



Mark E. M. Kimathi

Contact

mark.kimathi@mksu.
ac.ke
(+254) 707823927

Address

Machakos University
P.O. Box 136 - 90100
Machakos County

Date of Birth

25/04/1981

Marital Status

Married

Mark E.M. Kimathi^{1 2}

Mathematical Modeller

Overview Currently, I am an Associate Professor of Applied Mathematics at Machakos University. I have over 9-years' experience in mathematical modelling of dynamics of infectious diseases, fluid dynamics and vehicular traffic flow. Also, I am the thematic leader for the programme, M.Sc. in Mathematical Modeling and Computation, at Machakos University. My view of mathematics is twofold: firstly, as a means of describing/representing a real-world problem through modelling and secondly, as a way of obtaining effective solution(s) through accurate numerical approximation. In 2019, I spent three months as a Visiting Lecturer at the Nelson Mandela African Institution of Science and Technology (NM-AIST), Tanzania to impact knowledge of mathematical modelling with differential equations and numerical computations to postgraduate students in the School of Computational and Communication Sciences and Engineering (COCSE). In June, 2020 I was appointed to the National COVID-19 Modelling Technical Committee by the Director General of the Ministry of Health in Kenya, to provide modelling insights and consensus advisories to the National Task Force and Ministry of Health on COVID-19 transmission, spread and control. In 2021, I received a GeMVi Fellowship Grant from KEMRI-Wellcome Trust to research on optimal strategies of COVID-19 vaccination in Kenya, so as to curb the disease spread.

Education

2008 - 2012, Technische Universitaet Kaiserslautern, Germany

Doctor of Philosophy

Thesis Title: Mathematical Models for 3-Phase Traffic Flow Theory

2004 - 2006, Jomo Kenyatta University of Agriculture and Technology

Master of Science (Applied Mathematics)

Thesis Title: A Modified Macroscopic Traffic Flow Model to Enhance Traffic Flow.

1999 - 2003, Catholic University of Eastern Africa

Bachelor of Science in Mathematics

Classification: First Class Honors

Teaching and Research Experience

Apr 2023 – Present, Associate Professor, Machakos University

Teaching and Research Areas: Differential Equations, Advanced Calculus, Numerical Methods, Mathematical Modeling among others.

Sep 2017 – Apr 2023, Senior Lecturer, Machakos University

Teaching and Research Areas: Differential Equations, Advanced Calculus, Numerical Methods, Mathematical Modeling among others.

Oct 2016 – Aug 2017, Senior Lecturer, Technical University of Kenya

Teaching and Research Areas: Differential Equations, Advanced Calculus, Numerical Methods, Mathematical Modeling among others.

¹<https://orcid.org/0000-0002-5822-8687>

²<https://scholar.google.com/citations?user=R5Gfb1oAAAAJhl=en>



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Feb 2016 - Present, *Sessional Lecturer, Pan African University, Institute of Basic Sciences, Technology and Innovation, Kenya.*

Teaching and Research Areas: Computational Mathematics and Mathematical Modeling.

Aug 2013 – Oct 2016, *Lecturer, Technical University of Kenya*

Teaching and Research Areas: Differential Equations, Advanced Calculus, Numerical Methods, Mathematical Modeling among others.

May 2012 – Aug 2013, *Lecturer, Dedan Kimathi University of Technology*

Teaching Areas: Differential Equations, Advanced Calculus, and Vector Analysis among others.

Aug 2006 – May 2008, *Tutorial Fellow, Part-time, Jomo Kenyatta University of Agriculture and Technology*

Teaching Areas: Differential Equations, Advanced Calculus, and Vector Analysis among others.

Leadership Experience

Mar 2018 – Present, *Developer/Thematic Leader, Machakos University, Kenya*

Curriculum/Programme of Master of Science in Mathematical Modeling and Computation.

Sep 2018 – Sep 2021, *Dean of School, Machakos University, Kenya*

School of Pure and Applied Sciences.

Feb 2016 – Aug 2017, *Chair of Department, Technical University of Kenya*

Department of Industrial and Engineering Mathematics.

Dec 2013 – Feb 2016, *Chair of Department, Technical University of Kenya*

Department of Pure and Applied Mathematics.

Mar 2013 – Aug 2013, *Chair of Department, Dedan Kimathi University of Technology, Kenya*

Department of Mathematics and Physical Sciences.

May 2012 – Mar 2013, *Examination Coordinator, Dedan Kimathi University of Technology, Kenya*

Department of Mathematics and Physical Sciences.

Awards and Research Grants

May 2021, *NIH Grant Award R01MH124478, Centre for Health Analytics and Modelling (CHAM)-Strathmore University and School of Medicine -New York University, New York City*

Research Topic: - Can mental health services break the cycle perpetuating HIV hotspots in Sub-Saharan Africa?. **Role:** Researcher

Feb 2021, *GeMVi Research Fellowship, KEMRI-Wellcome Trust Research Programme*

Research Topic: - An Age-Structured COVID-19 with Optimal Control of Vaccination in Kenya. **Role:** Principal Investigator



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June 2019, 2018/19 Staff Exchange Program, Inter University Council of East Africa (IUCEA)

Institution: Nelson Mandela African Institute of Science and Technology, Arusha, Tanzania.

April 2008, DAAD scholarship for the PhD programme – Mathematics in Industry and Commerce, DAAD and TU Kaiserslautern

Research Area: Mathematical Models for Traffic Flow.

List of Publications

2022

1. Felician Habiyaremye, Mary Wainaina, **Mark E. M. Kimathi** (2022) The Effect of Strong Magnetic Field on Unsteady MHD Nanofluid Flow Through Convergent-Divergent Channel with Heat and Mass Transfer . *International Journal of Fluid Mechanics and Thermal Sciences*, Vol.8 Issue 3, Pages 41-52. doi: 10.11648/j.ijfmnts.20220803.11 ISSN: 2469-8105 (Print); ISSN: 2469-8113 (Online)
2. Felician Habiyaremye, **Mark E. M. Kimathi**, Mary Wainaina (2022) The Effect of Heat and Mass transfer on Unsteady MHD Nanofluid Flow Through Convergent-Divergent Channel. *International Journal of Fluid Mechanics and Thermal Sciences*, Vol.8 Issue 1, Pages 10-22. doi: 10.11648/j.ijfmnts.20220801.12 ISSN: 2469-8105 (Print); ISSN: 2469-8113 (Online)

2021

1. Purity Mberia, Stephen Karanja, **Mark Kimathi** (2021) Pressure-Velocity Coupling Schemes for Boundary Driven Flow in A Differentially Heated cavity Using FVM and Matlab, *Journal of Advances in Mathematics and Computer Science*, Volume 36, Issue 10, Pages 19-39, ISSN:2456-9968.
2. R.A. Mutegi, J. A. Okello, **M. Kimathi** (2021) Analysis of Effect of Inclined Magnetic Field on MHD Boundary Layer Flow over a Porous Exponentially Stretching Sheet Subject to Thermal Radiation, *Asian Research Journal of Mathematics*, Volume 17, Issue 9, Pages 20-33, ISSN:2456-477X.
3. Nelson Kashaju, **Mark Kimathi**, Verdiana G. Masanja (2021) Modeling the Effect of Binding Kinetics in Spatial Drug Distribution in the Brain, *Computational and Mathematical Methods in Medicine*, Volume 2021, Article ID 5533886, <https://doi.org/10.1155/2021/5533886>.
4. A.S. Oke, W. N. Mutuku, **M. Kimathi**, Nehad Ali Shah, S. Salem (2021) Significance of Coriolis force, volume fraction, and heat source/sink on the dynamics of water conveying 47 nm alumina nanoparticles over a uniform surface, *Chinese Journal of Physics*, Volume 71, Pages 716-727, <https://doi.org/10.1016/j.cjph.2021.02.005>.
5. **Mark Kimathi**, Samuel Mwalili, Viona Ojiambo, Duncan Kioi Gathungu (2021) Age-structured model for COVID-19: Effectiveness of social distancing and contact reduction in Kenya, *Infectious Disease Modelling*, Volume 6, Pages 15-23, ISSN 2468-0427, <https://doi.org/10.1016/j.idm.2020.10.012>.
6. Ojiambo V, **Kimathi M**, Mwalili S, Kioi D, Mbogo R (2021) A Human-Pathogen Model for COVID-19 Outbreak: Flattening Epidemic Curve in Kenya. *J Infect Dis Epidemiol* 6:184. doi.org/10.23937/2474-3658/1510184



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2020

1. Duncan K. Gathungu, Viona N. Ojiambo, **Mark E. M. Kimathi**, Samuel M. Mwalili (2020) Modeling the Effects of Nonpharmaceutical Interventions on COVID-19 Spread in Kenya. *Interdisciplinary Perspectives on Infectious Diseases*, Vol. 2020, Article ID 6231461, 10 pages. <https://doi.org/10.1155/2020/6231461>.
2. Oke, Abayomi S., Mutuku, Winifred N., **Kimathi, Mark** and Animasaun, Isaac L. (2020) Insight into the dynamics of non-Newtonian Casson fluid over a rotating non-uniform surface subject to Coriolis force. *Nonlinear Engineering*, Vol. 9, No. 1, pp. 398-411. <https://doi.org/10.1515/nleng-2020-0025>.
3. Samuel Mwalili, **Mark Kimathi**, Viona Ojiambo, Duncan Gathungu, and Rachel Mbogo (2020). SEIR model for COVID-19 dynamics incorporating the environment and social distancing. *BMC Research Notes* 13, 352. <https://doi.org/10.1186/s13104-020-05192-1>.
4. Oke AS, Mutuku WN, **Kimathi M**, Animasaun IL (2020) Coriolis effects on MHD newtonian flow over a rotating non-uniform surface. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*. November 2020. doi:10.1177/0954406220969730
5. Caroline W. Kanyiri, Livingstone Luboobi, **Mark Kimathi** (2020) Application of Optimal Control to Influenza Pneumonia Coinfection with Antiviral Resistance. *Computational and Mathematical Methods in Medicine*, Vol. 2020, Article ID 5984095, 15 pages. <https://doi.org/10.1155/2020/5984095>.
6. Fulgensia Kamugisha Mbabazi, J.Y.T. Mugisha, **Mark Kimathi** (2020) Global Stability of Pneumococcal Pneumonia with Awareness and Saturated Treatment. *Journal of Applied Mathematics*, Vol. 2020, Article ID 3243957, 12 pages. <https://doi.org/10.1155/2020/3243957>.
7. Edward Richard Onyango, Mathew Ngugi Kinyanjui, **Mark Kimathi**, Surindar Mohan Uppal (2020) Unsteady Jeffrey-Hamel Flow in the Presence of Oblique Magnetic Field with Suction and Injection. *Applied and Computational Mathematics*, Vol.9, No.1, pp.1-13. doi: 10.11648/j.acm.20200901.11.

2019

1. Mary Oluwabunmi Akinade, Ayodeji Sunday Afolabi, **Mark Eric Kimathi** (2019) Mathematical modeling and stability analysis of Lassa fever disease with the introduction of carrier compartment. *Mathematical Theory and Modeling*, Vol.9, No.6.
2. Fulgensia Kamugisha Mbabazi, Joseph Y.T. Mugisha, and **Mark Kimathi** (2019) Hopf-Bifurcation Analysis of Pneumococcal Pneumonia with Time Delays. *Abstract and Applied Analysis*, Vol. 2019, Article ID 3757036, 21 pages. <https://doi.org/10.1155/2019/3757036>.
3. Motognon Wastalas d'Assise Dogbalou, Mathew Kinyanjui, **Mark Kimathi** (2019) Effects of variable viscosity on unsteady natural convection hydromagnetic fluid flow over an isothermal sphere in a rotating system. *International Journal of Advances in Applied Mathematics and Mechanics*, Vol.7, No.1, pp 41-57.



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2018

1. Viona Ojiambo, **Mark Eric Kimathi**, Mathew Kinyanjui (2018) A Mathematical model of angular two-phase Jeffrey Hamel flow in a geothermal pipe. *International Journal of Advances in Applied Mathematics and Mechanics*, Vol.6, No.2.
2. William Kuria Ndungu, **Mark E. M. Kimathi**, David Mwangi Theuri (2018) Modeling traffic flow on mulit-lane road: effects of lane-change manoeuvres due to an on-ramp. *Global Journal of Pure and Applied Mathematics*, Vol.14, No.10, pp. 1389-1406.
3. Viona Ojiambo, Mathew Kinyanjui, **Mark Eric Kimathi** (2018) A study of two-phase Jeffrey Hamel flow in a geothermal pipe. *International Journal of Advances in Applied Mathematics and Mechanics*, Vol.5, No.4.
4. Francis Oketch Ochieng, Mathew Ngugi Kinyanjui, **Mark Eric Kimathi** (2018) Hydro-magnetic Jeffrey-Hamel un-steady flow of a dissipative non-Newtonian fluid with nonlinear viscosity and skin friction. *Global Journal of Pure and Applied Mathematics*, Vol.14, No.8, pp. 1101-1119.
5. Caroline W. Kanyiri, **Kimathi Mark**, and Livingstone Luboobi (2018) Mathematical analysis of Influenza A dynamics in the emergence of drug resistance. *Computational and Mathematical Methods in Medicine*, Vol. 2018, Article ID 2434560, 14 pages.
6. F. K. Mbabazi, J. Y. T. Mugisha, and **M. Kimathi** (2018) Modeling the within-host co-infection of influenza A virus and pneumococcus, *Applied Mathematics and Computation*, 339, 488-506.
7. Houenafa Alain Togbenon, **Mark Eric Kimathi**, Guy Aymard Degla (2018) Modeling Multi-Mutation and Drug Resistance: A Case of Immune-Suppression. *Global Journal of Pure and Applied Mathematics*, Vol.14, No.6, pp. 787-807.
8. M. Wainaina, **M. Kimathi**, and M. Malonza (2018) Simulation of dimple characteristics on the trajectories of a dimpled sphere (golf ball) in motion, *Journal of Applied and Computational Mathematics*, Vol.7, No.1, doi: 10.4172/2168-9679.1000386.

2017

1. Mwangi Daniel Mathai, Karanja Stephen, **Mark Kimathi**. (2017) A numerical investigation of the effect of curvature and Reynolds number to radial velocity in a curved porous pipe. *International Journal of Advances in Applied Mathematics and Mechanics*, Vol.5, No.1, pp. 99-110.
2. Mbabazi Fulgensia, **Kimathi Mark**. (2017) Importance of Nested Models in Modeling Infectious Diseases. *Strathmore International Mathematics Conference (SIMC 2017)*, 19-23 June 2017, Strathmore University, Nairobi, Kenya.
3. Onyango E.R., Kinyanjui M.N., **Kimathi M.**(2017) Effects of the direction of a trans-verse magnetic field on unsteady MHD Couette flow with suction and injection. *International Journal of Science and Research*, Vol.6, No.2.
4. Gilbert Magiboi Nalisi, Jeconia Abongo Okello, Johana Kibet Sigey, **Mark Erick Mwiti Kimathi** (2017) Unsteady MHD free convective flow past an inclined parabolic accelerated plate with Hall current, radiation effects and variable temperature in a porous medium. *International Journal of Management and Fuzzy Systems*, Vol.3, No.2.



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2017

5. Onyango E.R., Kinyanjui M.N., **Kimathi M.** (2017) Unsteady hydro-magnetic flow between parallel plates both moving in the presence of a constant pressure gradient. *International Journal of Engineering Science and Innovative Technology*, Vol.6, No.1.

2016

1. Maithya D.M., **Kimathi M.**, Diaraf S.(2016) Simulation of Traffic Congestion at Unsignalised Intersections using a Microscopic Traffic Flow Model. *International Journal of Applied Mathematical Sciences*, Vol.9, No.2.
2. Kariuki E., **Kimathi M.**, Mwenda E. (2016) Vehicular Traffic Flow Model with Driver Ag-gressiveness Component in a Multilane Road. *Journal of Applied and Computational Mathematics*, Vol.5, No.3.

Conferences and Workshops Attended

Sept 2022, GeMVi Genomics, Bioinformatics and Modelling Dissemination Symposium - NIHR Global Health Research Group, Kilifi, Kenya

Presented a Poster on Prediction of COVID-19 Epidemic Trajectory in Kenya.

June 2021, National Data Quality Retreat - UNAIDS, Mombasa, Kenya

Attended as a member of Technical Working Group. Align the data quality procedures to the 12 M and E components; Develop a comprehensive roadmap for HIV data quality assurance for both manual and EMR systems in Kenya.

March 2021, Technical Global AIDS Monitoring (GAM) Report Retreat - NACC, Embu, Kenya

Validation of 2021 subcounty/county level HIV estimates; Development of 2021 Technical GAM report.

Dec 2019, Mathematical Modeling for Infectious Disease (Theory and Practice) Workshop, SAJOREC, JKUAT

Trained on Spectrum -AIM model. Participated as a Short Course on MATLAB Trainer and Group Discussions Moderator.

April 2019, Second Annual International Conference, Machakos University

Paper Title: Description of Traffic Flow on an Inclined Road: the Fundamental Diagram Approach.

February 2019, Grant Proposal Writing Workshop, Machakos University Hotel and Conference Center

Trained on how to write a winning grant.

Nov 2018, SEKU-Umma International Conference, Umma University

Paper Title: Effects of Magnetic Induction on MHD Boundary layer Flow of Dusty Fluid over a Stretching Sheet.

April 2018, First Annual International Conference, Machakos University

Paper Title: Effects of Vehicles Lane Change Maneuver on Traffic Break-down and Congestion in Highways.



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2017, Fourth Strathmore International Mathematics Conference, Strathmore University

Paper Title: Analysis of a mathematical model of influenza dynamics with drug resistance aspect.

June 2017, Kenyatta University Workshop on Mathematical Modeling, Kenyatta University

Planning, organization, and participation.

Academic Supervisions - Ph.D. Level

Completed Ph.D. Supervisions

1. F. Habiyaremye. Effects of Strong Magnetic Field on Unsteady MHD Flow of Nano uid through Converging - Diverging Channel with Heat and Mass Transfer, Ph.D. Thesis. *Catholic University of Eastern Africa, Kenya, Completed in 2023.*
2. A. S. Oke. Coriolis Effects on Air, Nanofluid and Casson Fluid Flow over the Upper Horizontal Surface of a Parabolic of Revolution, Ph.D. Thesis. *Kenyatta University, Kenya, Completed in 2022.*
3. W. Ndungu. Mathematical Modeling of Multilane Traffic Flow using an Aw-Rascle-Type Model derived from a Multilane Kinetic Model, Ph.D. Thesis. *Jomo Kenyatta University of Agriculture and Technology, Kenya, Completed in 2021.*
4. S. M. Karimi. A Study of Thermal-Elastohydrodynamic Lubrication Point Contact for Sliding/Rolling Bearing, Ph.D. Thesis. *Pan African University-Institute for Basic Sciences, Technology and Innovation, Kenya, Completed in 2021.*
5. E. R. Onyango. Unsteady MagnetoHydrodynamic Jeffrey Hamel Flows in the presence of a variable Magnetic field and mass transfer, Ph.D. Thesis. *Jomo Kenyatta University of Agriculture and Technology, Kenya, Completed in 2020.*
6. C. Kanyiri. Mathematical Model of Influenza-Pneumonia co-infection with drug resistance aspect and optimal control, Ph.D. Thesis. *Pan African University, Institute for Basic Sciences, Technology and Innovation, Kenya, Completed in 2019.*
7. F. Mbabazi. Dynamics of within-host and between-host for Influenza A and Pneumococcal co-infection, Ph.D. Thesis. *Pan African University, Institute for Basic Sciences, Technology and Innovation, Kenya, Completed in 2019.*
8. V.N. Ojiambo. A Study of a Two-Phase Jeffrey Hamel Flow in a Geothermal Pipe, Ph.D. Thesis. *Pan African University, Institute for Basic Sciences, Technology and Innovation, Kenya, Completed in 2019.*
9. M. Wainaina. A Study on the Influence of Drag, Lift and Spin Effects on the Flight Motion of a Golf Ball., Ph.D. Thesis. *Catholic University of Eastern Africa, Kenya, Completed in 2017.*
10. A. Ndegwa. Mathematical Modeling of Fluid Flow in a Porous Pipe of Elliptical Cross-section, Ph.D. Thesis. *Kenyatta University, Kenya, Completed in 2017.*

Academic Supervisions - M.Sc. Level

Selected Completed M.Sc. Supervisions

1. Nelson Kashaju. Mathematical Modeling of the Effect of Binding Kinetics in Spatial Drug Distribution in the Brain, M.Sc. Thesis. *The Nelson Mandela African Institution of Science and Technology, Arusha, Tanzania. Completed in 2021.*



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Selected Completed M.Sc. Supervisions

2. Joel Simon. Modeling the Spread and Control of Prosopis Juliflora plant as a dynamic system: Case Study of Mwanga District, M.Sc. Thesis. *The Nelson Mandela African Institution of Science and Technology, Arusha, Tanzania. Completed in 2021.*
3. Oscar Danford. Modeling the Dynamics of Corruption with Control Strategies, M.Sc. Thesis. *The Nelson Mandela African Institution of Science and Technology, Arusha, Tanzania. Completed in 2021.*
4. M. O. Akinade. Mathematical Modeling and Optimal Control of Lassa Fever Disease, Case Study: Edo State, Nigeria, M.Sc. Thesis. *Pan African University-Institute for Basic Sciences, Technology and Innovation, Kenya. Completed in 2019.*
5. M. W. Dogbalou. Effects of Variable Viscosity on Unsteady Natural Convection Hydromagnetic Fluid Flow over an Isothermal Sphere in a Rotating System, M.Sc. Thesis. *Pan African University-Institute for Basic Sciences, Technology and Innovation, Kenya. Completed in 2019.*
6. F. O. Oketch. Hydromagnetic Jeffrey-Hamel unsteady flow of a dissipative non-newtonian fluid with nonlinear viscosity and skin friction, M.Sc. Thesis. *Pan African University-Institute for Basic Sciences, Technology and Innovation, Kenya. Completed in 2018.*
7. H. A. Togbenon. Multi-mutation and Drug Resistance in a case of Immune-Suppression, M.Sc. Thesis. *Pan African University-Institute for Basic Sciences, Technology and Innovation, Kenya. Completed in 2018.*
8. S. M. Silu A Numerical Solution of MHD Boundary Layer Laminar Flow of an Electrically Conducting Dusty Fluid over a Flat Stretching Surface, M.Sc. Thesis. *Catholic University of Eastern Africa, Kenya. Completed in 2018.*
9. D. M. Mwangi Unsteady Irrotational Flow in a Curved Porous Pipe, M.Sc. Thesis. *Meru University of Science and Technology, Kenya. Completed in 2018.*
10. J. N. Kamau. Effect of variable fluid properties and thermophoresis on unsteady forced convective magnetohydrodynamics boundary layer flow over along a permeable stretching/shrinking wedge, M.Sc. Project. *Kenyatta University, Kenya. Completed in 2018.*
11. F. N. Kituku. Influence of inclined magnetic field and thermophoresis on heat and mass transfer wedge flow with variable thermal conductivity, M.Sc. Project. *Kenyatta University, Kenya. Completed in 2018.*
12. A. M. Rwanda. Effect of inclined magnetic field and injection on mhd boundary layer flow over a porous exponentially stretching sheet in presence of thermal radiation, M.Sc. Project. *Kenyatta University, Kenya. Completed in 2018.*
13. W. S. Khaindi. Modeling of Tuberculosis Transmission Dynamics with Hygiene Quarantine as a Control Strategy Case Study: Nairobi County, M.Sc. Thesis. *Catholic University of Eastern Africa, Kenya Completed in 2017.*
14. D. M. Maithya. Study of Traffic Problem in Networks: Simulation of Traffic Flow at Unsignalised Intersection, M.Sc. Thesis. *Pan African University-Institute for Basic Sciences, Technology and Innovation, Kenya Completed in 2017.*



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Ongoing M.Sc. Supervisions

1. Cecilia Mwelu. Modeling of Religious Leaders Impact on Pharmaceutical and non-Pharmaceutical Intervention in COVID-19 Spread in Kenya, M.Sc. Thesis. *Machakos University, Kenya*. **Expected to Complete in 2023.**
2. Rhoda King'ali. Effects of Magnetic Induction, Hall Current and Thermal Diffusion on MHD flow of a Nanofluid past semi-infinite Vertical Plate, M.Sc. Thesis. *Machakos University, Kenya*. **Expected to Complete in 2023.**
3. Sammy Maingi. Mathematical Modeling of Inclined Magnetic Field Effect on Bio-convection Flow of magneto-cross Nanofluids, M.Sc. Thesis. *Machakos University, Kenya*. **Expected to Complete in 2023.**

Memberships and Associations

Catholic Men Association of Kenya (CMAK)

Member

Kenya National Statistical Society (KNSS)

Member

Mathematical Consultation Research (MCR)

Deputy Director

BioMathematics Society-Kenya (BMS-Kenya)

Member

Advanced Computer Skills

MATLAB

Utilizing various in-built functions and creating customized functions to solve mathematical problems

R/RStudio

Utilizing various in-built functions and creating customized functions to solve statistical problems

Spectrum

Use of the various tools for estimation and projection of HIV/AIDS epidemic to inform policy in Kenya.

LaTeX

Preparation of manuscripts, articles and presentation slides

Communication Skills

English and Kiswahili

Good

German

Basic

Interests

Professional

Mathematical Modeling of Natural Phenomena in Science and Engineering, Numerical Simulations in Mathematical Softwares e.g. MATLAB

Personal

Watching Documentaries, Traveling, Listening to Music, Darts



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Referees

1. Prof. Samuel Mwalili,
Professor of Statistics,
Jomo Kenyatta University of Agriculture and Statistics,
Juja, Kiambu County, Kenya.

Director, Centre for Health Analytics and Modelling (CHAM),
Strathmore University, Kenya,
Ole Sangale Road, off Langata Road, Nairobi, Kenya,
Tel: +254 728 327 109,
E-mail: smusili@jkuat.ac.ke, smwalili@strathmore.edu
2. Prof. Francis Gatheri,
Executive Dean,
Faculty of Applied Sciences and Technology,
Technical University of Kenya,
P.O. Box 52428 - 00200, Nairobi, Kenya,
Tel: +254 722 238 082,
E-mail: fgatheri@tukenya.ac.ke
3. Prof. Ezra M. Ondari-Okemwa,
Registrar - Academic and Student Affairs,
Division of Academics and Students Affairs,
Machakos University,
P.O. Box 136 - 90100, Machakos, Kenya,
Tel: +254 708 458 321,
E-mail: eookemwa@mksu.ac.ke