



BHARATIYA VIDYA BHAVAN'S
SARDAR PATEL INSTITUTE OF TECHNOLOGY
MUNSHI NAGAR, ANDHERI (WEST), MUMBAI – 400 058.
(Autonomous Institute Affiliated to University of Mumbai)
CSE - MCA Department

Academic Year: 2024-25

Course Code: MC503

Semester: II

Course Name: Probability & Statistics

Class: FYMCA

Innovative Teaching Learning Adopted

Following teaching-learning methods have been adopted to teach Probability & Statistics course.

1) Peer Learning:

For the Probability & Statistics course, students are divided into groups and assigned topics such as **Probability Distributions, Bayes' Theorem, Correlation, Regression, and Hypothesis Testing**. Students prepare examples and presentations and explain the assigned concepts to the entire class. Group members also solve numerical problems collaboratively.

Outcome: Improved conceptual understanding, collaborative learning, numerical problem-solving ability, and effective communication.

2) Video Lecture and Flipped Classroom:

Short video lectures are provided on topics such as **Probability, Random Variables, Binomial and Poisson Distributions, Normal Distribution, Correlation and Regression**. Students watch the videos before the classroom session. Classroom time is then used for numerical problem-solving, discussion, and conceptual questions.

Video: https://www.youtube.com/watch?v=f26vt5uQ_uI&list=PLX2gX-ftPVXUWwTzAkOhBdhplvz0fByqV

Outcome: Better understanding of statistical concepts and increased student participation in problem-solving activities.

3) Data-Based Learning / Real-Life Applications:

Students are provided with real-life datasets such as **attendance data, examination marks, survey data, or engineering measurements**. They calculate measures of central tendency and dispersion, study correlation and regression, and interpret the results.

Outcome: Students develop the ability to analyse and interpret real-world data and understand the practical applications of Statistics.