# Loyola College (Autonomous), Chennai

## Department of B.Com (Accounting & Finance)

### Guest Lecture on "Time Series Analysis"

Date: 31.10.2022

#### Venue: Conference Hall, LIAC

Presented By: Dr.R.Senthilkumar, Assistant Professor, Madras Christian College

*Attended By:* Students of B.Com (Accounting and Finance) 1<sup>st</sup> Year and B.Com (Computer Applications) 2<sup>nd</sup> Year

#### Summary:

- The Welcome Speech was delivered by the Joint Secretary of the Department of B.Com(Computer Applications)
- Dr.R.Senthilkumar, the Guest Lecturer for the day, was felicitated by Dr.J.Samuel
- The Introduction of the Speaker was given by the Coordinator Ms.Suma Godwin
- Dr.R.Senthilkumar , in his guest lecture, imparted a great deal of knowledge to the students on various concepts in Time Series Analysis and its Practical Applications, along with the method of solving time series in the SPSS Software. The following concepts were covered during the course of the lecture:
  - Meaning and Definition of Time Series Analysis
  - Objectives of Time Series Analysis
  - Uses of Time Series Analysis And its Applications in Business
  - The Four Components of Time Series
  - Secular Trend
  - Seasonal Variation
  - Cyclical Variation
  - Irregular Variation
  - The Time Series Model
    - Addition Model
    - Multiplication Model
  - Methods of Calculating Trend
    - Free Hand Curve Method
      - Semi-Average Method

- Moving Average Method
- Method Of Least Squares

Example Sums in Each Method were solved using SPSS Software

- Shifting the Trend Origin
- Parabolic Curve
  - Parabola of Second Degree
  - Parabola of Third Degree

An Example Sum was Solved Using SPSS Software

- Methods Of Seasonal Variation
  - Seasonal Average Method
  - Link Relative Method
  - Ratio to Trend Method
  - Ratio to Moving Average Method

Example Sums were solved using MS Excel.

- Deseasonalization of Data
- Methods Of Cyclical Variation
  - Residual Method
  - Reference Cycle Analysis Method
  - Direct Method
  - Harmonic Analysis Method
    Example Sum on Residual Method was solved.
- Measurement of Irregular Variations

Dr.R.Senthilkumar concluded his lecture by stressing on the wide applications of time series analysis in real-life situations.

- The guest lecture was well received by the students and was a very informative session on Time Series Analysis.
- The event ended with a formal vote of thanks by Mr. Yuvaan (22UAF045) from the department of Accounting and Finance.

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