

JAMES K. MUSYOKA

Department of Statistics and Actuarial Science
Maseno University, Kisumu-Busia Road

Phone: +254-724204293
Email: jkmusyoka@maseno.ac.ke

P.O. Box 333-40105,
Maseno, Kenya

EDUCATION

- 2018 Ph.D. in Applied Statistics, Maseno University
- 2012 M.Sc. in Applied Statistics, Maseno University
- 2007 B.Sc. in Applied Statistics (First Class Honors), Maseno University
- 2003 Certificate in Information Technology, JKUAT

RESEARCH EXPERIENCE

1. Principal Investigator, International Mathematical Union project – Exploring Electronic Assessment for 1st/2nd Year Mathematics and Statistics Courses (Dec 2018 – Sep 2019)
2. Research Fellow, ILRI Project – Enhancing Access to Climate Information Services for Smallholder Farmers in Nyando (Jan 2014 – Dec 2017)

TEACHING EXPERIENCE

Lecturer – Maseno University Kenya (2018 – Present)

- Created lecture materials for teaching a variety of both statistics and service courses
- Co-developed a computer-assisted statistics textbook for introductory statistics
- Designed and facilitated online learning materials for various statistics courses
- Implemented computerized assessment activities for statistics courses that provide instant feedback to a statistics undergraduate class of 1000 students
- Published 10 peer-reviewed scientific papers that describe innovative teaching approaches that I have initiated to balance theory and practice in teaching of statistics

Guest Lecturer – African Institute of Mathematical Science(AIMS),

- Courses taught: Handling Data, Statistical Problem-Solving, Statistical Climatology
- Created innovative and engaging postgraduate statistics teaching and learning materials
- Developed tutorial and practical exercises using real datasets to facilitate understanding
- Integrated statistical software i.e. R in the teaching and delivery of statistical concepts
- Developed assessment activities to facilitate mastery of statistical concepts

Tutorial Fellow – Maseno University, 2012 - 2018

- Developed learning content for undergraduate courses
- Delivered content using lectures, lab and tutorial sessions
- Set, moderate and provide student feedback to assessment activities
- Studied and attained the qualification of PhD

Graduate Assistant – Maseno University, 2008 - 2012

- Attained the qualification of MSc in Applied Statistics
- Assist senior members of staff to assess students
- Assist lectures with large classes with running tutorial sessions

- Assist to provide personal feedback to students for the different assessment activities

HONORS AND AWARDS

Grantee - International Mathematical Union, Amount € 4000

Project: - Electronic Assessment of Maths and Statistics Courses at Undergraduate Level

PROFESSIONAL MEMBERSHIP

International Association of Statistics Education (IASE)

Young African Statistician

SKILLS AND TRAINING

- Mathematical ability and computer literacy
- A strong understanding of statistical concepts and methods
- Good analytical skills
- Written and oral communication skills
- Problem-solving skills
- Ability to communicate results and findings to non-statisticians
- Ability to lead and influence others
- High level of attention to detail
- Ability to plan your work and meet deadlines
- Ability to work alone and within teams.

LEADERSHIP EXPERIENCE

Departmental Examinations Officer, 2014 - 2020

CONFERENCES AND WORKSHOPS

2017 World Statistics Congress, Marrakesh, Morocco

2017 IASE Satellite Conference, Rabat, Morocco

2017 5th International Conference on Climate Services, Cape Town, South Africa

2013 2nd Strathmore International Mathematics Conference, Nairobi, Kenya

2012 12th International Conference on Mathematics Education, Seoul, Korea

2012 IASE Roundtable Conference, Manilla, Philippines

2010 8th International Conference on Teaching Statistics,

PUBLICATIONS

1. Stern, D., Stern, R., Parsons, D., Musyoka, J., Torgbor, F., Mbasu, Z. (2019) Envisioning Change In The Statistics-Education Climate, Statistics Education Research Journal, 19(1), 206–225, <http://iase-web.org/Publications.php?p=SERJ>
2. Musyoka, J., Stern, R., Stern, D. (2017) Open Educational Resources for Statistics Teaching. https://iase-web.org/documents/papers/sat2017/IASE2017%20Satellite%20N44_MUSYOKA.pdf
3. Lunalo, J., Musyoka, J., Nd'ungu, S., Stern, D. (2017) Embedding Data Manipulation in R-Instat. http://iase-web.org/documents/papers/sat2017/IASE2017%20Satellite%20R45_LUNALO.pdf

4. Fleming, E., Mbasu, Z., Stern, D., Parsons, D., Ayere, M., Hoffmann, F., Musyoka, J., Mawora, T., Clarke, C., Borio, S., Obiero, M. (2015) Exploring The Role of Extra Curricula Maths Camps and Clubs in Kenya and Beyond <https://library.iated.org/view/FLEMING2015EXP>
5. Musyoka, J., Coe, R. (2015) Climate Variability Challenges and Solutions. Technical Guide https://www.researchgate.net/publication/308793435_Climate_Variability_Challenges_and_Solutions
6. Musyoka, J., Stern, D., Stern, R. (2014) Building Strength from Compromise; A Case Study of Five Year Collaboration between the Statistical Services Centre of the University of Reading, UK and Maseno University, Kenya. 9th International Conference On Teaching Statistics (ICOTS), Flagstaff, USA, http://icots.info/9/proceedings/pdfs/ICOTS9_10C4_STERN.pdf
7. Musyoka, J., Otieno, J., Stern, D. (2012) Using elearning to Engage Mathematics and Statistics Students in a Kenyan University; https://www.researchgate.net/publication/265161683_Using_elearning_to_Engage_Mathematics_and_Statistics_Students_in_a_Kenyan_University
8. Musyoka, J., Otieno, J., Stern, D. (2010) Training of Statistics Lecturers at Maseno University, Kenya; http://icots.info/icots/8/cd/pdfs/contributed/ICOTS8_C191_MUSYOKA.pdf