

Dr Ratemo Makiya Cyprian
BSc CS&T, MSc QRS, MPhil IS-IT, PhD IT



Personal Details |

Official Address	P. O. Box 408-040200, Kisii	Personal Address	P. O. Box 1991-040200, Kisii
Personal e-mail	mcratemo@gmail.com	Official e-mail	ratemo.cyprian@mnu.ac.ke
Nationality	Kenyan	Date of Birth	February 10, 1983
Gender	Male	Marital Status	Married

University Education |

- PhD IT** **Doctor of Philosophy in Information Technology**
Kibabii University, December 2017

Thesis: Improvement of the DeLone and McLean's Information System Success Models to Focus on Mobile Instant Messaging in Public Universities in Kenya
- Msc QRM** **Master of Science in Quantitative Research Methods**
Maseno University, December 2014

Project: Sustainable use of Computer-Based Business Intelligence Tools in the Soft Drinks Industry
- MPhil IT** **Master of Philosophy in Information Sciences (Information Technology)**
Moi University, December 2011

Thesis: Adoption and Use of Enterprise Reporting Systems at Kisii Bottlers Limited
- Bsc CS&E** **Bachelor of Science in Computer Science and Engineering**
Maseno University, December 2006

Classification: Second Class Honors Upper Division

Current Employment |

A. Ag. Dean - SPAS/Chairperson - Computer Science and IT

Mama Ngina University College - A Constituent College of Kenyatta University
August 2023 -To Date

Leading research, teaching of various postgraduate and undergraduate programs in the Department of Computing and Information Technology and School of Pure and Applied Sciences

B. Senior Lecturer - Department of Computing & Information Technology

Mama Ngina University College - A Constituent College of Kenyatta University
August 2023 -To Date

Research, teaching and examining various postgraduate and undergraduate units in the department of Computing and Information Technology.

C. Chairperson - ERP Contract Implementation Committee

Mama Ngina University College - A Constituent College of Kenyatta University
September 2023 -To Date

Leading implementation of the ERP at Mama Ngina University College and reporting the progress to the Principal of the University College.

Past Work Experience |

A. Director, ICT - Directorate of ICT

Karatina University
December 2022 - August 2023

Directing establishment, institutionalization and provision of ICT services to all internal and external stakeholders of the University.

B. Senior Lecturer - Computer Science & Information Technology

Karatina University
November 2022 - August 2023

Research, teaching and examining various postgraduate and undergraduate units in the department of Computing and Informatics.

C. Ag. Director, Open Distance & E-Learning

Karatina University
December 2022 -To February 2023

Establishing ICT resources for teaching and research and directing integration of the ICT across the University.

D. Director, E-Learning

Kisii University
March 2019 - November 2022

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Establishing and directing implementation of eLearning in the University. Integrating emergent technologies in teaching and learning in the University

E. Lecturer - School of Information Science and Technology

Kisii University
February 2019 - November 2022

Research, teaching and examining various postgraduate and undergraduate units under the following programs offered by the School of Information Science and Technology.

F. Member - Board of School of Graduate Studies

Maseno University
January 2018 - To March 2019

Represent the School of Computing and Informatics in the School of Graduate Studies board. Carrying out duties assigned by the Board of Graduate Studies in regard to postgraduate training in the university

G. Chair - Departmental Postgraduate Studies Committee

Maseno University
March 2017 - To March 2019

Spearheading postgraduate training in the department of Information Technology. Promoting a culture of research, publications and consultancy amongst members of academic staff in the department.

H. Lecturer - School of Computing and Informatics

Maseno University
December 2017 - To March 2019

Research, teaching and examining various postgraduate and undergraduate units under the following programs offered by the School of Computing and Informatics.

I. CCNA Instructor - School of Computing and Informatics

Maseno University
September 2009 - To March 2019

Teaching and examining the following CCNA courses offered by the School of Computing and Informatics; IT Essentials - PC Hardware and Software, CCNA I - Network Fundamentals, CCNA II - Routing Protocols and Concepts, CCNA III - LAN Switching and Wireless, CCNA IV - Accessing the WAN

J. Campus Program Coordinator

Maseno University
April 2015 - December 2016

Performing duties on behalf of the Dean in regard to programs offered by the School of Computing and Informatics and other duties assigned by the Directors of campuses.

K. Performance Contracting Representative - Kisumu City Campus

Maseno University
April 2015 - December 2016

Providing leadership in the execution of performance contract between the Principal Kisumu City Campus and The Vice Chancellor Maseno University. Regular review of items of the contract for the specific units under Kisumu City Campus

L. Tutorial Fellow - School of Computing and Informatics

Maseno University
March 2012 - December 2017

Teaching and examining units under the programs, offered by the school of computing and informatics.

M. School Coordinator - Industrial Attachment and Field Trips

Maseno University
March 2012 - April 2015

Planning and overseeing academic field trip visits, Planning and managing industrial attachment exercises and Initiating and maintaining linkages with the ICT industry

N. Computer Laboratory Demonstrator

Maseno University
September 2008 - March 2012

Tutoring in the computer laboratories, and assisting in the preparation and revision of laboratory training manuals for laboratory-based courses ii. Assisting in conducting lectures and assessments for lab-related courses

O. Part-time Lecturer

Jomo Kenyatta University of Agriculture and Technology
May 2010 - September 2014

Teaching and examining courses in the Master of Science in Computer Systems, Bachelor Science in Information Technology, Bachelor of Business Information Technology and Diploma in Information Technology

P. Business Intelligence Analyst

G7 Systems Kenya Limited
January 2007 - August 2008

Standards development for reports using Actuate and BIRT reporting tools, projects co-ordination and computer maintenance (network infrastructure, computer hardware and software)

Q. Data Analyst

G7 Systems Kenya Limited
October 2006 - January 2007

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Enterprise Reporting using Actuate, database Systems design and management, network installation and maintenance, computer hardware and software installation and maintenance

R. Network Installation Coordinator

Viafrica Foundation

January 2005 - December 2005

Co-ordination of assembly of computers, co-ordination of installation of computer networks at selected secondary schools in Kisii region.

S. Network Installation Coordinator

Cardinal Otunga High School Mosoch

December 2005 - January 2006

Review of backbone network infrastructure and reconfiguration for sharing of computing resources.

T. Attachee,

Kisii Bottlers Coca-Cola Limited

January 2006 - April 2006

Network infrastructure, computer hardware/software maintenance and requirements definition for Cooler Management System.

U. Academic Affairs Director - Students Governing Council

Maseno University

June 2004 - April 2005

Representing students on academic affairs at the Students Governing Council and member of the students' magazine editorial team.

V. Computer Technician and Graphics Designer - Shirikisho Magazine

CMM Brothers

January 2000 - December 2002

ICT Trainer, computer hardware maintenance, publication of the congregation's Magazines

W. Computer Technician and Instructor

St. Patrick's Secondary School

January 2000 - December 2002

Installation and maintenance of computer hardware/software and teaching Computer Studies and Physics

Published Work in Peer-Reviewed Journals

1. Ouma, G. O., Okanda, P., Awuor, F. M., & Makiya, C. R. Adopting Digital Solutions for Large Scale Surveillance of Crop Pests and Diseases in Developing Countries—A Review. *Modern Sciences Journal*, 12(2). <https://journals.modernsciences.org/index.php/msj/article/view/37/36>
2. Josiah M. M., Samuel M., Makiya C. R. Record Management Practices and Service Delivery in Devolved System of Governance of Mavoko Sub-County, Machakos County Kenya. *International Journal of Research and Innovation in Social Science (IJRISS)*. ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VII Issue XI November 2023. <https://www.rsisinternational.org/journals/ijriss/Digital-Library/volume-7-issue-11/152-166.pdf>
3. OUKOH B., Ronald T., Makiya, C. R . Smart-Contract Based Framework for Online Pharmacy Product Anti-counterfeiting. *International Journal of Computer Applications Technology and Research*. Volume 12-Issue 10, 18 - 23, 2023, ISSN:-2319-8656. DOI:10.7753/IJCATR1210.1003. <https://ijcat.com/archieve/volume12/issue10/ijcatr12101003.pdf>
4. Orucho, D. O., Awuor, F. M., Makiya, R., & Oduor, C. (2023). Security threats affecting user-data on transit in mobile banking applications: A review. *International Journal of Computer Engineering Research*. Vol. 9(1), pp. 1-11, July-December, 2023 DOI: 10.5897/IJCER2023.0304 Article Number: 0B513B771288 ISSN: 2141-6494. <https://academicjournals.org/journal/IJCER/article-full-text-pdf/0B513B771288>
5. Orucho, D. O., Awuor, F. M., Makiya, R., & Oduor, C. (2023). Review of Algorithms for Securing Data Transmission in Mobile Banking. *Modern Economy*, 14, 1192-1217. https://www.scirp.org/pdf/me_2023091416414423.pdf
6. Ouma, G. O., Okanda, P., Awuor, F. M., & Makiya, C. R. (2023). Leveraging Mobile Phones in Crop Pests and Disease Surveillance - Perspectives of Farmers in Kenya. *Corpus Publishers. Archives of Agriculture Research and Technology (AART)*. ISSN: 2832-8639 Volume 4 Issue 2, 2023. <https://www.corpuspublishers.com/assets/articles/aart-v4-23-1051.pdf>
7. Orucho , D. O., Awuor , F. M., Makiya , R., & Oduor , C. (2023). An Enhanced Data Transmission in Mobile Banking Using LSB-AES Algorithm. *Asian Journal of Research in Computer Science*, 16(1), 43-56. <https://doi.org/10.9734/ajrcos/2023/v16i1334> View of An Enhanced Data Transmission in Mobile Banking Using LSB-AES Algorithm (journalajrcos.com)
8. Koech Charles, Ratemo Makiya, Integrated Financial Management Information System in County Treasuries in Kenya: Empirical Analysis of the Implementation. *International Journal of Innovative Science and Research Technology* ISSN No:-2456-2165. Volume 8, Issue 5, May - 2023. <https://ijisrt.com/assets/upload/files/IJISRT23MAY925.pdf>
9. Richard Kayanga Nyakundi, Prof. Samuel Mbuguah, Dr. Ratemo Makiya. Determination of User Factor Requirements for Acceptable of Biometric Voter Registration Technology. *Journal of Computer Engineering and Information Technology*. Volume 11 • Issue 5 • 1000230, June 2022. <https://www.scitechnol.com/peer-review/determination-of-user-factor-requirements-for-acceptable-of-biometric-voter-registration-technology-4NnE.pdf>
10. Richard Kayanga Nyakundi, Prof. Samuel Mbuguah, Dr. Ratemo Makiya. A Model for Analyzing Usage Factors in Designing User Acceptance of Biometric Voter Registration Technology. *International Journal*

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- of Engineering and Applied Sciences (IJEAS) ISSN: 2394-3661, Volume-8, Issue-12, December 2021.
https://www.ijeas.org/download_data/IJEAS0812007.pdf
11. Nicholas. J. Omumbo, Titus. M. Muhambe, Cyprian M. Ratemo. Evaluation of Routing Performance using OSPF and Multi-Controller Based Network Architecture. International Journal of Computer Network and Information Security (IJCNIS), Vol.13, No.4, pp.45-61, 2021. DOI: 10.5815/ijcnis.2021.04.05. <http://www.mecs-press.org/ijcnis/ijcnis-v13-n4/IJCNIS-V13-N4-5.pdf>
 12. Oonge S. Omboga, Muhambe T. Mukisa & Ratemo M. Cyprian. A Bring Your Own Device Risk Assessment Model. International Journal of Security (IJS), Volume (12): Issue (2), ISSN: 1985-2320, <https://www.cscjournals.org/journals/IJS/description.php>.
 13. Musau Victor Vincent, Dr. Ratemo Makiya Cyprian, Pro. Felix Musau. A Usability Evaluation Framework for Web Based Learning Management Systems Used in Kenyan Universities. IJRST -International Journal for Innovative Research in Science & Technology| Volume 7 | Issue 3 | August 2020 ISSN (online): 23496010. <http://www.ijrst.org/articles/IJRSTV7I3018.pdf>.
 14. Gekara, M. M., Namande, B. W., & Makiya, C. R. (2021). INFORMATION LITERACY PRACTICES AS A TOOL FOR ACCESSING AND UTILIZING INFORMATION IN SECONDARY SCHOOLS IN KENYA. African Journal of Emerging Issues, 3(2), 39 - 61. <https://ajoeijournals.org/sys/index.php/ajoei/article/view/173>.
 15. Gekara M. M., Namande B. W & Makiya C. R (2021). Information Literacy Competencies in Secondary Schools in Kenya. Journal of Education. Volume 4 || Issue 1 || Page 51-75 || May || 2021|. ISSN: 26168383. <https://stratfordjournals.org/journals/index.php/journal-ofeducation/article/view/743/869>.
 16. Oonge, O. Samuel, Muhambe, T. Mukisa, Cyprian Ratemo Makiya. Adoption of Bring Your Own Device: Challenges and Risks in Higher Learning Institutions in Kenya. International Journal of Computer Applications Technology and Research. Volume 9-Issue 11, 303-310, 2020, ISSN:-2319-8656. <https://ijcat.com/archieve/volume9/issue11/ijcatr09111004.pdf>
 17. Cyprian Ratemo Makiya. Integration of Mobile Intelligent Tutoring Systems in Teaching Mathematics. International Research Journal of Engineering and Technology (IRJET). Volume: 07 Issue: 07 | July 2020. e-ISSN: 2395-0056 p-ISSN: 2395-0072. <https://irjet.net/archives/V7/i7/IRJET-V7I7931.pdf>
 18. Cyprian Ratemo Makiya. Technology Optimized Scavenging of Energy from Exercise Machines. International Research Journal of Engineering and Technology (IRJET). Volume: 07 Issue: 07 | July 2020 eISSN: 2395-0056 p-ISSN: 2395-0072. <https://irjet.net/archives/V7/i7/IRJET-V7I7932.pdf>
 19. Patrick Macharia Njoroge, James Ogalo, Cyprian Makiya Ratemo. A framework for Effective Information Security Risk Management in Kenyan Public Universities, International Journal of Social Sciences and Information Technology, ISSN 2412-0294 Vol V Issue VI, June 2019. <https://www.ijssit.com/main/wpcontent/uploads/2019/10/Framework-For-EffectiveInformationSecurity-Risk-Management-In-KenyanPublic-Universities.pdf>
 20. Belator Dinah, Naomi Mwai, Jotham M. Wasike, Ratemo MC. Assessment Of The Electronic Records Management Readiness at Kenya National Archives and Documentation Service (KNADS), Nairobi, Kenya. European Journal of Research and Reflection in Management Sciences Vol. 7 No. 4, 2019 ISSN 2056-5992. <http://www.idpublications.org/wp-content/uploads/2019/11/Full-Paper-ASSESSMENT-OF-THE->

21. Peter Opiyo Oketch, Dr. Titus Muhambe Mukisa, Dr. Cyprian Ratemo Makiya. An Evaluation of Hybrid Machine Learning Classifier Models for Identification of Terrorist Groups in the Aftermath of an Attack. *International Research Journal of Engineering and Technology (IRJET)*. Volume: 06 Issue: 09 | Sep 2019 eISSN: 2395-0056 p-ISSN: 2395-0072. <https://www.irjet.net/archives/V6/i9/IRJET-V6I9289.pdf>
22. Kamau HK, Okoyo HO, McOyowo SO, Ratemo MC. Techniques to Control Memory Hogging by Web Browsers: An in-Depth Review. *International Journal of Computer Applications Technology and Research* Volume 7-Issue 04, 185-192, 2018, ISSN:-2319-8656. <http://ijcat.com/archieve/volume7/issue4/ijcatr07041005.pdf>
23. Obare EO, Okoyo HO, Oginda M, Ratemo MC. The Main Components for Evaluating The Implementation Of Green ICT: A Case Of Kenyan Universities. *IOSR Journal of Computer Engineering (IOSR-JCE)* e-ISSN: 22780661,p-ISSN: 2278-8727, Volume 20, Issue 2, Ver. IV (Mar. - Apr. 2018), PP 19-29 www.iosrjournals.org <http://www.iosrjournals.org/iosr-jce/papers/Vol20issue2/Version4/D2002041929.pdf>
24. Obare EO, Okoyo HO, Oginda M, Ratemo MC. The Common Guidelines and Procedures for Evaluating the Implementation of Greening ICT and ICT for Greening: A Case of Kenyan Universities. *IOSR Journal of Computer Engineering (IOSR-JCE)* e-ISSN: 2278-0661,p-ISSN: 2278-8727, Volume 20, Issue 2, Ver. III (Mar. - Apr. 2018), PP 64-75 www.iosrjournals.org <http://www.iosrjournals.org/iosrjce/papers/Vol20issue2/Version-3/K2002036475.pdf>
25. Obare EO, Okoyo HO, Oginda M, Ratemo MC. External Factors In Evaluating The Implementation of Green ICT In Universities In Kenya. *IOSR Journal of Computer Engineering (IOSR-JCE)* e-ISSN: 22780661,p-ISSN: 2278-8727, Volume 20, Issue 2, Ver. I (Mar. - Apr. 2018), PP 54-62 www.iosrjournals.org <http://iosrjournals.org/iosr-jce/papers/Vol20-issue2/Version-1/G2002015462.pdf>
26. Ratemo MC, Anselemo PI, Elyjoy M 2016. The Challenges in the Use of Mobile Instant Messaging Systems in Universities and Way Forward. *IOSR Journal of Mobile Computing & Application (IOSR-JMCA)* e-ISSN: 23940050, P-ISSN: 2394-0042. Volume 3, Issue 5 (Sep. - Oct. 2016), PP 38-46 www.iosrjournals.org <http://www.iosrjournals.org/iosr-jmca/papers/Vol3-Issue5/Version-1/H03053846.pdf>
27. Ratemo MC, Anselemo PI, Elyjoy M 2016. A Mobile Instant Messaging Update to the DeLone and McLean Model of Information Success. *IOSR Journal of Mobile Computing & Application (IOSR-JMCA)* e-ISSN: 23940050, P-ISSN: 2394-0042. Volume 3, Issue 5 (Sep. - Oct. 2016), PP 47-54 www.iosrjournals.org <http://www.iosrjournals.org/iosr-jmca/papers/Vol3-Issue5/Version-1/I03054754.pdf>
28. Obare, EO, Okoyo HO, Oginda M, Ratemo MC. 2015. Towards Clean Information and Communication Technology in Public Universities in Kenya. *Maseno University Journal*. 1(1):262-271. <http://maseno.ac.ke/index/images/news2015/MASENO%20UNIVERSITY%20JOURNAL%20Volume%20%201Jan-2015-Final.pdf>
29. Ratemo MC, Obare EO 2015. Sustainable Use of Business Intelligence Tools at Kisii Bottlers (K) Limited. *Maseno University Journal*. 1(1):272-281 <http://maseno.ac.ke/index/images/news2015/MASENO%20UNIVERSITY%20JOURNAL%20Volume%20%201Jan-2015-Final.pdf>

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30. Ratemo MC, Obare EO, Kwama LO, Systematic Tracking of Key Performance Indicators for Enhanced Use of Enterprise Reports in the Soft Drinks Industry in Kenya, *IOSR Journal of Business and Management (IOSR-JBM)* e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 16, Issue 7. Ver. V (July. 2014), PP 93-100.
<http://www.iosrjournals.org/iosr-jbm/papers/Vol16-issue7/Version-5/K0167593100.pdf>
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Supervision of Postgraduate Students |

A. Doctor of Philosophy Students Supervised to Completion

1. Gekara M. M. School of Information Sciences and Technology, Kisii University.
Title: Information Literacy in Secondary Schools in Kenya.
2. Samuel Oonge. School of Computing and Informatics, Maseno University
Title: BOYD Integration framework for Institutions of Higher Learning in Kenya.
3. Richard Nyakundi. School of Computing and Informatics. A Model for Analyzing Usage Factors in Designing User Acceptance of Biometric Voter Registration Technology.

B. Masters Degree Students Supervised to Completion

1. Musau Victor Vincent. School of Information Sciences and Technology, Kisii University. Title: A Usability Evaluation Framework for Web Based Learning Management Systems Used in Kenyan Universities.
 2. Danvas Nyarango. School of Information Sciences and Technology, Kisii University. Title: Information Communication Technology and Performance of Secondary Schools in Kajiado County, Kenya.
 3. Salome Wandoe Mwanyungu, School of Information Sciences and Technology, Kisii University. Title: Records Management Practices for Enhanced Service Delivery at the Teachers Service Commission, Nairobi, Kenya.
 4. Belator, Dina Jepkeu, School of Information Sciences and Technology, Kisii University.
Title: E-readiness in the Management of the Electronic Records at the Kenya National Archives and Documentation Service, Nairobi.
 5. Rosemary Kanyua Miriti, School of Information Sciences and Technology, Kisii University.
Title: Effects of Records Management Practices on Service Delivery in Universities in Nakuru County, Kenya.
 6. Njoroge Patrick Macharia, **School of Information Sciences and Technology, Kisii University.**
Title: A framework for Effective Information Security Risk Management in Kenyan Public Universities.
 7. Peter Opiyo Oketch, School of Computing and Informatics, Maseno University.
Title: An Evaluation of Hybrid Machine Learning Classifier Algorithms for Identification of Terrorist Groups in Sub-Saharan Africa.
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Calls for Research Grants |

A. IEEE Connecting the Unconnected Challenge, August 2021

Submission of Proposal on ICT HUBS FOR EFFECTIVE INTERNET ACCESS IN POPULOUS AREAS.

B. Excellence in Africa - Call for Proposals for the Creation of a C-CoDE, July 2020

E-learning infrastructure expert and Participant in the call for expressions of interest in the creation of a Centre of Competence in Digital Education (C-CoDE) in the region.

C. Commonwealth of Learning - Proposal to Encourage Open Learning, July 2020

Digital Center for Strengthening and Supporting Teaching and Research in Secondary School Teachers in Kenya.

D. The National Research Fund (Multi-disciplinary and Multi-institution), February 2018

Principal Investigator of a Twenty-million research concept. Title: *Technology Optimized Scavenging of Green Energy from Exercise Machines.*

Professional Certifications |

A. Cisco Certified Network Associate (CCNA) Instructor

Jomo Kenyatta University of Agriculture and Technology, December 2010 Certifications

B. Cisco Certified Network Associate (CCNA)

Maseno University, Cisco Academy, December 2006 Certifications

C. Enterprise Reporting and Databases

G7 Systems Kenya Limited, October 2006 - December 2006 Certifications

Exhibitions |

A. The Regional Agricultural Society of Kenya Show, Kisumu

27th July 2016 - 31st July 2016 - Smart Kuku Incubator

B. National Council for Science, Innovation and Technology, KICC

16th May 2016 - 20th May 2016 - Smart Kuku Incubator

C. The Commission for Higher Education Exhibitions, CUEA

22nd, March 2010 - 27th March 2010 Smart Kuku Incubator

D. The Regional Agricultural Society of Kenya Show, Kisumu

2nd August 2006 - 5th, August 2006 Farm monitoring robot

E. The Commission for Higher Education Exhibitions, Nyeri

22nd, March 2010 - 27th March 2010 - Modern Electronic Voting Systems

A. Prof. Fred Mzee Awuor, PhD, PhD

Deputy Vice Chancellor, Planning Finance and Administration, Kisii University

Mobile: 0799214843

Postal Address: P.O. Box 408 - 40200, Kisii- Kenya

Email: fawuor@kisiiversity.ac.ke

B. Prof. Franklin Wabwoba

Founding Dean, School of Computing and Informatics, Kibabii University

Mobile: 0723844904

Address: P.O. Box 1699-50200, BUNGOMA - KENYA

Email: fwabwoba@kibu.ac.ke