

**30 SEATS**

**30 HOURS**



**CHRIST**  
(DEEMED TO BE UNIVERSITY)  
NODAL OFFICE, TRIVANDRUM

# **WORKSHOP on TIME SERIES ANALYSIS**

**Target Population: Researchers, Masters Students, Teachers.**

**Dr Santhosh Kumar P K**

Assistant Professor (Economics) &  
Hon.Fellow (Center for Budget Studies)  
School of Management Studies  
Cochin University of Science & Technology



**Organised by**

**Nodal Office**

CHRIST ( Deemed to be University)  
A.I.R Road, Vazhuthakkadu  
Trivandrum, Kerala  
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**EVERY SATURDAY FROM  
MARCH 20,2021  
6.00PM-8.00PM IST**

**Certificate : After completion of both Synchronous and Asynchronous Sessions e certificate will be issued by the Nodal Office.**

## **REGISTRATION**

AFTER REGISTRATIONS CANDIDATES WOULD BE SENT THE FEE PAYMENT LINK, UPON PAYMENT THE CANDIDATE CAN JOIN THE WORKSHOP.

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This is an Initiative by Nodal Office , CHRIST (Deemed to be University).



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## **SESSIONS INCLUDE**

### **Stationarity Univariate Models**

**Stochastic processes - Properties of stochastic process. Time series as a discrete stochastic process- Stationarity- Characteristics of stochastic component of time series (mean, autocovariation and autocorrelation functions). Lag operator- Unit root tests - Deterministic and stochastic trend models-Augmented Dickey Fuller test - Phillips- Perron test-Estimation and testing.**

### **Simultaneous Equation Models**

**Dynamic simultaneous equations models- Granger causality test - Vector Auto Regressive (VAR) models-Impulse Response Function (IRF)-Variance Decomposition Analysis - Structural Vector Auto Regressive (SVAR) models- Estimation and Diagnostic Checking.**

### **Non-Stationary Multivariate Models**

**Spurious regression- Cointegration- Granger representation theorem -Vector error correction models (VECMs)- Structural VAR models with cointegration - Testing for cointegration - Engle and Granger (1987) and Johansen and Juselius (1990) - Estimating the cointegrating rank- Estimating cointegrating vectors.**

### **Conditional Variance Models**

**Volatility Clustering- Leverage Effects- Modeling Volatility- AutoRegressive Conditional Heteroscedasticity (ARCH) Model- Generalised AutoRegressive Conditional Heteroscedasticity (GARCH) Model - Extensions to GARCH-Exponential GARCH and Threshold GARCH models.**

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