

MGM's COLLEGE OF ENGINEERING.NANDED

Near Air-port, Hingoli Road, Nanded-431605. Department of Computer Science and Engineering

[Co-curricular or Extra-curricular Activity]

Name of Activity: MACHINE LEARNING USING PYTHON

Prepared by: Mr. Bisen R. G. Date: 1st and 2nd March 2024

Introduction:

On March 1st and 2nd, 2024, the Department of Computer Science & Engineering, in collaboration with the Institute of Engineers (India) Students' Chapter, successfully organized a two-day workshop on "Machine Learning using Python." The event was led by Dr. Dhanraj Dhotre, an esteemed PhD holder in Machine Learning, AI/ML PG Head at MIT ADT, Pune, and a Corporate Trainer, who brought a wealth of expertise and knowledge to the learning experience. With his profound experience in machine learning and extensive academic background, Dr. Dhotre was the ideal choice for conducting this workshop.

The workshop commenced with a special welcome and felicitation of Dr. Dhanraj Dhotre by Mr. Suhas Salve, accompanied by the esteemed presence of Ms. Nitu Pariyal, Ms. Nikita Pande (faculty coordinators), and IEI coordinator Mr. Rahul Singh Bisen. This gesture not only acknowledged Dr. Dhotre's expertise and contributions to the field but also set a tone of respect and appreciation for the knowledge-sharing endeavor ahead.

The first day began with an introduction to Machine Learning and Artificial Intelligence, followed by a brief review of Python essentials to prepare participants for the hands-on exercises. The day concluded with sessions on Data Analysis, Visualization, and the implementation of Linear Regression using Python. These sessions emphasized the importance of interpreting and presenting data effectively in machine learning applications, laying a strong foundation for the participants.

On the second day, participants delved into advanced topics in machine learning, including Artificial Neural Networks (ANN), Convolutional Neural Networks (CNN), and Support Vector Machines (SVM). Through interactive sessions and hands-on practice, attendees gained a deeper understanding of these sophisticated algorithms and their applications in various domains. The hands-on practice sessions were particularly beneficial in reinforcing the concepts learned, enabling participants to apply their skills in real-world scenarios.

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 M. Rajurkar** and IEI coordinator, **Mr. Rahul Singh G. Bisen**. With the efforts



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of IEI council members under the guidance of IEI coordinator, the event had turned into great success.

Activity Details:

Date: 1st & 2nd March, 2024

• Time: 10:00 AM - 5:30 PM

• Duration: 2 Days

• Location: Remote Centre Hall, Dept. Of CSE

Participants:

Number of participants: 64

• Class: TY CSE

Outcome of the Event

The workshop successfully bridged the gap between theory and practice in machine learning with Python. Participants gained hands-on experience and interactive learning opportunities, empowering them to apply machine learning concepts effectively in real-world situations. By the end of the workshop, students had developed a strong understanding of both fundamental and advanced machine learning algorithms and their practical applications.

Relevance with Program Outcomes

1. Engineering Knowledge (PO1):

 The workshop enhanced students' understanding of machine learning concepts and Python programming, contributing to their overall engineering knowledge.

2. Problem Analysis (PO2):

 Participants learned to analyze data and apply machine learning algorithms to solve complex problems, aligning with the program outcome of problem analysis.

3. Design/Development of Solutions (PO3):

 The focus on implementing machine learning models enabled students to design and develop solutions for real-world problems, which is a key program outcome.

4. Modern Tool Usage (PO5):



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 The use of Python and its libraries for machine learning introduced students to modern tools and techniques, fulfilling the program outcome related to modern tool usage.

5. Lifelong Learning (PO12):

 The workshop inspired students to continue learning and exploring machine learning, promoting a mindset of lifelong learning in a rapidly evolving field.

Feedback:

- Feedback from participants
 - Positive aspects :
 - "The workshop was incredibly informative, and the hands-on sessions were particularly helpful in solidifying the concepts."
 - "Dr. Dhotre's expertise in the field made the complex topics more accessible and engaging."
 - o Areas for improvement
 - "More time for exploring each algorithm in detail would have been beneficial."
 - "Providing additional resources or follow-up sessions could help in reinforcing the learning outcomes."



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Attachments:

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











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Feedback:

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How would you r	ate the usefulnes	GOOD[hop? VERY GOOD[]	EXCELLENT[]
How would you r	ate the hands-on	activity? GOOD[]	VERY GOOD[/	EXCELLENT[]
	TISFACTORY[]	GOOD[1	VERY GOOD[]	EXCELLENT[]
Explanations of 1 POOR[] SA What is your Ove	TISFACTORY[]	GOOD	VERYGOOD[]	EXCELLENT[]
Views & Suggestion	ons (Including furth	ner new technic	al training or initiative	s you would like to learn):
			(%)	
Additional Com	ments and Sugge	estions:		

Mr. Bisen R. G. Event Co-ordinator

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