#### Olushina Olawale AWE, Ph.D.

(Former Council Member of the International Society for Business and Industrial Statistics, Current Vice-President of the International Association for Statistics Education (IASE))

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Google Scholar: https://bit.ly/3QGtFiW

## **Brief Profile**

Olushina Olawale Awe is a Nigerian-born statistician and data scientist with a rich tapestry of accomplishments and leadership roles in the global statistical community. With an illustrious career, he has garnered international recognition and made substantial contributions to the world of data-driven disciplines. As the Vice President of Global Engagement and Public Relations for the LISA 2020 Global Network, Olawale Awe has been an instrumental bridge-builder, fostering global collaboration and communication. His journey to academic prominence includes a remarkable feat, where he emerged as the sole statistics leader selected out of 108 applicants from 34 developing countries to represent Africa as a Google-funded LISA 2020 Statistics and Data Science Ambassador in the United States in 2013. His visionary leadership shone brightly when he established Africa's inaugural LISA 2020 Data Science Laboratory in 2014, marking a pivotal milestone in advancing data science and statistical capacity across Africa and in more than ten developing countries. He is presently one of the vice presidents of the International Association for Statistics Education (IASE), and a former council member of the International Society for Business and Industrial Statistics (ISBIS). He aims to drive positive change at ISI through mentorship and capacity building in statistics in regions with limited access to educational opportunities.

# Education

• Ph.D. Statistics, University of Ibadan, Ibadan, Nigeria (2012-2016).

<u>Thesis Title:</u> Recursive Bayesian Algorithm for Estimating Time-Varying Parameters.

- Certificate in Interdisciplinary Statistics and Data Science Virginia Tech, USA (2013-2014)
- Master of Business Administration (Finance), Obafemi Awolowo University, NG (2008-2010).
- M.Sc. Statistics, University of Ibadan, Ibadan, Nigeria (2005-2007).
- B.Sc. Statistics (Second Class, Upper Division), University of Ilorin, Nigeria (2000-2003).

# **Employment History**

09/2023- Present **Professor** and Head of Data Science- Anointed University, South Africa (Remote).

09/2021-2023 **Professor and PhD Advisor**, Global Humanistic University, Curacao.

03/2020- 09/2020 **Visiting Scholar**-Department of Statistics, Institute of Mathematics and Statistics, Federal University of Bahia (UFBA), Salvador, Brazil. (<u>https://est.ufba.br/pt-br/professores-visitantes</u>)

 Research Coordinator at the Statistical Learning Laboratory, Federal University of Bahia (UFBA)- 2021-Present (https://sally.ufba.br/people.html)

09/2017-09/2021 Anchor University Lagos (AUL), Nigeria (Senior Lecturer).

- Senior Lecturer in Statistics, Department of Mathematical Sciences.
- Courses taught include: Applied Statistics and Statistical Computing, Probability, Statistical Inference, Advanced Mathematics, Mathematical Methods, Partial Differential Equations, Statistics in Economics (Econometrics), Calculus.
- Established and coordinated the Department's Statistical Consulting Centre.

- Supervised undergraduate student projects
- Conducted research in Machine Learning, Econometrics, and Time Series Analysis.
- Adjunct Senior Lecturer to Departments of Economics, Business Administration and Accounting, Anchor University Lagos.
- Attracted Four (4) visiting scholars from the USA, Kenya, and Spain to present capacity-building seminars and workshops at Anchor University Lagos.
- Presented some results of my research at the Centre for the Studies of African Economies 2018 Conference, Oxford University, United Kingdom (Fully sponsored by CSAE, Oxford University).
- Facilitated the signing of a Memorandum of Understanding on joint research and exchange of staff and students between Anchor University and the University of Colorado Boulder, USA.
- Organized the First International Workshop on Time Series Analysis in Nigeria (Sponsored by World Bank and ISBIS).
- Revised Statistics syllabus to meet accreditation standards.
- Panel Member, Mock Accreditation Exercise 2019-Anchor University, Lagos.
- Chair, Committee on Monthly Faculty Colloquium.
- Chair, Research and Development Committee.
- Member of the Senate Committee on Academic Planning and Quality Assurance.
- Appointed as the University SIWES Coordinator.
- I participated in the accreditation of Eleven (11) courses.
- Served as Associate Editor of Anchor University Journal of Science and Technology (AUJST).
- Developed Data Science science curriculum

09/2017- Present **Director/Coordinator-** Anchor University's Statistical Consulting.

- Statistical Consultant- formally/informally supervised over 10 Masters and Ph.D. students.
- I facilitated and taught research capacity-building workshops to boost the research capacity of about 100 staff and students within and outside the university community.
- I mentored over 50 undergraduate students from various departments on data science, statistics, and research skills.
- I helped with the submission of papers in high-impact journals.
- Generated funds for the university through quarterly workshops.

08/2010-09/2017 **Lecturer**, Department of Mathematics, Obafemi Awolowo University.

- Courses taught include Stochastic Processes, Regression Analysis, Experimental Design, Statistical Inference, Mathematical Methods, Introduction to Statistics, Elementary Mathematics, Probability Theory, and Statistical Decision Theory.
- Established and coordinated the Department's Statistical Consulting Centre.
- Served as a statistical consultant- advised Master's and Ph.D. students and lecturers in the university community on their research and data analyses.
- Facilitated and taught four national research capacity-building workshops to boost the research capacity of about 120 staff and students within and outside the university community.
- Participated in co-supervision of MSc Thesis.
- Mentored about 45 undergraduate/graduate students from departments of Demography and Social Statistics, Ecology, and Mathematics (Statistics Unit) on data science, statistics, and research skills.
- Facilitated the signing of a Memorandum of Understanding (MoU)

on joint research and exchange of staff and students between Obafemi Awolowo University, and Virginia Polytechnic Institute, and State University, USA.

- Attracted Two (2) visiting scholars from the USA to present capacity-building seminars/workshops at Obafemi Awolowo University, Ile-Ife, Nigeria.
- I attracted an in-house visiting scholar from the USA for 6 months.
- I presented some results of my research at international Conferences in the USA, United Kingdom, and Brazil.
- Introduced graduate students at OAU to the use of R Software.
- Formally and informally advised/co-supervised over 10 Masters and Ph.D. Students.

09/2013-09/2014 **Visiting Scholar**, Laboratory for Interdisciplinary Statistical Analysis (LISA), Department of Statistics, Virginia Polytechnic Institute and State University, USA.

- Taught three capacity-building short courses/workshops to non-statisticians in the Virginia Tech community on Survey Design and Analysis, Regression Methods, and Use of R Software.
- Served as associate/lead statistical collaborator on about 25 interdisciplinary projects.
- Carried out data visualization and analysis for clients using R and SPSS.

- Served as a statistical consultant- advised Masters, Ph.D. students, and lecturers on their research and data analyses.
- Presented invited papers at five international conferences in the United States.
- Co-authored five published conference proceedings with my host.
- I received a Certificate of Excellence in Statistics from the Department of Statistics, Virginia Tech.
- Became a major protagonist of the LISA 2020 Program (www.lisa2020.org) to boost data science capacity and research

development in Africa.

 Made economic impacts in the nation through training researchers on data skills (see <u>https://www.africanewshub.com/news/9056526-group-seeks-</u> <u>economic-improvement-through-data</u>).

03/2007-08/2010 Ag. Head, Accounts and Admin, WEMA Bank Pic, Ile- Ife, Nigeria.

- Managed the loan data and portfolio of about 70 clients.
- Maintained loan data quality and analysis.
- Conducted loan and portfolio data analysis
- Contributed to the overall growth of the branch.
- Ensured compliance with the bank's policies/procedures and regulatory requirements.
- Managed the international banking transactions of the branch.
- Made over 50 smart decisions that contributed to the bank's growth.
- Managed financial and human resources
- Engaged in relationship risk management
- Used SWOT Analysis to identify business opportunities

## **International Professional Offices**

- VP of Global Engagement and PR-LISA 2020 Global Network, USA
- Visiting Professor, African Institute for Mathematical Sciences (AIMS)
- VP of International Association for Statistics Education (IASE): 2023-2025
- Country Coordinator, International Statistical Literacy Program (ISLP) of the International Association for Statistics Education (IASE)(2015-2021).
- Council Member of ISBIS (2017-2021)
- Member, ISBIS Nomination Committee (NC) (2021/2022)
- Member, Short Course Committee-ISI WSC 2021
- LISA 2020 Engagement Ambassador to Africa.
- President, ADA Global Academy
- Member, Jan Tinbergen Award Committee of the ISI WSC 2019, Malaysia.
- Reviewer, IASE Proceedings, 2019, 2021, 2023.
- Reviewer, 7th Lindau Nobel Laureate Meeting in Economic Sciences, Lindau, Germany.
- Lead Editor: LISA 2020 Edited Volume Book on "Promoting Statistical Practice and Collaboration in Developing Countries".
- Reviewer for impact factor journals like Economics Letters, Statistical Papers, BMC Public Health, Expert Sysyes with Applications, Scientific Reports, BMC Pediatrics, African Economic Review, EJASA, SERJ, Statistics in Transition, etc.

#### **Research Interests**

Statistical Modeling, Machine Learning, Computational Statistics, Business Analytics, Econometrics, Statistics Education, Time Series Analysis, and Biostatistics.

#### Selected Awards/Honours

**2021-2023** I received a FAPESP Research Grant to conduct research at IMECC, UNICAMP.

**2020** Received AFIDEP/AAS Travel Award to attend the Research and Policy Engagement Workshop in Nairobi, Kenya.

- **2020** Received a CAPES Research award to conduct research at UFBA, Salvador, Brazil.
- **2019** I received the LISA 2020 Travel Award to Attend 62<sup>nd</sup> World Statistics Congress.
- 2019 Appointed as the LISA 2020 Ambassador to Africa

2018 Received the only travel award given to a Nigerian to attend CSAE

2018 Conference at Oxford University, United Kingdom.

- **2018** Became an Elected Member of the International Statistical Institute (ISI).
- **2018** Selected as part of the 25 notable Africans to become Affiliate Members of the African Academy of Sciences (AAS), Nairobi, Kenya (Cohort 4).
- **2017** Elected as a Council Member of ISBIS (2017-2021).
- **2017** Received African Development Bank Travel Award to attend the 61<sup>st</sup> World Statistics Congress in Marrakech, Morroco.
- **2015** Received World Bank Travel Award to Attend the 60th World Statistics Congress in Brazil.
- **2014** Best Runner-Up Paper Presentation at the Annual Virginia Academy of Science Conference held at Virginia Commonwealth University, Virginia, USA (Cash Prize).
- **2013** Selected solely among 108 applicants from 34 developing countries as the First LISA Fellow to be trained for one year at Virginia Tech, USA.

- **2013** Inducted into the Mu Sigma Rho National Statistical Honors Society of USA.
- 2011 Received recognition and commendation letter from The Director General, National Mathematical Center (NMC), Abuja in recognition of my outstanding contribution and presentation during the 'Capacity Building Workshop for Lecturers in Tertiary Institutions on Computer Software and Statistical Packages' (October 2011).
- **2007** Overall best performance in coursework (MSc, 2007 graduating set) Department of Statistics, University of Ibadan, Nigeria.
- **2007** Best result in Bayesian Theory and Advanced Econometric Methods (MSc 2007 graduating class), Department of Statistics, University of Ibadan, Nigeria.

#### **Research Grants Received**

- 2023 Received FAPESP Research Grant to conduct research at IMECC, UNICAMP (Over R\$ 200,000)
- 2021 Received \$15000 USAID Grant for LISA 2020 Book Publication.
- 2020 Received \$11,000.00 USAID/LISA 2020 TEACH Fund for Statistical Survey on Wealth Creation in Ekiti State Nigeria.
- 2019 World Bank/ISBIS Workshop Grant to conduct Regional Workshop on Time Series Analysis for Researchers in Sub-Saharan Africa - (\$8500)
- 2013 Granted a Tertiary Education Trust Fund to Conduct Research on Econometric Modelling of the Nigerian Economy \$20,000 (N3, 456,000.00).
- 2013 Beneficiary of Google Funded Research Grant to Visit Virginia Tech, USA (\$40,000.00)

#### Other selected travel grants:

- (i) USAID Travel Grant for LISA 2020 Symposium Ghana 2022
- (ii) USAID Travel Grant for LISA 2020 Symposium Malaysia, 2019.
- (iii) SuSTain Travel Grant Award- University of Bristol, United Kingdom.
- (iv) CIMPA Travel Grant 2013 (not utilized)
- (i) World Bank Travel Grant Award to attend ICOTS9, Flagstaff Arizona, USA

- (ii) ISBA Travel Grant to attend O-Bayes 2013, Duke University, USA
- (iii) Travel Grant Award to attend ISBA-George Box Conference, University of Washington, Washington DC, USA.
- (iv)Naval Research Travel Grant to attend ISBIS 2016 Meeting in Barcelona, Spain.

## **Selected Publications**

(I have published about 100 interdisciplinary articles/book chapters in local and international journals. Some of them are listed below)

 Awe, O.O., Dukhi, N., Dias, R (2023). Shrinkage Discriminant Algorithms for Classifying High-Dimensional Heteroscedastic Data: Insights from a National Health Survey. *Machine Learning with Applications* 12 (2023), 100459 (Elsevier).

2. Sewpaul, R, **Awe, O. O**., Dogbey, D. M., Sekgala, D., & Dukhi, N. (2021). Classification of Obesity among South African Female Adolescents: Comparative Analysis of Logistic Regression and Random Forest Algorithms. *International Journal of Environmental Research and Public Health*, *21*(11), 9757.

- Awe, O. O., Atofarati, E. O., Adeyinka, M. O., Musa, A. P., & Onasanya, E. O. (2023). Assessing the factors affecting building construction collapse casualty using machine learning techniques: a case of Lagos, Nigeria. *International Journal of Construction Management*, 1-9. (Taylor & Francis)
- Dukhi, N., Awe, O.O., Sewpaul, R., Sekgala, M. D., & Dogbey D. M. (2023). Factors associated with adolescent obesity in South Africa: empirical insights from machine learning approach. *To appear in Frontiers* (Web of Science).
- Awe, O. O., Musa, A. P., & Sanusi, G. P. (2023). Revisiting economic diversification in Africa's largest resource-rich nation: Empirical insights from unsupervised machine learning. *Resources Policy*, *82*, 103540.
- Vance, E. A., Love, K., Awe, O. O., & Pruitt, T. R. (2022). LISA 2020: Promoting Statistical Practice and Collaboration in Developing Countries. In *Promoting Statistical Practice and Collaboration in Developing Countries* (pp. 27-46). Chapman and Hall/CRC.
- 7. Awe, O. O., Fagbamigbe, A. F., Evans, E., Olorukooba, A. A., Awe, O. D., Adarabioyo, M. I., ... and Babalola, B. T. (2022). Building Biostatistics Capacity in

Developing Countries. In *Promoting Statistical Practice and Collaboration in Developing Countries* (pp. 495-514). Chapman and Hall/CRC (Taylor and Francis).

- Awe, O. O., & Vance, E. A. The ABC of Successful Statistical Collaborations: Adapting the ASCCR Frame in Developing Countries. In *Promoting Statistical Practice and Collaboration in Developing Countries* (pp. 149-156). Chapman and Hall/CRC.
- Awe, O. O., Jegede, P. O., & Cochran, J. A. (2022). Comprehensive Tutorial on Factor Analysis with R: Empirical Insights from an Educational Perspective. In *Promoting Statistical Practice and Collaboration in Developing Countries*. Chapman and Hall/CRC.
- Awoleye, O. M., Abegunde, A. A., & Awe, O. O. (2022). Retrieval of Unstructured Datasets and R Implementation of Text Analytics in the Climate Change Domain. In *Promoting Statistical Practice and Collaboration in Developing Countries* (pp. 285-299). Chapman and Hall/CRC (Taylor and Francis).
- Gayawan, E., Somo-Aina, O., & Awe, O.O (2022). Spatio-temporal dynamics of child mortality and relationship with a macroeconomic indicator in Africa. *Applied spatial analysis and policy*, *15*(1), 143-159. (Springer)
- Obidi, O. F., Awe, O. O., Vikesland, P., Leng, W., Chan, M., Oyagha, B., ... & Soyinka, O. (2022). Vibrational spectroscopy and non-parametric analysis for biodegradation evaluation: The acrylic-emulsion paint scenario. *Vibrational Spectroscopy*, *123*, 103427 (Elsevier).
- Awe, O. O. and Dias, R. (2022). Comparative Analysis of ARIMA and Artificial Neural Network Techniques for Forecasting Non-Stationary Agricultural Output Time Series", AGRIS online Papers in Economics and Informatics, Vol. 14, No. 4, pp. 3-9 (Scopus).
- 14. Awe, O. O., Dogbey, D. M., Sewpaul, R., Sekgala, D., & Dukhi, N. (2021). Anaemia in children and adolescents: a bibliometric analysis of BRICS countries (1990–2020). International Journal of Environmental Research and Public Health, 18(11), 5756.
- 15. Awe, O.O., Mudida, R. and Gil-Alana, L. A. (2021): Comparative analysis of economic growth in Nigeria and Kenya: A fractional integration approach. International Journal of Finance and Economics (Wiley) 25(3). (Wiley).

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- Awe, O.O, Ayeni, O., Sanusi, G., & Oderinde, L. (2021). A comparative time series analysis of crude mortality rate in the BRICS countries. *BRICS Journal of Economics*, 2(2), 17-32.
- 17. Awe, O.O., Aromolaran, O. and Adepoju, A.A. (2020). Time-varying predictors of non-oil export volatility in Nigeria. *African Journal of Business and Economic Research (AJBER), 16(1). Pp. 151-156. (Scopus)*
- 18. Awe, O. O. and Adepoju, A. A. (2020): Bayesian estimation of time-varying parameters in the presence of discounted evolution variance. *Journal of the Nigerian Mathematical Society* 39(2): 183-209.
- 19. Adarabioyo, I., **Awe, O. O.,** Agunloye, O. K., and Gil-Alana, L. A. (2020). A novel approach for Stock Price Modeling based on fractional integration analysis. *Solid State Technology*, *63*(6), 4467-4476.
- 20. Gayawan, E., Awe, O. O., Oseni, B. M., Uzochukwu, I. C., Adekunle, A., Samuel, G., ... & Adegboye, O. A. (2020). The spatiotemporal epidemic dynamics of COVID-19 outbreak in Africa. *Epidemiology & Infection*, *148*, e212.
- 21. Rodrigues, P. C., Awe, O. O., and Sousa, J. (2020): Modelling the behavior of currency exchange rates with Singular Spectrum Analysis and Artificial Neural Networks. *Stats*, *3*(2), *137-157. (MDPI).*
- 22. Awe, O. O. and Adepoju, A. A. (2020): Change point detection in C02 emission-energy consumption nexus using a recursive Bayesian estimation approach. Statistics in Transition- Journal of the Polish Statistical Association, 21 (1):123-136.
- 23. Awe, O.O., Mudida, R. and Gil-Alana, L.A. (2020): Inflation Persistence in Africa's Largest Economy: A fractional integration analysis (*To appear in Resources Policy (Elsevier)*).
- 24. Awe, O.O. Rodrigues, P.C., and Mahmoudvand, R. (2020): Non-negative time series reconstruction using singular spectrum analysis: A case study of precipitation dynamics in Nigeria. *Fluctuation and Noise Letters (Elsevier-Scopus).*
- 25. Awe, O.O. and Gil-Alana, L. A. (2020). Fractional integration analysis of precipitation dynamics: Empirical insights from Nigeria. Forthcoming in *Tellus A* (Elsevier).
- 26. Awe, O., Okeyinka, A. and Fatokun, J. (2020): An alternative algorithm for ARIMA model selection. 2020 IEEE International Conference in Mathematics, Computer

Engineering and Computer Science (ICMCECS), Anchor University Lagos.

- 27. Aderemi, T.A., **Awe, O.O,** Adeyeye, T.A. and Pereowei, A.B. (2019): Panel cointegration and Granger causality approach to foreign direct investment and economic growth in South Asian Countries. *Acta Universitatis Danubius*. *15*(7).*pp*.43-54.
- 28. Awe, O.O. and Gil-Alana, L. A. (2019): Time series analysis of economic growth rate series in Nigeria: structural breaks, non-linearity and reasons behind the recent recession. *Applied Economics.* 51 (50):5482-5489. (Taylor and Francis).
- 29. Awe, O.O, Akinlana, D.M., Yaya, O.S. and Aromolaran, O. (2018): Time series analysis of the behavior of import and export of agricultural and non-agricultural goods in West Africa: A case study of Nigeria. *Agris On-line Journal of Economics and Informatics* 10(2):15-22.(*Elsevier-Scopus*).
- *30.* **Awe, O. O**. and Adepoju, A. A. (2018): Modified recursive Bayesian algorithm for estimating time-varying parameters in dynamic linear models. *Statistics in Transition-Journal of the Polish Statistical Association, 19*(2):58-82.
- 31. Gil-Alana, L. A. and Awe, O.O. (2018): Persistence, structural breaks and nonlinearities in stock price time series: empirical evidence from Nigeria. Advances in Financial Planning and Forecasting Vol. 9(2018), pp.1-15 DOI:10.6291/AFPF.201812\_9.0001. (Book Chapter).
- 32. Obidi, O.F., Awe, O.O., Igwo-Ezikpe, M.N. and Okekunjo, F. O. (2018): Production of Phosphatase by Microorganisms isolated from discolored painted walls in a typical tropical environment: A non-parametric analysis. *Arab Journal of Basic and Applied Sciences.* 25(3): 111-121 (Taylor and Francis).
- 33. Onyeuwaoma, N. D., Chineke, T. C., Nwofor, O. K., Crandell, I., Awe, O. O., Olasumbo, A.,... and Joy, N. (2018): Characterization of Aerosol loading in urban and sub-urban locations: Impact on Atmospheric Extinction. *Cogent Environmental Science*, 4(2). (Taylor and Francis).
- 34. Awe, O., and Vance, E. (2018): Improving the teaching and learning of statistics in Nigerian universities through the LISA 2020 program. *Proceedings of the Tenth International Conference on Teaching Statistics (ICOTS10, July 2018), Kyoto, Japan.*
- 35. Olabiyi, K. A., & Awe, O. O. (2017). Children's Quality and Quantity in Nigeria: A

Granger Causality Analysis. Humaniora, 8(3), 211-218.

- 36. Awe, O.O., Sanusi, K.A. and Adepoju, A. A. (2017): An application of Bayesian dynamic linear model to Okun's Law. *Theoretical Mathematics and Applications 7(3):* 27-43.
- 37. Gil-Alana, L. A, Yaya, O. S., and Awe, O.O. (2017): Time series analysis of co-movements in the prices of Gold and Oil: A fractional co-integration approach. *Resources Policy* 53(117-124) (Scopus-Elsevier).
- *38.* Adesunkanmi, S.O. and **Awe, O.O.** (2017): Capital base and micro business performance in Nigeria: A bootstrap regression approach. *Canadian International Journal of Social Science and Education. 10*(2017).
- *39.* **Awe. O.O**. Akinlana, D.M. and Adesunkanmi, S.O. (2016): Foreign trade-foreign exchange nexus in Nigeria: A vector error correction modeling approach. *Binus University Business Review, 7(1):1-7.*
- 40. Awe, O. O. and Adepoju, A. A. (2015): Bayesian optimal filtering in dynamic linear models: An empirical study of economic time series data. *British Journal of Mathematics and Computer Science*. 7(6): 419-428.
- 41. Awe, O.O., I. Crandell, A.A. Adepoju and S. Leman (2015): A time-varying parameter state-space model for analyzing money supply-economic growth nexus. *Journal of Statistical and Econometric Methods.* 4(1): 73-95.
- 42. Awe, O.O. and Vance, E.A. (2014): Statistics education, collaborative research, and LISA 2020: a view from Nigeria. *Proceedings of the Ninth International Conference on Teaching Statistics (ICOTS9, July 2014), Flagstaff, Arizona, USA*.
- 43. Awe, O. O. (2015): Predictive dynamic linear models for external reserves-economic growth nexus: A case study. *Journal of Applied Mathematics and Bioinformatics*. 5(4): 81-98.
- 44. Adelodun, O. A and **Awe, O. O.** (2013): Using LISREL program for empirical research. *Transnational Journal of Science and Technology, 3(8): 1-14.*
- 45. Adarabioyo, M. I., Awe, O. O. and Lawal, F. K. (2012): Modelling socioeconomic factors affecting age at marriage among females in Kogi State, Nigeria. Mathematical Theory and Modeling, 2(2): 44-50.
- 46. Awe, O.O. (2012): How bad is multicollinearity: Evidence from multiple linear regression analysis. *Int. Journal of Current Scientific Research, 2(2)*: 344-349.

- 47. Awe, O. O. (2012): Fostering the practice and teaching of statistical consulting among young statisticians in Africa. *Journal of Education and Practice*, *3*(*3*):54-59.
- Awe, O.O. (2012): On Pairwise Granger causality and econometric analysis of selected economic indicators. *Interstate Online Journal (Virginia Tech, USA). Vol.17:* 1-17.
- 49. Awe, O. O. (2012): Econometric time series analysis: A quantitative focus on a developing economy. *Lambert Academic Publishers, Germany*. (Monograph).
- *50.* Oni, T. O. and **Awe, O. O**. (2012): Empirical Nexus between Corruption and Economic Growth (GDP): A cross-country econometric analysis. *International Journal of Scientific and Research Publications*. *2(8): 8-14.*

# Books (Edited Volumes)

- 1. Awe, O.O., Love, K., & Vance, E. A. (2022). *Promoting Statistical Practice and Collaboration in Developing Countries (Taylor & Francis)*.
- Awe, O.O., Dukhi, N., & Dias, R. (2023). Statistical Machine Learning Applications in Health Research: Case Studies with Sample R and Python Codes (Forthcoming in Taylor & Francis).
- *3.* **Awe, O.O.,** & Vance, E.A. (2023). Sustainable Statistical and Data Science Methods and Practices (*Forthcoming in Springer Nature*).

## Graduate Student Supervision at African Institute for Mathematical Sciences (AIMS)

- Anthonia Oluchukwu Njoku- Improving the Accuracy of Financial Bankruptcy Prediction Using Ensemble Learning Techniques. (MSc Data Science, 2023 AIMS Cameroon)
- Jane Wangui Wanjohi- Comparing Logistic Regression and Neural Networks for Predicting Credit Score: A Lime-Based Interpretability Approach. (MSc Data Science, 2023 AIMS Cameroon)
- Malibongwe Tsabedze- A Comparative Analysis of Sampling Methods for Imbalanced Data Classification in Machine Learning with Health Applications. (MSc Data Science, 2023 AIMS Cameroon)
- 4. Ndikum Sally Ngonsah Obasi- Application of Machine Learning in Geotechnical

Engineering: A Comparative Study of Soil Classification Algorithms. (MSc. Data Science, 2023 AIMS Cameroon)

- Diallo Ramatoulaye Comparative analysis of Matthews correlation coefficient (MCC), F1 score, and balanced accuracy in binary classification evaluation. (MSc. Data Science, 2024 AIMS Senegal)
- Edalo Codjo Machine learning prediction of credit score classification. (MSc, Data Science, 2024 AIMS Senegal)
- Ismaila Elimane Ly- Comparative Analysis of Time Series Models versus Artificial Neural Network for Predicting Climate Data. (MSc. Data Science, 2024 AIMS Senegal).
- 8. Alvine Fandio- Comparative Analysis of Supervised Machine Learning Algorithms for Predicting Imbalanced Health Data. (MSc. Data Science, 2024 AIMS Senegal)

# External Examination of MSc Thesis (AIMS Senegal)

- 1. Emilienne Rachel Kenko: Simulation of Mixed Brachytherapy Treatment by Monte Carlo Method. (MSc. Data Science, 2023).
- Amady Sy: Extreme value analysis of rainfall in West Africa: Case of Senegal. (MSc. Data Science, 2023).
- Adamu Abubakar Saad: Extreme Value Analysis of COVID-19 Levels in Africa. (MSc Data Science, 2023).

# **Keynote Speeches**

- 1. 1st Anointed University Worldwide Leadership Conference: Developing Effective Leadership (September 4-5, 2023).
- 18th International Conference on Statistical Sciences, Imperial College of Business Studies, Lahore, Pakistan: Using Statistics for Sustainable Development Goals and Human Development (Feb 18-20, 2021)
- ADA Global Academy Research Mentorship Series (April, 2022): Practical Skills for Conducting Research.

#### **Conferences/Workshops Attended**

- 1. IASE Satellite Conference- Ottawa, Canada. July 11-13, 2023.
- 2. R Medicine 2023 Virtual Conference, June 5-9, 2023.
- 3. 16th CLAPEM- Sao Paulo, Brazil. July 10 14, 2023
- 16th Brazilian Virtual Meeting of Bayesian Statistics and VI Latin American Conference on Statistical Computing-16-18 March 2022.
- 24<sup>th</sup> National Symposium on Probability and Statistics (SINAPE 2022), Gramado, Brazil. August 1-5, 2022.
- Short Course on Machine Learning Applications to Time Series, Majestic Palace Hotel, Florianopolis Santa Catarina, Brazil - 16-17 Nov. 2022.
- The 66th RBras Annual Meeting- (Bio) statistics and Biometrics in the age of Data Science- Florianopolis/Santa Catarina, **Brazil**-Nov. 16-18, 2022.
- 8. 3<sup>rd</sup> Virtual Conference on Statistics and Data Science (CSDS)-Oct. 28-30, '21.
- 9. 63<sup>rd</sup> Virtual World Statistics Congress July 22-26, 2021.
- How to create and sustain a successful collaboration-virtual webinar organized by the African Academy of Sciences, Nairobi, Kenya (June 11, 2020) (Co-Facilitator). Virtual COVID-19 Innovation and Investment Forum 2020- June14-19, 2020.
- Biostatistics for Big Data Applications- University of Texas Medical Branch (UTMB) Virtual (September 2020) TX, USA.
- Capacity building training workshop in research communication/translation and policy engagement, Nairobi, Kenya (27-31 January 2020).
- Connecting Minds Africa Conference, United Nations Avenue, Nairobi, Kenya (25- 27 September 2019).
- 14. 62<sup>nd</sup> ISI World Statistics Congress held at Palais Des Congress, Kuala Lumpur Convention Centre, Malaysia (18-23 August 2019).
- 15. 2<sup>nd</sup> LISA 2020 International Symposium, Kuala Lumpur, **Malaysia** (August 15-18, 2019).
- Coastal Ocean Environmental Summer School in Ghana (COESSING 2019), Regional Maritime University, Ghana, (August)

5-10, 2019).

- 17. National Workshop on Article Writing and Research Publication held at Anchor University Lagos (28-29 March 2019) (Co-facilitator).
- 2019 International Conference on Sustainable Development in Africa (ICSDA 2019) held at Covenant University, Ota, Ogun State Nigeria (June 19-21, 2019).
- Coastal Ocean Environmental Summer School in Ghana (COESSING 2018), University of Ghana, Legon, Ghana. (July 29-August 4, 2018).
- 20. International Symposium on Business and Industrial Statistics, ISBIS-2018, Athens, **Greece.** (July 4-6, 2018).
- 21.14th Biennial Conference of the Athenian Policy Forum, University of Piraeus,

Athens, Greece. (July 6-8, 2018).

- 22. A 3-Day Project-Based Learning Workshop organized by Center for Project Based Learning, Worcester Polytechnic Institute (WPI), USA 21-23 May 2018.
- CSAE 2018 Conference "Economic Development in Africa", Oxford University, Oxford, United Kingdom. (March 18-21, 2018).
- Project-Based Learning Workshop organized by Worcester Polytechnic Institute, MA, USA at Anchor University Lagos, Nigeria. (May 21-23, 2018).
- 25. Practical Statistical Techniques for Collecting and Analyzing Data held in February, 27<sup>th</sup> -1<sup>st</sup> March, 2018 at Anchor University, Lagos.
- 1<sup>st</sup> National Big Data Economic Summit, Lekki Lagos, Nigeria (12<sup>th</sup> October 2017).
- 27. 1st International Statistical Conference on Positioning National Statistical Systems for Data Revolution and Inclusive Development. (Organized by the Nigeria Statistical Association at the University of Lagos)- 6th-8<sup>th</sup> Sept. 2017. Lagos, Nigeria.
- 28. 61<sup>st</sup> ISI World Statistics Congress held at Palais Des Congress, Marrakech, Morocco (16-21 July 2017).
- 29. Applied Meta-Analysis using R held at Palais Des Congress, Marrakech,

**Morocco** (15<sup>th</sup> July 2017).

- 30. School on Recent Advances in Analysis of Multivariate Ecological Data: Theory and Practice, held at The Abdus-Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy. (24-28 October 2016).
- 31. 1<sup>st</sup> National Conference on Environment and Health, Redeemer's University,
  Ede, Osun State, Nigeria (17<sup>th</sup> -18<sup>th</sup> May 2016).
- American Statistical Association Conference on Statistical Practice, Tampa, FL, USA, (Feb. 22-24, 2015).
- 33.60<sup>th</sup> World Statistics Congress (ISI–International Statistical Institute), Rio Centro, **Brazil.** (July 26-31, 2015).
- 34. 13<sup>th</sup> Faculty Seminar by Professor Eric Vance (Director, Laboratory for Interdisciplinary Statistical Analysis (LISA), Virginia Tech, **USA**), 'Sustaining Statistical Collaboration Laboratory at OAU', Faculty of Science, Obafemi Awolowo University, Ile-Ife, **Nigeria.** (14<sup>th</sup> January 2015).
- 35. 39<sup>th</sup> Annual Conference of the Nigerian Statistical Association, Osogbo,Nigeria. (9- 11 September 2015).
- 36. Joint Statistical Meetings, Boston, MA, **USA** (July 31-August 6, 2014).
- 37. 92<sup>nd</sup> Annual Conference of the Virginia Academy of Science (VAS) held at the Virginia Commonwealth University, Richmond, VA, USA. (15-17 May 2014).
- 38. Annual International Faculty of Science Conference 2014, Quest for Renewed Energy and Sustainable Development, Obafemi Awolowo University, Ile-Ife, Nigeria. (8<sup>th</sup> - 10<sup>th</sup>, October, 2014).
- ISBA-George Box Research Workshop on Frontiers of Statistics held at George Washington University, Washington DC, USA. (20-22 May 2014).
- 40. African Coalition Brownbag Series held at Virginia Tech, Blacksburg, VA, USA.
  (April 2<sup>nd</sup>, 2014).
- 41.8<sup>th</sup> PAN African Congress of Mathematicians held at National Mathematical Centre, **Abuja**, **Nigeria**. (July 31-August 8, 2013).
- 42. International Conference on Objective Bayes (O-Bayes13) held at Duke University, North Carolina, Durham, **USA.** (Dec. 15-19, 2013).

- 43. 32<sup>nd</sup> Annual Conference of the Nigeria Mathematical Society (Ife 2013) held at Obafemi Awolowo University, Ile-Ife, **Nigeria**. (June 25-28, 2013).
- Research Workshop on 'Confronting Intractability in Statistical Inference' organized by the Department of Statistics, University of Bristol, Bristol, United Kingdom. (16- 19, April 2012).
- 45. Annual International Faculty of Science Conference 2012, "Science: The Bedrock for Human Development", Faculty of Science, Obafemi Awolowo University, Ile-Ife, **Nigeria** (14<sup>th</sup> –16<sup>th</sup> of October, 2012).
- Research Workshop on 'Causal Inference in Longitudinal Studies' held at the School of Mathematics, University of Bristol, United Kingdom. (10-13, April 2012).
- 47. 3<sup>rd</sup> Student's Conference on Operations Research (SCOR 2012) held at the University of Nottingham, **United Kingdom** (April 20-22, 2012).
- 48. Conference in honor of the scientific contributions of Professor David Bartholomew, organized by the Department of Statistics, London School of Economics and Political Science, London, United Kingdom (12-13, December, 2011).
- 49. 5<sup>th</sup> International Conference on Computational and Financial Econometrics, held at the Senate House, University of London, **United Kingdom** (16-19 December 2011).
- Capacity Building Workshop on Computer Packages for Lecturers in Tertiary Institutions, held at National Mathematical Centre (NMC), Abuja, Nigeria (16-21, October 2011).
- 51. 35<sup>th</sup> Annual Conference of the Nigerian Statistical Association, held at Akure, Ondo State, Nigeria. (19-23 September 2011).
- 52. Annual Faculty of Science Conference, Obafemi Awolowo University, Ile-Ife,

Nigeria, (23-28 October 2010).

## **Selected Invited Talks**

- 1. Teaching Data Science in Africa via Online Team-Based Learning. Talk given at IASE Satellite Conference, Ottawa Canada (July 11, 2023).
- 2. Improving Probability Calibration in Machine Learning Models (Talk

delivered at CLAPEM 2023, Sao Paulo Brazil)

- Career Advice for Climate Scientists: Talk given at Climatematch Academy, USA (July 24, 2023).
- Supervised Discriminant Algorithms for High Dimensional Heteroscedastic Data (STODAD Seminar 2022, IMECC, UNICAMP).
- Non-Parametric Trend Analysis and Autoregressive Neural Network Modelling of Clustered Climate Data (Latin American Conference on Statistical Computing- EBEB- LASC-2022).
- 6. Modified Shrinkage Discriminant Algorithms for High-Dimensional Heteroscedastic Data Classification (SINAPE, 2022-Gramado, Brazil)
- Modified Shrinkage Heteroscedastic Discriminant Algorithms for Multi-Class High-Dimensional Survey Data- UFBA Seminar, UFBA, Salvador Brazil.
- Teaching Data Science via Virtual Team-Based Learning- LISA 2020 Sustainability Symposium, Kumasi Ghana- May 2022.
- Sensitivity Analysis of Shrinkage-Based Discriminant Algorithms for Classifying High-Dimensional Heteroscedastic Data: Insights from a National BMI Survey-RBrass
- Comparative Analysis of Machine Learning Algorithms for the Classification of Qutelet Index. 3<sup>rd</sup> Conference on Statistics and Data Science, UFBA, Brazil (28-30, Oct. 2021)
- Time-varying Predictors of Export Volatility in Africa's Largest Economy: Empirical Evidence and Critical Policy Implications. CSAE 2018 Conference, Oxford University, United Kingdom. (March 18, 2018).
- Time-varying Predictors of Export Volatility in Africa's Largest Economy. ICSDA 2019 Conference, Department of Economics, Covenant University Ota, Nigeria. (March '19).
- 13. Bayesian Spatiotemporal analysis of child mortality in Africa. Talk delivered at AFIDEP/AAS Research to Policy Workshop, 2020, Nairobi, Kenya.
- 14. Bayesian Estimation of Dynamic Linear Models with Time-Varying Parameters. Presented at the Fourth Faculty of Science and Science Education Colloquium, Anchor University Lagos. (21<sup>st</sup> May 2019).
- 15. Global Warming: Predicting C02 emission from Energy consumption in Africa.

Talk delivered at COMA 2019, Nairobi Kenya.

- "LISA 2020: A Vision towards Research Development in Nigeria." Joint Statistical Meetings, Boston, MA, USA (August 2014).
- 17. Statistics education, collaborative research, and LISA 2020: a view from Nigeria. (ICOTS9, July 2014), Flagstaff, Arizona, USA.
- 18. 'A Time-Varying Parameter State-Space Model for the Nigerian Economy' -Virginia Academy of Science Annual Conference, Richmond, Virginia. (16<sup>th</sup> May 2014).
- 'Building Statistics Capacity in Nigeria through the LISA 2020 Program'.
  60<sup>th</sup> World Statistics Congress, Rio de Janeiro, Brazil. (July 2015).
- 'How to Fit and Interpret your Regression Models'. An invited talk at the Monthly
  'One Hour with a Statistician' Seminar at the Department of Statistics, University
  of Ibadan, Ibadan, Nigeria. (Tuesday, November 14, 2017).

# Selected Volunteer Capacity Building Short Courses/Workshops Taught/Facilitated

- (i) A One-Day Short Course on Regression Methods organized by the Department of Statistics, Virginia Tech, USA- October 2013.
- (ii) A One-Day Short Course on Basics of R organized by Department of Statistics, Virginia Tech, USA- February 2014.
- (iii) A One-Day Short Course on Survey Design and Analysis organized by Department of Statistics, Virginia Tech, USA- 24/03/2014.
- (iv) A 5-Day Intensive Workshop on Practical Data Analysis with R organized by the Department of Mathematics, Obafemi Awolowo University, Ile-Ife, Nigeria (11-15, April 2015).
- (v) A 3-Day Intensive Workshop on Practical Data Analysis with R for Ecologists organized by the Department of Mathematics, Obafemi Awolowo University, Ile-Ife, Nigeria (June 1-3, 2016).
- (vi)Workshop for Researchers on Data Management with R, IITA, Ibadan (July 2016)
- (vii) A 2-Day Intensive Workshop on Practical Steps in Collecting and Analyzing Research Data organized by the Department of Mathematics,

Anchor University, Lagos, Nigeria (September 2017).

- (viii) A 3-Day Intensive Workshop on Article and Thesis Writing with Latex organized by Faculty of Natural and Applied Sciences, Anchor University Lagos, Nigeria (November 2017).
- (ix) A 3-Day Intensive Workshop on Practical Steps in Collecting and Analysing Research Data organized by the Department of Mathematical Sciences, Anchor University, Lagos, Nigeria (Feb. 27-March 1, 2018).
- (x) Data Analysis, Visualisation, and Programming with Python Workshop held at Anchor University Lagos, Nigeria (12-15/11/2018).
- (xi) ISBIS Regional Workshop on Basic and Advanced Time Series Analysis: Theory, Practice, and Programming. Anchor University Lagos (September 11-14, 2018).
- (xii) A 2-Day Intensive Workshop on Article Writing, Publication and Grantsmanship, Anchor University Lagos, Nigeria (March 28-29, 2019).
- (xiii) Statistical Data Analysis with R- African Biosciences Limited (ABL),Ibadan, Oyo State, Nigeria (June 10-12, 2019).
- (xiv) Problem-Project Based Learning Workshop-Held at Anchor University Lagos (June 13, 2019)
- (xv) ISBIS Regional Workshop on Time Series Analysis with Big Data Applications.

Anchor University Lagos. (September 9-11, 2019).

- (xvi) ISBIS Regional Workshop on Big Data Analytics and Machine Learning.Anchor University Lagos/University of Lagos. (December 7-10, 2020)
- (xvii) Training on R, Python, and Machine Learning. Olusegun AgaguUniversity of Science and Technology, Ondo. (July 25-27, 2023).

**Core Values:** Integrity, Diligence, Excellence, Competence, Courage, and Dedication to Duty.

Marital Status: Married (with four children).

## My Leadership Vision for moving ISI Forward

Considering my extensive involvement in statistical education, global collaboration, and capacity-building initiatives, my potential areas of focus based on my expertise and past contributions if elected as a council member are as follows:

1. **Expansion of Global Statistical Education:** I will advocate for the expansion of statistical education programs globally, especially in regions with limited access to educational opportunities. This could include promoting workshops, training sessions, and educational initiatives aimed at fostering statistical literacy and skill development. This will increase the membership of ISI in these regions.

2. **Promotion of Diversity and Inclusivity:** I will prioritize initiatives that promote diversity, equity, and inclusivity within the statistical community. This could involve advocating for representation from diverse backgrounds and underrepresented regions, ensuring a more inclusive and representative statistical organisation.

3. **Mentorship:** Given my commitment to mentorship and capacity building, I would champion initiatives focused on mentoring aspiring statisticians, especially in areas where educational resources are scarce. This might involve establishing mentorship programs and partnerships to nurture talent and provide guidance to emerging statisticians.

4. Advancement of Data Science and Technology: I would emphasize the integration of cutting-edge technology and advancements in data science within statistical practice, while encouraging the adoption of innovative tools, methodologies, and interdisciplinary collaborations could be part of his vision to propel statistical research and application forward.

5. **Global Collaboration and Partnerships:** Leveraging on my experience in fostering global collaboration, I will prioritize building strategic partnerships and collaborations between ISI and other organizations worldwide. This could facilitate knowledge exchange, joint initiatives, and collaborative projects, which could further enhance the impact and reach of statistical endeavors globally.

6. **Capacity Building in Developing Nations**: Establish initiatives aimed at enhancing statistical capacity and expertise in developing countries, fostering local talent and skill development.

7. Promotion of Data Literacy: Advocate for improved data literacy worldwide,

emphasizing its importance across disciplines and industries.

8. **Public Engagement and Advocacy:** Engage in public outreach and advocacy efforts to demonstrate the relevance and impact of statistics in addressing societal issues and policymaking.

9. **Continued Professional Development**: Support lifelong learning and continuous professional development among statisticians through workshops, conferences, and online resources.

10. **Sustainable Development and Social Impact**: I would advocate for statistical initiatives that contribute to sustainable development goals and have a tangible social impact. Encouraging statistical research and applications that address societal challenges, such as healthcare, environmental sustainability, and economic development, is my vision for projecting ISI to greater heights.