

Erick Okuto, PhD

Curriculum Vitae

PERSONAL DETAILS

<i>Birth</i>	December 10, 1984
<i>Permanent Address</i>	SMAS, JOOUST, P.O Box 210-40601 Bondo
<i>Home Address</i>	Travellers Hotel, P.O Box 25 Rodi
<i>Skype id</i>	erickokuto
<i>Phone</i>	(+254) 736334274
<i>ID Number</i>	24666697
<i>Mail</i>	erickokuto@gmail.com / e.okuto@jooust.ac.ke

EDUCATION

Doctor of Philosophy in Biostatistics 2013-2016

Jaramogi Oginga Odinga University of Science & Technology

Thesis on Reconstruction of enhanced vegetation index 2 record - An application of weak solution to stochastic partial differential equations approach. During the study, a novel Bayesian Gap-filling and smoothing procedure was developed. In addition, a spatiotemporal gap-filling and downscaling model vis-a-vis crop phenology and productivity.

Master of Science in Biostatistics 2011-2013

University of Nairobi

The course provided me with Biostatistical training needed for studies and applications in Medicine, Pharmacy, Agriculture, Biology and ecology. It equipped me with biometric skills to work with research professionals in the design and implementation of research studies to improve livelihood of the poor.

Bachelor of Science in Statistics 2007-2011

University of Nairobi

The course provided me with broad education in the basic theory and methods of statistics, that would enable me to apply the knowledge acquired to a wide range of practical problems in research, industry, economic and social development, agriculture and medical research.

Certificate in Epidemiology and Biostatistics 2012-2013

School of Public Health, Harvard University

Diploma in Project Planning and Management 2010-2012

Kenya Institute of Social Work and Community Development

The course equipped me with key concepts of planning and executing projects. Knowledge on how to identify factors that lead to project success, and how to plan, analyze, and manage

projects. In addition, it exposed me to state-of-the-art methodologies and to considering the challenges of various types of projects

Kenya Certificate of Secondary Education

2001-2004

Mirogi Boys' High School

Kenya Certificate of Primary Education

1992-2000

Marindi primary school

WORK EXPERIENCE

Associate Director, Directorate of Resource Mobilization

March
2020-present

Division of Research, Innovation and Outreach (RIO), Jaramogi Oginga Odinga University of Science & Technology, Full-time

The following are the highlights of the Directorate's achievements

1. University research funding increase by at least 40%.
2. Accreditation of Senate approved TVETA-CDACC programmes in readiness for kuccps 2022 intake.
3. Establishment of Data Center to facilitate data management and analytic and further facilitate other proposal writings.

School Postgraduate Coordinator

May 2020 -
present

School of Biological, Physical, Mathematics & Actuarial Sciences (SBPMAS), Jaramogi Oginga Odinga University of Science & Technology

The following are the highlights of achievements of the office of Postgraduate coordinator

1. Coordination of school monthly seminars and postgraduate student progress presentations.
2. Invitation of renown local and international scientists on various and specific themes from time to time to make presentations.
3. Spearheads, development of faculty/student's vision beyond their own field of research.
4. Creation of moment of exchange of ideas, information and debate around a defined research themes in the school.
5. Creation of interactive environment between students and researchers.

Senior Lecturer

May 2019 -
present

School of Mathematics & Actuarial Science, Jaramogi Oginga Odinga University of Science & Technology, Full-time

Lectures statistics courses to different groups: Bachelor of Science in Actuarial Science group (Multivariate methods, survival analysis, test of hypothesis, statistical computing I and II, Bayesian statistical inference); MSc in Applied Statistics group (Survival analysis,

Research methodology, Bayesian Inference); PhD in Innovation and Sustainable Development group(Advanced statistical methods); PhD in Food Security and Sustainable Agriculture group(Advanced statistical and research methods); MSc. in Food Security and Sustainable Agriculture group(Statistical Methods).

Lecturer

May 2016 -
May 2019

School of Mathematics & Actuarial Science, Jaramogi Oginga Odinga University of Science & Technology, Full-time

Lecture planning, preparation and research, teaching Biostatistics (advance Biostatistics) and Epidemiology (advance epidemiology) courses, Mentorship, writing research proposals, papers and other publications, supervising PhD and M.Sc students, attending and speaking at conferences and seminars, checking and assessing students' work.

Adjunct Lecturer

September
2016-2019

Department of Mathematics, Catholic university of Eastern Africa

Lecturing statistics courses to postgraduate students and reviewing biostatistics and epidemiology programs

Tutorial Fellow

April 2016 -
May 2016

School of Mathematics & Actuarial Science, Jaramogi Oginga Odinga University of Science & Technology, Full-time

Lecture planning, preparation and research, teaching Biostatistics (and advance Biostatistics) and Epidemiology (and advance epidemiology) courses, Mentorship, writing research proposals, papers and other publications, supervising PhD and M.Sc students, attending and speaking at conferences and seminars, checking and assessing students' work.

Research Fellow

Jan 2014 -
April 2016

World Agroforestry Centre - ICRAF, Full-time

Reported to Climate change Scientist. Key deliverables involved 3 research articles. Global assessment of vegetation index and phenology Lab (VIP) and Global inventory modelling and mapping studies (GIMMS) version 3 product; Developing Bayesian reconstruction procedure to Gap-fill vegetation index records; developing a Bayesian Gap-filling and downscaling procedure; and evaluating crop phenology vis-a-vis crop productivity

R-Programmer

Aug 2012 -
Jan 2014

World Agroforestry Centre - ICRAF, Full-time

tasked with the management and analysis of the unit's data to achieve optimal efficiency, and maintain the quality and integrity of the data systems using R software for programming and statistical data analysis.

CONSULTANCIES AND COLLABORATIONS

Data handling and project Statistician

04/02/2020-
30/04/2020

Transparency International (TI)

Specific duties included to train the enumerators on the use of Open Data Kit (ODK); Coordinate data collection and provide analysis on the data collected; Conduct quality

checks and data management of all data from about 400 online submissions from the 35 wards in Kisumu county; Analyse the data using R and prepare statistical report, Liaise with the colleague consultant, County Director of Climate Change and TI Kenya contact person in performing the task.

Data Analyst and Statistician

01/11/2020-
30/01/2021

World Agroforestry Centre (ICRAF)

The World Agroforestry Centre was implementing the Green Climate Fund project on Large-scale Ecosystem-based Adaptation (EbA) in the Gambia River Basin: developing a climate resilient, natural resource-based economy project. As part of this project, a baseline household survey on socio economic profile, agricultural activities and climate risks faced and on-farm adaptations in readiness for EbA project activities report was generated for decision making.

Data Analyst and Statistician

01/02/2021-
26/03/2021

World Agroforestry Centre (ICRAF)

The World Agroforestry Centre was implementing the Green Climate Fund project on Large-scale Ecosystem-based Adaptation (EbA) in the Gambia River Basin: developing a climate resilient, natural resource-based economy project. As part of this project, a survey on vegetation characteristics for the purpose of monitoring was conducted and a baseline vegetation monitoring statistical report was generated for decision making.

Data Analyst and Statistician

27/03/2021-
26/05/2021

World Agroforestry Centre (ICRAF)

The World Agroforestry Centre was implementing the Green Climate Fund project on Large-scale Ecosystem-based Adaptation (EbA) in the Gambia River Basin: developing a climate resilient, natural resource-based economy project. As part of this project, a baseline survey and analysis of Community Forest (CF) and Community Protected Areas (CPA) was conducted and statistical report developed for decision making.

Data handler and Statistician

20/03/2021-
21/05/2021

SNV Netherlands Development Organisation

The project's aim was to reduce the vulnerability of drylands populations by reinforcing risk management and coping capacities by augmenting existing adaptation mechanisms and supplementing them with new options that are tailored to the unique local contexts. The project was implemented in Laikipia, Isiolo, Samburu by transforming the Environment through Nexus (LISTEN). LISTEN was a 3.6 million Euro project funded by the Embassy of the Kingdom of the Netherlands and implemented by a consortium of partners comprising Frontier Counties Development Council (FCDC), Alliance for a Green Revolution in Africa (AGRA) and SNV Netherlands Development Organisation with SNV as the lead agency. The 3.5-year Project was seeking to enhance resilience by increasing food, nutrition, and water security in the three selected Arid and Semi [U+2010] Arid Lands (ASAL) counties of Laikipia, Isiolo Samburu in Kenya. To kick start the Project, a baseline survey was commissioned with the aim of undertaking a review, survey and verification of LISTEN project goals, objectives, target groups and expected result areas to establish the baseline indicator profile against which project targets shall be set for implementation, performance monitoring and evaluation. This provided Baseline Project's key indicators and the benchmarks to measure

the project performance.

Data handler and Statistician

25/09/2021-
28/10/2021

Hoffnungszeichen — Sign of Hope e.V. and Merti Integrated Development Program (MIDP)

A consultancy on baseline survey on the promotion of climate resilient communities and capacity building of local institutions and community organizations in Isiolo county (SCORE). The baseline study was conducted in six rural wards (Chari, Cherab, Sericho, Garbatulla, Kinna and Oldonyiro) in Isiolo County, Kenya. The Consultant's role was to undertake the baseline study and identify project metrics and indicator benchmarks. The baseline study involve collection of both quantitative and qualitative data that to enable determination of the baseline values of the project's performance indicators during the formative stages of the project.

CONFERENCES AND SEMINARS

Sixth Strathmore International Mathematics Conference

28/06/2021 -
02/07/2021

Strathmore University

International Conference on the theme: Advancing Research and Education in Mathematical Sciences in the Big Data era, *Institute of Mathematical Sciences*

The Sub-Saharan Africa Network (SUSAN) of the International Biometrics Society Conference

06/09/2021 -
09/09/2021

Theme: Biometrics in the era of Big Data for Health and Food Security

The Sub-Saharan Africa Network (SUSAN) of the International Biometrics Society is a network of national biometric groups of Sub-Saharan Africa countries that promotes the advancement of life sciences through the development, application, and dissemination of effective mathematical and statistical methods. The conference targeted statistical applications in agriculture, medical and health research, infectious diseases, environment and ecology, climate, and other applied sciences such as statistical genetics and bioinformatics.

Open Data Kit (ODK) short course

07/03/2018 -
10/03/2018

University of Nairobi

School of Mathematics, *Department of Biostatistics*

Advance survival data analysis: Theory and applications

15/01/2018 -
19/01/2018

University of Nairobi

courtesy of Prof. Roel Braekers, *Interuniversity institute for Biostatistics and statistical Bioinformatics, Hasselt university*

Global assessment of vegetation index and phenology Lab (VIP) and Global inventory modelling and mapping studies (GIMMS) version 3 product

3/8/2015 -
7/8/2015

Strathmore University

Statistical Modeling pre-training school and 3rd *Strathmore International Mathematics Conference*.

Spatial and spatiotemporal Modelling with Integrated Nested Laplace Approximations (INLA)

2/10/2013 -
5/10/2013

KEMRI-Wellcome Trust Research program

Training on spatial and spatiotemporal modeling with R-INLA facilitated by Prof. Janine Baerbel Illian, *University of St. Andrew, UK*.

Spatiotemporal gap-filling of precipitation in Kenya

12/8/2013 -
16/8/2013

Strathmore University

Statistical Modeling pre-training school and 2nd *Strathmore International Mathematics Conference*.

R Training workshop

12/8/2013 -
16/8/2013

World Agroforestry Centre - ICRAF

Main facilitator and trainer of R statistical software for programming and data analysis at the research centre

FUNDING AS A SENIOR LECTURER (GRADE 13)

1. **Investigator: The Michael J. FOX Foundation for Parkinson's Research**

2022-2025

USD 399,923

Parkinson's Disease Diagnosis, Perceptions, Awareness And Care In Kenya And Senegal (Packs)

2. **Investigator: Capacity building grant under Vliuos**

2021-2031

Vliuos: KES 6 billion

Strengthening JOOUST capacity building in Natural Resources Management, agriculture and food Security, climate change, ICT and Health

3. **Investigator: Capacity building grant under EDCTP**

2021-2023

EDCTP: KES 100 million

Capacity strengthening grant for Seasoned Epidemiologists and Biostatisticians in Sub-Saharan Africa

4. **Investigator: Sorghum value chain under NRF, Kenya**

2020-2025

NRF: KES 20 million

Enhancing community resilience to climate change through sustainable sorghum value chain for improved small-holder food security and incomes

OUTREACH ACTIVITIES

Member, Board of Management

2019 - todote

Marindi Girls High School, Homa Bay county

Member, Board of Management and Chairman, Academic committee of the Board

EXTERNAL APPOINTMENTS/AWARDS

1. PhD Research Fellowship, World Agroforestry Center, Climate Change unit

PUBLICATIONS AS A SENIOR LECTURER (GRADE 13)

1. Liu, J., Magwanga, R.O., Xu, Y., Wei, T., Kirungu, J.N., Zheng, J., Hou, Y., Wang, Y., Agong, S.G., **Okuto, E.** and Wang, K., 2021. Functional Characterization of Cotton C-Repeat Binding Factor Genes Reveal Their Potential Role in Cold Stress Tolerance. *Frontiers in plant science*, 12, p.766130.
2. Ngóngá, C.A., Gor, C.O., **Okuto, E.O.A.** and Ouko, K.O., 2021. Economic efficiency of cricket production reared under improvised cage system for improved food production. *African Journal of Agricultural Research*, 17(11), pp.1453-1462.
3. Mary Orinda, **Erick Okuto**, and Martin Abwao. Cage fish culture in the lake victoria region: Adoption determinants, challenges and opportunities., *International Journal of Fisheries and Aquaculture*, ISSN: 2006-9839; Vol. 13(2), pp. 45-55, 2021, DOI: 10.5897/IJFA2020.0798
4. Ongoma Jackson, Alilah David Anekeya, **E. O. Okuto**. Optimal Allocation in Small Area Mean Estimation Using Stratified Sampling in the Presence of Non-Response., *International Journal of Statistical Distributions and Applications*, ISSN: 2472-3487 (Print); ISSN: 2472-3509 (Online), 7(1): 13-24, 2021, DOI: 10.11648/j.ijstd.20210701.13
5. Oluoch Felix, Ayodo George, Owino Fredrick, **Okuto Erick**. The Cost-Implications of Reaching Universal Coverage of Maternity Health Services in Siaya County, Western Kenya. *Public Health Research*., *Public Health Research*, p-ISSN: 2167-7263 e-ISSN: 2167-7247;10(1): 1-11, 2020, DOI: 10.5923/j.phr.20201001.01.
6. Oluoch Felix, Ayodo George, Owino Fredrick, **Okuto Erick**. Modelling the Impact of Traveling Time on the Utilization of Maternity Services Using Routine Health Facility Data in Siaya County, Western Kenya., *American Journal of Geographic Information System*, p-ISSN: 2167-7263 e-ISSN: 2167-7247; 9(1), 1-12, 2020, DOI: 10.5923/j.ajgis.20200901.01.
7. Oluoch Felix, Ayodo George, Owino Fredrick, **Okuto Erick**. Computing the Geographic Extent of Maternity Health Services to Predict the Utilization of Skilled Delivery in Siaya County, Western Kenya., *European Scientific Journal*, Vol.16, No.3 ISSN: 1857 7881 (Print) e - ISSN 1857- 7431, 2020, DOI: 10.19044/esj.2020.v16n3p488.
8. C. A. Ngonga, C. O. Gor, **E. O. Okuto**, M. A. Ayieko. Growth performance of *Acheta domesticus* and *Gryllusbimaculatus* production reared under improvised

cage system for improvised cage systems and food security., *Journal of Insects as Food and Feed*, 7 (3)- Pages: 301 - 310, 2020, DOI: 10.13140/RG.2.2.28232.24328.

9. Noah Adera, **Erick Okuto**, Milka Ogayo, George Ayodo. Modelling of in-patient bed capacity in a Public Referral Hospital in Western Kenya: A Case Study of Jaramogi Oginga Odinga Teaching and Referral Hospital, 2018., *International Journal of Mathematics and Computational Science*, Vol. 2, No. 3, 2020, pp. 29-33, DOI: <http://www.aiscience.org/journal/ijmcs>.
10. S.O. Ojunga, J.O Nyakinda, **E. Okuto** and J.A Mullah (2020). Extensions of Lefkovich matrix for modeling invasive *Cestrum aurantiacum* population Dynamics. *Mathematical Theory and Modeling*. ISSN 2224-5804 (Paper) ISSN 2225-0522 (Online).Vol.10, No.7, 2020.
11. S. O. Ojung'a, J. O. Nyakinda, **E. Okuto**, J. A. Mullah. Invasive Species Population Status Modeling Using Stage Based Matrix: Mount Elgon Ecosystem. *Mathematical Theory and Modeling*, ISSN 2224-5804 (Paper) ISSN 2225-0522 (Online) Vol.9, No.2, 2019, DOI: 10.7176/MTM.
12. S. O. Ojung'a, J. O. Nyakinda, **E. Okuto**, J. A. Mullah. Sensitivity analyses of population projection matrix of *Cestrum aurantiacum*., *International Journal of Statistics and Applied Mathematics*, ISSN: 2456-1452, 5(6): 43-47, 2020, DOI: 10.22271/math.2020.v5.i6a.612.

PUBLICATIONS ACCEPTED AS A SENIOR LECTURER (GRADE 13)

1. Martin Ojala, Richard Magwanga, **Erick Okuto**, John Kipyegon and Benard Muok, and Wang, K., 2021. Ecological Diversity and contribution of Edible Insects to household food security. *International Journal For Research In Agricultural And Food Science*, Accepted for publication.

PUBLICATIONS UNDER REVIEW AS A SENIOR LECTURER (GRADE 13)

1. **Erick Okuto**, Ambrose Ondiawo, Joy Nyangasi Kirungu, Benard Muok, Richard Odongo Magwanga (2022). Modelling morphological characteristics of upland rice on yield and yield components under green house condition.(Agronomy, under review)
2. Joy Nyangasi Kirungu, Richard Odongo Magwanga, Margaret Linyerera Shiraku, Xiaoyan Cai 1, Yanchao Xu, Yuqing Hou, Stephen Gaya Agong', **Erick Okuto**, Benard Muok, Kunbo Wang, Yuhong Wang, Zhongli Zhou, and Fang Liu (2022). Functional characterization of the CNGC Gene Family in Upland Cotton under Multiple Stress Conditions.(Genomics, under review)
3. Richard Odongo Magwanga; Yuanyuan Zhang; Yuqing Hou; **Erick Okuto**, Joy Nyangasi Kirungu; Teame Gereziher Mehari; Yanchao Xu; Yuhong Wang; Kunbo Wang; Xiaoyan Cai; Zhongli Zhou; Fang Liu (2022). Late Embryogenesis Abundant

Gene LEA3 (Gh:A08G0694) enhances Drought and Salt Stress Tolerance in Cotton. (International Journal of Biological Macromolecules, under review)

4. Martha Akello Odhiambo; Caleb Olweny; **Erick Okuto** (2022). Habitat preference and distribution of crickets (orthoptera gryllidae) in Western Kenya. (Journal of Insects as Food and Feed, under review)

PUBLICATIONS UNDER PREPARATION AS A SENIOR LECTURER (GRADE 13)

1. Magwanga, R. O., Lu, P., Kirungu, J. N., **Erick Okuto**, Jiangna, L., Cai, X., Zhou, Z., Wang, X., Xu, Y., Hou, Y., Yangguang Hu, Qi Dong, Kunbo Wang and Fang Liu (2022): High Throughput Sequencing and Degradome Analysis Reveals Modulation of microRNAs in Cotton upon Exposure to Salt, Drought, and Cold Stresses Highlighting Stress Regulation (Preparation stage).
2. Magwanga, R. O., Kirungu, J. N., **Erick Okuto**, Jiangna, L., Cai, X., Zhou, Z., Wang, X., Xu, Y., Hou, Y., Hu, Y., Dong, Q., Wang, K. and Liu, F. (2022): Evaluation of Cytochrome P450 silenced plants to cold and oxidative stress condition. (Under preparation).
3. Magwanga, R. O., Kirungu, J. N., **Erick Okuto**, Benard Muok, (2022). Genome-Wide Identification, Characterization, and Expression Profiling of the Cotton BZR Transcription Factor Gene Family (Under preparation).
4. Joy Nyangasi Kirungu, Magwanga, R. O., Kirungu, J. N., **Erick Okuto**, Benard Muok, (2022). Functional analysis of MLC gene in upland cotton under abiotic stress condition. (Under preparation)

PUBLICATIONS AS A LECTURER (GRADE 12)

1. M. Marshall, **E. Okuto**, Y. Kang, E. Opiyo, M. Ahmed. Global assessment of Vegetation Index and Phenology Lab (VIP) and Global Inventory Modeling and Mapping Studies (GIMMS) version 3 products. *Biogeosciences*. 2016, 12, 9081–9120. doi:10.5194/bgd-12-9081-2016
2. Ondulo James, **Okuto Erick**, Muga Maua, Omondi Dickens, Obonyo Charles. Recurrent malaria in Kenya and equality of survival distribution functions. *Journal of Mathematics*. 2017, vol 4, No 4, ISSN 2349-5375.
3. **Erick Okuto**, B Omolo, O Ongati. Reconstructing global earth observation based vegetation index records with stochastic partial differential equations approach. *International Journal of Statistics and Applied Mathematics*. 2018; 3(4): 109-120.
4. **Erick Okuto**, Omolo Ongati and Bernard Omolo. Reconstructing earth observation vegetation index records with a Bayesian spatiotemporal dynamic model. *International Journal of Statistics and Applied Mathematics* 2018; 3(4): 74-84.
5. **Okuto Erick**. Binomial mixture based on generalized four parameter beta distribution as prior. *International Journal of Statistics and Applied Mathematics*. 2018; 3(4): 65-73.

6. Ondulo James, **Okuto Erick**, Muga Maua, Omondi Dickens. Recurrent Malaria In Kenya: Survival Distribution An Equality Of Survival Distribution OC, *Journal of Mathematics*, 4 (December — 2017), 2349-5375.
7. Shukrani Magundo, George Muhua, **Okuto, Erick**. Multiple Discriminant analysis as applied to language distinction, *Bulletin of Mathematics and Statistics Research*, Vol.6, Issue.3, 2018 (July-Sept.).
8. **Okuto, Erick**. Application of three parameter generalized Beta I distribution in Binomial mixture, *Bulletin of Mathematics and Statistics Research*, Vol.6, Issue.3, 2018 (July-Sept.).
9. Andrea Otwande, **Okuto, Erick**, Joseph Ottieno. Bayesian estimation of probability of contamination under group screening design, *Bulletin of Mathematics and Statistics Research*, Vol.6, Issue.3, 2018 (July-Sept.).
10. **Okuto, Erick**. Binomial mixtures based on Beta I distribution and its generalizations to a two-stage group screening design, *Bulletin of Mathematics and Statistics Research*, Vol.6, Issue.3, 2018 (July-Sept.).
11. Andrea Otwande, **Okuto, Erick**, Joseph Ottieno. Posterior Distribution Of Beta-Binomial Mixture Based On Beta II As Prior Distribution, *Journal of Mathematics*, Vol. 4 — No. 4 December — 2017 ISSN 2349-5375.
12. Andrea Otwande, **Okuto, Erick**, Joseph Ottieno. Fitting a recursive model for the Beta II - Binomial mixture into other recursive models: A case of Binomial generalized Gamma distribution, *International Journal of Scientific Engineering Research*, Volume 8, Issue 11, November-2017 726 ISSN 2229-5518.
13. H Yu, J Xu, **E Okuto**, E Luedeling. Seasonal response of grasslands to climate change on the Tibetan Plateau, *PLoS One*, 7 (11) , e49230, 2012.

PHD SUPERVISION AS A SENIOR LECTURER (GRADE 13)

1. Student name: **Samson Ojung'a**. University: Jaramogi Oginga Odinga University of Science & Technology. Course: PhD in Applied Statistics. Topic: Extension of stage based projection matrices and its application to population modelling of *Cestrum Auratiacum* species. *Year of Completion 2021*.
2. Student name: **Felix Oluoch**. University: Jaramogi Oginga Odinga University of Science & Technology. Course: PhD in Public Health. Topic: Evaluating the impact of geographic inequalities on the utilization of maternal health services in Siaya county, Kenya. *Year of Completion 2021*.
3. Student name: **Lavender Akoth**. University: Jaramogi Oginga Odinga University of Science & Technology. Course: PhD in Applied Statistics. Topic: Bayesian joint modeling of edaphic and climate variabilities on physio-morphological traits of rainfed rice. *Expected Year of Completion 2023*.
4. Student name: **Emmaculate Alala**. University: Jaramogi Oginga Odinga University of Science & Technology. Course: PhD in Applied Statistics. Topic: Multivariate Survival Analysis: Modelling clustered event times through copula models. *Expected Year of Completion 2023*.

5. Student name: **Martha Akello Odhiambo**. University: Jaramogi Oginga Odinga University of Science & Technology. Course: PhD in Food Security and Sustainable Agriculture. Topic: Modelling spatial distribution and adaptations of crickets (orthoptera: gryllidae) in the context of climate change. *Expected Year of Completion 2023*.

PHD SUPERVISION AS A LECTURER (GRADE 12)

1. Student name: **Andrea Otwande**. University: Jaramogi Oginga Odinga University of Science & Technology. Course: PhD in Applied Statistics. Topic: Binomial mixtures based on Beta prior distributions and their generalizations with application to Group screening. *Completed*.

MSC SUPERVISION AS A SENIOR LECTURER (GRADE 13)

1. Student name: **Noah Adera**. University: Jaramogi Oginga Odinga University of Science & Technology. Course: MSc. in Biostatistics and Epidemiology. Topic: Statistical model for the operational management of inpatient beds in government referral hospitals in Kenya. *Year of Completion 2021*.
2. Student name: **Ongoma Jackson**. University: Masinde Muliro University of Science and Technology. Course: MSc. in Statistics. Topic: Estimation of small area mean using stratified sampling with auxiliary variables and optimal allocation in the presence of non-response. *Year of Completion 2021*.
3. Student name: **Charles Ngonga**. University: Jaramogi Oginga Odinga University of Science & Technology. Course: MSc. in Food Security and Sustainable Agriculture. Topic: Growth performance and economic efficiency of *Acheta domesticus* and *Gryllus bimaculatus* reared under improvised cage system for sustainable food production. *Year of Completion 2021*.

MSC SUPERVISION AS A LECTURER (GRADE 12)

1. Student name: **Shukrani Magundo**. University: Catholic University of Eastern Africa. Course: MSc. in Statistics. Topic: Multiple discriminant analysis as applied to language distinction. *Completed*.
2. Student name: **Ndurya Ngolo**. University: Catholic University of Eastern Africa. Course: MSc. in Statistics. Topic: An application of survival analysis on Broilers in *la Nyevu* poultry farm in Kaloleni sub-county. *Completed*.

SOCIETY AND ASSOCIATION MEMBERSHIP

1. The international *Biometric* Society.
2. A registered member of *GitHub* Community.
3. A member of Bayesian computing with Integrated Nested Laplace Approximation - *R-INLA* project.
4. A registered member of *edX* and *Coursera* MOOCS online community.
5. A member of *rblogs* and have contributed at least 20 blogs.
6. A member of *Stack Overflow* - Where R Developers Learn, Share, & Build packages.

SKILLS

Languages

English (fluent)

Kiswahili (fluent)

Software

R, \LaTeX , STATA, SPSS

REFERENCES

1. Dr. Lalisa Duguma, Ph.D.
Climate change, Sustainable landscapes, Forest policy and governance
World Agroforestry Centre
Email: l.duguma@cgiar.org
Phone: (+254) 717586304.
2. Prof. Bernard Omolo, Ph.D.
Division of Mathematics & Computer Science
University of South Carolina-Upstate
Email: bomolo@uscupstate.edu
Phone: (+254) 720556171
3. Prof. Regina Nyunja, PhD
Dean (School of Biological, Physical, Mathematics and Actuarial Sciences (SBP-MAS))
Jaramogi Oginga Odinga University of Science and Technology
P.O. Box 210 - 40601 Bondo – Kenya.
Phone: (+254) 721465969
E-Mail: reginanyunja@gmail.com