KIIT POLYTECHNIC, BHUBANESWAR

LESSON PLAN

Session (2022-2023)

Discipline: Computer Science & Engineering	Semester: 6th , Summer/2023	**Name of the Faculty:** Mr. Sunil Kumar Sahoo, Lecturer **Email ID:** sunilfcs@kp.kiit.ac.in
Subject: Data Science & Analytics	**No. of Days/week:** 04	**Start Date:** 13/02/2023 **End Date:** 23/05/2023

Week	Class Day	Theory Topics
1st	1st	**UNIT-I**: Introduction to Data Science & Related Terminology
	2nd	Methods of Data Repository
	3rd	Personnel involved in Data Science
	4th	Types of Data & Data Science Process
2nd	1st	Popular Data Science Toolkits
	2nd	Existing Applications
	3rd	**Video content class using NPTEL Reference**
	4th	**UNIT-II:** Introduction to Data Management Planning
3rd	1st	Data management Plan
	2nd	Data Collection and Management
	3rd	Application Programming Interface

	4th	Exploring Data and Building Models
4th	1st	Storage Management, Importing Data
	2nd	**UNIT-III** : Introduction to Applied Statistical Techniques
	3rd	Types of Statistical Data
	4th	Types of Big Data Analytics
5th	1st	Collecting Data for Sampling and Distribution
	2nd	Probability, Frequency Distribution
	3rd	Population and Parameters
	4th	Central tendency and Central Value
6th	1st	Measures of Central Tendency
	2nd	Different types of Statistical Means
	3rd	Estimation Problem
	4th	Normal Distribution Curve
7th	1st	**Quiz-I**
	2nd	**UNIT-IV:** Introduction to Data Visualisation
	3rd	Data Visualisation and its importance
	4th	Data Visualization methods
8th	1st	Variables and Encoding
	2nd	**UNIT-V** : Introduction to Technologies for Visualisation
	3rd	Applications of Data Science Technologies for visualisation
	4th	Introduction to Python Programming
9th	1st	Data Types, Operations
	2nd	Simple program in Python
	3rd	Conditional statement
	4th	Program using conditional statement

10th	1st	Iterative control flow structure
	2nd	Program using iterative control flow statement
	3rd	Program using iterative control flow statement
	4th	Program using iterative control flow statement
11th	1st	Array
	2nd	List
	3rd	dictionary
	4th	set
12th	1st	tuple
	2nd	Modules, Library
	3rd	Introduction to Bokeh
	4th	How To Install Bokeh using Anaconda
13th	1st	Creating different Plots
	2nd	**Quiz-II**
	3rd	**Smart Class using NPTEL Reference**
	4th	Data collection and Analysis Techniques
14th	1st	Big Data Visualisation Tools and Visualising
	2nd	Preattentive Attributes
	3rd	Challenges of Big Data Visualisation
	4th	Potential Solution
15th	1st	Future Progress of Big Data Visualisation
	2nd	Advantages of Big Data Visualisation
	3rd	**Class test**
	4th	**Discussion of Previous Year Questions.**