

CURRICULUM VITAE

KEVIN AGINA ONYANGO, Ph.D.

BSc. I.T HONS (MUT), MSc. I.T (MUT), Ph.D. I.T. (MUT)

Basic Information

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| Name: | Dr. Kevin Agina Onyango |
| Nationality: | Kenyan |
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| Photo: |  |

ONLINE PROFILES

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| ORCID: | https://orcid.org/0000-0003-4602-7586 |
| ResearchGate: | https://www.researchgate.net/profile/Kevin-Onyango-4 |
| Google Scholar: | https://scholar.google.com/citations?user=eHwySs0AAAAJ&hl=en&oi=ao |
| Publons: | https://www.webofscience.com/wos/author/record/KZU-0697-2024 |
| SSRN: | https://hq.ssrn.com/Participant.cfm?rectype=edit&perinf=y&partid=6941342 |
| Academia: | https://mut-ke.academia.edu/kevinagina |
| Other Websites | www.linkedin.com/in/kevin-agina-4419ab116 |

PERSONAL PROFILE

I am a person who is reliable, well organized, self-motivated, loves challenges, work effectively and thrives when working alone as well as part of a cohesive team to deliver results that yield multiple benefits even with no supervision at all. I quickly adapt to new system and procedures and I work in a thorough and committed manner using my own initiative as well as with the directives given.

OBJECTIVE;

To attain the best professional jobs in line with my academic qualifications, my skills, my abilities, and not forgetting my talents.

To add value and offer exemplary services to the organization by performing tasks effectively and employing skills learned diligently, accepting responsibilities, embracing team work, having a willingness to learn and commitment to work in order to achieve objectives and meet targets as may be required of me at any point in time.

RESEARCH INTEREST AREAS;

- [1] Software Engineering,
- [2] Software Metrics,
- [3] Software Quality Measurement,
- [4] Soft Computing,
- [5] Fuzzy System and Fuzzy Control,
- [6] Artificial Intelligent System,
- [7] Computer Networks and Security,
- [8] Data Communication
- [9] Computer Application Technology,
- [10] Information Technology,
- [11] Object-Oriented Modelling and Development

EDUCATION BACKGROUND;

- Doctor of Philosophy in Information Technology (Ph.D. I.T): Murang'a University of Technology (Degree Awarded in the 2025 Graduation Ceremony). Research Title: **“AN ARCHITECTURE-BASED COMPLEXITY CLASSIFICATION FRAMEWORK AND METRICS FOR ANALYZING THE MODIFIABILITY OF LARAVEL SOFTWARE”.**
- Master of Science in Information Technology (MSc. I.T): Murang'a University of Technology (Degree Awarded in the 2021 Graduation Ceremony). Thesis Title: **“A METRICS-BASED FUZZY LOGIC MODEL FOR PREDICTING THE REUSABILITY OF OBJECT-ORIENTED SOFTWARE”.**
- Bachelor of Science in Information Technology (BSc. I.T): Murang'a University of Technology (Degree Awarded in the 2017 Graduation Ceremony). First Class Honors.
- Computer Packages: Asegenets Computer College: Distinction Certificate Awarded (Jan – May 2012).
- Kenya Certificate of Secondary Education: Kambare Secondary School: 68 Points (B+) (Jan 2008 – Nov 2011).
- Kenya Certificate of Primary Education: Ndiru Primary School: 278 Marks (Jan 2000 – Nov 2007).

PROFESSIONAL BODIES;

- Association for Computing Machinery (ACM)– *Membership Number 4634013*
- The Computer Society of Kenya (Awaiting Membership Number)

CURRENT PRIMARY AFFILIATION/INSTITUTION

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| Department/Division: | Department of Information Technology |
| University/Institution: | Murang'a University of Technology, Kenya |
| City: | Nairobi |
| Country/Region: | Central Kenya |

CURRENT EMPLOYMENT;

Lecturer: Murang'a University of Technology, School of Computing and Information Technology. Department of Information Technology.

Ag. Examinations Officer: Murang'a University of Technology, School of Computing and Information Technology. Department of Information Technology.

Postgraduate Coordinator: Murang'a University of Technology, School of Computing and Information Technology. Department of Information Technology.

Ag. Alumni Coordinator: Murang'a University of Technology.

Online Learning Champion: Coordinating online Learning in the School of Computing and IT.

Duties:

- Conducting Research in related research areas of interest
- Assisting senior academic members of staff in research and lecture content development where applicable.
- Assisting senior academic members to administer class practical, CATs and exam invigilation where applicable.

- Administer lectures to Undergraduate, Diploma and Certificate class where applicable.
- Coordinating and mentoring of undergraduate, diploma and Certificate Programmes where applicable.
- Setting and Administering examinations for Undergraduate, Diploma and Certificate class where applicable.
- Marking examinations and processing student's marks where applicable.
- Assisting in department's and school's management activities where applicable.
- Providing mentorship and class advisory to Undergraduate, Diploma and Certificate Students where applicable.
- Participating in Development and review of Curriculums where applicable.
- Coordination of Online Teaching in the School of Computing and IT.
- Coordination of Postgraduate matters in the School of Computing and IT.
- Coordination of Examinations and Timetabling matters in the Department of Information Technology.
- Attending Meetings i.e. Departmental, School and any other committees and sub-committee meetings where applicable.
- Drafting a proposal/ concept note for MSc. In Information Systems (Ongoing).

WORK EXPERIENCE;

| <u>Dates'</u> | <u>Institution names</u> | <u>Field</u> |
|--------------------------------|---|---|
| June 2012 – Dec 2012 | Aseagents Computer College, Bondo Sub-County, Siaya County | College Computers Packages Tutor |
| Feb 2014 to Dec 2015 | Shinners Institute of Business and Technology (Currently, Kiharu Technical College), Kiharu Sub-county, Murang'a County | Part-Time lecturer in ICT Department. |
| Feb 2014 to April 2016 | Murang'a University of Technology | Red-Cross Member Chairperson. |
| Sept 2015 to April 2016 | Murang'a University of Technology | Peer counsellor/Educator |
| May 2016 to Aug 2016 | Murang'a County Government (HQ) | IT Attaché |
| Sept 2016 to May 2017 | Murang'a County Government (HQ) | IT Intern |
| June 2017 to Sept 2017 | Digital Imaging and Scanning International | System Administrator |
| Nov 2017 to Feb 2022 | Murang'a University of Technology | Graduate Assistant |
| May 2020 to Date | Murang'a University of Technology | Coordinator, Online Teaching in the School of Computing and IT. |

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| March 2022 to Date | Murang'a University of Technology | Tutorial Fellow |
| Feb 2021 to Feb 2022 | Murang'a University of Technology | Ag. Examinations Officer in the Department of Information Technology |
| August 2023 to Date | Murang'a University of Technology | Ag. Examinations Officer in the Department of Information Technology. |
| September 2025 to Date | Murang'a University of Technology | SCIT Postgraduate Coordinator. |

DUTIES AND RESPONSIBILITIES;

| <u>Dates'</u> | <u>Duties and Responsibilities</u> | |
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| March 2020 to June 2020 | Murang'a University of Technology | A member of the committee conducting a baseline survey among staffs on Alcohol and Drug Abuse (ADA). |
| April 2020 to Date | Murang'a University of Technology | Trainer of Trainers on Kenet Web Conferencing (Big Blue Button). |
| May 2020 to Date | Murang'a University of Technology | Online Learning Champion in the School of Computing and IT. |

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| Feb 2021 to Feb 2022 | Murang'a University of Technology | Departmental Examinations Officer and Timetabler in the Department of Information Technology. |
| Feb 11th to 18th Feb 2022 | Murang'a University of Technology | Review and evaluation of BSc. Computer Science Curriculum |
| Dec 2021 to March 2022 | Murang'a University of Technology | A member of the committee conducting a baseline survey among students on Alcohol and Drug Abuse (ADA). |
| May 2020 to Date | Murang'a University of Technology | Coordinator, Online Teaching in the School of Computing and IT. |
| August 2023 to Date | Murang'a University of Technology | Departmental Examinations Officer and Timetabler in the Department of Information Technology. |
| Jan 2024 to May 2024 | Murang'a University of Technology | A member of the committee conducting curriculum review for BSc Information Technology, BBIT, BSc Computer Science, BSc. Computer Technology, BSc. Software Engineering. |
| Jan 2024 to May 2024 | Murang'a University of Technology | A member of the committee conducting curriculum development for BSc Information Science and BSc. |

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| | | Forensics and Computer Security |
| Jan 2025 to Date | Murang'a University of Technology | MUT Ajira club Patron |
| April 2025 to Date | Murang'a University of Technology | Board member of the Artificial Intelligence (AI) Committee. |
| September 2025 to Date | Murang'a University of Technology | SCIT Postgraduate Coordinator. |
| September 2025 to Date | Murang'a University of Technology | Drafting a proposal/ concept note for MSc. In Information Systems (Ongoing). |

WORKSHOP AND TRAINING ATTENDED;

- Performance Analysis and Network Forensics Workshop at Murang'a University [3rd to 5th September 2024]
- Public Sector Cyber Security and Emerging Technology Awareness Training [28th May to 30th May 2024]
- East African Regional Workshop on Research Networking and Proposal Writing at Murang'a University [29th April to 2nd May 2024]
- Trained by HUAWEI on HCIA-Datacom, May, 2022.
- Trained by KENET on advanced features incorporated in the BBB Web conferencing and how to use them to deliver classes in the new normal, February 22-24, 2022.
- E-content Development and Delivery Training: Held on 23rd and 26th November, 2021 1st phase and 25th to 27th January, 2022 2nd phase.

- Trained by The Open University (OU) on Skills for Prosperity Kenya- Digital Education Capacity Strengthening, August 2021 to Nov 2021. (Two digital badges and a certificate awarded).
- Trained by a visiting Professor, Prof. George Raburu from Jaramogi Oginga Odinga University of Science and Technology (JOOUST) on: Early Career Researcher Training Workshop, How to Attract Research Funding, Equipment and Techniques of Teaching Computing related courses in the new normal, Developing and Reviewing of Computing Curriculum among others between September 22nd to 5th October 2021
- Trained by KENET Virtually to be Trainer of Trainers on web Conferences and Remote Teaching and holding meetings amidst Covid19, 20th May to 22nd May 2020.
- Trained by TVET CDACC Virtually to be Trainer of Trainers on Overview of Competency Based Education and Training (CBET), Planning and Organizing Assessment, Conducting Assessments, Managing Assessment Results and Overview of Competence Certification of CBC Courses, 21st July to 24th July 2020.
- Trained by TVET CDACC Physically at Murang'a University of Technology to be Trainer of Trainers on Overview of Competency Based Education and Training (CBET), Develop Occupational Analysis Charts, Development of Occupational Standards, Development of Competence Based Curriculum, Planning and Organizing Assessment, Designing and Developing Assessment Tools, Verifying and Validating Assessment Tools, Conducting Assessments, Managing Assessment Results and Overview of Competence Certification of CBC Courses, 20th to 23rd May 2019.

SCHOLARSHIP AWARDS EARNED;

2018 - 2020: Murang'a University of Technology Graduate Assistant Scholarship: Scholarship to pursue Master's degree. Award given after performing exemplary well in undergraduate degree.

2022 - 2025: Murang'a University of Technology Tutorial Fellow Scholarship: Scholarship to pursue Doctor of Philosophy degree. Award given after performing exemplary well in undergraduate and Master's degree.

SKILLS;

- Networking and Data Communication
- Network Diagnostic and Troubleshooting
- Computer Hardware, Maintenance and Repairs
- Computer Software Installation and Customization
- Network Security
- Systems Development and Management
- Fluency in Grammar, Kiswahili and English fluency
- Computer Literacy
- Internet Literacy
- Ability to work with others and produce results
- Ever Dynamic and Flexible to cope with the changing environment

PUBLICATIONS;

K. A. Onyango, G. M. Muketha, & Micheni, E. M. "A Metrics- Based Fuzzy Logic Model for Predicting the Reusability of Object-Oriented Software". International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249-8958, Volume-9 Issue-6, August 2020. DOI: 10.35940/ijeat.f 1627.089620

K. A. Onyango, and G. W. Mariga. Comparative Analysis on the Evaluation of the Complexity Of C, C++, Java, Php and Python Programming Languages Based on Halstead Software Science. DOI:10.24203/ijcit. v12i1.294. International Journal of Computer and Information Technology (ISSN: 2279 – 0764) Volume 12- Issue 01, March 2023

K. A. Onyango, J.K. Wambugu, & G. M. Muketha. A Comparative Study of the Lexicographical Complexity of Java, Python, and C Programming Languages Based on Program Characteristics. International Journal of Computer and Information Technology (ISSN: 2279 – 0764). 2023-03.

K. A. Onyango, G. M. Muketha, and J. G. Ndia. "Structural Complexity Metrics for Laravel Software," International Journal of Software Engineering & Applications (IJSEA), <https://doi.org/10.5121/ijsea.2024.15404>. Vol.15, No.4, July 2024.

K. A. Onyango, G. M. Muketha, and J. G. Ndia, "Validating complexity metrics for Laravel software," International Journal of Software Engineering (IJSE), vol. 12, no. 2, pp. 26-45, 2025. [Online]. Available: <https://www.cscjournals.org/journals/IJSE/description.php>.

CONFERENCES ATTENDED;

[1] Murang'a University of Technology 1st International Conference on Technology and Innovation for sustainable development (2021).

Presented

A Comparative Study of the Lexicographical Complexity of Java, Python, and C Programming Languages Based on Program Characteristics. ***Kevin Agina Onyango, Jackson Kamiri Wambugu and Geoffrey Muchiri Muketha***

[2] Murang'a University of Technology 2nd International Conference on Technology and Innovation for sustainable development (2023).

Presented

Predicting Software Maintainability Using Soft Computing Techniques: A Systematic Literature Review. ***Kevin Agina Onyango and Dr. Ndia G. John.***

[3] Murang'a University of Technology 3rd International Conference on Technology and Innovation for sustainable development (2025).

Self-Powered IoT Technologies for Environmental Monitoring in Informal Urban Settlements: ***Naomi Waithira Mbau and Kevin Agina Onyango.***

[4] Murang'a University of Technology 3rd International Conference on Technology and Innovation for sustainable development (2025).

Energy Efficient Techniques for Mobile Communication Networks: ***Julius Ngamate and Kevin Agina Onyango.***

REFEREES;

Prof. Geoffrey Muchiri,
Director, Board of Postgraduate Studies,
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P.O BOX 75-10200, Murang'a.
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Dr. Geoffrey Mariga,
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