BVRIT HYDERABAD College of Engineering for Women
AUTONOMOUS
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(Accredited by NBA – EEE, ECE, CSE & IT and NAAC with 'A' Grade)

*Event Name: Workshop on "*Credit Card Delinquency Classification Problem using Random Forest Algorithm with Mathematics Explanation".

Date (s) of Conduction: 29-06-2024

Name of the Resource Person with Details (if any) : **Mr. Praveen Kumar**,
Lead Python Developer and Senior
Software Engineer at Nagarro

No. of Participants: 86

Organized by: Department of Computer Science and Engineerering, BVRIT

HYDERABAD College of Engineering for Women.

About the Event: Mr. Praveen Kumar started the session by explaining the importance of the normal distribution, its characteristics, and the empirical rule (68-95-99.7 rule). He discussed data preprocessing techniques, including data cleaning (handling missing values and outliers), data transformation (normalization, standardization), and feature scaling. Linear regression was introduced with a focus on simple and multiple regression models, interpretation of coefficients, evaluation metrics (R-squared, RMSE), and key assumptions. He demonstrated outlier detection using box plots, explaining quartiles, the interquartile range (IQR), and their impact on analysis. Decision tree algorithms were covered, including tree construction, splitting criteria, pruning, and ensemble methods like Random Forests. He showcased the practical use of Jupyter Notebooks for integrating code, visualizations, and explanatory text. Techniques for filtering data with loc, iloc, and conditional statements were discussed, along with methods for handling missing data through dropping or imputation (mean, median, mode). Visualization techniques such as count plots, heat maps, and box plots were illustrated. He also explained outlier handling through detection methods like Z-score and IQR, as well as strategies for removal, transformation, or separate treatment. The session emphasized the practical applications of these techniques in data analysis and modelling.

Photos:
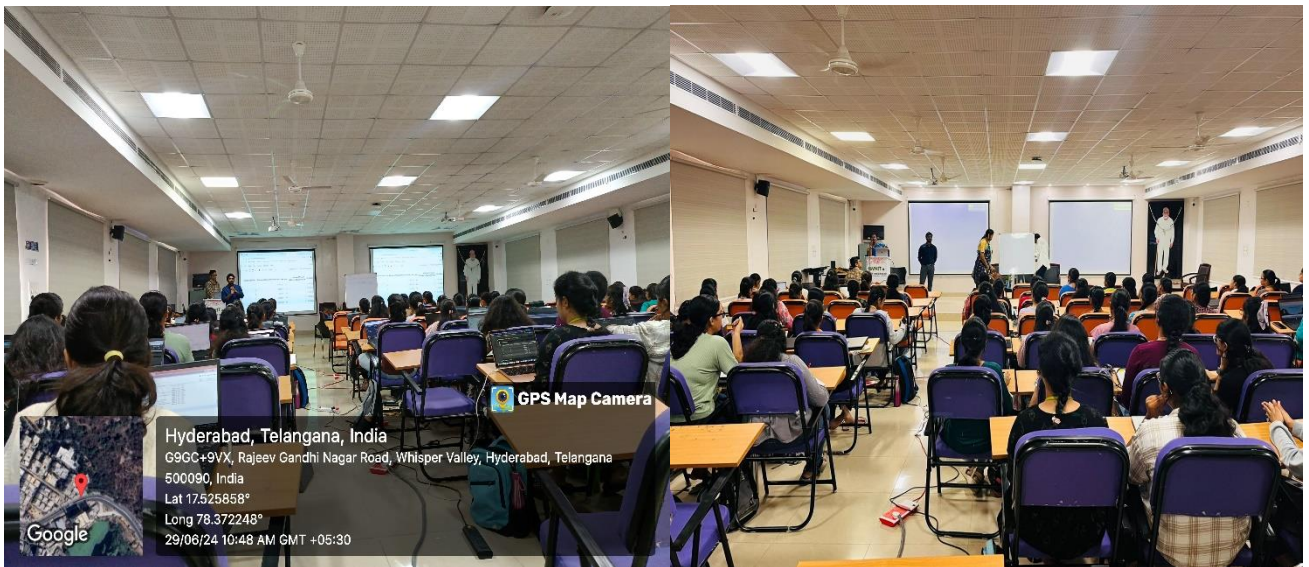
Faculty Co-ordinator   **Head of the Department**