



# Name of the Institute/Organization: Indian Institute of Information Technology, Allahabad



Self-Financed Course-cum Workshop on Time Series Data Analysis (TSDA-2020)

(Online Mode)

Duration: 28/08/2020 to 29/08/2020

## Schedule Plan

Date					2:30 PM to 4:00 PM	4:15 PM to 5:45 PM	
<b>Day-1</b> (28/08/2020)	Inauguration Session  (9.55 - 10.30 am)	Introduction to Time Series Analysis  (10.30-11.45 am)	<b>Break</b>	Time Series Data Clustering  (12 Noon-1.15 pm)	<b>Lunch Break</b>	Introduction to R environment – simple mathematical operations, creating matrix, creating variables, importing data (from local drive and yahoo finance), exporting data	Understanding distribution of data: t-test of mean, JB test for normality, skewness, kurtosis
<b>Day-2</b> (29/08/2020)	Creating return series, simple time series plots, White noise, stationarity (concept and testing using ADF test)  (9.30-11 am)	Deep Learning in Time Series Analysis  (11.15 am -12.45 pm)		AR (p), MA(q) and ARMA (p, q) modelling – lag identification, model fitting and testing		Concepts of volatility and testing for ARCH effect, GARCH, GJR-GARCH and EGARCH modelling – model fitting and testing	Valediction (5.45 pm -6 pm)