

Near Air-port, Hingoli Road, Nanded-431605.

Department of Computer Science and Engineering

## [Co-curricular or Extra-curricular Activity]

Name of Activity: DATA ANALYTICS WORKSHOP

Prepared by: Mr. Bisen R. G. Date: 16<sup>th</sup> & 17<sup>th</sup> May 2024

#### **Introduction:**

On May 16<sup>th</sup> and 17<sup>th</sup>, 2024, the Department of Computer Science & Engineering, in collaboration with the Institute of Engineers Students' Chapter, successfully organized a two-day workshop on "Data Analytics with Python". The event was led by Mr. Aditya Thakare, a dedicated researcher, trainer, and open-source enthusiast, who shared his extensive knowledge and experience in data analytics.

The workshop commenced with an introduction to Python programming and fundamental data analytics concepts, where Mr. Thakare guided participants through essential Python skills and data science per-processing techniques. These initial sessions laid a strong foundation for understanding the data analytics process, including data import/export, manipulation, and operations such as slicing, transformation, merging, Boolean filtering, scaling, sorting, and grouping.

In the subsequent sessions, Mr. Thakare delved into numerical functions and string operations, crucial for handling various data types in analytics. The workshop then moved into data visualization techniques using Matplotlib and Seaborn, where participants learned to create scatter plots, line plots, bar plots, box plots, pie charts, and histograms. These practical exercises provided hands-on experience in visualizing data, enhancing participants' ability to interpret and present data effectively.

The final segment of the workshop featured a sample analytics task, allowing participants to apply their newly acquired skills in a real-world scenario. This task reinforced the learning outcomes by offering hands-on practice in solving practical data analytics challenges.

The entire workshop was organized by IEI Students' Council under the guidance of respected Director, **Dr. Geeta S. Lathkar**, Faculty Advisor & HoD of CSE Department, **Dr. Archana Rajurkar** and IEI coordinator, **Mr. Rahul Singh G. Bisen**. With the efforts of IEI council members under the guidance of IEI coordinator, the event had turned into great success.



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## **Activity Details:**

Dates: 16<sup>th</sup>& 17<sup>th</sup> May, 2024

• Time: 10:30 AM – 5:30 PM

Duration:2 Days

• Location:Remote Centre Hall,Dept. Of CSE

## **Participants:**

• Number of participants: 68

• Class: SY& TY CSE

#### **Outcome of the Event**

The "Data Analytics with Python" workshop provided participants with comprehensive knowledge and practical skills in data analytics. Through hands-on sessions and real-world applications, students gained proficiency in using Python for data manipulation, analysis, and visualization. The workshop empowered them to apply these skills in various data-driven projects, enhancing their ability to tackle complex problems and present data effectively.

#### **Relevance with Program Outcomes**

#### 1. Engineering Knowledge (PO1):

o The workshop strengthened students' understanding of data analytics principles, allowing them to apply scientific and engineering knowledge to solve real-world problems using Python.

#### 2. Problem Analysis (PO2):

o Participants learned to analyze and break down complex data problems, enhancing their ability to formulate and solve engineering challenges.

### 3. Design/Development of Solution (PO3):

O By engaging in practical tasks, students developed the skills to design and implement data-driven solutions, aligning with the program outcome of creating effective engineering solutions.

#### 4. Modern Tool Usage (PO5):



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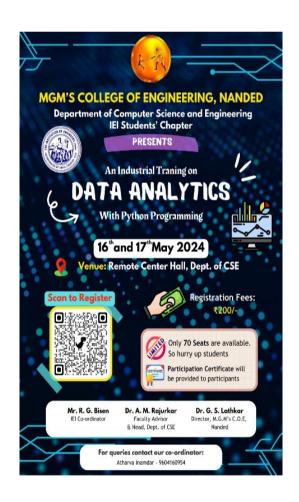
 The use of Python libraries such as Matplotlib and Seaborn provided handson experience with modern tools, fulfilling the program outcome of mastering contemporary engineering tools.

#### 5. Lifelong Learning (PO12):

 The workshop encouraged continuous engagement with emerging data analytics techniques and tools, promoting a commitment to lifelong learning in the rapidly evolving field of data science.

#### **Attachments:**

• Any supporting materials (photos, videos, presentations, etc.)









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### Feedback:

- Participant Feedback:
  - o Positive Aspects:
    - "The workshop was a valuable learning experience, and the hands-on sessions really helped solidify the concepts."
    - "The instructor's expertise and interactive teaching style made the sessions engaging and informative."
  - Areas for Improvement:
    - "More time could have been allocated to the advanced topics to explore them in greater depth."
    - "Providing additional resources for post-workshop practice would have been beneficial."

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		FEEDBAC	K FORM		
Name & Class of the Studen	t:	aurabh	pawar		
The workshop content was	100				
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POOR [ ] SATISFACTORY	100000	GOOD[ ]	VERY GOOD[ ]	EXCELLEN	11/1
How would you rate the ha			,		
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Knowledge of Trainer:				FXCELLEN	11 6
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What is your Overall Asses POOR[ ] SATISFACTOR Views & Suggestions (Including 1997)	Y[ ]	GOOD[ ]	VERY GOOD		e to learn):
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Additional Comments and	Suggest	ions:			
need such	a	works	shops	on v	arious

Mr. Bisen R. G. Event Co-ordinator

Dr. A. M. Rajurkar H.O.D