Department of Computer Science
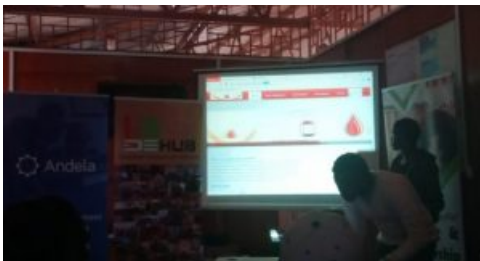# Dedan Kimathi University of Technology

Welcome

Our excellence in teaching and research, plus our strong industrial links, make us one of the Kenya's leading Computer Science departments. We are particularly proud of the graduates of our programs, many of whom are [...]

Our Research

Our research tackles fundamental questions in computer science and addresses interdisciplinary problems. We collaborate with academic departments across the University, nationally and internationally to respond to global challenges.

Programmes

Students studying at the Department of Computer Science will learn about cutting-edge developments in computer science and develop transferable skills that can be applied in different areas of work. The department is rated highly for [...]

Why Computer Science?

Computers are everywhere. We use mobile phones, TVs and cars that include large amounts of software, almost everyone has a computer in their home and virtually everyone under 30 plays computer games. These systems

all rely on advanced computer science.

When you study computer science, you will learn about the fundamental principles of the science as well as advanced techniques that are used for practical systems development. You will learn how to think and solve problems in a logical way and how to express your solutions as computer programs. You will work on individual and team projects to develop new systems.
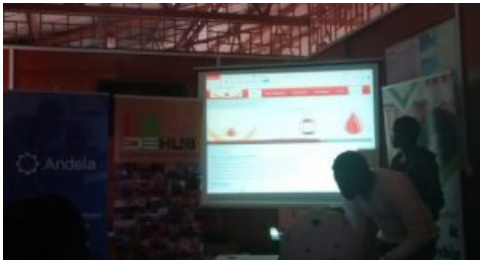
SEARCH

Department of Computer Science
Dedan Kimathi University of Technology

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About Us

Overview of the Department of Computer Science

The Department of Computer Science which is under the School of Computer Science and Information Technology (CSIT) – DeKUT, produces high skilledgraduates who play a significant role in the Kenyan and Global economy. The School seeks to significantly enhance and expand the visibility of Computing Technology, innovative solutions to national and global audience. The School will provide the appropriate environment to ensure that the highest professional standards are achieved and maintained.

Vision

To create, share and apply computing knowledge and skills for better life.

Objective

- To provide enabling environment for knowledge and skills transfer.
- To collaborate in research projects
- To provide solution to societal problems by applying current computing technologies
- To provide professional, ethical and competent graduates.

SEARCH

Programmes

Students studying at the Department of Computer Science will learn about cutting-edge developments in computer science and develop transferable skills that can be applied in different areas of work. The department is rated highly for teaching and research, with world-renowned, enthusiastic and friendly staff.

Postgraduate Courses
1.PhD in Computer Science
2.MSc. in Computer Science

Undergraduate Courses
1.BSc. in Computer Science

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Department of Computer Science
Dedan Kimathi University of Technology

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Staff Profiles

- Dr. Gabriel Kamau
- Dr. George Musumba
- Dr. Juliet Moso
- Mr. Benson Kituku
- Mr. Michael Kagiri
- Mr. David Opondo
- Mr. Patrick Naivasha
- Mr. Morris Kaburu

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Your answer

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Dedan Kimathi University of Technology

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Contact us

Main Campus
Physical Address: Along Nyeri – Mweiga road
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Physical Address: Pension Towers – 13th Floor, along Loita Street.
Postal Address: Private Bag – 10143, Dedan Kimathi
Cell Phone: 0710 127 516
Email Address: directornairobi@dkut.ac.ke
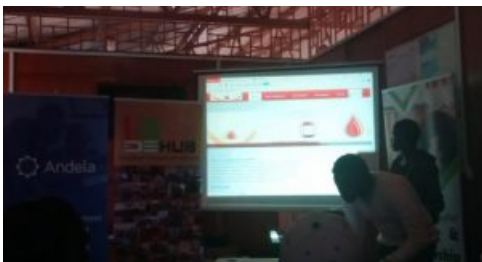
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Dedan Kimathi University of Technology

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Programmes

Students studying at the Department of Computer Science will learn about cutting-edge developments in computer science and develop transferable skills that can be applied in different areas of work. The department is rated highly for teaching and research, with world-renowned, enthusiastic and friendly staff.

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1.PhD in Computer Science
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- Dr. Gabriel Kamau
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SEARCH

Department of Computer Science
Dedan Kimathi University of Technology

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Contact us

Main Campus
Physical Address: Along Nyeri – Mweiga road
Postal Address: Private Bag – 10143, Dedan Kimathi

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Department of Computer Science
Dedan Kimathi University of Technology

☰ **Open Menu**

Dr. Gabriel M. Kamau

Designation: Lecturer
Contact: 0720 955 821
School/Institute: Computer Science And Information Technology
Department: Computer Science
Email: gabriel.kamau@dkut.ac.ke

Academic Background

Qualification	Institution	Year
PhD. Computer Science	Jomo Kenyatta University of Agriculture and Technology	2021
MSc. Computer Science	Jomo Kenyatta University of Agriculture and Technology	2013

| BSc. Computer Science | Kenya Methodist University | 2010 |

Areas of Expertise

- Data Analytics
- Database Systems
- Artificial Intelligence
- Machine learning

Work Experience

- **April 2021 – To Date:** Chairperson, Department of Computer Science
- **March 2017 – March 2021:** Deputy Director, ICT Directorate – Dedan Kimathi University of Technology
- **September 2016 – March 2017:** A.g Chairperson, Department of Information Technology
- **February 2016 to January 2017:** Examination coordinator, Dedan Kimathi University of Technology
- **September 2015 – August 2016:** BBIT coordinator, Dedan Kimathi University of Technology
- **July 2014 – December 2014:** A.g Chairperson, Department of Information Technology
- **July 2009 – December 2011:** Cordinator, Diploma Information Technology

Other University and National Responsibilities

- Kenya –AIST Curriculum Development Committee
- Alternate Member, Research, Intellectual Property rights, Publication Technology Transfer & Management Committee

Social Responsibilities

- Associate pastor – Local church Assmbly

Publications

- **Kamau, G. M.**, Mwangi, W., & Cheruiyot, W. (2019). A MODIFIED BIT PLANE COMPLEXITY SEGMENTATION STEGANOGRAPHIC METHOD: INCREASING PAYLOAD IMPERCEPTIBILITY AND ROBUSTNESS.
- **Kamau, G. M.**, Cheruiyot, W., & Mwangi, W. (2018). Towards A More Secure Web Based Tele Radiology System: A Steganographic Approach.
- **Kamau, G. M.**, Cheruiyot, W., & Mwangi, W. (2018). Towards A More Secure Least Significant Bit (LSB) Steganographic Method for Information Hiding.
- **Kamau, G. M.**, Cheruiyot, W., & Mwangi, W. (2017). Improving access to radiology health care services in rural areas of developing nations through a secure web based teleradiology steganographic method.
- **Kamau, G. M.** (2015). A Model for Estimating Network Infrastructure Costs: A Case for All-Fibre Networks.
- **Kamau, G. M.**, & Cheruiyot, W. (2014). Digital Rights Management: Improving Online Digital Images Copy Rights Management through an Enhanced Least Significant Bit Steganographic Algorithm.
- **Kamau, G. M.** (2014). An enhanced least significant bit steganographic method for information hiding.
- **Kamau, G. M.**, Mwangi, W., & Kimani, S. (2013). A general Purpose Image-Based Electors Smart Card Using an Enhanced Least Significant Bit Steganographic Method for Information Hiding: A case study of the Kenyan Electoral Process.

Research Interests

- Digital Image processing, Telemedicine, Steganography and Watermarking

Department of Computer Science
Dedan Kimathi University of Technology

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Dr. George Musumba

Designation: Senior Lecturer
Contact: +254796180811
School/Institute: Computer Science & Information Technology
Department: Computer Science
Email: george.musumba@dkut.ac.ke

Academic Background

Qualification	Institution	Year
PhD. in Computer Science	Dedan Kimathi University of Technology	2016
MSc. in Computer Science	University of Nairobi	2011

BSc. in Computer Science	Kenyatta University	2006

Areas of Expertise

- Machine Learning
- Multi Agent Systems
- Cyber Security, Computer Forensics
- Fuzzy Logic, Education Technology

Work Experience

- **March 2020 – To Date:** Senior Lecturer, Dedan Kimathi University of Technology
- **August 2013 – February 2020:** Lecturer, Dedan Kimathi University of Technology
- **May 2011 – July 2013:** Assistant Lecturer, Dedan Kimathi University of Technology
- **January 2010 – April 2011:** ICT Consultant, Magenta (K) Ltd
- **May 2006 to December 2009:** Systems Administrator, RobsMagic Kenya Ltd

Other University and National Responsibilities

- **March 2017 – Current:** Dean, School of Computer Science and Information Technology
- **March 2017 – Current:** Thematic Leader in Artificial Intelligence and Machine Learning
- **May 2022 – Current:** Director, Centre for Data Research and Cyber Security
- **April 2013 – April 2017:** University Attachment and Placement Coordinator
- **May 2020 – Current:** Chairperson for Kenyan Universities Research Subcommittee-Kenya ICT Authority

Social Responsibilities

- Board of Trustee Member, Western Outreach Ministry
- Board Member, Uzima Junior Academy, Embakasi

Publications

- D. Oriedi and **G. Musumba**, (2022). Modeling Online User Relationships: A Review. 4th International Conference on Advances in Computer Technology, Information Science and Communications (CTISC), 2022, pp. 1-5, doi: 10.1109/CTISC54888.2022.9849818.
- Oriedi, D., Nyongesa, H., & **Musumba, G**. (2021, December). Influence Maximization: Incorporating Homophily and Topological Overlap. In *2021 International Conference on Electrical, Computer and Energy Technologies (ICECET)* (pp. 1-6). IEEE.
- Otieno, B., Wabwoba, F., & **Musumba, G**. (2021, May). Bandits using Fuzzy to fill Knapsack: Smallholder Farmers Credit Scoring. In *2021 IST-Africa Conference (IST-Africa), JohannesBurg, SA* (pp. 1-10). IEEE.
- Nigussie, E., Olwal, T., **Musumba, G**., Tegegne, T., Lemma, A., & Mekuria, F. (2020). IoT-based irrigation management for smallholder farmers in rural sub-Saharan Africa. *Procedia Computer Science*, *177*, 86-93.
- Otieno, B., Wabwoba, F., & **Musumba, G**. (2020, May). Towards Small-Scale Farmers Fair Credit Scoring Technique. In *2020 IST-Africa Conference (IST-Africa)* (pp. 1-11). IEEE.
- **Musumba, G**. W., & Wario, R. D. (2019). A Decision Making Approach for Evaluation of Learning Components in Adaptive Educational Systems. In *Annual Conference of the Southern African Computer Lecturers' Association*. Springer, Cham
- **Musumba, G. W**., & Wario, R. D. (2019, May). Towards Fuzzy AHP Model for Performance Evaluation of Health Care Services. In *International Conference on Information and Communication Technology for Develoment for Africa* (pp. 93-118). Springer, Cham.
- **Musumba, G**., & Wario, R. (2019, May). Towards a Personalized Adaptive Remedial e-Learning Model. In *2019 IST-Africa Week Conference (IST-Africa)* (pp. 1-11). IEEE.
- **Musumba, G. W**., & Wario, R. D. (2019). Towards a Context-Aware Adaptive e-Learning Architecture. In *Annual Conference of the Southern African Computer Lecturers' Association* (pp. 191-206). Springer, Cham.
- **Musumba, G. W**., Wario, R. D., & Wamuyu, P. K. (2018). Towards an Agent-Oriented Business Collaboration Model. *International Journal of Distributed Artificial Intelligence (IJDAI)*, *10*(2), 1-27.
- **Musumba, G. W**., & Wario, R (2018). Towards Fuzzy Logic in Partner Evaluation and Selection for Virtual

Enterprises. Journal of Environmental Sustainability Advancement Research, 4, 119-132

- Kamande, R. W., Kiragu, D. N. U., & **Musumba, G. W**. (2018). Internal controls, staff red flags and computerized financial fraud among commercial banks in Kenya. International Journal of Economics, Commerce and Management, 5 (5), 95-111
- **Musumba, G. W**., & Wario, R. D. (2017, September). Towards Group Fuzzy Analytical Hierarchy Process. In *International Conference on Information and Communication Technology for Develoment for Africa* (pp. 283-307). Springer, Cham.
- **Musumba, G**., Kanyi, P., Nyongesa, H. and Wario, R. (2017). Techniques for evaluation and selection of partners for construction projects. Pan African Conference on Science, Computing and Telecommunication (PACT), July, 2017.
- **Musumba, G. W**., & Wario, R. (2017). Partner Performance Evaluation Problem for Construction Projects. Journal of Applied Sciences, Engineering and Technology for Development JASETD, Volume 2, Issue 1, 1-29.
- Nyongesa, H. O., **Musumba, G. W**., & Chileshe, N. (2017). Partner selection and performance evaluation framework for a construction-related virtual enterprise: a multi-agent systems approach. *Architectural Engineering and Design Management*, 1-21.
- **Musumba, G. W**., & Wamuyu, P. K. (2016). Virtual Enterprise as a Multi Agent System. *International Journal of Agent Technologies and Systems (IJATS)*, *8*(1), 46-68.
- **Musumba, G.W**., Nyongesa, H.O., Kanyi, P.W. and Kituku, B.N. (2016). Partner Selection and Evaluation Problem for Construction Projects. In Proceedings of the Second Chuka University International Research Conference 28th to 30th October, 2015
- Kituku, B. N., **George, M.**, and Wagacha, P. (2015). Kamba part of speech tagger using memory based approach. *International Journal on Natural Language Computing*, *4*(2).
- **Musumba, G. W**, Nyongesa, H. O and Kanyi, P. K (2014). Modelling Virtual Enterprises using Multi Agent Systems Approach. In Proceedings of the 1st International Conference on Science, Technology and Innovation, 4th-7th November, 2014. DeKUT, Kenya.
- **Musumba, G. W** and Nyongesa, H. O (2013). Context awareness in mobile computing: A review. International Journal of Machine Learning Applications, Vol. 2, Issue 1, No. 5. http://dx.doi.org/10.4102/ ijmla.v2i1.5
- **Musumba, G. W**, Oboko, R. O and Nyongesa, H. O (2013). Agent Based Adaptive E-Learning Model for Any Learning Management System. International Journal of Machine Learning Applications, Vol. 2, Issue 1, No. 6. http://dx.doi.org/10.4102/ ijmla.v2i1.6
- **Musumba G. W**, Oboko R.O and Opiyo E.T.O (2012). Agent Based Adaptive Learning Model for Intermittent Internet Connection Conditions. Journal of Continuing, Open and Distance Education.

Papers presented in Conferences, Seminars and Workshops

- Otieno B & **Musumba G**. (2019). Towards Fairness-Aware Classification Technique, Third Mechanism Design for Social Good workshop co-located with 20th ACM Economic Computation conference, Phoenix Convention Center, AZ, USA, June 24-28, 2019
- **Musumba G**. (2018). Towards an IT-Mediated Food Insecurity Solution for Developing Nations. Second Black in AI workshop co-located with Neural Information Systems Processing (NeurIPS) conference, Montreal Convention Center, CA, December 3-7, 2018
- **Musumba G**. & Otieno B. (2018). Towards Minimization of Food insecurity in Developing Nations: Block-Chain and Artificial Intelligence Opportunities in small-scale farming, Second Mechanism Design for Social Good workshop co-located with 19th ACM Economic Computation conference, Cornel University, Ithaca, USA, June 18-22, 2018
- **Musumba G**. (2017). *Modelling Virtual Enterprises Using a Multi-Agent Systems Approach,* First Black in AI workshop co-located with Neural Information Systems Processing (NIPS) conference, Long Beach Hotel, Carlifornia, USA, December 4-8, 2017

Awards, Scholarships and Recognitions

- Post-Doctoral Fellowship, University of the Free State, South Africa (2018-2019)

Other Academic and Professional Achievements

- Microsoft Certified Systems Engineer (MCSE)
- Microsoft Certified Systems Administrator (MCSA)
- Cloud Applications Developer Specialist
- Mobile Applications Developer Specialist

- Big Data Specialist

Research

- Enhancing Agricultural Production in Kenya through Deep Learning Meta- Architectures
- Use of Alternative Data from Small Scale Farmers to Develop Less Biased Risk Scoring Model
- Developing Fairness-Aware Classification Models for Mechanism Design for Social Good
- IT-Mediated Food Insecurity Solution for Developing Nations- Case of Kenya
- Towards Minimization of Food insecurity in Developing Nations: Block-Chain and Artificial Intelligence Opportunities in small-scale farming
- Developing Models for Virtual Enterprises Using a Multi-Agent Systems Approach: A case of Construction Industry

Postgraduate Thesis Supervision and Examination

1. Doctorate
   Benjamin Haggai Otieno, Application of Alternative Data from Small Scale Farmers for Less Biased Risk Scoring Model in Kakamega County, Kenya (Kibabii University)
2. Masters

- Jackson Kamiri Wambugu, A Meta Learning Model for Detection of Diabetic Retinopathy (Muranga, University of Technology, MUT, 2022)
- Bischorff Paul Ngumbau Kanuna, Modelling of Mobile Phone Adoption to Access Information within Banana Value Chain in Mathira Sub-county (Nyeri), Kenya, (Multimedia University, MMU, 2022)
- Hellen Wasike, A Tomato Plant Disease Classification Model Based on Convolutional Neural Network and Gray Level Co-Occurrence Matrix Techniques (Muranga, University of Technology, MUT, 2021)
- Kiamati Sonfred Mwenda, Assessment of Factors Influencing Online Educational Content Access: A Case of Students at Multimedia University (Multimedia University, MMU, 2022)
- Monica Mwashumbe Tangai, Assessing the Effectiveness of the use of Biometric Fingerprint Technology in Criminal Identifications, Kenya (DeKUT, 2020)
- Harison Kalimbo Dzombo, Crime Management Strategies and their Influence on Insecurity within Mukuru Kayaba slums, Nairobi county, Kenya (DeKUT, 2022)
- Kamande Regina Wairimu, Predictors of Computerised Financial Fraud Among Commercial Banks in Kenya (DeKUT, 2019)
- Irungu John Mwangi, Forensic Auditing and Curbing Fraud in Banking Industry: A Case of Kenya Commercial Bank (DeKUT, 2019)

Research Interests

Machine Learning, Multi Agent Systems, Cyber Security, Computer Forensics, Fuzzy Logic, Education Technology

SEARCH

≡ **Open Menu**

Dr. Juliet Chebet Moso

Designation: Lecturer
School/Institute: Computer Science and Information Technology
Department: Computer Science
Email: juliet.moso@dkut.ac.ke

Academic Background

Qualification	Institution	Year
PhD. Computer Science	Université de Reims Champagne-Ardenne	2022
MSc. Computer Science	University of Nairobi	2011
BSc. Computer Science	Egerton University	2007

Areas of Expertise

- Data Analytics
- Database Systems
- Artificial Intelligence
- Machine learning

Work Experience

- **May 2022 – To Date:** Director, Centre for Open, Distance and E-Learning, Dedan Kimathi University of Technology
- **November 2014 – To Date:** Lecturer, Dedan Kimathi University of Technology
- **February 2018 – January 2020:** Deputy Director, ICT Directorate, Dedan Kimathi University of Technology
- **May 2015 – April 2016:** Examination coordinator, Dedan Kimathi University of Technology
- **January 2014 – November 2014:** Audit Associate 1- Information Technology, Kenya National Audit Office
- **September 2011 – December 2013:** Analyst, Data Reporting, Bridge International Academies
- **July 2009 – February 2011:** MIS Executive, Essar Telecom-Aegis Services Kenya
- **June 2007 – June 2009:** Software Development Manager/Senior Systems Analyst, Amtech Technologies Limited

Other University and National Responsibilities

- Director Center for Open, Distance and eLearning

Publications

1. Books and Book Chapters
   - Our Hearts can fail us – Youth edition

2. Peer Reviewed Journal Publications
   - **Moso, J. C.**, Cormier, S., de Runz, C., Fouchal, H., & Wandeto, J. M. (2021,November). Anomaly Detection on Data Streams for Smart Agriculture. *Agriculture*, 11(11), pp.1083. https://doi.org/10.3390/agriculture11111083
   - Jonah. K. Kenei , **Juliet. C. Moso** , Elisha T. Opiyo Omullo , Robert Oboko . "Deep CNN with Residual Connections and Range Normalization for Clinical Text Classification." *Computer Science and Information Technology* 7.4 (2019) 111 – 127. doi: 10.13189/csit.2019.070402 http://repository.dkut.ac.ke:8080/xmlui/handle/123456789/965
   - Kenei, J., Opiyo, E. T. O., **Moso, J.** & Oboko, R. 2018, 'Clinical Documents Summarization using Text Visualization Technique', *International Journal of Computer and Information Technology,* Volume 07– Issue 04, July 2018, pp. 139-156. http://41.89.227.156:8080/xmlui/handle/123456789/767
   - **Moso, J.** & Kenei, J. 2018, 'Credit Card Fraud Detection Using Bayes Theorem', *International Journal of Computer and Information Technology,* Volume 07– Issue 04, July 2018, pp. 184-189. https://www.ijcit.com/archives/volume7/issue4/IJCIT070406.pdf
   - Musyoka, W. M. & **Moso, J.** 2018, 'Quality of Experience (QoE) Measurement and Its Challenges in Mobile Networks for Multimedia', *International Journal of Computer and Information Technology,* Volume 07– Issue 01, January 2018, pp. 39-44. http://repository.dkut.ac.ke:8080/xmlui/handle/123456789/4793

3. Publications in conference proceedings

- **Moso, J. C.**, Cormier, S., de Runz, C., Fouchal, H., & Wandeto, J. M. (2022, January). ELSCP pour la détection d'anomalies dans les flux de données issues de l'agriculture. In *Extraction et Gestion des Connaissances* 2022 (EGC 2022) (pp. 495-496). Editions RNTI. https://hal.archives-ouvertes.fr/hal-03610042/document
- **Moso, J. C.**, Cormier, S., Fouchal, H., de Runz, C., & Wandeto, J. (2021, June). Abnormal behaviour detection in farming stream data. In: Boumerdassi S., Ghogho M., Renault É. (eds) *International Conference on Smart and Sustainable Agriculture.* SSA 2021., *Communications in Computer and Information Science,* vol 1470, pp. 44-56. Springer, Cham. https://link.springer.com/chapter/10.1007/978-3-030-88259-4_4
- **Moso, J. C.**, Cormier, S., Fouchal, H., de Runz, C., Wandeto, J. M., & Aniss, H. (2021, June). Road Speed Signatures from C-ITS messages. In ICC 2021-IEEE *International Conference on Communications* (pp. 1-6). IEEE. https://ieeexplore.ieee.org/abstract/document/9500949
- **Moso, J. C.**, Cormier, S., Fouchal, H., de Runz, C., & Wandeto, J. (2020, December). Trajectory User Linking in C-ITS Data Analysis. In GLOBECOM 2020-2020 IEEE *Global Communications Conference* (pp. 1-6). IEEE. https://ieeexplore.ieee.org/abstract/document/9322253
- **Moso, J. C.**, Boutahala, R., Leblanc, B., Fouchal, H., de Runz, C., Cormier, S., & Wandeto, J. (2020, November). Anomaly Detection on Roads Using C-ITS Messages. In *International Workshop on Communication Technologies for Vehicles* (pp. 25-38). Springer, Cham. https://link.springer.com/chapter/10.1007/978-3-030-66030-7_3

Papers presented in Conferences, Seminars and Workshops

- ELSCP pour la détection d'anomalies dans les flux de données issues de l'agriculture.
- Abnormal behaviour detection in farming stream data.
- Road Speed Signatures from C-ITS messages.
- Trajectory User Linking in C-ITS Data Analysis.
- Anomaly Detection on Roads Using C-ITS Messages.

Research Interests

- Smart farming, Internet of Things, Intelligent Transportation Systems, Security and Privacy management

Department of Computer Science
Dedan Kimathi University of Technology

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Mr. Benson Kituku

Designation: Lecturer
School: Computer Science and Information Technology
Department: Computer Science
Email: benson.kituku@dkut.ac.ke

Academic Background

Qualification	Institution	Year
MSc. Computer Science	Nairobi University	2011
BSc. Computer Science and Engineering	Maseno University	2007

Areas of Expertise

- Artificial intelligence
- Computing theories
- Natural language processing

Work Experience

- **2016 – To Date:** Lecturer, Dedan kimathi University of Technology
- **2014 – 2020:** Chair of Department, Dedan kimathi University of Technology
- **2012 – 2016:** Assistant Lecturer, Dedan kimathi University of Technology

Other University and National Responsibilities

- **2007 – 2012:** Assistant Team leader- card production, maintainance, data capture departments

Social Responsibilities

- **2022:** Member of kaewa school board of management

Publications

1. Peer Reviewed Journal Publications
   - **Kituku, B.**, Nganga, W., & Muchemi, L. (2021). Grammar Engineering for the Ekegusii Language in Grammatical Framework. European Journal of Engineering and Technology Research, 6(3), 20-29.
   - **Kituku, B.** (2019). Grammar engineering for Swahili. International Journal of Computer and Information Technology, 8(06).
   - **Kituku, B.**, Nganga, W., & Muchemi, L. (2019). Towards Kikamba computational grammar. Journal of Data Analysis and Information Processing, 7(04), 250.
   - **Kituku, B.**, Muchemi, L., & Nganga, W. (2016). Framework for Many to One Machine Translation. International Journal of Advanced Research in Computer Science and Software Engineering vol 6(5).
   - **Kituku, B.**, Muchemi, L., & Nganga, W. (2016). A review on machine translation approaches. Indonesian Journal of Electrical Engineering and Computer Science, 1(1), 182-190.
   - **B. Kituku.** G, Musumba. P Wagacha 2015. KAMBA PART OF SPEECH TAGGER USING MEMORY BASED APPROACH.

2. Publications in conference proceedings

- **B.Kituku**, P.Wagacha, G.Pauw 2011,In proceeding of Human language technology development conference, A Memory based approach to kikamba Name entity recognition pg 106-111,Alexandrina, Egypt.
- **Kituku, B.**, Nganga, W., & Muchemi, L. (2021, November). Leveraging on Cross Linguistic Similarities to Reduce Grammar Development Effort for the Under-Resourced Languages: a Case of Kenyan Bantu Languages. In 2021 International Conference on Information and Communication Technology for Development for Africa (ICT4DA) (pp. 83-88). IEEE.
- **B. Kituku**, P.Wagacha.W.Nganga 2014, in proceeding of 1st African Nazarene University conference, Kamba part of speech tagger, international journal of natural language computing 4(2).

Research Interests

- Artificial intelligence, computing theories and natural language processing

SEARCH

Department of Computer Science
Dedan Kimathi University of Technology

Mr. Michael Kagiri

Designation: Assistant Lecturer
Contact: 0715998222
School/Institute: Computer Science and It
Department: Computer Science
Email: michael.kagiri@dkut.ac.ke

Academic Background

Qualification	Institution	Year
PhD. in Information Systems	University of Nairobi	Ongoing
MSc. in Applied Computing	University of Nairobi	2014
BSc. in Computer Science	Maseno University	2011

Professional Qualifications

Qualification	Institution	Year
A+	Institute of Advanced Technology	2012
ITIL	Institute of Advanced Technology	2012
Microsoft Exchange 2010	Institute of Advanced Technology	2012
ICDL	Institute of Advanced Technology	2012

Work Experience

- **2015 – Present:** Assistant Lecturer – Dedan Kimathi University of Technology
- **2012 – 2014:** Technical Trainer – Institute Of Advanced Technology

Other University and National Responsibilities

- Workload Development Committee Chairman for the University

Social Responsibilities

- Career mentorship

Publications

- Enhancing Community Based Health Information System (CBHIS) Reporting Through Open-Source Short Message Service-Based Tool (Vol. 3 No. 4 April 2015)- International Journal of Education and Research (IJERN). http://www.ijern.com/journal/2015/April-2015/40.pdf

Research

1. Research funding
   1. Kenya Dynamic Health Costing Model **BY** GIZ **IN** 2016 – **AMOUNT** KSH 7.5M
   2. AfyaPro – Mobile Obstetric Monitoring (MOM) Integrated Digital Health Solution Pilot Implementation Study in Kiambu County, Kenya. **BY** Philips Foundation **YEAR** 2021-2022 **AMOUNT** KSH 1.7M

Research Interests

- ICT4D in Health, Agriculture, Education

SEARCH

Department of Computer Science
Dedan Kimathi University of Technology

☰ Open Menu

Mr. David Opondo

Designation: Assistant Lecturer
Contact: 0723519740
School/Institute: Computer Science and IT
Department: Computer Science
Email: david.opondo@dkut.ac.ke

Academic Background

Qualification	Institution	Year

| MSc. Computer Science | University of Nairobi | 2011 |
| BSc. Computer Science | Egerton University | 2005 |

Areas of Expertise

- Artificial intelligence
- Machine Learning

Work Experience

- **2012 – To Date:** Assistant Lecturer, Dedan Kimathi University of Technology
- **2011 – 2012:** Assistant Lecturer, Mount Kenya University
- **2005 – 2009:** Tutor, Augustana College

Other University and National Responsibilities

- Departmental Examinations Coordinator
- Departmental Timetabler
- University Timetable Coordinator

Social Responsibilities

- Crowd Control Officer – Winners Chapel International, Nairobi

Papers presented in Conferences, Seminars and Workshops

- Oriedi et al (2020) **Influence maximization through user interaction modelling,** ACM Digital Library
- D. Oriedi, H. Nyongesa and G. Musumba, "Influence Maximization: Incorporating Homophily and Topological Overlap," *2021 International Conference on Electrical, Computer and Energy Technologies (ICECET)*, 2021, pp. 1-6, doi: 10.1109/ICECET52533.2021.9698454.
- D. Oriedi and G. Musumba "Modeling Online User Relationships: A Review ", 2022 4th International Conference on Advances in Computer Technology, Information Science and Communications (CTISC 2022), Sozhoum China
- D. Oriedi and G. Musumba "Social Network Influence: Making the Case for Semantic Analysis" 2022 International Conference on Advances on Electrical, Computer and Energy Technologies (ICECET 2022), Czech Republic – publication in progress

Any other talent that could contribute to the University agenda

- Counselling to Youths

SEARCH

Mr. Patrick G. Naivasha

Designation: Assistant Lecturer
School/Institute: Computer Science and IT
Department: Computer Science
Email: patrick.naivasha@dkut.ac.ke

Academic Background

Qualification	Institution	Year
MSc. Computer Science	University of Nairobi	2011
BSc. Computer Science	Egerton University	2001

Areas of Expertise

- Computer Networking and Security

Work Experience

- **2010 May – To Date:** Assistant Lecturer, Dedan Kimathi University of Technology
- **2005 Aug – 2010 April:** Inoorero Univesity

Research

1. Ongoing/Completed Researches
   - Currently a PHD Student

Research Interests

- Machine Learning application in Computer Security and Stock Markets

SEARCH

Department of Computer Science
Dedan Kimathi University of Technology

☰ Open Menu

Mr. Morris Kaburu

Designation: Assistant Lecturer
Contact: 0727647613
School/Institute: Computer Science and Information Technology
Department: Computer Science
Email: morris.kaburu@dkut.ac.ke

Academic Background

Qualification	Institution	Year
PhD. Computer Science	Dedan Kimathi University of Technology	Ongoing
MSc. Computational Intelligence	University of Nairobi	2015
BSc. Computer Science	Dedan Kimathi University of Technology	2013

Areas of Expertise

- Embedded Systems
- Machine Learning

Work Experience

- Assistant Lecturer

Other University and National Responsibilities

- Attachment Coordinator

Social Responsibilities

- Development of Church Softwares
- Initiating of Football Tournament in the Community

SEARCH