
EDUCATION

PhD. in Probability and Statistics **Centro de Investigación en Matemáticas, AC,**
Guanajuato, Gto, México **March 2018**

- **Thesis Title:** Problems in Statistical Genetics: Classification and Testing for Network Changes.
- **Advisors:** Graciela González Farías , PhD & Terence P. Speed, PhD

Visiting PhD candidate Walter and Eliza Hall Institute of Medical Research/ University of Melbourne VIC, Australia **August 2016–July 2017**

Master of Science in Statistics **Egerton University, Njoro, Kenya** **December 2008**

- **Thesis Title:** Efficiency Evaluation in Modelling of Stock Data using ARCH and Bilinear Models.
- **Supervisors:** Dankit Nassiuma, PhD & Ali Islam, PhD

Bachelor of Education Science, Egerton University, **Njoro, Kenya** **July 2004**

- **Major in Mathematics & minor in Chemistry**

EXPERIENCE

DFCI/Harvard University, Boston, MA, USA, **Aug 2023 –**
Research Fellow

I am working on a project to develop a novel methodology for data mining and machine learning methods mainly via Boolean and ternary matrix factorization. This will be useful in revealing the hidden patterns in boolean/ternary types of data for instance the chromosomal alteration data for multiple myeloma disease.

Bomet University College **Bomet, Kenya**
Department of Mathematics & Computer Science. **Sept. 2020 –**
Senior lecturer in Statistics

In this position, the duties and responsibilities were mainly: Research, Training and Teaching. As a senior lecturer, I taught and assessed Mathematics and Statistics courses at both undergraduate and graduate levels, supervised student projects and theses, provided academic advising, developed curriculum, participated in research projects and academic leadership initiatives.

Chuka University, Chuka, Kenya,

July 2012- August 2020

▪ **Lecturer**

Sept 2013- Dec 2013, & March 2018 -August 2020

My responsibilities included consultancy in experimental design and statistical data analysis. I taught Mathematics and Statistics at undergraduate and Masters levels, supervised and examined students, and coordinated all aspects of examination administration and moderation.

▪ **Assistant Lecturer**

July 2009-August 2012

As an Assistant Lecturer, I taught Mathematics and Statistics to undergraduate and diploma students, provided research and consultancy support to postgraduate students, and was responsible for supervising and examining students.

TEACHING EXPERIENCE

- MAT 104e: Basic Mathematics and Analytic Geometry
- MAT 113e: Differential Calculus
- STA 100e: Probability and Statistics I
- STA 301e: Probability and Statistics II
- STA 302e: Multivariate Probability Distributions:
- STA 313: Theory of Estimation.
- STA 411e: Time Series Analysis
- STA 310: Advanced Probability and Statistics
- STA 410: Tests of Hypothesis
- STA 415: Design and Analysis of Experiments
- MATH 141: Introductory Statistic
- Math 244: Introduction to Statistical Inference
- MATH 443: Design and Analysis of Experiments I
- MATH 444: Design and Analysis of Experiments II
- MATH 442: Time Series Analysis
- MATH 456: Introductory Bayesian Inference
- MATH 344: Theory of Estimation
- MATH 240: Probability and Statistics I
- MATH 241: Probability and Statistics II
- MATH 449: Probability Theory
- MATH 842: Measure Theory and Probability
- MATH 848: Probability and Stochastic Processes
- COSC 811: Simulation and Modelling
- MATH 859: Financial Time Series and Risk Management
- MATH 846: Time Series Analysis

STUDENTS MENTORSHIP AND SUPERVISION

- [1] JUMA SAMWEL KISIANG'ANI. Queuing Theory and it's Application to Modelling of Waiting Time: A Co-operative Bank of Kenya, Chuka Branch. Msc (Applied Statistics), Chuka University, Kenya Graduated in 2023
- [2] ERIC MUNENE NDEGE. Application of Asymmetric-GARCH Type Models To The Kenyan Exchange Rate And Balance of Payments. Msc (Applied Statistics), Chuka University, Kenya

Graduated in September 2022

- [3] ONESMUS MBUKO TITUS. Modelling Of Foreign Exchange Volatility and it's Effects on International Trade in Kenya. Msc (Economics), Chuka University, Kenya Graduated in December 2021
- [4] KIMUTAI KOECH EMMANUEL. Singular Spectrum Analysis and Holt-Winters Triple Exponential Smoothing: An Application to Kenyas Industrial Input Price Index. Msc (Applied Statistics), Chuka University, Kenya Graduated in December 2021
- [5] MBURU S. NJOROGI. Vector Error Correction Model: Prediction of Bi-Directional Causality Between Gross Domestic Product and Wage Growth In Kenya. Msc (Applied Statistics), Chuka University, Kenya Graduated in December 2021
- [6] WANJUKI TEDDY MUTUGI. Forecasting Commodity Price Index of Food And Beverages In Kenya Using Seasonal Autoregressive Integrated Moving Average (SARIMA) Models. Msc (Applied Statistics), Chuka University, Kenya Graduated in December 2021
- [7] LEONARD KIMTAI MASAI. Application of Response Surface Methodology in Modelling and Optimization of the Yields of Common Beans (*Phaseolus vulgaris* L.) using Animal Organic Manures. Msc (Applied Statistics), Chuka University, Kenya Graduated in October 2019

PUBLICATIONS

For my publications [click here](#).

LANGUAGES

- **English:** Advanced User
- **Kiswahili:** Fluent
- **Spanish:** Intermediate

SCHOLARSHIPS AND FUNDING

- 2022 IMU-Simons Africa Fellowship May 2023
- Mexican Government Scholarship for Foreigners (SRE) Jan 2013 –July 2014
- Scholarship by University of Washington, Seattle, W.A, USA July 2015
- CONACyT, Mexico Aug.2014–March 2018

PROFESSIONAL MEMBERSHIPS

- Statistical Society of Kenya (SSK) 2012–Current
- American Statistical Association (ASA) 2025–Current

REFERENCES: Are Available on Request