



## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### REPORT - SEMINAR ON “Generative AI Systems: Theory, Tools, and Transformative Use Cases”

**Title:** Seminar on “Generative AI Systems: Theory, Tools, and Transformative Use Cases”

**Date:** 29<sup>th</sup> January 2026

**Venue:** Intel Lab, AVIT, Chennai Campus

**Resource Person:** Mr. Sairam Rajendran, Associate Professor of Practice, Department of Computer Science and Engineering, Aarupadai Veedu Institute of Technology, Vinayaka Mission's Research Foundation (Deemed to be University), Chennai

**Organized By:** Department of Computer Science and Engineering with AI Nexus Club & IIC

**Category:** As part of Silver Jubilee year Celebrations & AICTE “AI FOR ALL”

#### Introduction

As part of the VMRF Silver Jubilee Year celebrations and in alignment with the AICTE “AI for ALL – Human Capital for an AI-Ready Workforce” initiative, the Department of Computer Science and Engineering in association with the AI Nexus Club organized a seminar titled “Generative AI Systems: Theory, Tools, and Transformative Use Cases.”

The seminar aimed to provide students and faculty with a comprehensive understanding of Generative Artificial Intelligence, covering its theoretical foundations, popular tools, and real-world applications across multiple domains. With the rapid adoption of Generative AI technologies in academia, industry, and research, the session focused on building awareness, technical insight, and responsible usage of these emerging systems.

The program witnessed enthusiastic participation from students and faculty members, reflecting strong interest in next-generation AI technologies.

### Objective of the Workshop

- To introduce the fundamental concepts and working principles of Generative AI systems.
- To familiarize participants with state-of-the-art Generative AI tools and platforms.
- To demonstrate transformative use cases of Generative AI in education, healthcare, software development, content creation, and research.
- To align student learning with AICTE's AI for ALL vision, promoting inclusive and practical AI education.
- To encourage ethical, responsible, and human-centric adoption of AI technologies.
- To bridge the gap between academic learning and industry-driven AI applications.

### Outcomes

- Participants developed a strong foundational understanding of Generative AI systems, including their architecture, working principles, and evolution.
- Students gained exposure to modern Generative AI tools and platforms, enhancing their ability to apply AI technologies in academic and real-world scenarios.
- The seminar improved participants' analytical and problem-solving skills by demonstrating how Generative AI can be used to address complex engineering challenges.
- Attendees understood the design and development aspects of AI-driven solutions, encouraging innovative thinking and solution-oriented approaches.
- The program created awareness about the ethical, societal, and legal implications of Generative AI, emphasizing responsible and human-centric AI usage.
- Participants were motivated towards self-learning and continuous skill upgradation in emerging AI technologies, aligning with life-long learning practices.
- The seminar strengthened students' readiness for industry, research, and interdisciplinary applications of Generative AI.
- The event supported the AICTE "AI for ALL" initiative by promoting inclusive AI literacy and practical exposure among students.

## Key takeaways

- Generative AI is a transformational technology reshaping education, industry, and research.
- Understanding both theory and tools is essential for effective and responsible AI usage.
- AI tools should be used as assistive technologies, enhancing human creativity and productivity rather than replacing it.
- Ethical considerations such as bias, data privacy, and responsible deployment are critical in AI adoption.
- Students must focus on AI literacy, prompt engineering, and domain integration skills to stay future-ready.
- Continuous learning is vital to keep pace with the rapidly evolving AI ecosystem.

Coordinator

HoD/CSE

Day 2  29 January 2026

Topic

## Generative AI Systems: Theory, Tools, and Transformative Use cases

### Resource Person

**Mr. Sairam Rajendran**

Associate Professor of Practice  
Department of CSE  
AVIT



 10:00 AM - 12:00 PM

 Intel Lab, AVIT





