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Anekal, Bengaluru

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DEPARTMENT OF ARTIFICIAL INTELLIGENCE & MACHINE LEARNING

Date: 02.09.2023

Submitted,

Sub: **Report on Hands-on Session on Advanced Python**

With respect to the above subject, Department of Artificial Intelligence & Machine Learning, Sri Sairam College of Engineering, Bengaluru organized one day hands-on session on advanced python for the 1st & 2nd year students of AIML department. On August 31st, 2023, an engaging and informative hands-on session on Advanced Python was organized **with Dr. Mohd. Aamir Khan**, a highly accomplished Project Scientist from IIT Kanpur, serving as the resource person. The event was with the intention of enhancing participants' knowledge and skills in Python programming, particularly focusing on advanced concepts and applications. The session was attended by a diverse group of participants, including students, professionals, and Python enthusiasts.

The hands-on session was structured around various advanced Python topics, ensuring that participants could delve into both fundamental and intricate aspects of the programming language. The agenda for the session included the following key topics:

1. **Introduction to Python Concepts:**
   - Overview of the Python programming language.
   - Comparison of Python with other programming languages.
   - Importance and applications of Python in various domains.
2. **Data Structures in Python:**
   - In-depth exploration of lists, tuples, sets, and dictionaries.
   - Real-world use cases and best practices for each data structure.
3. **Object-Oriented Programming (OOP) in Python:**
   - Explanation of OOP principles and their implementation in Python.
   - Hands-on exercises on creating classes, objects, and inheritance.
4. **Advanced Libraries and Modules:**
   - An overview of popular Python libraries and modules such as NumPy, Pandas, and Matplotlib.
   - Practical examples of data manipulation and visualization using these libraries.

5. **File Handling and Input/Output:**
   - Techniques for reading and writing files in Python.
   - Demonstrations of CSV, JSON, and text file processing.
6. **Error Handling and Exception Handling:**
   - Understanding error types and how to handle exceptions gracefully.
   - Practical exercises on debugging and error resolution.

Session Highlights:

- Dr. Mohd. Aamir Khan, with his extensive experience, delivered an engaging and informative presentation on advanced Python concepts.
- The hands-on exercises and coding sessions allowed participants to apply their knowledge immediately.
- The introduction to Python libraries and their practical use cases was well-received by participants who were interested in data analysis and visualization.
- The session on web scraping and machine learning provided valuable insights into the broader applications of Python.

Conclusion:

The Hands-on Session on Advanced Python, led by Dr. Mohd. Aamir Khan was a resounding success, providing participants with a deeper understanding of Python's advanced features and its versatile applications. The practical nature of the session enabled attendees to gain hands-on experience, making it a valuable learning opportunity for both novice and experienced Python programmers. The event contributed significantly to enhancing the Python skills of the participants and furthering their knowledge in various domains where Python is widely used.
At the end of the day program concluded with feedback from students and vote of thanks by Coordinator.

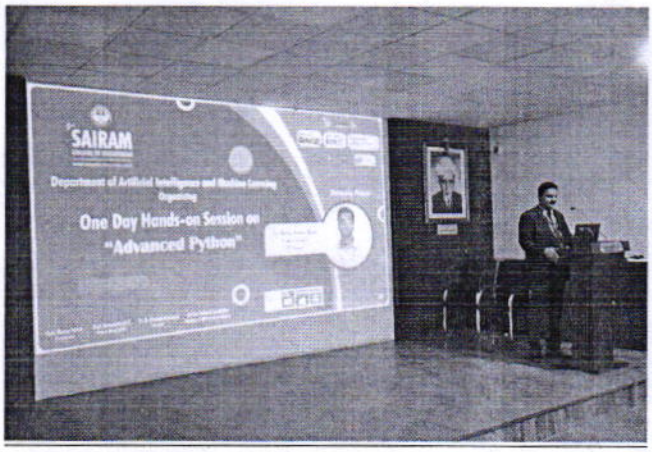
We extend our gratitude to Dr. Mohd. Aamir Khan for his invaluable contributions and look forward to organizing similar sessions in the future to continue promoting knowledge and skill development in Python programming.

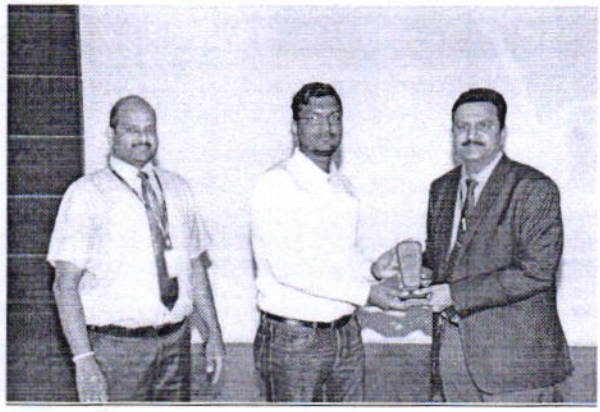
Nancy Vaish 4/09/23
Signature of Program Coordinator

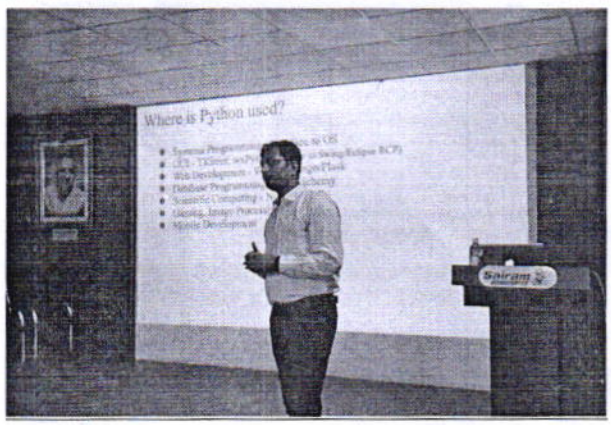
Signature of HOD
Professor & Head
Dept. of Artificial Intelligence & Machine Learning
Sri Sairam College of Engineering
Sai Leo Nagar, Guddanahalli (P)
Anekal, Bengaluru - 562 106

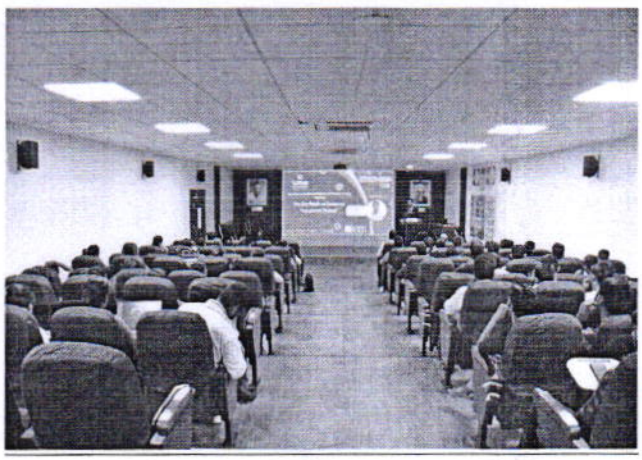
04/09/2023

Glimpse of Session Photos









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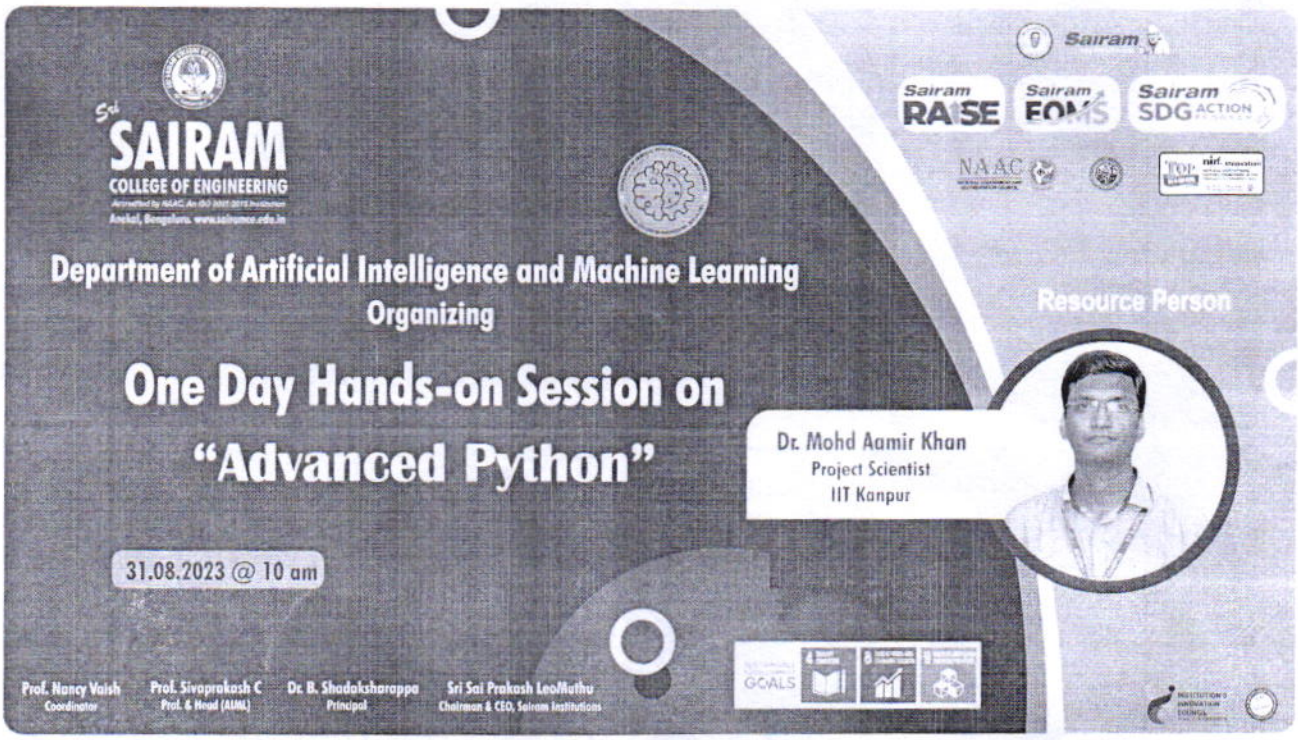
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NAAC
Department of Artificial Intelligence and Machine Learning
Organizing
One Day Hands-on Session on
"Advanced Python"
Resource Person
Dr. Mohd Aamir Khan
Project Scientist
IIT Kanpur
31.08.2023 @ 10 am
Prof. Nancy Vaish
Coordinator
Prof. Sivaprakash C
Prof. & Head (AIML)
Dr. B. Shadaksharappa
Principal
Sri Sai Prakash LeoMuthu
Chairman & CEO, Sairam Institutions
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