Centurion University of Technology & Management

Department of Civil Engineering, Paralakhemundi

Workshop, February – 2023

Brief about the Workshop

The Department of Civil Engineering and Centre for Data Science & Machine Learning of CUTM organized a workshop entitled "**Advancement in trend analysis of time series datasets" on 25/02/2023.**, from 2.00pm to 5.00pm in Zoom Platform.

Resource persons/Trainers

1. Dr. Jayanta Das, Assistant Professor at the Department of Geography in Rampurhat College, University of Burdwan, West Bengal, India.

About the Speaker

His research interest includes agricultural modelling and sustainable management studies, groundwater, flood, drought analysis, climate change, watershed management, hydrological modelling, water quality, geospatial data analysis, data mining, and GIS applications with more than 15 academic years of experience. Dr. Jayanta Das has published more than 30 scholarly articles in peer-reviewed journals, focusing mainly on: climate change, agricultural suitability analysis, natural and man-made hazards analysis, risk management, and spatial data analysis. Recently, Dr. Das has published an edited book entitled Monitoring and Managing Multi-hazards: A Multidisciplinary Approach jointly with Dr. Sudip Kumar Bhattacharya from Springer Nature.

What you get from this Workshop: Practical Coding Session + E-Certificate + Session Recordings

Venue: Online Mode (Zoom Link)

Objective and outcome of the Workshop

The overall workshop session was very much informative and hands on experience. The speaker's way of Hands on demonstration was crystal clear and the participants were engaged in an interactive conversation. The Speaker discussed how time series analysis has been broadly adopted in scientific research and engineering applications. Many theoretical developments and new methods for time series analysis have significantly contributed to the understanding of complex systems. The Speaker also discussed how time series analysis helps organizations understand the underlying causes of trends or systemic patterns over time. Using data visualizations, business users can see seasonal trends and dig deeper into why these trends occur. With modern analytics platforms, these visualizations can go far beyond line graphs. The Speaker showcased a practical way of working with 30 years' time series datasets using software's like R-Studio, Excel and Jupyter Notebook. The participants were overwhelmed the way speaker was engaging everyone's queries with utmost patience and clear description. The Speaker avoided any PPT presentation and totally focused on arranging the datasets and working practically on it with showing how to overcome errors and get the desired output. The Speaker also showcased his publication using these methodologies and motivated participants to work in collaboration. The Speaker discussed the following points:

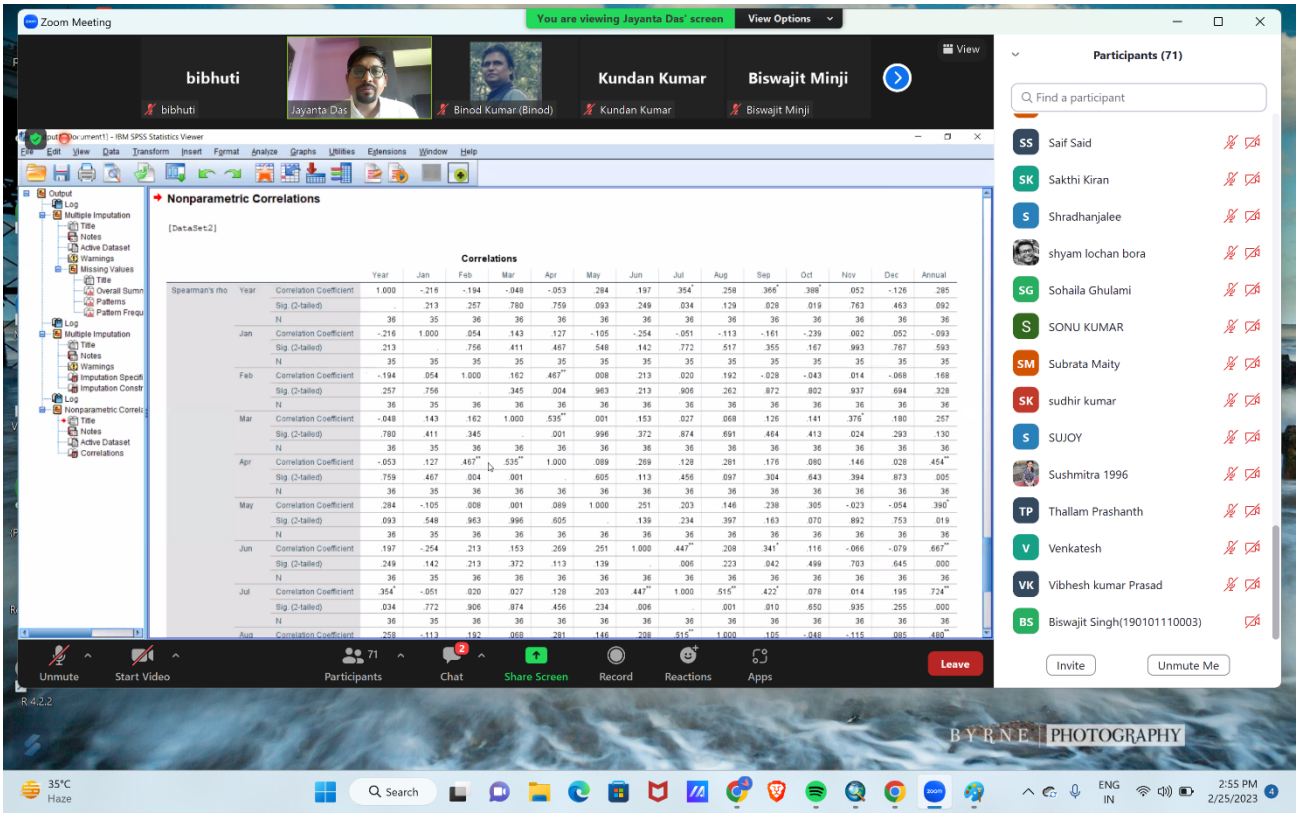
Comparing parametric and non-parametric methods

Mann Kendal method, Autocorrelation function, Modified mann Kendal, Innovative trend analysis and Rho

algorithm

No of Participants: 70 participants (includes Students and Faculties from our University and outside Universities) joined the online Zoom platform.

Photographs of the Workshop



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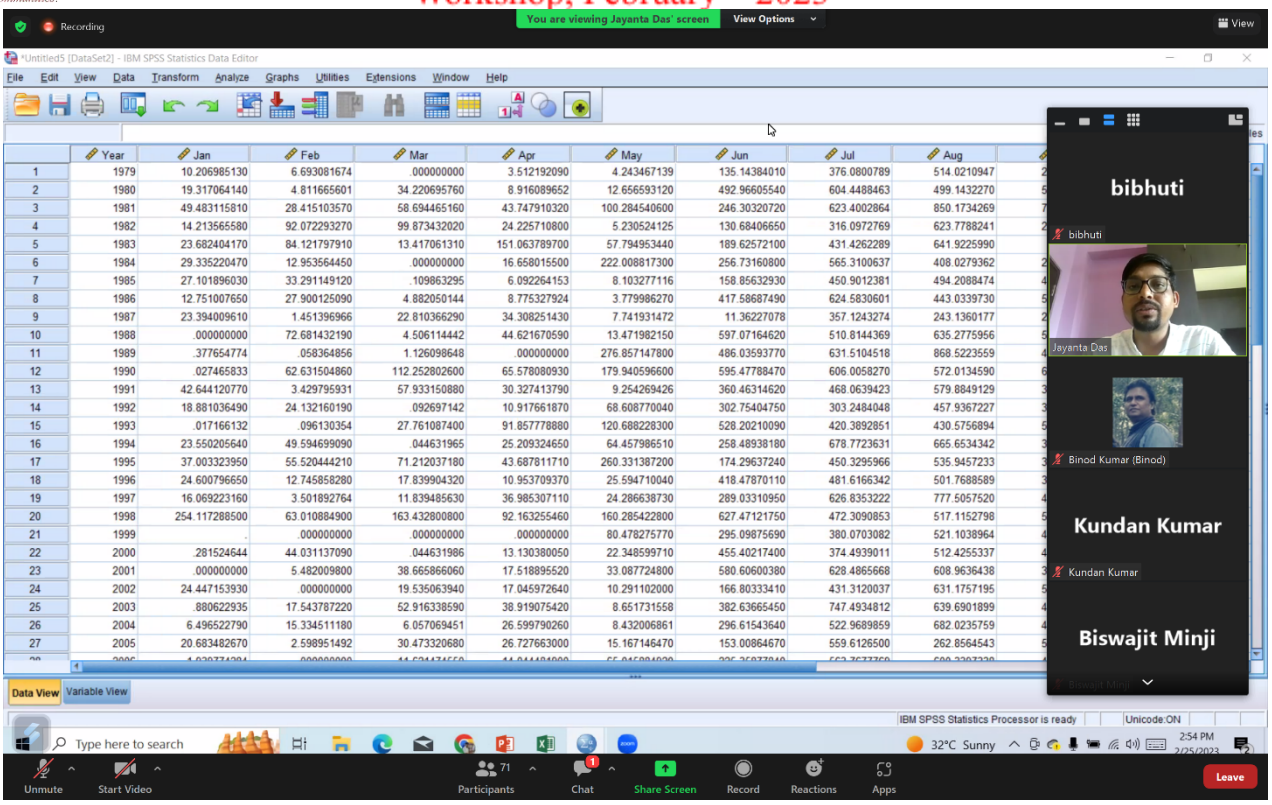
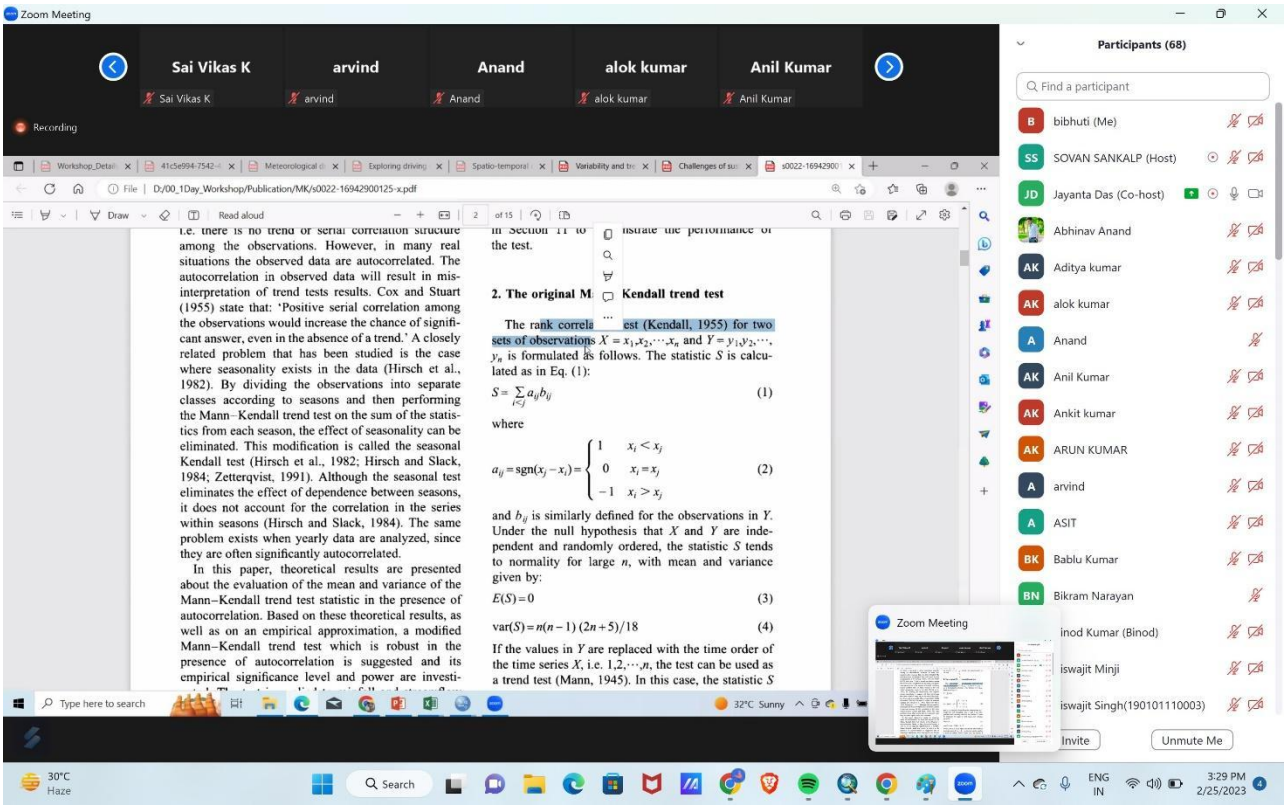
Shaping Lives... Empowering Communities!

Workshop, February – 2023





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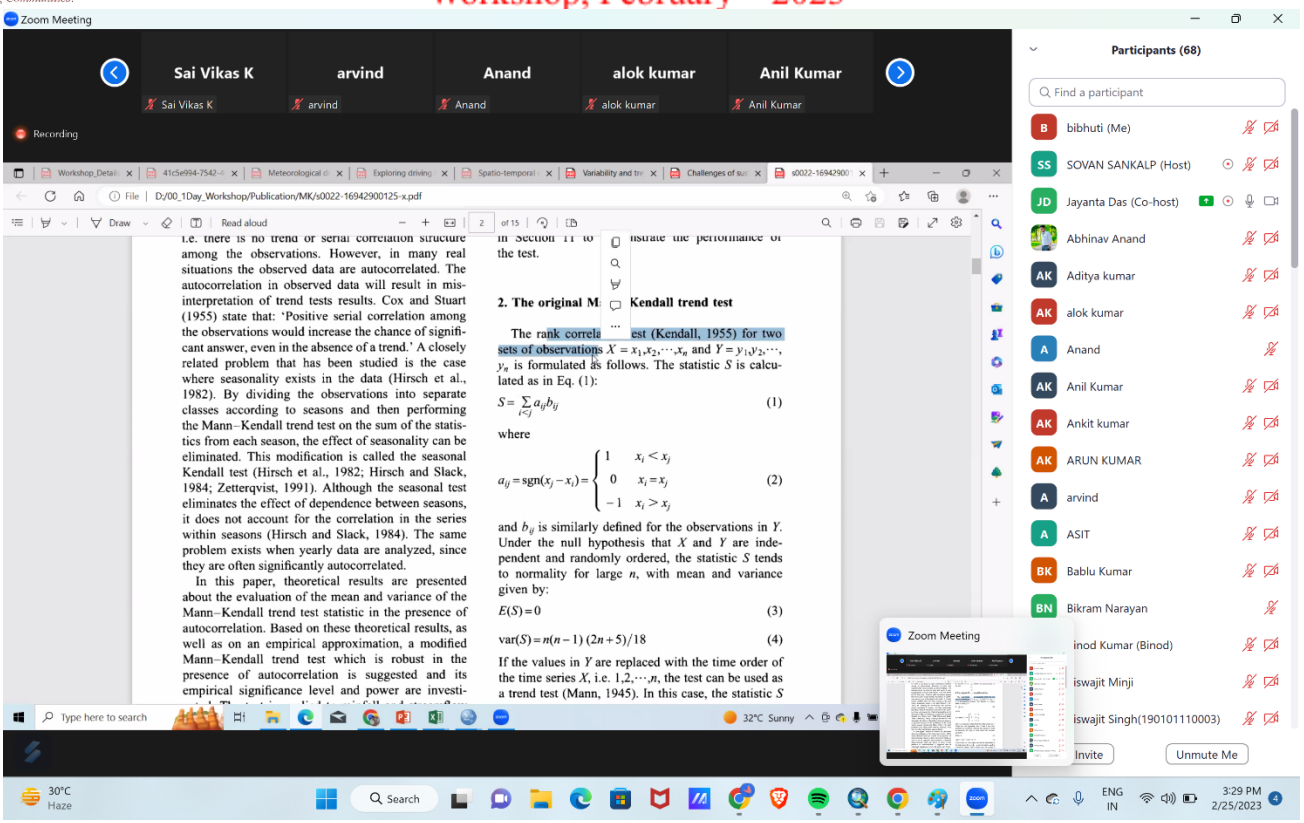

Brochure:

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Sovan Sankalp.

(Workshop Coordinator)

(Workshop Coordinator)