

16 HOURS LIVE INTERACTIVE ONLINE WORKSHOP ON

DATA ANALYSIS AND VISUALIZATION

TOPICS TO BE COVERED

1. INTRODUCTION TO DATA VISUALIZATION

- Introduction to Data Visualization Tools and Setting Up Your Environment
- Introduction to Matplotlib, Seaborn, Bokeh, Altair, Plotly, ggplot

2. GETTING TO KNOW YOUR DATA

- Importing and Exporting your data
- Cleaning Data
- Reading in Data
- Importing image data
- Learning how to ask the right questions to ensure project success

3. DATA MANIPULATION

- Introduction to Pandas
- Grouping and Pivoting with Pandas
- Basic to Advanced Manipulation with Pandas

4. BASIC CUSTOMIZATION OF PLOTS

- Defining axis and limit lengths
- Defining plot line styles, properties, and formats
- Setting ticks, labels, and grids
- Adding a legend and annotations

5. CREATING YOUR FIRST PLOTS

- Introduction
- Exploring the different plot types
- Plotting Scatter plots, Line Charts, Pie Charts, Histograms, Bar Charts, Box plots, Heatmaps, Pairplots and Facetings
- Plotting Sine and Cosine Plots

6. MORE ADVANCED PLOTTING TECHNIQUES

- Creating word clouds, Network Diagrams, Matrices, 3D bars and 3D histograms
- Animating in matplotlib
- Making a box and whisker plot
- Making geospatial plots, Gantt charts and error bars
- Creating Colormaps and logarithmic plots

7. MORE ADVANCED CUSTOMIZATIONS

- Introduction
- Setting the transparency and size of axis labels
- Adding a shadow to the chart line
- Adding a data table
- Using subplots
- Customizing grids
- Creating contour grids
- Filling an underplot area
- Making use of text and font properties

Who Should Join

Faculties, Students, and Industry Professionals

Features

- Live interactive classes
- Resource Person with PhD from IIT's and NIT's
- Total hands-on and Project Oriented approach
- Industry ready workforce and professional pedagogy