

MBPC3017 DATA MINING FOR BUSINESS DECISIONS (3-0-0)

Course Objectives:

1. Understand data mining concepts and techniques for effective data utilization.
2. Learn to analyze data using R/Rattle, covering basic metrics, PCA, correlational analysis, and visualization.
3. Gain proficiency in decision trees, ANN, clustering, regression, logistic regression for predictive analysis.
4. Explore advanced techniques like clustering, decision trees, neural networks, association analysis, market basket analysis, and text mining.

Module-I:

Introduction to Data Mining – Deriving Value from Data Mining – Applications– Basic concepts, Exploratory Analytics using R/Rattle – Basic metrics– Principal Component Analysis– Correlational analysis–Visualizing Data– Applications

Module-II :

Predictive Modeling using R/Rattle– Decision Trees– ANN – Clustering– Regression– Logistic Regression– Applications. Market Basket Analysis – Association rule mining – Naïve Bayes Analysis –Applications

Module-III :

Best Practices in Data Analytics and BI – clustering – Decision trees-Neural networks-Associations/Market Basket analysis-Text Mining

Course Outcomes:

- CO-1: Ability to identify patterns and trends in data for informed decision-making.
CO-2: Skills in exploratory analysis, basic metrics, PCA, correlational analysis, and data visualization.
CO-3: Build and interpret predictive models using various techniques for diverse applications.
CO-4: Apply advanced analytics techniques to address complex business challenges and extract actionable insights.

Books :

- Anil Maheshwari ,Data Analytics. McGraw Hill, 2017.
- Eric Siegel, Thomas H. Davenport, —Predictive Analytics: The Power to Predict Who Will Click, Buy, Lie, or Die]], Wiley, 2013
- Anasse Bari, Mohamed Chaouchi and Tommy Jung ,PredictiveAnalytics, Willey,2015
- Alberto Cordoba, —Understanding the Predictive Analytics Lifecycle]],Wiley, 2014.
- Dean Abbott, Applied Predictive Analytics, Willey, 2014