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DEPARTMENT OF ARTIFICIAL INTELLIGENCE & MACHINE LEARNING

Date: 04.07.2024

Submitted,

Sub: Report on 2 days Hands-On Workshop on "Generative AI and Blockchain Technology"-Reg

With respect to the above subject, Department of Artificial Intelligence & Machine Learning, Sri Sairam College of Engineering, Bengaluru organized two days Workshop on "Generative AI and Blockchain Technology" for the 2nd year students of AIML on 1st and 2nd of July,2024. The event was organized with the intention of enhancing students knowledge and skills in Current Technology, particularly focusing on advanced concepts and applications.

During the formal inaugural session, Prof & Head Dept of AIML, Dr.Sivaprakash.C welcomed the gathering, Coordinator Prof. Anitha.S Department of AIML, gave introduction about resource person to the students, Principal Dr. B. Shadaksharappa of Sri Sairam College of Engineering delivered the presidential address. Resource person Mr. Ajinkya Lohakare, Chief Technology Officer from DITTO Security, Mumbai, engaged an informative session on "Generative AI and Blockchain technology"

The workshop was structured around various features of AI and Blockchain, ensuring that students could delve into both fundamental and intricate aspects of the "Generative AI and Blockchain Technology". The agenda for the session included the following key topics.

Day 1: Generative AI

Morning Session

1. Inauguration

The workshop commenced with an inaugural program in AV Hall , where Prof. Anitha.S delivered the importance of Generative AI Hands-on-session in today's digital era.

2. Introduction to Generative AI

Topics Covered:

Overview of AI and Generative Models

- Types of Generative Models (GANs, VAEs, etc.)
- Applications of Generative AI in various industries

3. Hands-On Session: Building a Simple GAN

Participants were introduced to the basics of Generative Adversarial Networks (GANs) and guided through the process of building a simple ChatGPT using Python and PyTorch. Many Interfaces were installed to complete this task.

- 1. Open AI
- 2. Hugging Face
- 3. Cohere

Day 1: Hands-On Session

Afternoon Session

4. Advanced Generative AI Techniques

 Generated the security keys from those APIs , By entering them in a VS code Terminal the program has been executed.

Topics Covered:

- Natural Language Processing (NLP)
- o Neural Style Transfer and Text Generation

5. Hands-On Session: Image and Text Generation

 Participants engaged in practical exercises on image and text generation using pretrained models and custom datasets.

6. Quiz and Discussion

 An interactive session where participants posed questions to the resource person and discussed real-world applications and challenges of Generative AI.

Day 2: Blockchain Technology

Morning Session

1. Introduction to Blockchain Technology

- Topics Covered:
 - Fundamentals of Blockchain
 - Key Concepts: Decentralization, Consensus Mechanisms, and Smart Contracts
 - Applications of Blockchain in various sectors

2. Hands-On Session: Setting Up a Blockchain Network

- o Participants learned how to set up a private blockchain network using platforms like
- i Ethereum and Lang Chain Technology
- o Created a digital Voting app using Preferred Installer Program (pip) in VS Code.

Afternoon Session

3. Smart Contracts and Decentralized Applications (DApps)

- Topics Covered:
 - Writing and Deploying Smart Contracts
 - Development of Decentralized Applications
 - Use Cases and Case Studies

4. Hands-On Session: Developing a DApp

o Practical session on developing a simple Decentralized Application, including frontend and back-end integration with blockchain.

5. Q&A and Panel Discussion

 Resource person discussed the future of blockchain technology, regulatory considerations, and career opportunities with students.

Conclusion and Feedback

The workshop concluded with a feedback session where participants shared their experiences and resource person provided suggestions for future workshops. The workshop received positive feedback, as participants were enthusiastic about the practical knowledge acquired and the networking opportunities available.

Signature of Program Coordinator

Signature of HOD Professor & Head

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Glimpse of Session Photos













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