Azadi Ka Amrit Mahotsav

7 Days Virtual Workshop on Econometrics - Time Series and Panel Data Analysis Using Eviews

Organised by :

Primax Foundation

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MSME Reg. No.: UDYAM-KR-03-0144791, Govt. of India
Bengaluru, Karnataka, India

In Association with

Dept. of Commerce PG (M.Com)

Dayananda Sagar College of Arts, Science and Commerce
Shavige Malleshwara Hills, Kumaraswamy Layout, Bangalore,
Karnataka, India.

Indian Academic Researchers Association

Tiruchirappalli, Tamil Nadu

01-09-2022
to
07-09-2022
06.00 PM to 8.00 PM

Registering cost
₹.1,900/-

For Registration
CLICK HERE

Introduction about Time Series

Economic theories associated with long run relationship between variables have been analysed using econometric techniques, since the origin of the subject. Statistical packages such as STATA & E-Views come in handy to analyse the time series and panel data analysis. The workshop will provide a general and brief outline of some of the important models associated with the time series analysis. There will be hands on training with a data set using the E-Views.

Objective of Workshop

Advances in statistical procedures have brought a change in all spheres of sciences and are being increasingly used by researchers to solve scientific hypotheses. Therefore, the objectives of the workshop:

- To introduce Time Series Data to the participants under the preview of EVIEWS software.
- To experiment with the use of the EVIEWS software in performing data analysis. At the end of this workshop, participants have appreciable knowledge of EVIEWS and related basic econometrics concepts.
- To provide a step-by-step guide on the use of EVIEWS to carry out statistical analysis and techniques widely used in social sciences, mathematical and life sciences.

From Whom

Faculty Members, Academicians, Research Scholars and for data analysts of different fields

Resource Persons

Dr. T. Mohanasundaram

Associate Professor
Department of Management Studies
Ramiah Institute of Technology,
Bangalore, Karnataka, India.

Dr. T. Mohanasundaram has completed his Doctoral degree in Management from Anna University. He has done his Master of Business Administration (MBA) from Bharathiyar University. He has 16 years of total experience in Industry and Academics. He has published many research articles in reputed Journals and presented many research papers at International Conferences. He is actively involved in research and consultancy works. He has received grants and financial assistances from various agencies like AICTE, AIMS, ICWA and NHRC for research projects and for organising programmes. His favourite subjects of teaching are; International Finance, Financial Management, Banking Management, Financial and Management Accounting, Security Analysis & Portfolio Management and Business Research Methodology. He is a certified financial education Resource Person of Securities and Exchange Board of India (SEBI). In 2018, he received the national level 'Best Young Teacher Award-2018' from the Association of Indian Management Schools (AIMS).

Key Information

- **Duration:** Seven Days **(01-09-2022 to 07-09-2022)**
- **Time:** 6.00 PM to 8.00 PM (Zoom app)
- **Registration Fees: ₹ 1900/- for Indian Participant & 75 USD for Foreign Participant**
- Last date of registration is 18th August - 2022.
- Only 40 seats are available, therefore registration shall be made on first come first serve basis.
- Please note that no refund of fees shall be made later on.
- **Certificate of Participation :** All participants will receive 'Certificate of Participation' after successful completion of the programme

Points needs to be considered before registration

- ✍ Participants must have their own laptops/ desktops.
- ✍ Stable and speedy internet connection will be required.
- ✍ Demo EViews Software's will be provided to registered Participants with necessary material.
- ✍ A complete hands-on practice, So, Participants must attend the workshop without any absent.

Topics to be Covered

DAY 1 **6:00 PM - 8:00 PM**	**Basics in Time series Analysis** Why Econometrics? Data Structure Understanding Time series data White noise process Stationary Stochastic Process Data Generation and Identification Process (Eviews) Steps in Econometric Modelling – Formation of Hypothesis; Model Specification; Model Estimation; Statistical inference - Significance tests (t-test, F-test, R2 and Adj.R2) and Adequacy tests (adhering to assumptions of OLS).
DAY 2 **6:00 PM - 8:00 PM**	**Unit-root tests and ARIMA family models** Unit-root tests – Standard (ADF, PP, KPSS - Power and Size effects) and Break-point test. Graphs and Correlogram Modelling OLS – R2, Adj. R2, F-Statistics, D-W Statistics ARIMA Family Models – Box-Jenkins methodology - AR, MA, ARMA and Integrated Processes – Model identification using Correlogram. Model Selection Process Forecasting using ARIMA Forecast Evaluation Diagnostic Checking – Normality, Autocorrelation and Heteroscedasticity
DAY 3 **6:00 PM - 8:00 PM**	**Multivariate Modelling (Long-run models)** Introduction to Cointegration EG Cointegration test Johansen's Cointegration test Vector Error Correction Model (VECM)
DAY 4 **6:00 PM - 8:00 PM**	**Multivariate Modelling (Short-run models)** Vector Autoregression (VAR) Granger-Causality test; Granger non-causality test Impulse Response Function Variance Decomposition In-sample forecasting using OLS Dummy variable model
DAY 5 **6:00 PM - 8:00 PM**	**Volatility Analysis** Measuring Variance – Traditional methods Introduction to ARCH models – Volatility Clustering; Leverage Effect; Leptokurtosis Effect of Heteroskedasticity and Autocorrelation in the residuals Estimating ARCH modelling: Mean equation and Conditional Variance Equation Estimating GARCH model Estimating T-ARCH; E-GARCH models ARCH in Mean model (ARCH-M model) Introduction to BEKK and DCC GARCH

Topics to be Covered

DAY 6 **6:00 PM - 8:00 PM**	**Panel Data Analysis** Cross-section vs. Pooled Data Pooled Data vs. Panel Data Composite Error terms and its significance Short-panel vs. Long Panel Short-Panel: Fixed Effect Model and Random Effect Model Hausman Test Breush Pagan LM Test Holistic view of Short-panel analysis
DAY 7 **6:00 PM - 8:00 PM**	**Long Panel analysis: Panel Unit-root test** Panel VAR Panel Cointegration Research Paper discussion on Time-series analysis Research Paper discussion on Panel data analysis Q & A and Feedback

Note: Software: E-views for Time-series analysis; E-views/Gretl for Panel data analysis

Patron

Dr. Nagaraj Shenoy
Principal
DSCASC, Kumaraswamy Layout
Bengaluru, Karnataka, India

Dr. V. Selvaraj
Secretary
Primax Foundation
Bengaluru, Karnataka, India

Dr. C. Paramasivan
President, IARA
Tiruchirappalli,
Tamil Nadu, India

Dr. Savitatrivedi
HOD of Commerce (M.Com)
DSCASC, Kumaraswamy Layout
Bengaluru, Karnataka, India

Prof. R. Gurunath
IQAC Coordinator
DSCASC,Kumaraswamy Layout
Bengaluru, Karnataka, India

Contact

Prof. T. Rajeswari
Course Director
Ph: 9108556012
Email: Primaxfoundation2015@gmail.com
Website: www.primaxfoundaiton.com