

A Report on Industrial Visit to “MathWorks”
Organized by Department of Electronics & Communication Engineering
on 26.09.2026



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Mode of Conduct: Offline

Location: MathWorks India Pvt. Ltd., 2nd Floor, Octave Block, Salarpuria Sattva Knowledge City, Raidurg, Hyderabad – 500081.

Report Received on 01.10.2026.

Event: Future of Engineering Education: Bridging Industry Practice and Academic Innovation with Generative AI and Agentic AI

1. Introduction

As part of professional and academic development, an industrial visit was undertaken to MathWorks India Pvt. Ltd., Hyderabad, on 26 September 2026. The visit was organized around the event “Future of Engineering Education: Bridging Industry Practice and Academic Innovation with Generative AI and Agentic AI.” The programme brought together academic leaders, researchers, educators, and industry experts to discuss the transformation of engineering education through Generative AI, Agentic AI, MATLAB, and Simulink. The event included keynote addresses, industry talks, academic presentations, interactive discussions, poster sessions, a teaching masterclass, and a hands-on session.

The visit provided an opportunity to understand current industry practices and emerging technological trends and to explore how industry-oriented tools and AI-enabled workflows can be integrated into engineering education, research, and professional practice.

2. Objectives of the Industrial Visit

The major objectives of the visit were:

- To understand emerging trends in Generative AI and Agentic AI and their applications in engineering education.
- To gain exposure to the integration of MATLAB and Simulink with AI-enabled engineering workflows.
- To understand the changing requirements of engineering education from an industry perspective.
- To explore opportunities for incorporating industry-oriented tools and practices into teaching and laboratory activities.
- To interact with industry professionals, academic experts, researchers, and other educators.
- To understand the role of AI in engineering research, innovation, digitalization, automation, and future technology development.
- To explore approaches for developing experiential and work-integrated learning among engineering students.

The event was specifically designed for academicians, researchers, heads of departments, and institutional leaders.

3. Major Discussions

The programme covered several important technical and academic themes.

a) Future of Engineering Education and AI

The keynote and expert sessions focused on how Generative AI and Agentic AI are transforming engineering education and professional practice. Discussions highlighted the importance of adapting engineering education to emerging AI-enabled industrial workflows.

b) Industry Perspectives on AI in Engineering

The programme included an industry perspective on engineering education in the age of AI, particularly from the defence sector. Discussions also addressed future grid technologies, digitalization and automation, demonstrating the increasing role of intelligent technologies in engineering applications.

c) Generative AI, Autonomous Agents and Edge-Cloud Computing

An industry session discussed the transition from Generative AI and autonomous agents toward future edge-cloud computing, highlighting the growing importance of intelligent and distributed computing technologies in engineering applications.

d) Teaching with Generative AI and Agentic AI

A dedicated masterclass explored approaches for teaching with Generative AI and Agentic AI. This was particularly relevant for faculty members seeking to incorporate emerging AI technologies into classroom teaching, laboratory activities, project-based learning, and engineering education.

e) MATLAB and Simulink for Engineering Education and Research

The event demonstrated the role of MATLAB and Simulink in engineering education and research. The programme included discussions on using MATLAB for research towards 6G, signal processing, and experiential/work-integrated learning.

f) Hands-on AI Workflows

The programme concluded with a hands-on session on Generative AI and Agentic AI workflows using MATLAB and Simulink, providing practical exposure to AI-enabled engineering workflows.

4. Expected Outcomes

The industrial visit is expected to provide the following outcomes:

- Improved understanding of Generative AI and Agentic AI and their relevance to engineering education.
- Better awareness of current industry expectations and technological trends.
- Enhanced knowledge of MATLAB and Simulink-based engineering workflows.
- Identification of opportunities to integrate AI-based tools into teaching and laboratory courses.
- Improved understanding of experiential and work-integrated learning approaches.
- Development of ideas for AI-oriented student projects, research activities, and curriculum enrichment.
- Strengthened interaction and networking between academia and industry.
- Greater awareness of emerging research opportunities in areas such as AI, 6G, signal processing, digitalization, automation, and edge-cloud computing.
- Scope for applying the knowledge gained during the visit to academic teaching, research, and departmental activities.

5. Conclusion

The industrial visit to MathWorks India Pvt. Ltd., Hyderabad, provided valuable exposure to the changing landscape of engineering education and the growing role of Generative AI, Agentic AI, MATLAB, and Simulink. The combination of academic and industry perspectives helped in understanding how emerging technologies can be incorporated into engineering teaching, research, and professional practice. The interactive discussions, academic presentations, masterclass, networking opportunities, and hands-on session provided meaningful insights into current and future engineering practices.