

DETAILED CURRICULUM VITAE
FOR
PROF. AMOS OMAMO (Ph. D)

SEPTEMBER 2024

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A. PROFILE

As a distinguished scholar and academic administrator with over 25 years of experience in higher education, I, Prof. Amos Omamo, have dedicated my career to advancing academic excellence, fostering research innovation, and building institutions that nurture talent and drive societal impact. Currently serving as a Professor at Meru University of Science and Technology, my core values revolve around integrity, accountability, inclusivity, and a commitment to knowledge-driven solutions.

I believe that education is the cornerstone of societal transformation, and as such, I have always championed a student-centered approach that empowers learners to be critical thinkers, innovators, and global citizens. My leadership is guided by principles of collaboration, transparency, and the pursuit of excellence. I strongly believe in creating inclusive academic environments that support the development of both students and faculty, ensuring that all voices contribute to the intellectual vibrancy of the university.

Throughout my career, I have held several leadership positions, including Dean of Faculty, Director of ICT, Academic leader, Program leader, Chair of Department, and Director of Research, Innovation, Commercialization and Extension. These roles have equipped me with extensive experience in curriculum development, research policy formulation, institutional governance and Monitoring and Evaluation . Notably, I have successfully led multi-disciplinary research projects, secured significant funding from national and international bodies, and built partnerships with industry stakeholders to drive innovation in STEM fields. I am deeply committed to enhancing research output and ensuring that the academic programs we offer align with the evolving needs of the market and society.

At Meru University, I spearheaded several transformative initiatives, such as the establishment of a research and innovation hub, the development of a robust academic mentorship program, and the expansion of graduate studies through strategic partnerships with international institutions. Under my leadership, research output grew significantly, and the university gained recognition for its contributions to applied research in agriculture, technology, and engineering.

B. ACADEMIC QUALIFICATIONS

Ph. D : Information Technology & management

Jaramogi Oginga Odinga University of Science & Technology

Date: March 2018

Concentration: Systems dynamics, Technology, Economic growth

Dissertation: *Systems Dynamic model for Mobile Phone Usage & Economic Growth: A case of Kenya's Vision 2030*

M. Sc: Computer Based Information Systems

Jomo Kenyatta University of Agriculture and Technology

Date: 2005

Concentration: Database Security

Dissertation: *The Effectiveness of Intrusion Detection and Prevention Systems in Enhancing Database Security*

B. Sc: Mathematics and Computing

Jomo Kenyatta University of Agriculture and Technology

Date: 1994

C. LEADERSHIP AND MANAGEMENT ROLES

a) Director Research Innovation Commercialization and Extension at MUST (2019 – Present)

Duties:

1. Strategic Leadership and Direction

- Provide overall leadership and strategic direction for the university's research, innovation, commercialization, and extension activities.
- Develop and implement the university's research and innovation agenda in alignment with national priorities and global trends.
- Foster a culture of innovation, research excellence, and entrepreneurship within the university.

2. Policy Development and Implementation

- Oversee the development and implementation of research, innovation, commercialization, and extension policies and frameworks.

- Ensure the university's policies align with national research and innovation policies, including Vision 2030 and the Big Four Agenda.
- Formulate policies to support intellectual property rights, commercialization, and technology transfer.

3. Research Management

- Coordinate and promote research activities across all faculties, schools, and departments.
- Provide oversight for the management of research grants and ensure compliance with funder requirements.
- Facilitate interdisciplinary and collaborative research within the university and with external partners.
- Ensure ethical conduct in research and adherence to relevant research standards.

4. Innovation and Commercialization

- Lead the university's efforts in transforming research outputs into commercially viable products and services.
- Facilitate the identification and protection of intellectual property (IP) generated from research and innovation activities.
- Promote the creation of startups, spin-offs, and partnerships with industries to commercialize university research and innovation.
- Oversee the management of the university's technology transfer and incubation centers.

5. Extension and Outreach Services

- Lead the university's extension services to disseminate research findings and innovations to the community and industry.
- Develop and implement outreach programs that address the needs of local communities, particularly in agriculture, technology, and public health.
- Foster partnerships with government agencies, NGOs, and private sector entities to promote the university's extension programs.

6. Capacity Building

- Spearhead initiatives to build research and innovation capacity among academic staff, students, and the broader university community.
- Develop training programs on research methods, proposal writing, innovation, and commercialization for staff and students.
- Mentor young researchers and innovators to enhance their skills in conducting high-impact research and innovation.

7. Collaboration and Partnerships

- Establish and maintain collaborations with national and international research institutions, universities, industries, and funding bodies.

- Act as the primary liaison for the university on matters related to research, innovation, and extension.
- Seek and secure funding from various sources, including government agencies, private sector partners, and international donors, to support research and innovation activities.

8. Resource Mobilization and Management

- Oversee the mobilization of resources (financial, human, and material) for the university's research and innovation initiatives.
- Manage research funds, ensuring transparency and accountability in their use.
- Oversee the creation and management of research infrastructure, such as laboratories and innovation hubs.

9. Monitoring, Evaluation, and Reporting

- Develop and oversee the implementation of monitoring and evaluation frameworks for research, innovation, commercialization, and extension activities.
- Track progress and ensure that research and innovation activities contribute to the university's strategic goals and Kenya's national development objectives.
- Prepare periodic reports on the university's research and innovation performance for internal and external stakeholders.

10. Public Engagement and Advocacy

- Promote the university's research and innovation achievements through conferences, publications, and public forums.
- Advocate for research and innovation policy at the local, national, and international levels.
- Engage with the media and the public to raise awareness about the university's role in advancing science, technology, and innovation.

b) Dean School of Informatics and Innovative systems at JOOUST (2014-2015)

- Developed strategic and operational plans for the school in line with the University strategic plan so as to achieve the mission and vision of the university
- Chaired the school board in relation to all school matters through leading deliberations on respective meeting agendas so as to achieve the set agendas.
- Chaired the school student admission committee in line with the Commission for university Education guidelines so as to ensure admitted candidates meet the minimum requirements for the respective programs.
- Prepared admission summary, teaching, student progression, examination result and graduation reports.

- Oversaw that effective teaching and learning takes place in the school as per the approved University schedule to ensure compliance and subsequent service delivery.
- Oversaw preparation, moderation, and administration, processing and reporting of examination results in line with standard operating procedures to ensure integrity of the university examination practice.
- Oversaw preparation, analysis and presentation of graduands list as per the curricula expectations to ensure timely and accurate classifications as per the university regulations.
- Oversaw the preparation of the school annual procurement plan through needs assessment and subsequent resource matching to ensure availability of resources in a timely and complete manner to facilitate achievement of the school objectives.
- Oversaw the preparation of the school budget through needs assessment and subsequent resource matching to ensure availability of financial resources in a timely and complete manner to facilitate achievement of the school mandate.
- Allocated work to subordinate staff in line with job descriptions and annual work plans to ensure all school tasks are carried out in a timely and complete manner.
- Oversaw staff performance appraisal through validation of the integrity of information provided by the relevant staff on the appraisal form to ensure that they are operating at optimal performance levels.
- Oversaw preparation of the school work plan through needs assessment and subsequent human capital matching to ensure all school tasks are carried out in a timely and complete manner.

c) Director ICT at Jaramogi Oginga Odinga University of Science and Technology (2014)

Duties

1. ICT Strategy Development and Implementation

- Develop and implement a comprehensive ICT strategy that aligns with the university's overall strategic goals.
- Ensure that the ICT strategy supports academic, administrative, research, and operational functions of the university.
- Regularly review and update the ICT strategy in line with technological advancements and institutional needs.

2. ICT Policy Formulation and Enforcement

- Lead the development of ICT policies, guidelines, and standards for the effective use of technology across the university.

- Ensure compliance with ICT policies and enforce security, data privacy, and ethical standards in the use of university ICT resources.

3. ICT Infrastructure Management

- Oversee the design, implementation, and maintenance of the university's ICT infrastructure, including data centers, networks, hardware, and software systems.
- Ensure reliable, secure, and scalable ICT infrastructure to support the university's academic, research, and administrative needs.
- Coordinate the procurement, deployment, and upgrade of ICT equipment and services.

4. Information Security and Data Management

- Ensure the security of the university's digital assets by implementing robust cybersecurity measures and disaster recovery plans.
- Safeguard the integrity, confidentiality, and availability of data, including student records, financial data, and research information.
- Develop and enforce data management policies that align with best practices in data protection, retention, and privacy.

5. Support for Teaching, Learning, and Research

- Promote the integration of ICT in teaching, learning, and research by providing the necessary tools, platforms, and support.
- Oversee the implementation and management of e-learning systems, virtual learning environments (VLEs), and research management platforms.
- Facilitate the use of ICT in supporting innovative teaching methods, such as blended learning and virtual labs.

6. ICT Service Delivery and Support

- Ensure that ICT services are delivered efficiently to students, staff, and faculty through user support, training, and helpdesk services.
- Monitor the performance of ICT systems and services to ensure high availability and user satisfaction.
- Regularly assess user needs and feedback to improve service delivery and support.

7. ICT Budgeting and Resource Allocation

- Prepare and manage the ICT department's budget, ensuring prudent allocation of resources to support ICT initiatives.
- Oversee the financial management of ICT projects, ensuring they are delivered on time, within scope, and on budget.
- Advocate for resource allocation to support the continuous improvement of ICT infrastructure and services.

8. ICT Project Management

- Lead the planning, execution, and monitoring of ICT projects, ensuring they are aligned with the university's priorities and delivered successfully.
- Oversee the management of major ICT projects such as the implementation of enterprise resource planning (ERP) systems, network upgrades, and the adoption of new technology.

- Ensure effective communication and coordination with all stakeholders involved in ICT projects.

9. Collaboration and Partnership Building

- Build and maintain strategic partnerships with external ICT vendors, service providers, and technology partners.
- Collaborate with other universities, research institutions, and government bodies to enhance the university's ICT capabilities.
- Stay updated with the latest technological trends and engage in national and international ICT forums to position the university as a leader in technology adoption.

10. Leadership and Team Management

- Provide leadership to the ICT department, including managing ICT staff and promoting a culture of excellence, innovation, and continuous improvement.
- Conduct regular performance evaluations, training, and professional development of ICT staff to enhance their skills and expertise.
- Foster a collaborative working environment within the ICT team and across university departments.

11. Business Continuity and Disaster Recovery

- Develop and maintain ICT business continuity plans to ensure minimal disruption of university operations in the event of system failures or emergencies.
- Implement and test disaster recovery plans to protect critical systems and data against potential threats such as cyberattacks, hardware failures, or natural disasters.

12. Monitoring and Evaluation

- Regularly monitor the performance of ICT systems, infrastructure, and services using relevant KPIs and benchmarks.
- Conduct evaluations and audits of ICT systems to identify areas for improvement and ensure compliance with industry standards.
- Prepare periodic reports on ICT performance, system health, and project outcomes for university management.

Additional Leadership Assignments

2017-2018 Senate Representative, Sch. of Informatics & Innovative Systems.

2007-2009 Technical Manager, Institute for Capacity Development Institute (ICAD) in charge of the provision of corporate training services:

2006- 2007 Technical Coordinator, Institute for Capacity Development Institute (ICAD) in charge of the provision of corporate training services:

Additional Leadership Assignments at MUST

- Implemented the Inaugural MUSTIC2022 as Chair
- Implemented the MUST Journal AJSTSS as chair

- Implementing the MUST medical and Research center as Chair
- Appointed to various committees at MUST including: Research and Innovation, Ethical Review, IP Policy, Curriculum Review

D. PROFESSIONAL EXPERIENCE

ROYAL ACADEMY OF ENGINEERS

2022 – Present .Technical Reviewer for their various grants calls but specifically Africa Prize

MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

- 2020-Present** Director Research Innovation Commercialisation and Extension
- 2019-2023** Senior Lecturer, School of Computing & Informatics.
Course leader in the following programs: M.Sc. IT
- 2023 – Present** Associate Professor, School of Computing & Informatics.

JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY

- 2011- 2019** Lecturer, School of Informatics & Innovative Systems.
- 2011-2018** Coordinator, Professional Certification Programmes
School of Informatics.
- 2017-2018** Senate Representative, Sch. of Informatics & Innovative Systems.
- 2014-2015** Dean Sch. of Informatics & Innovative Systems
- Jun -Dec 2014** ICT Director for JOOUST

KCA UNIVERSITY

- 2009-2011** Lecturer, Faculty of Science & IT.
- 2007-2009** Technical Manager, Institute for Capacity Development Institute (ICAD) in charge of the provision of corporate training services:
- 2006- 2007** Technical Coordinator, Institute for Capacity Development Institute (ICAD) in charge of the provision of corporate training services:
- Involved in the implementation of KCA University's **ERP system**, the **NAVISION** from Microsoft in 2005

- Involved in the implementation of KCA University's **E-learning Platform (Moodle)** in 2005
- Implemented several Document management systems (**DMS**) Including the **Docushare** at the Industrial promotion Centre (IPC) Kenya, Urgent **flow** at the Blue shield Kenya, and **KOVIC at BCDI bank, Rwanda in 2003**
- Implemented a bulk SMS platform for JOOUST for communication with staff and students
- Designed programs in Grants management that have run in Nairobi and Kisumu (Kenya), in Adama (Ethiopia), in Juba (Southern Sudan) and in Kampala (Uganda)

E. PUBLICATIONS

Peer Reviewed Journal Articles

Imathiu, G., Chege, A. ., & **Omamo, A. .** (2024). Security intrusion monitoring model for Internet of Things (IoT) using sniffing tools on wireless sensor networks. African Journal of Science, Technology and Social Sciences, 2(2), TE 51–58.
<https://doi.org/10.58506/ajstss.v2i2.16>

A. Omamo, S.Wandili, S.Mutua, E. Awuoche , H. Omaa , K. Gachoka and S. Odoyo (2022); Integration Of Virtual Labs To Enhance Access To Stem Education For Girls During And Post Covid-19: A Comprehensive Literature Review, African Journal for Science Technology and Social Sciences ISSN: 2958-0560, Vol I, Issue I

C. Oguna, G.Raburu, A.Omamo and S.Rupra (2022);Social Network Recruitment Technology Adoption Framework In Higher Higher Educational Institutions In Kenya, African Journal for Science Technology and Social Sciences ISSN ISSN: 2958-0560, Vol I, Issue I

E. Kailanya, A. Omamo, M. Mwadulo (2022); Dynamic Deep Stateful Firewall Packet Analysis Model, African Journal for Science Technology and Social Sciences ISSN ISSN: 2958-0560, Vol I, Issue I

G. Mutwiri, S. Mutua, A.Omamo (2022); A Review Of Techniques For Morphological Analysis In Natural Language Processing, African Journal for Science Technology and Social Sciences ISSN ISSN: 2958-0560, Vol I, Issue I

G. Mutwiri, S. Mutua, A.Omamo (2022); Swaregex: A Lexical Transducer For The Morphological Segmentation Of Swahili Verbs, African Journal for Science Technology and Social Sciences ISSN ISSN: 2958-0560, Vol I, Issue I

A. Omamo, A. Rodriguez and J. W. Muliaro (2018); Systems Dynamics Model for Mobile Industry Governance in the Context of the Kenyan Vision 2030, *International Journal of System Dynamics Applications*. Volume 7, Issue 2.

A. Omamo, A. Rodriguez and J. W. Muliaro (2018); Mobile Phone Penetration and Economic Growth in Kenya: A systems dynamics approach in the context of the Kenyan Vision 2030, *Global Scientific Journals (GSJ)*, Published in Vol 6, issue 12.

A. Omamo, A. Rodriguez and J. W. Muliaro (2019); A System Dynamics Model of Technology and Society: In the context of the Kenyan Vision 2030, *International Journal of Recent Innovations in Academic Research ISSN: 2635-3040*. Volume-3, Issue-1

A. Omamo, A. Rodriguez and J. W. Muliaro (2019); Kenya's Strategic Vision, Modelling Technology Usage and The Economy, *Technology in Society (ELSEVIER)*,ISSN:101135, Vol 59 .

A. Omamo (2012); The Effectiveness of Intrusion Detection and Prevention Systems in Enhancing Database Security. *Lambert Academy Publishing*. ISBN – 978-3-659-15982-4

G. Omoro, M. Awuor and **A. Omamo** (2018); National Unique Patient Identifier in HIV/AIDS Healthcare in Kenya. *International Journal of Research Publications (IJRP)* Pages: 3, Volume: 15, Issue: 1

Samuel Odoyo Nyiendo and **Amos Omamo** (2019); Adoption of Extended RBV Model in Information Systems Technology, Processes and People's Value Chain in Postal: A Case of Postal Corporation of Kenya. *International Journal of Digital Information and Wireless Communications (IJDIWC)* Pages: 33-43, Vol.9 issue 1.

Satwinder Singh Rupra and **Amos Omamo** (2019); A Framework for Improving Security in Cloud Computing for SMEs (FISCCS) Using Security Index: *Global Journal of Engineering Science and Research Management*, ISSN 2349-4506

Peer Reviewed Technical Reports

A. Omamo and (2013); *Customer Satisfaction Survey, Data and Analysis for JOOUST*.

Conference Proceedings Editor

Chiliswa, Z, **Omamo, A.** and Gibendi R. (Eds). (2024). Proceedings of the 3rd Meru University of Science and Technology International Conference (MUSTIC 2024) held on 26th to 28th June 2024, at Meru University of Science and Technology. Nchiru, Meru, Kenya. Conference Theme: Science in the Service of Climate Change

Peer Reviewed Conference Papers

A. Omamo and K. Rabah (2011); Cyber-crime Investigation “We have the bandwidth. Now what?” AITEC East Africa ICT Summit, Nairobi

A. Omamo and A. Rodriguez (2015); Using Systems Dynamics to model ICT Diffusion in Siaya County: The 1st JOOUST Scientific Conference.

M. Oloko, L. Okoto, R. Nyunja, F. Ang'awa , P. Were and **A. Omamo** (2015); Development of Decision Support System for Sustainable Participatory Sub-Catchment Water Resources Management in the Face of Deteriorating Climatic Conditions: The 1st JOOUST Scientific Conference

M. Oloko, L. Okoto, R. Nyunja, F. Ang'awa , P. Were and **A. Omamo** (2015); Functionalities and Capacities of the Decentralised Institutions in Water Resources Management in Kenya: The Role of Water Resources Users Associations (WRUAS): The 1st JOOUST Scientific Conference

A. Omamo and A. Rodriguez (2016); A generic socio-techno-economic model for mobile phone usage and economic growth: A case of Kenya in the vision 2030 implementation” at AFRICOMM in Kampala Uganda

A. Omamo and A. Rodriguez (2013); Information Scarcity to Surfeit: A Cautionary Tale for Governments and Organisations to Create Value from Big Data, Proceedings of the 8th JKUAT Scientific and Technological Conference

PhD Supervision

Implementing a security framework in a software as a service (saas) cloud paradigm for SMEs in Kenya; Satwinder Singh Rupra (Kabarak University)
GDES/1198/13(**Completed**)

Assessment of user preferences in educational cloud services for the adoption of e-learning framework in Kenya by: Samuel Odoyo Nyiendo, Reg. no 1361/4466/2016 (**Ongoing**)

Dynamic performance self-evaluation model for higher education institutions based on system dynamics by Kevin Odhiambo Onyango, Reg no: 1361/4290/2013 (**On-going**)

Masters Supervision

Social Network Recruitment Technology Adoption Framework in Higher Higher Educational Institutions in Kenya. Author & Student: Chrispin Oguna Onyango Reg No. 1251/4106/2013 (**Completed**)

Conceptualizing green information Technology in manufacturing firms in Kenya: A study of Nairobi County. Author & Student: Nyamwamu, Norah Bosibori. Reg. No 1152/4115/2013 (**Completed**)

Implementing a risk management strategy for fun-soft in three public hospitals in Kisumu County Author & Student: Halwenge, Peter Migoya.Reg. No 1152/4170/2013 (**Completed**)

An integrated customer validation and control framework for mobile identity theft:
Abwao Donatus Omondi . Reg. No 1152/4353/2016 (Completed)

Integrating Human Firewall Model as last line of Defense against Business Email
Compromise. Okumu Daniel Onyango. Reg.No: 1152/4262/2016 (**Completed**)

A framework for adoption of mobile phone technology for e-health in public hospitals in
Kenya. Vincent Onyango Ochieng'. Reg. No 1153/4007/2018(**Completed**)

F. AWARDS, SCHOLARSHIPS AND FUNDING

- Secured 40 million Kenyan shillings from the royal academy of engineers to train and capacity build engineers at MUST in 2023
- Secured an E-Waste Grant at MUST for collecting, processing and training from GIZ worth Kshs 50 Million in 2022
- Secured a 20,000 pound grants at MUST for developing sanitary pads from local material in 2021
- Won a ksh 50 million grant and Implemented the Improved Community Drought Response and Resilience (ICDRR) Market **Transaction System by FAO through United Nations in 2013 at JOOUST**
- Developed an e-agricultural platform using KANNEL open source WAP and SMS Gateway for Rural Development in Kenya: A case for Attaining Food Security. 4th Innovation calls for the National Council for science and Technology, Kenya and secured **1 Million Kenyan shillings funding in 2015 at JOOUST**
- Undertook a **4 Million water resource management project sponsored by USAID** and part of RCMRD/SERVIR Eastern and Southern African small grants programme at JOOUST
- Was Part of kshs 200 Million **PMA2020** – Kenya project, JOOUST branch in collaboration with **International Centre for Reproductive Health in partnership with Ministry of Health, KNBS, the Bill & Melinda Gates Institute for population and reproductive health/Johns Hopkins University in 2016**
- Wrote a Kshs. 150 million proposal to the Government of Southern Sudan (GOSS) In December 2006, where KCA signed a contract with the Ministry of Education Science and Technology (MoEST), Government of Southern Sudan (GoSS) to train its officers at different staff levels.
- Wrote a Kshs 250 million proposal in May 2007, that enabled KCA secure another contract with the World Bank under the Sudan LICUS Project to train 300 Accountants from the Ministry of Finance Government of Southern Sudan. This was organized in 3 days of classroom training followed by one-month on-the-job training.

G. MEMBERSHIP OF PROFESSIONAL ASSOCIATION

Membership to the following bodies:

- Information Systems Audit Control Association (ISACA)
- Institute of Risk Management (Kenya)

- Institute of Directors (Kenya)

H.LINKAGES AND COMMUNITY SERVICE

Secured a total of about 50 MoUs at MUST as part of my responsibilities at MUST
2015 Charter President Rotary Club of Bondo

I. PERSONAL INFORMATION

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J. REFEREES

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