



*Inspiring Innovation and Leadership*

## **KARATINA UNIVERSITY**



**Name:** Dr. Gilbert Barasa Mugeni

### **Employment details**

School: Computing and Informatics

Department: Computing

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**Biography**

Dr. Gilbert Barasa Mugeni is a Commonwealth Professional Scholarship fellow and Senior Lecturer in the School of Computing and Informatics, Department of Informatics and Innovation. He is the immediate past Director, ICT at Karatina University. Prior to this, Dr. Mugeni, worked at the Communications Authority of Kenya for over 30years. He is the immediate former Deputy Director for Compliance and Enforcement, a position which he held until early retirement effective 1<sup>st</sup> February, 2025. Previously, he was Deputy Director in charge of Research, Innovation & Knowledge Management, and earlier on, the Manager in charge of the Data and Documentation Division in the Frequency Spectrum at the Authority from 2014 until 2018 at the Authority.

His total research funding and grants portfolio stands at over Ksh.100 Million as detailed in the CV with research interests in the application of emerging ICT4D including Artificial Intelligence, Cloud Computing, Big Data Analytics, Internet of Things, and Regulatory approaches to support innovation such as regulatory sandboxes among others. He has researched extensively in ICTs and published/co-published a Secondary School Textbook on Computer Studies and 17 journal articles in internationally referenced journals.

He has over Ten (10) years teaching experience on part-time basis at Undergraduate, Masters and PhD level at United States International University, Africa, Masinde Muliro University of Science and Technology, and Kibabii University respectively. He has successfully supervised & graduated Three PhD candidates and two Masters students in Computer Science and IT.

**Academic Qualifications**

1. 2010-2013 Ph.D Information Technology, Masinde Muliro University of Science and Technology
2. 2003-2007 Master of Science (Computer Applications), Kenyatta University
3. 1998-1999 Higher Diploma in Electrical and Electronics Engineering, The Kenya Polytechnic
4. 1988-1990 KNEC Telecommunications Engineering Technician Parts I, II and Part III (Advanced Radio Communication)

**Professional Qualifications**

1. Member-Institution of Electrical and Electronic Engineers (IEEE) Worldwide (USA), Member No. 90247114, Since 2014
2. Member- Member-Association of Computing Machinery (ACM), (USA) Member No. 1349516 since 2014

**External Links/Affiliations**

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## Journal publications

1. Mr Leonard Mabele, Strathmore University; Mr Joseph Sevilla, Strathmore University; Mr Gilbert Mugeni, Communications Authority of Kenya; Mr Dennis Sonoia, Communications Authority of Kenya; Mr Edward Wasige, University of Glasgow; Mr Kennedy Ronoh, Technical University of Kenya, (Nov, 2022): Rebuilding digital inclusion for the rural counties of Kenya, in "Build back better with broadband: Research stories from the front line", International Telecommunications Union (ITU). Available at [https://www.itu.int/dms\\_pub/itu-d/opb/tnd/D-TND-08-2022-PDF-E.pdf](https://www.itu.int/dms_pub/itu-d/opb/tnd/D-TND-08-2022-PDF-E.pdf)
2. Mugeni, G. B., et al. (2020). Determinants for the Adoption of Internet of Things (IoT) for Flood and Drought Disaster Management in Kenya. *ISJ Theoretical & Applied Science*, 09 (89), 342-354. SoI: <http://s-o-i.org/1.1/TAS-09-89-43>
3. Ocen, G. G., Mutua, M. S., Mugeni, G. B., Karume, S., & Matovu, D. (2019). An Algorithm and Process Flow Model for the extraction of Digital Forensic Evidence in Android Devices. *ISJ Theoretical & Applied Science*, 04 (72), 1-10. SoI: <http://s-o-i.org/1.1/TAS-04-72-1> Doi: <https://dx.doi.org/10.15863/TAS>
4. RONO, Walter Kiptum; MUGENI, Dr. Gilbert (2019) . An Analysis of the Effects of Over the Top Services On Pay Tv Services In Kenya. *International Journal of Technology and Systems*, [S.l.], v. 4, n. 1, p. 34 - 46, Apr. 2019. Available at: <https://www.iprjb.org/journals/index.php/IJTS/article/view/863>. ISSN 2518- 881X (online) Vol.4, Issue 3, pp 34-46, 2019 [www.iprjb.org](http://www.iprjb.org)
5. Davis Matovu, Mugeni Gilbert B., Karume Simon, Mutua Stephen, Gilbert Gilibrays Ocen (2019). The Internet of Things: applications and security metrics with the Ugandan perspective. *International Journal of Advance Research, Ideas and Innovations in Technology*, 5(2) [www.IJARIT.com](http://www.IJARIT.com).
6. Ocen, G. G., Stephen, M., Gilbert, M., Samuel, K. & Davis, M. (2019) A Metric for the Specification of a Consistent Digital Forensic Evidence Extraction Process Model in Mobile Devices. *International Journal of Science and Engineering Investigations (IJSEI)*, 8(88),88-93. available at <http://www.ijsei.com/papers/ijsei-88819-16.pdf>
7. Kiget N., Karume S., & Mugeni G. B (2017b). Grid Computing: Distributed Computing Paradigm for Collaborative Research. *International Journal of Innovative Research and Knowledge* Volume 2 Issue 7, July 2017 ISSN: 2213-1356
8. Kiget, K. N., Karume, S. & Mugeni, G.B (2017). Grid Computing Adoptability Model for Collaborative Research in Universities .*International Journal of Emerging Technologies in Engineering Research (IJETER)*, Vol.5, Issue 7, July 2017. ISSN: 2454-6410, EverScience
9. Ocen, G. G., Mugeni, G.B., Matovu, D. (2016). Role of ICT in Disaster Response and Management: A Review Study of ICT Challenges and Adoption Approaches by Developing Nations, *International Journal of Advanced Research in Computer Science and Software Engineering*, Volume 6, Issue 5, May 2016 ISSN: 2277 128X, [www.ijarcsse.com](http://www.ijarcsse.com)
10. Mugeni , G.B., (2015). The Cloud Adoption Dilemma for Developing Countries: Key Challenges and Directions, *International Journal of Advanced Research in Computer Science and Software Engineering (IJARCSSE)*. [http://www.ijarcsse.com/docs/papers/Volume\\_5/3\\_March2015](http://www.ijarcsse.com/docs/papers/Volume_5/3_March2015), pp.31-35
11. Khanda, Z. J., Mugeni, G.B & Waliaro, M.A. (2015). Evaluating Factors Determining Mobile Payment Adoption in Kenyan Secondary Schools, *Journal of Emerging Trends in Computing and Information Sciences*, Vol. 6, No. 10, October 2015, pp. 598-604
12. Kiget K. N., Mugeni , G.B., (2014). Is it time for the Philosophy of ICT? *International Journal of Information and Communication Technology Research*, Vol. 4, No. 8, pp.299-303
13. Mugeni, G.B., Wanyembi, G.W., & Wafula, J.M. (2012d) .Evaluating Factors Affecting Broadband Intensity in Kenya. *International Journal of Information and Communication Technology Research*, Vol. 2, No. 10, pp.769-778.

14. 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
15. 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
16. 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
17. Mugeni, G.B. (2012). Broadband Assessment Index. A framework and Composite Metric for Measuring Broadband in Developing Countries. *International Journal of Information and Communication Technology Research*, Vol. 2, No. 11, pp. 850-861