
PROFESSIONAL STATISTICIANS SOCIETY OF NIGERIA (PSSN)
UNN 2021
Invitation and Call for Papers to the
5th International Virtual Conference
Mon 5th – Thurs 8th July 2021
Theme
STATISTICS FOR NATIONAL SECURITY AND SOCIO - ECONOMIC DEVELOPMENT
Sub - Themes
Statistical Modeling of Impacts of National Security on Sustainable Development Goals (SDG)
Statistical methods for Socio - Economic Development.
Big data Analysis for National Security and Economic Development
Statistical Theories, Methods and Applications
Keynote Address:
Prof. Charles Arinzechukwu Igwe
Vice Chancellor
University Of Nigeria, Nsukka
Dr. Mohammed Tumala
Director, Statistics, CBN, Abuja.
Lead Paper Presenters:
Prof. Msugh Moses Kembe
Immediate past Vice Chancellor
Benue State University, Makurdi
Prof. Hamparsum Bozdogan
Dept. of Business Analytics and Statistics
University of Tennessee, U.S.A.
Prof. Ashis Sengupta
Applied Statistics Unit
Indian Statistical Institute, Kolkata
Prof. Frank Coolen
Professor of Statistics
Dept. of Mathematical Sciences
Durhan University,, United Kingdom
CALL FOR PAPERS
All intending participants who wish to present papers at the conference are cordially requested to submit their abstracts online by creating account (for new users) into their portals on our webpage at www.pssng.org. Please note that all conference participants must register through the PSSN portal www. pssng.org for ease of access to their conference certificate.
Note that your abstract must contain the following features: Title, Name(s) of Author(s), Affiliation(s), e-mail address of the corresponding author, body of the abstract and maximum of five keywords. The deadline for submission of abstracts is June 15, 2021.
NOTE: All fees should be paid online into the PSSN account through the payer's portal on the PSSN webpage at www.pssng.org
REGISTRATION FEES
A. CONFERENCE FEES:
All participants – N10,000.00
Students - N7,500.00
B. MEMBERSHIP REGISTRATION:
New Professional Member - N5,000.00
New Student Member - N2,500.00
C. ANNUAL DUES:
Professional Member - N3,000.00
Student Member - N1,500.00
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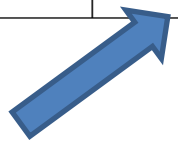
PROFESSIONAL STATISTICIANS' SOCIETY OF NIGERIA (PSSN)
5th International Conference/2nd VIRTUAL CONFERENCE
Monday 5th – Thursday 8th July 2021
TABLE OF ABSTRACTS / SCHEDULE FOR PRESENTATIONS

Time	ITEM		
	Day 1: Monday, 5 July, 2021		
9.00 – 10.00	**Meet and Greet on Zoom by Participants**		
10.00 – 12.00	**Opening Speech and Keynote Address I by Professor Charles Arizechukwu Igwe** ***Vice-Chancellor, University of Nigeria, Nsuka, Enugu State, Nigeria*** **&** **Keynote Address 2 by *Dr Mohammed Tumala*** ***Director of Statistics, Central Bank of Nigeria***		
12.00 – 1.00pm	**LEAD PAPER PRESENTATION I BY** **Prof. Msugh Moses Kembe** **(Frm. VC, BSU, Nigeria)**		
1.00pm - 2.00pm	**INTERACTIONS AMONG PARTICIPANTS**		
2.00 – 3.00pm	**LEAD PAPER PRESENTATION II BY** **Prof. Hamparsum Bozdogan** **(Univ. of Tennessee, USA)**		
3.00 – 4.00pm	**LEAD PAPER PRESENTATION III BY** **Prof. Bimal Sinha** **(Univ. of Maryland, Baltimore County USA)**		
4.00pm – 5.00pm	**QUESTIONS AND ANSWERS**		
	Day 2: Tuesday, 6 July, 2021		
9.00 – 10.00am	**LEAD PAPER PRESENTATION IV BY** **Prof. Frank Coolen** **(Durhan Univ., UK)**		
10.00– 10.30am	**QUESTIONS AND ANSWERS**		
	Break-up into Parallel Sessions (Zoom Rooms)		
	Group 1	**Group 2**	**Group 3**
Chairman	**Dr A. U. Udom**	**Prof. Francis Udoumoh**	**Prof Imande**
10.30 – 1.30pm	**A1** On Consistency Of Rank-Shapey Value	**B1** A Note on Gene Selection of Tissue Samples using Genetic Algorithm *Morolake Oladayo LAWRENCE, Waheed Babatunde YAHYA, Rasheed Gbenga Jimoh*	**C1** Estimating the parameters of linear regression model with errors driven by shape mixtures of skew t normal distribution. *Nduka Uchenna*

		Muhammed	
	Day 4: Thursday, 8 July, 2021		
	Group 1	**Group 2**	**Group 3**
Chairman	**Dr A. Yahaya**	**Dr C. K. Acha**	**Rev (Dr) Popoola**
09.00 – 11.00am	**A24** Statistical Properties Of Exponentiated Extended Exponential Distribution With Applications To Survival Data *Ismail Kolawole*	**B24** Efficient Data-Mining Algorithm For Predicting Heart Disease Based On Angiographic Test *Banjoko Alabi, Yahya Waheed Babatunde, Garba Mohammed Kabir, Afolayan Razak Bayo, Abdulazeez Kawthar Opeyemi*	**C24** Bayesian Changepoint Modelling of a Multivariate Gaussian Distribution with Application to Spanish Stock Market. *Adegoke Taiwo*
	A25 A New Modified Biasing Parameter Estimators for Ridge Regression Models *Ibrahim Suleman*	**B25** Food web analysis through informatics approach- a deep learning implementation in ecology *Bello Adeshina, Yaun Chang Li*	**C25** Probability Generating Functions Of Occurrance Of Diseases In Health Care Delivery Centre In Nigeria. *Godwin Ayuba Aniah, Abdullahi Shitu Umar, Kassim Abdulganiyu, Hassan Idris, Aliyu Nuhu*



5th International Conferene on
Statistics for National Security and Socio-Economic Development
PROFESSIONAL STATISTICIANS SOCIETY OF NIGERIA

Promoting Professionalism in Statistical Research **July 05–08, 2021 Nsukka, Nigeria**

Food web analysis through informatics approach-A deep learning implementation in ecology

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Machine learning (ML) methods can build predictive models for the networks of trophic links in food webs to explaining ecosystem structure and dynamics. Implementation of machine learning for food web problems is not new: Logic-based machine learning has been successfully used to build insect food webs and others using ANN with either MLR or SOM approaches. However, the observations on previous work's implementations of ML in the food web is that it is difficult to track their models, its architecture, internal parameters and, the number of hidden layers. The ANN/ML were presented, as a black box and this approach is now more trackable with the evolved knowledge of deep learning (DL). Which we have demonstrated in our implementation using deep learning with TensorFlow.

Thinking the future-ecological big data, we have demonstrated why to consider deep learning in Ecology research. Our work explored insight into the future of the big data from various fossil sites that will help to identify species present, dead, or already extinct in environmental samples by sequencing. As of deep Learning in the recent trend of big data in Genomics, it is also, the next break in ecological research that is expected to result in the big data era of Ecological data. The need of implementing various protocols in deep learning for handling ecological big data is the motivation for this work where more ecological problems can be tackled with an informatics approach.

We demonstrate how theoretically correct is the implantation of deep learning to the food web ecology problem of network model building. In our deep learning, we incorporated prior knowledge to enhance our deep machine learning to be robust in extrapolation prediction in an unsupervised manner. Prior knowledge was combined from Globi meta-data base. The trait-based approach computation space was achieved by ML forward and backward propagation of gradient descent, this gave ease to the mathematical intractable of having an effective combination of traits. The best positioning presented in food web trait-based was achieved by the ML parameters twerking. Theoretically, we generally assumed the position that most problem in the food web is similar to a graph network problem. We broadly classify node to taxa; classification link to trophic links; Prediction-direct or undirected edges (predation, herbivory, detritivores, parasitism, cannibalism). Features are relationships between trophs or species. NN input layer encodes the adjacency matrix values for the nodes. The output layer encodes the probability of species relationship type and function group learned by the machine from network data. Hidden layers are functions of the input and are used to efficiently encode through forward-backwards propagation and NN activation function: hyperbolic tangent activation function and tanh.

Results obtained so far, showed greater ecological realism in representing community can be realized in DL.