Department of Artificial Intelligence and Machine Learning

Dated: 21/11/2023

REPORT

Seminar on "Generative AI"

Date of Event: 21st November 2023

Venue: Auditorium

Objectives: To enable students to gain insights into various aspects of Generative AI.

Delegates (Speakers, Outsiders): Mr. Upendra Kr. Tiwari (Data Scientist)

Key Takeaways:

- Evolution of AI and its significance
- Types of generative models: GANs, VAEs, autoregressive models, flow-based models
- Applications across domains: image generation, text-to-image synthesis, style transfer, drug discovery, natural language generation
- Training and evaluation of generative models
- Ethical considerations: privacy, deep fakes, job displacement
- Recent advances: progressive growth of GANs, self-attention mechanisms, stability improvements
- Future directions: integration with reinforcement learning, meta-learning, multimodal learning
- Hands-on session: experimenting with generative AI using popular libraries and frameworks

Description: The Department of AIML has organized a seminar on "Generative AI" on 21st November 2023 by Speaker Mr. Upendra Kr. Tiwari (Data Scientist) in the Auditorium. Mr. Upendra Kr. Tiwari conducted the seminar, which provided attendees with industrial insights into Generative AI and explored the emerging trends of machine learning within AI.

This report aims to provide a comprehensive overview of the seminar on Generative AI, highlighting key concepts, applications, and advancements discussed during the event. It will explore the evolution of generative AI, types of generative models, ethical considerations, recent advances, and future directions in the field. Additionally, the report will outline practical insights gained from hands-on sessions and discussions on the usage of generative AI techniques. Overall, the objective is to equip readers with a deeper understanding of generative AI and its implications for various industries and societal challenges.

The seminar on Generative AI offers numerous advantages to participants, both academically and professionally. Firstly, it provides a comprehensive understanding of the evolution, principles, and applications of generative AI, fostering a solid foundation for further study and research in the field. Additionally, attendees gain insights into the diverse range of generative models and their respective strengths and weaknesses, enabling them to make informed decisions when selecting and implementing these techniques in real-world scenarios.

Moreover, the seminar facilitates networking opportunities, allowing participants to connect with experts, researchers, and peers in the field of AI. This networking can lead to collaboration opportunities, idea exchange, and access to resources that can enhance their academic and professional pursuits. Furthermore, the hands-on sessions offer practical experience with using various cloud computing platforms and services, empowering participants to apply their newfound knowledge in practical projects and initiatives.

The seminar also addresses ethical considerations associated with generative AI, promoting awareness and responsible deployment of these technologies. By discussing topics such as privacy, bias, and misinformation, participants develop a deeper understanding of the societal impact of AI and are better equipped to navigate ethical challenges in their work.

Overall, the seminar serves as a valuable platform for learning, skill development, and professional growth in the rapidly evolving field of generative AI. It equips participants with the knowledge, skills, and connections necessary to thrive in both academic and professional settings, ultimately contributing to their success and the advancement of AI research and innovation.

Outcomes: 100 students along with 12 faculty members benefited from the workshop.

Beneficiaries: AIML students.

Photographs of event with title: Seminar on "Generative AI"