



# UNIVERSITY OF EMBU

## DR. DAVID MUCHANGI MUGO

**Name:** Dr. David Muchangi Mugo

**Title/Qualification:** Ph.D (Information Systems), MSc (Computer Science), MBA (Technology Management), BSc (Computer Science), CCNA Instructor, IBM Certified Artificial Intelligence Analyst, IBM Certified Big Data Engineer, IBM Certified Cloud Application Developer, ISO 27001:2013 auditor, ISO 9001: 2015 auditor

**Position:** Lecturer and Chairman

**Department:** Computing and Information Technology (CIT)

**School:** Pure and Applied Sciences

**Area of Specialization:** Information Systems

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### **Short Biography**

Dr. David Muchangi Mugo, a Kenyan Citizen, is a PhD holder of Information Systems from Kenyatta University, Kenya. He has a Master's of Science (MSc) Degree in Computer Science from Technical University of Hamburg, Germany and a Masters of Business Administration (MBA) where he specialized in Technology Management from Northern Institute of Technology Management, Hamburg, Germany. He graduated with a first class honours degree of Bachelor of Science in Computer Science from Kenyatta University.



Professionally, Dr. David Mugo is a certified IBM Big Data Engineer, certified IBM Cloud Developer and also an IBM certified Artificial Intelligence Analyst. Dr. David Mugo has been a lecturer for more than ten years and is currently lecturing at the University of Embu, Kenya. Additionally, he is the current Chairman, Department of Computing and Information Technology (MCIT), University of Embu. Further, he is the coordinator, Website and Electronic Repository at the University where he has propelled the University towards higher Universities' Webometrics Ranking.

Dr. David Mugo is actively engaged in community empowerment efforts. He serves as a Chairman of St. John Chrysostom Muvandori Mixed Secondary School and Vice Chairman of St Alphonse Mixed Secondary School. He also holds various leadership positions in Catholic Church both at the Parish Level as well as at the Diocese Level. He has been a great motivational speaker in a number of secondary and primary schools in order to mold future leaders, professionals and academicians. He is a married man and a father of two boys.

### **Research Interests**

Electronic health, mobile health, mobile computing, electronic commerce and mobile commerce

### **Publications in Journals**

- 2020:** Nzyoka Bernard, Mugo David and Ng'ang'a Stephen (2020). Medical Device Integration with Electronic Health Records: A Case Study of University of Nairobi Health Services, Kenya. *International Journal of Computers & Technology*, 20, 14-21.
- 2019:** Mugo David, Muathe Stephen and Waithaka Stephen (2019). Effect of Mobile Banking Services on Financial Performance of Deposit-Taking Cooperative Societies in Kenya. *Journal of Business and Technology*, Vol. 3(1), pp. 20-32
- 2019:** Mugo David, Muathe Stephen and Waithaka Stephen (2019). Performance Analysis of Debit Card Services on Deposit-Taking SACCOs' Financial Performance: A Case of Kenya. *The African Journal of*

*Information Systems, Vol. 12, No. 2, pp. 117-132*

- 2018:** **Mugo David, Muathe Stephen and Waithaka Stephen (2018).** Effect of mobile communication services on performance of SACCOs in Kenya. *European Scientific Journal, Vol.14, No.30 ISSN: 1857 – 7881 (Print) e - ISSN 1857- 7431*
- 2017:** **Mugo David, Muathe Stephen and Waithaka Stephen (2017).** Moderating Effect of Government Policies on the Relationship between Mobile Technology Services and Performance of Deposit-Taking Saccos in Kenya. *International Journal of Scientific Engineering and Technology, Volume No.6 Issue No.2, pp: 71-74*
- 2014:** **Mugo David** and Nzuki David (2014). Determinants of Electronic Health in Developing Countries. *International Journal of Arts and Commerce, Vol. 3 No. 3*
- 2010:** **Mugo David** (2010). *Connecting people using Latent Semantic Analysis for Knowledge Sharing. Master Thesis. The paper is available online at: <http://www.sts.tu-harburg.de/pw-and-m-theses/papers.html>*
- 2009:** **Mugo David** (2010). *An investigation of the Latent Semantic Analysis Technique for Document Retrieval. Studentarbeit (Student Project). The paper is available online at: <http://www.sts.tu-harburg.de/pw-and-m-theses/papers.html>*

#### **Presentation of Papers at Academic and Professional Conferences**

- 6<sup>th</sup> – 9<sup>th</sup> January 2020** **Mugo David (2020).** Transforming savings and credit cooperatives societies in Kenya using mobile technology services. *The 2020 Special Joint Conference of the Academy of International Business-Africa and the Academy of International Business- US North East Chapters. USIU*

- 24<sup>th</sup> – 26<sup>th</sup> April 2019** **Mugo David (2018).** A service oriented architecture approach for implementing an omnichannel personal health record system. *The 2<sup>nd</sup> Annual International Conference*. Machakos University
- 17<sup>th</sup>- 19<sup>th</sup> October 2018** **Mugo David (2018).** Transforming Small and Medium Enterprises in Kenya using Mobile Technology Services. *International Conference on Accounting, Finance and Information Technology (ICAFIT 2018)*, KCA University
- 26<sup>th</sup> – 27<sup>th</sup> March 2018** **Mugo David, Muathe Stephen and Waithaka Stephen (2018).** Effect of debit card services on financial performance of Deposit-Taking SACCOs in Kenya. *2<sup>nd</sup> Annual Conference on Innovations for Sustainable Co-operative Development*, Co-operative University of Kenya, Nairobi
- 1<sup>st</sup> -3<sup>rd</sup> November 2017:** **Mugo David, Muathe Stephen and Waithaka Stephen (2017).** Effect of mobile communication services on performance of Deposit-Taking SACCOs in Kenya. *The 3<sup>rd</sup> International Conference on Science, Technology, Innovation and Entrepreneurship*, Dedan Kimathi University of Technology
- 1<sup>st</sup> – 4<sup>th</sup> August 2017:** **Mugo David, Muathe Stephen and Waithaka Stephen (2017).** Effect of Mobile Web Services on Performance of Deposit-Taking SACCOs in Kenya. *The 4<sup>th</sup> International Interdisciplinary Conference (IIC4 2017)*, Kyambogo University, Kampala Uganda
- 27<sup>th</sup> – 28<sup>th</sup> March 2017:** **Mugo David, Muathe Stephen and Waithaka Stephen (2017).** Effect of mobile banking services on financial performance of Deposit-Taking cooperative societies in Kenya. *International Conference on Entrepreneurship, Business and Technology (ICEBUT)*, Accra, Ghana
- 2<sup>nd</sup> December 2016:** **Mugo David (2017).** Mobile Technology Services and Performance

of Deposit-Taking SACCOs. *Postgraduate Seminar held at Kenyatta University, Nairobi, Kenya.*

### **Supervision of Student/On-going Research**

<b>S/NO</b>	<b>Student Name</b>	<b>Thesis/Project Title</b>	<b>University</b>	<b>Status</b>
<i>PhD Students</i>				
1.	Jeniffer Jepkoech	Encapsulation with convolutional neural networks for coffee leaf disease classification	University of Embu	Data Collection
<i>MSc Students</i>				
2.	Lilian Mutahi	Financial Innovation and Performance of SMEs in Embu County	University of Embu	Proposal Stage
3.	Waweru Loise Wanjiru	Using CAPSNET-SVM model to improve accuracy in tomato leaf disease classification	University of Embu	Proposal Stage
4.	Edwin Kiprono Serem	Protecting institutions of higher learning in Kenya: a scalable hybrid decoy framework against cyber threats	University of Embu	Data collection