



**B. M. S. COLLEGE OF ENGINEERING, BENGALURU-19**

(AUTONOMOUS COLLEGE UNDER VTU, APPROVED BY AICTE, ACCREDITED BY NBA&NAAC )

**DEPARTMENT OF COMPUTER APPLICATIONS**

Organizes Value Added Program On



# Python for Data Science

**Date: 16th to 27th May, 2022**

## Course Overview

Introduction to Data Science, Different Sectors Using Data Science, Purpose and Components of Python, Data Analytics Process, Data Types for Plotting, Statistical and Non-Statistical Analysis, Major Categories of Statistics, Statistical Analysis Considerations, Correlation and Inferential Statistics

Python environment set up, Anaconda, Installation of Anaconda Python Distribution, Data Types with Python Basic Operators and Functions, variables, expressions, statements, precedence of operators; Data structures

Functions: parameters, return values, local and global scope, function composition, recursion, and lambda functions; Object orientation – Classes, Objects, methods, Operator overloading, and Inheritance.

Introduction to Numpy, Creating and Printing and array, Class and Attributes of array, Basic Operations, Mathematical Functions of Numpy, Data Analysis of selected data sets, Introduction to Pandas, Understanding Data Frame, View and Select, Missing Values, Data Operations Pandas Sql Operation, Analyze the selected Dataset using Pandas.

Machine Learning Approach, Scikit Learn, Supervised Learning Models - Linear Regression, Logistic Regression, Unsupervised Learning Models, Introduction to Data Visualization, Plot and Subplots Types of Plots, Draw a pair plot using seaborn library

GUI Tkinter, Database- My SQL DB, and Scikit-Learn, Mini Project (Optional): Devising and developing solutions for real world use cases using visualization and data analysis tools.

The importance of creative and strategic thinking

## Course Outcomes

Students will be able to:

**CO1: Demonstrate the programming concepts of python**

**CO2: Develop programs using python Data structures**

**CO3: Apply python packages on the given dataset to solve complex problems**

**Open to UG and PG Students, Pursuing Engineering or Management from all Colleges (including BMSCE)**

**Deadline for Registration: 14th May, 2022**

**Registration fee: Rs.250**

## Mode of Payment

Account name: HoD MCA  
Account Number: 20274186038  
Bank Name: Indian Bank  
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**Note: One can also pay directly in the Indian Bank in BMSCE Campus. CASH payments are NOT accepted.**

## Register Here

<https://forms.gle/broiwRafZKQiEZND7>

### PATRONS

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