

CURRICULUM VITAE

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BIO DATA

DATE OF BIRTH	SEX	MARITAL STATUS	NUMBER OF CHILDREN	NATIONALITY	RELIGION
August 14, 1969	Male	Married	Three	Kenyan	Christian

ACADEMIC AND ADMINISTRATIVE EXPERIENCE

DATE	TITLE	RESPONSIBILITY
May 2015 to Date	<i>Director ICT Centre of Excellence and Open Data-iCEOD</i>	<ul style="list-style-type: none">a) Bridge ICT skill gapsb) Create open data centrec) Provide environment for innovation in ICT4Dd) Implement collaborations with public and private entities- All ICT related MoUs Signed by Universitye) Enable research entrepreneurs create enterprisesf) Promote culture of innovation and wealth creationg) Support technology transfer, commoditization and commercialization.h) Establish call centre at the iCEOD for analytics for revenue generationi) Support data publicationj) Facilitate linkages with other global Open Data Centres.
Jan 2015 to Date	<i>Associate Professor of Information Technology</i>	<ul style="list-style-type: none">a) Create and transfer knowledge and skillsb) Contribute towards technical and socio-economic sustainable developmentc) Offer leadership

February 2013 to Date	<i>Coordinator JKUAT-IBM MoU</i>	<ul style="list-style-type: none"> a) Enable JKUAT academic staff and Students access to the state of art IBM facilities and resources b) Organize curriculum review with IBM participation c) Organize for professional training and certification for lecturers on emerging technologies d) Promote good working relation for mutual benefit of JKUAT, IBM and the entire community e) Organize research collaboration in traffic management, e-government and open data
August 2012 to Jan 2015	<i>Director ICT Directorate, JKUAT</i>	<ul style="list-style-type: none"> a) Advice University on how ICT can be mainstreamed to enable attainment of its strategic goals, Performance Contract, and continually improve its Quality management System. b) Manage ICT Human Resource c) Maintain and Develop ICT Infrastructure in accordance with the Information Systems and Automation strategy d) Member of University Management Board
August 2011 to July 2012	<i>Technical Team Leader, Pan Paper Mills Ltd (In Recievership)</i>	<ul style="list-style-type: none"> a) Enhance appropriate and modern technology transfer between university and industry. b) Co-ordinate activities at factory. c) Produce Technical, Financial and Marketing reports for use by the Government Taskforce on revival of the factory d) Manage all revenues collected and account to the Government Taskforce. e) Ensure the Supply Chain Management is in conformity with public procurement Act. f) Ensure harmony of all staff working at the factory g) Liase with the office of the Permanent Secretary on all matters deemed necessary.

March 2010-to July 2011	Director ICT Directorate, JKUAT	<ul style="list-style-type: none"> a) Development and Implementation of the University ICT Policy and Strategy (and associated operational plans) in consultation with senior University officials. b) Planning, coordinating, directing, monitoring and evaluation of the delivery of ICT activities in consultation with the University Management Board, Deans, Directors and Departmental Heads. c) Managing the implementation and operations of information security controls and relevant compliance systems d) Implementation of appropriate best practices and support staff e) Management of University Information Systems- Enterprise Resource Planning System , E-Learning, E-Library Resources. f) Developing and monitoring technical specifications for procurement and contractual services for ICT related goods and services g) Assigning duties to ICT staff to support approximately 2000 workstations h) Evaluating the needs of the university ICT system and proposing cost effective and secure solutions for various departments and sections. i) Maintenance of University Local Area Network and Wide area Network. j) Member of the University Management Board k) Performing such other functions as may be assigned by the Vice Chancellor from time to time.
May 2009 to Date	Team Leader, Enterprise Resource Planning (ERP) System.	<ul style="list-style-type: none"> a) Leader of JKUAT ERP implementation project. b) Analyze and identify all necessary Business Processes for re-engineering and the accompanying change management for effective and successful ERP implementation. c) Organize training of all users on ERP. d) Report to the University Management Board on all matters regarding ERP implementation
July 2008 to October 2012	Lead Deputy Management Representative	<ul style="list-style-type: none"> a) Co-chair ISO Quality Management System Management Review Committee
June 2008 to October 2012	Deputy Management Representative (JKUAT)	<ul style="list-style-type: none"> a) Coordinate ISO 9001:2008 documentation, training and implementation. b) Report to the Management Representative (Deputy Vice Chancellor Administration, planning and Development) on matters regarding ISO Certification process and Quality Management Systems implementation.
July 2008 to Date	Member of Board of Directors JKUAT Alumni and International Students Office (ALISO)	<ul style="list-style-type: none"> a) Advice on Strategic planning for ALISO b) Guide ALISO management c) Evaluate and approve JKUAT/International student exchange programmes d) Advice ALISO on fundraising.

August 2007 to June 2008	Volunteer Project Manager: ISO Quality Management Systems for JKUAT	<ul style="list-style-type: none"> a) Oversee training of entire university community on quality management systems ISO 9001:2000-Requirements. b) Advice and coordinate Key processes Identification and documentation of Quality manuals. c) Prepare JKUAT for ISO certification
2006	JKUAT Representative: Kenya National ICT Policy Development Workshop	<ul style="list-style-type: none"> a) Inform the ICT policy formulation process from a research perspective b) Represent the academia and JKUAT in the National ICT policy formulation process
2003 to 2005	Director: Institute of Computer Science and Information Technology (ICSIT). JKUAT	<ul style="list-style-type: none"> a) Chairman, Institute of Computer Science and Information Technology Board. b) Chairman, JKUAT ICT policy Development Committee c) Member, JKUAT Senate d) Member, JKUAT Senate's Deans Committee e) Member, JKUAT Senate's Linkages Committee f) Member, JKUAT Research Committee g) Member, JKUAT ICT committee h) Member, JKUAT Quality Control Team i) Member, JKUAT Strategic Plan Development Team j) JKUAT adviser on readiness (Infrastructure/human resource) of both public and private institutions seeking approval to jointly offer Information Technology courses with JKUAT. k) In charge of university ICT infrastructure planning and development. l) Head Curriculum Development and review of ICT courses for the university: m) In charge of Reviewing ICT department's establishment and appraisal of technical and teaching staff. n) Development of Strategic Plan for the Institute of Computer Science and Information Technology. o) Writing proposal documents for sourcing funds and scholarships for JKUAT.
2004	JKUAT Representative: Ministry of Education, Kenya	Jomo Kenyatta University of Agriculture and Technology representative at the Ministry of Education on the <i>E-Schools Joint Initiative Project</i> by both public and Private sector.
2004 to 2005	Consultant: ICT Mainstreaming Research Project for the Ministry of Planning and National Development, Kenya	<ul style="list-style-type: none"> a) Research Team Coordinator for all groups namely: Overview of ICT Initiatives in Kenya; Legal and Regulatory Reforms in Kenya; ICT institutions and organizational Framework in Kenya; ICT and the SME Sector in Kenya and the Development of ICT Indicators for measuring e-readiness of Kenya. b) Consultant specifically on the Overview of ICT Initiatives in Kenya

2001-2003	Coordinator: M.Sc. Management of Information Technology- University of Sunderland Program	a) Identification of qualified lecturers and recommending for their appointment. b) Linking students and staff with University of Sunderland administration. c) Coordinating and synchronizing events where necessary between the universities. d) Provided feedback to University of Sunderland on all courses undertaken including giving recommendations.
2001-2002	Timetable officer: ICSIT	a) Allocated teaching resources to staff and students b) Assigned lecturers to their respective courses for teaching. c) Advised the Director on status of teaching facilities and how best they could be used. d) Resolved any collision on use of physical facilities
1998-2000	Timetable officer: Physics department	a) Allocated teaching resources to staff and students b) Assigned lecturers to their respective courses for teaching. c) Advised the Chairman of Physics department on status of teaching facilities and how best they could be used. d) Resolved any collision on use of physical facilities

ACHIVEMENT AS TECHNICAL TEAM LEADER ON REVIVAL OF PAN AFRICAN PAPER MILLS (E.A) LIMITED (IN RECIEVERSHP) OVER A PERIOD OF ONE YEAR (2011-2012) UNDER THE MINISTRY OF INDUSTRIALIZATION (KENYA)

1. Coordinated all activities at the factory in compliance with the existing Government Rules and Regulations
2. Took care of all properties that belonged to the company
3. Supervised preparation of technical, financial and marketing reports that were used by the Government Taskforce on revival of the company.
4. Accounted for all revenue collected to the Government Taskforce on revival of the company
5. Ensured all procurement issues were handled in accordance with the government rules and regulations
6. Ensured harmony prevailed at all times by the former staff of the company
7. Liaised with the office of the Permanent Secretary on all matters that needed the attention of the Ministry.
8. Participated in technology and knowledge transfer
9. Recognized by the Ministry of Industrialization for having effectively carried out responsibilities bestowed upon me.

ACHIVEMENTS AS DIRECTOR OF ICT DIRECTORATE

1. Engaged ICT related staff and students in professional certification in data management and mobile application development.
2. Innovated, designed and developed the Students Portal that integrates with Sage CRM (Student Module) for personalized access to exam results, fee statements, library services and general student information.
3. Supervised ICT infrastructure upgrade project successfully.
4. Implemented and supporting Sage ACCPAC ERP.
5. Implemented the Human Resource Management Information System
6. JKUAT webmetrix ranking has greatly improved in the past 2 years with over 1500 places globally.
7. The National Council of Science and Technology conference on the Dissemination of Research Results and Exhibition of Innovations” held on 3rd – 6th May 2011 at KICC ranked our paper the

Best Paper in the ICT, Industrial, Manufacturing and Infrastructure sub-theme and hence scooped a ***trophy for JKUAT***.

8. Restructured the ICT department and created ICT Directorate with three departments namely: Information Systems, Infrastructure and Support Services, and Research, Consultancy and Training.
9. Reviewed establishment to enable career progression from the lowest to the highest grade of the university based on merit and qualification as a strategy towards reducing high staff turnover
10. Developed and implemented JKUAT Information Security Policy (JISP) adopted by Senate
11. Developed and implemented JKUAT Electronic Payment System (JEPS) policy adopted by Senate
12. Developed and implemented JKUAT Automation Strategy adopted by Senate
13. Developed and implemented ICT Capacity Building Strategy
14. Innovated developed and implemented e-QMS software application for managing the ISO 9001:2008 Quality Management System procedures, forms and communications.
15. Trained Kenya National Bureau of Statistics (200) clients (Probation Officers and Prisons Officers) on Data Management short course.
16. Trained 300 Computer Science and Information Technology students on development of Java mobile applications (Android) under JKUAT Endeavour Program- a vocational program
17. Mainstreaming ICT in JKUAT key functions.

ACHIVEMENT AS COORDINATOR JKUAT-IBM MOU

1. Got 3 BSc Computing students jobs at IBM International Research Lab- Africa in 2013.
2. Trained and professionally certified 200 Computer Science and IT students on IBM's DB2 Database qualification
3. Organized and conducted curriculum review of database systems courses for BSc Computer Science, BSc Information Technology and BSc Computer Technology with participation of IBM, a key industry leader.
4. Organized and conducted professional training for the academic staff on emerging technologies in ICT
5. Initiated the establishment of the IBM centre of Excellence (CoE). The Centre promotes ICT Innovation, Entrepreneurship, technology Transfer and professional training.
6. Collaborate on traffic management research using mobile applications

ACHIVEMENT AS LEAD DEPUTY MANAGEMENT REPRESENTATIVE JKUAT

A member of the steering team that led JKUAT to achieve ISO 9001:2008 certification by Kenya Bureau of Standards in July 2009 and retention of the same after surveillance audit in September 2010.

ACHIVEMENT AS DIRECTOR OF INSTITUTE OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

1. Implementation of Internet services to the entire university
2. Introduction and sustenance of credible research culture at the Institute of Computer Science and Information Technology
3. Restructuring and re-organization of operations of ICT in JKUAT
4. Promote quality service delivery at ICSIT.

5. Motivated students and staff by coming up with clear strategic plans for ICSIT and championing for their welfare.
6. Increased ICSIT presence internationally by presenting papers and participating in international and regional forums.
7. Developed ICSIT M.Sc. program in Software Engineering.
8. Liased with NetTel to introduce an online postgraduate program in ICT Policy and Regulation at JKUAT.
9. Integrated ICSIT with the broader functions of the university.

EDUCATION BACKGROUND

INSTITUTION	DATE	QUALIFICATION
Jomo Kenyatta University of Agriculture & Technology (JKUAT)	2003-2007	PhD, Information Technology. Thesis title <i>“ICT Policy and Strategies: Towards E-Governance and Sustainable Development-The Case of East African Community and Kenya”</i>
Harvard University Law School	July 2007	Berkman Centre for Internet & Society/Oxford Internet Institute’s Summer Doctoral Programme
University of Cambridge	1997-1998	M.Phil. in Microelectronic Engineering and Semiconductor Physics. Thesis title: <i>‘Optical and Magnetic Properties of Free-standing Al_{0.3}Ga_{0.7}As/GaAs Wire Device’</i>
University of Nairobi	1993-1997	M.Sc. in Physics- Thesis title: <i>“Optical, Electronical and Structural Properties of Zinc Stannate (Zn₂Sn₄) Thin Films Prepared by Spray Pyrolysis Technique”</i>
Kenyatta University	1989-1992	B.Sc. Science (Hons)–Major Physics and minor in Computer Science
Kakamega High School	1987-1988	A’Level Pass with 3 Principals And one Subsidiary
Kakamega High School	1983-1986	Kenya Certificate of Education Pass with division I
Chesamisi Primary School	1975-1982	Kenya Certificate Primary Education. Pass with 29/36 Points

AWARDS

1. June 2007- Awarded Oxford Internet Institute (OII)/Berkman scholarship to attend the OII Summer Doctoral Programme 2007, at The Berkman Center for Internet and Society at Harvard Law School.
2. September 2004- Awarded DAAD scholarship to study PhD in Information Technology at JKUAT, Kenya.
3. September 1997- Awarded Cambridge Commonwealth Trust full Scholarship to study Master of Philosophy in microelectronic Engineering and Semiconductor Physics at the University of Cambridge, UK.
4. September 1993- Awarded JICA Scholarship to study M.Sc. Physics at University of Nairobi, Kenya.
5. September 1989- Awarded Government of Kenya Scholarship to study B.Sc. degree at Kenyatta University, Kenya

PROFESSIONAL CERTIFICATION

1. Certified on May 2015 by IBM Middle East and Africa University as Cyber Security Expert
2. Certified on September 2014 by IBM Middle East and Africa University as Mobile Application Developer.
3. Certified on March 23rd, 2011 by Ministry of Higher Education, Science and Technology National Council for Science and Technology for participating in the review of proposals in the 2nd calls for Women Scientists and Innovations under Science, technology and Innovation Grant.
4. Certified on March 11, 2011 by African e-development resource centre on IT Project Management
5. Certified on May 14th, 2010 by Council of Legal Education, Kenya School of Law - Continuing Legal Professional Development on attending and participating in a training seminar on Promoting Rule of Law, Integrity and Anti-Corruption Strategies.
6. Certified on October 1st, 2010 by BSi as Lead Implementer of ISO/IEC 27001:2005 on Information Security Management System.
7. Certified on May 25th, 2010 by VAS Consultants Ltd on Leadership and Management capacity Development
8. Certified on May 21st, 2009 by Sabis Consulting U.K on Sage Accpac ERP Financial and Operations Management Systems Training.
9. Certified on 18th September, 2008 by JKUAT on Effective Teaching.
10. Certified on May 4th 2007 by Kenya Bureau of Standards as an implementer of ISO 9001:2000 on Quality Management Systems
11. Certified on May 9th 2007 by Kenya Bureau of Standards as a trainer of Trainers on implementation of ISO 9001:2000 on Quality Management Systems
12. Certified e-content development Instructor in 2003 on a course sponsored by USAID/KENET and held at JKUAT.
13. Attended CISCO basic training (2003)

ADVANCED LABORATORY RESEARCH EXPERIENCE

NAME OF LABORATORY	YEAR	DURATION (Years)	RESEARCH ABILITY, KNOWLEDGE AND SKILLS AQUIRED
Computer Laboratory, JKUAT	2004-to Date	10	ICT Policy, Strategy, Regulatory Framework and Model Development for e-government and sustainable development. Business Process Reengineering. Designing and Modelling Application of Systems Dynamics to Modelling. E-government Computer Application Development and Data Management. Information Security Management Systems and Cyber Security implementer
Microelectronics Research Centre, Cavendish Laboratory, University of Cambridge	1997-1998	1	Nano-technology. Ion Etching. Wet etching. Optical lithography. Electron-beam lithography. Operating Scanning Electron Microscope. Fabrication of nano-scale devices and characterization.
Physics Laboratory, University of Nairobi	1993-1997	5	Fabrication of transparent material for building Solar cells using thin film technology.

FELLOWSHIP

1. December 6th, 2012, admitted by the Computer Society of Kenya to the status of *Fellow of the Computer Society of Kenya (FCSK)*.
2. On March 20th 1998, admitted by the Trustees of the Cambridge Commonwealth Trust of Fitzwilliam College of the University of Cambridge to the status of *Fellow of the Cambridge Commonwealth Society (FCCS)*.

PROFESSIONAL DUTIES RENDERED

DATE	TITLE	RESPONSIBILITY
2007 to Date	M.Sc. Software Engineering, M.Sc. Information Systems and PhD Thesis	Internal Examiner and Supervisor
2013	M.Sc. External Examiner, Strathmore University	Examine Masters thesis in the field of IT and IS

March, 2011	Reviewer of Proposal for the National Council of Science and technology	Review proposals in the 2 nd calls for Women Scientists and Innovations under Science, Technology and Innovation grant
2009-2011	Sage ACCPAC ERP Implementation	Project Implementation Team Leader
2007 to 2010	Reviewer of the Annual International Conference on Computing and ICT research, Makerere University, Kampala, Uganda.	Review research papers in the field of Information Systems, ICT Policy and Strategies.
2003-2006	M.Sc. Internal Examiner, University of Sunderland	Examine Masters thesis in Management of IT, and Computer Based IS.

ADVANCED TEACHING EXPERIENCE

Currently *Senior Lecturer* at the department of Computing, Institute of Computer Science and Information Technology- JKUAT.

SUBJECT
ICT Policy and Strategy
Software Development (server, desktop and mobile)
Business Analytics and Big Data Management
Advanced Information Systems Audit
Business Process Re-engineering and Change Management
Managerial Decision-Making ICT Support
Web Applications Development
Artificial Intelligence for Decision Support
ICT Law and Regulations
Managing Quality in Information Systems
Information Resource Management

LIST OF POSTGRADUATE STUDENTS THESIS SUPERVISION

	STUDENT NAME	UNIVERSITY ATTENDED	PHD DEGREE	STATUS
1	Gilbert Mugeni	MMUST	PhD thesis entitled “Development of Broadband Management Strategy for developing Countries: Case of Kenya”	Graduated 2013
2	Kiptoo Sylvester	JKUAT	PhD on Cognitive Computing	On going
3	Amos Othiambo	JOUST	PhD thesis entitled “A generic Socio-techno-economic model for analyzing the relationship between mobile phone usage and economic development. A case of Vision 2030 Implementation”	On going
4.	Josephine Wambui Muniu	JKUAT	Enhancement of Enterprise Data Security Using Big Data Analytics Techniques for possible attacks prevention	On going

5	Michael Munyao	JKUAT	Deriving Emerging patterns in Malaria response to treatment in Kenya using computer Modelling	On going
MASTERS DEGREE				
1	Jomo Njenga	JKUAT	MSc Software Engineering	Graduated 2011
2	Benard Wakoli	JKUAT	MSc Software Engineering	Graduated 2013
3	Bonface Kiula	JKUAT	MSc ICT Policy	Graduated 2010
4	Kiptoo Sylvester	JKUAT	MSc Software Engineering	Graduated 2012
5	Philys Ouko	Strathmore	MSc Information Systems	Graduated 2011
6	Okuku Anyona	Strathmore	MSc Information Systems	Graduated 2013
7	Pius Muchai	Strathmore	Msc Information Technology	Graduated 2011
8	Joseph Kavulya	Strathmore	MSc Information Systems	Graduated 2011
9	Waweru Lawrence	Strathmore	MSc Information Technology	Graduated 2011
10	Kamunyu Mutuota	Strathmore	MSc Information Systems	Graduated 2010
11	Edwin Muhiri	Strathmore	MSc Information Technology	Graduated 2010
12	Isaac Kega	JKUAT	MSc Software Engineering	Graduated 2013

PUBLICATIONS AND ACADEMIC ACTIVITIES

1. Gateri JM, Kimani S, and Wafula JM (2014). **Review of Predicting Number of Patients in the Queue in the Hospital Using Monte Carlo Simulation**. IJCSI International Journal of Computer Science Issues, Vol. 11, Issue 2, No.2, March 2014.
2. Anne Kaluvu, Cheruiyot W, and Wafula JM. (2014). **A survey on Stack Path Identification and Encryption Adopted as Spoofing Defense Mechanism to Assist in the Adoption of Electronic Payment Systems**. IOSR Journal of Mobile Computing & Application (IOSR-JMCA)
3. Wafula Joseph (2013). **ICT Policy and Strategies: Towards E-Government and Sustainable Development**. ISBN 978-3-639-51513-8. Scholar's Press
4. Wafula JM, Mwangi IK, Kimani S (2013). **Enhancing Personal Identification Number (PIN) Mechanism to Provide Non-repudation through use of timestamps in Mobile Payment Systems**. *International of Advanced Research in Computer Science*, Vol.4 (1) January-February 2013
5. Wangui M, Waweru M and Wafula M (2013). **Digital Library Enhancement for Remote Access to Library Resources in Kenya**. *International Journal of Humanities and Social Sciences*. Vol. 3 (3) pp. 193-197.

6. Mugeni, G.B., Wanyembi, G.W. & Wafula, J.M. (2012a). **Evaluating factors affecting broadband readiness in Kenya- A pilot study**, *International Journal of Information and Communication Technology Research*, Vol. 2, Issue 6, pp. 491-498
7. Mugeni, G.B., Wanyembi, G.W., & Wafula, J.M. (2012b). **National Broadband Strategies and Policies. An Analysis of Technical Considerations for Developing Countries**. *International Journal of Information and Communication Technology Research*, Vol. 2, No. 10, pp.753-759.
8. Mugeni, G.B., Wanyembi, G.W., & Wafula, J.M. (2012c). **Evaluating Factors Affecting Broadband Adoption in Kenya**. *International Journal of Information and Communication Technology Research*, Vol. 2, No. 10, pp.760-768
9. Mugeni, G.B., Wanyembi, G.W., & Wafula, J.M. (2012c). **Evaluating Factors Affecting Broadband Intensity in Kenya**. *International Journal of Information and Communication Technology Research*, Vol. 2, No. 10, pp.769-778
10. Kiula, B. M., Sakwa, M. M. and Wafula, J. M., **“The Impact of Institutional Reforms on ICT Penetration and Utilization”**, presented in The 6th JKUAT Scientific, Technological and Industrialisation Conference, at AICAD, Nairobi, on November 16th-18th, 2011;
11. Kiula, B. M., Wafula, J. M. and Kihoro, J. M., **“The State of ICT Penetration and Utilization in Local Authorities in Kenya”**, presented in the 4th National Council of Science and Technology (NCST) Science, Technology and Innovation (ST&I) conference on the Dissemination of Research Results and Exhibition of Innovations held on May 3rd-6th, 2011 at KICC, Nairobi (awarded best paper in the ICT, Industrial, Manufacturing and Infrastructure sub-theme);
12. Kiula, B. M. and Wafula, J. M., **“ICT Penetration and Utilization in Local Authorities in Kenya: The Status and Implications”**, presented in The 5th JKUAT Scientific, Technological and Industrialisation Conference, at AICAD, Nairobi, on November 17th-19th, 2010;
13. Wafula, J. M., Kiula, B. M., Kibe, A. and Wambugu, C., **“Computer usage in institutions of higher learning: Case of JKUAT”**, presented in The 5th JKUAT Scientific, Technological and Industrialisation Conference, at AICAD, Nairobi, on November 17th-19th, 2010;
14. Wafula, J. M., Waititu, A. Sabai, G. Nyapoto, P. O., Mindila, A. (Authors) Kiula, B. M. (Editor) **“Computer Applications to Data Management”** JKUAT, Printery, June 2010;
15. Submitted a paper entitled **“Integrated Financial Management Information System (IFMIS) Implementation at the Ministry of Finance, Kenya”** to the first Kenya E-Government International Conference to be held in November 2011 at KICC, Nairobi.
16. Presented a paper entitled **“Overview of ICT Initiatives in GoK Ministries”** at the 5th Scientific, Technological and Industrialization Conference organized by JKUAT held between 17th-19th November 2010 at AICAD.
17. Presented a paper co-authored entitled **“ICT Penetration and Utilization in Local Authorities in Kenya: the Status and Implications”** at the 5th Scientific, Technological and Industrialization Conference organized by JKUAT held between 17th-19th November 2010 at AICAD
18. Presented a paper co-authored entitled **“Computer Usage in Institutions of Higher Learning: Case of JKUAT”** at the 5th Scientific, Technological and Industrialization Conference organized by JKUAT held between 17th-19th November 2010 at AICAD. .
19. Contributed a chapter **Tertiary ICT Education in the East African Community (EAC): Human Capital and Curriculum Development** for a book entitled **Strengthening the Role of ICT in Development** edited by Janet Aisbett, Greg Gibbon, Anthony J. Rodrigues, Joseph Kizza Migga, Ravi Nath, Gerald R Renardel . (Fountain publishers, 2008).
20. Contributed a **An Overview of ICT Initiatives in Kenya”** for a book entitled **Mainstreaming ICT: Research Perspectives from Kenya (Mvule publishers, 2007)**. The book is based on the pioneering research coordinated by the Ministry of Planning and National Development from 2004-2006, in collaboration with the International Development Research Centre (IDRC) to support the overall national objective of developing and implementing the Kenya National ICT policy.
21. Contributed a book chapter **Conceptual ICT tool for Sustainable Development: The Community Development Index (CDI)** in a book entitled **Strengthening the Role of ICT**

- in Development* edited by Kizza, Joseph Migga, Jackson Muhirwe, Janet Aisbett, Katherine Getao, Victor W. Mbarika, Dilip Patel Anthony J. Rodrigues. (Fountain publishers, 2007).
22. Contributed a book chapter on *ICT and E-governance in Developing Countries* for a book entitled *Measuring Computing Research Excellence and Vitality* –Edited by Ddembe Williams and Venansius Barymureeba. Fountain Publishers 2006. Kampala. ISBN 13:978-9970-02-592-3.
 23. Contributed a book Chapter on *Informing Regional ICT Policy: Case Study of Trends in ICT Indicators of OECD, EU, COMESA and EAC* for a book entitled *Advanced Computer Applications*. Edited by Aisbett, Kizza and Ravi. Fountain Publishers. Kampala. 2006.
 24. Contributed a chapter in a book entitled *AT THE CROSS ROADS: ICT POLICY MAKING IN EAST AFRICA* –Edited by Florence Etta and Laurent Elder East African Educational Publishers/IDRC 2005. ISBN 1-55250-219-8
 25. Presented paper on *ICT Regulation: Case of Kenya* at the University of Nairobi first international conference on Computing Research held in February 2007 at KCCT Nairobi. The paper discusses fundamental challenges faced by most regulatory bodies such as CCK and issues related to political capture of regulations are also discussed. The paper also discusses attributes of regulatory legitimacy. The paper is intended to stimulate debate on regulatory reform and the accompanying regulatory structures.
 26. Contributed a book Chapter on *Informing Regional ICT Policy: Case Study of Trends in ICT Indicators of OECD, EU, COMESA and EAC* for a book entitled *Advanced Computer Applications*. Edited by Aisbett, Kizza and Ravi. Fountain Publishers. Kampala. 2006.
 27. Completed a PhD thesis at Jomo Kenyatta University of Agriculture and Technology, Institute of Computer Science and Technology, entitled “*ICT Policy and Strategies: Towards E-Governance and Sustainable Development-A Case of EAC and Kenya*” (2007).

CONFERENCES AND WORKSHOPS

1. Planning for an International Workshop on Data Science in April 2015 at JKUAT.
2. Attended International CODATA Conference and Workshop held 4th-8th August, 2014 at UNESCO Gigiri, Kenya
3. Attended the IBM Academic Days Conference 2014 that was held in Milan Italy on 5th and 6th May 2014. The theme of the conference was Cognitive Computing.
4. Presented proposal to the National University of Singapore (NUS) Business Analytics Centre and Nanyang Polytechnic School of Information Technology from 26th -28th February, 2014 on invitation by IBM Singapore towards fostering collaboration in research, training and curriculum development.
5. Attended workshop on DB2 10 Bootcamp for Oracle Professionals held at IBM Innovation Centre Nairobi from 27th-30th May 2013
6. Attended workshop on Cognos- Analytics and Business Intelligence held at IBM Innovation Centre Nairobi from 17th-19th April 2013
7. Attended workshop on DB2 9.7 Academic Training held at IBM Innovation Centre from 10th-12th April 2013
8. Presented paper Entitled “*National Broadband Strategy Options for Developing Countries: The case of Kenya*” at the Strathmore University ICT Conference, held on 7-8 September 2012. Authors Gilbert Barasa Mugeni, Gregory Wabuke Wanyembi, Joseph Wafula Muliaro
9. Attended workshop organized by Ministry of Higher Education Science and technology and ISTAfrica at KICC on March 18th, 2011. The workshop was on FP7 ICT theme .
10. Attended Roundtable Workshop on creation and establishment of an Innovation Centre. Organized by JKUAT and held at Intercontinental Hotel in Nairobi on 27th October, 2010.
11. Attended KENET workshop for Vice Chancellors and ICT Directors held in Mombasa between 3rd-6th November, 2010 at Serena Hotel.

12. Attended the Ireland InterTradeIreland 2010 Innovation Conference organized by the University College Dublin 28-29 June 2010
13. Attended and participated in the ICT Managers Congress organized by the Computer Society of Kenya and held in Mombasa. 26th -29th August 2009.
14. Attended and participated in a Strategic Planning Workshop organized by JKUAT on 31st March 2009 held at JKUAT Assembly Hall.
15. Attended and Participated in Conference on Science, Technology and Innovation organized by the Ministry of Higher Education-Kenya in collaboration with the government of Japan, held on 27th February 2009 at KICC Nairobi.
16. Presented a paper entitled Novel Decision Support Tool based on ICT and Social Networks for Sustainable Development at the 4th International Conference on Technology, Knowledge and Society held between 18th-20th January 2008 in Boston USA.
17. Presented a paper entitled Kenya ICT Regulations Review and Analysis at the Oxford Internet Institute Summer Doctoral Programme 2007 held at Harvard Law School.
18. Presented a paper entitled “*E-Transaction ICT Policy Issues for Decision Makers*” at an Electronic transaction Workshop held in Mombasa in November 2006 and organized by the workshop organized by the Kenya E-government Directorate, Office of the President.
19. Presented a Paper entitled “*E-learning Readiness Assessment for JKUAT*” at the 2005 JKUAT Scientific, Technological and Industrialization Conference held on 27th- 28th October 2005, Nairobi Kenya.
20. Presented a paper entitled “*Sub-regional ICT Policy: Case of East Africa Community*” co-authored with Prof Anthony Rodrigues of University of Nairobi, at the 1st Annual International Conference and Workshop on Sustainable ICT Capacity in Developing Countries held in August 2005 at Makerere University, Kampala Uganda.
21. Presented a paper on E-Governance at Association of Local Government Authorities of Kenya (ALGAK) Annual General Meeting held between 14th – 17th December, 2004 at Kenya School of Monitory Studies, Nairobi, Kenya
22. Attended and Chaired the final meeting that drafted the Consensus Statement at the East African Regional E-government Strategies Workshop held From 17th to 19th November 2004 at Dar es Salaam, Tanzania
23. Presented a paper entitled ‘*Novel Framework for E-Commerce Diffusion, Adoption and the Supporting Digital Documentation Options*’ in the WAITRO 17th Biennial Congress that was held between 6th –11th September, 2004: Nairobi Kenya on Technology for Sustainable Development.
24. Dar es Salaam, Tanzania from 28th to 30th April, 2004 attended and presented a paper in the *International ICT Workshop: Application of ICT in Enhancing Higher Learning Education* entitled “Global Knowledge and the Information Society: Illusion or Reality for Developing Countries?”
25. Attended and elected Chair of the academia at Stakeholders’ workshop for the Kenya Development Gateway held at Kenya School of Monitory Studies on 6th April, 2004
26. Attended Kenya ICT Convention: 23rd to 26th March, 2004
27. DAAD workshop on Research Management: 27th March, 2004. –Presented a paper entitled “*Questionnaire Design for Sample Surveys:: Basic Statistical Analysis Critical Success Factors*”
28. 3rd International Conference on IT for Economic Growth for Africa: 3rd to 5th March, 2004 – presented a paper entitled “*An Integrated Regional ICT Policy: Possible Impact on Information Revolution*”

RESEARCH GRANTS, AWARDS AND CONSULTANCY

1. Won the 2014 IBM Faculty Award of USD 20,000 and dedicated it to training JKUAT students Mobile Application Developers.

2. Coordinated for JKUAT to receive funding from IBM of USD 1. 2 million for training 20 academic staff and 100 students on leading ICT technologies globally namely; Mobile Application Development, Cyber Security, Cloud Computing, Big Data and Business Analytics in the year 2014
3. Coordinated for JKUAT to receive an IBM X3650 M4 Shared University Research (SUR) Award worth approx. USD 2.5 million that established the first Teaching and Research Cloud Laboratory that supports heavy resource intensive computer applications and analysis of Big Data.
4. Compiled and Presented JKUAT in the 18th annual ICT Excellence award competition organized by the Computer Society of Kenya of 2013 in which JKUAT won the ***Global Innovation Award in ICT.***
5. Participated in both proposal writing and implementation of the JKUAT/KNBS training on data collection, analysis, and presentation consultancy that earned JKUAT Ksh 25 Millions in the year 2011 and 2012.
6. Participated in writing research proposal on m-learning organized by KENET that fetched Ksh 1million grand in year 2011/2012

KEY PROJECTS INVOLVED

TITLE	DATE
1. Establishment of JKUAT ICT Centre of Excellence and Open Data	2014 to Date
2. JKUAT Human Resource Management System Implementation	2013 to 2014
3. JKUAT ICT Infrastructure upgrading	2013 to 2014
4. JKUAT-IBM Middle East and Africa Academic Certification Project	2014 to 2016
5. CCK National Broadband Strategy Formulation member	2013
6. JKUAT-IBM ICT Training, Research and Innovation Collaboration	2012 to Date
7. JKUAT-Ministry of Industrialization Technology Transfer attaché	2011 to 2012
8. Nairobi Technology Park Establishment Steering Committee	2010 to Date
9. Establishment of a National ICT Innovation and Incubation Centre	2010 to Date
10. Enterprise Resource Planning (ERP) SAGE ACCPAC software Customization Implementation at JKUAT	2009-to Date
11. Development of e-QMS application	2009
12. ISO Quality Management Systems for JKUAT	2007 to 2012
13. Information Communication Technology Status in Public and Private Universities in Kenya Project- A Public Universities Inspection Board's Project on Quality Assurance	2005-2006
14. Inter-University Council for East Africa (IUCEA) workshop Organization and hosting on ICT Education at EAC universities	2006
15. ICT Mainstreaming Research Project for the Ministry of Planning and National Development.	2005-2006
16. Development of Document Management System and Decision Support Software for Senate and Deans Committee	2004 - 2007
17. Development of software for production of results slips, transcripts, Departmental, Faculty and Senate Examination boards Reports	2004 - 2005
18. JKUAT e-learning platform development	2004
19. JKUAT ICT policy development	2004 -2005
20. East Africa Community, E-government project with Inter-University Council of East Africa (IUCEA)	2003 - 2004
21. Kenya Development Gateway	2004
22. Kenya ICT policy and Strategy: towards e-governance and sustainable	

- development
23. Regional M.Sc. in Computer Science curriculum development

2003 - 2006
2003 - 2004

ONGOING RESEARCH

- 1) Research on mobile applications development for public service delivery-Uwezo Fund Mobile Application build with Business analytics, cloud computing and cyber security capabilities..
- 2) Research on ICT Policies and Strategies for sustainable development- Information Systems Integration and Interoperability between County and Nation Governments of Kenya
- 3) Research on Open Data Management – Standards, Digital preservation, Institutional and Regulatory frameworks.

CURRENT INTERESTS

- 1) To apply multidisciplinary skills and practice in leadership.
- 2) To develop innovations in the areas of Open Data, Shared Services, Public Service Delivery, Security and Data Analytics Applications.
- 3) To research, formulate and implement ICT policies, regulations and Strategies for good governance and sustainable development.

COMMUNITY SERVICE

1. Patron- Society of Computer Science and Information Technology, JKUAT.
2. Patron- JKUAT Staff Football Club
3. Chairman JKUAT Staff Houses security committee.

REFEREES

<p>Dr Stephen Kimani Dean School of Computing and IT Jomo Kenyatta University of Agriculture & Technology Box 62000 Nairobi, Kenya City Square 00200 skimani@icsit.jkuat.ac.ke</p>	<p>Prof Uppal S Jomo Kenyatta University of Agriculture & Technology Box 62000 Nairobi, Kenya City Square 00200 Mobile Tel.: 0 733785662</p>	<p>Prof David Mulati Principal Collage of Sciences Jomo Kenyatta University of Agriculture & Technology Box 62000 Nairobi, Kenya City Square 00200 Mobile Tel.: 0721381086</p>
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