19: Supply and Delivery of Office furniture
  - JOOUST/PQ/A7/Q52/17/19: Supply and Delivery of Hardware Materials.
  - JOOUST/PQ/A24/17/19: Supply and Delivery of Computer Hardware Materials.
  - JOOUST/PQ/A7/Q53/17/19: Supply and Delivery of Hardware Materials
  - JOOUST/PQ/B27/Q33/17/19: Provision of Professional training Services
- 2017 Appointed Chairperson to the Negotiation Committee to the following tender:-
  - JOOUST/PQ/B16/15/17- Kyocera Ecosys Model FS1128 MFP Serial Number QRD1472172

- JOOUST/PQ/B16/15/17- Provision for Repair of UPS Batteries and Card Control
- JOOUST/PQ/A35/15/17- Service and Installation for the Air Conditioners
- 2017 Appointed Chairperson to the Security Sub Committee of the Graduation Committee
- 2017 Appointed as a Member of the Strategic Plan Implementation Committee (SPIC) of the University Strategic Plan 2016- 2021.
- 2017 Appointed as a Member of University Open Day Steering Committee in the year 2017/2018
- 2016 Involved in Strategic Plan development for the School of Informatics and Innovative Systems
- 2016 Active role in starting up the Center of E- Learning and the Implementation of E-Learning Programmes.
- 2016 Chairman Tender Evaluation, Negotiation, Testing and Implementation Committee. JOOUST/ONT/010/2016/2017: Supply, Delivery and Commissioning EL Learning Platform.
- 2016 Member E Learning Implementation Team of Jaramogi Oginga Odinga University of Science and Technology.
- 2016 Organized eLearning Training Workshop for Instructors in Jaramogi Oginga Odinga University of Science and Technology.
- 2015 Organization of a training workshop on Confidentiality and Security of Information by NSIS, JOOUST 20<sup>th</sup> – 22th November 2015
- 2014 Team Leader: IODL Restructuring Team for Africa Nazarene University.
- 2013 Led a team that organized the 1<sup>st</sup> E Learning Conference in Kampala International University, Dar es salaam.
- 2013 Actively participated in developing Strategic Plan for Kampala International University, Dar es salaam.

## **16.0 REFEREES:**

1. **Prof. Joseph Bosire** DVC Academic Affairs, Jaramogi Oginga Odinga University of Science and Technology
2. **Prof. Omolo Ongati**, PhD. Department Of Pure And Applied Mathematics, Jaramogi Oginga Odinga University Of Science And Technology, P. O. Box 210 – 40601, Bondo, Kenya.
3. **Prof. Fredrick Odoyo**; United States International University of Africa. 0712981706, sodoyo@usiu.ac.ke
4. **Prof. Collins Ondiek**; United States International University of Africa. +254714814385, coduor@usiu.ac.ke
5. **Prof. Nelson Jagero**, Professor; Chuka University. Chuka +254720686921.
6. **Dr. Walter Akuno**, Registrar Academics Affairs; Jaramogi Oginga Odinga University of Science and Technology

I CERTIFY THAT ALL INFORMATION STATED IN THIS RESUME IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE. I AUTHORIZE THE CONCERNED PARTY TO VERIFY THE INFORMATION PROVIDED IN THIS RESUME.