

## **Certificate Programme in Data Analytics and Visualization**

### **Course Outcomes:**

The student should be able to:

**CO1:** Identify various forms of data from the live environment and extract data from platforms like social media and websites using data entry and web scraping using scraping tools.

**CO2:** Create Interactive data visualization using Excel and perform preprocessing data – cleaning and removal of outliers from data, dealing with missing values, create visualizations of various types of data.

**CO3:** Create Interactive data visualization using Tableau.

**CO4:** Create data visualizations using Power BI.

### **Module 1: Introduction to Data Analysis (8 hours)**

Scope and Significance, Understanding the various levels of data, dealing with categorical variable, quantifications of opinion and attitude of people, Primary data and Secondary data, the Kinds of Data Analytics – Descriptive, Diagnostic, Predictive and Data Mining

### **Module 2: Excel - A Business Intelligence platform (10 hours)**

Data cleaning using Excel. Appropriate chart selection for strategy presentation. How to make your data stand out with PivotTables and charts. Building interactive dashboards in Excel.

*Practical session on Data Preparation, creating Visualization and Interactive dashboards using Excel.*

### **Module 3: Tableau - An Interactive Analytics platform (12 hours)**

Tableau Product Suite. How to connect to a data source using Tableau interface. Tableau interface and basic terminologies. Harness the power of your data. Build interactive dashboards.

*Practical session on development of stories using tableau and cracking insights from using interactive dashboards.*

### **Module 4: Power BI - Unleash the power of business analytics. (10 hours)**

How to Install Power BI desktop? Preparing data with Power BI. Data visualization using Power BI.

*Practical session on creating visualizations using power bi.*

**Project:** Building expertise in drawing insights through a data related project

**Assessment Criteria**

<b>Sl. No.</b>	<b>Component</b>	<b>Marks</b>
1	Abstract	5
2	Presentation	5
3	Execution	10
<b>Total</b>		<b>20 marks</b>