CURRICULUM VITAE

PROF. MATHEW S. KOSGEI, PHD

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Email: mkosgei@mu.ac.ke or mkosgei12@gmail.com

1.BIO DATA

Gender: Male

Marital Status: Married

Nationality: Kenyan

Languages: English, Kiswahili, Nandi

Recognition: Fellow of Higher Education Academy

Current Designation: Associate Professor and Associate Dean-SSAS

Working Experience: 20 years

2. EDUCATIONAL BACKROUND

2007-2012: Doctor of Philosophy in Mathematics (Biostatistics)- Moi University

Major: Response Surface Methodology

Thesis Title: *Construction of Modified Third Order Rotatable Designs through Balanced Incomplete Block Designs*.

Areas of interest: Generalised linear modeling, Survival Analysis, Structural Equation Modeling and Epidemiology.

Supervisors: *Prof. Joseph, K. Koske* and *Prof. John, M. Mutiso*.

2009: Postgraduate Certificate in Academic Practice (PCAP)-York St. John University, UK-DL

1999-2002: Master of Philosophy in Mathematics (Biostatistics)- Moi University

Major: Response Surface Methodology

Thesis Title: *Optimality Criteria for the specific second order Rotatable Designs in Three Dimensions*.

Supervisors: *Prof. Joseph, K. Koske* and *Prof. John, M. Mutiso*.

1994-1998: B.Sc.(Mathematics and Statistics)- Moi University.

1991-1992: KCSE-Mother of Apostles Seminary

1989-1990: Kilibwoni High School.

1980-1988: KCPE- Kapkagaon Primary School.

2.1 OTHER TRAININGS

JULY-NOVEMBER, 2020. Online course on "Strengthening Doctoral Supervision Course"- The Rhodes university.

7TH- 11TH SEPTEMBER, 2020. Online summer School on Modelling Infectious Diseases and health Economics. University of Antwerp, Belgium.

7th SEPTEMBER-1ST OCTOBER, 2020. Online course on "Take your teaching online"- The Open university.

3. WORK EXPERIENCE

3.1 MANAGEMENT

- **2016-Date**: Associate Dean, School of Sciences and Aerospace Studies.

  Responsibilities: Deputizing the Dean in the management and Coordination for the smooth running of both academic and administrative matters in the school.

- **July 2022-October, 2022**: Acting Dean, School of Sciences and Aerospace Studies.
- **February, 3rd-7th 2020**: Acting Dean, School of Biological and Physical Sciences
- **2019-Date**: Deans' office representative in the schools' Income generating Unit committee.
- **February, 19rd-22nd 2018**: Acting Dean, School of Biological and Physical Sciences.
- **2017- date**: Moi University Graduate Studies Board member representing the school.

  Responsibilities: Dealing with all academic matters of postgraduate studies.

- **2016-2018**: School of Biological & Physical Sciences coordinator for Nairobi campus.

Responsibilities: Coordinating teaching, examination and administrative matters for students in Nairobi Campus.

- **2013-2015**: Member of ISO 9001-2008 implementation Committee- University of Eldoret.

  Responsibilities: Initiation and monitoring the implementation of Quality Management System.

- **2012-2015**: Warden for Tana Hostels A-SQ. Chepkoilel University College.

  Responsibilities: Coordinating and overseeing students Hostel's welfare.

- **2013-2015**: Acting HOD- Mathematics and Computer Science University of Eldoret on several occasions.

- **2004-2009**: Examinations coordinator, Department of Mathematics & Computer Science, Chepkoilel campus- Moi University. In-charge of all examination matters in the department.

- **1999-2001**: Ag. deputy Head Teacher, Tulon Secondary School. In charge of Discipline, time-tabling and games & sports.

3.1.1 RELEVANT MANAGEMENT TRAINING

- **17th – 18th October 2019**. Social Safeguards: Tom Mboya labour- College- Kisumu
- **16th – 17th October, 2018**. Leadership and Management: Moi University.
- **16th -17th October,2017**. Transformational Leadership and Governance in Higher Education: Moi University

3.2 ACADEMIC

- **September 2023 - Date**: **Associate Professor**, Department of Mathematics, Physics and Computing - Moi University, involved in research, teaching, assessing and supervising both undergraduate and postgraduate students and participating in the curriculum development and review.

- **January 2016-August 2023**: **Senior Lecturer**, Department of Mathematics, Physics and Computing - Moi University, involved in research, teaching, Assessing and supervising both undergraduate and postgraduate students and participating in the curriculum development and review.

- **2017/2018**: **External Examiner**- Tshwane University of Technology- Arcadia Campus.

- **2013 - 2015**: **Lecturer**, University of Eldoret. Taught and supervised both undergraduate and postgraduate students and participated in the curriculum development and review.

- **2011 - 2012**: **Lecturer**, Chepkoilel University College. Taught and supervised both undergraduate and postgraduate students and participated in the curriculum development and review.
- **2003 – 2010**: **Tutorial Fellow**, Moi University. Taught both undergraduate and postgraduate students and participated in the curriculum development and review.
- **2012-2015**: **Part-Time Lecturer**, The Catholic University of Eastern Africa.
- **1999-2001**: **High School Teacher**, Tulon Secondary School: Taught Mathematics, Physics and Chemistry.

3.3 MEMBERSHIP TO OTHER COMMITTEES OF THE UNIVERSITY

- **January 2024- Date**: A member of Senate adhoc- committee on teaching policy review.
- **January 2023- Date**: Senate representative in the students' welfare and bursary committee
- **2019- Date**: A member of adhoc- committee on Re-Designing of Science complex tasked to incorporate the ICT and Entrepreneurship components into the proposed designs.
- **January 2019- 2020**: A member of Moi University Project Steering Committee for Enterprise Resource Planning (ERP) software solutions.
- **2019- 2020**: A member of adhoc-committee on Moi University strategic plan tasked to review and re-align Moi university Strategic Plan to MPT 3 and incorporate the Big four initiatives of Government and other National Priorities.
- **2019- 2021**: A member of senate committee on development of MU- CSR policy

4. FUNDED PROJECTS

Project member of the following:

- **2023-2024:** Computer Science/Information Systems Research and Innovation Grant by KENET Entitled: An IoT-based Federated Learning Approach Based on CNN and Majority Voting worth Ksh. 1,500,000=00.
- **2021-2022:** DAAD In-Country/In-Region PhD in Biostatistics Scholarships(15)
- **2021-2022:** 2023 Summer School- Volkswagen Foundation
- **2021**: Moi-Brown Partnership for Biostatistics Training in HIV (NAMBARI)-6PhD, 6MSc, 2Postdoc and 4 Fellowships.
- **2019-2020**: A Black Tea Fermentation Monitoring Model based on IoT and image processing techniques worth Ksh. 1,500,000=00.

- **2019**: Mobility for Innovative Renewable Energy Technologies (MIRET)-Intra-Africa Academic Mobility Scheme that attracted EUR 1,397,875=00 to build capacity in Renewable Energy.
- **2018-2019**: ACEII-PTRE IC- This project attracted US$ 250,000=00 to initiate an Incubation Centre at Moi University under the world bank ACEII-PTRE project.

5. SCHOLARSHIP AWARD

- **1999-2002**: Awarded Moi University postgraduate scholarship for master's programme.

6.WORKSHOPS AND CONFERENCES ATTENDED/ CONTRIBUTED

- **13th- 24th March, 2023**: Resource person at the Volkswagen Foundation summer school of Biostatistics and Biomathematics
- **21st- 22nd October, 2019**: Survival Analysis for Cancer Epidemiology- Workshop held at the University of Nairobi (UON)- Kenya
- **9th-10th May 2019**: Trainer, workshop on new tools on Scientific Data collection, Analytics and Report writing. Workshop held at Moi University, Eldoret organized by KDSA.
- **8th- 9th March, 2019**: Website Authoring. Workshop held at Moi University
- **19th -23rd November, 2018**. Bayesian Data Analysis: Theory and Practice: Workshop held at Jomo Kenyatta University of Agriculture and Technology (JKUAT)-Kenya.
- **5th -7Th November, 2018**. Competence Based Curriculum Review: ACEII-PTRE Workshop held at Naivasha- Kenya
- **20th – 22nd September, 2018**. Data Analytics for Small and Medium Enterprises: Workshop held at Mount Kenya University (MKU)- Kenya.
- **6th -10th August, 2018**. Biostatistical Models for Joint Longitudinal and Survival data in Medical Research: Theory and Applications in R Software: Workshop held at the University of Nairobi (UoN)- Kenya
- **11th -15th June, 2018**. Programme Development and Curriculum Delivery: CERMESA- Moi University
- **June 2016**. Case Studies in Causal Inference for HIV and Biomedical Research: Workshop held in Eldoret organized by Moi University- Brown University partnership.

- **23rd -26th June, 2014**. Statistical Methods for Missing Data and Causal inference in Health Research: Workshop held in Eldoret organized by MU- Brown University
- **15th – 18th July 2013**. Analysis of Longitudinal Data and Missing Data: Workshop held in Eldoret organized by Moi University- Brown University.
- N. Mwenda, R. Nduati, **M. Kosgei** and G. Kerich," Association of differences in household size, employment status, and amount paid for services with distance traveled for inpatient care in Kenya": Canadian Association for Health Services and Policy Research (CAHSPR) annual Conference, 19-21 May 2021, Canada
- N. Mwenda, R. Nduati, **M. Kosgei** and G. Kerich," Morbidity incidence and Mortality in infants from HIV-1–infected mothers with bacterial Vaginosis in Kenya": Center for HIV Identification, Prevention, and Treatment Services (CHIPTS) 2021 HIV Next Generation Conference, 22 January 2021, Los Angeles, CA.
- Bwana, F.M., Opondo, F.A.**, Kosgei, M.K.:** Application of Response Surface Methodology for optimized adsorption of crystal violet dye from aqueous solution using Eichhornia crassipes biochar. The Africa Centre of Excellence in Phytochemicals, Textile and Renewable Energy (ACEII-PTRE)- Moi University, Eldoret, Kenya Virtual International Conference (2020)
- N. Mwenda, R. Nduati, **M. Kosgei** and G. Kerich," Infant Morbidities Differentials of HIV positive Mothers with Known Vaginal Dysbiosis Status: A Statistical Analysis with a Skewed Binary Outcome using Generalized Estimating Equations": International AIDS 2020 conference, 6-11 July 2020, San Francisco and Oakland, USA.
- Kiplimo, Richard Kibet, **Dr. Mathew Kosgei**, and Dr. Ann Mwangi (**2019**) Longitudinal Survival Models for Cased Based Tuberculosis Progression: 1ST UON International Biostatistics Conference.
- Too, Robert, K; Koske, Joseph K; Mutiso, John M & **Kosgei, M. (2014)** "Universal Optimality Designs". Paper Presented at Moi University Annual International conference. URL: http://www.ir.mu.ac.ke.8080/xmlui/handle/12345678 9/1756
- Kipkoech, A.B**., Kosgei, M. K. 2013** "Analysis of A-efficiency and A-alphabetic optimality criteria in specific second order rotatable designs." Paper presented at Strathmore 2nd International mathematical conference.
- **Kosgei, M.K.** *et al*,**2006** "Optimal Design Approach to a Mixture Problem". Paper Presented at Moi University 2nd Annual International conference.

7. PUBLICATIONS

25. Elias Elema Guyo, Tum Isaac Kipkosgei, **Mathew Kosgei** (2023). Statistical Analysis of the Risk Factors Associated with Visceral Leishmaniasis Patients at Marsabit County Referral Hospital. American Journal of Theoretical and Applied Statistics. Vol. 12, No. 4, pp. 82-86. doi: 10.11648/j.ajtas.20231204.13

24. Gitonga Harun Mwangi, Joseph Koske, **Mathew Kosgei,** (2021). Diagnostic Analysis of Weather Variables for Forecasting Rainfall Patterns in Kenya Using Bayesian Vector Autoregressive Model. American Journal of Theoretical and Applied Statistics. Vol. 10, No. 6, pp. 249-256. doi: 10.11648/j.ajtas.20211006.14

23. Mwenda, N.; **Kosgei, M.;** Kerich, G.; Nduati, R. Predictors of Household Spending on Out-patient Expenses in Kenya. Preprints 2020, 2020120374 (doi: 10.20944/preprints202012.0374.v1)

22. N. Mwenda, R. Nduati, **M. Kosgei** and G. Kerich (2021)," Effect of Bacterial Vaginosis (BV)-HIV-1 Co-Existence on Maternal and Infant health: A Secondary Data Analysis" Frontiers in pediatrics, doi.org/10.3389/fped.2021.544192

21. Kiplimo R, **Kosgei M**, Mwangi A, Onyango E, Ogero M and Koske J (2021) Longitudinal-Survival Models for Case-Based Tuberculosis Progression. Front. Public Health 9:543750. doi: 10.3389/fpubh.2021.543750

20. Mwenda N, Nduati R, **Kosgei M**, Kerich G (2021): Skewed logit model for analyzing correlated infant morbidity data. PLoS ONE 16(2): e0246269. https://doi.org/10.1371/journal.pone.0246269

19. George M. Muriuki, **Mathew K. Kosgei**, and John M. Mutiso (2021).Modelling Risk factors of Alcoholism Using Structural Equation Model.International Journal of Science, Engineering and Technology, 9:5

18. George Mwangi Muriuki, John M. Mutiso and **Mathew K. Kosgei** (2021). Modelling Hazard of becoming Alcoholic using Parametric and Non-Parametric methods. International Journal of Agricultural and Statistical Sciences. DocID: https:// connectjournals.com/03899.2021.17.545

17. Richard Kiplimo, Ann Mwangi, **Mathew Kosgei**, Elizabeth Onyango, Joseph Koske (2018): Sputum Conversion as a Predictor to Treatment Outcome in Tuberculosis Control in Kenya. International Journal of Science and Research (IJSR). 7(426) 460-465 DOI: 10.21275/ART20204043

16. Mwenda N, Nduati R, **Kosgei, M.**, Kerich G.(2020) Morbidities and mortality among infants of HIV-1-infected mothers with bacterial vaginosis in Kenya; Available from: https://doi.org/10.21203/rs.3.rs-31175/v1.

15. C Koech, R Too, **M Kosgei**. (2020). "Inhibiting Factors to Equalization of Access to Heath Opportunities among Persons Living with Physical Disabilities in Uasin-Gishu County–Kenya". *Africa Environmental Review Journal.3(2) 224-236*.

14. P J Kimaiyo, J Mutiso, **M Kosgei**. (2019). "Construction of a Five-Level V-Dimensional Modified Third Order Rotatable Designs using a Pair of Pairwise Balanced Designs". *African Journal of Education, Science and Technology. 5(3) 189-199*.

13. Kasisi,K., Koske, J. and **Kosgei, M**.(2018). "Application of Cox Regression in Modeling Survival Rate of Drug Abuse".*American Journal of Theoretical and Applied Statistics.7(1): 1-7*.

12. Chebet, N, **Kosgei, M**. and Kerich, G (2018). "Group Divisible Variance – Sum Third Order Rotatable Design through Balanced Incomplete Block Designs in Four Dimensions". *Asian Journal of Probability and Statistics 1(2): 1-9*.

11. Mwan, M. D.and **Kosgei, M**.(2018). "Two Combined Alphabetic Optimality Criteria for Second Order Rotatable Designs Constructed Using Balanced Incomplete Block Design in Four Dimensions". *International Journal of Data Science and Analysis. 4(2): 32-37*.

10. Kasisi,K., Koske, J. and **Kosgei, M**.(2018). "Estimating Survival Probability of Drug Users with Application to Drug and Substance Abuse in Kenya". *American Journal of Theoretical and Applied Statistics.6(6): 284-289*.

9. Mwan, M. D., **Kosgei, M**. and Rambaei, S. K.(2017). "DT- optimality Criteria for Second Order Rotatable Designs Constructed Using Balanced Incomplete Block Design". *British Journal of Mathematics & Computer Science. 22(6): 1-7*.

8. Jeremy C. Rotich,J.C.,**Kosgei K.M**. and Kerich, G.K.(2017)."Optimal Third Order Rotatable Designs Constructed from Balanced Incomplete Block Design (BIBD)". *Current Journal of Applied Science and Technology 22(3): 1-5*.

7. Yano, J. R., Rotich, T., Korir, B., Mutai, K., **Kosgei, M**., and Koech, J. (2014). "Factors influencing the choice of college among undergraduate students in public universities in Kenya. A case study of the university of Eldoret." *Australian Journal of Commerce Study*.

6. Koske, J.K., Mutiso, J. M. and **Kosgei, M.K**. (2014). " A Fourth order Rotatable Design In Two dimensions". *East African Journal of pure and Applied Science*.

5. **Kosgei, M.K**., Koske,J.K., and Mutiso, J.M. (2013). "Construction of Five-level modified third order Rotatable Design using a pair of balanced Incomplete Block Designs". *Indian Journal of Computational Intelligence & Systems Sciences. 1(1), 10-18*.

4. **Kosgei, M.K**., Koske, J.K., and Mutiso, J. M. (2011). "A New Third-order Rotatable Design in Five Dimensions through B.I.B.D". *Journal of Agriculture, Science and Technology. 13(1), 157-161*.

3. Koske, J.K., Mutiso, J. M. and **Kosgei, M.K**.(2008). "A Specific Optimum Second Order Rotatable Design of twenty four points with a practical Example". *East African Journal of pure and Applied Science 1: 107 – 112*.

2. Kiprop A.K., Chepkwony P.K., Rajab M.S., **Kosgei M.K**. (2007). Limonoids as Larvicidal Components against Mosquito Larvae (Aedes aegypti Linn.). *Z. Naturforsch. 62c*.

1. **Kosgei, M.K**., Koske,J.K.,Too,K.R. and Mutiso, J.M.(2006). "On optimality of a Second Order Rotatable Designs in Three Dimensions". *East African Journal of Statistics 1: 123 -128*.

7.1. CONTRIBUTION TO BOOK CHAPTER

Herrera, J. A., Sanchez, A., Koski, K. G., López-Jaramillo, P., eds. (2022). Maternal-Perinatal Risk and Children-Adolescent Health. Lausanne: Frontiers Media SA. doi: 10.3389/978-2-88974-393-3 (e-book)

8. MEMBERSHIP TO PROFESSIONAL ORGANISATION

- Member of Higher Education Academy- UK (Ref.no.37185)
- Member of Moi University Alumni Association
- Member, International Biometric Society
- Member, Kenya National Statistical Society (KNSS-00687)

9. POSTGRADUATE SUPERVISION

9.1 Ph.D. [6_Graduated; 3_On going]

- **Robert Kasisi(2020)**: Modeling survival rate of Drug Abusers in Kenya. *Graduated*.
- **Richard Kibet Kiplimo (2021)**: Longitudinal-Survival Models for Case Based Tuberculosis Progression. *Graduated*.
- **Samuel Ngugi Mwenda (2021)**: Flexible Models for Analyzing Correlated and Non-Normal Data with Applications to Health Research. *Graduated*.
- **George Mwangi Muriuki (2022)**: Structural Analysis and Modelling of Alcoholism as a Non-Communicable Disease. *Graduated*.
- **Gitonga Harun Mwangi(2022)**: Application of Bayesian Vector Autoregressive Model in Forecasting Rainfall Pattern in Kenya. *Graduated*.
- **Benard Onserio Okemwa (2023)**: Modeling spatiotemporal survival patterns of HIV-TB co-infected patients in Kenya. *Graduated- Moi University*.
- **OTIENO, Otieno C**: Modeling the respiratory tract infections using machine learning technique. In progress

9.2 MSC THESES [10_Graduated; 3_On going]

- **Phyllis Kimaiyo (2019)**. Construction of modified third order rotatable designs through pairwise balanced designs. *Graduated- University of Eldoret*
- **James Makangi (2019)**. Construction of Optimal Sequential Second Order Rotatable Designs with Reduced Design Points *Graduated- Moi University*
- **Kennedy K. Karoney (2018)**. Modeling Waiting time in Queues.*Graduated- Moi University*
- **Jeremy C. Rotich (2018)**. Optimality Criteria for Third Order Rotatable Designs Constructed Through Balanced Incomplete Block design. *Graduated- Moi University*.
- **Noela Chebet (2018)**. Construction of Group Divisible Variance -Sum Third Order Rotatable Designs Constructed through Balanced Incomplete Block design. *Graduated- Moi University*.
- **Dennis M. Mwan (2017)**. Evaluation of compound Optimality Criteria for Second Order Rotatable Designs Constructed using Balanced Incomplete Block Designs. *Graduated- Moi University*.
- **Kipkoech,B. Albert (2014)**: Analysis of efficiency and Optimality of second order rotatable designs in three dimensions. *Graduated- University of Eldoret*.
- **Kanoga, James (2014)**: Construction of Modified third order rotatable designs using dissimilar blocks and SUBA". *Submitted for Examination(MSc)- Universityf Eldoret*.

- **Fridah Jemeli Kibet (2023)**: Optimal weighted centroid designs for maximal parameter subsytem for third degree kronecker model mixture experiments. *Graduated- Moi University*.
- **Elias Elema Guyo (2023):** Statistical Analysis On Transmission And Mortality Rate Due To Visceral Leishmaniasis At Marsabit County Referral Hospital. *Graduated- Moi University*.
- **Wilson Kiptoo (2023):** Survival Analysis Of Cervical Cancer Patients In Moi Teaching And Referral Hospital, Kenya. *Graduated- Moi University*.
- **Frankline M. Bwana**: Application of response surface methodology in the adsorption of crystal violet dye from an aqueous solution using *Eichhornia crassipes*. In Progress.

10. EXTERNAL AND INTERNAL THESIS EXAMINATION

10.1 EXTERNAL THESIS EXAMINED

10.1.1 PHD THESES

- ***2017****: Parameter Estimation Methods for Different Probability density functions* by Andrew Chikondi Peter Mkolesia - 98200657: **Tshwane University of Technology-Arcadia Campus. South Africa.**
- **2021**: Modelling COVID-19 pandemic in Kenya by Maurice Wanyonyi, Department of Mathematics and Statistics, **University of Embu**.
- **2024**. Predictive Modeling of Covid-19 Pandemic Progression In Kenya by Joyce Wangui Kiarie. **Strathmore University**.

10.2 INTERNAL THESIS EXAMINED

10.2.1 PHD THESES

10. *The Formulation of Optimum Dairy Meal Concentrates Through Simplex-Centroid Designs*, by Robert Gitunga Muriungi-DPS/PHD/06/13. 2018.

9. *Modelling and Optimizing Culture Condition of Milk Kefir Grains using Response Surface Methodology*, by Edwine Benson Atitwa-DPS/PHD/05/14. 2018.

8. *Optimal and Efficient Production of Rose Coco Deans through the Twenty-Four Points Second Order Rotatable Design*, by Isaac Kipkosgei Tum-PHD/BS/03/12. 2017.

7. *Optimization of Yield and Size Distribution of potato tuber using a second order Rotatable design*, by Julius Kipruto Koech- PHD/BS/05/15. 2017.

6. *construction of Optimal Rotatable Designs Through Simplex and factorial Desins with Application in Petroleum Biodegradation*, by Emily Akinyi Otieno-DPS/PHD/03/13.2017.

5. *Application of Multi-Response Surface Methodology in Maize Yield Optimization under Multiple Constraints*, by Alex Mwaniki Wambua-DPS/PHD/10/2013. 2017.

4. *A Mathematical Model Determining Diffusion of Nitrate Contaminant in underground Water*, by Denis Nkurunziza- PHD/AM/01/14. 2017.

3. *Construction of Optimal Rotatable Designs Through Resolutions with an Application to effects on whiteness of Cotton Using a four factornCentral Composite Design*, by Kinyua Margaret Wambui- DPS/PHD/04/13. 2016.

2. *Modelling the germination of melia Volkensii using an A-, D-, T- optimal Four Factor Rotatable Central Composite Design* by Ayubu, Anapapa Okango-DPS/PHD/09/13. 2016 (PhD).
1. *Optimal Control Strategies for Minimizing Malaria transmission in Kenya* by Okello Gabriel Otieno- DPS/PHD/07/13. 2016 (PhD)

10.2.2 MSC THESES

9. *Bayesian Parametric Estimation of youden Index and its associated cutoff point for a Binary and ternary Classification of a Diagnostic Test*, by King'angi Morris Kinyua (SC/PGM/71/11)- 2014 (MSc).

8. *An Investigation on MHD fluid flow between two parallel infinite plates subjected to an inclined magnetic field and heated at varying temperatures*, by Jacob Rading (SC/PGM/10/11)-2014(MSc).

7. *Optimal model fitting of Second-Degree kronecker model Mixture Experiments* by Kennedy Kiplagat (SC/PGM/77/11)-2014(MSc).

6. *A Design of a Low-Reynolds Number Airfoil that leads to the formation of separation Bubbles at the Leading edge*, by Kosgei, Faith (SC/PGM/015/10)-2014. (MSc).

5. *Modelling of Optimal Fiber sensor Based on Stimulated Brillouin Scattering*, by Kirui, C.Esther (SC/PGP/046/11)- 2014. (MSc).

4. *Some New Second Order Rotatable Design Through Balanced Incomplete Block Designs*, by Kiplagat J. Magdalene (SC/PGM/08/06)-2013. (MSc).

3. *E-Optimal Designs for second degree Kronecker Model Mixture Experiments*, by Koech, K. Eliud (SC/PGM/012/10)-2013. (MSc).

2. *Effects of Temperature on Metal Oxide Semiconductor Field Effects Transistor characteristics*, by Kimutai K. Paul (SC/PGP/016/05)-2013. (MSc).

1. *Overall Central Moments of Traffic Delay at a Signalized intersection*, by Ronoh, K. Bernard (SC/PGM/013/10)-2013. (MSc).

11. COURSES TAUGHT/TEACHING

11.1 POSTGRADUATE COURSES

- Generalized Linear Models
- Research Methods and Data Analysis
- Multivariate Statistics
- Epidemiology
- Survival Data Analysis
- Response Surface Methodology
- Planning of Field experiments
- Mathematical Programming and Dynamic Optimization

11.2 UNDERGRADUATE COURSES

- Probability and Statistics
- Test of Hypothesis
- Regression Analysis
- Sample Surveys
- Non-parametric statistics
- Operations Research
- Econometrics
- Probability and Stochastic Processes
- Design and Analysis of Experiments, among others

12. SERVICE TO COMMUNITY

- **2019-2022**: Member, B.O.M., - Friends School Kamusinga_Bungoma County.
- **2015- 2022**: Chairman, B.O.M., - St. Thomas Kapkagaon Primary School.
- **2019-Date**: Youth Patron, -St. Thomas Catholic Church Parish
- **2019-2022**: Vice Chairman- St. Thomas Catholic Church – Cheptiret
- **2018-Date**: Member – St. Thomas Catholic Church – Cheptiret Projects Committee.
- **2015-2018**: Member, B.O.M.,- ACK Kaibeiyo Primary School.
- **2001– 2007**: Chairman, B.O.G., – Kapkagaon Secondary School.

13. REFEREES

- **Prof. Ambrose K. Kiprop**, Director Resource Mobilization, Enterprise Development and Institutional Advancement (RMEDIA), Moi University, P.O Box 3900-30100, Eldoret. *Mobile- 0719 241 704*
- **Prof. Justus K. Mile**, Vice- Chancelor, Keriri womens University, P.O. Box 49274-00100, Nairobi. *Mobile- 0721 933 909*
- ***Rev. Dr. Fr. William K. Kosgei,*** Catholic Diocese of Eldoret, P.O. Box 842-30100, Eldoret. Moble- 0711 159972

Certification

I certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications, and my experience.

Mathew S. Kosgei		Date:28th AUGUST,2024
[Name]	[Signature]	[Day/Month/Year]