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A Report on Alumni Webinar

on

"The Role of Generative AI in Sustainable Engineering"

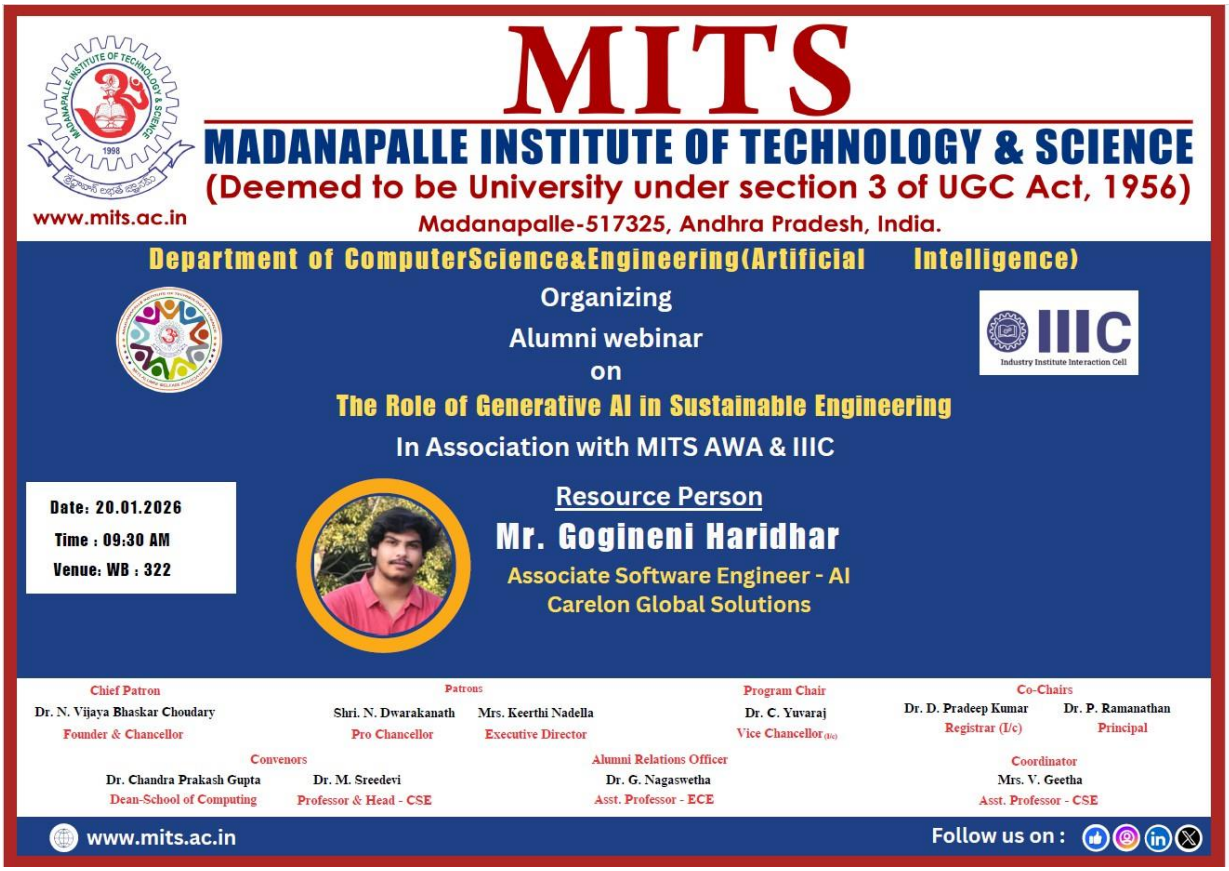
Organized by Department of Computer Science & Engineering

20th January 2026

Participants:

III Year B.Tech – Computer Science & Engineering Students – MITS

Resource Person: Mr. Gogineni Haridhar(2018-2022), Associate Software Engineer – AI, Carelon Global Solutions



The Department of Computer Science & Engineering organized a Seminar on " **The Role of Generative AI in Sustainable Engineering**" for III B.Tech students.

The Seminar inauguration began at 9:30 a.m. in SRB 322. The dignitaries were Dr. M. Sreedevi, HoD—CSE, Mr. Gogineni Haridhar,Associate Software Engineer – AI, Carelon Global Solutions, Dr. G. Nagaswetha, Alumni Relationship Officer; and Mrs. V. Geetha, Department Alumni Coordinator.

The webinar was started with opening remarks by, Dr. M. Sreedevi who thanked Management for this great initiation of creating an opportunity to invite the Alumni members of the institute and enabling them to interact with the students and enlightening them with the current

developments in the corporate world. Dr. G. Nageswetha has shown pleasure and promised to conduct many more seminars in future for the benefit of the students.

Mrs. V. Geetha has introduced about the speaker and invited him to share his valuable experiences to the students. The number of students who participated in the seminar were around 50.

The webinar was delivered by a **distinguished alumnus** of the Department of Computer Science and Engineering, currently working as a Product Engineer in the IT industry. The speaker shared practical insights based on real-time project experience and career journey.



Introduction

Generative Artificial Intelligence (GenAI) is transforming sustainable engineering by enabling smarter design, efficient resource use, and reduced environmental impact. By leveraging data-driven algorithms, engineers can generate optimized solutions that balance performance, cost, and sustainability goals.

What is Generative AI?

Generative AI refers to advanced machine learning systems that create new designs, simulations, or solutions based on constraints and data inputs.

In engineering, it is used for:

- Automated design generation
- Predictive modeling
- Energy optimization
- Materials innovation
- Lifecycle performance analysis

Importance in Sustainable Engineering

Sustainable engineering aims to minimize environmental impact while maximizing efficiency and long-term value. Generative AI supports this by:

- Reducing material usage
- Lowering carbon emissions
- Improving energy efficiency

- Minimizing waste
- Enhancing system resilience

Key Applications

Green Building Design

- AI-generated structural alternatives
- Optimized material use
- Improved thermal performance
- Reduced embodied carbon

Benefits

- Faster innovation
- Reduced resource consumption
- Cost savings
- Improved environmental performance
- Data-driven decision-making

Learning Outcomes

After this webinar, participants will be able to:

- Understand the role of Generative AI in sustainable engineering
- Identify real-world applications across industries
- Evaluate sustainability benefits of AI-driven design
- Recognize challenges and ethical considerations
- Develop strategies for implementing GenAI solutions

Conclusion

Generative AI is a powerful enabler of sustainable engineering. By combining intelligent automation with environmental responsibility, organizations can design smarter systems that reduce ecological impact while improving efficiency and competitiveness.

Vote of Thanks: **Mrs. V. Geetha** proposed a vote of thanks to the Resource person, HoD and AlumniRelations Officer for attending the function. She extended her thanksto the Principal and the Management for their support in conducting the training.