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Guest Lecture - Department of CSE (Data Science) In Collaboration with AIML, Computer Science and Design

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A Report on Guest lecture on "**CURRENT TRENDS IN LLM'S AND AGENTIC SYSTEM"**

Date of the event	26.04.2025
Title of the Event	Guest lecture on "**CURRENT TRENDS IN LLM'S AND AGENTIC SYSTEM"**
Organized by	Dept. of Computer Science and Engineering - Data Science in collaboration with AIML, CSD

The guest lecture was held on 26th April 2025 at the Rajalakshmi Seminar Hall, MVJCE College, conducted by CSE (Data Science) in collaboration with Computer Science and Design and AIML department. The program was chaired by Dr. Ajayan K. R. (Principal, MVJCE), Prof. Susmitha M N, Prof. Rekha P (HOD CSE - Data Science) and Dr. Avirup Saha, the guest speaker, a distinguished Data Scientist from IBM.

The event aimed to expose students and faculty to the latest advancements in Large Language Models (LLMs) and the evolving field of agentic AI systems.

About the speaker:

Dr. Avirup Saha is a highly accomplished Data Scientist at IBM with vast experience in machine learning, natural language processing, and AI systems. His research contributions have significantly impacted the development and application of intelligent autonomous agents and LLM-based solutions in industry.

A brief account of the session:

The event began with a warm welcome extended to the esteemed guests by Ms. Janani. As a gesture of appreciation, Prof. Rekha P presented a beautiful bouquet to the guest, marking the commencement of the session with warmth and respect. Following this, the guest speaker, Dr. Avirup Saha, was formally introduced to the gathering. A welcome address was delivered to the faculty members and students of the Department of Computer Science Engineering (Data Science), CSD, AIML, setting the stage for an engaging and insightful lecture on “Current Trends in LLMs and Agentic Systems.”

Figure 1: Welcoming the Guest with a Bouquet

The session was held from 9:30 a.m. to 12:30 p.m. The purpose of the session was to determine the role of Current Trends in LLMs and Agentic Systems.

Key Highlights of the Talk:

- **Introduction to LLMs:**
  Dr. Saha provided a comprehensive overview of Large Language Models, tracing their evolution from early NLP models to modern transformer-based architectures such as GPT, BERT, and LLM.
- **Emerging Trends in LLMs:**
  He discussed current trends, such as fine-tuning techniques, retrieval-augmented generation (RAG), prompt engineering, model distillation, and open-source LLM development.
- **Agentic Systems:**
  Dr. Saha explained the concept of agentic systems — AI systems that possess autonomy, decision-making capabilities, and learning behaviours without constant human supervision.
  The topics included autonomous reasoning, multi-agent collaboration, and ethical challenges.
- **Applications and Future Prospects**
  Real-world applications in healthcare, finance, education, and creative industries were discussed. He also emphasised the need for responsible AI practices and robust evaluation frameworks.
- **Interactive Session:**
  The lecture concluded with an engaging Q&A session in which students and faculty interacted directly with Dr. Saha, discussing practical challenges and future career opportunities in the AI domain.

Figure 2: Dr. Avirup Saha addressing the students

After Dr. Avirup Saha's enlightening session, a few students took the opportunity to share their reflections. They expressed their deep appreciation for the insightful and thought-provoking discussions. Students highlighted how the lecture broadened their understanding of the rapidly

evolving fields of LLMs and agentic systems and how the examples shared by Dr. Saha connected theory to real-world applications. They also conveyed gratitude to the departments for organizing such a valuable session and expressed enthusiasm for pursuing further research and learning in Artificial Intelligence and Data Science.

Figure 3: Students attending the guest lecture

Key Challenges Discussed:

- Scalability and Resource Requirements
- Bias and Fairness Issues
- Interpretability and Explain ability

Outcomes of the Event:

The guest lecture successfully enhanced participants' understanding of the dynamic landscape of LLMs and agentic systems. Students were inspired to explore further research and innovation opportunities in the field of artificial intelligence.

We extend our heartfelt gratitude to **Dr. Avirup Saha** for sharing his expertise and experience. Special thanks to the organizing committee of the **CSE-Data Science** department, **Computer Science & Design, and AIML** department for facilitating this insightful event.