



Koneru Lakshmaiah Education Foundation
(Deemed to be University estd. u/s. 3 of the UGC Act, 1956)

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Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. +91 8645 - 350 200; www.kluniversity.in

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Department of Mechanical Engineering

A.Y 2025-2026, Even Semester

Webinar Report

In view of department activities, Department of Mechanical Engineering conducted a Webinar with Dr. Kundurthi Bharradwaja, Associate Professor, MALLAREDDY (MR) DEEMED TO BE UNIVERSITY on 28-03-2026. He delivered webinar from 02:00 P.M to 03:00 P.M on the topic “Green Intelligence: Sustainable Design in AI-Powered Smart Manufacturing” conducted by Smart Manufacturing Cohort. In on-line mode, he given presentation in Google meet platform in which 55 participants (45 students and 10 faculty) of ME department were participated in blended mode in rooms M123 and M208.

Google meet Link: <https://meet.google.com/eaz-qwgx-txd>

The event created an interactive learning environment where participants could understand the integration of Artificial Intelligence (AI) with sustainable manufacturing practices. The session was highly relevant in the context of modern industrial requirements and environmental challenges.

Green Intelligence in Smart Manufacturing

- Leveraging Artificial Intelligence (AI) for sustainable design and operations is a rapidly evolving field that transitions from experience-based to intelligence-driven processes, focusing on maximizing resource efficiency while minimizing environmental impact across the entire life cycle of products, buildings, and urban systems. AI, including machine learning (ML), deep learning (DL), and generative AI (GenAI), enables real-time optimization, predictive modeling, and automation.



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The primary objectives of organizing this webinar were:

- To introduce the concept of Green Intelligence and its significance in modern manufacturing.
- To create awareness about sustainable design methodologies using Artificial Intelligence.
- To understand the applications of Machine Learning (ML), Deep Learning (DL), and Generative AI (GenAI).
- To highlight the importance of resource optimization and energy efficiency.
- To encourage students and faculty to adopt innovative and sustainable engineering solutions.

The webinar aimed to bridge the gap between academic learning and industrial advancements by exposing participants to real-world applications of AI in manufacturing.



The session also included a discussion segment where participants actively interacted with the speaker.

The webinar covered a wide range of topics related to smart manufacturing and sustainability. The speaker emphasized the transition from conventional manufacturing systems to intelligent and data-driven systems.



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Key topics discussed include:

- Role of Artificial Intelligence in modern industries.
- Integration of Machine Learning and Deep Learning techniques.
- Use of Generative AI in product design and optimization.
- Reduction of carbon footprint through efficient resource utilization.
- Lifecycle analysis of products for sustainability.

The speaker also explained how AI enables automation, improves productivity, and enhances decision-making processes. Several industrial examples were presented to demonstrate practical implementation.



The webinar proved to be highly beneficial for all participants. Students gained exposure to advanced concepts in AI-driven manufacturing, while faculty members enhanced their understanding of sustainable engineering practices.

The key outcomes of the webinar are:

- Improved awareness of AI applications in manufacturing.
- Understanding of sustainable design principles.



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- Motivation among students to explore research in AI and sustainability.
- Enhanced interaction between students and experts.

The webinar successfully achieved its objectives and provided valuable insights into the future of smart manufacturing. Such initiatives play a crucial role in preparing students for industry demands and promoting sustainable engineering practices. The Department of Mechanical Engineering looks forward to organizing more such knowledge-sharing sessions in the future.



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