Course: BTech **Semester:** 5

Prerequisite: Data analytics tools like PowerBI, Different techniques of visualization and data analytics | 203105251 - Database Management System

Course Objective: Data Analytics helps small and large organizations to maximize the value of their data, unearth insights, build plans and respond in real-time to customer demand.

Teaching and Examination Scheme

Teaching Scheme					Examination Scheme					Total
Lecture Hrs/Week	Tutorial Hrs/Week	Lab Hrs/Week	Hrs/Week	Credit	Internal Marks			External Marks		
					T	CE	P	T	P	
0	0	2	-	1	-	-	20	-	30	50

SEE - Semester End Examination, **T** - Theory, **P** - Practical

Course Outcome

After Learning the Course the students shall be able to:
1. Apply statistical measures to calculate mean, median and mode.
2. Compare and apply different regression, classification algorithm on the given dataset .
3. Perform clustering and detect outliers
4. Create an interactive data visualization dashboard using PowerBI.

List of Practical

1.	**Perform Exploratory Data Analysis on the given dataset using Python.**
2.	**Calculate mean, median and mode of the first 50 records in the given dataset using python.**
3.	**Perform Multiple Linear Regression on data.**
4.	**Perform the Logistic Regression on a dataset.**
5.	**Use a dataset & apply K means clustering to get insights from data.**
6.	**Perform the Decision tree classification algorithm using a dataset.**
7.	**Study and installation of the tools like PowerBI tool for data Visualization.**
8.	**Load a dataset from different sources in PowerBI and apply transformations to it.**
9.	**Study and Plot various graphs for Data Visualization on PowerBI.**
10.	**Given a case study: Interactive Data Analytics with Power BI Dashboard.**