MATRIX

Paper Presentation:

Title of the Research Paper to be presented * Title of the Research Project * Title of the Research Project * Internally funded , Externally funded or Patriotic Research Keywords ARIMA, count time series, COVID-19, NB-INGARCH, overdispersed, serially correlated Type of Research * (Pls. specify if it is study/project/article) Name of Researcher(s)/ Author * Presenter * (Pls. specify if (Faculty, Graduate or Undergraduate) Objective(s) * Objective(s) * Diangle Summary statistics for the weekly dengue cases and meteorological covariates: cumulative rainfall and average maximum temperature; 3. Obtain time series plots of dengue cases; 5. Provide one-step-ahead forecasting based on the prediction interval that could offer a useful early warning signal of outbreak detection. Beneficiaries * Local DOH, LGU, community, academe Duration * (in terms of months) Date Started (Mo. & Year) * Approved Cost * Php 60, 800.00 Funding Source * OPF-Research/DR Type of Conference * (International/Local) International Int	mu au p	
Title of the Research Project * Development of an Ingarchx Model for Dengue Cases Internally funded , Externally funded or Patriotic Research Keywords ARIMA, count time series, COVID-19, NB-INGARCH, overdispersed, serially correlated Type of Research * (Pls. specify if it is study/project/article) Name of Researcher(s)/ Author * Daisy Lou L. Polestico, Michael L. Ayala Daisy Lou L. Polestico (faculty) Tif(Faculty, Graduate or Undergraduate) 1. Conduct a simulation study in order to illustrate the performance of the MCMC methods, in terms of parameter estimation and model selection; 2. Provide summary statistics for the weekly dengue cases and meteorological covariates: cumulative rainfall and average maximum temperature; 3. Obtain time series plots of dengue cases and the covariates; 4. Fit and compare linear, Markov switching and threshold INGARCHX models for the dengue cases; 5. Provide one-step-ahead forecasting based on the prediction interval that could offer a useful early warning signal of outbreak detection. Beneficiaries * Local DOH, LGU, community, academe Duration * (in terms of months) Date Started (Mo. & Year) * January 1, 2022 Date Completed (Mo. & Year) * January 1, 2022 Approved Cost * PhP 60, 800.00 Funding Source * OPF-Research/DR Type of Presentation * (Oral/Poster) Type of Conference * International		
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Title of Conference * /Symposium	The 5 th International Congress on Natural Sciences with Sisterhood Universities
Venue *	Niigata University, Japan
Date *	September 26-28, 2024
Organizer *	ICNS International Organizing Committee (ICNS iOC) headed by
	Prof. Norikazu Ohtori, Niigata University, Japan (Congress & IOC
	Chairman)

IF THE PAPER IS ALREADY PUBLISHED , KINDLY INDICATE THE REQUIRED FIELDS BELOW

Note: A part of the results to be presented is published in the following paper. However, the greater substance will be submitted for publication

Title of the Article Published*	Modeling COVID-19 cases using NB-INGARCH and ARIMA
	models: A case study in Iligan City, Philippines
Date of Publication *	April 29, 2024
Title of the Journal *	PROCEDIA COMPUTER SCIENCE
Editor/s *	Farahwahida Mohd, Xiaojun Zeng
Publisher *	Elsevier Publications
Vol. No. & Issue No. *	234
Page number(s) and No. of	pp. 262-269
Pages*	
Type of Publication *	International
(International/National/Local)	
ISSN/ISBN No. *	
Indicate indexing of the	Scopus
Journal *	
Thomson Reuters -Indexed,	
Scopus-Indexed , CHED	
Accredited Journals, Others if	
(pls specify)	