



Indian
Institute of
Technology,
Bhubaneswar



THE INDIAN ECONOMETRIC SOCIETY

Workshop on “Applied Time Series and Panel Data Econometrics using R & Stata: A Hands-on Experience”

Organized by:

The School of Humanities, Social Sciences &
Management (SHSS&M), IIT Bhubaneswar, Argul, Jatni,
Khordha, Odisha - 752050, India.

In Association with

The Indian Econometric Society (TIES)

Date: December 11-15, 2023

About IIT Bhubaneswar:

Indian Institute of Technology (IIT) Bhubaneswar was established in 2008 by the Government of India as one of the eight second-generation IITs. IIT Bhubaneswar’s lush green campus at Argul, Khorda is spreading over 936 acres in the foothills of magnificent Barunei, which is famous for its rich history. The campus provides a unique, serene, and pollution-free academic environment. IIT Bhubaneswar offers UG, PG, and PhD courses through seven schools of study. It has an academic area, a residential complex, an area for training centers, and a research park. IIT Bhubaneswar has made rapid strides towards becoming one of the elite technology institutes of India spurred by the sustained creation of knowledge and innovation, through high-quality research and development activities and commitment to holistic education. The Institute aims to develop and pursue dynamic and flexible curricula designed to facilitate creativity and cognitive thinking among students through productive partnerships with industries.

About TIES:

The Indian Econometric Society (TIES) is a registered society under the Public Societies Registration Act, formed in 1960. It is one of the oldest and largest bodies of professional econometricians and quantitative economists with more than 2000 members from all over India and abroad. TIES organizes an annual conference where experts from all over India and abroad participate and deliberate on various issues.

About The Workshop and Resource Persons:

The workshop will include both interactive and practical sessions including hands-on training on ‘R’ and ‘Stata’. The workshop will cover the following topics:

- ✓ Introduction to R and Stata;
- ✓ Data visualization / Graphics in R and Stata;
- ✓ Data Frames in R and Stata;
- ✓ Basic R statistics and R Probability;
- ✓ Multivariate Time Series through R & Stata;
- ✓ Measurement of Volatility through R & Stata;
- ✓ Panel data regression in R and Stata.

Resource Persons for the Workshop will be from IIT Bhubaneswar and TIES.

All the participants will have to appear for an exam on the last date of the workshop in order to gauge the learning outcomes.

Course Details

- ❖ Types of Data;
- ❖ Linear and Non-Linear Econometrics Modelling;
- ❖ Univariate Time series- Stationarity test- ADF, PP, KPSS, Zivot Andrews test;
- ❖ Time Series Analysis: Stochastic and White noise, Auto-Regressive (AR) Moving Average(MA);
- ❖ ARMA and ARIMA forecasting, Lag order selection criteria;
- ❖ Multi variate Time series- Granger Causality, Vector Auto Regression (VAR), Co-integration techniques, Error Correction models;
- ❖ Measurement of Volatility; Univariate and Multivariate volatility models;
- ❖ Panel data Analysis- Static and Dynamic Panel data models;
- ❖ Fixed Effect Model, Random Effect Model, Feasible generalized least squares (FGLS), Panel - Corrected Standard Error Model;
- ❖ Limited dependent variable regression models for cross-sectional and survey data (Logit, Probit, Tobit, Fractional/Nested Logit, Bivariate Probit, IV Tobit, SURE, Poisson, Negative Binomial regression);
- ❖ Methods of causal inference: Introduction and Applications, models concerning cross-sectional dependence, panel unit root tests, panel cointegration techniques.

Registration Details

Registration Fee: INR 3000/-

- Registration fees include course material, refreshments, breakfast, working lunch, and dinner.
- Participants will be provided with hostel accommodation at the IIT Bhubaneswar Campus.

Deadline for Application along with payment of requisite registration fee: November 15, 2023

Note: The number of participants may be limited to 50 based on first-cum-first-serve basis.

Registration Procedure: Register yourself by following the link below:

<https://forms.gle/FW3X88djobXUo8JW8>

Candidates while filling up the form need to make payment of the Registration Fee and provide the details like payment reference number, mode, and date of payment therein prior to submitting the Google Form. A screenshot of the payment success page may be sent to nrjena@iitbbs.ac.in and avishekb@iitbbs.ac.in.

Bank Account Details

Institution Account Name: CEP, IIT Bhubaneswar;
Account No.: 24282010001960
IFS Code: CNRB0017282
Bank Name and Branch: Canara Bank, IIT Bhubaneswar, Argul Branch.

Chief Patron

Prof. Shreepad Karmalkar, Director, IIT Bhubaneswar.

Course Coordinator

Dr. Nihar Ranjan Jena, Assistant Professor, SHSS&M, IIT Bhubaneswar.

Course Co-coordinator

Dr. Avishek Bhandari, Assistant Professor, SHSS&M, IIT Bhubaneswar.

Course Advisors

Dr. Dukhabandhu Sahoo

Dr. Naresh Chandra Sahu

Dr. Madhusmita Dash

Dr. Sitakanta Panda

Dr. Sayel Basel

All the participants will be provided with a certificate at the end of the workshop.