



Vishnu Waman Thakur Charitable Trust's
VIVA Institute of Technology

Approved by AICTE New Delhi, Recognized by DTE, Govt. of Maharashtra
And Affiliated to University of Mumbai

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Department of Electrical and Computer Engineering

Workshop Report "*Python for Data Science*"

Organized by: Department of Electrical and Computer Engineering

Under the Banner of: EESA (Electrical Engineering Students' Association)

Conducted by: Mr. Anojkumar Yadav, Assistant Professor

Dates: 31st July and 1st August 2025

Participants: BE and TE Electrical Engineering Students

Total Participants: 24

Objective of the Workshop:

The two-day workshop aimed to introduce final-year and third-year electrical engineering students to the fundamentals of Python programming in the context of data science. The sessions emphasized hands-on learning through Google Colab, enabling students to explore data manipulation, visualization, and basic machine learning workflows.

Workshop Highlights:

Day 1 – Python Fundamentals & Data Handling

- Introduction to Python: variables, data types, operators
- Control structures: **if**, **for**, **while** loops
- Functions, lists, tuples, and dictionaries
- Practical sessions on Google Colab
- Introduction to NumPy (arrays and operations)
- Basics of Pandas: Series, DataFrames, and data access

Day 2 – Data Analysis and Visualization

- Data cleaning and preprocessing using Pandas
- Data visualization with Matplotlib and Seaborn
- Hands-on with real-world datasets
- Exploratory Data Analysis (EDA) mini project
- Correlation and trend analysis
- Quiz, feedback collection, and certificate distribution



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Outcomes:

- Students gained practical skills in data loading, analysis, and visualization.
- Participants developed confidence in using Python for different datasets for analysis.
- The workshop served as a foundational step toward data-driven engineering applications.





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Conclusion:

The workshop received positive feedback from all participants, with students expressing interest in further exploring Python and machine learning tools. It successfully bridged the gap between academic learning and industry-relevant data skills, in alignment with the department's vision to nurture technically proficient professionals.

(EESA In-charge)
Prof. Anojkumar Yadav

H.O.D.
Prof. Bhushan Save



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