



FACULTY DEVELOPMENT PROGRAM

On

***Integrative Pedagogy to Teach Statistics  
and Data Science for Undergraduates***

**DAY 2: 28<sup>th</sup>**  
July, 2022

Organized by



## **Core Faculty Development Program Topics:**

*Session 1:* Case study on Exploratory Data Analysis

*Session 2:* Teaching Tests of Hypothesis: Case study approach.

*Session 3:* Assignment – Presentation by participants – Case study in Statistics

*Session 4:* Teaching Regression and Time Series Analysis

## **Summary:**

### *Session 1:*

The importance of Exploratory Data Analysis was explained with real-life scenarios to provide a deeper understanding of data. This was done by discussing the three main data theories:

- Initial Data Analysis
- Exploratory Data Analysis
- Confirmatory Data Analysis

### *Session 2 & 3:*

To effectively learn concepts like poisson distribution, tests of hypothesis, normal distribution, induction, reduction, Type I & Type II error and level of significance etc, there were discussions and interactions through case studies, which also focussed on learning methods

### *Session 4:*

Through case studies from multiple domains like sports, human resources data etc, concepts such as simple linear regression model, multiple linear regression model, logistic regression model and their applications were discussed