

Seven-Day Workshop on 'DATA ANALYSIS USING PYTHON' (6th -13th APRIL, 2022)

Organized by: Department of Mathematics & Statistics

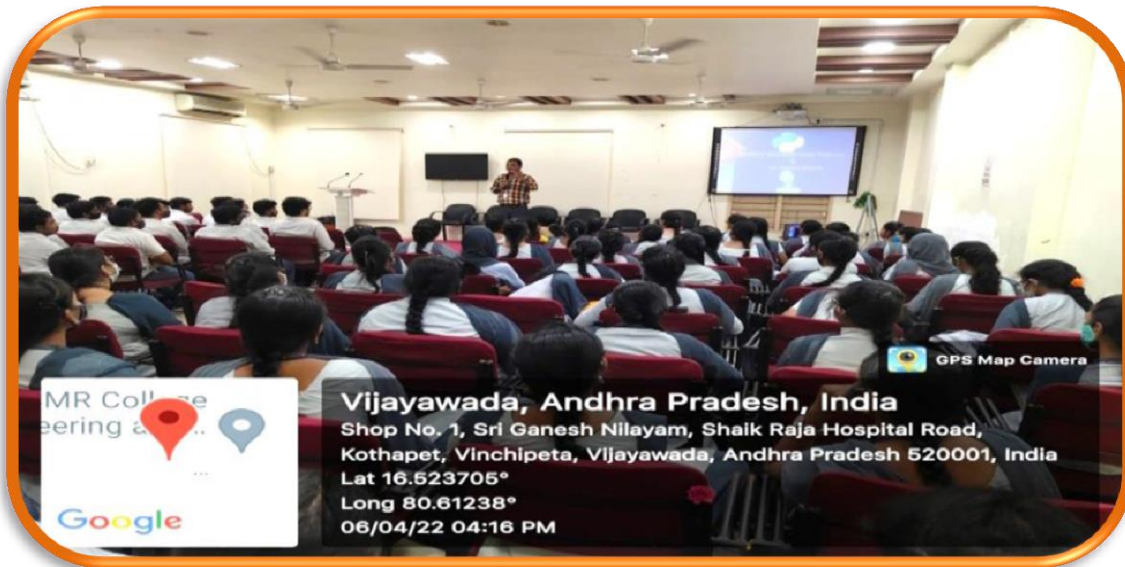
REPORT

A Seven day Workshop was organised by the Department of Mathematics and Statistics on “**Data Analysis using Python**” The Resource Person is **Dr. P. Siva Kumar**, Ass Professor, Department of CSE, KL University, Vaddeswaram, India.

Objectives:

- ❖ Develop and utilise critical elements of programming language, Python.
- ❖ Build and apply practical skill sets to complete data exploration and visualisation.
- ❖ Demonstrate various data processing activities using data query language and data manipulation language.
- ❖ Demonstrate data ingestion using Python and various data types and data sources.

INAUGURAL SESSION - SESSION 1



Session-1:

In this session the resource person explained about Introduction to python its applications, Tokens: identifiers, Keywords, literals, and some sample programs relating to them.

SESSION-2



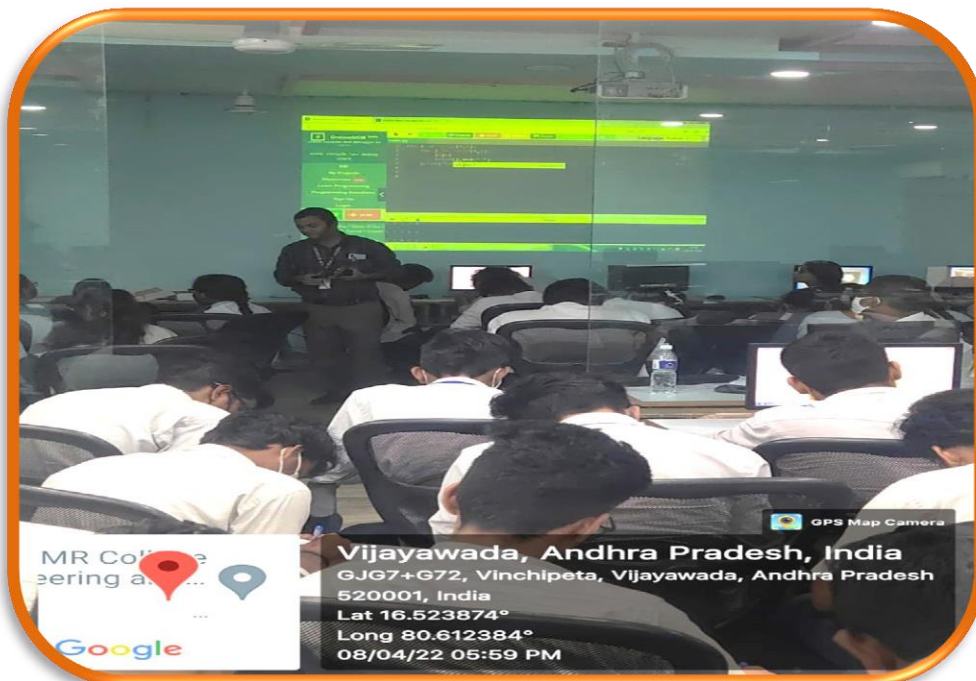
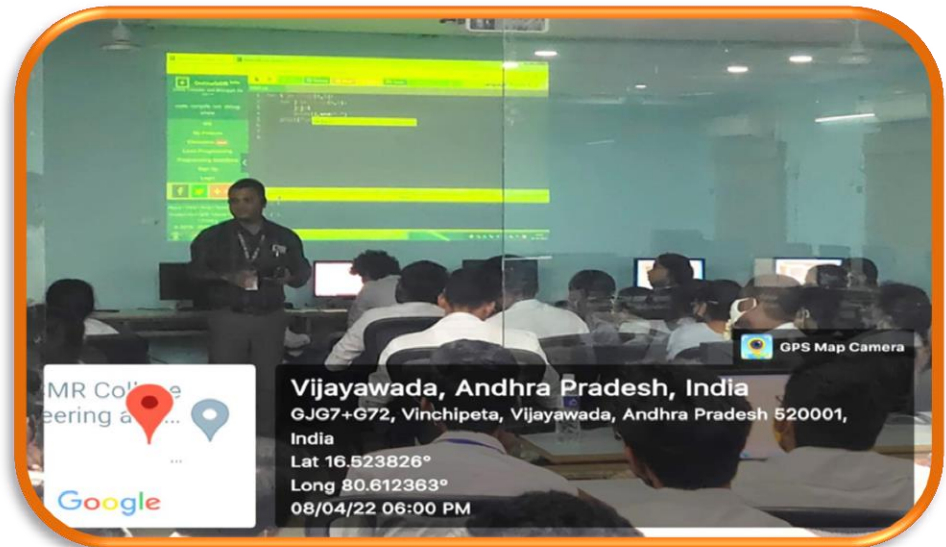
Session-2:

In this session the resource person explained about operators: Arithmetic, logical, relational, bitwise, Membership, Identity.

He also explained about control statements: Decision Making – if, elif, else, LOOPS – while, for. A few sample programs using control statements.



Session-3



Session-3:

In this session the resource person explained about the programs on Nested Loops and different program writings based on our desired pattern.

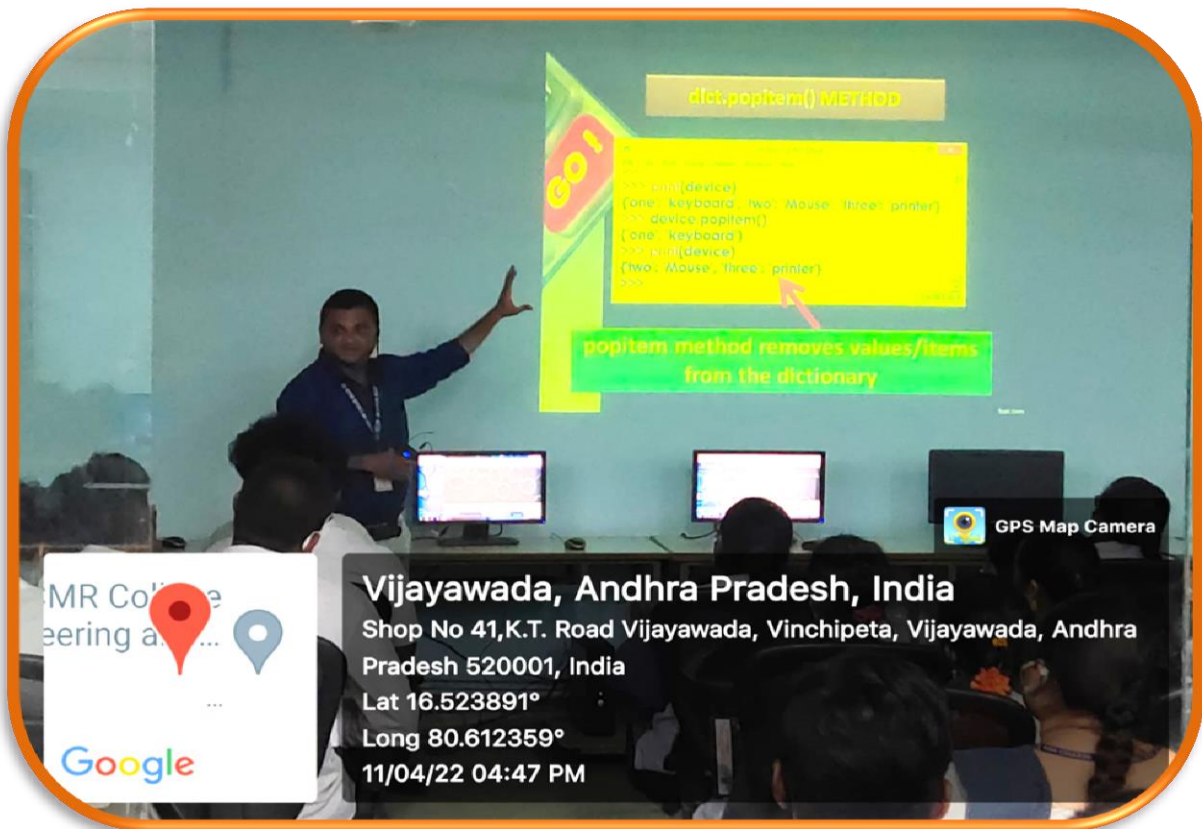
Session-4



Session-4:

In this session the resource person explained about some data structures like tuple, strings, List of Functions. Program using functions and Data Structures.

Session-5



Session-5:

In this session the resource person explained about Dictionaries and its Methods. Few programs using tuple, String, List and Dictionaries.

SESSION-6



SESSION-6:

In this session the resource person explained about Introduction of Packages like: Numpy, Scipy, Matplotlib and programs using them.

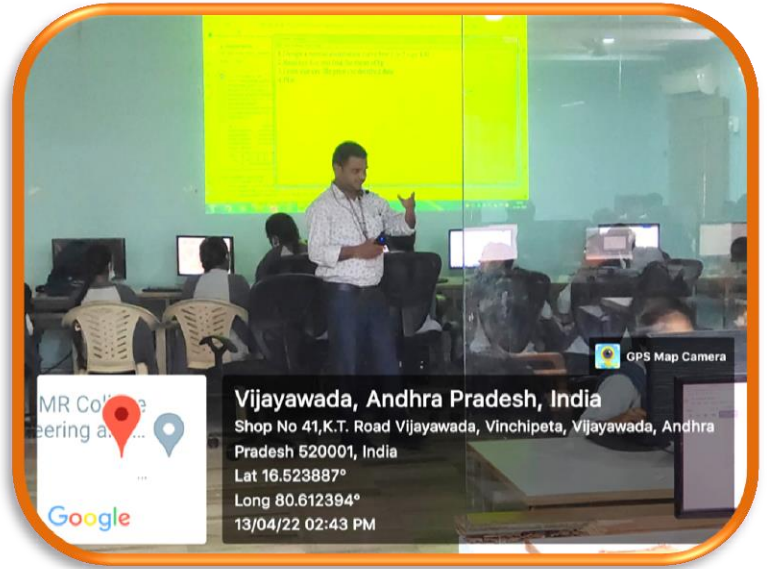
SESSION-7

In this session the resource person explained about few programs on Python packages and explained about how to import packages into programs.



SESSION-8:

In this session the resource person explained about Programs on Numpy, Scipy, and finding distributions like: Binomial, Normal. Basic programs to find Graphs.



SESSION-9:

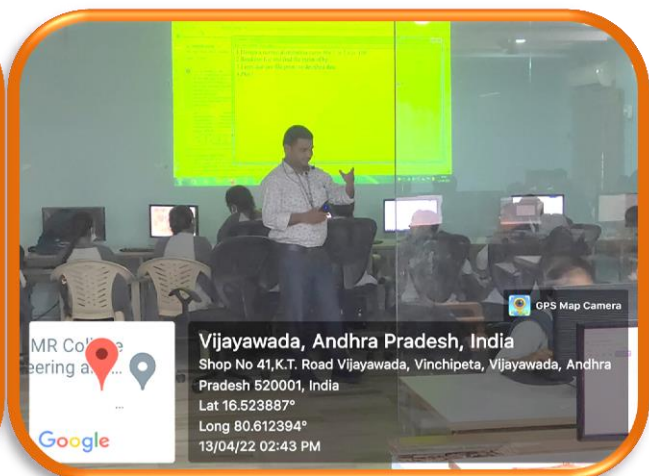
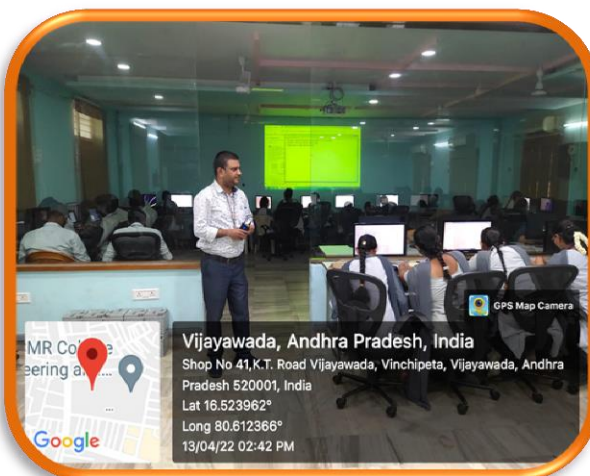


SESSION-9:

In this session the resource person explained about Packages Pandas and how to analyse data frames and basic programs using Pandas. Few basic programs using pandas.



SESSION-10



SESSION-10:

In this session the resource person explained about Introduction of Machine Learning and Data mining and Data ware house. Basic programs used in Machine Learning.

OUTCOME:

Students understand how to write basic programs in Python and also be able to use statistical functions in Python. They also did a sample data analysis for a data set using the statistical methods in python.

In this session, members of our department M. L. Prasanna, Ch. Radhika, L. Vijay Kumar, Ch. Mahinadh, K. Sowjanya and other faculty members and also 73 students from III B.Sc. (MSCs -1&2) & II B.Sc.(Data Science) have participated the programme.