RUKMINI DEVI

Institute of Advanced Studies

Approved by AICTE, HRD Ministry, Affiliated to G.G.S. I.P. University, Delhi

- **NAAC** Accredited, '**A+**' Grade (2nd Cycle)
- Category '**A+**' Institution by SFRC, Govt of NCT of Delhi.
- Highest Category '**A**' by Joint Assessment Committee of GGSIPU & DHE, Govt. of NCT of Delhi.
- Member of AMDISA, AIMA, CII, DELNET, DMA, CEGR, ICT Academy, NDL, NHRDN, ASSOCHAM
- MoU Signed with MSME-TDC, PPDC Agra, Ministry of MSME, Govt. of India

An ISO 9001 : 2015 Certified Institute

FDP on Time Series and Panel data

TITLE	FDP on Time Series and Panel data
Date	May 20, 2019 - May 24, 2019
Summary	

Time Series Analysis is a statistical technique that deals with time series data, or trend analysis. It comprises the methods for analyzing time series data in order to extract meaningful statistics and other characteristics of the data. **Time Series Forecasting** is the technique that predicts future values based on previously observed values. While regression analysis is a powerful statistical method often employed in such a way as to test theories that the current values of one or more independent time series affect the current value of another time series. This type of analysis of time series is not called "Time Series Analysis", which focuses on comparing values of a single time series or multiple dependent time series at different points in time. Interrupted time series analysis is the analysis of interventions on a single time series.

Time Series Data have a natural temporal ordering. This makes time series analysis distinct from cross-sectional studies, in which there is no natural ordering of the observations (e.g. explaining people's wages by reference to their respective education levels, where the individuals' data could be entered in any order). Time Series Analysis is also distinct from Spatial Data Analysis where the observations typically relate to geographical locations (e.g. accounting for house prices by the location as well as the intrinsic characteristics of the houses). A stochastic model for a time series will generally reflect the fact that observations close together in time will be more closely related than observations further apart. Panel Data refers to combination of cross sectional and time series nature data. It includes pooled, fixed effect and random effect model. It is complex compared to cross sectional and time series nature of data.

Prof. Miklesh Yadav, Dr. Ananya Ghosh and Prof. C. P. Gupta were guest speakers for this one week MDP on Time Series and Panel Data Analysis. The basic objective of the MDP was to make participants aware of Time Series and Panel Data with hands on session. The one Week MDP enriched all the external participants with rigorous learning on various research techniques using R and other software. The MDP was very well appreciated by all the participants and equipped them with new tools and techniques to apply in their respective research areas. Overall, the MDP was highly fruitful, enjoyable and great

learning experience for all the participants.