

TIRUS MUYA MAINA

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Education Background

1. 2019- to date PhD Computer Science, Murang'a University of Technology
2. 2015-2017 MSc Information System, Kisii University
3. 2002-2005 Bachelor of Science Information Technology, Jomo Kenyatta University of Agriculture and Technology
4. 1997-2000 Kenya Certificate of Secondary Education, Murang'a High School

Work Experience

1. Senior ICT Technologist II - Academic Division, Murang'a University of Technology (January

2018 to Date):

- Conducting lectures and facilitating learning at undergraduate levels, utilizing diverse pedagogical approaches including lectures, seminars, workshops, and tutorials.
- Engaging in exam development, administration, and marking, leveraging assessment tools and methodologies.
- Conducting research and generating publications, contributing to advancements in the field.
- Providing students with advisory services, feedback, and guidance, utilizing various educational technologies and resources.
- Contributing to curriculum development and implementation, incorporating emerging technologies and best practices.
- Supervising and mentoring undergraduate and postgraduate students in their research endeavors, employing research methodologies and tools.
- Active participation in departmental, school, or university committees, contributing to strategic decisions and initiatives.

2. Senior ICT Technologist II - ICT Directorate, Murang'a University of Technology (January 2013 December 2017):

- Managing IT software and hardware inventory using enterprise asset management systems.
- Delivering technical support for hardware and software issues, utilizing troubleshooting methodologies and diagnostic tools.
- Testing and evaluating new technology solutions, employing methodologies such as proof-of-concept and pilot testing.
- Supporting the deployment of new applications and hardware, following best practices and change management procedures.
- Ensuring compliance with software licensing agreements and regulations, utilizing license management tools.
- Designing and conducting ICT training programs for staff, utilizing instructional design principles and learning management systems.
- Implementing ITIL (Information Technology Infrastructure Library) processes for IT service management.
- Ensuring data integrity and security through the implementation of encryption, access controls, and data backup strategies.

3. Part-Time I.T Lecturer, Kenya Institute of Management (June 2011 to December 2012):

- Delivering lectures and conducting assessments using learning management systems and assessment tools.
- Conducting research in specialized areas of information technology, utilizing research methodologies and academic databases.

4. I.T Assistant Manager, NTS Computer Technology BV – Kenya (June 2011 to August 2012):

- Installing and upgrading software applications and operating systems using deployment tools and scripting languages.
- Providing technical support for hardware and software issues, employing remote desktop support and ticketing systems.
- Maintaining ERP server and network hardware, employing network monitoring tools and configuration management.
- Participating in data migration projects, employing data migration methodologies and tools.
- Implementing and maintaining backup solutions for data protection and disaster recovery.

5. ICT Lecturer, Embu College Campus (January-May 2011):

- Developing and delivering lesson plans and instructional materials aligned with course objectives and learning outcomes.
- Providing individualized guidance and counselling to students, utilizing student information systems and academic advising tools.
- Conducting scholarly research in specialized areas of information and communication technology.

6. Volunteer ICT Trainer and Technician, Magogoni Community Secondary School (January 2010 to December 2010):

- Delivering computer studies curriculum using interactive teaching methods and multimedia resources.
- Providing technical assistance for software installation, troubleshooting, and maintenance, employing system administration tools and techniques.
- Maintaining and updating the KNEC online examination registration system, ensuring compliance with examination board requirements.

7. I.T. Lecturer, Murang'a College of Technology (May 2005 to August 2008):

- Developing and delivering curriculum-based instructional materials utilizing instructional design principles and educational technologies.
- Providing academic advising and career guidance to students, utilizing student information systems and career development resources.
- Conducting applied research in information technology fields, contributing to scholarly publications and academic conferences.

Research Interest

1. Artificial intelligence and Natural language processing
2. ICT Integration in Education
3. Cybersecurity
4. TVET
5. ICT Policy and Governance

Volunteer and Charity Contribution

1. Magogoni Community Secondary School as Volunteer ICT Trainer and Technician
2. Executive member at Forthall community-based organization since 2021
3. Murang'a Presbyterian Church Men's Fellowship (PCMF) Eradicate alcoholism and substance abuse unua jamii program

Curriculum development

- Development of BSc Information Science Programme and Curriculum 2024
- Development of BSc. Computer Security & Digital Forensics Programme and Curriculum 2024
- Review of BSc Computer Science programme curriculum 2024

Other Professional, Consultancy and Achievements

- Reviewer with Journal of Experimental Agriculture International 2024
- Election observer at National Council of Churches Kenya 2022
- External Exam moderator at Kenya School of Law 2021 to date
- Trained Trainers, Assessors and Verifiers for TVETA in 2019
- Developed ICT-related approved CBET curricula in Kenya for TVETA in 2019
- Invigilator with British Council Kenya
- Appointed as Journal reviewer by Science Publishing Group
- Appointed secretary of Presbyterian Church Men's Fellowship (PCMF)- Murang'a parish 2023
- Appointed St. Angela Kiria-ini Girls High School Parent Teachers Association 2023

Membership of Professional Bodies and Certification

- Cybersecurity and Emerging Technologies Awareness Training, ICT Authority & IBM
- Member of The International Association of Engineers (IAENG)
- Advanced Cybersecurity Training for Teachers, Commonwealth of Learning (COL)
- Self-directed learning for higher education, Commonwealth of Learning (COL)
- Member of Presbyterian Church teachers association
- Member of Presbyterian Church Men's Fellowship (PCMF)

Publications

1. Maina, Tirus Muya. "An Audit of ICT Funding Towards Effective Integration of ICT in Selected TVET Institutions in Kenya." The state of university education in Kenya: Selected papers from the 1st biennial conference, 2016 1 (2018).
2. David M. Kahando, Tirus Muya Maina, Charity Mweru Maina, An Appraisal of Financial Management Practices on the Growth of Micro Enterprise in Kenya, Journal of Business and Economic Development. Vol. 2, No. 1, 2017, pp. 63-70.
3. Maina, Tirus Muya , David M Kahando, and Charity Mweru Maina. "Curriculum Content Relevancy

in Integration of ICTs in Kenya TVET Institutions in Readiness to Industry Needs." International Journal of Secondary Education IV, no. 6 (January 2017): 58-64.

4. Tirus Muya Maina, Charity Mweru Maina. Kenya Towards Mobile Virtue Network Operator: Opportunities and Challenges. Management Science and Information Technology. Vol. 1, No. 1, 2016, pp. 1-7.
5. Maina, T. M., Dr. Ogalo, J., & Dr. Mwai, N. (2016, July). The pedagogical readiness of instructors towards achieving integration of ICT'S in TVET institutions in Kenya. Research in pedagogy journal, 6(1), 55-65.
6. Maina, C. M., & Maina, T. M. (2015, October). Features of Resource Based View Theory: An Effective Strategy in Outsourcing. International Journal of Management and Commerce Innovations, 3(2).
7. Maina, T. M. (2014). A Review of Convergence in Information and Communication Technology. International Journal of Scientific footprints, 2(3), 80-98.
8. Maina, T. M. (2013). Instant messaging an effective way of communication in workplace. Retrieved from arXiv.org

Conferences

1. Maina, T. M. (2016). An Audit of ICT Funding on Effective Integration of ICT's In Selected TVET Institution in Kiambu and Murang'a County, Kenya. Paper presented at the 1st Biennial Conference on the State of Higher Education in Kenya, August 22nd-25th, 2016, Kenyatta University, Nairobi, Kenya.
2. Maina, T. M., & Maina, C. M. (2016). Kenya towards Mobile Virtue Network Operator: Opportunities and Challenges. Paper presented at the KESSA-Multimedia University of Kenya Annual International Interdisciplinary Conference, June 22-25, 2016, held at Multimedia University of Kenya Hotel, Nairobi, Kenya.
3. Maina, T. M., Dr. Ogalo, J., & Dr. Mwai, N. (2016). The Pedagogical Readiness of Instructors towards Achieving Integration of ICTS in TVET Institutions in Kenya. Paper presented at the KESSA-Multimedia University of Kenya Annual International Interdisciplinary Conference, June 22-25, 2016, held at Multimedia University of Kenya Hotel, Nairobi, Kenya.
4. Maina, T. M. (2016). The Appropriateness of ICT Policies Framework Formulated towards Achieving Integration of ICTs in TVET Institutions in Kenya. Paper presented at the 5th RVVTI International TVET and Interdisciplinary Conference, May 26-28, 2016, Eldoret.

References

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